APPENDIX 13-D

Annual Groundwater and Surface Water Quality Monitoring Report and Solid Waste Operating Report (2021)

GEI Consultants

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Scientists

Year 2021 Annual Groundwater/ Surface Water Quality Monitoring Report and Solid Waste Operating Report

Heorot Power –
Somerset Operating Company
Barker, New York

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1. Introduction

Somerset Operating Company, LLC owns and historically operated a 675-megawatt, coal-fired electric generating station on the southern shore of Lake Ontario (Site) (Figure 1) On March 24, 2021, Somerset Operating Company, LLC submitted formal notice to NYSPSC and NYISO that the Somerset coal fired Unit 1 is officially retired as of March 31, 2020. In addition to the formerly operating electric generating station, Somerset Operating Company owns and operates a solid waste disposal facility (SWDA) that received coal combustion by-products generated at the station (Figure 2). The SWDA, located east of the generation plant (Station), consists of three designated solid waste disposal areas: Area I, Area II, and Area III. Area II is active. Area I is closed. Area III will not be developed for disposal, due to the retirement of the coal fired unit.

Groundwater and surface water quality monitoring is currently being performed on a quarterly basis for the Station and the SWDA. Groundwater monitoring commenced in October 1983, approximately one year before commercial start-up of power generation. The monitoring program was established to evaluate potential impacts to groundwater and surface water due to site operations, and to comply with requirements of Section III.2 of Appendix A of the Certificate of Environmental Compatibility and Public Need (CEC&PN) issued in December 1978, and Section IV.1.2 of the Initial Compliance Filing Modification. The monitoring program for SWDA II was amended by the New York State Board on Electric Generation and the Environment pursuant to the Order Granting Amendment of the Certificate of Environmental Compatibility and Public Need, dated June 21, 2007. The monitoring plan effective for SWDA II is dated October 2008, Revision 1 (prepared by Geomatrix Consultants).

1.1 Purpose

This report was prepared to summarize and assess environmental monitoring results performed during the 2021 calendar year. This is the 39th annual report of the groundwater monitoring program. In addition, the report provides the Year 2021 Annual Solid Waste Operating Report in conformance with 6 NYCRR 363-8.2.

This document describes the groundwater and facility monitoring systems in Section 2.0 and monitoring methods are described in Section 3.0. Section 4.0 evaluates the water quality monitoring data and includes a summary of results for the Station, SWDA I and SWDA II. Section 5.0 presents the 2021 Annual Solid Waste Report.

2. Groundwater/Surface Water Monitoring System

The groundwater/surface water monitoring system at the Somerset facility is divided into two monitoring networks areas: 1. a Station Area monitoring network (located around the former power generating area of the Site); and 2. a SWDA monitoring network which is divided into two landfill units; SWDA I and SWDA II. The monitoring network utilized to monitor groundwater around the Station (Figure 2) includes 21 monitoring wells, 9 piezometers, 4 surface water retention basin locations, 3 treatment water settling basin locations, one sludge stabilization basin location (now closed), and one groundwater suppression system location. The nine piezometers are utilized to monitor groundwater elevations.

The second monitoring network area is located around the SWDA portion of the Site. The groundwater monitoring network for SWDA I includes 37 monitoring wells, three piezometers, two surface water locations, six leachate collection system locations, one groundwater suppression system location, and two storm water runoff basin locations (Figure 2). The SWDA II monitoring network consists of 17 monitoring wells around the perimeter of the landfill and three wells (one (1) upgradient and two (2) downgradient) monitoring groundwater quality in the vicinity of Somerset Basin which is a lined impoundment temporarily holding collected leachate and stormwater located near the northern boundary of the Site which is sampled in accordance with a SPDES Permit (Figure 2).

Somerset Operating Company has established a site-specific code to identify the monitoring locations at the Site. Table 1 provides a summary of the derivation of the monitoring location codes. Tables 2 and 3 provide a summary of the groundwater and surface water monitoring locations, their map identification relative to the site-specific code and their hydraulic relation to the area being monitored for the Station Area and SWDA, respectively.

2.1 Summary of Site Geologic/Hydrogeologic Conditions

Based on historical site investigation records, a veneer of glacial deposits covers the area surrounding the Site. These deposits are generally less than 30 feet thick and overlie the Queenston Shale bedrock. The glacial deposits consist of glacial lacustrine sands, silts and till deposits. The lacustrine and till deposits are present across the entire site, however the thickness of the deposits is variable in places, due to differential glacial scouring.

Groundwater is typically encountered near the base of the overburden and top of weathered bedrock, predominantly in zones with increased gravel and sand content and increased bedrock weathering. Shallow groundwater monitoring wells are screened across the overburden/ bedrock interface, while deeper monitoring wells are typically screened from 15 to 25 feet below the top of shale bedrock. Naturally elevated concentrations of ammonia, chloride, sodium, Total

Dissolved Solids (TDS) and several other cations are well documented for the Queenston Shale bedrock.

3. Monitoring Methods and Laboratory Data Usability

Quarterly sampling events were conducted on the dates listed in Section 3.1. Groundwater samples were collected by the Heorot Power Field Services Group. Groundwater, surface water and other aqueous samples (retention basins, leachate etc.) were sampled for routine monitoring parameters during the first, third and fourth quarterly monitoring events. Samples were analyzed for EMP Baseline monitoring parameters during the 2021 second quarter monitoring event. Table 4 provides a summary of analytical parameters for the routine and Baseline sampling events.

Beginning in 2015, concentrations of sulfate, TDS, calcium, magnesium, potassium, sodium and strontium were detected in monitoring wells downgradient and cross-gradient of SWDA II above the applicable assessment trigger values. In accordance with the SWDA II Environmental Monitoring Plan (2008), the previous Site owner (USNYPP) presented NYSDPS and NYSDEC with a plan for assessment monitoring in May 2015. Assessment monitoring was implemented beginning with the Second Quarter 2015 sampling event for monitoring wells SA02-03S; SA03-06S; SA03-07S; SA03-08S; and SA03-09S. Additionally, surface water quality in Fish Creek and the small pond in the northeast corner of SWDA II was evaluated during assessment monitoring. Each assessment monitoring location was analyzed for the EMP Baseline parameter list on a quarterly basis. In support of compliance with 40CFR 257.90 (US EPA CCR Rule effective October 2015), two additional monitoring wells (SO15-01 and SO15-02) were installed on October 28, 2015, downgradient of the Sludge Stabilization Basin. These wells were sampled in 2016 and 2017 to obtain background groundwater quality data and are not associated with the PSC-approved monitoring program.

Laboratory analytical data are summarized in Appendix A for the Station Area, Appendix B for SWDA I and Appendix C for SWDA II. Laboratory analytical data packages are provided in Appendix D.

Static water level elevations were measured in groundwater monitoring wells prior to purging and sampling. Groundwater elevations from each of the quarterly monitoring events are summarized in Tables 5 and 6 for the Station and SWDA, respectively. Samples were collected in accordance with the Site Environmental Monitoring Plan.

3.1 Laboratory Data Usability

Samples collected during each quarterly monitoring event were analyzed by Adirondack Environmental Services in Albany, New York. The laboratory performs an internal validation and prepares a case narrative describing non-conformance issues and data qualifications. GEI Consultants reviews the non-conformance issues, duplicate sample results, data qualifications and blank analysis to establish usability of the data. The concentrations of several dissolved

metals constituents were reported at higher concentrations than total metals for SWDA II system monitoring points in 2021. Where higher dissolved concentrations were reported, the dissolved results have been "R" flagged and rejected. Data usability results are described in the following subsections.

3.1.1 First Quarter 2021

Samples were collected between February 15 and March 30, 2021. All data were reported useable as qualified.

3.1.2 Second Quarter 2021

Samples were collected between May 11 and June 23, 2021. All data were reported useable as qualified.

3.1.3 Third Quarter 2021

Samples were collected between August 9 and September 14, 2021. All data were reported usable as qualified.

3.1.4 Fourth Quarter 2021

Samples were collected on between November 8 and December 20, 2021. All data were reported usable as qualified.

4. Evaluation of Monitoring Results

This section presents a summary of monitoring results for the four quarterly monitoring events at the Site. Analytical results for each of the locations monitored are tabulated as an appendix to this report for the Station area (Appendix A), SWDA I (Appendix B), and SWDA II (Appendix C).

A comparison of inorganic analytical results to 6 NYCRR 703 New York State Class GA Water Quality Standards (water quality standards) was performed for both the Station Area and the SWDAs. Constituents detected at concentrations above water quality standards are shaded on each table. For SWDA II, analytical results are compared to the respective assessment trigger values for each compound at each location. A detailed description of the assessment trigger value methodology is provided in Section 4.2.3. Since some constituent concentrations are naturally present above water quality standards in samples collected from monitoring wells representative of background groundwater quality, additional evaluations of water quality data were performed.

The detection of some constituents above water quality standards is consistent with historical monitoring of groundwater quality across the Site (upgradient, down gradient and cross gradient) and has historically been attributed to elevated concentrations of naturally occurring inorganic constituents across the Site. As such, evaluation of potential impact to groundwater at the Site has been established utilizing sample geochemical relationships and intrawell statistical "triggers." The following sections discuss the monitoring results for the Station Area and the SWDA.

4.1 Somerset Station Area Monitoring Results

The following sections present an evaluation of the monitoring results for the Station Area.

4.1.1 Groundwater Elevation Monitoring

Table 5 presents a summary of the groundwater elevation measurements for each of the four quarterly sampling events. To evaluate groundwater flow directions at the Station Area, a shallow groundwater contour map was constructed utilizing the data from the First Quarter monitoring event (considered to be representative of high groundwater elevations). Figure 3 presents a shallow groundwater potentiometric surface map. Groundwater at the Station Area generally flows in a northerly direction, toward Lake Ontario. At the southeast corner of the Station Area and south of SWDA Area I, groundwater flow directions are seasonally influenced by discharge to and recharge from Fish Creek.

4.1.2 Groundwater Quality Monitoring

Evaluation of groundwater quality at the Station Area has historically been accomplished using major anion and cation chemistry comparisons. These comparisons are made through the plotting of the ion chemistry of groundwater samples on a Piper diagram along with the ion chemistry of potential sources of groundwater impact. The plotting of these data allows a visual comparison of the groundwater chemistry to the chemistry of potential sources of groundwater impact.

Figure 4 presents a Piper diagram of the major ion chemistry for select sampling locations at the Station from the Second Quarter monitoring event. The locations plotted include monitoring wells near potential sources of groundwater impact at the Station Area (Loop Track Basins 1, 2 and 3 and Settling Basins 1 through 4 as well as data from these potential sources of impact. The Sludge Stabilization Basin was closed by removal in **January** 2021 and no samples were collected from the Former Sludge Stabilization Basin location in 2021. The following summarizes the locations plotted on Figure 4:

Location	Plot Identification
Deep Bedrock Well	SOGDD-8802
Downgradient Shallow Well	SOGDA-8209
Shallow Wells Downgradient of Coal Pile	SOGDXX-8301, 8302, 8303, SOGDSH-0901
Shallow Wells near Coal Pile Runoff Basin and Loop Track Basin 2	SOGDXX-8304, 8305, 8824
Shallow Wells near Loop Track Basin 1	SOGDXX-8826, 8827
Shallow Wells near Liquid Waste Treatment Basins 2, 3, & 4	SOGDXX-8306, 8307, 8821R, 8823
Shallow Downgradient Well near Former Sludge Stabilization Basin	SOGDXX-8829
Shallow Upgradient Well near Former Sludge Stabilization Basin	SOGDXX-8828
Upgradient Shallow Wells	SOGUA-8308, SOGUSH-8811
Upgradient Deep Well	SOGUD-8811
Coal Pile Runoff Basin	CP Basin #1
Liquid Waste Treatment Basin	LWT Basin #2
Settling Basins 3 and 4	LWT Basin #3, LWT Basin #4
Loop Track Basins 1, 2 and 3	LTB-1, LTB-2, LTB-3

The data from the potential source areas of groundwater quality impact plot in the upper right portion of the Piper diagram, where hydrochemical facies indicate elevated sulfate and chloride anion constituent concentrations and variable cation chemistry with calcium generally the dominant cation. Shallow and deep bedrock groundwater samples continue to plot within historic trends. Observations and conclusions concerning the geochemistry are discussed below.

- Monitoring wells SOGDA-8209 and 8209A monitor groundwater downgradient of the Station. Groundwater chemistry in these wells is similar to background water quality.

- Monitoring wells SOGUD-8811 and SOGDD-8802 monitor deep bedrock groundwater upgradient and downgradient of the coal storage pile, respectively. Well SOGDD-8802 was dry during the June 2021 sampling event and is not plotted. The geochemical signature of well SOGUD-8811 reflects deep bedrock chemistry and is not indicative of impacts from the treatment basins or the coal storage pile.

- Monitoring wells 88-21R and 83-07 monitor groundwater downgradient of the liquid waste treatment basins. Monitoring well 88-21R exhibited elevated concentrations of sulfate during the Third Quarter and TDS throughout the 2021 monitoring period. Sodium was also elevated during the Second Quarter Baseline sampling event in well 88-21R. Monitoring well 83-07 displayed elevated concentrations of TDS during the Second, Third and Fourth Quarters. Monitoring well 83-07 is partially screened in the Queenston Shale bedrock and is frequently influenced by bedrock chemistry during seasonal low groundwater elevation. Monitoring well 88-21R plots in the left-center portion of the Piper diagram (Figure 4), near the center of background overburden geochemistry. The plot location of 83-07 on Figure 4 exhibits a shift upward on the plot when compared to 2020 and is reflective of a low alkalinity concentration during the Second Quarter (30 mg/L). Sulfate concentrations in 83-07 ranged remain low and ranged from 65.8 to 99.6 mg/L throughout 2021 The enrichment in TDS in these wells does not indicate impacts from the liquid waste treatment basins.

- Beginning with monitoring year 2007, ammonia was added to the analyte list for monitoring wells 83-06, 83-07, 88-21R and 88-23 to supplement the existing suite of analytical parameters. Ammonia was added to the parameter list due to the high variability of other potential impact indicator parameters in Settling Basins 2, 3 and 4, (e.g., sulfate, bromide, chloride, TDS), and due to their presence in background groundwater at comparable concentrations. Ammonia was detected in well 83-06 during each quarterly sampling event in 2021 and ranged from 1.1 mg/L (Third Quarter) to 1.5 mg/L (Fourth Quarter), below the Class GA Groundwater Standard of 2.0 mg/L. Ammonia was not detected at locations 83-07, 88-21R or 88-23. The piper-plot location of the Basin monitoring points when compared with the Basin samples, as well as the low or non-detect concentrations of ammonia at these locations indicate that Settling Basins 2, 3 and 4 are not impacting shallow downgradient groundwater.

- Monitoring wells SO83-04, SO83-05, and SO88-24 are shallow groundwater monitoring wells located adjacent to the coal pile run-off basin, Settling Basin 1 and the Loop Track Basin-2 (see Figure 2). Impacts to these wells from Basin 1 (chloride and sulfate) were first identified in the 1999 annual groundwater report. In response to the results of the monitoring and reporting, a separation in the liner system of Settling Basin-1 was identified. Seepage from Settling Basin-1 was mitigated when the liner was repaired in October 2000. Beginning with the year 2002 Annual Groundwater Monitoring Report, time-series concentration plots have established an overall decreasing trend in the dominant leachate ion-constituents (chloride, sulfate) detected in these monitoring wells. Time-series concentration plots for monitoring wells SO83-04, SO83-05 and SO88-24 are presented on Figures 5A, 5B through 7A,7B. Generally decreasing or stable trends in both sulfate and chloride concentrations have been documented for monitoring wells SO83-04 and SO88-24 since the completion of mitigative measures. Seasonal variability has been identified in sulfate concentrations at each of these monitoring locations. This variability coincides with seasonal variations in the shallow groundwater elevations at the Station. Generally, higher constituent concentrations are detected during sampling events which take place during a low groundwater condition at the Site, typically between December and April. Monitoring well SO83-05 exhibited an increase in chloride and sulfate concentrations beginning with the First Quarter 2019 monitoring period. The plot location of SO83-05 on Figure 4 indicates an enrichment in both chloride and sulfate ions when compared to the 2018 monitoring period. Separations in the liner of Settling Basin-1 were identified during the First Quarter 2019 and subsequently repaired. The elevated concentrations of sulfate and chloride in well SO83-05 are likely attributable to limited impacts to shallow groundwater directly downgradient of the Basin. Following repairs, both sulfate and chloride concentrations exhibited overall decreasing or stable concentrations throughout the 2021 monitoring period but have not yet returned to historic lows. Chloride and sulfate concentration trends in well SO83-05 are presented on Figures 6A and 6B, respectively. It is anticipated that concentrations will continue to decrease following the liner repairs and chloride and sulfate concentration trends in monitoring wells adjacent to these basins will continue to be evaluated throughout 2022.

- During preparation of the 2006 Annual Report, monitoring indicated an increasing trend in the concentration of several cations (magnesium, iron and manganese) and anions (sulfate and chloride) in monitoring well SO83-03 (located directly downgradient of the coal storage pile) and was attributed to the application of certain deicing compounds utilized by the facility in this area. Time-series concentration trends were updated for the downgradient coal pile monitoring wells (SO83-01, SO83-02, SO83-03 and SO09-01) as well as shallow upgradient monitoring well SAGUA83-08 located between Lake Road and the Loop Track and are presented in Figures 8a through 8e. While no overall increasing or decreasing trend in constituent concentrations was previously identified, the concentrations of these constituents beginning with the 2008 monitoring period increased above previous levels to those reflective of deeper bedrock chemistry. Concentrations of

these constituents in most wells have stabilized to near-historical concentrations or exhibited further decrease since 2012. Chloride concentrations in monitoring well 83-01 have exhibited significant seasonal variability since 2013 and may indicate localized influence of bedrock chemistry. Beginning in 2019, well 83-01 exhibited an increasing concentration trend in total manganese (Figure 8D) and slightly elevated total iron concentrations (Figure 8C) when compared to long term historic trends and Class GA Groundwater Standards. During the 2021 monitoring period, manganese and iron concentrations were again slightly elevated when compared to historic concentrations and iron concentrations exhibited a slightly increasing trend. Remediation of the coal pile was completed in early 2021 and short-term variability in downgradient overburden chemistry may result from excavation and grading activities in the former coal storage pile area. The concentrations of these cations will continue to be evaluated throughout 2022 monitoring.

- While major element chemistry has exhibited historically increasing trends in monitoring well SA83-03, trace element chemistry typically associated with coal pile runoff, (e.g., arsenic, lead, zinc) were either not detected or not elevated above background in downgradient monitoring wells during the 2021 monitoring year. Groundwater impacts from coal pile runoff would also be expected to lower pH in downgradient monitoring wells. Leaching of sulfur-bearing minerals and the generation of sulfuric acid in run-off water would result in a more acidic groundwater condition in these wells. Monitoring wells SO83-01, SO83-02, SO83-03 and SO09-01 did not exhibit a decrease in pH. To investigate the potential influence of groundwater elevation variations on the shallow groundwater monitoring wells, groundwater elevation trends were developed for the three downgradient monitoring wells. Figure 8f displays the groundwater elevations in monitoring wells SO83-01, SO83-02, and SO83-03 for the last 84 sampling events. Groundwater elevations in each of these three monitoring wells was initially elevated by approximately two feet during the First Quarter 2020 which was attributed to breakage along a potable water force main adjacent to these wells. Groundwater elevations were elevated in each throughout the 2021 monitoring period which may be related to increased infiltration following remediation of the coal pile in early 2021. Remediation consisted of removal of all residual coal, addition of limestone, topsoil and seeding.

- Monitoring well SO88-29 is located immediately downgradient of the former sludge stabilization basin (Figure 2) which was closed by excavation, removal, and backfill in January 2021 in accordance with Part 257.102(c) of the Federal CCR Rule and the certified Closure Plan (October 2016). Due to the basin closure, samples were not collected from the Basin in 2021, however data from the former SSB has historically plotted on the right-central portion of the diagram (Figure 4). The plot location of downgradient basin monitoring well SO88-29 remains relatively unchanged when compared to the 2020 monitoring location. Impacts to downgradient groundwater from the former SSB were first identified in the 1999 monitoring summary and were attributed

to separations in the basin liner which were repaired in October 2000 and again in January 2004 which may have contributed additional impacts to groundwater local to SO88-29. Chloride has been identified as a major anion in the source water at the sludge stabilization basin. To further investigate the geochemistry in SO88-29, a chloride time-series plot has been developed to monitor downgradient groundwater impacts from the sludge stabilization basin, following the basin liner repairs performed in 2000 and 2004 (Figure 9). Chloride concentrations at SO88-29 exhibit significant seasonal variation and have exhibited an overall decreasing trend since 2014. The seasonal high concentrations generally coincide with seasonally low groundwater elevations at the Station area. Several other constituents present at elevated concentrations in background groundwater exhibit similar seasonal variation including magnesium, manganese, sulfate and TDS. Furthermore, a recommendation of the 2004 annual report was the addition of ammonia to the parameter list to monitoring well SO88-29 as well as monitoring well SO88-28, located directly upgradient from the sludge stabilization basin. Ammonia detections in groundwater monitoring wells downgradient of the basin were below the NYS Class GA Groundwater Standard of 2.0 mg/L. Based on the groundwater flow direction presented on Figure 3, monitoring wells SO82-09 and SO82-09A are located downgradient of the former SSB. Analytical results for these monitoring wells presented in Appendix A show no impacts to groundwater like those observed in well SO88-29. This indicates that the elevated concentrations observed in well SO88-29 are limited to an area immediately downgradient of the former SSB and do not extend to the downgradient Site boundary. Trace element chemistry does not exceed NYS Groundwater Quality Standards and improvements in groundwater quality are anticipated following basin closure.

