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A subsidiary of Occidental Petroleum

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January 29, 2016

Mr. Brian Sadowski
NYSDEC
270 Michigan Avenue
Buffalo, NY 14203-2999
Address

Dear Mr. Sadowski:

Re: 2015 Site Management Periodic Review Report - Love Canal Site

On behalf of Occidental Chemical Corporation, and in compliance with the Love Canal Operation and Maintenance Manual, GHD Services Inc. is submitting one electronic copy of the 2015 Site Management Periodic Review Report - Love Canal Site.

An electronic copy of the full text, figures, tables, and appendices associated with this report are included in the electronic Adobe Acrobat PDF files. If you have any questions, please do not hesitate to call.

Very truly yours,

GLENN SPRINGS HOLDINGS, INC.

Joe Branch
Site Manager
231-670-6809 Cell

JB/eew/10

Encl.

cc: C. Babcock, GSH
M. Basile, USEPA
D. Duda, USEPA, Region 2
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J. Pentilchuk, GHD
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2015 Site Management Periodic Review Report Love Canal Site

NYSDEC Site No. 932020
Niagara Falls, New York

Prepared For Glenn Springs Holdings, Inc.

January 29, 2016
2055 Niagara Falls Boulevard Niagara Falls New York 14304
009954 | Report No 31

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1. Introduction

Operation of the Love Canal Site (Site) was transferred from the New York State Department of Environmental Conservation (NYSDEC) to Occidental Chemical Corporation (OCC) in April 1995. Effective July 1, 1998, Site responsibility was assigned by OCC to Glenn Springs Holdings, Inc. (GSH), an affiliate of OCC. Since October 1, 2008, GHD Services, Inc. (GHD), formerly Conestoga-Rovers & Associates (CRA), has performed operation, maintenance, monitoring, and reporting activities for the Site under contract to and direct management of GSH.

This report is the twenty first annual report prepared by or on behalf of OCC and covers operation, maintenance, and monitoring activities for 2015. The completed 2015 NYSDEC Institutional and Engineering Controls Certification Form is included as Appendix A.

2. Remedial Systems

Operation of remedial systems to prevent the off-Site migration of chemical contaminants from the Site began in October 1978 with the installation of a barrier drain along the east and west sides of the South Sector of the Canal. The barrier drain was later extended to completely encompass the entire area of disposed waste within the Central and North Sectors of the Canal. The barrier drain, designed to intercept the shallow overburden lateral groundwater flow, consists of a trench approximately 4 feet wide that varies in depth from approximately 12 to 25 feet deep depending on location at the Site. Installed within the trench is a perforated vitrified clay tile pipe. The pipe is 6-inch diameter in the Central and North Sectors and both 6-inch and 8-inch diameter in the South Sector. The pipe is centered in a minimum of 2 feet of uniformly sized gravel, which is overlain with coarse sand extending to the existing ground surface present at the time of construction. Thirty-two lateral trenches, approximately 12 to 19 feet deep, filled with a minimum of 2 feet of gravel and overlain with sand similar to the barrier drain, were dug perpendicular to the barrier drain in the direction of the Canal. The majority of these laterals extend into the disposed waste. The barrier drain is graded from two highpoints, one in the southeast corner and the other in the northeast corner, toward a series of manholes which drain to four pump chambers (PC-1A/PC-2A in the North/Central Sector and PC-1/PC-2 in the South Sector) where the leachate is collected. The collected leachate is pumped from the four pump chambers to two other pump chambers connected to underground holding tanks (PC-3A in the North/Central Sector and PC-3 in the South Sector) where it is temporarily stored. From that point, the leachate is pumped to the on-Site Love Canal Treatment Facility (LCTF) where it is treated and discharged to the Niagara Falls Water Board (NFWB) sanitary sewer system under the Site's Significant Industrial User (SIU) Permit #44. The locations of the remedial system components are illustrated on the Site Plan presented as Figure 2.1.

The installation of a 22-acre clay cap over the entire former Canal area was completed in October 1980 following completion of the barrier drain collection system. The purpose of the cap is to reduce infiltration of precipitation. The thickness of the clay cap is a minimum of 3 feet. In 1985, a second (40-acre) cap was installed over the initial clay cap area. The newer cap consists of a 40-mil high density polyethylene (HDPE) liner covered by 18 inches of clean soil and vegetation.

In March 1999, the adjacent 102nd Street Landfill Site leachate collection system was connected to the Love Canal Site to facilitate the transfer of leachate from the 102nd Street landfill into Love Canal's pump chamber PC-3 for treatment at the LCTF.

2.1 Operations of the Barrier Drain and Collection System

2.1.1 Barrier Drain System

The barrier drain system continues to function as designed, with no major maintenance required during 2015. Semiannual inspections of the barrier drain components, including manholes and pump chambers, are required by the Site's NYSDEC-approved Operation and Maintenance (O&M) Manual (CRA, revised March 2015). Inspections of the barrier drain manholes were conducted on June 23 and October 7, 2015, and inspections of the barrier drain pump chambers were carried out on June 22 and October 8, 2015. The visual inspections showed that the manhole flumes were flowing freely and required no further maintenance. During both inspection events, buildup of sludge was noted at MH-6A, MH-6B and MH-6C. However, the buildup was insufficient to warrant cleaning, as it did not impede flow through the manhole. The visual inspections were documented on the 2015 Semiannual Inspection Forms, which are presented in Appendix B. The manhole locations are presented on Figure 2.2.

2.1.2 Pumping System

The barrier drain system consists of two sectors, the Northern/Central and the Southern. Leachate from the Northern/Central Sector drains to pump chambers PC-1A and PC-2A where it is pumped to pump chamber PC-3A, while leachate from the Southern Sector is pumped from pump chambers PC-1 and PC-2 to the underground storage tank connected to pump chamber PC-3. From pump chambers PC-3 and PC-3A, the leachate is then transferred through a below ground metering chamber outside the LCTF on the southeast corner of the building and then into the LCTF for treatment. The pumping system was operational and functioned as designed throughout 2015.

2.1.3 102nd Street Landfill Forcemain

The leachate forcemain construction was completed in March 1999 and is used for the transfer of leachate from the 102nd Street Landfill to the LCTF. The forcemain begins at the northwest corner of the 102nd Street Landfill and extends northward beneath River Road, LaSalle Expressway, and Frontier Avenue to pump chamber PC-3 at the Site. During 2015, the leachate collection system at 102nd Street pumped 199,893 gallons of leachate to the LCTF.

3. Groundwater Treatment and Monitoring

3.1 Groundwater Treatment

3.1.1 Treatment System

The LCTF consists of clarification, bag filtration, and carbon treatment prior to discharge to the NFWB sanitary sewer system. A process schematic depicting the layout of the treatment system is presented as Figure 3.1.

Treated water from the Site is discharged to the NFWB sanitary sewer system as authorized by the Site's SIU Permit #44. In 2010, the NFWB reissued Permit #44 to OCC for an additional 5 years. The permit was valid from January 8, 2010 through January 8, 2015. A renewed permit was issued on January 5, 2015, and is valid from January 9, 2015 to January 9, 2020. A copy of the renewed permit is included as Appendix C.

3.1.2 Effluent Discharge

The LCTF discharged to the NFWB sanitary sewer system 172 days in 2015.

Under high stormwater flow events, the NFWB periodically requires that the LCTF temporarily cease discharging to the sewer system. During an event of this type, the barrier drain pumping system will continue to operate and maintain a protective inward hydraulic gradient to capture leachate. The NFWB did not require the LCTF to temporarily cease discharging during 2015.

In 2015, the LCTF processed a total of 2,889,343 gallons of leachate. This total was comprised of 2,689,450 gallons of leachate from the Site and 199,893 gallons of leachate from the 102nd Street Landfill.

Table 3.1 shows the monthly total and average treated groundwater quantities from 2000 through 2015.

3.1.3 Effluent Sampling

Sampling of the effluent discharged to the NFWB sanitary sewer system occurred quarterly as required under the Site's SIU Discharge Permit #44. In accordance with the SIU permit, the quarterly monitoring periods for 2015 were as follows:

Quarter 1: December 1 – February 28
Quarter 3: June 1 – August 31

Quarter 2: March 1 – May 31
Quarter 4: September 1 – November 30

The quarterly effluent sampling for 2015 was performed on December 11, 2014, March 11, June 2, and September 1, 2015. The sample results were submitted to the NFWB quarterly as required by the permit. The results for each event were in compliance with the requirements of the Site's SIU permit.

3.1.4 Precipitation

In 2015, precipitation in the Niagara Falls region totaled 24.99 inches (Niagara Falls International Airport, National Climatic Data Center). Table 3.1 provides historical regional precipitation data from 2000 through 2015.

3.2 Groundwater Monitoring

Groundwater monitoring consists of both chemical monitoring to determine groundwater quality and hydraulic monitoring to demonstrate that the barrier drain is creating hydraulic containment. Monitoring and analytical protocols for the Site's groundwater monitoring program have been established and are set forth in the "Sampling Manual, Love Canal Site, Long-Term Groundwater Monitoring Program" (LTGMP), revised June 2013.

The monitoring results for 2015 are presented in the following sections.

3.2.1 Groundwater Quality

Chemical monitoring is performed annually by sampling select overburden and bedrock monitoring wells at the Site. On March 25, 2009, the NYSDEC communicated via email to GSH that the NYSDEC would no longer be providing an annual well sampling list for chemical monitoring and directed GSH to use the wells sampled in 2007 and 2008 for all future sampling events. Subsequent discussions between GSH and the NYSDEC regarding the well sampling list led to this decision being documented in an August 5, 2010 memo titled "Love Canal Annual Groundwater Sampling Schedule", presented in Appendix D.

It should be noted that overburden well 3151 is included on the Appendix D list; however, this well was noted in 2007 as "Well no longer available – destroyed" and could not be located. Therefore, this well has not been sampled since 2007. In addition, overburden well 10178A and bedrock wells MW-01 and MW-02 were added to the annual sampling program in 2011.

The 2015 annual groundwater chemical monitoring event was performed between June 17 and July 2, 2015. As part of the annual groundwater chemical monitoring in 2015, 40 observation wells were sampled. As part of the LTGMP, the NYSDEC has the option of collecting split samples during the annual event and having those samples analyzed independently to verify data. No split samples were collected by NYSDEC during the 2015 annual sampling event.

Between June 17 and July 2, 2015, groundwater samples were collected from 20 overburden and 20 bedrock observation wells in support of the LTGMP. The samples were submitted to TestAmerica Laboratories, Inc. (TA), located in Pittsburgh, Pennsylvania. TA is a New York State Department of Health (NYSDOH) approved laboratory certified under the National Environmental Laboratory Approval Program (NELAP). The samples were analyzed for Site-specific volatiles, semi-volatiles, pesticides, and polychlorinated biphenyls (PCBs). The raw data laboratory package is presented in Appendix E. A GHD chemist performed the analytical Quality Assurance/Quality Control (QA/QC) review and data validation. The QA/QC report for this event is presented in Appendix F.

Figure 3.2 identifies the wells sampled and their locations. The Love Canal Annual Groundwater Sampling Schedule is presented in Appendix D. Table 3.2 provides a summary of the overburden wells that were sampled, the analytical data, and a summation of the number of compounds found at or above the detection limits in each well. Table 3.3 provides a summary of the bedrock wells that were sampled, the analytical data, and a summation of the number of compounds found at or above the detection limits in each well.

3.2.1.1 Overburden Monitoring Wells

The 2015 groundwater analytical results for the overburden monitoring wells (Table 3.2) are consistent with previous long-term monitoring analytical results. The analytical results were non-detect or were detected at low levels consistent with concentrations detected during previous monitoring events (with the exception of groundwater from well 10135, which is installed in an area of known Site impacts).

Historically, well 10135 has had the most detected compounds and the highest concentrations. This well is located in the southwestern portion of the Site and within the fenced boundaries of the Site. Although located outside the barrier drain, well 10135 is within the influence of the barrier drain based on hydraulic monitoring conducted at adjacent nested piezometer string 1160. As stated in

the LTGMP, well 10135, located in an area of known contamination, is sampled to present a representative control well. In 2015, well 10135 had 22 compounds detected. Table 3.4 presents a summary of detected compounds.

3.2.1.2 Bedrock Monitoring Wells

The 2015 groundwater analytical results for the bedrock monitoring wells (Table 3.3) are consistent with previous long-term monitoring analytical results. Parameter concentrations were either non-detect or detected at low levels consistent with concentrations detected during previous monitoring events. In 2012, hexachlorobenzene was detected at monitoring well 10225A for the first time historically at a concentration of 3.6 micrograms per liter ($\mu\text{g}/\text{L}$). A concentration of 3.6 $\mu\text{g}/\text{L}$ is within the historical non-detect range of 1.9 U $\mu\text{g}/\text{L}$ to 10 U $\mu\text{g}/\text{L}$. In 2014, and again in 2015, hexachlorobenzene was non-detect at well 10225A (1.9 U $\mu\text{g}/\text{L}$ in 2014 and 9.6 U $\mu\text{g}/\text{L}$ in 2015). In addition, a review of the groundwater data for the adjacent bedrock wells 10225B and 10225C indicated non-detect results for hexachlorobenzene. Based on the data, the 2012 detection appears to be an anomalous data point and does not warrant additional evaluation. Well 10225A will continue to be monitored annually for groundwater quality in accordance with the NYSDEC-approved LTGMP. Table 3.4 presents a summary of detected compounds.

3.2.1.3 Historical Compound Detections

Table 3.5 presents a summary of detected compounds of four long-term monitoring wells, including three bedrock wells and one overburden well (bedrock wells 10210A, 10210B, and 10210C, and overburden well 10135) from 1990 to 2015. The data from these four wells are presented because they have the most consistent historical record of compound detections compared to the other overburden and bedrock wells. The data from the additional Site wells not presented in Table 3.5 are typically non-detect or demonstrate sporadic low level detections and, therefore, do not present useful data in regards to a discussion of historical analytical trends at the Site. An evaluation of the 2015 sampling data for the four wells mentioned above shows that the compounds detected in 2015 are present at sporadic low level concentrations or concentrations consistent with historical trends.

3.2.2 Hydraulic Containment

Hydraulic monitoring consists of water level measurements conducted quarterly from six nested piezometer strings (1140, 1150, 1160, 1170, 1180, and 1190) per the NYSDEC-approved LTGMP, as well as water level measurements collected from three wells (7161, 9130, and 9140) in June 2015 as requested by the NYSDEC. In 2015, water levels were measured in March, June, September, and December. These water level data are presented in Tables 3.6A to 3.6F. The wells on the tables are ordered from left to right on the table, beginning with the well furthest from the outside of the barrier drain to the well inside the area enclosed by the barrier drain. Figures 3.3 to 3.8 show the overburden groundwater flow conditions for June 2015 at the six nested piezometers string locations.

A review of the piezometer string groundwater elevation data from the remaining three quarters (March, September, and December 2015) demonstrates that the data from those monitoring periods are consistent with the June 2015 data.

In addition to the above-mentioned information, a groundwater contour figure was prepared using the June 2015 water levels from the six nested piezometer strings and three additional wells (7161,

9130, and 9140), as requested by NYSDEC. The June 2015 groundwater contour figure is presented as Figure 3.9.

The groundwater contour figure and Tables 3.6A to 3.6F illustrate that there is a minimum of 3.42 feet of inward gradient outside of the barrier drain at each of the six nested piezometer strings. The term "feet of inward gradient" means the minimum difference in groundwater elevation between the wells on the outside of the barrier drain and the water level within the barrier drain, with the water level within the barrier drain representing the lowest water level elevation. This demonstrates that groundwater on the outside of the barrier drain (off-Site groundwater) is flowing toward and downward into the barrier drain. Based on the water level data from the six nested piezometer strings, an inward gradient can be inferred to exist around the collection drain system, demonstrating that the horizontal groundwater flow direction outside of the barrier drain is towards the barrier drain. A review of Figure 3.9 shows that groundwater flow on the inside of the barrier drain is also towards the barrier drain. Therefore, the barrier drain and lateral trenches are capturing leachate from the landfill area and a portion of groundwater outside the barrier drain, thereby preventing off-Site migration of chemicals and preventing off-Site groundwater from migrating into the landfill area. Monitoring will continue during 2016 as per the NYSDEC-approved LTGMP.

3.2.3 Well Maintenance

The 2015 well inspections identified the need for routine maintenance on several wells at the Site. This maintenance was conducted during the summer and fall of 2015 and included the following:

- J-plugs were replaced at two wells due to normal wear
- A new lock was added to one well (the old lock would not lock and unlock easily)
- Additional minor maintenance work was required at several wells, including painting well risers, replacement of well caps, etc.

3.2.4 Summary of Treatment and Monitoring Results

The volume of effluent discharge from the LCTF decreased from 3,689,013 gallons in 2014 to 2,889,343 in 2015, a number consistent with volumes from previous years with similar precipitation levels. Quarterly sampling and analysis indicated that all chemistry detected in the effluent samples for each event was either non-detect or present at very low levels within historical ranges and well below Site's SIU Discharge Permit #44 discharge limits.

The inward hydraulic gradient observed at each of the six nested piezometer strings demonstrates that the barrier drain is effectively capturing leachate from the Site and preventing off-Site migration of chemicals. The analytical results from the monitoring wells sampled indicate that compounds were either not detected, or were detected at low levels below or consistent with concentrations from previous years (with the exception of groundwater from well 10135, discussed in Section 3.2.2), further illustrating containment.

The presence of an overall inward hydraulic gradient towards the barrier drain and a review of groundwater quality for the groundwater monitoring wells demonstrate overall Site containment.

4. Activities

Summaries of normal activities and repairs performed in 2015 are presented below.

4.1 Process Activities

Process activities that occurred during the year included the following:

- Removal and disposal of hazardous waste
- Cleaning of all pump chambers
- Cleaning of all storage tanks
- Cleaning of sludge from clarifier
- Cleaning of sludge from PC-3A and all chambers
- Calibration of PC-2A, PC-3A and PC-3 level indicators
- Repair of PC-3A and PC-3B pump alarms

4.2 Non-Process Activities

Non-process activities that occurred during the year included the following:

- Preventative maintenance
- Repair of water line insulation in drum barn
- Cleaned drum barn floor and trench
- Inspection and repair backflow preventers
- Repair of the roof on the administration and process buildings
- Landscaping maintenance including grass cutting and tree and flower bed maintenance
- Heating and cooling system maintenance

4.3 Community Outreach

Community Outreach programs have included such activities as beautification of the area surrounding the Site and tours of the facility.

4.3.1 Beautification

The following beautification activities were conducted at Love Canal in 2015:

- Maintenance and landscaping of the Site and surrounding areas
- Maintenance of flower beds and shrubs along Colvin Boulevard, 95th Street, and Frontier Avenue
- Cleanup of discarded debris along fence line

4.3.2 Tours

Tours of the facility have been given throughout the years to representatives of various environmental agencies (domestic and foreign) and educational groups. The tours include an informational orientation, accompanied with visual aids, followed by a guided tour of the treatment facility and landfill. No tours were given in 2015.

4.3.3 Communications

All required reports were prepared and submitted to various agencies throughout the year. Reports included the 2014 Annual Hazardous Waste Report to the NYSDEC, the 2014 Water Withdrawal Reporting Form to the NYSDEC, the 2014 Periodic Review Report (formerly titled the Annual Operations and Monitoring Report) to various agencies, quarterly SIU analytical reports to the NFWB and NYSDEC, and monthly SIU reports to the NFWB.

The Love Canal Annual Newsletter for 2014 was issued to surrounding citizens and agencies in July 2015. The report summarizes items such as the amount of groundwater treated on Site and then discharged to NFWB's sanitary sewer system, maintenance activities, and other non-operational activities for the year.

4.4 Waste Generation

Throughout 2015, both hazardous and nonhazardous waste was generated from various activities and disposed of off Site in accordance with applicable laws and regulations.

The tracking of hazardous waste is performed by regulated hazardous waste manifests. A summary of the Site's annual hazardous waste generation is reported to the NYSDEC in the Annual Hazardous Waste Report. The Annual Hazardous Waste Report summarizes the quantities, transporters, and disposal methods.

A total of 16,980 pounds of hazardous waste was generated from various activities. The waste materials were then sent off Site for proper disposal in accordance with applicable laws and regulations. Wastes generated in 2015 were disposed of through incineration or landfill impoundment by Clean Harbors, LLC.

The hazardous waste disposed of in 2015 consisted of soil/debris and non-aqueous phase liquid (NAPL), broken down as follows:

- Soil/Debris: 3,780 pounds (consisting of personal protective equipment [PPE] and spent filters from operations)
- NAPL Sludge: 13,200 pounds (collected from LCTF process)

4.5 Routine Operations, Inspections, and Monitoring

A daily inspection of the system operations was performed for each day in 2015 in accordance with the O&M Manual for the Love Canal Site, dated May 2014. Inspection records are available upon request.

Monthly inspections of the fire extinguishers and monthly checks of the carbon vapor phase vent for breakthrough were also completed in accordance with the O&M Manual. Inspection records are available upon request.

The NFWB performed an annual inspection of the LCTF on January 23, 2015 and performed verification sampling of the effluent discharge on February 19, 2015. The inspection and the annual effluent verification sampling concluded that the Site is being maintained and operated in accordance with the Site's SIU discharge permit and other local, State, and Federal requirements. The completed NFWB 2015 Inspection Form is included in Appendix G.