4.2 Somerset SWDA Monitoring Results

The following sections present an evaluation of the monitoring results for SWDA I and SWDA II.

4.2.1 Groundwater Level Monitoring

Table 6 presents a summary of SWDA groundwater level measurements for each of the four quarterly sampling events. Groundwater flow directions at SWDA I is depicted on a shallow groundwater contour map (Figure 10) constructed utilizing the data from the First Quarter (January 2021) monitoring event. Groundwater flow is north toward Lake Ontario.

Figure 11 presents groundwater contours for SWDA II during the First Quarter (January) 2021. Groundwater flow across the northern portion of SWDA II is northward toward Lake Ontario. Across the southern portion of SWDA II groundwater flow is northwestward with a local high groundwater elevation in the southeast corner of the Site.

4.2.2 SWDA I – Closed Area Groundwater Quality Monitoring

Groundwater quality evaluation methodology for SWDA I is focused on concentration relationships between two major cations, calcium and magnesium and a major cation, potassium and a major anion, chloride. This evaluation methodology was developed by Stearns and Wheler (February 1993) and instituted in 1998 when the Sub-Area J expansion, located in Area I of the SWDA began operation. Initially, three leachate collection underdrains were sampled and analyzed (i.e. SAPXUD-XX01, XX02 and XX03). Beginning with the July 2003 sampling event, three additional underdrains (i.e. SAPXUD-XX04, XX05 and XX06) were sampled and analyzed corresponding to operations in sub-areas K and L located in the western portion of the SWDA I landfill footprint.

One groundwater suppression system sampling point is sampled and analyzed for SWDA I identified as SAGXGDXX01 (aka: "Lake Ontario Underdrain") which was originally installed to drain groundwater from Area I during construction. The SWDA I suppression system is located northwest of the Lake Ontario Basin and empties into the discharge header/outfall of Lake Ontario Basin.

4.2.2.1 Calcium/Magnesium Ratio

The ratio of calcium (Ca) to magnesium (Mg) concentration for each SWDA I shallow groundwater monitoring location was determined for each monitoring event and is presented on Tables 7 to 10. In addition, the Ca/Mg ratio for the eight leachate sampling locations is included on the tables. Stearns and Wheler (1993) determined through a statistical evaluation of SWDA I groundwater that a Ca/Mg ratio for shallow groundwater monitoring location samples above a threshold value of 8.85 may indicate the presence of leachate in groundwater at the site. Based on a review of the Ca/Mg ratios presented on Tables 7 to 10, Ca/Mg ratios are below the threshold value for the SWDA I Upper Water-Bearing Zone (UWBZ) sampling locations. This evaluation indicates shallow groundwater quality at SWDA I is not impacted by landfill leachate.

4.2.2.2 Potassium/Chloride Scatterplots

Stearns and Wheeler (1993) demonstrated that the relationship of potassium (K) to chloride (Cl) for groundwater samples may be used to indicate potential groundwater quality impacts from landfill leachate. Potassium concentrations were plotted versus chloride for all SWDA I and SWDA II groundwater monitoring wells for each quarterly monitoring event. A least-squares linear regression was developed to evaluate the linear relationship of K and Cl. Figures 12 to 15 present the plots showing this relationship. In addition, K vs. Cl concentrations were plotted on the figures for leachate samples collected during the same monitoring events to compare the relationship of K and Cl for leachate and groundwater. As shown on the figures, the relationship between K and Cl is strongly linear for each of the four monitoring events. Potassium concentrations in leachate are much higher than in any of the groundwater samples (overburden or bedrock). Regression analysis (R-squared values) ranged from 0.4703 to 0.9549 for the four

2021 monitoring events. Elevated detection limits (500 ppm) for potassium in several bedrock wells during the First and Second Quarter resulted in low-biased R-squared values for these monitoring events, however Third and Fourth Quarter R-squared values are similar to previous monitoring years. Leachate mixing with groundwater would show groundwater sample points deviating from the linear relationship identified on the figures. Based on a review of the other K vs. Cl plots for each quarterly monitoring event, groundwater at SWDA I is not impacted by landfill leachate.

Groundwater suppression system data are also plotted on Figures 12 to 15. Data from the Lake Ontario SWDA I groundwater suppression system (SAGXGDXX01) continue to exhibit significant variability in the concentration of several leachate indicator parameters including chloride, sulfate, TDS, and sodium. As part of routine O&M activities, a portion of the groundwater suppression and leachate laterals for both SWDA I and SWDA II were last flushed in Spring 2021 to assure laterals were open and flowing properly. Additional O&M cleanings are planned for Spring 2022.

4.2.2.3 Other Observations

Analytical data for shallow monitoring well SAGDSH-8701, located east and upgradient of SWDA I, has routinely detected elevated concentrations of constituents reflective of deeper bedrock chemistry. The concentrations of boron, chloride, iron, manganese, sodium, sulfate, and total dissolved solids are typically elevated compared to other shallow wells in SWDA I. Based on the groundwater contour map for SWDA I, (Figure 10) SAGDSH-8701 is located hydraulically upgradient of SWDA I and the groundwater chemistry at this location is representative of background conditions. Furthermore, since the leachate indicators are not elevated (per scatter plots and ionic ratios), the differences in water chemistry compared to other shallow groundwater monitoring wells are not related to SWDA I.

Total arsenic was detected at concentrations slightly above the Class GA Groundwater Standard (0.025 mg/L) in shallow downgradient and cross gradient groundwater at the following locations:

- SAGCSH-9226 (Fourth Quarter)
- SAGDSH-9124 (Fourth Quarter)
- SAGDSH-9125 (Fourth Quarter)
- SAGDSH-9751 (First through Fourth Quarters)
- SAGDXX-8301 (Fourth Quarter)

These detections are within the range of historic concentrations at these locations and no increasing concentration trend has been identified at any location.

Monitoring well SAGCSH-9226 historically exhibited an increase in the concentration of sodium, chloride and TDS beginning with the fourth quarter 2004 sampling period. The

concentrations of these constituents have continued to remain elevated since that period, and exhibit significant variability. Data review suggests the influence of deeper bedrock geochemistry following the deep excavation for installation of the SWDA II leachate conveyance piping and backfill, which is partially installed in upper bedrock. A piper plot exhibiting the shift from overburden and shallow bedrock groundwater toward deeper bedrock chemistry was first prepared for the 2005 Groundwater Quality Monitoring Report. The low Ca/Mg ratio (1.7 to 5.0 range for 2021) and its plot location on the quarterly K/Cl scatterplots indicate that the elevated concentrations reflect continued influence from deeper bedrock chemistry, and do not indicate impact from leachate. Geochemical trends and groundwater elevations will continue to be evaluated during 2021.

Evaluation of water quality data for shallow wells near Fish Creek Basin (upgradient of SWDA I) identified changes to shallow groundwater quality in samples collected from monitoring well SAGDSH-9121 during the late 1990s. During this time, water quality impacts were observed by significant variability in key leachate indicator parameter concentrations (i.e., chloride). Figure 16 presents a historical time-series plot of chloride concentrations at this location since its installation in 1991. The implementation of the corrective action at the basin has included the installation of single-composite 60-mil HDPE basin liner, continuous discharge of leachate and surface water to the SWDA II basin via double-walled conveyance piping and discontinued use of Fish Creek Basin outfall. The effectiveness of the corrective actions will continue to be evaluated by assessing groundwater quality at location SAGDSH-9121.

4.2.3 SWDA II Groundwater Quality Monitoring

Groundwater chemistry at the SWDA II site is analyzed using intra-well comparisons, a procedure in which sample chemistry from each detection monitoring well is evaluated in relation to its own historical data. Performance of groundwater monitoring using intra-well data comparisons is widespread practice and is fully supported by the NYSDEC and USEPA. In addition, intra-well data comparisons are more effective than upgradient to down-gradient comparisons at sites such as the Somerset facility, where groundwater chemistry is spatially variable (intra-well monitoring eliminates the spatial component of natural groundwater chemistry variability). This spatial component comprises a sizable portion of the total variability that must be accounted for by the data evaluation methodology. This method is particularly appropriate for groundwater monitoring because:

- Constituent concentrations in the UWBZ and Lower Water-Bearing Zone (LWBZ) are spatially and temporally variable;
- Well-defined, similar groundwater flow patterns in the UWBZ (as shown on historical groundwater elevation contour maps) ensure appropriate detection well placement; and,

- Information obtained through intra-well monitoring is more representative of true background conditions (relative to inter-well monitoring), as it eliminates the spatial component of groundwater chemistry variability.

Analytical data obtained for groundwater samples collected during detection monitoring are evaluated in accordance with the 2008 SWDA II EMP through constituent-specific comparisons to:

- Significant increasing chemical constituent concentration data trends unrelated to overall background changes to water quality;

- Class GA groundwater quality standards and guidance values presented in TOGS 1.1.1, and;

- Assessment trigger values established for each chemical constituent using the concentration of a parameter greater than three standard deviations above the mean baseline concentrations consistent with 6NYCRR Part 360-2.11(c)(5)(ii)(d). Quarterly laboratory analytical data and assessment trigger values for each well are presented in Appendix C where a minimum of 10 quarters of background water quality data exist.

If all three of the above criteria are met, the constituent(s) detected at elevated concentrations are compared to increases in concentrations of other inorganic constituents that are typically detected in the leachate. This is necessary since analysis for compounds in groundwater will detect constituents that are present naturally in groundwater and an increase in constituent concentration may not be landfill related. Therefore, the analytical results for the particular well of concern are compared to its general baseline chemical fingerprint described by a Piper trilinear diagram. A Piper trilinear diagram displaying the key assessment parameters and background groundwater chemistry for each well is provided in Table 11. The assessment trigger values presented for each well in Table 11 are derived from a minimum of ten quarters of background (prior to SWDA II construction) water quality data. In addition to intra-well comparison methods described above, groundwater at SWDA II is also evaluated based on established comparison criteria utilized for SWDA I, including the calculation of calcium/magnesium ratios and the development of potassium-chloride scatterplots.

A summary of the 2021 SWDA II laboratory analytical data is provided in Appendix C. Analytical results for each monitoring well are compared to the respective established assessment trigger values, as well as the NY Class GA Groundwater Standards. Several inorganic constituents including calcium, magnesium, potassium, sodium and strontium were detected in upgradient and downgradient monitoring wells at concentrations slightly above both the Class GA Standard and the assessment trigger value established for each well. A discussion of analytical results for the SWDA II groundwater monitoring well network follows:

- Leachate generated at the SWDA II facility is sampled in the leachate vault on the north end of SWDA II under the sample designation SAPXUD-XX07A (east leachate collection header) and SAPXUD-XX07B (west leachate collection header). SWDA II leachate collection system data is presented in Appendix C.

- As described in Section 3, assessment monitoring was implemented at several downgradient and cross-gradient SWDA II shallow groundwater monitoring wells following the preparation of the 2014 Groundwater Quality Monitoring Report. Along with the implementation of assessment monitoring, corrective actions were undertaken and are described in detail in Section 4.2.4. Assessment monitoring includes quarterly sampling for the EMP Baseline parameter sampling list (Table 4) for the wells exhibiting exceedances of the applicable assessment trigger values. Two surface water bodies, Fish Creek and a small pond situated northeast of SWDA II are also sampled for the EMP Baseline parameter list on a quarterly basis. A detailed description and discussion of the assessment monitoring for these locations is provided in Section 4.2.4 below.

- Concentrations of sulfate which began to exhibit an increasing trend throughout the 2009/2010 monitoring period in SWDA II downgradient shallow monitoring wells SAGDSH-0306, SAGDSH-0307, and cross-gradient wells SAGDSH-0308 and SAGDSH-0309 were again elevated during quarterly sampling events in 2021 with respect to their assessment trigger values. Sulfate concentrations in the following monitoring wells were above their respective assessment trigger values for all four quarters of 2021.

Well ID	Sulfate Assessment Trigger Value (mg/L)
SAGDSH-0306	165
SAGDSH-0307	205
SAGDSH-0308	117
SAGDSH-0309	285

The sulfate concentration in each of these wells exhibits significant seasonal variability. Total Dissolved Solids (TDS) concentrations in SAGDSH-0306, SAGDSH-0307, SAGDSH-0308 and SAGDSH-0309 were elevated with respect to the assessment trigger value during each sampling event in 2021. These trends are shown on Figure 17. Sulfate and TDS concentrations continue to exhibit an overall increasing trend in wells SAGDSH-0306, SAGDSH-0307 and SAGDSH-0308. At location SAGDSH-0309,

concentrations of sulfate and TDS have varied within a range of seasonal variability since 2011 without displaying an overall trend. Sodium was detected above the Assessment Trigger Value at location SAGDSH-0307 (Second and Third Quarters), and SAGDSH-0308 (First, Third and Fourth Quarters). Sodium concentrations in shallow groundwater upgradient of SWDA II ranged from 67.6 mg/L (SAGUSH-9141, Third Quarter) to 265 mg/L (SAGUSH-0201, Second Quarter) during 2021 and was detected above the Assessment Trigger Value in well SAGUSH-9141 during each quarter in 2021. These results indicate variable or increasing sodium concentrations upgradient of SWDA II and representative of increasing background conditions. The concentrations of other key leachate indicator parameters including bromide, chloride, and potassium, are not elevated in these wells. The lack of the mentioned key leachate indicator parameters confirms that that the detections of elevated sulfate, TDS and intermittent elevated concentrations of sodium are not directly attributed to CCR leachate impacts. Sulfate, TDS and sodium concentrations, as well the concentration of other leachate indicator parameters will continue to be monitored throughout the 2022 monitoring period.

- Total Strontium was detected slightly above the assessment trigger values at cross gradient shallow monitoring well locations SAGDSH-0307 (First and Second Quarter) and SAGDSH-0308 (Third and Fourth Quarters) during the 2021 monitoring period. Strontium concentrations in upgradient shallow SWDA II wells are frequently higher than those in cross gradient and downgradient monitoring wells. In addition, upgradient bedrock groundwater samples contain an order of magnitude higher concentration of total Strontium than overburden groundwater. The detection of total Strontium in background groundwater at comparable concentrations suggests that the concentrations detected in downgradient monitoring wells may be indicative of long-term natural concentration variability. The Strontium concentrations in monitoring wells surrounding SWDA II will continue to be assessed for concentration trends throughout the 2022 monitoring period.

- Ammonia was detected at concentrations above the respective trigger values in SWDA II upgradient deep bedrock monitoring wells SAGUD-0201 (8.7 to 8.9 mg/L) and SAGUD-9141 (4.2 to 5.5 mg/L). Ammonia was also detected above the respective assessment trigger values in SWDA II downgradient deep bedrock monitoring wells SAGDD-0203 (17.9 to 18.5 mg/L) and SAGDD-0711 (8.9 to 9.2 mg/L). Ammonia was not detected above the applicable assessment trigger values in shallow downgradient groundwater samples. The detection of ammonia in upgradient SWDA II monitoring wells indicates that its presence in deep bedrock groundwater is not related to site activities and is not indicative of impacts from SWDA II leachate.

- Total Alkalinity was detected above the applicable statistical trigger values in several shallow monitoring wells in SWDA II. These detections suggest an increasing background source concentration for total alkalinity and are not indicative of impacts from SWDA II.

- Total calcium and magnesium were detected above the respective assessment trigger values at several downgradient and cross-gradient shallow monitoring wells during 2021. Calcium has historically detected (2018) above the assessment trigger value in upgradient monitoring well SAGUSH-9141. Magnesium was detected above the assessment trigger value in upgradient well SAGUD-0201 during three of four sampling events in 2021, and calcium was detected above the assessment trigger value at this location during the Third Quarter sampling events. The detection at both upgradient, cross-gradient and downgradient locations indicates that magnesium and calcium are both present at variable concentrations in background groundwater. Calcium/magnesium ratios for SWDA II monitoring points are presented on Tables 7 through 10. The calculated ratios for the 2021 monitoring period are below the 8.85 threshold value above which may indicate leachate impacts to site groundwater.

- Potassium-chloride scatterplots were generated for SWDA I groundwater and leachate collection and the SWDA II groundwater, leachate collection system and groundwater suppression system monitoring locations for the 2021 period and are presented on Figures 12 through 15. Regression analysis (R-squared values) for the groundwater trend line ranged from 0.4703 to 0.9549 for the four 2021 monitoring quarters. Leachate mixing with groundwater would show groundwater sample points deviating from the linear relationship identified on the figures. Based on a review of the K vs. Cl plots for each quarterly monitoring event, groundwater at SWDA II is not impacted by landfill leachate.

Leachate generated at the SWDA II facility is collected by the leachate collection system. The system is comprised of a system of laterals which feed into an eastern and western header (SAPXUD-XX07A and SAPXUD-XX07B, respectively) which are combined in the leachate collection vault at the northern edge of SWDA II and gravity drains to Somerset Basin with SWDA II leachate before batch-discharge to Lake Ontario (Figure 2) in accordance with the facility's existing SPDES permit. A five-foot separation between the seasonal high groundwater elevation and the base elevation of the landfill is maintained by the groundwater suppression system, which is constructed similarly to the leachate collection system. Liquid samples collected from the eastern and western headers of the groundwater suppression and leachate collection systems are sampled at discrete locations in each header. SWDA II eastern groundwater suppression system sample location SAGXGDXX02A was sampled during each quarterly sampling event. The western groundwater suppression system header sampling point data (SAGXGDXX02B) was dry during all 2021 quarterly sampling events. Analytical results for the SWDA II leachate collection and groundwater suppression systems are provided in Appendix C.

4.2.4 SWDA II Assessment Monitoring and Corrective Action

Based on the intrawell evaluation criteria documented in Section 6.0 of the 2008 SWDA II EMP, assessment monitoring was implemented during the Second Quarter 2015 for select SWDA II

monitoring wells exhibiting increasing concentration trends and/or concentrations of constituents above applicable assessment trigger values. Subsequently, surficial CCR material was identified in the perimeter ditch along the northern and northeastern edge of the landfill, as well as in the storm water retention basin at the northeastern corner of SWDA II. Each of these areas was excavated during the Third and Fourth Quarter in 2015 to remove the material which was then transported to the active disposal cell in SWDA II. Other mitigative measures conducted were the placement of final cover on the northeastern portion of the landfill during the Third and Fourth Quarters of 2016 and placement of final cover on the northern and western portions of the landfill during the Second and Third Quarters of 2017, to further prevent CCR material from entering the perimeter ditches and to minimize direct storm water contact with CCR material. The perimeter stormwater control berm surrounding the active SWDA II cell was enhanced during the Third Quarter 2018 to control surface water runoff and mitigate CCR runoff resulting from snowmelt and heavy precipitation events. Additional mitigative measures were implemented in 2019 to further control runoff and included increasing the height of the perimeter control berm to approximately three feet with compacted clay followed by a layer of seeded topsoil to prevent erosion.

As part of assessment monitoring, groundwater samples were collected from the following monitoring wells and the indicated surface water monitoring locations and were analyzed for the Baseline Parameter List identified in the EMP:

- SA02-03S
- SA03-06S
- SA03-07S
- SA03-08S
- SA03-09S
- Fish Creek Upstream Location (SASUSS-XX01)
- Fish Creek Downstream Location (SASDSS-XX02)
- The small pond located in the northeastern corner of SWDA II (SAPOND-XX01)

A summary of SWDA II assessment monitoring location data is provided in Appendix C. Assessment monitoring locations are shown on Figure 2. A trilinear piper diagram was prepared to compare the geochemical signature of SWDA II leachate with the signature of the surface water and shallow groundwater locations listed above. The diagram, presented as Figure 18, displays data from the four quarterly monitoring events for each assessment monitoring location. On the diagram, samples collected from the SWDA II leachate headers plot in the central, right-hand portion of the diagram, bounded by SWDA II leachate chemistry ellipse displaying dominance of the sodium, potassium and chloride ions. The tight cluster of SWDA II leachate data exhibits little variability in leachate chemistry between leachate sampling locations SAPXUDXX07A (east leachate header) and SAPXUDXX07B (west leachate header) throughout the 2021 monitoring period. SWDA II groundwater assessment monitoring locations plot in the upper left portion of diagram opposite from leachate data, indicating a dominance of calcium.

The upgradient bedrock groundwater ellipse for SWDA II (monitoring well SAGUD-0201) is presented for comparison.

The background geochemical fingerprints for SWDA II wells are documented on the Piper plots provided in Table 11. The updated plot locations of monitoring wells SAGDSH-0306, SAGDSH-0307, SAGDSH-0308 and SAGDSH-0309 for the 2021 monitoring period (Figure 18) fall along a mixing line characteristic of sulfate enrichment as indicated by the upward shift on the plot. If the elevated concentrations of sulfate observed in these wells were a result of SWDA II leachate impacts, the plot locations would exhibit a shift toward the right side of the diagram toward the SWDA II leachate chemistry ellipse.

Surface water data from Fish Creek and the small pond located northeast of the SWDA II footprint plot similarly to SWDA II groundwater and do not exhibit any enrichment in leachate-dominant ions. Data from SWDA II groundwater suppression system sample location SAGXGDX02B (East GW suppression lateral) are also provided, which plot in the uppermost portion of the diagram and exhibit an enrichment in sulfate when compared to shallow groundwater well results. It is important to note that chloride is not elevated indicating the enrichment is not leachate related. The SWDA II West groundwater suppression system header was dry during all four quarterly events in 2021 and was not sampled.

Constituent concentrations for samples collected from the Fish Creek upstream and downstream surface water sampling locations are comparable and indicate no impacts from the SWDA. Similarly, the surface water sample collected from the small pond northeast of SWDA II did not exhibit elevated concentrations of any leachate indicator parameters.

Based on the geochemical comparisons provided on the piper diagram, the concentration trends identified in shallow downgradient groundwater are not indicative of a leachate release to groundwater, and it is anticipated that the mitigative measures undertaken since 2015 will result in an improvement in groundwater quality at the cross-gradient and downgradient edges of SWDA II. Assessment monitoring at the locations described above will continue throughout the 2022 monitoring period to evaluate the effectiveness of these measures.

4.3 Groundwater Monitoring Summary

4.3.1 Station Area

Geochemical and statistical data were utilized to evaluate the potential impacts to groundwater at the Somerset Site. Based on the plot of major ion chemistry for monitoring locations located in the Station Area (Figure 4), the basins are not impacting groundwater at the Station Area. The addition of ammonia to the groundwater parameter list for monitoring well SO83-06 downgradient of Settling Basins 2, 3 and 4 has further assisted in the identification of potential basin impacts to shallow downgradient groundwater in that area. Dominant anion and cation chemistry concentration trends exhibited a seasonably-variable but stable trend throughout the

2021 monitoring period in wells downgradient of the coal storage pile. Concentration trends in these wells will continue to be monitored throughout the 2022 monitoring period. Concentrations of several leachate indicator parameters which exhibited an increase throughout 2019 in shallow well SO83-05 adjacent to Settling Basin #1 were attributed to separations in the basin liner material identified and repaired in early 2020. Repairs to the liner in early 2021 have reflected overall decreasing concentrations in these leachate parameters during 2021 and continued groundwater quality improvement is anticipated. Groundwater quality downgradient of the Basin will be assessed throughout 2022 to evaluate the effectiveness of the repairs. The Former Sludge Stabilization Basin was closed by removal in 2021 in accordance with Part 257.102(c) of the Federal CCR Rule and the certified Closure Plan. As of May 2021, all Basin construction materials have been removed and the excavation was backfilled and seeded. Groundwater monitoring upgradient and downgradient of the Basin will continue to evaluate groundwater quality following Basin removal.

4.3.2 SWDA I

Based on geochemical relationships between landfill leachate and shallow and deeper bedrock groundwater at SWDA I, localized impacts exist at well SAGDSH-9121, near Fish Creek Basin caused by historic exfiltration from the basin. Reduced storage capacities, liner improvements, and immediate conveyance from the basin to the SWDA II basin via double-walled conveyance piping have facilitated improvements in groundwater quality at the well. This well will continue to be monitored throughout 2022. The change in water chemistry that occurred in well SAGSCH-9226 beginning with fourth quarter 2004 (located west of SWDA I) continues to exhibit significant seasonal variability in the concentration of TDS, chloride and sodium. This geochemical variation is due to influence from deeper bedrock groundwater and does not indicate impact from leachate chemistry. Groundwater elevations in monitoring wells near the conveyance piping have equilibrated near pre-construction groundwater elevations. The detections of arsenic above the Class GA groundwater standard at several monitoring locations downgradient and cross-gradient of SWDA I are well within historic ranges. These concentrations are considered representative of background site groundwater quality and are commonly related to elevated sample turbidity.

4.3.3 SWDA II

Groundwater quality at the SWDA II is evaluated through the comparison of quarterly analytical data with established trigger values which are used to identify a significant increase in the concentration of groundwater constituents. Several inorganic constituents were detected at concentrations above the assessment trigger values at monitoring locations both upgradient and downgradient of the SWDA II. These detections have suggested that these analytes are intermittently present at background concentrations above the established trigger values and represent natural variation in constituent concentrations as overburden groundwater levels decrease and groundwater entering the well screen is predominantly bedrock groundwater.

Concentrations of sulfate and TDS downgradient and cross-gradient of SWDA II continue to exhibit an increasing trend or remain elevated when compared to historical values; however, increasing concentration trends are not observed for leachate indicator parameters, such as bromide, chloride, and potassium, therefore impacts from the landfill are not suspected. Assessment monitoring to evaluate the effectiveness of the previous corrective actions will continue throughout the 2022 monitoring period.

5.0 Year 2021 Annual Solid Waste Operating Report

The following sections present the Year 2021 Annual Solid Waste Operating Report. The reporting period is inclusive of January 1, 2021 to December 31, 2021.

5.1 Owner/Facility Information

FACILITY NAME: **SOMERSET OPERATING COMPANY, LLC** DEC FACILITY CODE #: **32N34**

TOWN: **Barker** COUNTY: **Niagara** DEC REGION: **9**

PART 360 PERMIT: **Licensed under PSC Case 80002** ISSUED: **6/27/84**

EXPIRES: **N/A**

OWNER/OPERATOR: **SOMERSET OPERATING COMPANY, LLC**

ADDRESS: **7725 Lake Road**
Barker, NY 14012

PHONE: **(716) 795-9501**

5.2 Quantity of Solid Waste Disposed

Solid Waste Disposal Area II

Type of Solid Waste	Quarter 1 (tons)	Quarter 2 (tons)	Quarter 3 (tons)	Quarter 4 (tons)	Total Year (tons)	Daily Average (tons)
FGD by-products (stabilized with fly ash and lime)	341	940	0	0	1281	3.5
Bottom Ash	0	0	0	0	0	0
Mill rejects/pyrites	0	0	0	0	0	0
Other Industrial Material	1084	0	0	899	1983	5.4
Total Tons Disposed	1425	940	0	899	3264	8.9

Tonnages obtained by: Truck Count.
Fly Ash sold as beneficial use = 0 tons
Bottom Ash sold as beneficial use = 0 tons
Waste origination by location and %: Somerset Station 100 %

5.3 Unauthorized Solid Waste

No unauthorized waste was received by this landfill.

5.4 Site Life of Solid Waste Disposal Areas

EXISTING LANDFILL		
Remaining Site Life	12 years 9 months	Based on landfill waste disposal rate of 7,000 cubic yards/year
Remaining Capacity	89,695 cubic yards as of 12/31/21	Area II, Phases A-H (E & F east Phases only) Site capacity based on "best case" calculations. This does not include Phases G & H East capacity (included below)

SWDA III which was designated and approved for future expansion will not be developed following retirement of the coal-fired unit in March 2020.

5.5 Materials Recovered

No landfilled material was recovered during the previous calendar year.

The landfill is not authorized to handle recyclable material or process C&D debris.

5.6 and 5.7 Primary Leachate and Surface Runoff

Lake Ontario Basin

LEACHATE (gallons)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTAL (gallons)
Collected	0	5,035,309	0	0	0	5,306,879	0	0	0	5,035,309	0	0	15,377,497
Treated On-Site	0	5,035,309	0	0	0	5,306,879	0	0	0	5,035,309	0	0	15,377,497
Treated Off-Site	0	0	0	0	0	0	0	0	0	0	0	0	0

* Reported values represent the monthly average quantity of primary leachate and contact surface runoff collected between batch discharges.

Somerset Basin

LEACHATE (gallons)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTAL (gallons)
Collected	0	0	5,076,542	0	0	3,761,656	0	0	0	0	5,116,195	0	13,954,393
Treated On-Site	0	0	5,076,542	0	0	3,761,656	0	0	0	0	5,116,195	0	13,954,393
Treated Off-Site	0	0	0	0	0	0	0	0	0	0	0	0	0

- Reported values represent the monthly average quantity of primary leachate and contact surface runoff collected between batch discharges.
- Fish Creek Basin discharge to Fish Creek has been sealed. Leachate and surface runoff collected in Fish Creek Basin flows to Somerset Basin.

No off-site leachate treatment facility was utilized. The operating facility has an engineered liner with a leachate collection system. Primary leachate and contact surface runoff are collected from a 104-acre area.

Leachate quality data are provided in Appendixes A, B and C.

5.8 Tipping Fee/Leachate Treatment Cost

Not applicable to this facility.

5.9 Cost Estimates and Financial Assurance Documents

Not applicable to this facility.

5.10 Changes

There have not been deviations from or changes in the plans, specifications or permit conditions at this facility during the previous calendar year.

5.11 Water Quality Summary

Groundwater quality is discussed in the body of this report.

5.12 Analytical Results

Analytical results are provided in Appendixes A, B and C.

5.13 Data Comparison

Tables comparing site groundwater to 6 NYCRR Part 703 Water Quality Standards is provided in Appendixes A, B and C.

5.14 Discussion of Results

A discussion of analytical results is provided in the body of this report. A site map is provided as Figures 1 and 2.

5.15 Data Quality Assessment

An assessment of the data quality was performed by the New York State Department of Health certified laboratory operated by Adirondack Environmental Services, Inc. located in Albany, New York. Adirondack Environmental Services (ELAP ID# 10709) has all QA/QC documentation on file.

5.16 Collection Basins

SWDA I has two lined collection basins, Fish Creek Basin and Ontario Basin, for leachate and contact surface water collection and treatment. Surface water analytical results are provided in Appendixes A and B. Groundwater quality results are discussed in the body of this report. SWDA Area II has one lined collection basin located northwest of SWDA I, Somerset Basin, for leachate and contact surface water collection from SWDA Area II. Fish Creek Basin also discharges to Somerset Basin.

5.17 Additional Permit Reporting Requirements

Long Term Solid Waste Testing Program (permeability, compressive strength, wet density, dry density, and stabilized sludge elemental analysis) was not performed in 2021 due to the high variability in material physical properties placed in SWDA II.

There were no operational problems to report for 2021.

Tables

5.18 Signature and Date

Owner or Operator must sign, date, and submit one completed form with an original signature to:

Mr. James Austin
Energy Resources and the Environment
New York State Department of Public Service
Three Empire State Plaza
Albany, New York 12233-1350

and a copy to the New York State Department of Environmental Conservation.

I hereby swear or affirm that information provided on this form and attached statements and exhibits is true to the best of my knowledge and belief.

Signature:_____ Date: _____

Name: Mark Zimmerman
Title: Material Handling Manager

Address: Somerset Operating Company, LLC
7725 Lake Road
Barker, New York 14012

Phone Number: (716) 795-9501

Table 1. Derivation of Monitoring Location Site Codes
2021 Annual Report
Heorot Power- Somerset Operating Company
Barker, New York

The Site Code is derived from a 10 character system as described below:

	S	A	G	D	S	H	9	1	3	1
Character Position:	1	2	3	4	5	6	7	8	9	10

Character Position	Usage	Codes Used	Definition
1 & 2	Site	SA	Somerset SWDA
		SO	Somerset Station
3	Source	G	Groundwater
		S	Surface Water
		P	Process water (water prior to treatment and discharge)
4	Relative Location	C	Crossgradient
		D	Downgradient
		I	Inner Loop (applies to Loop Track Basins
		U	Upgradient
		X	No designation
5 & 6	Location	A	Well "A"
		D	Deep Well
		GD	Groundwater suppression system
		LT	Loop Track Basin
		LD	Leak detection system
		SH	Shallow Well
		SP	Basin
		SS	Stream Water
		UD	Underdrain (Leachate Collection System)
		XX	No designation
7, 8, 9 & 10	Well/Point Number		Year well was installed and number or sample point number

Table 2. Station Groundwater Monitoring Locations
2021 Annual Report
Heorot Power- Somerset Operating Company
Barker, New York

Well ID	Map ID	Hydraulic Location*
SOGUXX8201	SO82-01	Upgradient of Station
SOGUA-8204	SO82-04A	Upgradient of Station
SOGUXX8204	SO82-04	Upgradient of Station
SOGNA-8206	SO82-06A	Crossgradient of Station
SOGNXX8206	SO82-06A	Crossgradient of Station
SOGDXX8208	SO82-08	Crossgradient of Station
SOGDA-8209	SO82-09A	Downgradient of Station
SOGDXX8209	SO82-09	Downgradient of Station
SOGDXX8301	SO83-01	Downgradient of Former Coal Storage
SOGDXX8302	SO83-02	Downgradient of Former Coal Storage
SOGDXX8303	SO83-03	Downgradient of Former Coal Storage
SOGDXX8304	SO83-04	Downgradient of Settling Basin 1
SOGDXX8305	SO83-05	Downgradient of Settling Basin 1
SOGDXX8306	SO83-06	Downgradient of Settling Basin 2, 3, & 4
SOGDXX8307	SO83-07	Downgradient of Settling Basin 2, 3, & 4
SOGUA-8308	SO83-08	Upgradient of Station
SOGDD-8802	SO88-02D	Downgradient of Former Coal Storage
SOGUD-8811	SO88-11D	Upgradient of Station
SOGUSH8811	SO88-11S	Upgradient of Station
SOGDXX8821R	SO88-21R	Downgradient of Settling Basin 2, 3, & 4
SOGDXX8822	SO88-22	Downgradient of Settling Basin 2, 3, & 4
SOGDXX8823	SO88-23	Upgradient of Settling Basins 2, 3, & 4
SOGDXX8824	SO88-24	Upgradient of Settling Basin 1
SOGDXX8825	SO88-25	Upgradient of Settling Basin 1 and Loop Track Basin 2
SOGDXX8826	SO88-26	Downgradient of Loop Track Basin 1
SOGDXX8827	SO88-27	Upgradient of Loop Track Basin 1
SOGDXX8828	SO88-28	Upgradient of Stabilized Sludge Basin
SOGDXX8829	SO88-29	Downgradient of Former Stabilized Sludge Basin
SOGDXX1501	SO15-01	Downgradient of Former Stabilized Sludge Basin
SOGDXX1502	SO15-02	Downgradient of Former Stabilized Sludge Basin
SOGDXX0901	SO09-01	Downgradient of Former Coal Storage

Notes:
* based on groundwater flow direction

Table 3. SWDA Groundwater and Surface Water Monitoring Locations
2021 Annual Report
Heorot Power- Somerset Operating Company
Barker, New York

Well ID	Map ID	Hydraulic Location*
SWDA I		
SAGDXX-8207	SA82-07	Downgradient of Area II
SAGUXX-8213	SA82-13	Downgradient of Area III (1)
SAGDXX-8301	SA83-01	Downgradient of Area I
SAGDXX-8303	SA83-03	Downgradient of Area I
SAGDXX-8305	SA83-05	Upgradient of Area I
SAGDXX-8306	SA83-06	Downgradient of Area I
SAGDSH-8701	SA87-01S	Upgradient of Area I
SAGDD-8703	SA87-03D	Downgradient of Area I
SAGDD-8705	SA87-05D	Upgradient of Area I
SAGUD-8707	SA87-07D	Upgradient of Area II
SAGUD-8713	SA87-13D	Downgradient of Area III (1)
SAGCD-9101	SA91-01D	Upgradient of Area I
SAGDSH-9104	SA91-04S	Downgradient of Area I
SAGDD-9121	SA91-21D	Downgradient of Area I
SAGDSH-9121	SA91-21S	Downgradient of Area I
SAGCD-9122	SA91-22D	Crossgradient of Area I
SAGCSH-9122	SA91-22S	Upgradient of Area I
SAGDD-9123	SA91-23D	Crossgradient of Area I
SAGDSH-9123	SA91-23S	Crossgradient of Area I
SAGDD-9124	SA91-24D	Downgradient of Area I
SAGDSH-9124	SA91-24S	Downgradient of Area I
SAGDD-9125	SA91-25D	Downgradient of Area I
SAGDSH-9125	SA91-25S	Downgradient of Area I
SAGUD-9128	SA91-28D	Downgradient of Area I
SAGUSH-9128	SA91-28S	Downgradient of Area I
SAGDD-9129	SA91-29D	Downgradient of Area I
SAGDSH-9129	SA91-29S	Downgradient of Area I
SAGDD-9131	SA91-31D	Downgradient of Area III (1)
SAGDSH-9131	SA91-31S	Downgradient of Area III (1)
SAGDD-9132	SA91-32D	Downgradient of Area III (1)
SAGDSH-9132	SA91-32S	Downgradient of Area III (1)
SAGDD-9133	SA91-33D	Downgradient of Area III (1)

Table 3. SWDA Groundwater and Surface Water Monitoring Locations
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Barker, New York

Well ID	Map ID	Hydraulic Location*
SAGDSH-9133	SA91-33S	Downgradient of Area III [(1)]
SAGDD-9134	SA91-34D	Downgradient of Area III [(1)]
SAGDSH-9134	SA91-34S	Downgradient of Area III [(1)]
SAGCD-9136	SA91-36D	Downgradient of Area III [(1)]
SAGCSH-9136	SA91-36S	Downgradient of Area III [(1)]
SAGUD-9137	SA91-37D	Downgradient of Area III [(1)]
SAGUSH-9137	SA91-37S	Downgradient of Area III [(1)]
SAGUD-9138	SA91-38D	Downgradient of Area III [(1)]
SAGUSH-9138	SA91-38S	Downgradient of Area III [(1)]
SAGUD-9139	SA91-39D	Downgradient of Area III [(1)]
SAGUSH-9139	SA91-39S	Downgradient of Area III [(1)]
SAGCD-9140	SA91-40D	Downgradient of Area III [(1)]
SAGCSH-9140	SA91-40S	Downgradient of Area III [(1)]
SAGUD-9141	SA91-41D	Upgradient of Area II
SAGUSH-9141	SA91-41S	Upgradient of Area II
SAGCD-9226	SA92-26D	Crossgradient of Area I
SAGCSH-9226	SA92-26S	Crossgradient of Area I
SAGCD-9227	SA92-27D	Crossgradient of Area I
SAGCSH-9227	SA92-27S	Crossgradient of Area I
SAGDD-9751	SA97-51D	Downgradient of Area I
SAGDSH-9751	SA97-51S	Downgradient of Area I
SAGDSH-0141	SA01-41S	Crossgradient of Area I
SAGDD-0141	SA01-41D	Crossgradient of Area I
SAGDSH-0142	SA01-42S	Downgradient of Area I
SAGDD-0142	SA01-42D	Downgradient of Area I

Table 3. SWDA Groundwater and Surface Water Monitoring Locations
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Barker, New York

Well ID	Map ID	Hydraulic Location*
SWDA II		
SAGUSH--0201	SA02-1S	Upgradient of Area II
SAGUD-0201	SA02-1D	Upgradient of Area II (LWBZ)
SAGUSH-9141	SA91-41S	Upgradient of Area II
SAGUD-9141	SA91-41D	Upgradient of Area II (LWBZ)
SAGDSH-0202	SA02-2S	Down Gradient of Area II
SAGDSH-0203	SA02-3S	Down Gradient of Area II
SAGDD-0203	SA02-3D	Down Gradient of Area II (LWBZ)
SAGDSH-0204	SA02-4S	Down Gradient of Area II
SAGDD-0204	SA02-4D	Down Gradient of Area II (LWBZ)
SAGDSH-0205	SA02-5S	Down Gradient of Area II
SAGDSH-0306	SA03-6S	Down Gradient of Area II
SAGDSH-0307	SA03-7S	Down Gradient of Area II
SAGDSH-0308	SA03-8S	Down Gradient of Area II
SAGDSH-0309	SA03-9S	Down Gradient of Area II
SAGDSH-0310	SA03-10S	Down Gradient of Area II
SAGDSH-0711	SA07-11S	Down Gradient of Area II
SAGDD-0711	SA07-11D	Down Gradient of Area II (LWBZ)
SAPONDXX01	NA	Pond Adjacent to Area II
SASDSSXX02	NA	Downstream of SWDA II
SASUSSXX01	NA	Upstream of SWDA II
SWDA II Leachate Impoundment		
SAGDSH-0543	SA05-43S	Down Gradient
SAGDSH-0544	SA05-44S	Down Gradient
SAGUSH-0141	SA01-41S	Upgradient

Notes:

* based on groundwater flow direction

(1) Area III will not be developed and monitoring was discontinued in the Second Quarter 2021

Table 4. Groundwater Analytical Parameters
2021 Annual Report
Heorot Power- Somerset Operating Company
Barker, New York

ANALYTICAL PARAMETERS
Routine Parameters
Ammonia
Alkalinity
Arsenic*
Boron*
Calcium*
Cadmium*
Chloride
Specific Conductance
Iron*
Potassium*
Lithium*
Magnesium*
Manganese*
Molybdenum*
pH
Sulfate
Strontium*
Total Dissolved Solids
Temperature
Turbidity
Baseline Parameters (additional to the routine list)
Silver*
Aluminum*
Bromide
Chromium*
Copper*
Oxidation/Reduction Potential
Fluoride
Total Hardness
Mercury*
Sodium*
Lead*
Selenium*
Vanadium
Zinc*

* = Parameters analyzed for total metal constituents. Dissolved constituents will be analyzed for if samples are turbid.