The United States Environmental Protection Agency (USEPA) conducted their 5-Year review inspection of the Site on July 11, 2013. Representatives of the USEPA, NYSDEC, Niagara County Department of Health, GSH, and CRA were in attendance. No issues were identified. The "Five-Year Review Report – Love Canal Superfund Site" was finalized on January 15, 2014. The report concluded:

"Based upon the results of this review, the U.S. Environmental Protection Agency concludes that the remedies implemented at this Site adequately control exposures of Site contaminants to human and environmental receptors to the extent necessary for the protection of human health and the environment. The continued operation and maintenance at the Site ensures that there are no site-related exposures of hazardous material to human or environmental receptors".

The NYSDEC conducted a Site inspection (landfill and treatment system) on July 2, 2015. No issues were identified and there were no requests for additional actions to be taken.

The NYSDEC conducted the annual RCRA inspection on November 24, 2015. No issues were identified and there were no requests for additional actions to be taken.

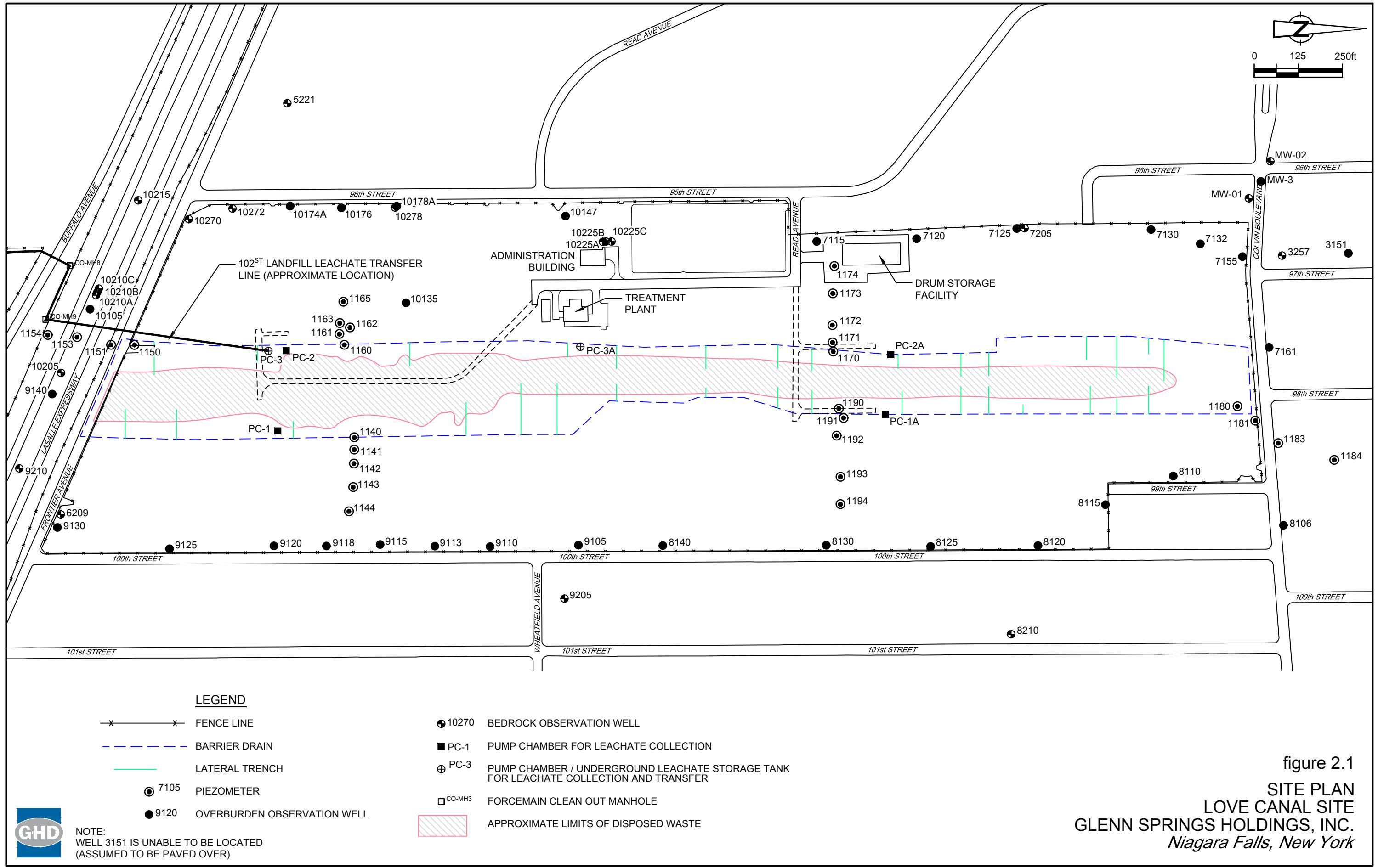
The backflow preventer system on the potable water supply lines was inspected and tested by CamTech Plumbing and Mechanical (CamTech) on March 23, 2015. CamTech is licensed and certified by the NFWB to perform the backflow preventer system inspections. All five backflow prevention devices were found to be operational with no maintenance required. A copy of the 2015 Test and Maintenance of Backflow Prevention Device Report for each device is presented in Appendix H.

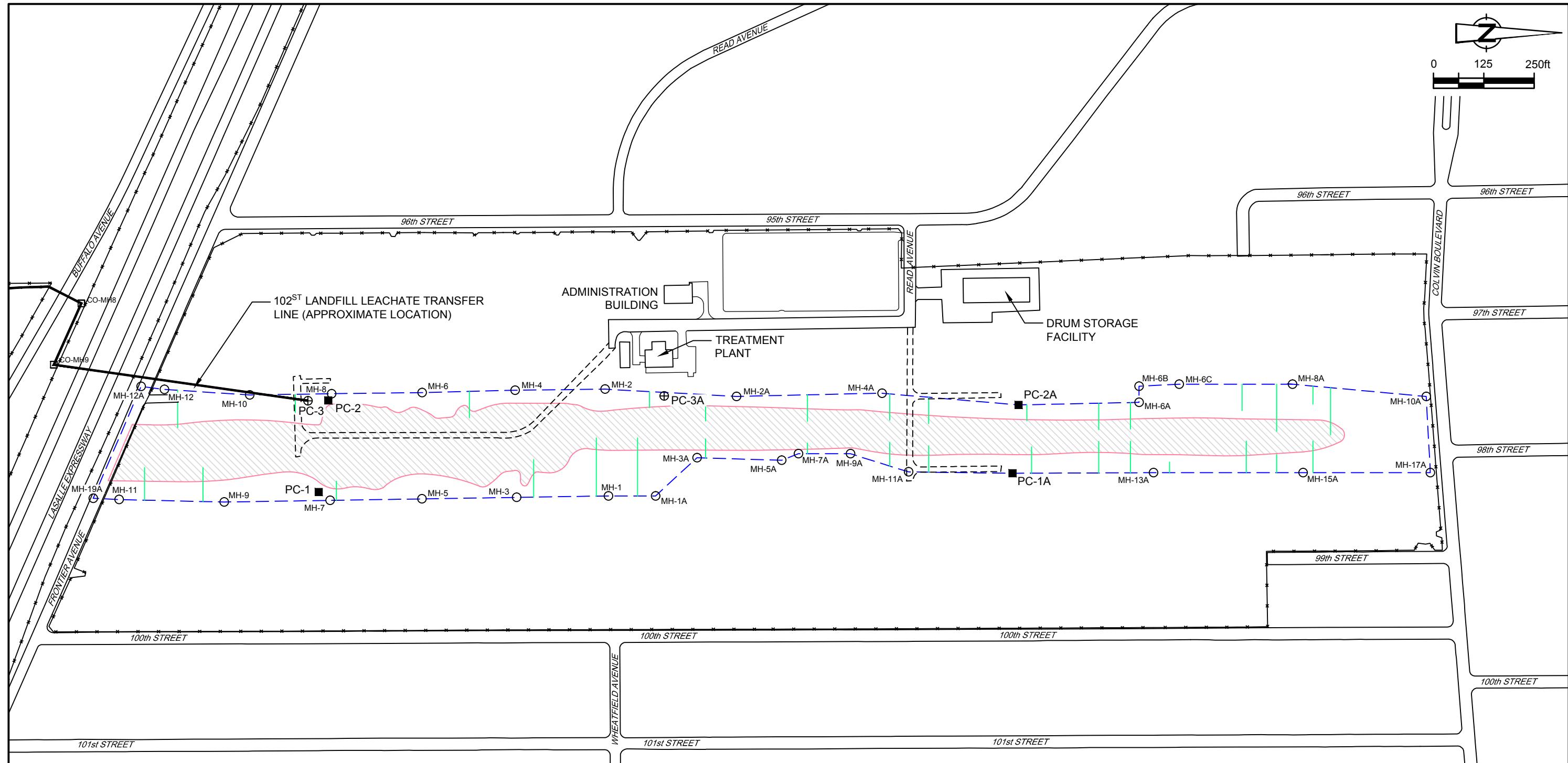
The annual fire system inspection was conducted on July 16, 2015. No issues were identified.

5. Conclusion

The 2015 monitoring results show that there has been no significant change in chemical concentration conditions and that the barrier drain system is successfully capturing leachate from the Site and preventing off-Site migration of contamination. The barrier drain continues to create an inward hydraulic gradient and capture leachate from the Site, preventing off-Site migration of chemicals, as evidenced by the groundwater gradients depicted on Figures 3.3 to 3.9 and analytical data from observation wells around the perimeter of the Site. The collection system is functioning as designed based on groundwater monitoring results and third party inspections by the NYSDEC. The treatment system is functioning as designed based on inspections and sampling by the NFWB and sampling by GSH. Effluent quality is compliant with the Site's SIU discharge permit. There were 2,889,343 gallons of leachate collected, treated, and discharged from the Site, of which 2,689,450 gallons of leachate were collected from the Site, and the remaining 199,893 gallons were collected from the 102nd Street Site and pumped to the LCTF for treatment. Monitoring results continue to confirm that the remediation and containment system (i.e., the leachate collection and treatment system) is functioning properly.

Figures





LEGEND

- *—* FENCE LINE
- - - - - BARRIER DRAIN
- LATERAL TRENCH
- ^{MH-1} MANHOLE LOCATION
- PC-1 PUMP CHAMBER FOR LEACHATE COLLECTION
- ⊕ PC-3 PUMP CHAMBER / UNDERGROUND LEACHATE STORAGE TANK FOR LEACHATE COLLECTION AND TRANSFER
- CO-MH3 FORCEMAIN CLEAN OUT MANHOLE
- ▨ APPROXIMATE LIMITS OF DISPOSED WASTE



NOTE:
WELL 3151 IS UNABLE TO BE LOCATED
(ASSUMED TO BE PAVED OVER)

figure 2.2
**MANHOLE LOCATIONS
LOVE CANAL SITE
GLENN SPRINGS HOLDINGS, INC.
Niagara Falls, New York**

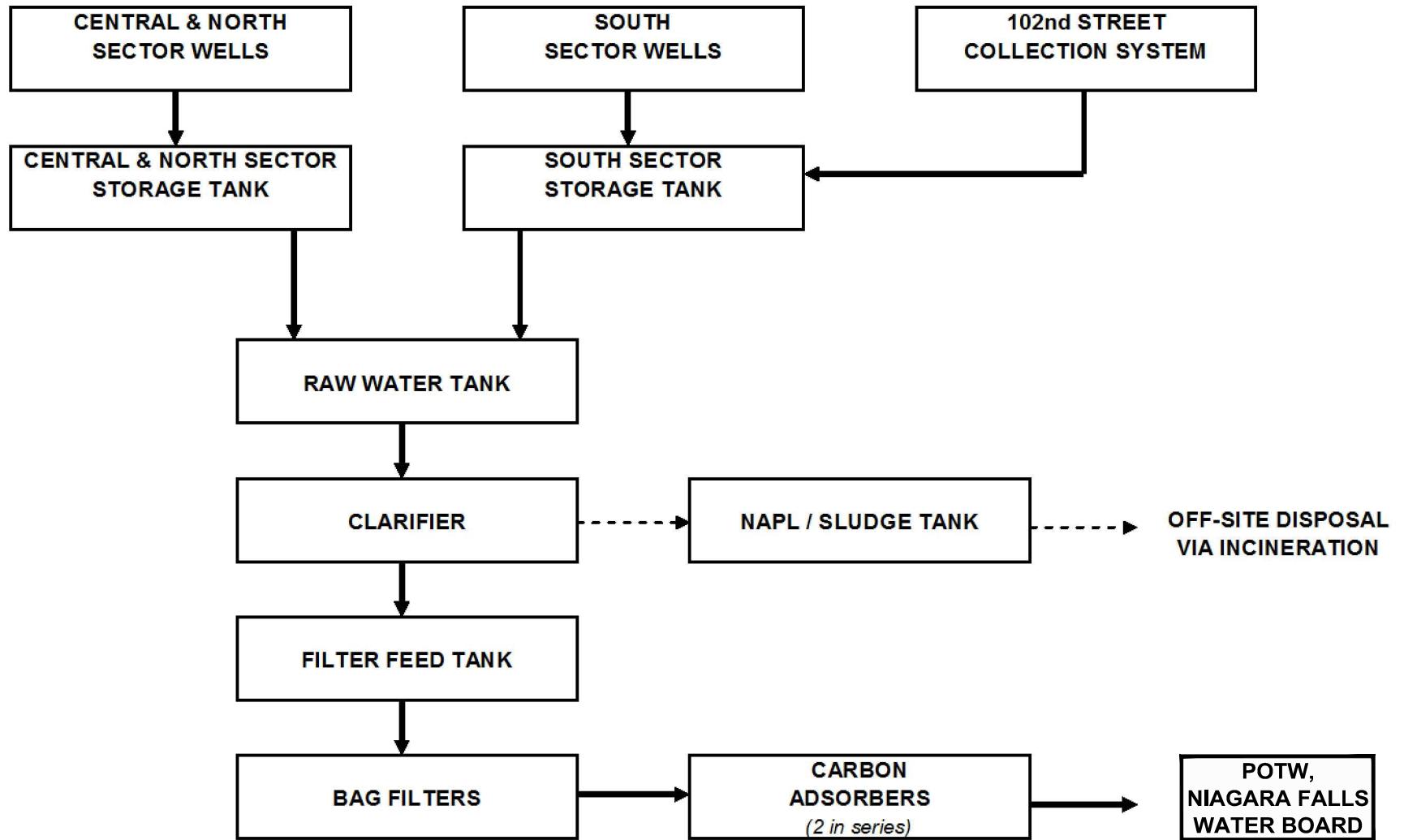


figure 3.1

PROCESS SCHEMATIC
LOVE CANAL SITE
GLENN SPRINGS HOLDINGS, INC.
Niagara Falls, New York



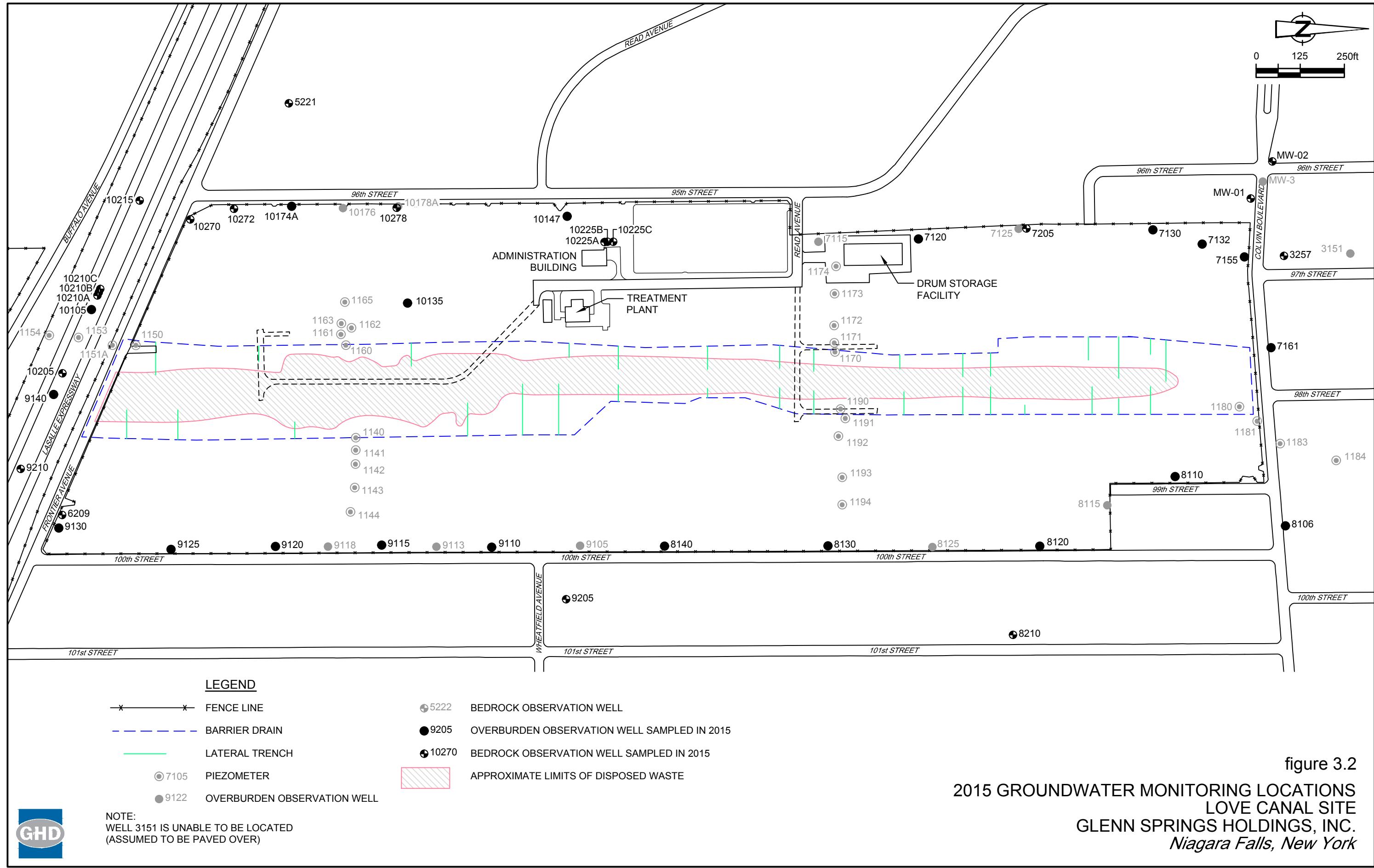
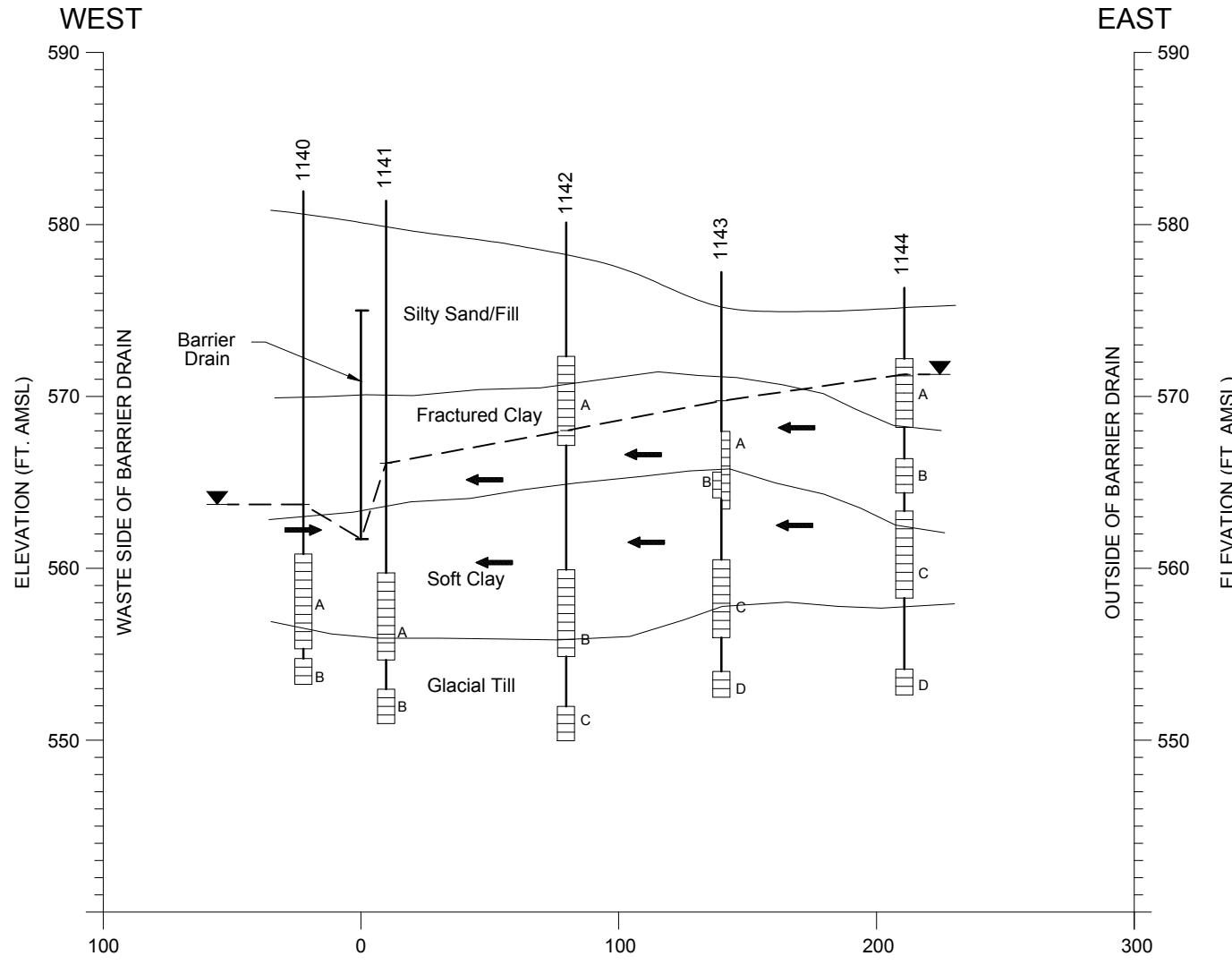


figure 3.2
2015 GROUNDWATER MONITORING LOCATIONS
LOVE CANAL SITE
GLENN SPRINGS HOLDINGS, INC.
Niagara Falls, New York



LEGEND

- A PIEZOMETER DESIGNATION
- GROUNDWATER LEVEL
- FLOW DIRECTION
- SCREENED INTERVAL

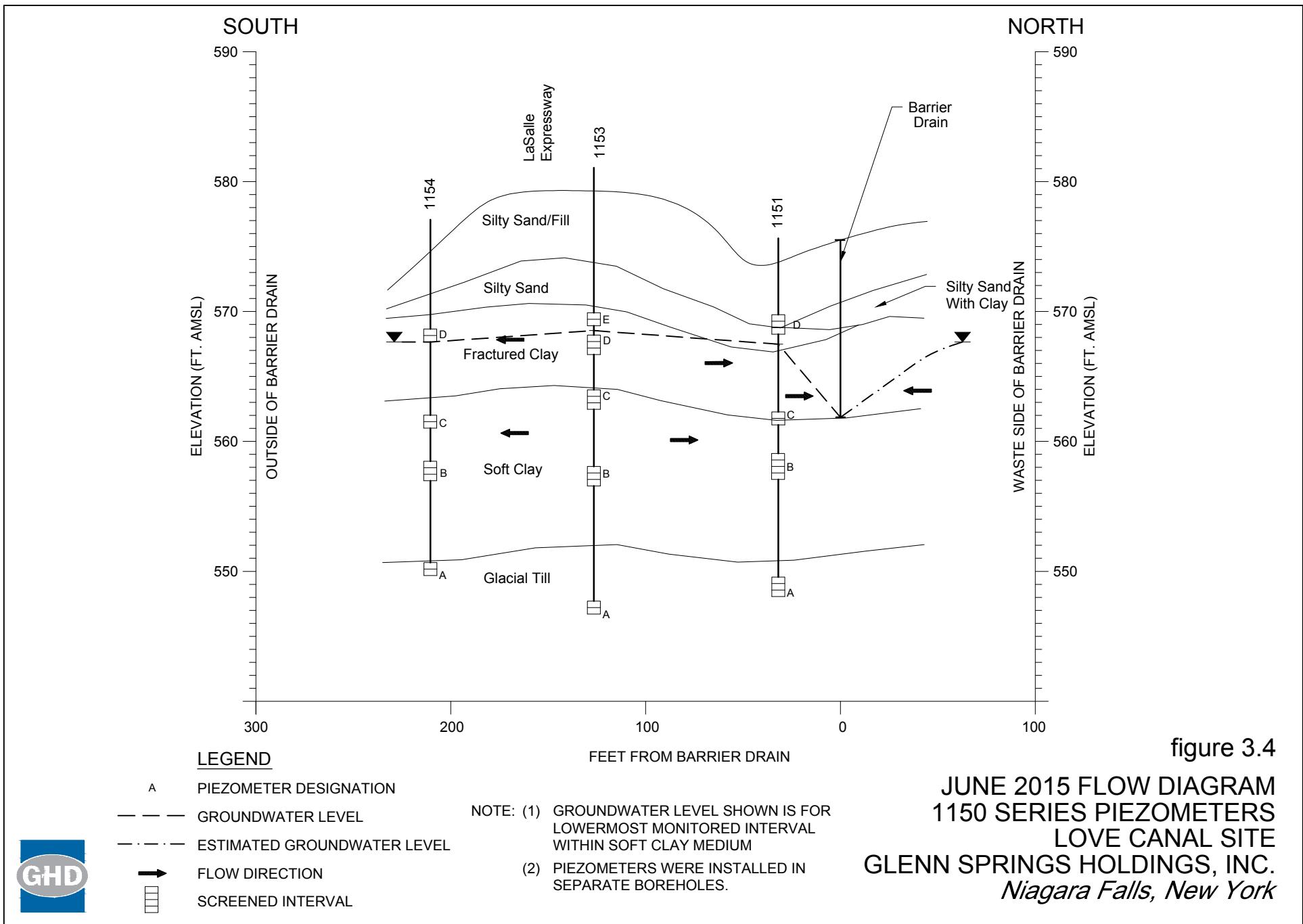
FEET FROM BARRIER DRAIN

- NOTE: (1) GROUNDWATER LEVEL SHOWN IS FOR LOWERMOST MONITORED INTERVAL WITHIN SOFT CLAY MEDIUM
- (2) PIEZOMETERS WERE INSTALLED IN SEPARATE BOREHOLDS.

figure 3.3

JUNE 2015 FLOW DIAGRAM
1140 SERIES PIEZOMETERS
LOVE CANAL SITE
GLENN SPRINGS HOLDINGS, INC.
Niagara Falls, New York





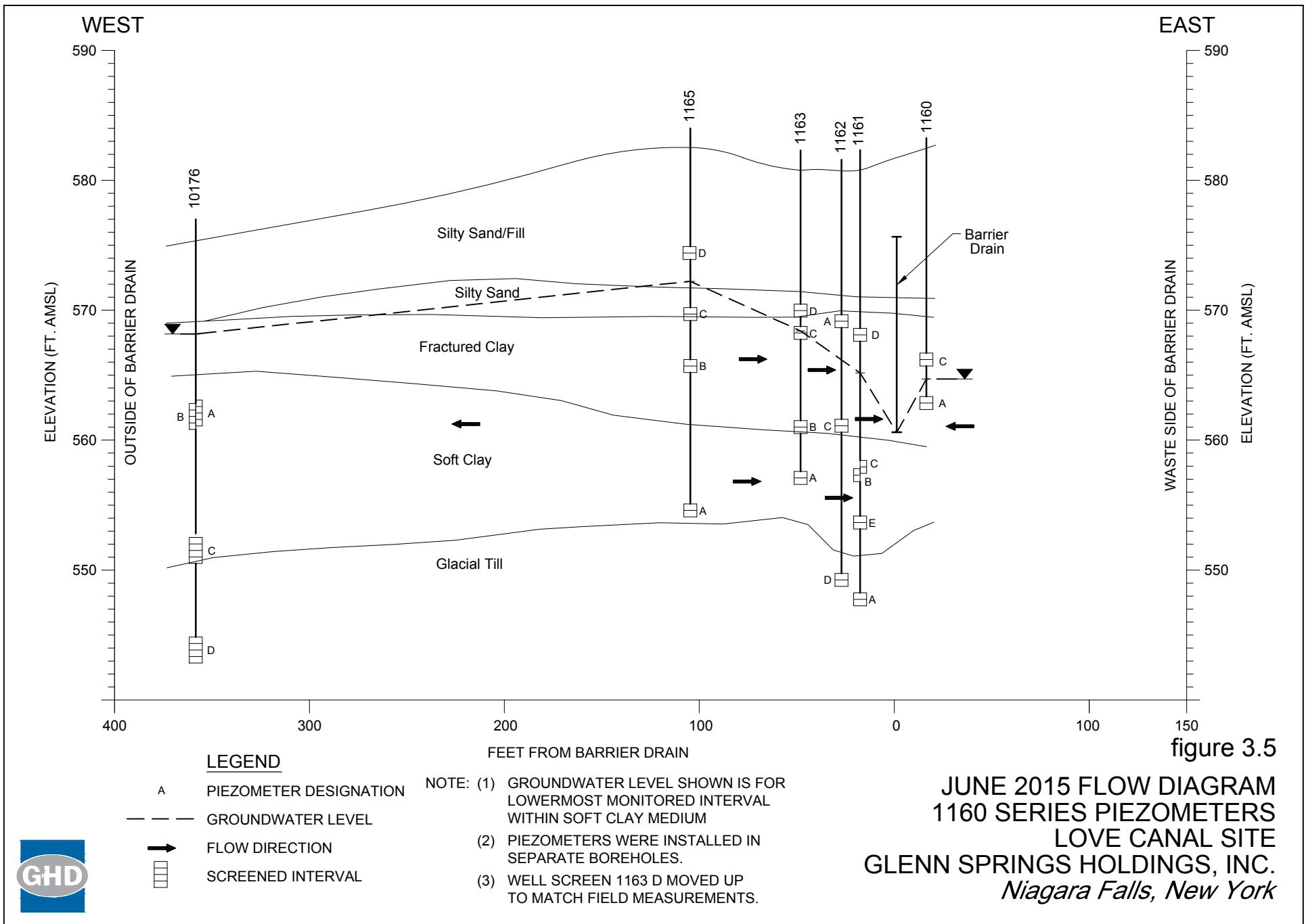
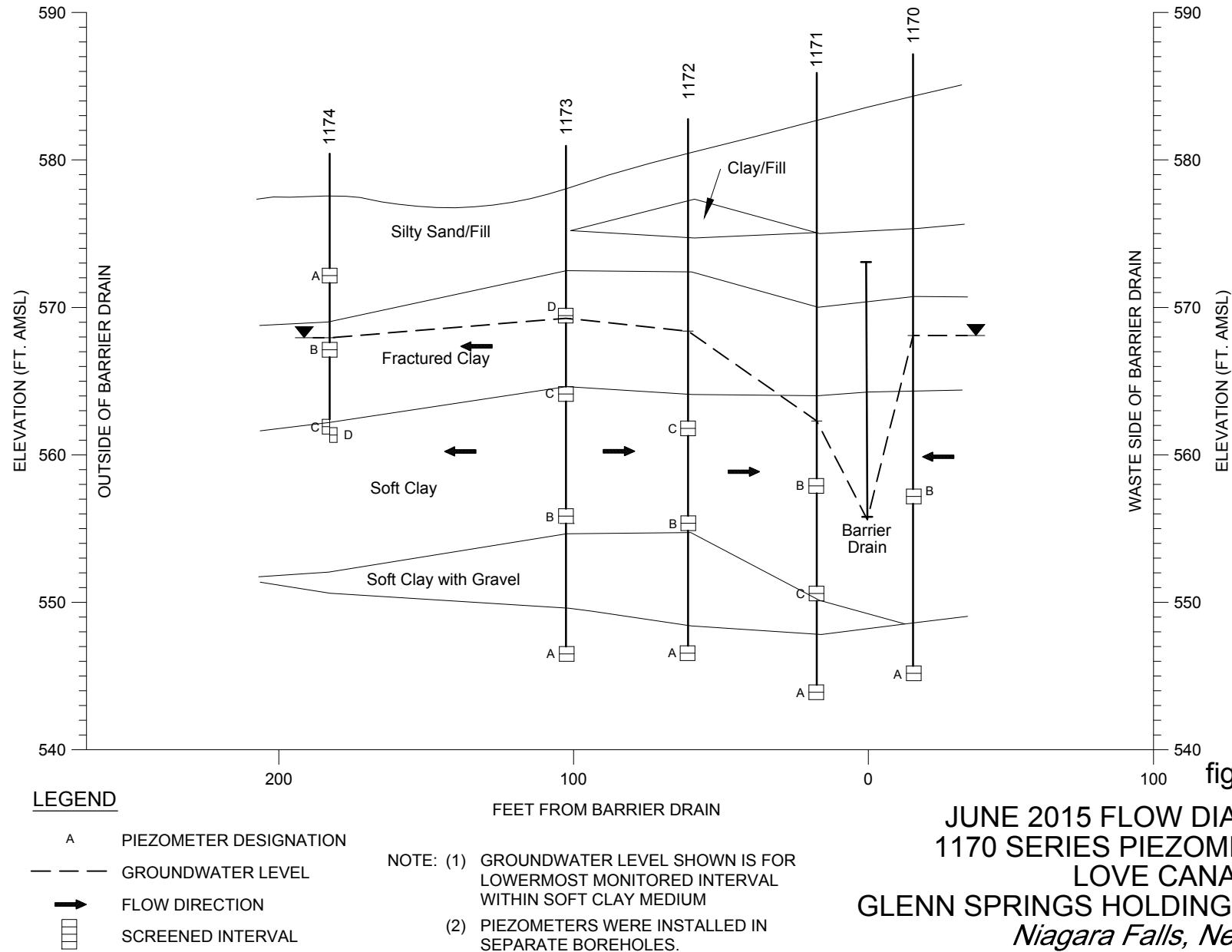


figure 3.5

JUNE 2015 FLOW DIAGRAM
1160 SERIES PIEZOMETERS
LOVE CANAL SITE
GLENNS SPRINGS HOLDINGS, INC.
Niagara Falls, New York

WEST

EAST



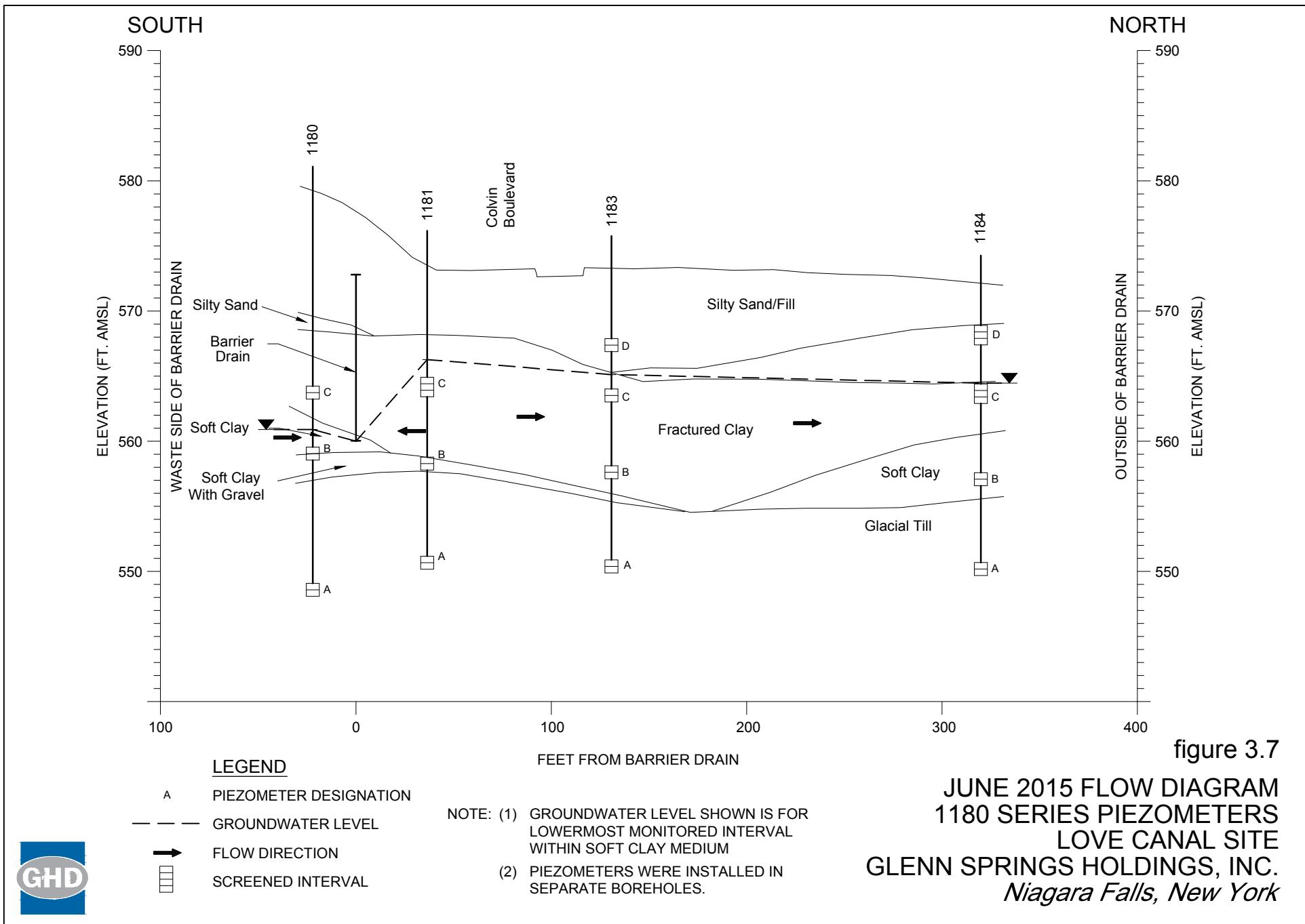
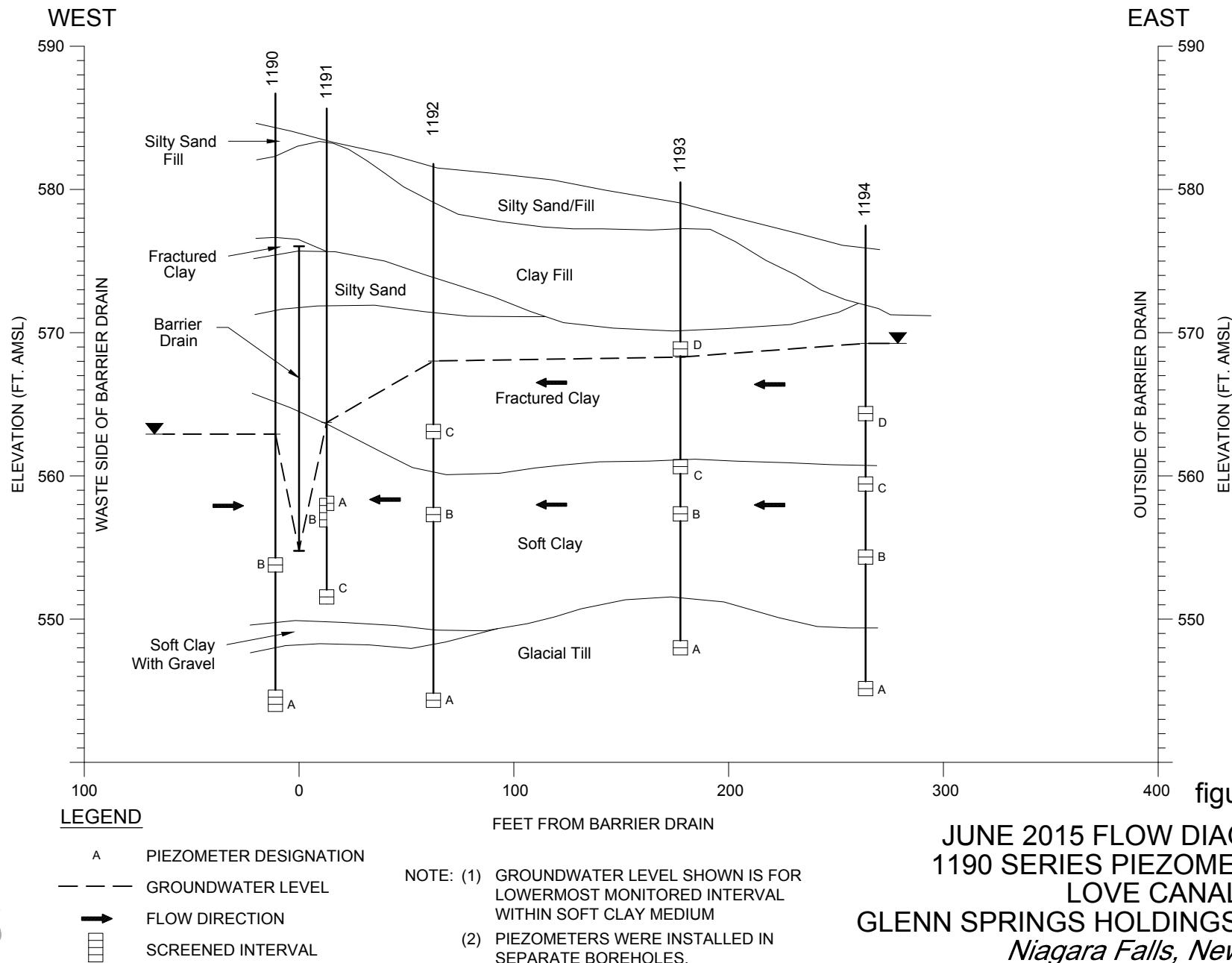
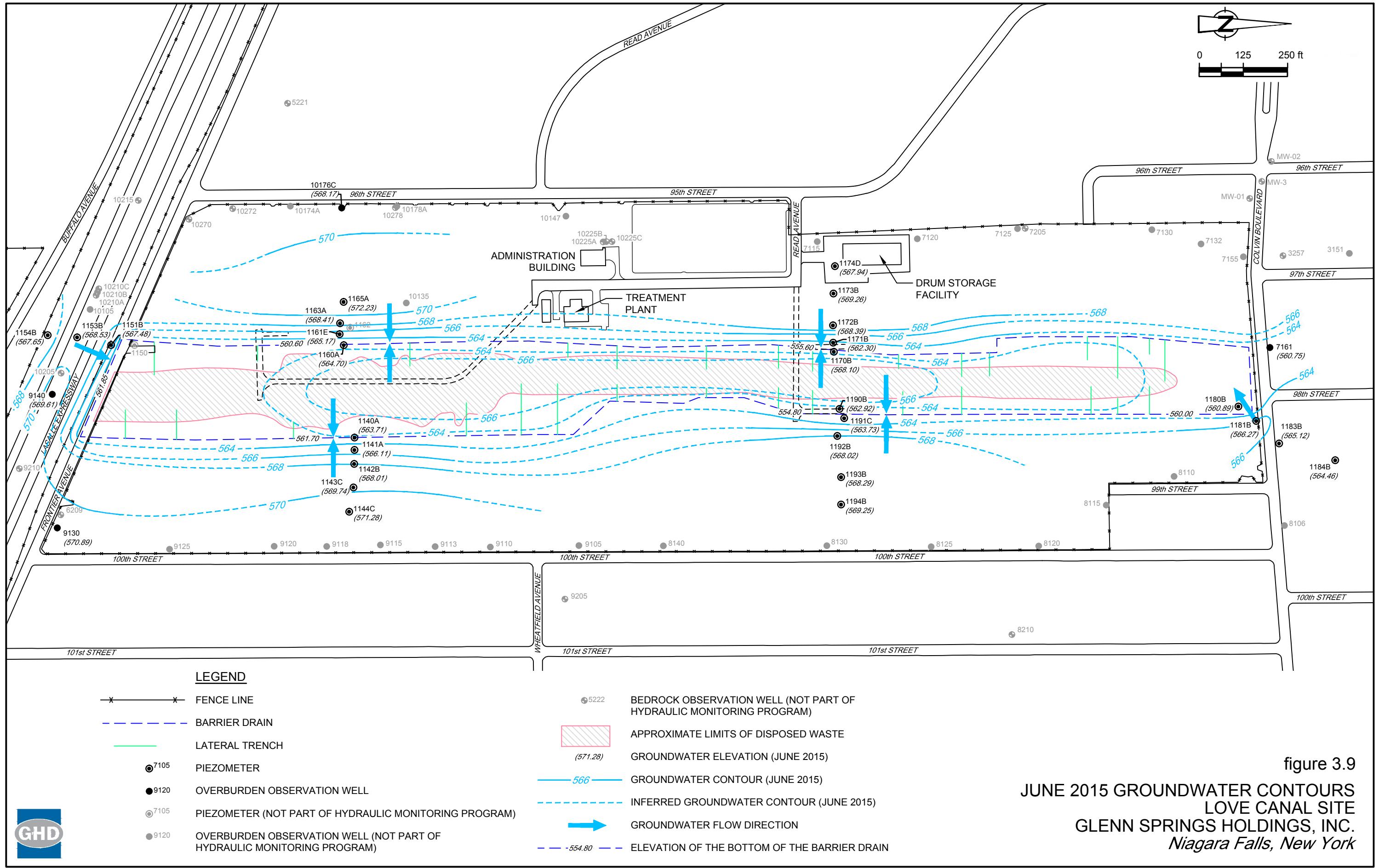


figure 3.7

JUNE 2015 FLOW DIAGRAM
1180 SERIES PIEZOMETERS
LOVE CANAL SITE
GLENNS SPRINGS HOLDINGS, INC.
Niagara Falls, New York





Tables

Table 3.1

Monthly Volumes of Groundwater Treated
Love Canal Long-Term Monitoring Program
Glenn Springs Holdings, Inc.