Table 5. Station Area 2021 Groundwater Elevation Summary
2021 Annual Report
Heorot Power- Somerset Operating Company
Barker, New York

Well ID	Reference Elevation [1]	January-21		May-21		July-21		October-21	
		DTW	GW Elevation[1]	DTW	GW Elevation	DTW	GW Elevation	DTW	GW Elevation
SOGDA-8209	271.23	15.30	255.93	15.60	255.63	17.70	253.53	15.60	255.63
SOGDD-8802	304.38	32.30	272.08	32.80	271.58	33.30	271.08	32.20	272.18
SOGDSH0901	305.16	32.05	273.11	32.50	272.66	34.80	270.36	32.50	272.66
SOGDXX1501	285.19	18.50	266.69	--	NA	20.00	265.19	19.00	266.19
SOGDXX1502	284.86	18.10	266.76	--	NA	19.60	265.26	18.70	266.16
SOGDXX8208	271.98	22.40	249.58	21.70	250.28	21.90	250.08	21.60	250.38
SOGDXX8209	271.00	16.30	254.70	16.50	254.50	18.20	252.80	16.40	254.60
SOGDXX8301	302.86	30.15	272.71	31.00	271.86	32.40	270.46	30.60	272.26
SOGDXX8302	302.60	30.30	272.30	31.20	271.40	32.70	269.90	30.70	271.90
SOGDXX8303	303.59	30.25	273.34	30.70	272.89	32.90	270.69	30.80	272.79
SOGDXX8304	304.45	13.60	290.85	13.20	291.25	14.70	289.75	10.20	294.25
SOGDXX8305	305.38	15.10	290.28	14.90	290.48	16.30	289.08	12.40	292.98
SOGDXX8306	283.09	25.95	257.14	25.90	257.19	26.10	256.99	25.90	257.19
SOGDXX8307	288.07	9.90	278.17	13.60	274.47	14.30	273.77	13.90	274.17
SOGDXX8821R[2]	294.96	20.50	274.46	20.60	274.36	22.60	272.36	20.40	274.56
SOGDXX8822	291.73	17.30	274.43	17.50	274.23	19.50	272.23	17.30	274.43
SOGDXX8823	302.24	20.40	281.84	20.70	281.54	23.05	279.19	20.40	281.84
SOGDXX8824	304.79	5.90	298.89	9.90	294.89	13.70	291.09	7.70	297.09
SOGDXX8825	303.22	10.00	293.22	10.90	292.32	13.60	289.62	8.60	294.62
SOGDXX8826	303.52	9.00	294.52	11.50	292.02	13.20	290.32	8.75	294.77
SOGDXX8827	304.78	4.80	299.98	8.30	296.48	10.80	293.98	3.80	300.98
SOGDXX8828	288.56	20.40	268.16	20.05	268.51	21.10	267.46	19.10	269.46
SOGDXX8829	286.05	19.20	266.85	19.80	266.25	20.80	265.25	19.75	266.30
SOGNA-8206	301.43	14.90	286.53	15.05	286.38	18.20	283.23	15.00	286.43
SOGNXX8206	301.81	15.90	285.91	15.85	285.96	18.60	283.21	15.50	286.31
SOGUA-8204	298.02	2.90	295.12	6.10	291.92	8.80	289.22	5.80	DRY
SOGUA-8308	300.80	5.20	295.60	5.40	295.40	11.60	289.20	7.40	293.40
SOGUD-8811	301.97	17.50	284.47	16.70	285.27	17.60	284.37	17.10	284.87
SOGUSH8811	302.21	4.80	297.41	5.10	297.11	10.80	291.41	7.30	294.91
SOGUXX8201	303.20	6.80	296.40	8.05	295.15	12.40	290.80	7.40	295.80
SOGUXX8204	297.69	2.90	294.79	6.10	291.59	8.30	289.39	5.90	291.79

[1] Feet above sea level

[2] SOGDXX8821 was damaged in the second quarter 2013. The well was decommissioned and replaced with SOGDXX8821R in August 2013. The new reference elevation is 294.96 fasl.

DTW= Depth to Water (feet)

GW= Groundwater

Table 6. SWDA 2021 Groundwater Elevation Summary
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Heorot Power- Somerset Operating Company
Barker, New York

Well ID	Reference Elevation [1]	January-21		April-21		September-21		December-21	
		DTW	GW Elevation[1]	DTW	GW Elevation	DTW	GW Elevation	DTW	GW Elevation
SAGCD-0141	297.61	17.00	280.61	16.60	281.01	18.10	279.51	16.70	280.91
SAGCD-9101	302.73	16.60	286.13	14.80	287.93	15.50	287.23	14.90	287.83
SAGCD-9122	305.64	17.90	287.74	19.60	286.04	21.40	284.24	18.50	287.14
SAGCD-9136	295.00	7.20	287.80	--	--	--	--	--	--
SAGCD-9140	302.00	16.50	285.50	--	--	--	--	--	--
SAGCD-9226	291.31	16.70	274.61	17.50	273.81	17.60	273.71	14.40	276.91
SAGCD-9227	299.00	36.00	263.00	33.80	265.20	36.40	262.60	36.00	263.00
SAGCSH0202	302.78	10.40	292.38	4.80	297.98	11.00	291.78	10.60	292.18
SAGCSH9122	305.43	14.30	291.13	15.45	289.98	19.40	286.03	14.20	291.23
SAGCSH9136	296.00	7.60	288.40	--	--	--	--	--	--
SAGCSH9140	302.00	10.40	291.60	--	--	--	--	--	--
SAGCSH0141	297.42	18.90	278.52	15.40	282.02	18.40	279.02	18.50	278.92
SAGCSH9226	292.23	12.60	279.63	12.10	280.13	15.70	276.53	12.40	279.83
SAGCSH9227	299.13	16.40	282.73	15.90	283.23	20.60	278.53	16.05	283.08
SAGDD-0142	294.64	22.10	272.54	23.10	271.54	22.30	272.34	19.00	275.64
SAGDD-0203	297.81	11.70	286.11	10.70	287.11	11.60	286.21	10.70	287.11
SAGDD-0204	296.65	10.40	286.25	8.70	287.95	11.50	285.15	10.30	286.35
SAGDD-0711	305.17	19.80	285.37	17.90	287.27	19.70	285.47	19.80	285.37
SAGDD-8703	293.64	17.20	276.44	16.60	277.04	31.80	261.84	35.00	258.64
SAGDD-8705	292.72	7.05	285.67	6.80	285.92	7.90	284.82	4.80	287.92
SAGDD-9121	299.33	10.30	289.03	11.20	288.13	14.70	284.63	9.40	289.93
SAGDD-9123	296.12	10.30	285.82	10.10	286.02	14.40	281.72	10.60	285.52
SAGDD-9124	298.27	25.70	272.57	28.40	269.87	30.70	267.57	27.50	270.77
SAGDD-9125	293.81	24.50	269.31	23.90	269.91	26.30	267.51	24.30	269.51
SAGDD-9129	284.85	31.10	253.75	31.50	253.35	30.80	254.05	29.90	254.95
SAGDD-9131	306.00	15.50	290.50	--	--	--	--	--	--
SAGDD-9132	300.00	11.30	288.70	--	--	--	--	--	--
SAGDD-9133	297.00	8.40	288.60	--	--	--	--	--	--
SAGDD-9134	299.00	14.50	284.50	--	--	--	--	--	--
SAGDD-9751	293.95	14.50	279.45	14.00	279.95	14.80	279.15	13.70	280.25
SAGDSH0142	294.95	19.60	275.35	19.20	275.75	22.10	272.85	19.20	275.75
SAGDSH0203	297.50	10.80	286.70	9.30	288.20	12.00	285.50	10.60	286.90
SAGDSH0204	296.45	9.40	287.05	7.70	288.75	11.80	284.65	9.60	286.85
SAGDSH0205	296.51	8.40	288.11	4.00	292.51	11.50	285.01	7.80	288.71
SAGDSH0306	304.48	18.50	285.98	16.80	287.68	19.70	284.78	19.10	285.38
SAGDSH0307	303.88	16.80	287.08	15.30	288.58	18.10	285.78	16.80	287.08
SAGDSH0308	300.54	15.70	284.84	11.30	289.24	16.50	284.04	15.70	284.84
SAGDSH0309	303.50	15.20	288.30	8.20	295.30	14.00	289.50	14.20	289.30
SAGDSH0310	298.94	11.00	287.94	9.20	289.74	13.70	285.24	11.50	287.44
SAGDSH-0543	272.26	--	DRY	16.70	255.56	--	DRY	--	DRY
SAGDSH-0544	271.44	16.70	254.74	15.70	255.74	17.30	254.14	--	DRY
SAGDSH0711	305.21	18.70	286.51	17.05	288.16	19.90	285.31	19.30	285.91
SAGDSH8701	303.47	13.80	289.67	15.10	288.37	18.00	285.47	13.50	289.97

Table 6. SWDA 2021 Groundwater Elevation Summary
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Barker, New York

Well ID	Reference Elevation [1]	January-21		April-21		September-21		December-21	
		DTW	GW Elevation[1]	DTW	GW Elevation	DTW	GW Elevation	DTW	GW Elevation
SAGDSH9104	291.10	18.80	272.30	18.00	273.10	20.60	270.50	18.60	272.50
SAGDSH9121	299.58	12.00	287.58	12.90	286.68	15.70	283.88	11.50	288.08
SAGDSH9123	296.61	8.40	288.21	8.30	288.31	12.20	284.41	8.50	288.11
SAGDSH9124	298.05	17.90	280.15	17.40	280.65	19.40	278.65	17.80	280.25
SAGDSH9125	293.76	24.20	269.56	23.60	270.16	26.05	267.71	24.20	269.56
SAGDSH9129	285.50	7.50	278.00	6.90	278.60	9.00	276.50	7.50	278.00
SAGDSH9131	306.00	16.05	289.95	--	--	--	--	--	--
SAGDSH9132	301.00	14.70	286.30	--	--	--	--	--	--
SAGDSH9133	297.00	13.20	283.80	--	--	--	--	--	--
SAGDSH9134	299.00	15.80	283.20	--	--	--	--	--	--
SAGDSH9751	294.27	16.10	278.17	15.60	278.67	17.20	277.07	15.70	278.57
SAGDXX8301	300.54	15.20	285.34	14.80	285.74	18.50	282.04	15.05	285.49
SAGDXX8303	294.21	16.60	277.61	16.10	278.11	17.50	276.71	16.30	277.91
SAGDXX8305	292.56	4.90	287.66	6.20	286.36	9.00	283.56	4.20	288.36
SAGDXX8306	297.38	9.80	287.58	10.90	286.48	14.30	283.08	10.90	286.48
SAGUD-0201	306.77	14.70	292.07	13.80	292.97	15.40	291.37	14.10	292.67
SAGUD-8713	297.40	15.00	282.40	--	--	--	--	--	--
SAGUD-9128	296.30	11.20	285.10	11.00	285.30	12.90	283.40	11.20	285.10
SAGUD-9137	297.00	24.40	272.60	--	--	--	--	--	--
SAGUD-9138	299.00	19.40	279.60	--	--	--	--	--	--
SAGUD-9139	300.00	15.10	284.90	--	--	--	--	--	--
SAGUD-9141	303.00	8.30	294.70	4.20	298.80	10.40	292.60	7.60	295.40
SAGUSH-0201	303.15	9.80	293.35	4.80	298.35	12.10	291.05	9.40	293.75
SAGUSH9128	298.04	12.10	285.94	12.00	286.04	15.40	282.64	12.30	285.74
SAGUSH9137	297.00	7.50	289.50	--	--	--	--	--	--
SAGUSH9138	299.00	7.40	291.60	--	--	--	--	--	--
SAGUSH9139	301.00	8.80	292.20	--	--	--	--	--	--
SAGUSH9141	296.64	7.80	288.84	4.30	292.34	9.80	286.84	6.80	289.84
SAGUXX8213	298.80	4.80	294.00	--	--	--	--	--	--

[1] Feet above sea level
DTW = Depth to water
GW = Groundwater
-- Data not collected. Groundwater elevation monitoring and sampling of Area III wells was discontinued in the Second Quarter 2021.

Table 7. Calcium/Magnesium Ratios - 1st Quarter 2021
2021 Annual Report
Heorot Power- Somerset Operating Company
Barker, New York

Map ID	Site Code	Calcium (mg/l)	Magnesium (mg/l)	Ca/Mg Ratio
SA01-41S	SAGCSH0141	134.0	82.7	1.6
SA02-02S	SAGCSH0202	124.0	50.5	2.5
SA91-22S	SAGCSH9122	156.0	110.0	1.4
SA92-26S	SAGCSH9226	500.0	100.0	5.0
SA92-27S	SAGCSH9227	249.0	121.0	2.1
SA-0142S	SAGDSH0142	112.0	112.0	1.0
SA02-03S	SAGDSH0203	164.0	53.0	3.1
SA02-04S	SAGDSH0204	163.0	54.0	3.0
SA02-05S	SAGDSH0205	86.0	67.3	1.3
SA03-06S	SAGDSH0306	142.0	52.9	2.7
SA03-07S	SAGDSH0307	244.0	101.0	2.4
SA03-08S	SAGDSH0308	276.0	74.0	3.7
SA03-09S	SAGDSH0309	280.0	104.0	2.7
SA03-10S	SAGDSH0310	125.0	59.4	2.1
SA05-43S	SAGDSH0543	DRY	DRY	--
SA05-44S	SAGDSH0544	DRY	DRY	--
SA07-11S	SAGDSH0711	571.0	115.0	5.0
SA87-01S	SAGDSH8701	1040.0	500.0	2.1
SA91-04S	SAGDSH9104	74.6	83.4	0.9
SA91-21S	SAGDSH9121	271.0	151.0	1.8
SA91-23S	SAGDSH9123	39.3	48.0	0.8
SA91-24S	SAGDSH9124	29.6	52.3	0.6
SA91-25S	SAGDSH9125	38.6	50.9	0.8
SA97-51S	SAGDSH9751	112.0	134.0	0.8
SA83-01	SAGDXX8301	28.9	53.4	0.5
SA83-03	SAGDXX8303	124.0	74.2	1.7
SA83-05	SAGDXX8305	169.0	92.3	1.8
SA83-06	SAGDXX8306	310.0	109.0	2.8
SA02-01S	SAGUSH0201	257.0	96.6	2.7
SA91-41S	SAGUSH9141	144.0	72.2	2.0
SWDA I Leachate	SAPXUDXX01	3300.0	5.0	660.0
	SAPXUDXX02	6890.0	5.0	1378.0
	SAPXUDXX03	6760.0	5.8	1161.5
	SAPXUDXX04	4340.0	23.8	182.4
	SAPXUDXX05	3630.0	27.0	134.4
	SAPXUDXX06	4060.0	28.2	144.0
SWDA II Leachate	SAPXUDXX07A	500.0	13.2	37.9
	SAPXUDXX07B	500.0	14.1	35.5

Table 8. Calcium/Magnesium Ratios - 2nd Quarter 2021
2021 Annual Report
Heorot Power- Somerset Operating Company
Barker, New York

Map ID	Site Code	Calcium (mg/l)	Magnesium (mg/l)	Ca/Mg Ratio
SA01-41S	SAGCSH0141	125.0	76.1	1.6
SA02-02S	SAGCSH0202	139.0	37.7	3.7
SA91-22S	SAGCSH9122	136.0	85.1	1.6
SA92-26S	SAGCSH9226	179.0	87.7	2.0
SA92-27S	SAGCSH9227	360.0	115.0	3.1
SA-0142S	SAGDSH0142	109.0	122.0	0.9
SA02-03S	SAGDSH0203	153.0	38.9	3.9
SA02-04S	SAGDSH0204	143.0	37.9	3.8
SA02-05S	SAGDSH0205	80.8	65.1	1.2
SA03-06S	SAGDSH0306	148.0	56.6	2.6
SA03-07S	SAGDSH0307	318.0	112.0	2.8
SA03-08S	SAGDSH0308	241.0	61.4	3.9
SA03-09S	SAGDSH0309	307.0	77.1	4.0
SA03-10S	SAGDSH0310	125.0	56.5	2.2
SA05-43S	SAGDSH0543	271.0	109.0	2.5
SA05-44S	SAGDSH0544	164.0	74.0	2.2
SA07-11S	SAGDSH0711	500.0	81.0	6.2
SA87-01S	SAGDSH8701	833.0	500.0	1.7
SA91-04S	SAGDSH9104	67.5	85.0	0.8
SA91-21S	SAGDSH9121	193.0	167.0	1.2
SA91-23S	SAGDSH9123	33.2	45.6	0.7
SA91-24S	SAGDSH9124	32.0	56.9	0.6
SA91-25S	SAGDSH9125	66.7	78.8	0.8
SA97-51S	SAGDSH9751	119.0	142.0	0.8
SA83-01	SAGDXX8301	30.8	56.7	0.5
SA83-03	SAGDXX8303	117.0	63.7	1.8
SA83-05	SAGDXX8305	162.0	87.8	1.8
SA83-06	SAGDXX8306	242.0	94.1	2.6
SA02-01S	SAGUSH0201	281.0	109.0	2.6
SA91-41S	SAGUSH9141	146.0	71.0	2.1
SWDA I Leachate	SAPXUDXX01	2470.0	5.0	494.0
	SAPXUDXX02	6190.0	5.0	1238.0
	SAPXUDXX03	7170.0	5.5	1298.9
	SAPXUDXX04	3250.0	22.1	147.1
	SAPXUDXX05	3390.0	27.6	122.8
	SAPXUDXX06	3610.0	29.7	121.5
SWDA II Leachate	SAPXUDXX07A	500.0	14.2	35.2
	SAPXUDXX07B	500.0	20.6	24.3

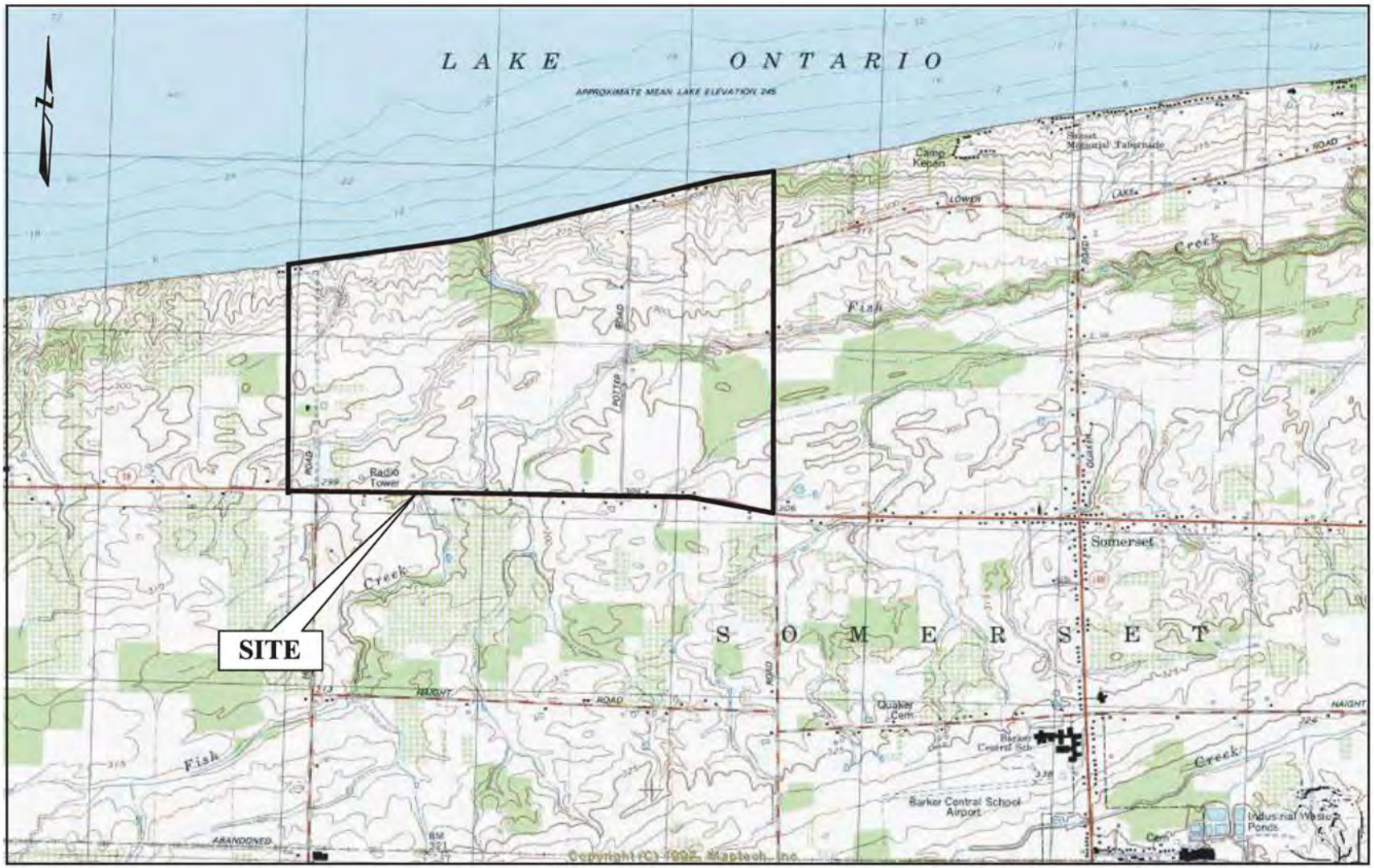
Table 9. Calcium/Magnesium Ratios - 3rd Quarter 2021
2021 Annual Report
Heorot Power- Somerset Operating Company
Barker, New York