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	
January	Gross Net Days	495,800 280,364 (1) (2)	396,900 282,480 20 21	488,900 422,682 21	419,400 374,123 14	309,200 260,171 10	841,400 796,518 17	855,900 817,305 16	993,400 970,918 20	674,000 649,777 18	523,500 495,713 16	534,400 471,805 17	346,900 322,994 18	571,900 546,816 15	600,400 575,767 18	519,614 499,889 20	363,043 346,565 14
February	Gross Net Days	480,400 368,492 21	560,000 468,863 19	663,700 608,116 20	266,300 231,049 13	330,000 291,082 9	440,200 401,137 11	437,300 405,124 9	216,600 174,776 7	570,000 539,772 16	506,700 485,869 13	314,300 276,643 10	375,800 349,712 19	656,700 634,167 16	495,900 478,434 15	291,292 277,226 15	68,244 55,548 16
March	Gross Net Days	505,500 290,501 23	616,400 493,476 21	364,900 316,696 21	721,500 667,337 17	1,038,400 986,332 21	698,900 667,105 13	436,800 402,047 13	582,500 560,237 12	570,500 550,518 18	606,900 582,109 18	550,100 526,021 17	1,003,700 978,000 21	384,500 363,378 16	488,000 467,083 20	388,937 375,154 17	658,775 642,149 20
April	Gross Net Days	675,600 547,926 20	352,300 262,946 20	689,700 629,683 20	432,800 380,745 16	800,400 767,982 17	805,300 769,514 14	184,800 155,028 6	447,200 420,133 14	602,000 574,359 12	414,900 377,080 16	498,200 466,778 15	676,400 652,656 11	334,400 316,188 18	533,800 516,478 22	786,808 768,257 20	575,949 561,287 17
May	Gross Net Days	473,300 335,331 20	311,200 207,580 17	589,500 532,251 20	425,400 379,299 14	326,500 294,612 10	183,400 156,846 5	121,800 93,394 4	323,200 297,471 12	172,900 147,715 11	306,200 267,700 14	379,400 348,837 18	942,700 917,206 17	363,100 341,424 16	148,500 129,687 18	444,598 428,177 21	113,599 99,179 12
June	Gross Net Days	632,200 486,721 20	202,200 132,132 16	395,100 347,485 14	367,900 303,576 13	253,200 208,659 9	160,800 118,979 6	130,700 104,449 5	173,300 148,638 4	128,700 107,411 6	110,000 79,200 7	205,200 174,305 13	473,100 449,046 16	142,000 118,568 12	497,300 478,285 18	168,921 152,639 12	262,025 245,083 19
July	Gross Net Days	333,900 184,955 20	182,200 111,941 16	194,500 145,344 16	187,700 142,849 11	137,700 111,217 7	92,600 78,234 3	195,500 183,084 5	129,100 99,026 6	164,760 141,442 6	187,900 153,170 7	85,600 55,670 4	79,700 53,632 5	98,400 72,435 9	280,000 260,823 19	151,772 123,921 15	138,495 122,874 16
August	Gross Net Days	437,100 286,925 23	267,200 194,821 18	151,300 107,928 17	158,600 114,497 8	301,900 269,934 10	98,800 55,055 5	322,440 293,900 10	120,800 106,040 5	197,340 191,068 6	369,400 347,425 8	184,300 162,562 8	193,900 166,652 13	73,960 49,422 8	193,144 168,418 21	98,166 83,010 9	108,376 91,308 7
September	Gross Net Days	209,600 82,263 20	144,900 81,619 16	148,600 94,401 12	105,800 60,350 7	484,800 435,482 12	317,900 284,315 8	249,160 213,343 7	68,400 49,041 4	152,200 122,101 9	101,500 76,057 7	88,100 56,678 2	47,800 21,679 6	161,100 136,728 17	131,289 110,397 23	139,016 111,392 13	151,905 134,935 12
October	Gross Net Days	264,300 134,248 20	438,500 348,153 18	154,600 108,226 13	211,000 211,000 9	135,700 94,476 4	486,300 445,560 10	919,200 892,734 18	173,000 141,650 8	296,100 274,068 13	199,200 129,035 8	120,200 88,537 5	417,500 389,696 14	318,400 291,391 19	503,036 480,233 20	121,075 94,680 18	146,842 123,794 11
November	Gross Net Days	250,900 132,728 17	250,400 194,481 16	360,800 306,258 14	356,800 310,650 12	211,400 186,999 5	524,600 494,443 14	691,800 658,765 14	90,100 77,506 3	449,700 414,149 14	210,100 152,302 12	263,400 233,159 15	350,100 322,735 12	526,900 504,290 20	538,978 520,087 19	107,729 85,439 12	146,722 127,799 15
December	Gross Net Days	522,600 421,149 17	555,300 475,856 18	549,600 496,556 15	692,300 643,735 14	674,400 622,403 14	502,000 476,165 12	510,400 492,900 12	345,700 317,790 8	757,500 733,582 20	506,200 467,578 17	510,900 483,221 17	952,000 926,201 19	517,700 493,061 14	677,411 660,890 17	471,085 456,099 14	155,368 138,929 13
Total	Gross Net Days	5,281,200 3,551,603 242	4,277,500 3,254,348 215	4,751,200 4,115,626 203	4,345,500 3,819,210 148	5,003,600 4,529,349 128	5,152,200 4,743,871 118	5,055,800 4,712,073 107	3,663,300 3,363,226 143	4,735,700 4,445,962 143	4,042,500 3,613,238 153	3,734,100 3,344,216 141	5,859,600 5,550,209 171	4,149,060 3,867,868 180	5,087,758 4,846,582 234	3,689,013 3,455,883 186	2,889,343 2,689,450 172
Monthly Average	Gross Net Days	440,100 295,967 20	356,458 271,196 18	395,933 342,969 17	362,125 318,268 12	416,967 377,446 11	429,350 395,323 10	421,317 392,673 9	305,275 280,269 12	394,642 370,497 12	336,875 301,103 13	311,175 278,685 12	488,300 462,517 14	345,755 322,322 15	423,980 403,882 20	307,418 287,990 16	240,779 224,121 14
Precipitation Inches (4)		36.33	29.56	31.05	32.03	36.33	35.99	38.66	24.02	36.45	37.85	34.54	40.26	31.87	40.66	35.12	24.99

Notes:
(1)
(2)
(3)
(4)

- Gross: Total volume of leachate treated in gallons; treatment at LCTF includes leachate collected from 102nd Street Landfill Site.
- Net: Love Canal leachate treated in gallons; net is equal to the total (gross) leachate treated less leachate received from 102nd Street.
- Days: Number of days treatment facility discharged to the sanitary sewer.
- Precipitation data obtained from the National Climatic Data Center for Niagara Falls International Airport.

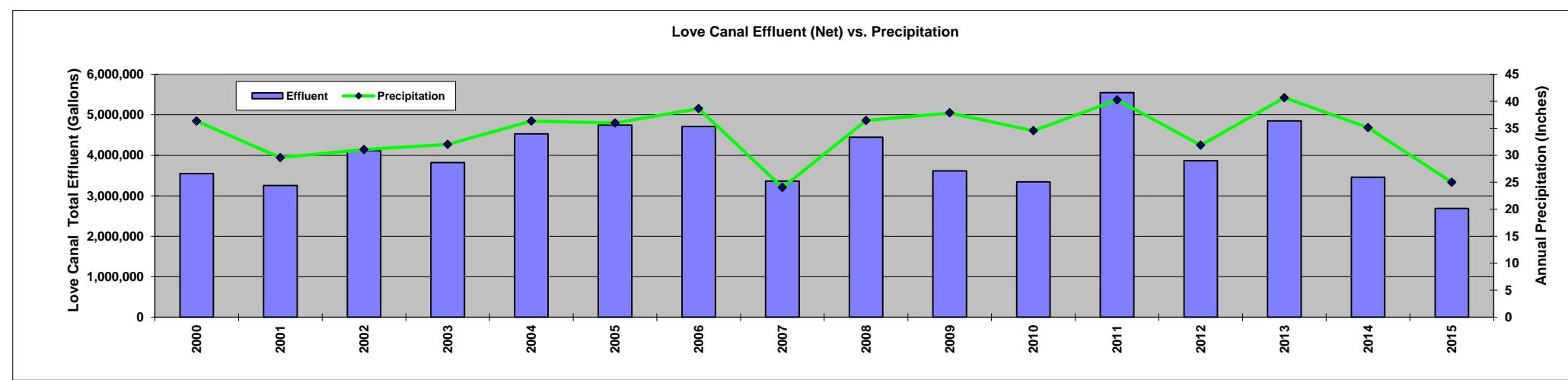


Table 3.2

**2015 Analytical Results Summary-Overburden
Love Canal Long-Term Monitoring Program
Glenn Springs Holdings, Inc.**

Sample Location: Sample ID: Sample Date:	7120 WG-9954-061715-DJT-001 6/17/2015	7130 WG-9954-061715-DJT-003 6/17/2015	7132 WG-9954-061715-DJT-002 6/17/2015	7155 WG-9954-062215-DJT-004 6/22/2015	7161 WG-9954-062215-DJT-005 6/22/2015	8106 WG-9954-062515-SG-020 6/25/2015	8110 WG-9954-062215-DJT-006 6/22/2015	8120 WG-9954-062215-DJT-007 6/22/2015
Parameters	Units							
Volatile Organic Compounds								
1,1,1-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	µg/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Benzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane (Methyl bromide)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform (Trichloromethane)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane (Methyl chloride)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl acetate	µg/L	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ
Vinyl chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Xylenes (total)	µg/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Discrete Compounds Detected:	0	0	0	0	0	0	0	0
Semi-volatile Organic Compounds								
1,2,4-Trichlorobenzene	µg/L	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	10 U
1,2-Dichlorobenzene	µg/L	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U
1,3-Dichlorobenzene	µg/L	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U
1,4-Dichlorobenzene	µg/L	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	10 U
2,4,5-Trichlorophenol	µg/L	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U
2,4,6-Trichlorophenol	µg/L	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U
2,4-Dichlorophenol	µg/L	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U
2,4-Dimethylphenol	µg/L	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U
2,4-Dinitrophenol	µg/L	48 U	46 U	46 U	46 U	46 U	46 U	48 U
2,4-Dinitrotoluene	µg/L	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U
2,6-Dinitrotoluene	µg/L	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U
2-Chloronaphthalene	µg/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	2.0 U
2-Chlorophenol	µg/L	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U
2-Methylnaphthalene	µg/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	2.0 U
2-Methylphenol	µg/L	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U
2-Nitroaniline	µg/L	48 U	46 U	46 U	46 U	46 U	46 U	48 U
2-Nitrophenol	µg/L	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U
3,3'-Dichlorobenzidine	µg/L	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	10 U
3-Nitroaniline	µg/L	48 U	46 U	46 U	46 U	46 U	46 U	48 U
4,6-Dinitro-2-methylphenol	µg/L	48 U	46 U	46 U	46 U	46 U	46 U	48 U

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Love Canal Long-Term Monitoring Program
Glenn Springs Holdings, Inc.**

Sample Location: Sample ID: Sample Date:	7120 WG-9954-061715-DJT-001 6/17/2015	7130 WG-9954-061715-DJT-003 6/17/2015	7132 WG-9954-061715-DJT-002 6/17/2015	7155 WG-9954-062215-DJT-004 6/22/2015	7161 WG-9954-062215-DJT-005 6/22/2015	8106 WG-9954-062515-SG-020 6/25/2015	8110 WG-9954-062215-DJT-006 6/22/2015	8120 WG-9954-062215-DJT-007 6/22/2015
Parameters	Units							
Semi-volatile Organic Compounds-Continued								
4-Bromophenyl phenyl ether								
	µg/L	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	10 U	9.6 U
4-Chloro-3-methylphenol	µg/L	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	10 U	9.6 U
4-Chloroaniline	µg/L	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	10 U	9.6 U
4-Chlorophenyl phenyl ether	µg/L	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	10 U	9.6 U
4-Methylphenol	µg/L	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	10 U	9.6 U
4-Nitroaniline	µg/L	48 U	46 U	46 U	46 U	46 U	50 U	48 U
4-Nitrophenol	µg/L	48 U	46 U	46 U	46 U	46 U	50 U	48 U
Acenaphthene	µg/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U
Acenaphthylene	µg/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U
Anthracene	µg/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U
Benzo(a)anthracene	µg/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U
Benzo(a)pyrene	µg/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U
Benzo(b)fluoranthene	µg/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U
Benzo(g,h,i)perylene	µg/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U
Benzo(k)fluoranthene	µg/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U
Benzoic acid	µg/L	48 U	46 U	46 U	46 U	46 U	50 U	48 U
Benzyl alcohol	µg/L	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	10 U	9.6 U
bis(2-Chloroethoxy)methane	µg/L	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	10 U	9.6 U
bis(2-Chloroethyl)ether	µg/L	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	10 U	9.6 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	19 U	8.5 J	19 U	19 U	19 U	20 U	5.7 J
Butyl benzylphthalate (BBP)	µg/L	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	10 U	9.6 U
Chrysene	µg/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U
Dibenz(a,h)anthracene	µg/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U
Dibenzofuran	µg/L	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	10 U	9.6 U
Diethyl phthalate	µg/L	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	10 U	9.6 U
Dimethyl phthalate	µg/L	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	10 U	9.6 U
Di-n-butylphthalate (DBP)	µg/L	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	10 U	9.6 U
Di-n-octyl phthalate (DnOP)	µg/L	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	10 U	9.6 U
Fluoranthene	µg/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U
Fluorene	µg/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U
Hexachlorobenzene	µg/L	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	10 U	9.6 U
Hexachlorobutadiene	µg/L	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	10 U	9.6 U
Hexachlorocyclopentadiene	µg/L	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	10 U	9.6 U
Hexachloroethane	µg/L	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	10 U	9.6 U
Indeno(1,2,3-cd)pyrene	µg/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U
Isophorone	µg/L	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	10 U	9.6 U
Naphthalene	µg/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U
Nitrobenzene	µg/L	19 U	19 U	19 U	19 U	19 U	20 U	19 U
N-Nitrosodi-n-propylamine	µg/L	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	10 U	9.6 U
N-Nitrosodiphenylamine	µg/L	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	10 U	9.6 U
Pentachlorophenol	µg/L	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	10 U	9.6 U
Phenanthrene	µg/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U
Phenol	µg/L	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	10 U	9.6 U
Pyrene	µg/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U
Discrete Compounds Detected:	0	1	0	0	0	1	0	1
Polychlorinated Biphenyls (PCBs)								
Aroclor-1016 (PCB-1016)	µg/L	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
Aroclor-1221 (PCB-1221)	µg/L	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
Aroclor-1232 (PCB-1232)	µg/L	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
Aroclor-1242 (PCB-1242)	µg/L	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
Aroclor-1248 (PCB-1248)	µg/L	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
Aroclor-1254 (PCB-1254)	µg/L	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
Aroclor-1260 (PCB-1260)	µg/L	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
Discrete Compounds Detected:	0	0	0	0	0	0	0	0

Table 3.2

**2015 Analytical Results Summary-Overburden
Love Canal Long-Term Monitoring Program
Glenn Springs Holdings, Inc.**

Sample Location:	7120	7130	7132	7155	7161	8106	8110	8120	
Sample ID:	WG-9954-061715-DJT-001	WG-9954-061715-DJT-003	WG-9954-061715-DJT-002	WG-9954-062215-DJT-004	WG-9954-062215-DJT-005	WG-9954-062515-SG-020	WG-9954-062215-DJT-006	WG-9954-062215-DJT-007	
Sample Date:	6/17/2015	6/17/2015	6/17/2015	6/22/2015	6/22/2015	6/25/2015	6/22/2015	6/22/2015	
Parameters		Units							
Pesticides									
4,4'-DDD	µg/L	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	
4,4'-DDE	µg/L	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	
4,4'-DDT	µg/L	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	
Aldrin	µg/L	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	
alpha-BHC	µg/L	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	
alpha-Chlordane	µg/L	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	
beta-BHC	µg/L	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	
delta-BHC	µg/L	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	
Dieldrin	µg/L	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	
Endosulfan I	µg/L	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	
Endosulfan II	µg/L	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	
Endosulfan sulfate	µg/L	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	
Endrin	µg/L	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	
Endrin ketone	µg/L	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	
gamma-BHC (lindane)	µg/L	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	
gamma-Chlordane	µg/L	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	
Heptachlor	µg/L	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	
Heptachlor epoxide	µg/L	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	
Methoxychlor	µg/L	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	
Toxaphene	µg/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	
Discrete Compounds Detected:	0	0	0	0	0	0	0	0	

Table 3.2

**2015 Analytical Results Summary-Overburden
Love Canal Long-Term Monitoring Program
Glenn Springs Holdings, Inc.**

Sample Location: Sample ID: Sample Date:	8130 WG-9954-062215-DJT-008 6/22/2015	8140 WG-9954-062215-DJT-009 6/22/2015	9110 WG-9954-062415-SG-015 6/24/2015	9115 WG-9954-062315-SG-014 6/23/2015	9120 WG-9954-062315-SG-012 6/23/2015	9125 WG-9954-062315-SG-013 6/23/2015	9130 WG-9954-062315-SG-010 6/23/2015	9130 WG-9954-062315-SG-011 (Duplicate) 6/23/2015
Parameters	Units							
Volatile Organic Compounds								
1,1,1-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	µg/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Benzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane (Methyl bromide)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform (Trichloromethane)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane (Methyl chloride)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl acetate	µg/L	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ
Vinyl chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Xylenes (total)	µg/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Discrete Compounds Detected:	0	0	0	0	0	0	0	0
Semi-volatile Organic Compounds								
1,2,4-Trichlorobenzene	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
1,2-Dichlorobenzene	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
1,3-Dichlorobenzene	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
1,4-Dichlorobenzene	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
2,4,5-Trichlorophenol	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
2,4,6-Trichlorophenol	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
2,4-Dichlorophenol	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
2,4-Dimethylphenol	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
2,4-Dinitrophenol	µg/L	46 U	46 U	46 U	46 U	46 U	46 U	46 U
2,4-Dinitrotoluene	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
2,6-Dinitrotoluene	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
2-Chloronaphthalene	µg/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
2-Chlorophenol	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
2-Methylnaphthalene	µg/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
2-Methylphenol	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
2-Nitroaniline	µg/L	46 U	46 U	46 U	46 U	46 U	46 U	46 U
2-Nitrophenol	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
3,3'-Dichlorobenzidine	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
3-Nitroaniline	µg/L	46 U	46 U	46 U	46 U	46 U	46 U	46 U
4,6-Dinitro-2-methylphenol	µg/L	46 U	46 U	46 U	46 U	46 U	46 U	46 U