Map ID	Site Code	Calcium (mg/l)	Magnesium (mg/l)	Ca/Mg Ratio
SA01-41S	SAGCSH0141	124.0	75.2	1.6
SA02-02S	SAGCSH0202	123.0	49.9	2.5
SA91-22S	SAGCSH9122	376.0	195.0	1.9
SA92-26S	SAGCSH9226	224.0	86.6	2.6
SA92-27S	SAGCSH9227	276.0	110.0	2.5
SA-0142S	SAGDSH0142	115.0	109.0	1.1
SA02-03S	SAGDSH0203	134.0	45.1	3.0
SA02-04S	SAGDSH0204	168.0	56.3	3.0
SA02-05S	SAGDSH0205	95.6	73.6	1.3
SA03-06S	SAGDSH0306	155.0	58.8	2.6
SA03-07S	SAGDSH0307	352.0	121.0	2.9
SA03-08S	SAGDSH0308	208.0	64.1	3.2
SA03-09S	SAGDSH0309	298.0	115.0	2.6
SA03-10S	SAGDSH0310	140.0	66.4	2.1
SA05-43S	SAGDSH0543	DRY	DRY	--
SA05-44S	SAGDSH0544	DRY	DRY	--
SA07-11S	SAGDSH0711	639.0	129.0	5.0
SA87-01S	SAGDSH8701	1280.0	533.0	2.4
SA91-04S	SAGDSH9104	77.4	78.1	1.0
SA91-21S	SAGDSH9121	245.0	151.0	1.6
SA91-23S	SAGDSH9123	43.8	47.8	0.9
SA91-24S	SAGDSH9124	31.5	50.9	0.6
SA91-25S	SAGDSH9125	89.6	77.3	1.2
SA97-51S	SAGDSH9751	120.0	136.0	0.9
SA83-01	SAGDXX8301	32.3	53.1	0.6
SA83-03	SAGDXX8303	73.7	66.3	1.1
SA83-05	SAGDXX8305	150.0	74.1	2.0
SA83-06	SAGDXX8306	305.0	103.0	3.0
SA02-01S	SAGUSH0201	214.0	84.9	2.5
SA91-41S	SAGUSH9141	149.0	75.3	2.0
SWDA I Leachate	SAPXUDXX01	2520.0	5.0	504.0
	SAPXUDXX02	6700.0	5.0	1340.0
	SAPXUDXX03	7230.0	5.8	1244.4
	SAPXUDXX04	4370.0	20.8	210.1
	SAPXUDXX05	3680.0	26.3	139.9
	SAPXUDXX06	2970.0	26.9	110.4
SWDA II Leachate	SAPXUDXX07A	500.0	12.7	39.4
	SAPXUDXX07B	500.0	16.3	30.7

Table 10. Calcium/Magnesium Ratios - 4th Quarter 2021
2021 Annual Report
Heorot Power- Somerset Operating Company
Barker, New York

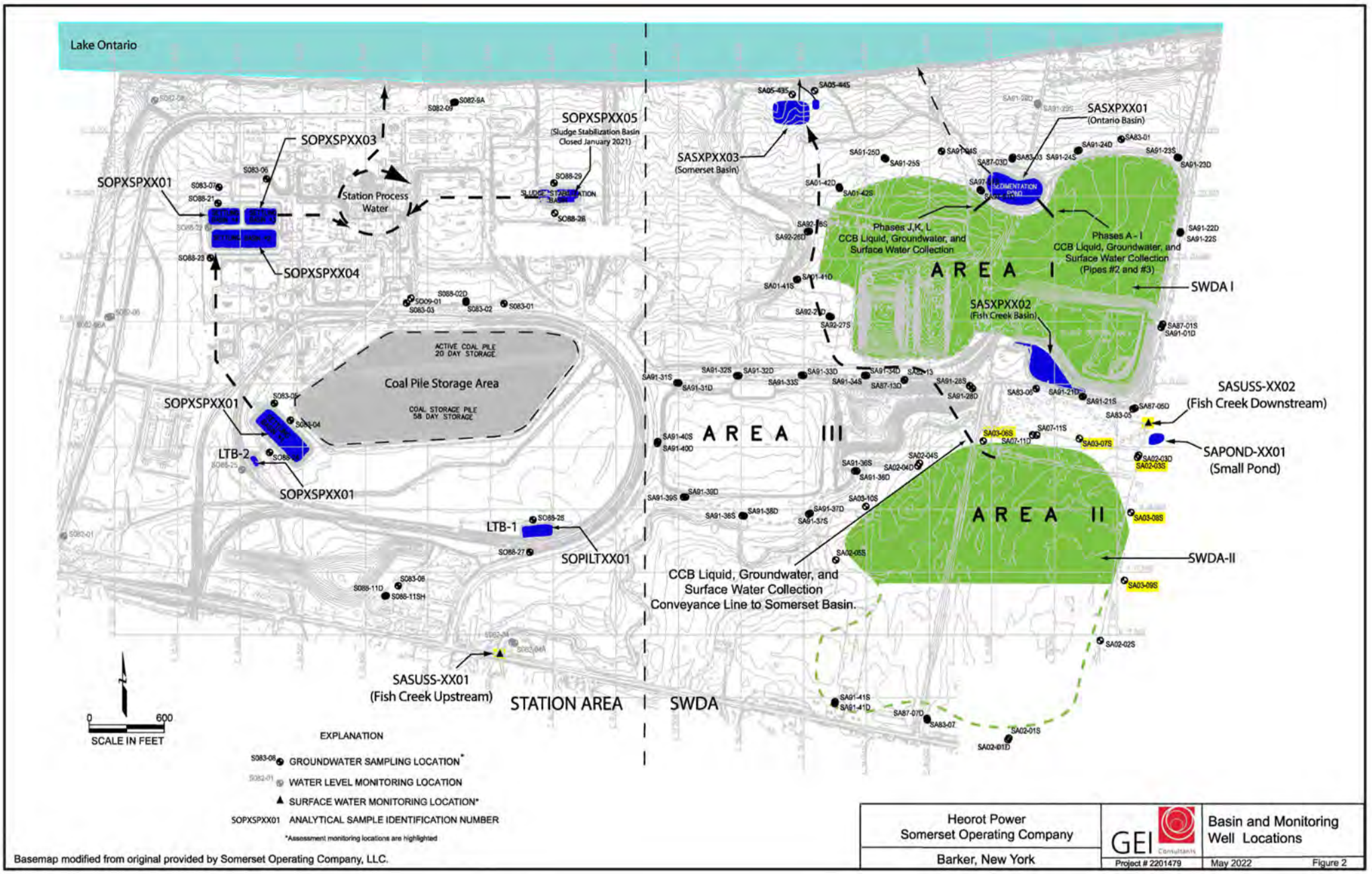
Map ID	Site Code	Calcium (mg/l)	Magnesium (mg/l)	Ca/Mg Ratio
SA01-41S	SAGCSH0141	119.0	75.8	1.6
SA02-02S	SAGCSH0202	134.0	38.4	3.5
SA91-22S	SAGCSH9122	129.0	82.6	1.6
SA92-26S	SAGCSH9226	139.0	82.0	1.7
SA92-27S	SAGCSH9227	233.0	117.0	2.0
SA-0142S	SAGDSH0142	112.0	113.0	1.0
SA02-03S	SAGDSH0203	135.0	44.2	3.1
SA02-04S	SAGDSH0204	139.0	47.8	2.9
SA02-05S	SAGDSH0205	84.6	63.7	1.3
SA03-06S	SAGDSH0306	148.0	56.2	2.6
SA03-07S	SAGDSH0307	195.0	69.6	2.8
SA03-08S	SAGDSH0308	241.0	76.0	3.2
SA03-09S	SAGDSH0309	312.0	121.0	2.6
SA03-10S	SAGDSH0310	116.0	55.0	2.1
SA05-43S	SAGDSH0543	DRY	DRY	--
SA05-44S	SAGDSH0544	DRY	DRY	--
SA07-11S	SAGDSH0711	585.0	113.0	5.2
SA87-01S	SAGDSH8701	1140.0	500.0	2.3
SA91-04S	SAGDSH9104	78.2	80.4	1.0
SA91-21S	SAGDSH9121	254.0	164.0	1.5
SA91-23S	SAGDSH9123	44.1	49.5	0.9
SA91-24S	SAGDSH9124	33.9	52.3	0.6
SA91-25S	SAGDSH9125	71.4	83.6	0.9
SA97-51S	SAGDSH9751	116.0	135.0	0.9
SA83-01	SAGDXX8301	28.0	58.6	0.5
SA83-03	SAGDXX8303	79.3	73.1	1.1
SA83-05	SAGDXX8305	163.0	78.4	2.1
SA83-06	SAGDXX8306	308.0	106.0	2.9
SA02-01S	SAGUSH0201	251.0	95.2	2.6
SA91-41S	SAGUSH9141	144.0	75.4	1.9
SWDA I Leachate	SAPXUDXX01	2410.0	5.0	482.0
	SAPXUDXX02	500.0	15.7	31.8
	SAPXUDXX03	6960.0	5.8	1204.2
	SAPXUDXX04	4220.0	22.2	190.1
	SAPXUDXX05	4300.0	27.8	154.7
	SAPXUDXX06	3420.0	26.3	130.0
SWDA II Leachate	SAPXUDXX07A	500.0	14.5	34.5
	SAPXUDXX07B	500.0	15.7	31.8

Figures



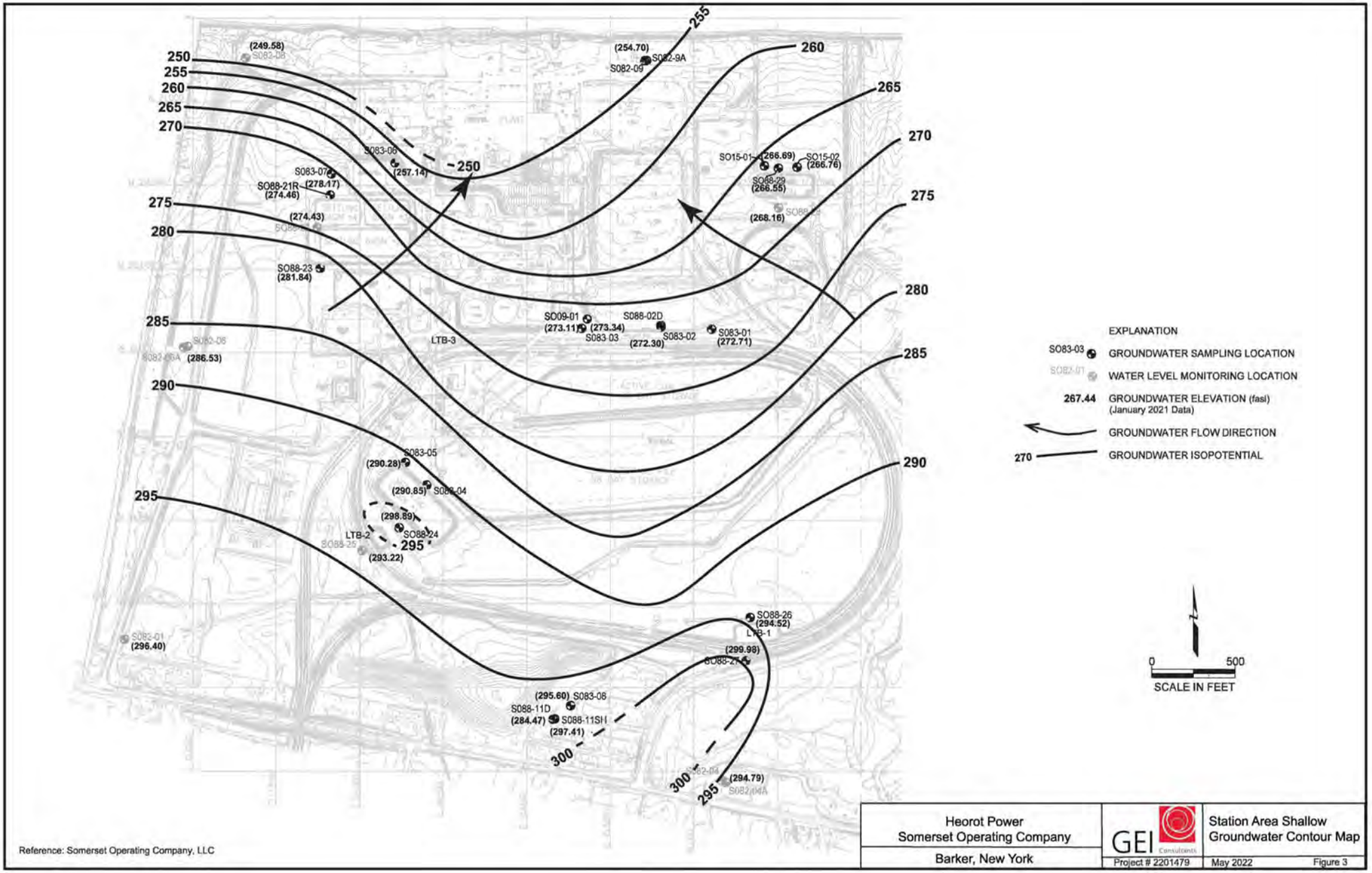
Heorot Power Somerset Operating Company	GEI Consultants	Site Location	
Barker, New York	Project # 2201479	May 2022	Figure 1

USGS Topographic Map
Barker Quadrangle



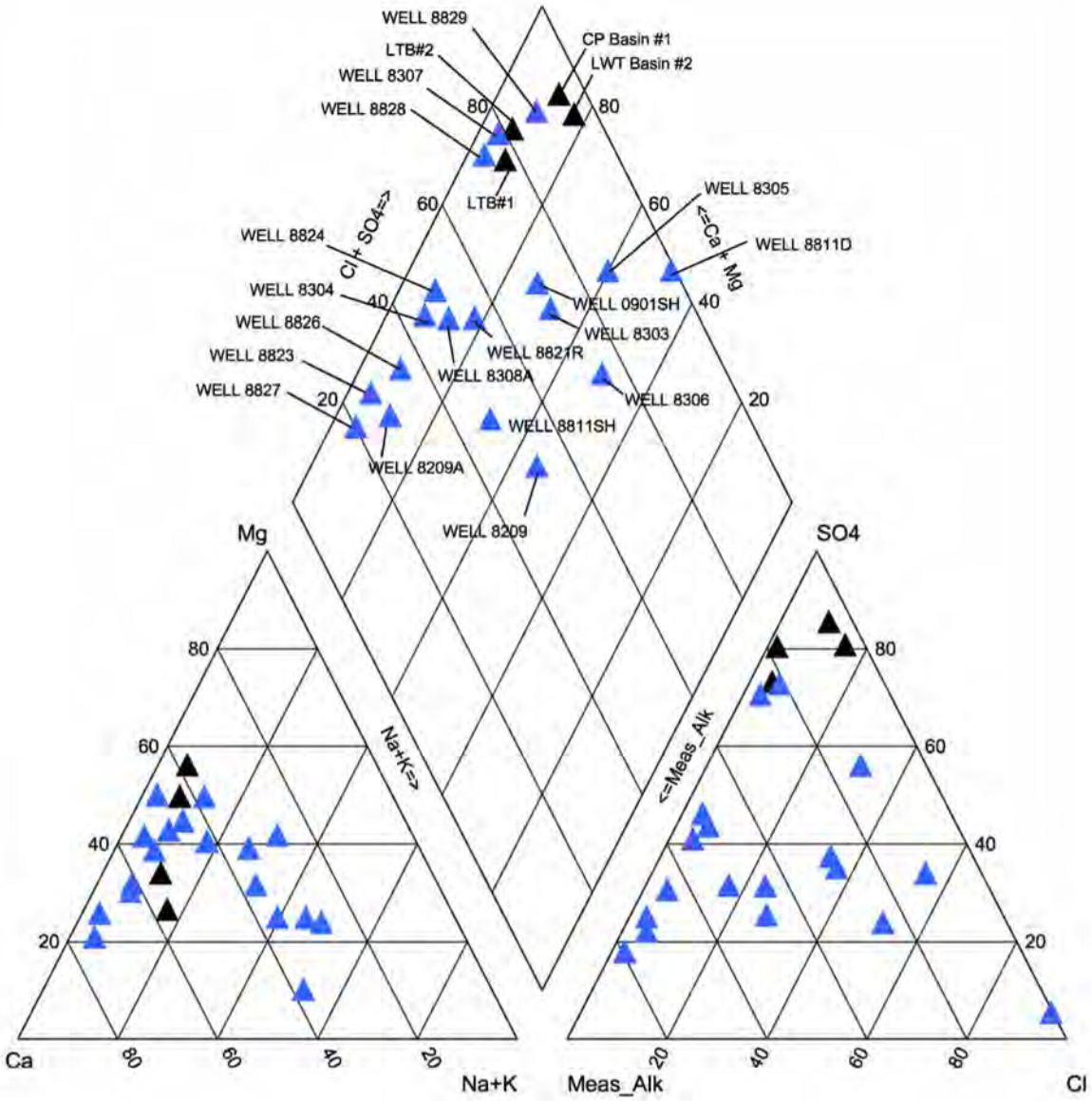
Basemap modified from original provided by Somerset Operating Company, LLC.

Heorot Power Somerset Operating Company	GEI Consultants	Basin and Monitoring Well Locations	
Barker, New York	Project # 2201479	May 2022	Figure 2



Reference: Somerset Operating Company, LLC

Heorot Power Somerset Operating Company Barker, New York	GEI Consultants	Project # 2201479	Station Area Shallow Groundwater Contour Map May 2022 Figure 3



EXPLANATION

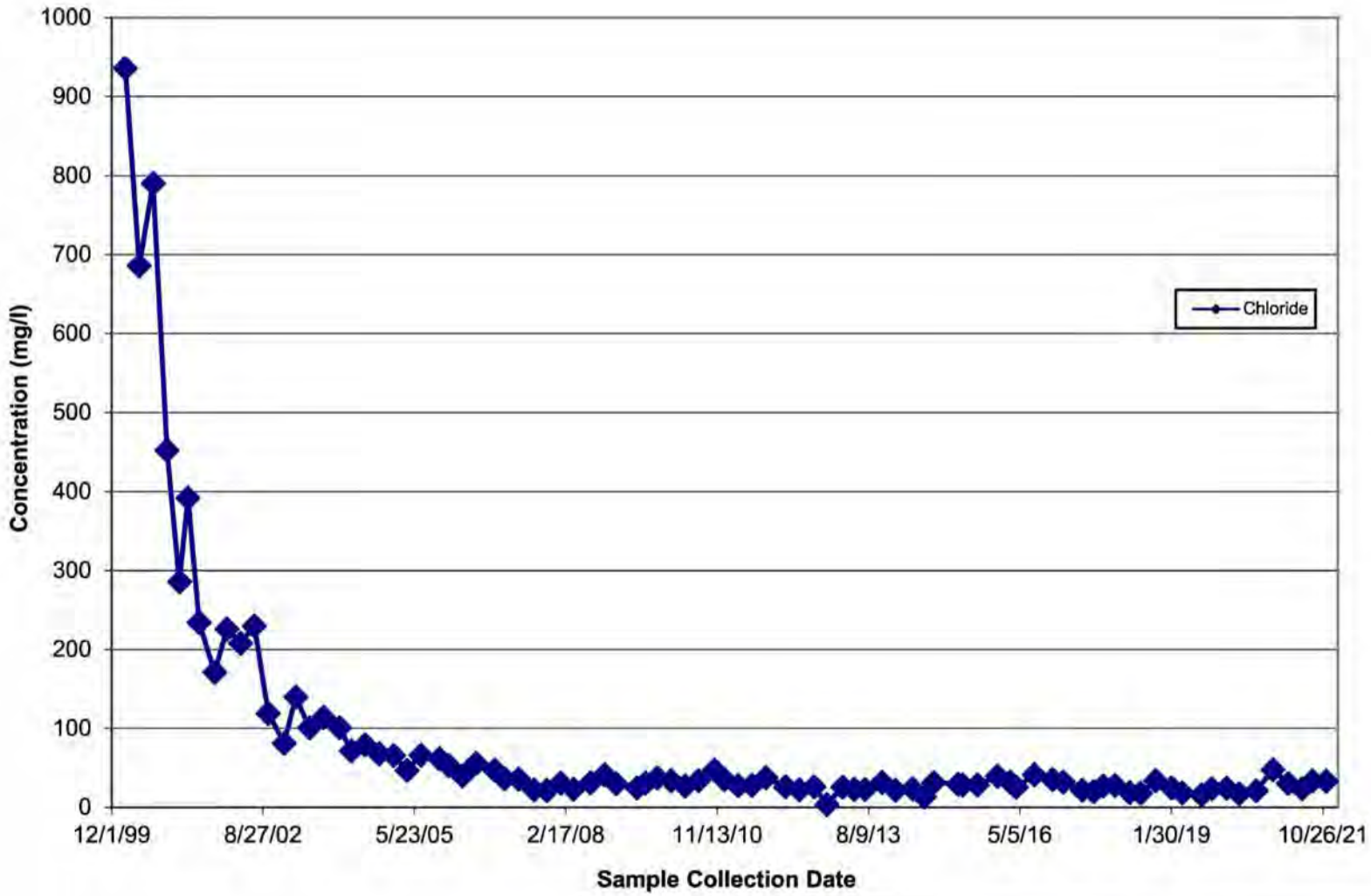
Station Groundwater Monitoring Locations

- SOGDA-8209
- SOGDD-8802 (dry)
- SOGDXX8209
- SOGDXX8301 (dry)
- SOGDXX8302 (dry)
- SOGDXX8303
- SOGDXX8304
- SOGDXX8305
- SOGDXX8306
- SOGDXX8826
- SOGDXX8827
- SOGDXX8307
- SOGDXX8821
- SOGDXX8823
- SOGDXX8824
- SOGDXX8829
- SOGDXX8828
- SOGUA-8308
- SOGUD-8811
- SOGUSH8811
- SOGDSH0901

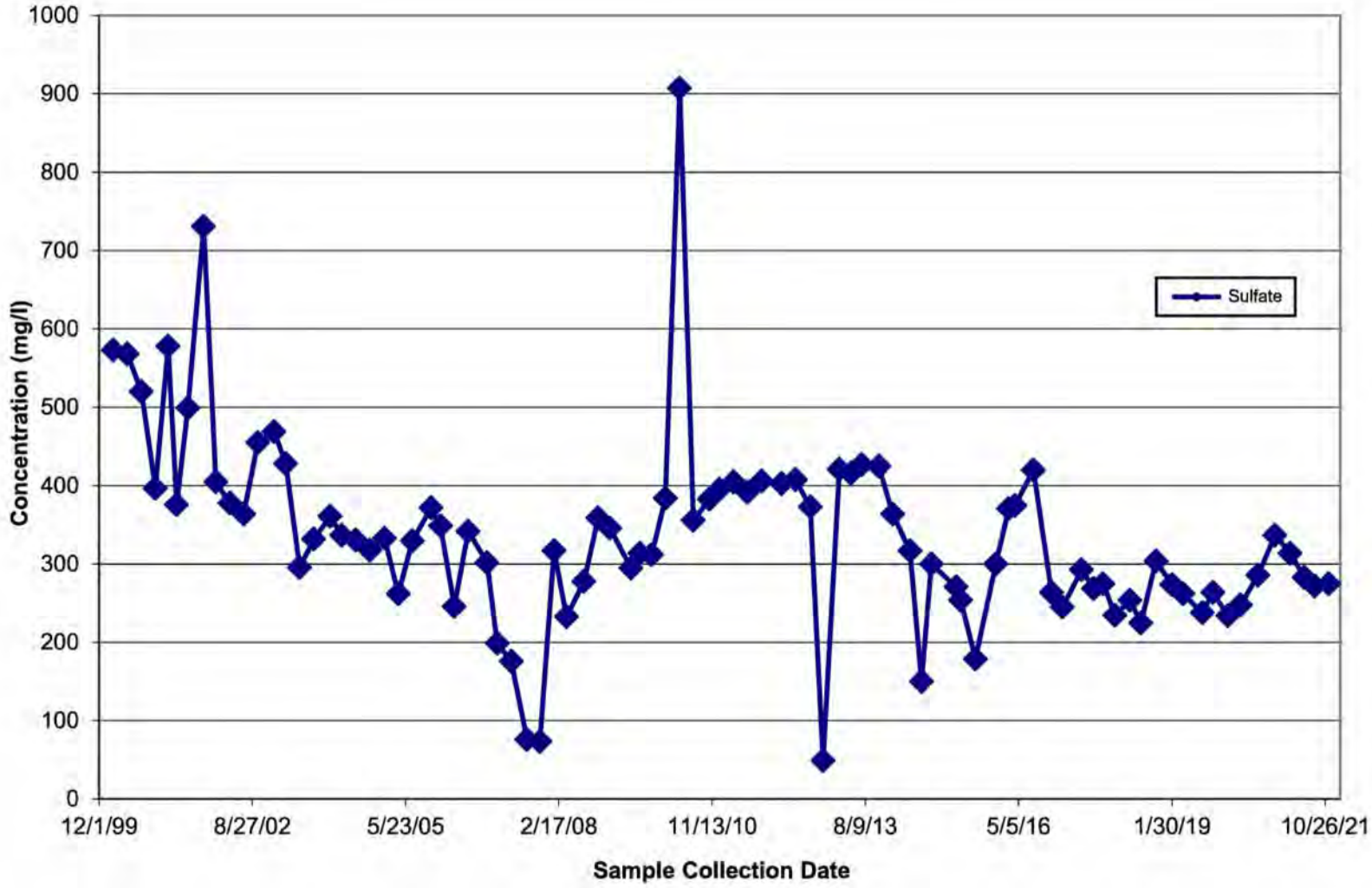
System Monitoring Locations

- CP Basin #1
- LWT Basin #2
- LWT Basin #3 (dry)
- LWT Basin #4 (dry)
- LTB1
- LTB2
- LTB3 (dry)

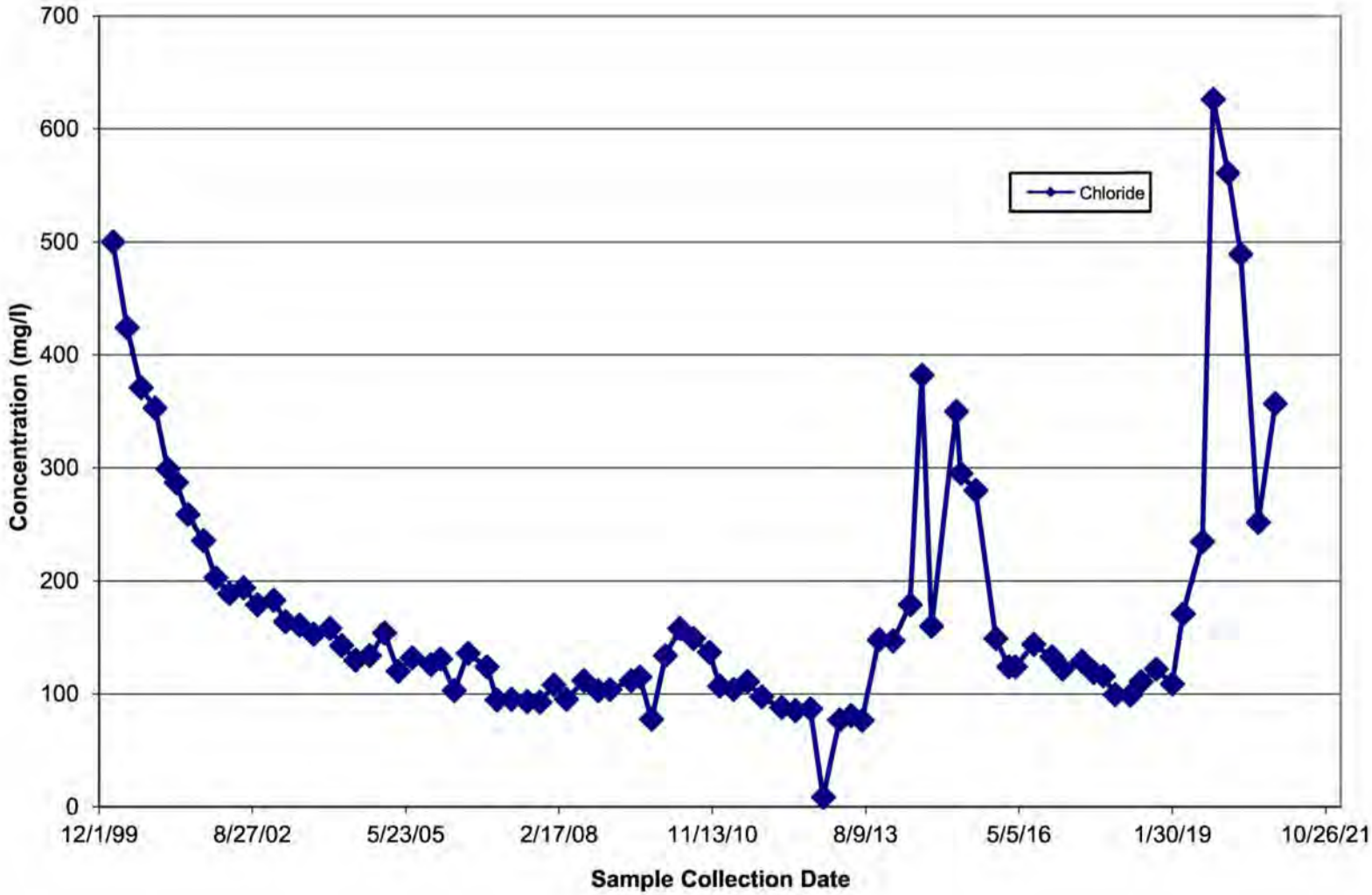
Heorot Power Somerset Operating Company	GEI Consultants	Station Area Piper Plot Second Quarter (June) 2021 Data	
Barker, New York	Project # 2201479	May 2022	Figure 4



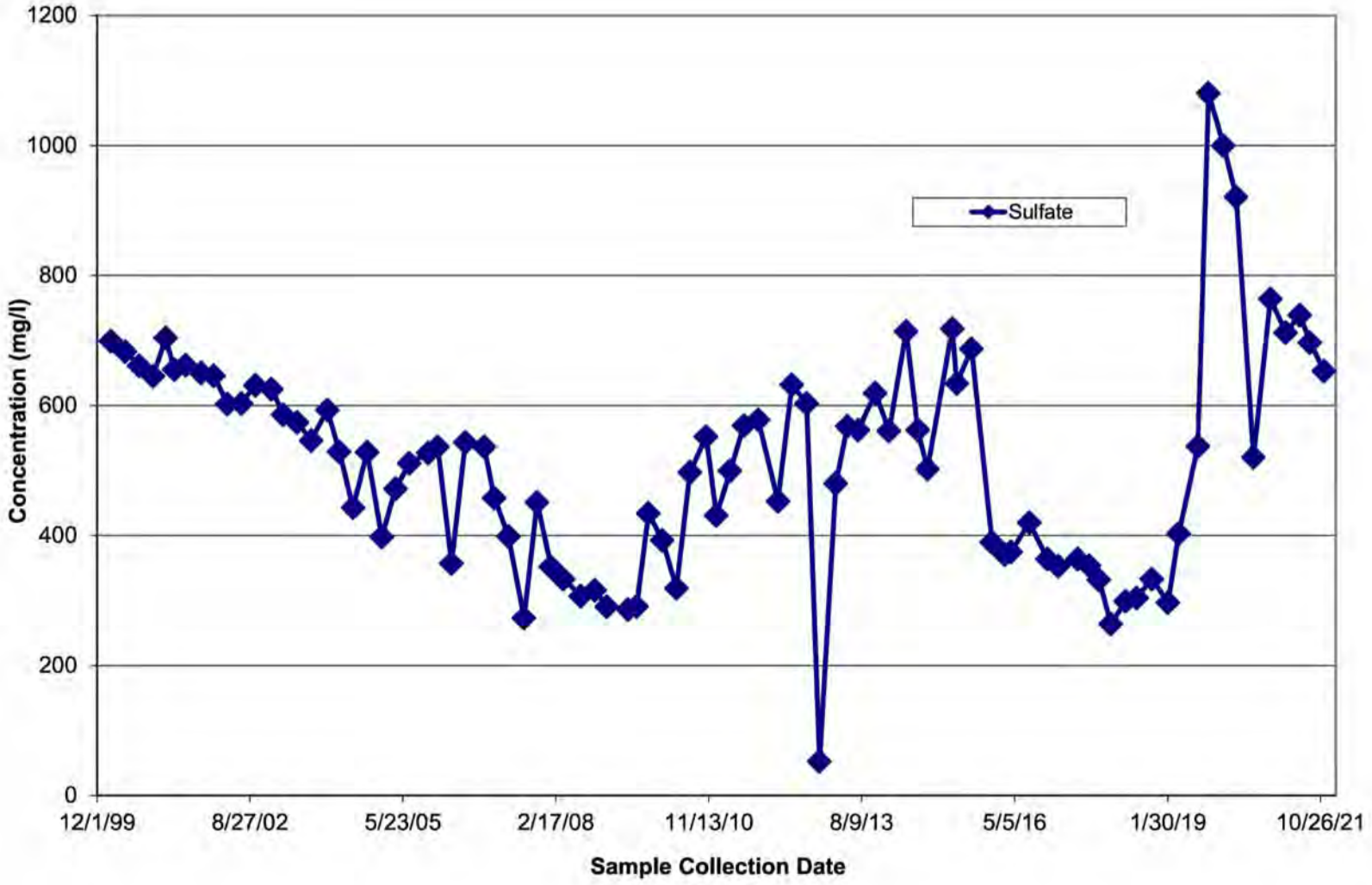
Heorot Power Somerset Operating Company	GEI Consultants	Chloride Concentration Trend- Monitoring Well SO83-04	
Barker, New York	Project # 2201479	May 2022	Figure 5A



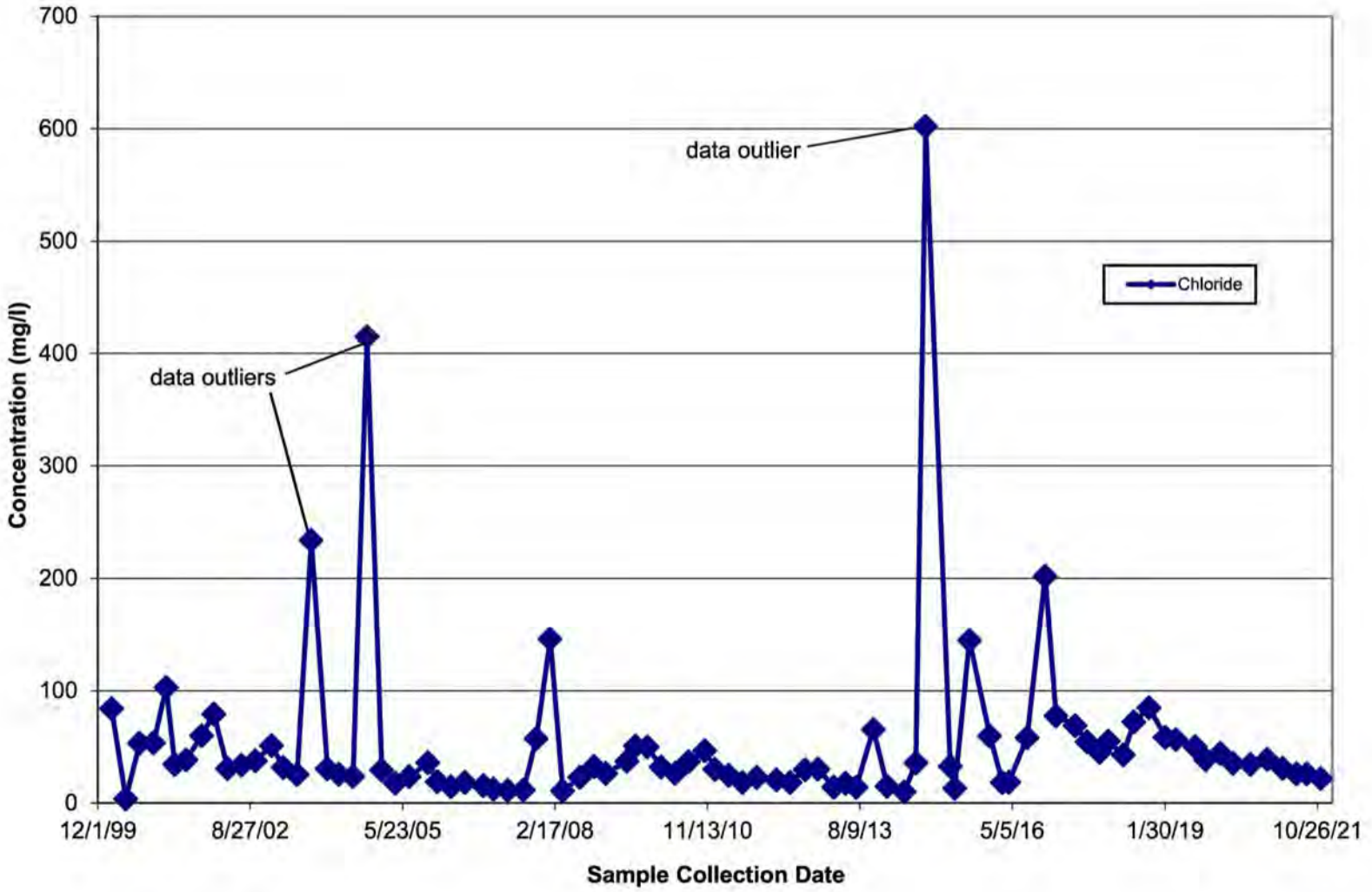
Heorot Power Somerset Operating Company	GEI Consultants	Sulfate Concentration Trend- Monitoring Well SO83-04	
Barker, New York	Project # 2201479	May 2022	Figure 5B



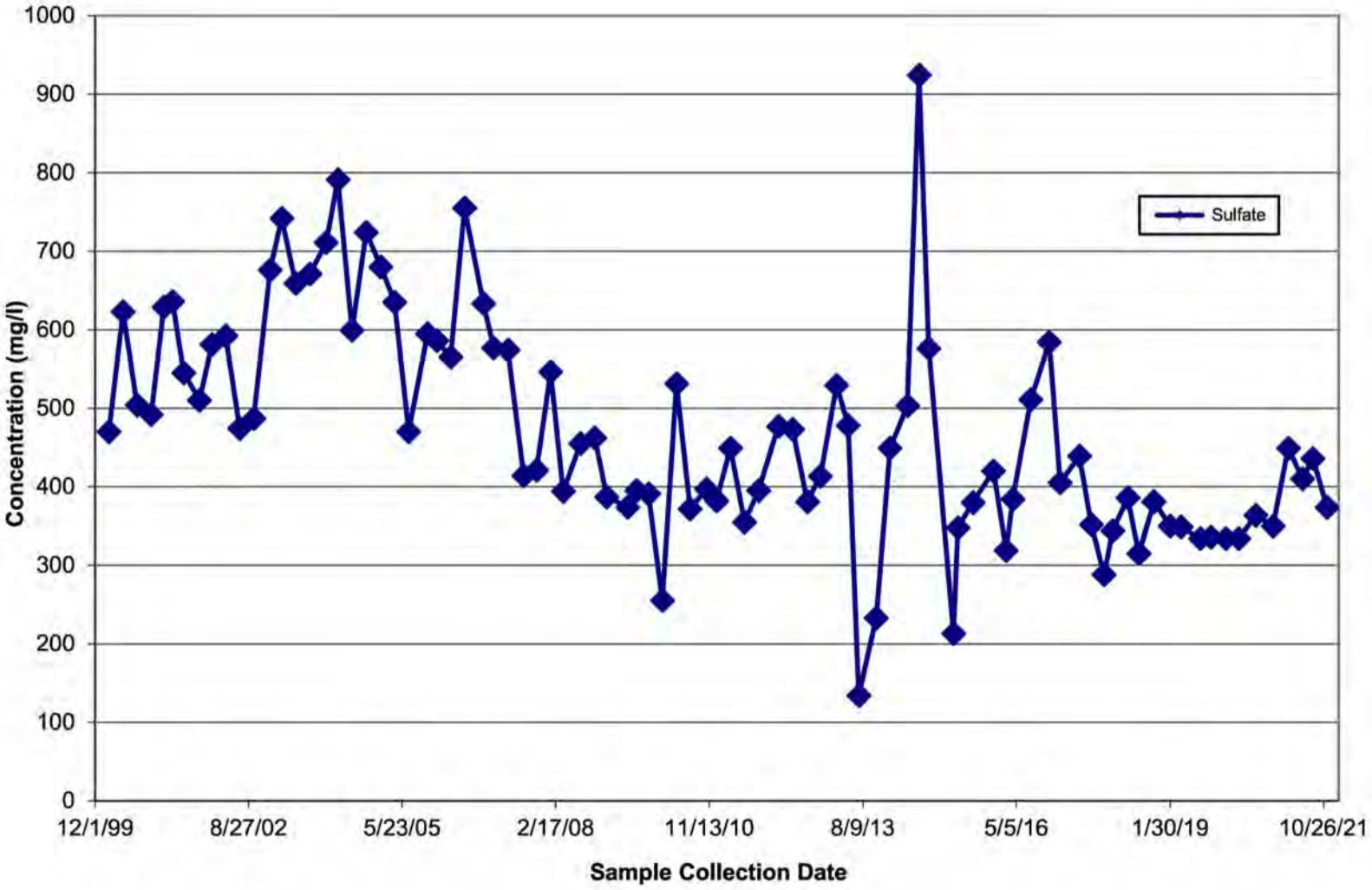
Heorot Power Somerset Operating Company	GEI Consultants	Chloride Concentration Trend- Monitoring Well SO83-05	
Barker, New York	Project # 2201479	May 2022	Figure 6A