Table 3.2

**2015 Analytical Results Summary-Overburden
Love Canal Long-Term Monitoring Program
Glenn Springs Holdings, Inc.**

Sample Location: Sample ID: Sample Date:	8130 WG-9954-062215-DJT-008 6/22/2015	8140 WG-9954-062215-DJT-009 6/22/2015	9110 WG-9954-062415-SG-015 6/24/2015	9115 WG-9954-062315-SG-014 6/23/2015	9120 WG-9954-062315-SG-012 6/23/2015	9125 WG-9954-062315-SG-013 6/23/2015	9130 WG-9954-062315-SG-010 6/23/2015	9130 WG-9954-062315-SG-011 (Duplicate) 6/23/2015
Parameters	Units							
Semi-volatile Organic Compounds-Continued								
4-Bromophenyl phenyl ether	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
4-Chloro-3-methylphenol	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
4-Chloroaniline	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
4-Chlorophenyl phenyl ether	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
4-Methylphenol	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
4-Nitroaniline	µg/L	46 U	46 U	46 U	46 U	46 U	46 U	46 U
4-Nitrophenol	µg/L	46 U	46 U	46 U	46 U	46 U	46 U	46 U
Acenaphthene	µg/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
Acenaphthylene	µg/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
Anthracene	µg/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
Benzo(a)anthracene	µg/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
Benzo(a)pyrene	µg/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
Benzo(b)fluoranthene	µg/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
Benzo(g,h,i)perylene	µg/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
Benzo(k)fluoranthene	µg/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
Benzoic acid	µg/L	46 U	46 U	46 U	46 U	46 U	46 U	46 U
Benzyl alcohol	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
bis(2-Chloroethoxy)methane	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
bis(2-Chloroethyl)ether	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	19 U	19 U	19 U	9.8 J	19 U	4.2 J	7.5 J
Butyl benzylphthalate (BBP)	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
Chrysene	µg/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
Dibenz(a,h)anthracene	µg/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
Dibenzofuran	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
Diethyl phthalate	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
Dimethyl phthalate	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
Di-n-butylphthalate (DBP)	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
Di-n-octyl phthalate (DnOP)	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
Fluoranthene	µg/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
Fluorene	µg/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
Hexachlorobenzene	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
Hexachlorobutadiene	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
Hexachlorocyclopentadiene	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
Hexachloroethane	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
Indeno(1,2,3-cd)pyrene	µg/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
Isophorone	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
Naphthalene	µg/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
Nitrobenzene	µg/L	19 U	19 U	19 U	19 U	19 U	19 U	19 U
N-Nitrosodi-n-propylamine	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
N-Nitrosodiphenylamine	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
Pentachlorophenol	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
Phenanthrene	µg/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
Phenol	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
Pyrene	µg/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
Discrete Compounds Detected:	0	0	0	1	0	1	1	0
Polychlorinated Biphenyls (PCBs)								
Aroclor-1016 (PCB-1016)	µg/L	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
Aroclor-1221 (PCB-1221)	µg/L	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
Aroclor-1232 (PCB-1232)	µg/L	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
Aroclor-1242 (PCB-1242)	µg/L	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
Aroclor-1248 (PCB-1248)	µg/L	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
Aroclor-1254 (PCB-1254)	µg/L	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
Aroclor-1260 (PCB-1260)	µg/L	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
Discrete Compounds Detected:	0	0	0	0	0	0	0	0

Table 3.2

**2015 Analytical Results Summary-Overburden
Love Canal Long-Term Monitoring Program
Glenn Springs Holdings, Inc.**

Sample Location:	8130	8140	9110	9115	9120	9125	9130	9130
Sample ID:	WG-9954-062215-DJT-008	WG-9954-062215-DJT-009	WG-9954-062415-SG-015	WG-9954-062315-SG-014	WG-9954-062315-SG-012	WG-9954-062315-SG-013	WG-9954-062315-SG-010	WG-9954-062315-SG-011
Sample Date:	6/22/2015	6/22/2015	6/24/2015	6/23/2015	6/23/2015	6/23/2015	6/23/2015	6/23/2015
Parameters								
Pesticides		Units						
4,4'-DDD	µg/L	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
4,4'-DDE	µg/L	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
4,4'-DDT	µg/L	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Aldrin	µg/L	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
alpha-BHC	µg/L	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
alpha-Chlordane	µg/L	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
beta-BHC	µg/L	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
delta-BHC	µg/L	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Dieldrin	µg/L	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Endosulfan I	µg/L	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Endosulfan II	µg/L	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Endosulfan sulfate	µg/L	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Endrin	µg/L	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Endrin ketone	µg/L	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
gamma-BHC (lindane)	µg/L	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
gamma-Chlordane	µg/L	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Heptachlor	µg/L	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Heptachlor epoxide	µg/L	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Methoxychlor	µg/L	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Toxaphene	µg/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Discrete Compounds Detected:	0	0	0	0	0	0	0	0

Table 3.2

**2015 Analytical Results Summary-Overburden
Love Canal Long-Term Monitoring Program
Glenn Springs Holdings, Inc.**

Sample Location:	9140	10105	10135	10147	10174A
Sample ID:	WG-9954-062415-SG-016	WG-9954-062515-SG-017	WG-9954-062515-SG-023	WG-9954-062515-SG-022	WG-9954-062515-SG-021
Sample Date:	6/24/2015	6/25/2015	6/25/2015	6/25/2015	6/25/2015
Parameters	Units				
Volatile Organic Compounds					
1,1,1-Trichloroethane	µg/L	5.0 U	5.0 U	500 U	5.0 U
1,1,2,2-Tetrachloroethane	µg/L	5.0 U	5.0 U	500 U	5.0 U
1,1,2-Trichloroethane	µg/L	5.0 U	5.0 U	500 U	5.0 U
1,1-Dichloroethane	µg/L	5.0 U	5.0 U	500 U	5.0 U
1,1-Dichloroethene	µg/L	5.0 U	5.0 U	500 U	5.0 U
1,2-Dichloroethane	µg/L	5.0 U	5.0 U	500 U	5.0 U
1,2-Dichloropropane	µg/L	5.0 U	5.0 U	500 U	5.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	5.0 U	5.0 U	500 U	5.0 U
2-Hexanone	µg/L	5.0 U	5.0 U	500 U	5.0 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	5.0 U	5.0 U	500 U	5.0 U
Acetone	µg/L	20 UJ	20 U	2000 U	20 U
Benzene	µg/L	5.0 U	5.0 U	6200	5.0 U
Bromodichloromethane	µg/L	5.0 U	5.0 U	500 U	5.0 U
Bromoform	µg/L	5.0 U	5.0 U	500 U	5.0 U
Bromomethane (Methyl bromide)	µg/L	5.0 U	5.0 U	500 U	5.0 U
Carbon disulfide	µg/L	1.9 J	5.0 U	500 U	5.0 U
Carbon tetrachloride	µg/L	5.0 U	5.0 U	500 U	5.0 U
Chlorobenzene	µg/L	5.0 U	5.0 U	2600	5.0 U
Chloroethane	µg/L	5.0 U	5.0 U	500 U	5.0 U
Chloroform (Trichloromethane)	µg/L	5.0 U	5.0 U	180 J	5.0 U
Chloromethane (Methyl chloride)	µg/L	5.0 U	5.0 U	500 U	5.0 U
Ethylbenzene	µg/L	5.0 U	5.0 U	500 U	5.0 U
cis-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	500 U	5.0 U
Dibromochloromethane	µg/L	5.0 U	5.0 U	500 U	5.0 U
Ethylbenzene	µg/L	5.0 U	5.0 U	500 U	5.0 U
Methylene chloride	µg/L	5.0 U	5.0 U	150 J	5.0 U
Styrene	µg/L	5.0 U	5.0 U	500 U	5.0 U
Tetrachloroethene	µg/L	5.0 U	5.0 U	500 U	5.0 U
Toluene	µg/L	5.0 U	5.0 U	20000	5.0 U
trans-1,2-Dichloroethene	µg/L	5.0 U	5.0 U	500 U	5.0 U
trans-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	500 U	5.0 U
Trichloroethene	µg/L	5.0 U	5.0 U	110 J	5.0 U
Vinyl acetate	µg/L	5.0 UJ	5.0 UJ	500 UJ	5.0 UJ
Vinyl chloride	µg/L	5.0 U	5.0 U	500 U	5.0 U
Xylenes (total)	µg/L	10 U	10 U	1000 U	10 U
Discrete Compounds Detected:	1	0	6	0	0
Semi-volatile Organic Compounds					
1,2,4-Trichlorobenzene	µg/L	9.3 U	9.3 U	230 U	9.3 U
1,2-Dichlorobenzene	µg/L	9.3 U	9.3 U	47 J	9.3 U
1,3-Dichlorobenzene	µg/L	9.3 U	9.3 U	230 U	9.3 U
1,4-Dichlorobenzene	µg/L	9.3 U	9.3 U	140 J	9.3 U
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	9.3 U	9.3 U	230 U	9.3 U
2,4,5-Trichlorophenol	µg/L	9.3 U	9.3 U	230 U	9.3 U
2,4,6-Trichlorophenol	µg/L	9.3 U	9.3 U	230 U	9.3 U
2,4-Dichlorophenol	µg/L	9.3 U	9.3 U	790	9.3 U
2,4-Dimethylphenol	µg/L	9.3 U	9.3 U	230 U	9.3 U
2,4-Dinitrophenol	µg/L	46 U	46 U	1200 U	46 U
2,4-Dinitrotoluene	µg/L	9.3 U	9.3 U	230 U	9.3 U
2,6-Dinitrotoluene	µg/L	9.3 U	9.3 U	230 U	9.3 U
2-Chloronaphthalene	µg/L	1.9 U	1.9 U	46 U	1.9 U
2-Chlorophenol	µg/L	9.3 U	9.3 U	230 U	9.3 U
2-Methylnaphthalene	µg/L	1.9 U	1.9 U	46 U	1.9 U
2-Methylphenol	µg/L	9.3 U	9.3 U	44 J	9.3 U
2-Nitroaniline	µg/L	46 U	46 U	1200 U	46 U
2-Nitrophenol	µg/L	9.3 U	9.3 U	230 U	9.3 U
3,3'-Dichlorobenzidine	µg/L	9.3 U	9.3 U	230 U	9.3 U
3-Nitroaniline	µg/L	46 U	46 U	1200 U	46 U
4,6-Dinitro-2-methylphenol	µg/L	46 U	46 U	1200 U	46 U

Table 3.2

**2015 Analytical Results Summary-Overburden
Love Canal Long-Term Monitoring Program
Glenn Springs Holdings, Inc.**

Sample Location: Sample ID: Sample Date:	9140 WG-9954-062415-SG-016 6/24/2015	10105 WG-9954-062515-SG-017 6/25/2015	10135 WG-9954-062515-SG-023 6/25/2015	10147 WG-9954-062515-SG-022 6/25/2015	10174A WG-9954-062515-SG-021 6/25/2015
Parameters	Units				
Semi-volatile Organic Compounds-Continued					
4-Bromophenyl phenyl ether	µg/L	9.3 U	9.3 U	230 U	9.3 U
4-Chloro-3-methylphenol	µg/L	9.3 U	9.3 U	230 U	9.3 U
4-Chloroaniline	µg/L	9.3 U	9.3 U	230 U	9.3 U
4-Chlorophenyl phenyl ether	µg/L	9.3 U	9.3 U	230 U	9.3 U
4-Methylphenol	µg/L	9.3 U	9.3 U	93 J	9.3 U
4-Nitroaniline	µg/L	46 U	46 U	1200 U	46 U
4-Nitrophenol	µg/L	46 U	46 U	1200 U	46 U
Acenaphthene	µg/L	1.9 U	1.9 U	46 U	1.9 U
Acenaphthylene	µg/L	1.9 U	1.9 U	46 U	1.9 U
Anthracene	µg/L	1.9 U	1.9 U	46 U	1.9 U
Benzo(a)anthracene	µg/L	1.9 U	1.9 U	46 U	1.9 U
Benzo(a)pyrene	µg/L	1.9 U	1.9 U	46 U	1.9 U
Benzo(b)fluoranthene	µg/L	1.9 U	1.9 U	46 U	1.9 U
Benzo(g,h,i)perylene	µg/L	1.9 U	1.9 U	46 U	1.9 U
Benzo(k)fluoranthene	µg/L	1.9 U	1.9 U	46 U	1.9 U
Benzoic acid	µg/L	46 U	46 U	16000	46 U
Benzyl alcohol	µg/L	9.3 U	9.3 U	250	9.3 U
bis(2-Chloroethoxy)methane	µg/L	9.3 U	9.3 U	230 U	9.3 U
bis(2-Chloroethyl)ether	µg/L	9.3 U	9.3 U	27 J	9.3 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	19 U	8.0 J	460 U	8.3 J
Butyl benzylphthalate (BBP)	µg/L	9.3 U	9.3 U	230 U	9.3 U
Chrysene	µg/L	1.9 U	1.9 U	46 U	1.9 U
Dibenz(a,h)anthracene	µg/L	1.9 U	1.9 U	46 U	1.9 U
Dibenzofuran	µg/L	9.3 U	9.3 U	230 U	9.3 U
Diethyl phthalate	µg/L	9.3 U	9.3 U	230 U	9.3 U
Dimethyl phthalate	µg/L	9.3 U	9.3 U	230 U	9.3 U
Di-n-butylphthalate (DBP)	µg/L	9.3 U	9.3 U	230 U	9.3 U
Di-n-octyl phthalate (DnOP)	µg/L	9.3 U	9.3 U	230 U	9.3 U
Fluoranthene	µg/L	1.9 U	1.9 U	46 U	1.9 U
Fluorene	µg/L	1.9 U	1.9 U	46 U	1.9 U
Hexachlorobenzene	µg/L	9.3 U	9.3 U	230 U	9.3 U
Hexachlorobutadiene	µg/L	9.3 U	9.3 U	230 U	9.3 U
Hexachlorocyclopentadiene	µg/L	9.3 U	9.3 U	230 U	9.3 U
Hexachloroethane	µg/L	9.3 U	9.3 U	230 U	9.3 U
Indeno(1,2,3-cd)pyrene	µg/L	1.9 U	1.9 U	46 U	1.9 U
Isophorone	µg/L	9.3 U	9.3 U	230 U	9.3 U
Naphthalene	µg/L	1.9 U	1.9 U	46 U	1.9 U
Nitrobenzene	µg/L	19 U	19 U	460 U	19 U
N-Nitrosodi-n-propylamine	µg/L	9.3 U	9.3 U	230 U	9.3 U
N-Nitrosodiphenylamine	µg/L	9.3 U	9.3 U	230 U	9.3 U
Pentachlorophenol	µg/L	9.3 U	9.3 U	230 U	9.3 U
Phenanthrene	µg/L	1.9 U	1.9 U	46 U	1.9 U
Phenol	µg/L	9.3 U	9.3 U	87 J	9.3 U
Pyrene	µg/L	1.9 U	1.9 U	46 U	1.9 U
Discrete Compounds Detected:	0	1	9	1	0
Polychlorinated Biphenyls (PCBs)					
Aroclor-1016 (PCB-1016)	µg/L	0.40 U	0.40 U	0.40 U	0.40 U
Aroclor-1221 (PCB-1221)	µg/L	0.40 U	0.40 U	0.40 U	0.40 U
Aroclor-1232 (PCB-1232)	µg/L	0.40 U	0.40 U	0.40 U	0.40 U
Aroclor-1242 (PCB-1242)	µg/L	0.40 U	0.40 U	0.40 U	0.40 U
Aroclor-1248 (PCB-1248)	µg/L	0.40 U	0.40 U	0.40 U	0.40 U
Aroclor-1254 (PCB-1254)	µg/L	0.40 U	0.40 U	0.40 U	0.40 U
Aroclor-1260 (PCB-1260)	µg/L	0.40 U	0.40 U	0.40 U	0.40 U
Discrete Compounds Detected:	0	0	0	0	0

Table 3.2

**2015 Analytical Results Summary-Overburden
Love Canal Long-Term Monitoring Program
Glenn Springs Holdings, Inc.**

Sample Location:	9140	10105	10135	10147	10174A
Sample ID:	WG-9954-062415-SG-016	WG-9954-062515-SG-017	WG-9954-062515-SG-023	WG-9954-062515-SG-022	WG-9954-062515-SG-021
Sample Date:	6/24/2015	6/25/2015	6/25/2015	6/25/2015	6/25/2015
Parameters					
Units					
Pesticides					
4,4'-DDD	µg/L	0.050 U	0.050 U	R	0.045 J
4,4'-DDE	µg/L	0.050 U	0.050 U	R	0.050 U
4,4'-DDT	µg/L	0.050 U	0.050 U	0.050 U	0.050 U
Aldrin	µg/L	0.050 U	0.050 U	R	0.050 U
alpha-BHC	µg/L	0.050 U	0.050 U	20	0.050 U
alpha-Chlordane	µg/L	0.050 U	0.050 U	0.050 U	0.050 U
beta-BHC	µg/L	0.050 U	0.050 U	4.7	0.050 U
delta-BHC	µg/L	0.050 U	0.050 U	7.4	0.050 U
Dieldrin	µg/L	0.050 U	0.050 U	0.050 U	0.050 U
Endosulfan I	µg/L	0.050 U	0.050 U	R	0.050 U
Endosulfan II	µg/L	0.050 U	0.050 U	0.050 U	0.050 U
Endosulfan sulfate	µg/L	0.050 U	0.050 U	0.035 J	0.050 U
Endrin	µg/L	0.050 U	0.050 U	1.4	0.050 U
Endrin ketone	µg/L	0.050 U	0.050 U	0.050 U	0.050 U
gamma-BHC (lindane)	µg/L	0.050 U	0.050 U	3.2	0.050 U
gamma-Chlordane	µg/L	0.050 U	0.050 U	1.1 J	0.050 U
Heptachlor	µg/L	0.050 U	0.050 U	R	0.050 U
Heptachlor epoxide	µg/L	0.050 U	0.050 U	R	0.050 U
Methoxychlor	µg/L	0.10 U	0.10 U	0.10 U	0.10 U
Toxaphene	µg/L	4.0 U	4.0 U	4.0 U	4.0 U
Discrete Compounds Detected:					
	0	0	7	1	0

Notes:

J - Estimated concentration

U - Not detected at the associated reporting limit

UU - Not detected; associated reporting limit is estimated

R - Results rejected. Refer to Appendix F-Data Validation Memo for explanation(s)

Table 3.3

**2015 Analytical Results Summary-Bedrock
Love Canal Long-Term Monitoring Program
Glenn Springs Holdings, Inc.**

Sample Location:	3257	5221	6209	7205	8210	9205	9210	9210	10205	10210A	10210B	10210C
Sample ID:	WG-9954-070115-SG-038	WG-9954-070115-SG-040	WG-9954-070215-SG-045	WG-9954-062515-SG-027	WG-9954-062615-SG-029	WG-9954-062615-SG-028	WG-9954-062615-SG-030	WG-9954-062615-SG-031	WG-9954-062615-SG-035	WG-9954-062615-SG-032	WG-9954-070215-SG-041	WG-9954-070215-SG-042
Sample Date:	7/1/2015	7/1/2015	7/2/2015	6/25/2015	6/26/2015	6/26/2015	6/26/2015	6/26/2015	6/26/2015	6/26/2015	7/2/2015	7/2/2015
Parameters	Units											
Volatile Organic Compounds												
1,1,1-Trichloroethane	ug/L	5.0 U										
1,1,2,2-Tetrachloroethane	ug/L	5.0 U										
1,1,2-Trichloroethane	ug/L	5.0 U										
1,1-Dichloroethane	ug/L	5.0 U										
1,1-Dichloroethene	ug/L	5.0 U										
1,2-Dichloroethane	ug/L	5.0 U										
1,2-Dichloropropane	ug/L	5.0 U										
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	5.0 U										
2-Hexanone	ug/L	5.0 U										
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/L	5.0 U										
Acetone	ug/L	20 U										
Benzene	ug/L	5.0 U										
Bromodichloromethane	ug/L	5.0 U										
Bromoform	ug/L	5.0 U										
Bromomethane (Methyl bromide)	ug/L	5.0 U										
Carbon disulfide	ug/L	2.2 J	1.5 J	5.0 U	5.0 U	1.2 J	1.2 J	1.4 J	5.0 U	2.9 J	7.9	5.0 U
Carbon tetrachloride	ug/L	5.0 U										
Chlorobenzene	ug/L	5.0 U										
Chloroethane	ug/L	5.0 U										
Chloroform (Trichloromethane)	ug/L	5.0 U										
Chloromethane (Methyl chloride)	ug/L	5.0 U										
cis-1,2-Dichloroethene	ug/L	5.0 U										
cis-1,3-Dichloropropene	ug/L	5.0 U										
Dibromochloromethane	ug/L	5.0 U										
Ethylbenzene	ug/L	5.0 U										
Methylene chloride	ug/L	5.0 U										
Styrene	ug/L	5.0 U										
Tetrachloroethene	ug/L	5.0 U										
Toluene	ug/L	5.0 U	5.0 U	0.95 J	5.0 U							
trans-1,2-Dichloroethene	ug/L	5.0 U										
trans-1,3-Dichloropropene	ug/L	5.0 U										
Trichloroethene	ug/L	5.0 U										
Vinyl acetate	ug/L	5.0 UU										
Vinyl chloride	ug/L	5.0 U										
Xylenes (total)	ug/L	10 U										
Discrete Compounds Detected:	1	1	0	0	1	1	1	1	0	1	1	0
Semi-volatile Organic Compounds												
1,2,4-Trichlorobenzene	ug/L	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U					
1,2-Dichlorobenzene	ug/L	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U					
1,3-Dichlorobenzene	ug/L	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U					
1,4-Dichlorobenzene	ug/L	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U					
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ethyl ether)	ug/L	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U					
2,4,5-Trichlorophenol	ug/L	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U					
2,4,6-Trichlorophenol	ug/L	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U					
2,4-Dichlorophenol	ug/L	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U					
2,4-Dimethylphenol	ug/L	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U					
2,4-Dinitrophenol	ug/L	46 U	46 U	46 U	46 U	48 U	46 U					
2,4-Dinitrotoluene	ug/L	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U					
2,6-Dinitrotoluene	ug/L	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U					