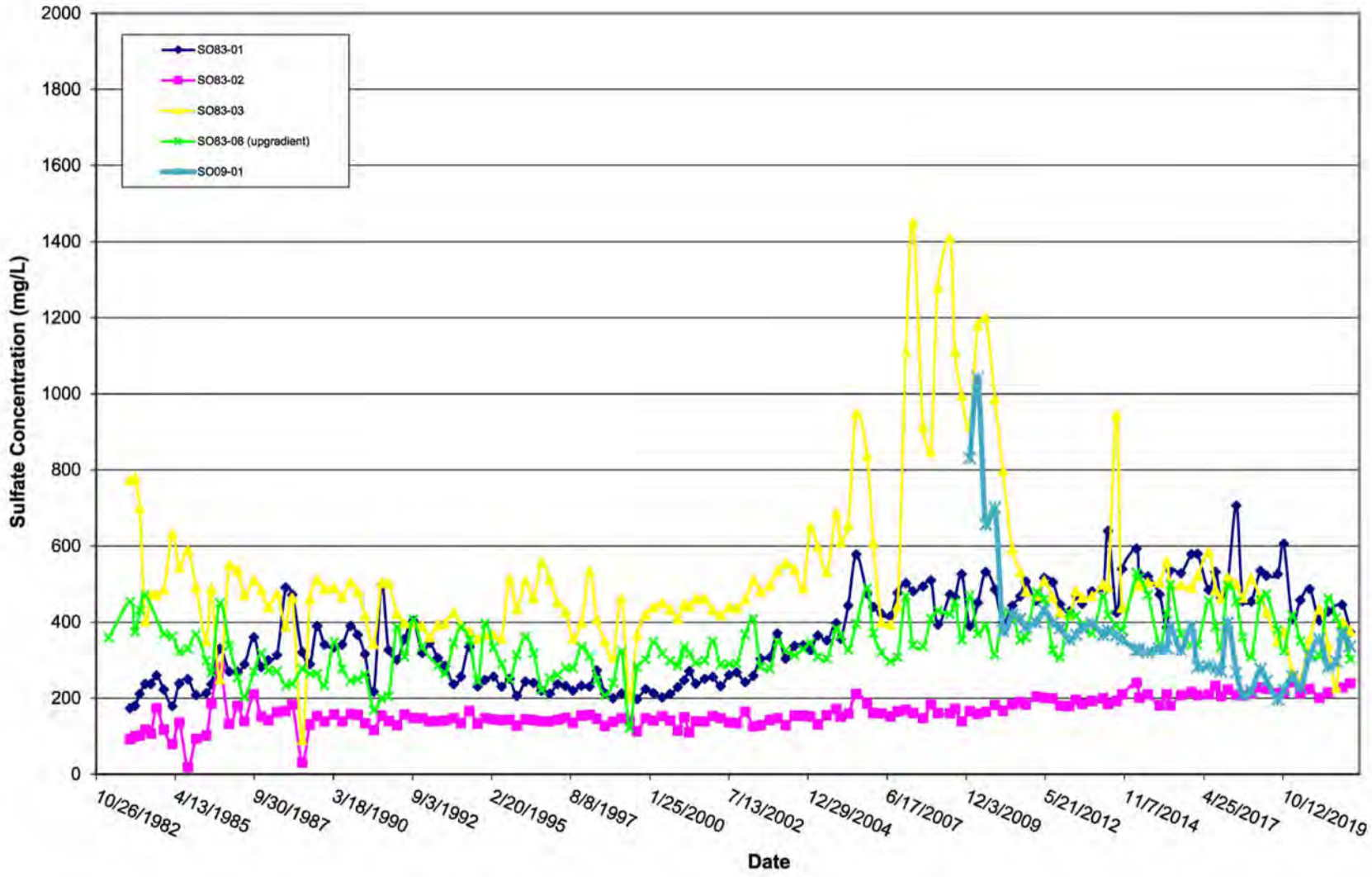
Heorot Power Somerset Operating Company	GEI Consultants	Sulfate Concentration Trend- Monitoring Well SO83-05	
Barker, New York	Project # 2201479	May 2022	Figure 6B



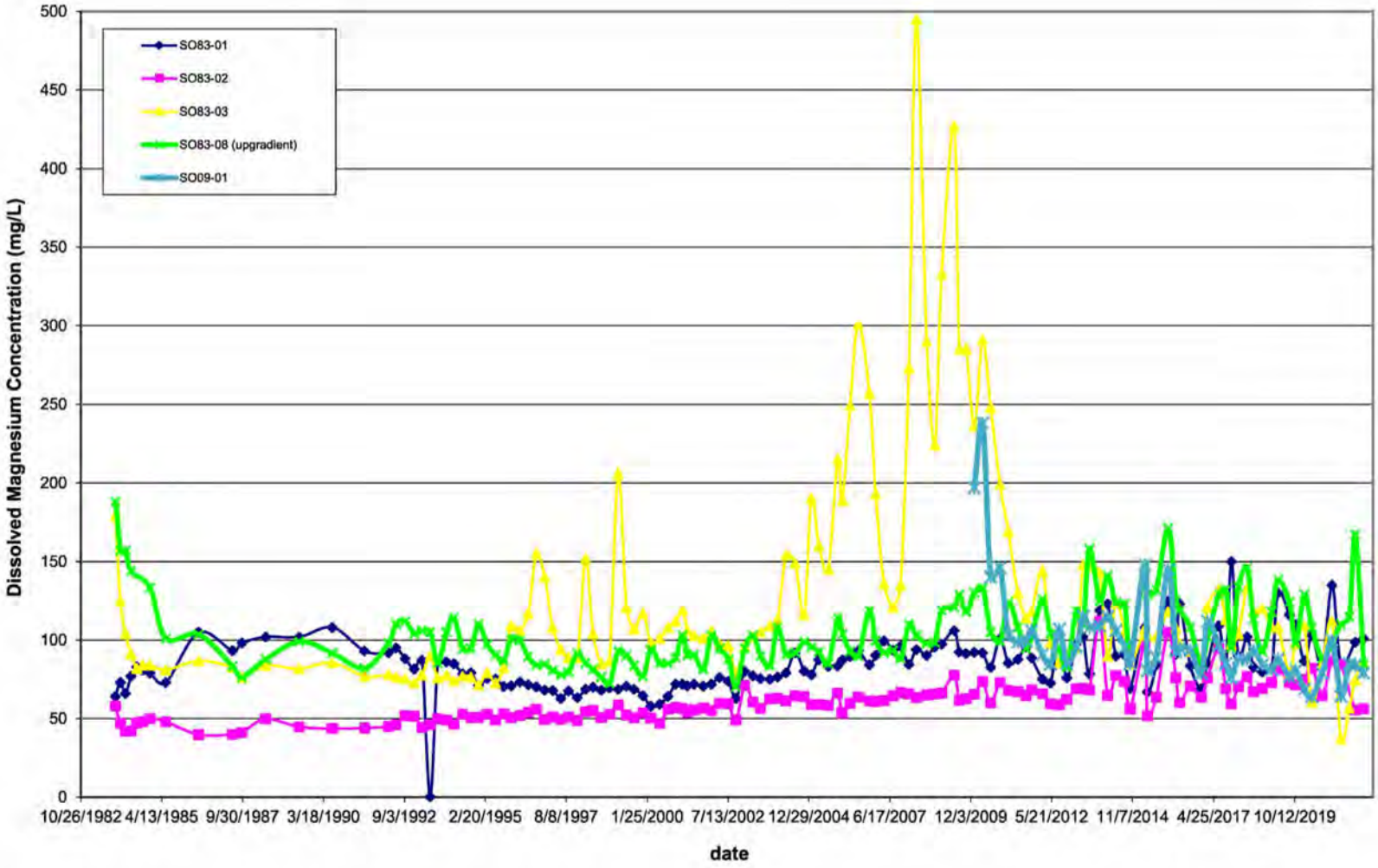
Heorot Power Somerset Operating Company	GEI Consultants	Chloride Concentration Trend- Monitoring Well SO88-24
Barker, New York	Project # 2201479	May 2022 Figure 7A



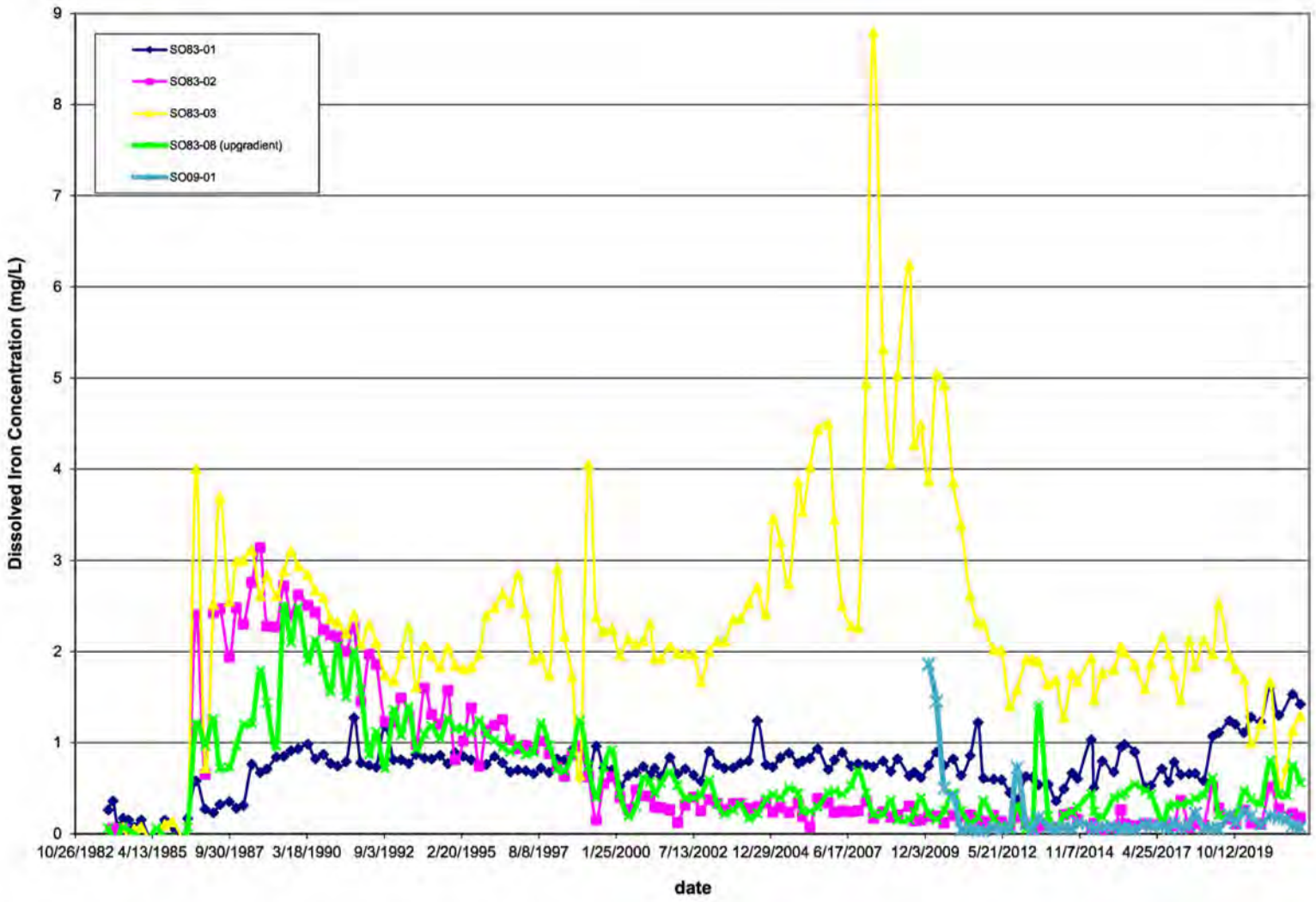
Heorot Power Somerset Operating Company	GEI Consultants	Sulfate Concentration Trend- Monitoring Well SO88-24	
Barker, New York	Project # 2201479	May 2022	Figure 7B



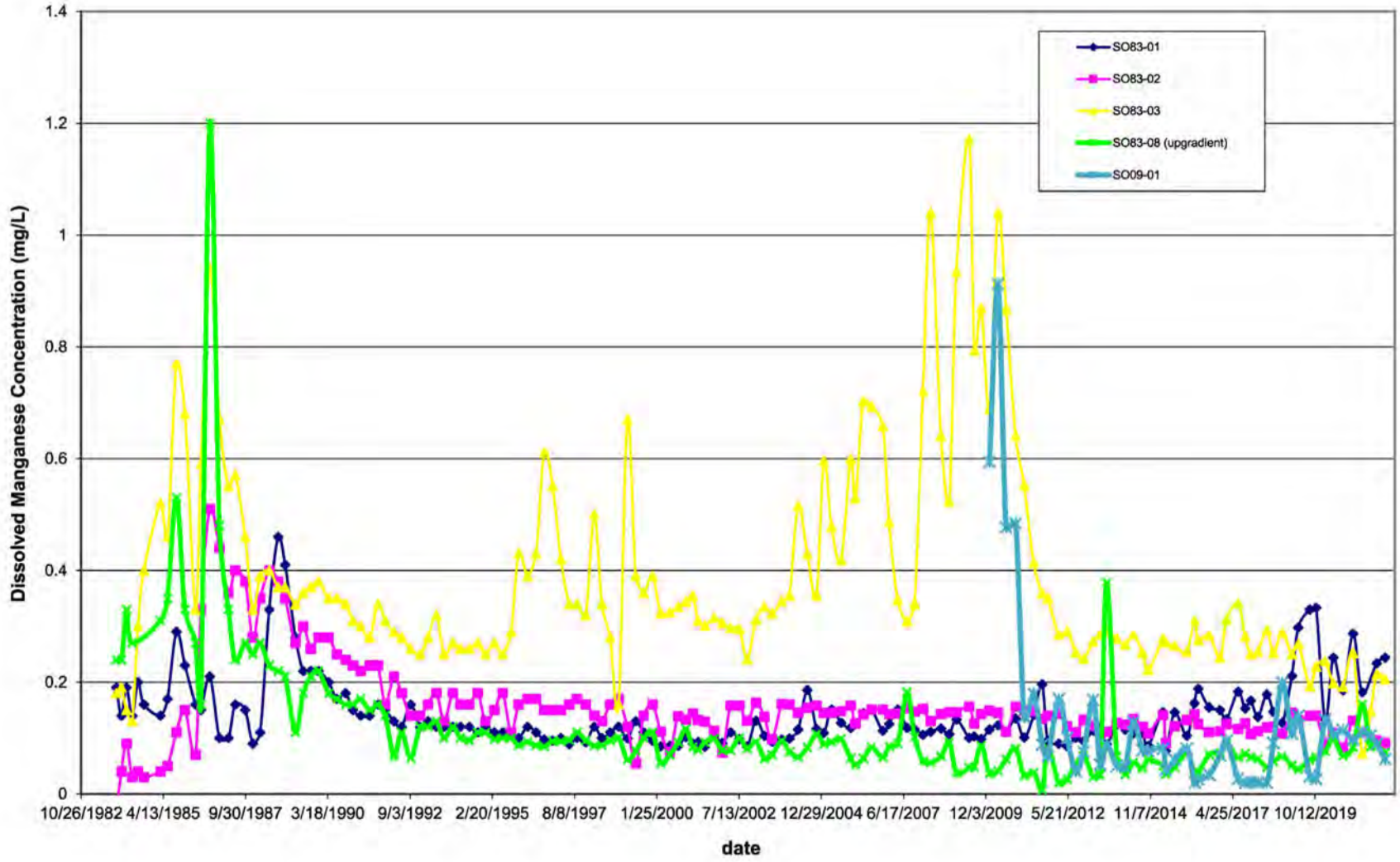
Heorot Power Somerset Operating Company	GEI Consultants	Sulfate Concentration Trends- Coal Storage Pile Monitoring Wells
Barker, New York	Project # 2201479	May 2022 Figure 8A



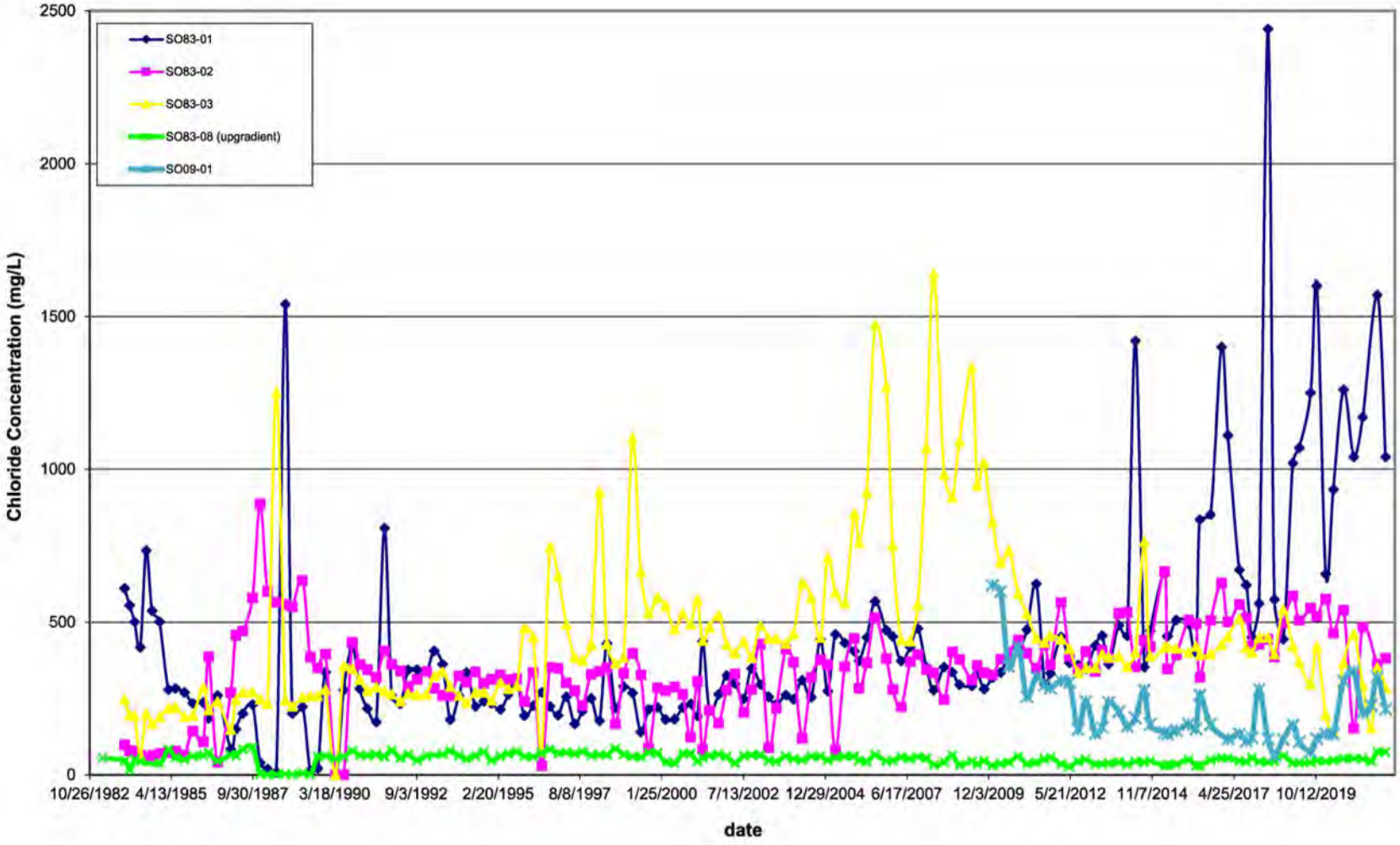
Heorot Power Somerset Operating Company	GEI Consultants	Total Magnesium Concentration Trends- Coal Storage Pile Monitoring Wells
Barker, New York	Project # 2201479	May 2022 Figure 8B



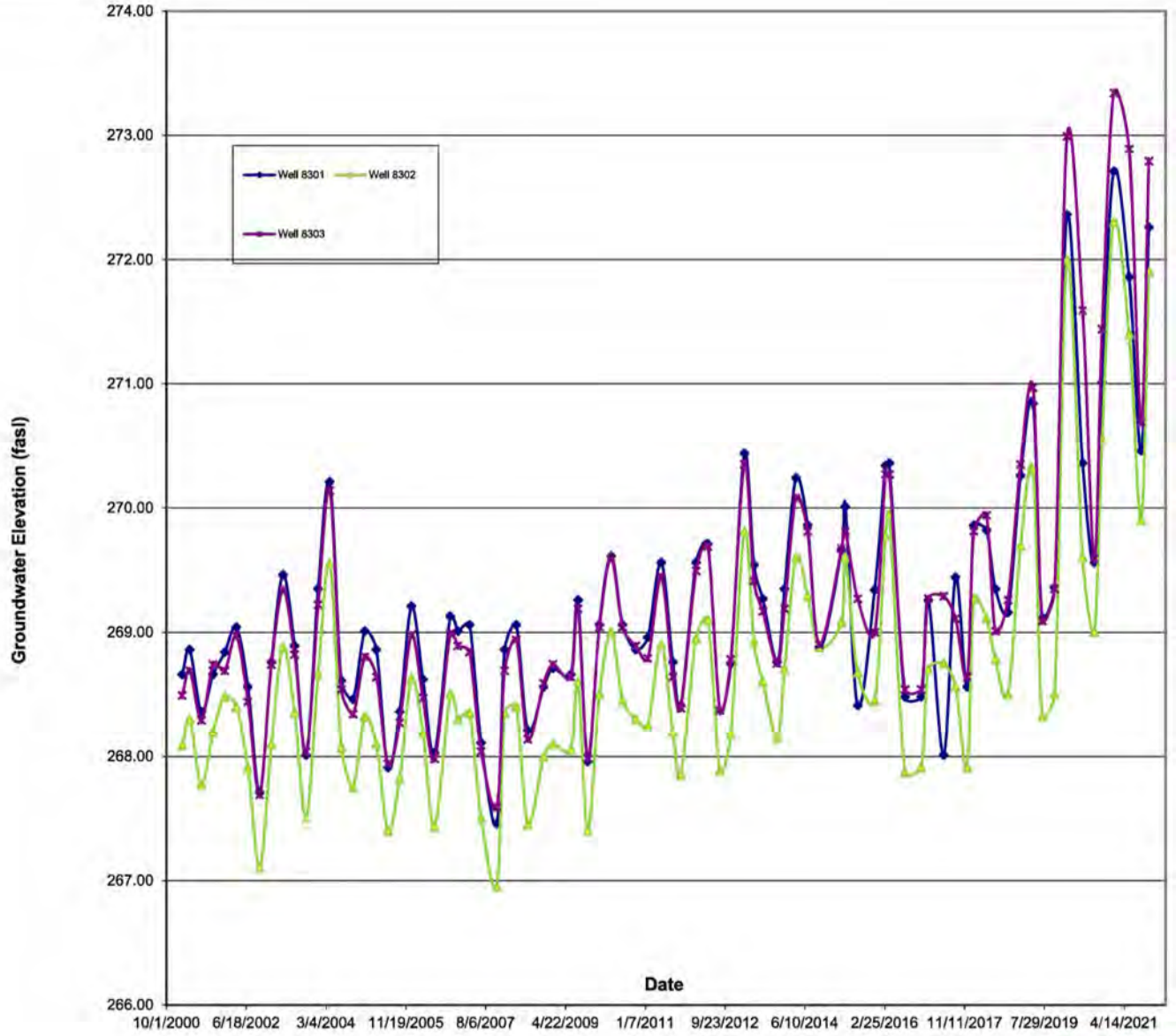
Heorot Power Somerset Operating Company	GEI Consultants	Total Iron Concentration Trends- Coal Storage Pile Monitoring Wells
Barker, New York	Project # 2201479	May 2022 Figure 8C