Table 3.3

**2015 Analytical Results Summary-Bedrock
Love Canal Long-Term Monitoring Program
Glenn Springs Holdings, Inc.**

Sample Location:	3257	5221	6209	7205	8210	9205	9210	9210	10205	10210A	10210B	10210C
Sample ID:	WG-9954-070115-SG-038	WG-9954-070115-SG-040	WG-9954-070215-SG-045	WG-9954-062515-SG-027	WG-9954-062615-SG-029	WG-9954-062615-SG-028	WG-9954-062615-SG-030	WG-9954-062615-SG-031	WG-9954-062615-SG-035	WG-9954-062615-SG-032	WG-9954-070215-SG-041	WG-9954-070215-SG-042
Sample Date:	7/1/2015	7/1/2015	7/2/2015	6/25/2015	6/26/2015	6/26/2015	6/26/2015	6/26/2015	6/26/2015	6/26/2015	7/2/2015	7/2/2015
Parameters	Units									(Duplicate)		
Semi-volatile Organic Compounds-Continued												
Benzog(h,i)perylene	µg/L	1.9 U										
Benzo(k)fluoranthene	µg/L	1.9 U										
Benzoi acid	µg/L	46 U	46 U	46 U	48 U	46 U						
Benzyl alcohol	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U					
bis(2-Chloroethoxy)methane	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U					
bis(2-Chloroethyl)ether	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U					
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	19 U										
Butyl benzylphthalate (BBP)	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U					
Chrysene	µg/L	1.9 U										
Dibenz(a,h)anthracene	µg/L	1.9 U										
Dibenofuran	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U					
Diethyl phthalate	µg/L	9.3 U	9.3 U	9.3 U	2.7 J	9.6 U	9.3 U					
Dimethyl phthalate	µg/L	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U						
Di-n-butylphthalate (DBP)	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U					
Di-n-octyl phthalate (DnOP)	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U					
Fluoranthene	µg/L	1.9 U										
Fluorene	µg/L	1.9 U										
Hexachlorobenzene	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U					
Hexachlorobutadiene	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U					
Hexachlorocyclopentadiene	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U					
Hexachloroethane	µg/L	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U					
Indeno(1,2,3-cd)pyrene	µg/L	1.9 U										
Isophorone	µg/L	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U						
Naphthalene	µg/L	1.9 U	0.41 J	1.9 U	1.9 U							
Nitrobenzene	µg/L	19 U										
N-Nitrosodi-n-propylamine	µg/L	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U						
N-Nitrosodiphenylamine	µg/L	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U						
Pentachlorophenol	µg/L	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U						
Phenanthrene	µg/L	1.9 U										
Pheno	µg/L	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U						
Pyrene	µg/L	1.9 U										
Discrete Compounds Detected:	0	0	0	1	1	0	0	0	0	1	0	0
Polychlorinated Biphenyls (PCBs)												
Aroclor-1016 (PCB-1016)	µg/L	0.21 U	0.20 U	0.42 U	0.40 U	0.21 U	0.20 U	0.21 U	0.21 U	0.20 U	0.20 U	0.42 U
Aroclor-1221 (PCB-1221)	µg/L	0.21 U	0.20 U	0.42 U	0.40 U	0.21 U	0.20 U	0.21 U	0.21 U	0.20 U	0.20 U	0.42 U
Aroclor-1232 (PCB-1232)	µg/L	0.21 U	0.20 U	0.42 U	0.40 U	0.21 U	0.20 U	0.21 U	0.21 U	0.20 U	0.20 U	0.42 U
Aroclor-1242 (PCB-1242)	µg/L	0.21 U	0.20 U	0.42 U	0.40 U	0.21 U	0.20 U	0.21 U	0.21 U	0.20 U	0.20 U	0.42 U
Aroclor-1248 (PCB-1248)	µg/L	0.21 U	0.20 U	0.42 U	0.40 U	0.21 U	0.20 U	0.21 U	0.20 U	0.20 U	0.20 U	0.42 U
Aroclor-1254 (PCB-1254)	µg/L	0.21 U	0.20 U	0.42 U	0.40 U	0.21 U	0.20 U	0.21 U	0.20 U	0.20 U	0.20 U	0.42 U
Aroclor-1260 (PCB-1260)	µg/L	0.21 U	0.20 U	0.42 U	0.40 U	0.21 U	0.20 U	0.21 U	0.20 U	0.20 U	0.20 U	0.42 U
Discrete Compounds Detected:	0	0	0	0	0	0	0	0	0	0	0	0
Pesticides												
4,4'-DDD	µg/L	0.026 U	0.022 J	0.052 U	0.050 U	0.026 U	0.025 U	0.026 U	0.026 U	0.025 U	0.025 U	0.052 U
4,4'-DDE	µg/L	0.026 U	0.025 U	0.052 U	0.050 U	0.026 U	0.025 U	0.026 U	0.026 U	0.017 J	0.023 NJ	0.052 U
4,4'-DDT	µg/L	0.017 J	0.025 U	0.052 U	0.050 U	0.025 J	0.025 U	0.057	0.029 J	0.037 J	0.078 J	0.052 U
Aldrin	µg/L	0.026 U	0.025 U	0.052 U	0.050 U	0.026 U	0.025 U	0.026 U	0.026 U	0.025 U	0.025 U	0.052 U
alpha-BHC	µg/L	0.026 U	0.025 U	0.052 U	0.30	0.072 U	0.090 U	0.035 U	0.037 U	0.025 U	0.025 U	0.054 U
alpha-Chlordane	µg/L	0.026 U	0.025 U	0.052 U	0.050 U	0.026 U	0.025 U	0.026 U	0.026 U	0.025 U	0.030	0.052 U
beta-BHC</td												

Table 3.3

**2015 Analytical Results Summary-Bedrock
Love Canal Long-Term Monitoring Program
Glenn Springs Holdings, Inc.**

Sample Location:	10210C	10215	10225A	10225B	10225C	10225C	10270	10272	10278	MW-01	MW-02
Sample ID:	WG-9954-070215-SG-043	WG-9954-070215-SG-044	WG-9954-062615-SG-033	WG-9954-062615-SG-034	WG-9954-062415-SG-018	WG-9954-062415-SG-019	WG-9954-062515-SG-024	WG-9954-062515-SG-025	WG-9954-070115-SG-039	WG-9954-070115-SG-037	WG-9954-070115-SG-036
Sample Date:	7/2/2015	7/2/2015	6/26/2015	6/26/2015	6/24/2015	6/24/2015	6/25/2015	6/25/2015	7/1/2015	7/1/2015	7/1/2015
Parameters	Units										
Volatile Organic Compounds											
1,1,1-Trichloroethane	µg/L	5.0 U									
1,1,2-Tetrachloroethane	µg/L	5.0 U									
1,1,2-Trichloroethane	µg/L	5.0 U									
1,1-Dichloroethane	µg/L	5.0 U									
1,1-Dichloroethene	µg/L	5.0 U									
1,2-Dichloroethane	µg/L	5.0 U									
1,2-Dichloropropane	µg/L	5.0 U									
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	5.0 U									
2-Hexanone	µg/L	5.0 U									
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	5.0 U									
Acetone	µg/L	20 U	20 U	20 U	20 U	20 UJ	20 UJ	20 U	20 U	20 U	20 U
Benzene	µg/L	5.0 U									
Bromodichloromethane	µg/L	5.0 U									
Bromoform	µg/L	5.0 U									
Bromomethane (Methyl bromide)	µg/L	5.0 U									
Carbon disulfide	µg/L	2.1 J	2.0 J	5.0 U	2.2 J	5.0 U	5.0 U	2.9 J	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	5.0 U									
Chlorobenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	1.9 J	2.0 J	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	µg/L	5.0 U									
Chloroform (Trichloromethane)	µg/L	5.0 U									
Chloromethane (Methyl chloride)	µg/L	5.0 U									
cis-1,2-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	4.9 J	4.8 J	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	µg/L	5.0 U									
Dibromochloromethane	µg/L	5.0 U									
Ethylbenzene	µg/L	5.0 U	5.0 U	0.73 J	5.0 U						
Methylene chloride	µg/L	5.0 U									
Styrene	µg/L	5.0 U									
Tetrachloroethene	µg/L	5.0 U									
Toluene	µg/L	5.0 U									
trans-1,2-Dichloroethene	µg/L	5.0 U									
trans-1,3-Dichloropropene	µg/L	5.0 U									
Trichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	13	15	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl acetate	µg/L	5.0 UU									
Vinyl chloride	µg/L	5.0 U									
Xylenes (total)	µg/L	10 U									
Discrete Compounds Detected:	1	1	0	1	3	3	0	0	0	0	0
Semi-volatile Organic Compounds											
1,2,4-Trichlorobenzene	µg/L	9.3 U	9.3 U	9.6 U	9.3 U	5.1 J	6.6 J	9.3 U	9.3 U	9.6 U	9.3 U
1,2-Dichlorobenzene	µg/L	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U
1,3-Dichlorobenzene	µg/L	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U
1,4-Dichlorobenzene	µg/L	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ethyl ether)	µg/L	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U
2,4,5-Trichlorophenol	µg/L	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U
2,4,6-Trichlorophenol	µg/L	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U
2,4-Dichlorophenol	µg/L	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U
2,4-Dimethylphenol	µg/L	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U
2,4-Dinitrophenol	µg/L	46 U	46 U	48 U	46 U						
2,4-Dinitrotoluene	µg/L	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U
2,6-Dinitrotoluene	µg/L	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U
2-Chloronaphthalene	µg/L	1.9 U									
2-Chlorophenol	µg/L	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U
2-Methylnaphthalene	µg/L	1.9 U									
2-Methylphenol	µg/L	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U
2-Nitroaniline	µg/L	46 U	46 U	48 U	46 U	46 U	46 U	46 U	48 U	46 U	46 U
2-Nitrophenol	µg/L	9.3 U	9.3								

Table 3.3

**2015 Analytical Results Summary-Bedrock
Love Canal Long-Term Monitoring Program
Glenn Springs Holdings, Inc.**

Sample Location:	10210C	10215	10225A	10225B	10225C	10225C	10270	10272	10278	MW-01	MW-02
Sample ID:	WG-9954-070215-SG-043	WG-9954-070215-SG-044	WG-9954-062615-SG-033	WG-9954-062615-SG-034	WG-9954-062415-SG-018	WG-9954-062415-SG-019	WG-9954-062515-SG-024	WG-9954-062515-SG-025	WG-9954-070115-SG-039	WG-9954-070115-SG-037	WG-9954-070115-SG-036
Sample Date:	7/2/2015	7/2/2015	6/26/2015	6/26/2015	6/24/2015	6/24/2015	6/25/2015	6/25/2015	7/1/2015	7/1/2015	7/1/2015
Parameters	Units										
Semi-volatile Organic Compounds-Continued											
Benzog(h,i)perylene	µg/L	1.9 U									
Benz(k)fluoranthene	µg/L	1.9 U									
Benzoi acid	µg/L	46 U	46 U	48 U	46 U	46 U	46 U	46 U	48 U	46 U	46 U
Benzyl alcohol	µg/L	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U
bis(2-Chloroethoxy)methane	µg/L	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U
bis(2-Chloroethyl)ether	µg/L	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	19 U									
Butyl benzylphthalate (BBP)	µg/L	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U
Chrysene	µg/L	1.9 U									
Dibenz(a,h)anthracene	µg/L	1.9 U									
Dibenofuran	µg/L	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U
Diethyl phthalate	µg/L	9.3 U	9.3 U	3.0 J	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U
Dimethyl phthalate	µg/L	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U
Di-n-butylphthalate (DBP)	µg/L	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U
Di-n-octyl phthalate (DnOP)	µg/L	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U
Fluoranthene	µg/L	1.9 U									
Fluorene	µg/L	1.9 U									
Hexachlorobenzene	µg/L	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U
Hexachlorobutadiene	µg/L	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U
Hexachlorocyclopentadiene	µg/L	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U
Hexachloroethane	µg/L	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U
Indeno(1,2,3-cd)pyrene	µg/L	1.9 U									
Isophorone	µg/L	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U
Naphthalene	µg/L	1.9 U	1.9 U	1.0 J	1.9 U						
Nitrobenzene	µg/L	19 U									
N-Nitrosodi-n-propylamine	µg/L	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U
N-Nitrosodiphenylamine	µg/L	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U
Pentachlorophenol	µg/L	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U
Phenanthrone	µg/L	1.9 U									
Phenol	µg/L	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U	9.3 U	9.3 U	9.6 U	9.3 U	9.3 U
Pyrene	µg/L	1.9 U									
Discrete Compounds Detected:	0	0	2	0	1	1	0	0	0	0	0
Polychlorinated Biphenyls (PCBs)											
Aroclor-1016 (PCB-1016)	µg/L	0.42 U	0.42 U	0.20 U	0.20 U	0.40 U	0.40 U	0.40 U	0.21 U	0.20 U	0.20 U
Aroclor-1221 (PCB-1221)	µg/L	0.42 U	0.42 U	0.20 U	0.20 U	0.40 U	0.40 U	0.40 U	0.21 U	0.20 U	0.20 U
Aroclor-1232 (PCB-1232)	µg/L	0.42 U	0.42 U	0.20 U	0.20 U	0.40 U	0.40 U	0.40 U	0.21 U	0.20 U	0.20 U
Aroclor-1242 (PCB-1242)	µg/L	0.42 U	0.42 U	0.20 U	0.20 U	0.40 U	0.40 U	0.40 U	0.21 U	0.20 U	0.20 U
Aroclor-1248 (PCB-1248)	µg/L	0.42 U	0.42 U	0.20 U	0.20 U	0.40 U	0.40 U	0.40 U	0.21 U	0.20 U	0.20 U
Aroclor-1254 (PCB-1254)	µg/L	0.42 U	0.42 U	0.20 U	0.20 U	0.40 U	0.40 U	0.40 U	0.21 U	0.20 U	0.20 U
Aroclor-1260 (PCB-1260)	µg/L	0.42 U	0.42 U	0.20 U	0.20 U	0.40 U	0.40 U	0.40 U	0.21 U	0.20 U	0.20 U
Discrete Compounds Detected:	0	0	0	0	0	0	0	0	0	0	0
Pesticides											
4,4'-DDD	µg/L	0.052 U	0.033 J	0.025 U	0.025 U	0.050 U	0.050 U	R	R	0.034	0.025 U
4,4'-DDE	µg/L	0.052 U	0.052 U	0.070	R	0.055 NJ	0.050 U	0.050 U	0.026 U	0.025 U	0.025 U
4,4'-DDT	µg/L	0.053 J	0.052 U	0.025 U	0.025 U	0.050 U	0.050 U	0.050 U	0.030	0.025 U	0.023 J
Aldrin	µg/L	0.052 U	0.087 U	0.025 U	0.025 U	0.039 J	0.047 J	0.050 U	0.026 U	0.025 U	0.025 U
alpha-BHC	µg/L	0.052 U	0.052 U	0.025 U	0.025 U	0.050 U	0.050 U	0.050 U	0.026 U	0.025 U	0.025 U
alpha-Chlordane	µg/L	0.052 U	0.052 U	0.025 U	0.025 U	0.050 U	0.050 U	0.050 U	0.026 U	0.025 U	0.025 U
beta-BHC	µg/L	0.052 U	0.052 U	R	R	0.050 U	0.050 U	0.050 U	R	0.025 U	0.025 U
delta-BHC	µg/L	0.052 U	0.061	R	0.025 U	0.066	0.085	R	0.035 J	0.042	0.025 J
Dieldrin	µg/L	0.052 U	0.052 U	0.025 U	0.025 U	0.050 U	0.050 U	0.050 U	0.026 U	0.025 U	0.025 U
Endosulfan I	µg/L	0.052 U	0.052 U	R	R	0.050 U	0.050 U	0.050 U	0.026 U	0.025 U	0.025 U
Endosulfan II	µg/L</										

Table 3.4

Page 1 of 1

Summary of Detected Compounds - 2015
Love Canal Long-Term Monitoring Program
Glenn Springs Holdings, Inc.

Overburden Wells	Well Group	VOCs	Number of Parameters Detected		
			SVOCs	PCBs	Pesticides
7120	A	U	U	U	U
7130	A	U	1	U	U
7132	A	U	U	U	U
7155	A	U	U	U	U
7161	A	U	U	U	U
8106	A	U	1	U	U
8110	A	U	U	U	U
8120	A	U	1	U	U
8130	A	U	U	U	U
8140	A	U	U	U	U
9110	A	U	U	U	U
9115	A	U	1	U	U
9120	A	U	U	U	U
9125	A	U	1	U	U
9130	A	U	1	U	U
9140	A	1	U	U	U
10105	A	U	1	U	U
10135	A	6	9	U	7
10147	A	U	1	U	1
10174A	X	U	U	U	U
Subtotal					
Overburden		7	17	0	8
Bedrock Wells		VOCs	SVOCs	PCBs	Pesticides
3257	A	1	U	U	2
5221	A	1	U	U	3
6209	A	U	U	U	U
7205	A	U	1	U	4
8210	A	1	1	U	2
9205	A	1	U	U	4
9210	A	1	U	U	4
10205	A	U	U	U	3
10210A	A	1	1	U	2
10210B	A	1	U	U	U
10210C	A	U	U	U	1
10215	A	1	U	U	3
10225A	A	U	2	U	1
10225B	A	1	U	U	4
10225C	A	3	1	U	2
10270	A	U	U	U	2
10272	A	U	U	U	U
10278	A	U	U	U	4
MW-01	X	U	U	U	2
MW-02	X	U	U	U	2
Subtotal Bedrock Well Detections		12	6	0	45
Total # of Detections		19	23	0	53

Notes:

- U - No parameters detected at or above detection limits
- A - Annual Well
- X - Additional annual well added to program in 2011
- PCBs - Polychlorinated Biphenyls
- SVOCs - Semi-volatile Organic Compounds
- VOCs - Volatile Organic Compounds

Table 3.5

Summary of Detected Compounds in Select Wells
Love Canal Long-Term Monitoring Program
Glenn Springs Holdings, Inc.

Well Number:	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A
Sample Date:	7/24/1990	8/22/1991	8/26/1992	8/11/1993	5/25/1995	7/1/1996	7/10/1997	6/26/1998	6/23/1999	6/21/2000	5/18/2001	6/13/2002	5/27/2003	6/3/2004	6/28/2005	7/6/2006	7/26/2007	7/17/2008	7/15/2009
Parameters																			
Volatiles (µg/L)																			
1,1,1-Trichloroethane																			
1,1,2,2-Tetrachloroethane																			
1,1,2-Trichloroethane																			
1,1-Dichloroethene																			
1,2-Dichloroethane																			
1,2-Dichloroethene (total)																			
1,2-Dichloropropane																			
2-Butanone (Methyl Ethyl Ketone)																			
2-Hexanone																			
Acetone	14C																		
Benzene																			
Bromoform																			
Bromomethane (Methyl bromide)																			
Carbon Disulfide																			
Chlorobenzene																			
Chloroform																			
Chlorotoluenes																			
cis-1,2-Dichloroethene																			
Dibromochloromethane																			
Dichlorotoluene, total																			
Ethylbenzene																			
m&p-Xylenes																			
Methylene Chloride																			
o-Xylene																			
Styrene																			
Tetrachloroethene																			
Toluene																			
trans-1,2-Dichloroethene																			
Trichloroethene																			
Trichlorotoluene, total																			
Vinyl Acetate																			
Vinyl Chloride																			
Xylenes (total)																			
Semi-volatiles (µg/L)																			
1,2,4-Trichlorobenzene																			
1,2-Dichlorobenzene																			
1,3-Dichlorobenzene																			
1,4-Dichlorobenzene																			
2,4,5-Trichlorophenol																			
2,4,6-Trichlorophenol																			
2,4-Dichlorophenol																			
2,4-Dimethylphenol																			
2-Chloronaphthalene																			
2-Chlorophenol																			
2-Methylnaphthalene																			
2-Methylphenol																			
2-Nitrophenol																			
3,5-Dichlorotoluene																			
4-Chloro-3-methylphenol																			
4-Chlorophenyl phenyl ether																			
4-Methylphenol																			
Acetic acid																			
Anthracene																			
Benzo(a)pyrene																			
Benzo(b)fluoranthene																			
Benzo(g,h,i)perylene																			
Benzo(k)fluoranthene																			
Benzoic Acid								12 J						3 J	3 J	2.7 J			5.8 J
Benzyl Alcohol																			
Bis(2-Chloroethyl)Ether																			

Table 3.5

Summary of Detected Compounds in Select Wells
Love Canal Long-Term Monitoring Program
Glenn Springs Holdings, Inc.

Well Number:	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	
Sample Date:	7/24/1990	8/22/1991	8/26/1992	8/11/1993	5/25/1995	7/1/1996	7/10/1997	6/26/1998	6/23/1999	6/21/2000	5/18/2001	6/13/2002	5/27/2003	6/3/2004	6/28/2005	7/6/2006	7/26/2007	7/17/2008	7/15/2009

Parameters**Semi-volatiles (µg/L)-Continued**

bis(2-Ethylhexyl)Phthalate	12	21	31	51												1 J	1.7 J	8 J	2.5 J
Butyl benzylphthalate (BBP)				3															
Camphor																			
Carbazole																			
Chlorobenzoic acid																			
Chrysene																			
Dibenz(a,h)anthracene																			
Diethyl phthalate																			
Dimethyl Phthalate	16																		
Dimethyl tetrasulfide				22															
Di-n-butyl phthalate (DBP)		2			0.9														
Di-n-octyl phthalate (DnOP)		3B																	
Fluoranthene																			
Hexachlorobenzene																			
Hexachloroethane																			
Indeno(1,2,3-cd)pyrene																			
Naphthalene																			
N-Nitrosodiphenylamine																			
Pentachlorophenol																			
Phenanthrene																			
Phenol														1 J		5 J		1 J	1.7 J
Pyrene																			

Pesticides/PCBs (µg/L)

4,4'-DDD															0.013 J				
4,4'-DDE																			
Aldrin																			
Alpha-BHC														0.28					
Alpha-Chlordane																			
Aroclor-1260 (PCB-1260)																			
betaγ-BHC (sum of isomers)																			
Beta-BHC														0.035 J		0.020 J	0.011 J		0.015 J
Delta-BHC		0.0061														0.062 J	0.043 J		
Dieldrin																			
Endosulfan I														0.046 J					
Endosulfan II																			
Endosulfan Sulfate																			
Endrin																			
Endrin ketone																			
Gamma-BHC (Lindane)														0.10 J		0.039 J			
Gamma-Chlordane																			
Heptachlor																			
Heptachlor epoxide																			
Methoxychlor																			

Table 3.5

Summary of Detected Compounds in Select Wells
Love Canal Long-Term Monitoring Program
Glenn Springs Holdings, Inc.

Well Number:	10210A	10210A	10210A	10210A	10210A	10210A	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B		
Sample Date:	6/24/2010	7/19/2011	6/22/2012	6/13/2013	6/27/2014	6/26/2015	7/24/1990	8/22/1991	8/26/1992	8/11/1993	6/15/1994	6/1/1995	7/5/1996	7/1/1997	6/18/1998	6/24/1999	6/15/2000	5/17/2001	6/10/2002

Parameters**Volatiles (µg/L)**

1,1,1-Trichloroethane																			
1,1,2,2-Tetrachloroethane																			
1,1,2-Trichloroethane																			
1,1-Dichloroethene																			0.06
1,2-Dichloroethane																			
1,2-Dichloroethene (total)																			
1,2-Dichloropropane																			
2-Butanone (Methyl Ethyl Ketone)																			4
2-Hexanone																			
Acetone	5.2 J																		12 J
Benzene																			0.3
Bromoform																			0.3
Bromomethane (Methyl bromide)																			0.2
Carbon Disulfide		2.7 J					2.9 J												2
Chlorobenzene																			0.2
Chloroform																			
Chlorotoluenes																			
cis-1,2-Dichloroethene																			
Dibromochloromethane																			
Dichlorotoluene, total																			
Ethylbenzene																			0.2
m&p-Xylenes																			0.08
Methylene Chloride																			0.4
o-Xylene																			0.2
Styrene																			
Tetrachloroethene																			0.06
Toluene																			1.8
trans-1,2-Dichloroethene																			0.5
Trichloroethene	6.3																		0.1
Trichlorotoluene, total																			0.1
Vinyl Acetate																			
Vinyl Chloride																			
Xylenes (total)																			0.5

Semi-volatiles (µg/L)

1,2,4-Trichlorobenzene																			
1,2-Dichlorobenzene																			
1,3-Dichlorobenzene																			
1,4-Dichlorobenzene																			
2,4,5-Trichlorophenol																			
2,4,6-Trichlorophenol																			
2,4-Dichlorophenol																			
2,4-Dimethylphenol																			
2-Chloronaphthalene																			
2-Chlorophenol																			
2-Methylnaphthalene																			0.06
2-Methylphenol																			
2-Nitrophenol																			
3,5-Dichlorotoluene																			
4-Chloro-3-methylphenol																			
4-Chlorophenyl phenyl ether																			
4-Methylphenol																			0.2
Acetic acid																			
Anthracene																			
Benzo(a)pyrene																			0.07
Benzo(b)fluoranthene																			0.08
Benzo(g,h,i)perylene																			0.1
Benzo(k)fluoranthene																			0.04
Benzoic Acid																			
Benzyl Alcohol																			
Bis(2-Chloroethyl)Ether																			

Table 3.5

Summary of Detected Compounds in Select Wells
Love Canal Long-Term Monitoring Program
Glenn Springs Holdings, Inc.

Well Number:	10210A	10210A	10210A	10210A	10210A	10210A	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B		
Sample Date:	6/24/2010	7/19/2011	6/22/2012	6/13/2013	6/27/2014	6/26/2015	7/24/1990	8/22/1991	8/26/1992	8/11/1993	6/15/1994	6/1/1995	7/5/1996	7/1/1997	6/18/1998	6/24/1999	6/15/2000	5/17/2001	6/10/2002

Parameters**Semi-volatiles (µg/L)-Continued**

bis(2-Ethylhexyl)Phthalate	7 B	13	11	9	55	6 J
Butyl benzylphthalate (BBP)			0.2			
Camphor						
Carbazole			0.05			
Chlorobenzoic acid						
Chrysene						
Dibenz(a,h)anthracene			0.1			
Diethyl phthalate			0.3			
Dimethyl Phthalate						
Dimethyl tetrasulfide						
Di-n-butyl phthalate (DBP)	1	1		0.6		3 J
Di-n-octyl phthalate (DnOP)				0.1		
Fluoranthene				0.04		
Hexachlorobenzene						
Hexachloroethane						
Indeno(1,2,3-cd)pyrene			0.1			
Naphthalene	0.41 J					
N-Nitrosodiphenylamine			0.2			
Pentachlorophenol	1			0.3		
Phenanthere				0.07		
Phenol	3	3		2		
Pyrene				0.04		

Pesticides/PCBs (µg/L)

4,4'-DDD						
4,4'-DDE						
Aldrin						
Alpha-BHC	0.14 J					
Alpha-Chlordane		0.030				
Aroclor-1260 (PCB-1260)						
betaγ-BHC (sum of isomers)						
Beta-BHC	0.12 J					
Delta-BHC	0.12 J	0.067 J				
Dieldrin						
Endosulfan I						
Endosulfan II						
Endosulfan Sulfate						
Endrin						
Endrin ketone						
Gamma-BHC (Lindane)	0.12 J					
Gamma-Chlordane						
Heptachlor						
Heptachlor epoxide						
Methoxychlor						

Table 3.5

Summary of Detected Compounds in Select Wells
Love Canal Long-Term Monitoring Program
Glenn Springs Holdings, Inc.

Well Number:	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210C	10210C	10210C	10210C	
Sample Date:	5/23/2003	6/2/2004	6/24/2005	6/28/2006	7/26/2007	7/17/2008	7/9/2009	6/15/2010	7/14/2011	6/18/2012	6/15/2013	6/26/2014	7/2/2015	7/25/1990	8/22/1991	8/26/1992	8/11/1993

Parameters

Volatiles (µg/L)																	
1,1,1-Trichloroethane																	
1,1,2,2-Tetrachloroethane																	
1,1,2-Trichloroethane																	
1,1-Dichloroethene																	
1,2-Dichloroethane																	
1,2-Dichloroethene (total)																	
1,2-Dichloropropane																	
2-Butanone (Methyl Ethyl Ketone)	23																
2-Hexanone																	
Acetone															10 B		19 B
Benzene																	
Bromoform																	
Bromomethane (Methyl bromide)																	
Carbon Disulfide	2 J		1.4 J	1 J	6 J			4.0 J	4.6 J	6.1 J		2.9 J	7.9				0.6
Chlorobenzene		1 J															
Chloroform																	
Chlorotoluenes																	
cis-1,2-Dichloroethene																	
Dibromochloromethane																	
Dichlorotoluene, total																	
Ethylbenzene																	
m&p-Xylenes																	
Methylene Chloride													1.2 J				0.2
o-Xylene																	
Styrene																	
Tetrachloroethene	9 J																
Toluene		1.1 J												3			
trans-1,2-Dichloroethene																	
Trichloroethene																	
Trichlorotoluene, total																	
Vinyl Acetate																	
Vinyl Chloride																	
Xylenes (total)																	
Semi-volatiles (µg/L)																	
1,2,4-Trichlorobenzene		3 J															
1,2-Dichlorobenzene																	
1,3-Dichlorobenzene																	
1,4-Dichlorobenzene																	
2,4,5-Trichlorophenol																	
2,4,6-Trichlorophenol																	
2,4-Dichlorophenol																	
2,4-Dimethylphenol																	
2-Chloronaphthalene																	
2-Chlorophenol																	
2-Methylnaphthalene																	
2-Methylphenol															5		
2-Nitrophenol																	
3,5-Dichlorotoluene																	
4-Chloro-3-methylphenol																	
4-Chlorophenyl phenyl ether																	
4-Methylphenol															6		
Acetic acid																11	
Anthracene																	
Benzo(a)pyrene																	
Benzo(b)fluoranthene																	
Benzo(g,h,i)perylene																	
Benzo(k)fluoranthene																	
Benzoic Acid			2 J														
Benzyl Alcohol																	
Bis(2-Chloroethyl)Ether																	

Table 3.5

Summary of Detected Compounds in Select Wells
Love Canal Long-Term Monitoring Program
Glenn Springs Holdings, Inc.

Well Number:	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210C	10210C	10210C	10210C	
Sample Date:	5/23/2003	6/2/2004	6/24/2005	6/28/2006	7/26/2007	7/17/2008	7/9/2009	6/15/2010	7/14/2011	6/18/2012	6/15/2013	6/26/2014	7/2/2015	7/25/1990	8/22/1991	8/26/1992	8/11/1993

Parameters**Semi-volatiles (µg/L)-Continued**

bis(2-Ethylhexyl)Phthalate	4 J	4.5 J	3 J											7 B	13		8
Butyl benzylphthalate (BBP)														1			0.4
Camphor																	
Carbazole																	
Chlorobenzoic acid																	
Chrysene																	
Dibenzo(a,h)anthracene																	
Diethyl phthalate														1.8 J		1	0.2
Dimethyl Phthalate																	
Dimethyl tetrasulfide																	
Di-n-butyl phthalate (DBP)														2	3		0.5
Di-n-octyl phthalate (DnOP)																	0.04
Fluoranthene																	
Hexachlorobenzene		1 J															
Hexachloroethane															1		
Indeno(1,2,3-cd)pyrene																	
Naphthalene																	
N-Nitrosodiphenylamine																	
Pentachlorophenol																	
Phenanthrene																	0.03
Phenol														2	6		
Pyrene																	

Pesticides/PCBs (µg/L)

4,4'-DDD																	
4,4'-DDE		0.011 J															
Aldrin			.0089 J														
Alpha-BHC	19	2.4	0.37	.58	0.016 J		0.050 / 0.064			0.048 J							
Alpha-Chlordane																	
Aroclor-1260 (PCB-1260)																	
betaγ-BHC (sum of isomers)																	
Beta-BHC	1.9	0.53	0.082 P	.082													
Delta-BHC		0.56 J	0.15		.047 J			0.028 J / 0.032 J	0.050 J	0.042 J							
Dieldrin			0.13 J														
Endosulfan I			0.11 J														
Endosulfan II																	
Endosulfan Sulfate																	
Endrin																	
Endrin ketone																	
Gamma-BHC (Lindane)	2.1	0.39	0.046 J	.099			0.038 J / 0.033 J			0.061 J							
Gamma-Chlordane		0.15 J															
Heptachlor										0.053 J							
Heptachlor epoxide			0.35 J														
Methoxychlor																	

Table 3.5

Summary of Detected Compounds in Select Wells
Love Canal Long-Term Monitoring Program
Glenn Springs Holdings, Inc.

Well Number:	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	
Sample Date:	6/1/1995	7/1/1996	7/1/1997	6/22/1998	6/24/1999	6/15/2000	5/17/2001	6/10/2002	5/23/2003	6/7/2004	6/23/2005	6/28/2006	7/26/2007	7/16/2008	7/13/2009	6/15/2010	7/14/2011	6/22/2012	6/15/2013

Parameters**Volatiles (µg/L)**

1,1,1-Trichloroethane

1,1,2,2-Tetrachloroethane

1,1,2-Trichloroethane

1,1-Dichloroethene

1,2-Dichloroethane

1,2-Dichloroethene (total)

1,2-Dichloropropane

2-Butanone (Methyl Ethyl Ketone)

2-Hexanone

Acetone

2100

8 J

9 J

1.9 J

Benzene

Bromoform

Bromomethane (Methyl bromide)

Carbon Disulfide

3 J

2 J

U/1.4 J

Chlorobenzene

Chloroform

Chlorotoluenes

cis-1,2-Dichloroethene

Dibromochloromethane

Dichlorotoluene, total

Ethylbenzene

m&p-Xylenes

Methylene Chloride

o-Xylene

Styrene

Tetrachloroethene

Toluene

29 / 23

6 J

trans-1,2-Dichloroethene

Trichloroethene

Trichlorotoluene, total

Vinyl Acetate

Vinyl Chloride

Xylenes (total)

Semi-volatiles (µg/L)

1,2,4-Trichlorobenzene

6 J

1,2-Dichlorobenzene

1,3-Dichlorobenzene

1,4-Dichlorobenzene

2,4,5-Trichlorophenol

2,4,6-Trichlorophenol

2,4-Dichlorophenol

2,4-Dimethylphenol

2-Chloronaphthalene

2-Chlorophenol

2-Methylnaphthalene

2-Methylphenol

2-Nitrophenol

3,5-Dichlorotoluene

4-Chloro-3-methylphenol

4-Chlorophenyl phenyl ether

4-Methylphenol

29 110 62 0.6J

Acetic acid

Anthracene

Benzo(a)pyrene

Benzo(b)fluoranthene

Benzo(g,h,i)perylene

Benzo(k)fluoranthene

Benzoic Acid

Benzyl Alcohol

Bis(2-Chloroethyl)Ether

Table 3.5

Summary of Detected Compounds in Select Wells
Love Canal Long-Term Monitoring Program
Glenn Springs Holdings, Inc.

Well Number:	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	
Sample Date:	6/1/1995	7/1/1996	7/1/1997	6/22/1998	6/24/1999	6/15/2000	5/17/2001	6/10/2002	5/23/2003	6/7/2004	6/23/2005	6/28/2006	7/26/2007	7/16/2008	7/13/2009	6/15/2010	7/14/2011	6/22/2012	6/15/2013

Parameters**Semi-volatiles (µg/L)-Continued**

bis(2-Ethylhexyl)Phthalate	29 / 5 J	5 J
Butyl benzylphthalate (BBP)		
Camphor		
Carbazole		
Chlorobenzoic acid		
Chrysene		
Dibenzo(a,h)anthracene		
Diethyl phthalate		4.4 J
Dimethyl Phthalate		0.87 J
Dimethyl tetrasulfide		
Di-n-butyl phthalate (DBP)		
Di-n-octyl phthalate (DnOP)		
Fluoranthene		
Hexachlorobenzene		
Hexachloroethane		
Indeno(1,2,3-cd)pyrene		
Naphthalene		
N-Nitrosodiphenylamine		
Pentachlorophenol		
Phenanthrene		
Phenol	22	22
Pyrene		

Pesticides/PCBs (µg/L)

4,4'-DDD		
4,4'-DDE		
Aldrin	0.061 J	
Alpha-BHC	0.083	0.45 J
Alpha-Chlordane		
Aroclor-1260 (PCB-1260)		
betaγ-BHC (sum of isomers)		
Beta-BHC	0.048 J	
Delta-BHC	0.019 J / 0.017 J	0.052 J
Dieldrin		0.048 J
Endosulfan I		
Endosulfan II		
Endosulfan Sulfate		
Endrin	0.14 J	
Endrin ketone		
Gamma-BHC (Lindane)	0.11 J	
Gamma-Chlordane		0.018 J
Heptachlor		
Heptachlor epoxide		
Methoxychlor		

Table 3.5

Summary of Detected Compounds in Select Wells
Love Canal Long-Term Monitoring Program
Glenn Springs Holdings, Inc.

Well Number:	10210C	10210C	10135	10135	10135	10135	10135	10135	10135	10135	10135	10135	10135	10135	10135	10135	10135	10135							
Sample Date:	6/26/2014	7/2/2015	9/13/1990	8/29/1991	8/26/1992	8/19/1993	8/19/1993	6/22/1994	6/1/1995	6/27/1996	7/7/1997	6/17/1998	6/16/1999	6/22/2000	5/11/2001	6/12/2002	5/19/2003	5/28/2004	6/17/2005						
Parameters																									
Volatiles (µg/L)																									
1,1,1-Trichloroethane																									
1,1,2,2-Tetrachloroethane									8	14															
1,1,2-Trichloroethane									12	51	26	94 J	29 / 32	27 J / 26 J	120 J / 100 J	56	38								
1,1-Dichloroethene											14	29 J	15 / 12	16 J / 14 J	29 J / 34 J	27									
1,2-Dichloroethane									6	15	3		4 J / 3 J	4 J / 4 J	4 J / 4 J	4 J	3 J								
1,2-Dichloroethene (total)									700	840	650	670 JD	560			600 J / 560	490 J								
1,2-Dichloropropane																									
2-Butanone (Methyl Ethyl Ketone)											36					10 J	11 J / 12 J								
2-Hexanone																									
Acetone									50	270	100 B	100 J	60	110 J	28 J / 46 J	72	74								
Benzene									6200	6700	5200	6000 E	4900 D	4800	5000 / 5600	5300 J	5700 / 5600	6900 J / 6400 D	8500 J / 7600	5900 / 6400	5500	5400			
Bromoform																									
Bromomethane (Methyl bromide)																									
Carbon Disulfide																2 J									
Chlorobenzene									2380	2400	2600	1700 E	2900 E	2000 D	1500	2300 / ND	1900 J	1900 / 1800	2300 J / 2300 J	3000 J / 2700 J	2200 / 2400	1900	2000		
Chloroform											100	120	86 J	110			150 J	110 / 120	130 J / 100 J	160 J / 150 J	160	110			
Chlorotoluenes									16600	16000															
cis-1,2-Dichloroethene																									
Dibromochloromethane																									
Dichlorotoluene, total									14000	140															
Ethylbenzene									12	10	13	12				12	9 J / 10 J	12 J / 12 J	24 J / 22 J	15	10				
m&p-Xylenes																				39	29				
Methylene Chloride									5		41	8	11							39	26				
o-Xylene																				12	9 J				
Styrene											4														
Tetrachloroethene									50		8	32				40 J	13 / 12	16 J / 14 J	50 J / 61 J	38	18				
Toluene									22800	26000	2700	17000	21500	18000 D	14000	19000 / 17000	16000 J	16000 / 17000	21000 D / 21000 J	24000 / 22000	20000 j / 19000	15000	16000		
trans-1,2-Dichloroethene									20							58 J	67 / 70	67 J / 70 J	59 J / 60 J						
Trichloroethene									260	450	24	140	18 J	36			170 J	58 / 70	60 J / 72 J	180 J / 140 J	160 / 130 J	91			
Trichlorotoluene, total									40																
Vinyl Acetate										6800															
Vinyl Chloride											61	44 J	50			48 J	62 / 61	110 J / 85 J	66 J / 75 J	48	51				
Xylenes (total)									50	30	47	10 B	37 J	28			55 J	44 / 43	42 J / 44 J						
Semi-volatiles (µg/L)																									
1,2,4-Trichlorobenzene									80	290	74	87 B				78 J	45 J / 65 J	45 J / 36 J	65 J / 42 J	97 J	67 J				
1,2-Dichlorobenzene									50	16	35	34					24 J / 30 J	18 J / 22 J	48 J	59 J	36 J				
1,3-Dichlorobenzene											4														
1,4-Dichlorobenzene									120	47	110	94	91					61 J / 74 J	59 J / 52 J	110 J / 69 J	160 J	100 J			
2,4,5-Trichlorophenol									860	130	70	59				38 J		0.9 J							
2,4,6-Trichlorophenol										120		8						1 J							
2,4-Dichlorophenol									830	1200B	420	610	150			2100 / 2100	2000	690 / 610	1400 J / 470 J	620 J / 1200 J	1800 J / 1500 J	1700	420		
2,4-Dimethylphenol											9							2 J							
2-Chloronaphthalene												150							370 J / 550 J						
2-Chlorophenol											20					28 J	25 J								
2-Methylnaphthalene																									
2-Methylphenol											51	46					55 J	42 J / 35 J							

Table 3.5

Summary of Detected Compounds in Select Wells
Love Canal Long-Term Monitoring Program
Glenn Springs Holdings, Inc.

Well Number:	10210C	10210C	10135	10135	10135	10135	10135	10135	10135	10135	10135	10135	10135	10135	10135	10135	10135	
Sample Date:	6/26/2014	7/2/2015	9/13/1990	8/29/1991	8/26/1992	8/19/1993	8/26/1994	6/1/1995	6/27/1996	7/7/1997	6/17/1998	6/16/1999	6/22/2000	5/11/2001	6/12/2002	5/19/2003	5/28/2004	6/17/2005

Parameters**Semi-volatiles (µg/L)-Continued**

bis(2-Ethylhexyl)Phthalate	50	2	41 J / 24 J
Butyl benzylphthalate (BBP)			
Camphor	130		
Carbazole			
Chlorobenzoic acid	4000		
Chrysene		0.2	
Dibenz(a,h)anthracene			
Diethyl phthalate		1	
Dimethyl Phthalate			
Dimethyl tetrasulfide			
Di-n-butyl phthalate (DBP)			
Di-n-octyl phthalate (DnOP)			
Fluoranthene		0.2	
Hexachlorobenzene			
Hexachloroethane			
Indeno(1,2,3-cd)pyrene			
Naphthalene			1400 J / 2000 J 4000 J / 1800 J 1400 / 1100
N-Nitrosodiphenylamine			
Pentachlorophenol	52	4	
Phenanthrene			
Phenol	10	98	91 140
Pyrene			120 / 96 J 51 J 180 J

Pesticides/PCBs (µg/L)

4,4'-DDD																	0.19 J
4,4'-DDE																	
Aldrin	0.53	0.24 P															
Alpha-BHC	84	42 C	24 CEP	28 D	29	39 / 39	59	40 / 37 J	50 / 50	43 J / 50 J	43 / 39	49					15
Alpha-Chlordane																	
Aroclor-1260 (PCB-1260)																	
betaγ-BHC (sum of isomers)		19.5	20.4														
Beta-BHC				10 D	11	8.1 / 8.6	12	12 / 11 J	15 / 16	16 J / 16 J	14 J / 13 J	15 J					3.4
Delta-BHC	15	9.8	7.5 CE	4.7	5.2	5.1 / ND	8.9	11 / 9.6 J	13 / 14	10 J / 12 J	9.0 J / 11 J	12					9.1
Dieldrin																	
Endosulfan I								0.34 J / 0.43 J									
Endosulfan II									0.52 J / 0.69 J								0.15 J
Endosulfan Sulfate				0.43 P					0.18 / 0.17 J	0.17 J							1.3 J
Endrin	0.13				0.15 P												
Endrin ketone																	
Gamma-BHC (Lindane)		33				2.4 J	6.2 J / 5.1 J	6.5 J	5.5 / 4.1 J	6.4 / 8.0	7.3 J / 5.0 J	7.1 J / 6.1 J	7.1				
Gamma-Chlordane										0.18 J / 0.16 J							0.29 J / 0.35 J
Heptachlor									0.63 / 0.68 JN								0.61 J
Heptachlor epoxide									0.043 J / 0.058 J	0.031 J / 0.029 J							0.016 J / 0.025 J
Methoxychlor																	2.2 J
																	0.053

Table 3.5

Summary of Detected Compounds in Select Wells
Love Canal Long-Term Monitoring Program
Glenn Springs Holdings, Inc.

Well Number:	10135	10135	10135	10135	10135	10135	10135	10135	10135	10135	10135
Sample Date:	6/28/2005	6/26/2006	7/18/2007	7/23/2008	6/25/2009	6/16/2010	7/13/2011	6/12/2012	6/18/2013	6/13/2014	6/25/2015
Parameters											
Volatiles (µg/L)											
1,1,1-Trichloroethane				16 J	25 / 24						
1,1,2,2-Tetrachloroethane				15 J	9.1 J / 8.7 J						
1,1,2-Trichloroethane				2 J							
1,1-Dichloroethene											
1,2-Dichloroethane											
1,2-Dichloroethene (total)											
1,2-Dichloropropane											
2-Butanone (Methyl Ethyl Ketone)					5.8 J / 6.1 J						
2-Hexanone											
Acetone	200 J	53 J		42 / 37	39						
Benzene	5700	6800	7100	5300	7500 / 7600	3400	2200	5900	2500	6100	6200
Bromoform											
Bromomethane (Methyl bromide)											
Carbon Disulfide				2 J							
Chlorobenzene	2100	2400	2100	1400	2900 J / 3000 J	1300	1100	2500	730	2300	2600
Chloroform		110 J	140 J	99 J	96 / 97	160	67	130 J			180 J
Chlorotoluenes											
cis-1,2-Dichloroethene	630		79 J	79 / 76	110	38 J					
Dibromochloromethane											
Dichlorotoluene, total											
Ethylbenzene			10 J		10 / 10	13					
m&p-Xylenes											
Methylene Chloride	100 J	44 J	32 J	25 / 24	38	16 J					150 J
o-Xylene											
Styrene											
Tetrachloroethene			13 J	14 / 14	19	9.5 J					
Toluene	18000	21000	23000	13000	24000 / 24000	11000	3100	14000	6100	20000	20000
trans-1,2-Dichloroethene		52 J	50 J	32 J	30 / 30	48	17 J				
Trichloroethene		46 J	89 J	27 J	91 / 89	140	52				110 J
Trichlorotoluene, total											
Vinyl Acetate											
Vinyl Chloride				27 / 17	31						
Xylenes (total)			37 J	44 / 53	51						
Semi-volatiles (µg/L)											
1,2,4-Trichlorobenzene	63	47 J	28	110 / 110	78 J	76 J	74 J	69	64 J		
1,2-Dichlorobenzene	37	31 J	10 J	68 / 52	57 J	45 J		45	34 J	47 J	
1,3-Dichlorobenzene	3 J	87 J		4.1 J / 5.5 J				5.2 J			
1,4-Dichlorobenzene	110 J	100	84 J	24	150 J / 100 J	150 J	130 J	110 J	130	94 J	140 J
2,4,5-Trichlorophenol		8 J							10		
2,4,6-Trichlorophenol			6 J	28 / 23				12			
2,4-Dichlorophenol	300 J	250	490	150	1200 / 1100	780	590	240	360	660	790
2,4-Dimethylphenol								150 J	210		
2-Chloronaphthalene		18		17 J	31 / 26				28		
2-Chlorophenol											
2-Methylnaphthalene											
2-Methylphenol	33	34 J	140	66 J / 50 J	42 J	30 J		29	23 J	44 J	
2-Nitrophenol											
3,5-Dichlorotoluene											
4-Chloro-3-methylphenol	15		26	95 / 97	31 J			23			
4-Chlorophenyl phenyl ether											
4-Methylphenol	98 J	110	120 J	110	170 J / 140 J	130 J	83 J		89	53 J	93 J
Acetic acid											
Anthracene											
Benzo(a)pyrene											
Benzo(b)fluoranthene											
Benzo(g,h,i)perylene											
Benzo(k)fluoranthene											
Benzoic Acid	4700 J	14000 J	14000	7600 J	39000 J / 54000 J	9500	11000	8700	16000	14000	16000
Benzyl Alcohol		48	580	38	1200 / 1300	610	450	600 J	380 J	290	250
Bis(2-Chloroethyl)Ether		24	30 J	16 J	29 / 28	34 J	28 J		26	19 J	27 J

Table 3.5

Summary of Detected Compounds in Select Wells
Love Canal Long-Term Monitoring Program
Glenn Springs Holdings, Inc.

Well Number:	10135	10135	10135	10135	10135	10135	10135	10135	10135	10135	10135
Sample Date:	6/28/2005	6/26/2006	7/18/2007	7/23/2008	6/25/2009	6/16/2010	7/13/2011	6/12/2012	6/18/2013	6/13/2014	6/25/2015
Parameters											
Semi-volatiles (µg/L)-Continued											
bis(2-Ethylhexyl)Phthalate		53			4.4 J / 4.2 J						
Butyl benzylphthalate (BBP)											
Camphor											
Carbazole											
Chlorobenzoic acid											
Chrysene											
Dibenz(a,h)anthracene											
Diethyl phthalate											
Dimethyl Phthalate											
Dimethyl tetrasulfide											
Di-n-butyl phthalate (DBP)											
Di-n-octyl phthalate (DnOP)											
Fluoranthene											
Hexachlorobenzene											
Hexachloroethane											
Indeno(1,2,3-cd)pyrene											
Naphthalene		4500 J									
N-Nitrosodiphenylamine											
Pentachlorophenol											
Phenanthrene											
Phenol	100 J	140	130 J	96	140 J / 160 J	100	82	89 J	92	62	87 J
Pyrene											
Pesticides/PCBs (µg/L)											
4,4'-DDD	0.11 J		0.081 J	0.13 J		0.048 J		0.036 J	0.089 J		
4,4'-DDE									0.053		
Aldrin			0.073	0.052 J	0.55 J / 0.55 J	0.063 J			0.16 J	0.060 J	
Alpha-BHC	21 C	35	12	17	27 J / 32 J	4.0	21	7.1 J	20	21 J	20
Alpha-Chlordane			0.011 J		12 J / 11 J						
Aroclor-1260 (PCB-1260)											
betaγ-BHC (sum of isomers)											
Beta-BHC	5.6	7.1	3.7	4.4	11 J / 9.1 J	4.1	7.1	3.1	5.9	5.3 J	4.7
Delta-BHC	9.1	13	4.7	6.3	11 J / 12	0.28	7.3	1.6 J	5.2	4.8 J	7.4
Dieleadrin											
Endosulfan I											
Endosulfan II					1.6 J / 2.3			0.053 J	0.12 J		
Endosulfan Sulfate			0.34	0.37 J	1.5 J					0.035 J	
Endrin			0.034 J		1.9 / 1.3 J					1.4	
Endrin ketone										0.067 J	
Gamma-BHC (Lindane)	0.32 J	4.8	2.1	2	7.4 J / 6.2 J	0.92	4.1	1.4 J	3.9	4.3 J	3.2
Gamma-Chlordane	.33 J		0.017 J						0.065	0.064 J	1.1 J
Heptachlor			0.092	0.19 J				0.71	0.15 J	0.23 J	
Heptachlor epoxide			0.29	0.13 J	1.6 J / 1.7 J	0.10 J		0.089 J	0.22 J	0.23 J	
Methoxychlor								0.036 J			

Notes:

- D - Sample result is from a dilution
- C - Sample result was confirmed
- E - Sample result was greater than the highest calibration level
- N - Validator qualifier-presumptive certainty, usually used when there is a large difference in dual column results
- P - Lab qualifier used when there are large differences in dual column results
- J - Estimated concentration
- U - Not detected at the associated reporting limit
- B - Detected in the blank sample
- Blank - Not detected
- PCBs - Polychlorinated Biphenyls

Table 3.6A

1140 Series Piezometers Water Levels - 2015
Love Canal Long-Term Monitoring Program
Glenn Springs Holdings, Inc.

A Wells

Date	Well **					
	1144 (ft. AMSL)	1143 (ft. AMSL)	1142 (ft. AMSL)	1141 (ft. AMSL)	Tile Drain (ft. AMSL)	1140 (ft. AMSL)
03/02/15	570.45	569.98	569.57	565.74	561.70	563.85
06/01/15	571.34	571.13	570.63	566.11	561.70	563.71
09/02/15	570.18	569.91	569.78	566.26	561.70	564.15
12/01/15	569.78	569.26	569.14	565.91	561.70	564.19

B Wells

Date	Well **					
	1144 (ft. AMSL)	1143 (ft. AMSL)	1142 (ft. AMSL)	1141 (ft. AMSL)	Tile Drain (ft. AMSL)	1140 (ft. AMSL)
03/02/15	570.58	570.06	567.47	566.27	561.70	564.22
06/01/15	571.46	571.33	568.01	566.62	561.70	564.13
09/02/15	570.15	570.07	568.01	566.76	561.70	564.51
12/01/15	569.72	569.27	567.47	566.44	561.70	564.56

C Wells

Date	Well **			
	1144 (ft. AMSL)	1143 (ft. AMSL)	1142 (ft. AMSL)	Tile Drain (ft. AMSL)
03/02/15	570.27	568.74	566.07	561.70
06/01/15	571.28	569.74	566.29	561.70
09/02/15	570.02	569.21	566.48	561.70
12/01/15	569.52	568.43	566.17	561.70

D Wells

Date	Well **		
	1144 (ft. AMSL)	1143 (ft. AMSL)	Tile Drain (ft. AMSL)
03/02/15	569.19	567.82	561.70
06/01/15	570.08	568.39	561.70
09/02/15	569.61	568.44	561.70
12/01/15	568.76	567.83	561.70

Notes:

**
ft. AMSL

- Wells listed from left to right in order from most distant outside of tile drain, to tile drain, then inside of tile drain
- Feet above mean sea level.

Table 3.6B

1150 Series Piezometers Water Levels - 2015
Love Canal Long-Term Monitoring Program
Glenn Springs Holdings, Inc.

A Wells

Date	Well **			
	1154 (ft. AMSL)	1153 (ft. AMSL)	1151 (ft. AMSL)	Tile Drain (ft. AMSL)
03/02/15	571.51	568.63	567.00	561.85
06/01/15	572.43	569.25	566.68	561.85
09/02/15	572.22	568.84	566.86	561.85
12/01/15	572.21	569.62	567.22	561.85

B Wells

Date	Well **			
	1154 (ft. AMSL)	1153 (ft. AMSL)	1151 (ft. AMSL)	Tile Drain (ft. AMSL)
03/02/15	567.72	569.20	567.47	561.85
06/01/15	567.65	568.53	567.48	561.85
09/02/15	567.83	568.91	567.61	561.85
12/01/15	568.14	569.27	567.87	561.85

C Wells

Date	Well **			
	1154 (ft. AMSL)	1153 (ft. AMSL)	1151 (ft. AMSL)	Tile Drain (ft. AMSL)
03/02/15	568.06	570.50	568.23	561.85
06/01/15	568.00	570.77	569.22	561.85
09/02/15	568.08	569.82	568.06	561.85
12/01/15	568.07	570.44	568.04	561.85

D Wells

Date	Well **	
	1153 (ft. AMSL)	Tile Drain (ft. AMSL)
03/02/15	568.29	561.85
06/01/15	568.67	561.85
09/02/15	568.15	561.85
12/01/15	568.11	561.85

Notes:

** - Wells listed from left to right in order from most distant outside of tile drain, to tile drain, then inside of tile drain.
 ft. AMSL - Feet above mean sea level.

Table 3.6C

1160 Series Piezometers Water Levels - 2015
Love Canal Long-Term Monitoring Program
Glenn Springs Holdings, Inc.

A Wells

Date	Well **						1160 (ft. AMSL)
	10176 (ft. AMSL)	1165 (ft. AMSL)	1163 (ft. AMSL)	1162 (ft. AMSL)	1161 (ft. AMSL)	Tile Drain (ft. AMSL)	
03/02/15	569.41	571.64	568.49	569.18	565.23	560.60	565.05
06/01/15	568.91	572.23	568.41	570.07	565.11	560.60	564.70
09/02/15	568.52	572.15	568.63	569.63	565.12	560.60	564.81
12/01/15	569.06	571.74	568.78	569.24	565.37	560.60	565.28

B Wells

Date	Well **				
	10176 (ft. AMSL)	1165 (ft. AMSL)	1163 (ft. AMSL)	1161 (ft. AMSL)	Tile Drain (ft. AMSL)
03/02/15	569.47	570.95	569.18	566.69	560.60
06/01/15	568.99	571.25	570.02	566.72	560.60
09/02/15	568.60	571.02	569.77	566.90	560.60
12/01/15	569.09	570.83	569.37	567.05	560.60

C Wells

Date	Well **						1160 (ft. AMSL)
	10176 (ft. AMSL)	1165 (ft. AMSL)	1163 (ft. AMSL)	1162 (ft. AMSL)	1161 (ft. AMSL)	Tile Drain (ft. AMSL)	
03/02/15	568.54	571.78	569.44	569.41	568.73	560.60	DRY
06/01/15	568.17	572.25	570.58	570.17	569.42	560.60	DRY
09/02/15	568.47	572.03	570.16	569.85	569.26	560.60	566.64
12/01/15	568.70	571.65	569.58	569.54	568.97	560.60	566.52

D Wells

Date	Well **					
	10176 (ft. AMSL)	1165 (ft. AMSL)	1163 (ft. AMSL)	1162 (ft. AMSL)	1161 (ft. AMSL)	Tile Drain (ft. AMSL)
03/02/15	567.36	571.60	DRY	567.57	569.37	560.60
06/01/15	567.04	572.47	DRY	567.35	570.38	560.60
09/02/15	567.46	571.81	DRY	567.44	570.15	560.60
12/01/15	567.56	571.23	DRY	567.83	569.61	560.60

Notes:

** - Wells listed from left to right in order from most distant outside of tile drain, to tile drain, then inside of tile drain.
 ft. AMSL - Feet above mean sea level.

Table 3.6D

1170 Series Piezometers Water Levels - 2015
Love Canal Long-Term Monitoring Program
Glenn Springs Holdings, Inc.

A Wells

Date	Well **					
	1174 (ft. AMSL)	1173 (ft. AMSL)	1172 (ft. AMSL)	1171 (ft. AMSL)	Tile Drain (ft. AMSL)	1170 (ft. AMSL)
03/02/15	570.53	568.17	566.43	563.61	555.60	562.50
06/01/15	571.56	567.43	566.40	563.57	555.60	562.18
09/02/15	570.62	567.76	566.34	563.54	555.60	562.02
12/01/15	570.76	568.14	566.22	563.44	555.60	562.26

B Wells

Date	Well **					
	1174 (ft. AMSL)	1173 (ft. AMSL)	1172 (ft. AMSL)	1171 (ft. AMSL)	Tile Drain (ft. AMSL)	1170 (ft. AMSL)
03/02/15	569.95	569.79	568.61	562.57	555.60	563.15
06/01/15	570.42	569.26	568.39	562.30	555.60	568.10
09/02/15	570.72	569.49	568.08	562.42	555.60	564.11
12/01/15	570.30	569.76	568.01	562.53	555.60	571.75

C Wells

Date	Well **				
	1174 (ft. AMSL)	1173 (ft. AMSL)	1172 (ft. AMSL)	1171 (ft. AMSL)	Tile Drain (ft. AMSL)
03/02/15	570.45	571.05	568.82	561.61	555.60
06/01/15	569.63	571.67	569.06	561.26	555.60
09/02/15	570.13	571.16	569.04	561.34	555.60
12/01/15	570.54	570.75	568.81	561.48	555.60

D Wells

Date	Well **		
	1174 (ft. AMSL)	1173 (ft. AMSL)	Tile Drain (ft. AMSL)
03/02/15	568.64	571.08	555.60
06/01/15	567.94	571.68	555.60
09/02/15	567.96	570.83	555.60
12/01/15	568.47	570.82	555.60

Notes:

** - Wells listed from left to right in order from most distant outside of tile drain, to tile drain, then inside of tile drain.
 ft. AMSL - Feet above mean sea level.

Table 3.6E

1180 Series Piezometers Water Levels - 2015
Love Canal Long-Term Monitoring Program
Glenn Springs Holdings, Inc.

A Wells

Date	Well **				
	1184 (ft. AMSL)	1183 (ft. AMSL)	1181 (ft. AMSL)	Tile Drain (ft. AMSL)	1180 (ft. AMSL)
03/02/15	563.48	563.42	568.02	560.00	562.86
06/01/15	564.28	563.87	567.52	560.00	563.06
09/02/15	564.05	564.26	566.99	560.00	563.04
12/01/15	563.54	564.11	567.67	560.00	562.86

B Wells

Date	Well **				
	1184 (ft. AMSL)	1183 (ft. AMSL)	1181 (ft. AMSL)	Tile Drain (ft. AMSL)	1180 (ft. AMSL)
03/02/15	564.39	564.44	566.17	560.00	561.00
06/01/15	564.46	565.12	566.27	560.00	560.89
09/02/15	563.76	564.82	566.22	560.00	561.04
12/01/15	563.56	564.67	566.44	560.00	561.02

C Wells

Date	Well **				
	1184 (ft. AMSL)	1183 (ft. AMSL)	1181 (ft. AMSL)	Tile Drain (ft. AMSL)	1180 (ft. AMSL)
03/02/15	566.68	567.62	568.01	560.00	DRY
06/01/15	566.73	567.44	567.90	560.00	DRY
09/02/15	565.15	567.21	567.20	560.00	DRY
12/01/15	565.47	567.43	568.08	560.00	DRY

D Wells

Date	Well **		
	1184 (ft. AMSL)	1183 (ft. AMSL)	Tile Drain (ft. AMSL)
03/02/15	567.77	566.69	560.00
06/01/15	567.92	566.83	560.00
09/02/15	567.27	566.67	560.00
12/01/15	567.28	566.84	560.00

Notes:

- ** - Wells listed from left to right in order from most distant outside of tile drain, to tile drain, then inside of tile drain.
 ft. AMSL - Feet above mean sea level.

Table 3.6F

1190 Series Piezometers Water Levels - 2015
Love Canal Long-Term Monitoring Program
Glenn Springs Holdings, Inc.

A Wells

Date	Well **					1190 (ft. AMSL)
	1194 (ft. AMSL)	1193 (ft. AMSL)	1192 (ft. AMSL)	1191 (ft. AMSL)	Tile Drain (ft. AMSL)	
03/02/15	563.66	565.16	563.69	565.33	554.80	564.99
06/01/15	564.41	565.45	564.42	565.28	554.80	565.88
09/02/15	563.94	565.32	564.02	565.34	554.80	564.35
12/01/15	563.58	565.07	563.60	565.22	554.80	564.71

B Wells

Date	Well **					1190 (ft. AMSL)
	1194 (ft. AMSL)	1193 (ft. AMSL)	1192 (ft. AMSL)	1191 (ft. AMSL)	Tile Drain (ft. AMSL)	
03/02/15	568.98	568.38	568.17	565.15	554.80	562.95
06/01/15	569.25	568.29	568.02	565.20	554.80	562.92
09/02/15	568.41	568.65	568.37	565.54	554.80	562.27
12/01/15	568.67	568.50	568.32	565.35	554.80	564.48

C Wells

Date	Well **				
	1194 (ft. AMSL)	1193 (ft. AMSL)	1192 (ft. AMSL)	1191 (ft. AMSL)	Tile Drain (ft. AMSL)
03/02/15	571.23	570.14	569.36	564.05	554.80
06/01/15	571.07	570.72	569.43	563.73	554.80
09/02/15	569.60	570.80	569.80	563.90	554.80
12/01/15	571.47	570.29	569.56	563.96	554.80

D Wells

Date	Well **		
	1194 (ft. AMSL)	1193 (ft. AMSL)	Tile Drain (ft. AMSL)
03/02/15	571.91	570.51	554.80
06/01/15	572.48	571.41	554.80
09/02/15	570.60	571.09	554.80
12/01/15	571.64	570.62	554.80

Notes:

** - Wells listed from left to right in order from most distant outside of tile drain, to tile drain, then inside of tile drain.
 ft. AMSL - Feet above mean sea level.