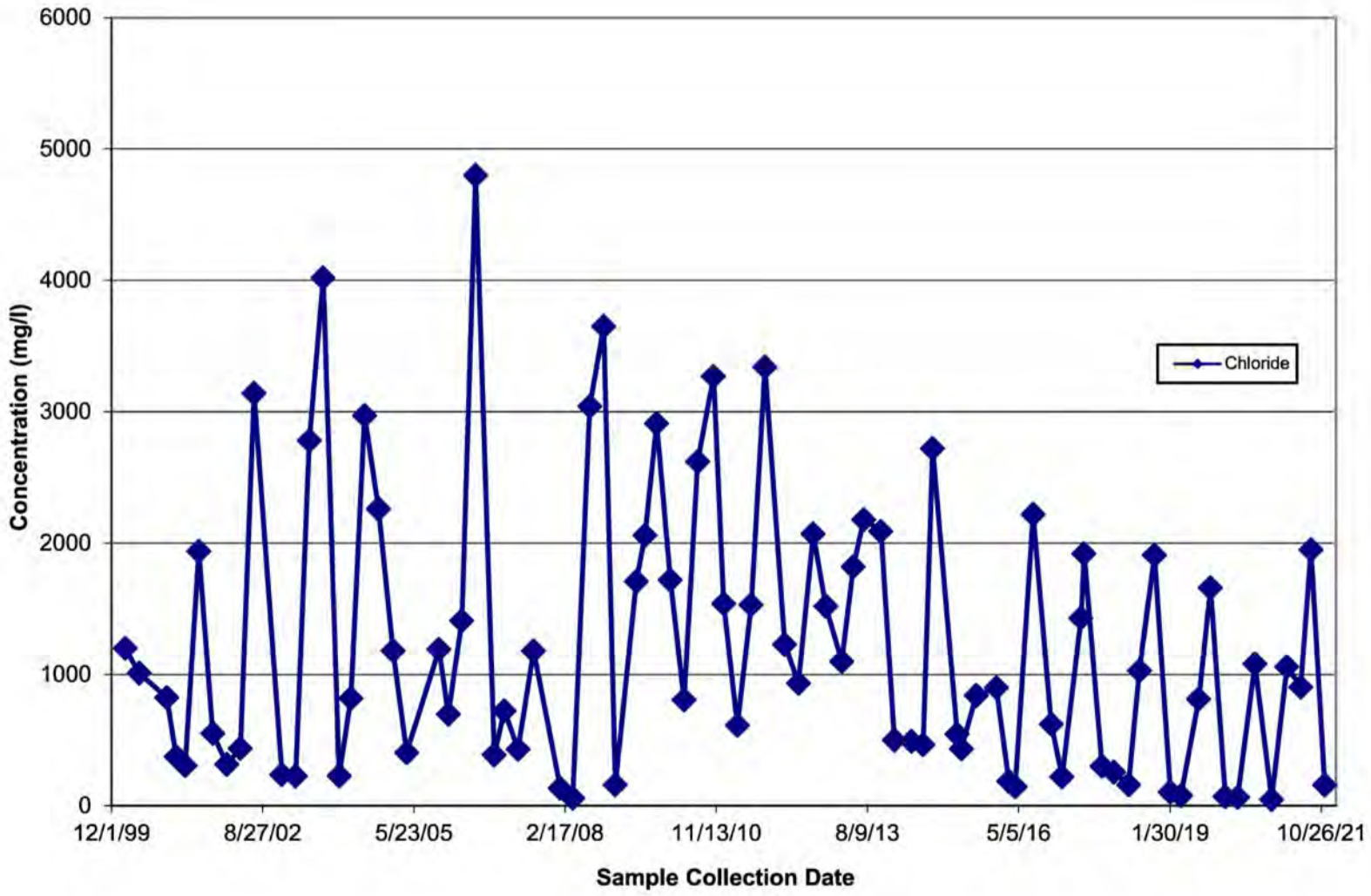
Heorot Power Somerset Operating Company	GEI Consultants	Total Manganese Concentration Trends- Coal Storage Pile Monitoring Wells
Barker, New York	Project # 2201479	May 2022 Figure 8D



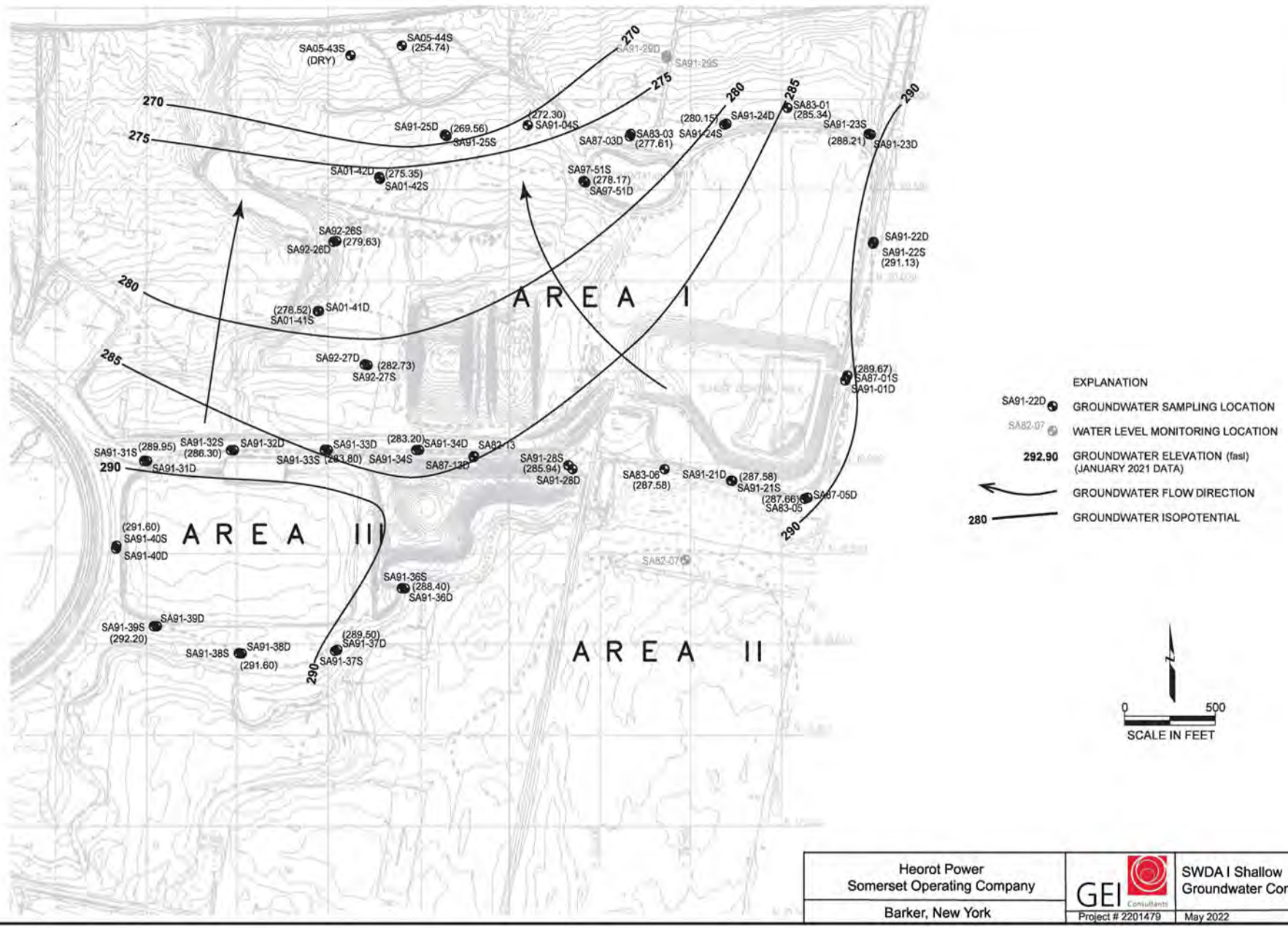
Heorot Power Somerset Operating Company	GEI Consultants	Chloride Concentration Trends- Coal Storage Pile Monitoring Wells	
Barker, New York	Project # 2201479	May 2022	Figure 8E



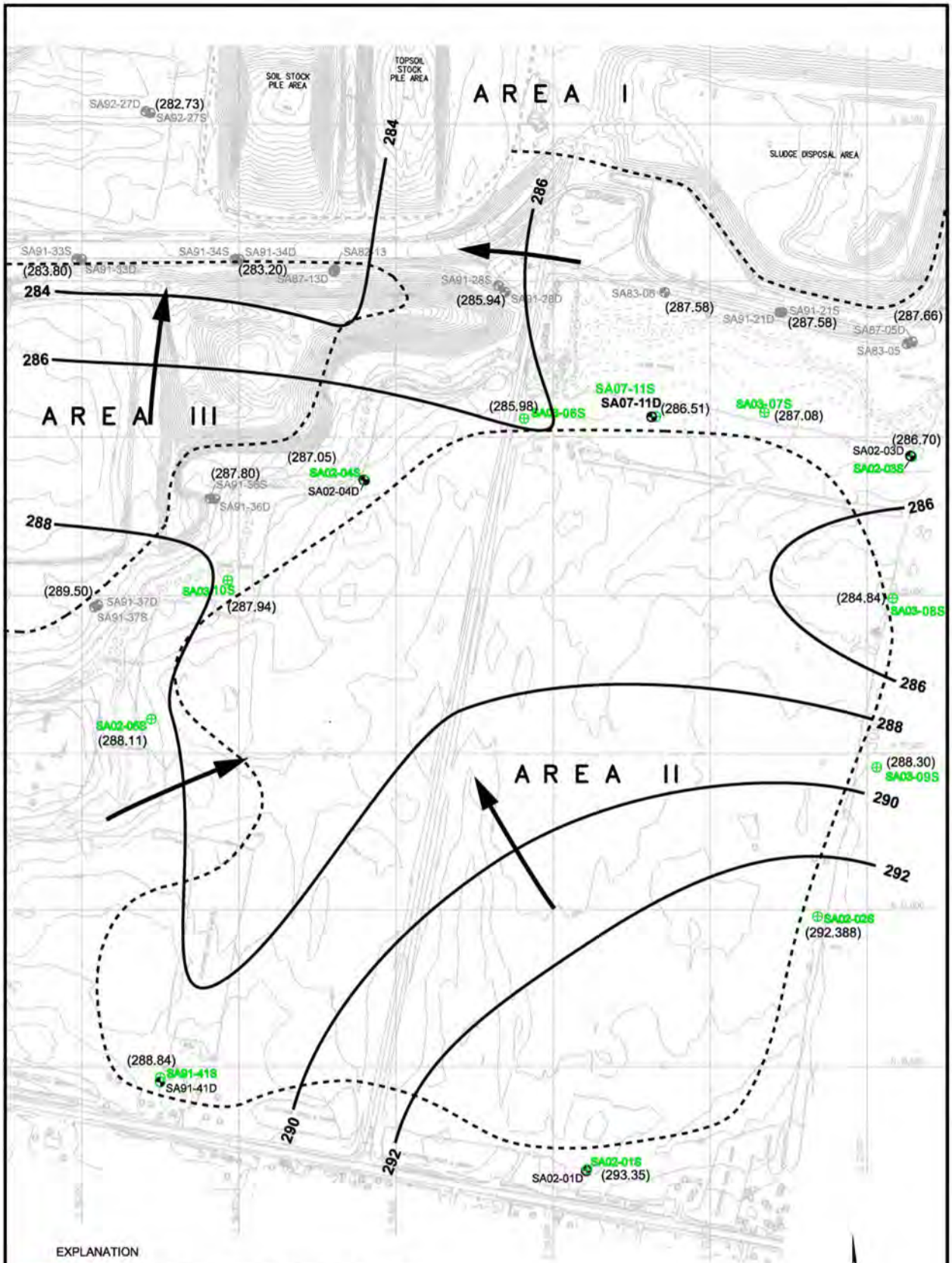
Heorot Power Somerset Operating Company	GEI Consultants	Groundwater Elevation Trends- Coal Storage Pile Monitoring Wells
Barker, New York	Project # 2201479	May 2022 Figure 8F



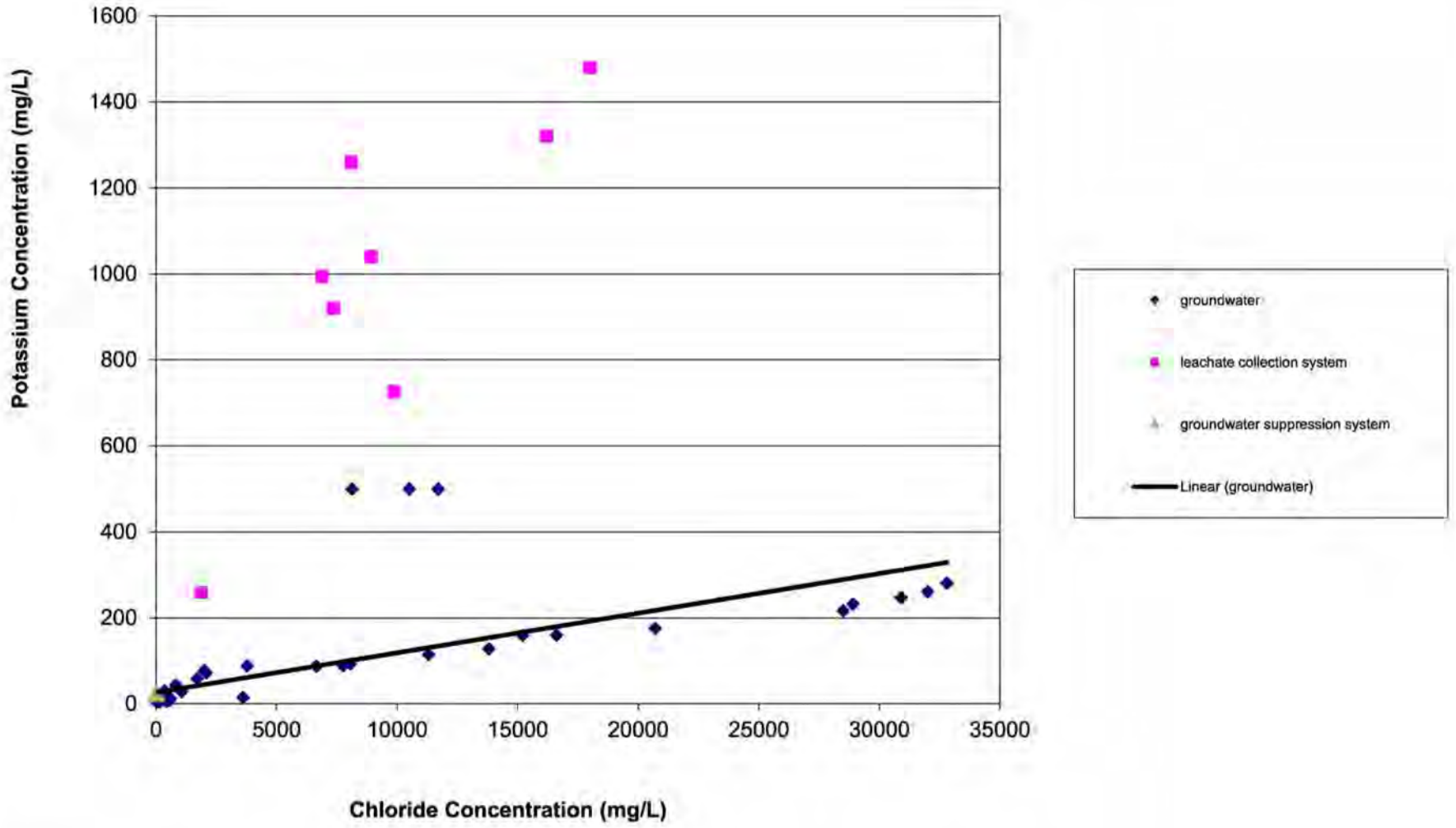
Heorot Power Somerset Operating Company	GEI Consultants	Chloride Concentration Trend-Monitoring Well SO88-29	
Barker, New York	Project # 2201479	May 2022	Figure 9



Heorot Power Somerset Operating Company	GEI Consultants	SWDA I Shallow Groundwater Contour Map	
Barker, New York	Project # 2201479	May 2022	Figure 10

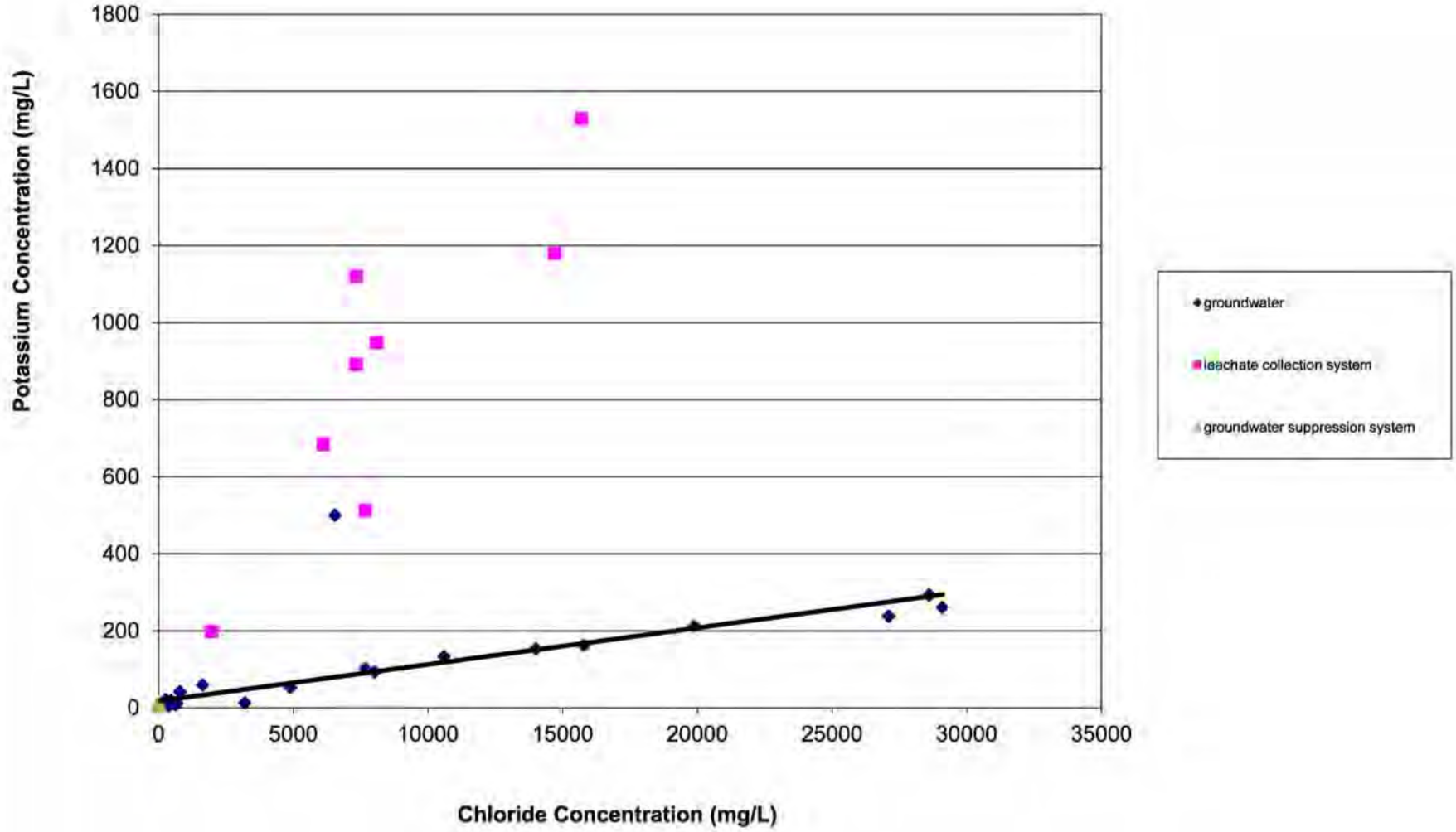


Heorot Power Somerset Operating Company	GEI Consultants	SWDA II Shallow Groundwater Contour Map- January 2021
Barker, New York	Project # 2201479	May 2022 Figure 11



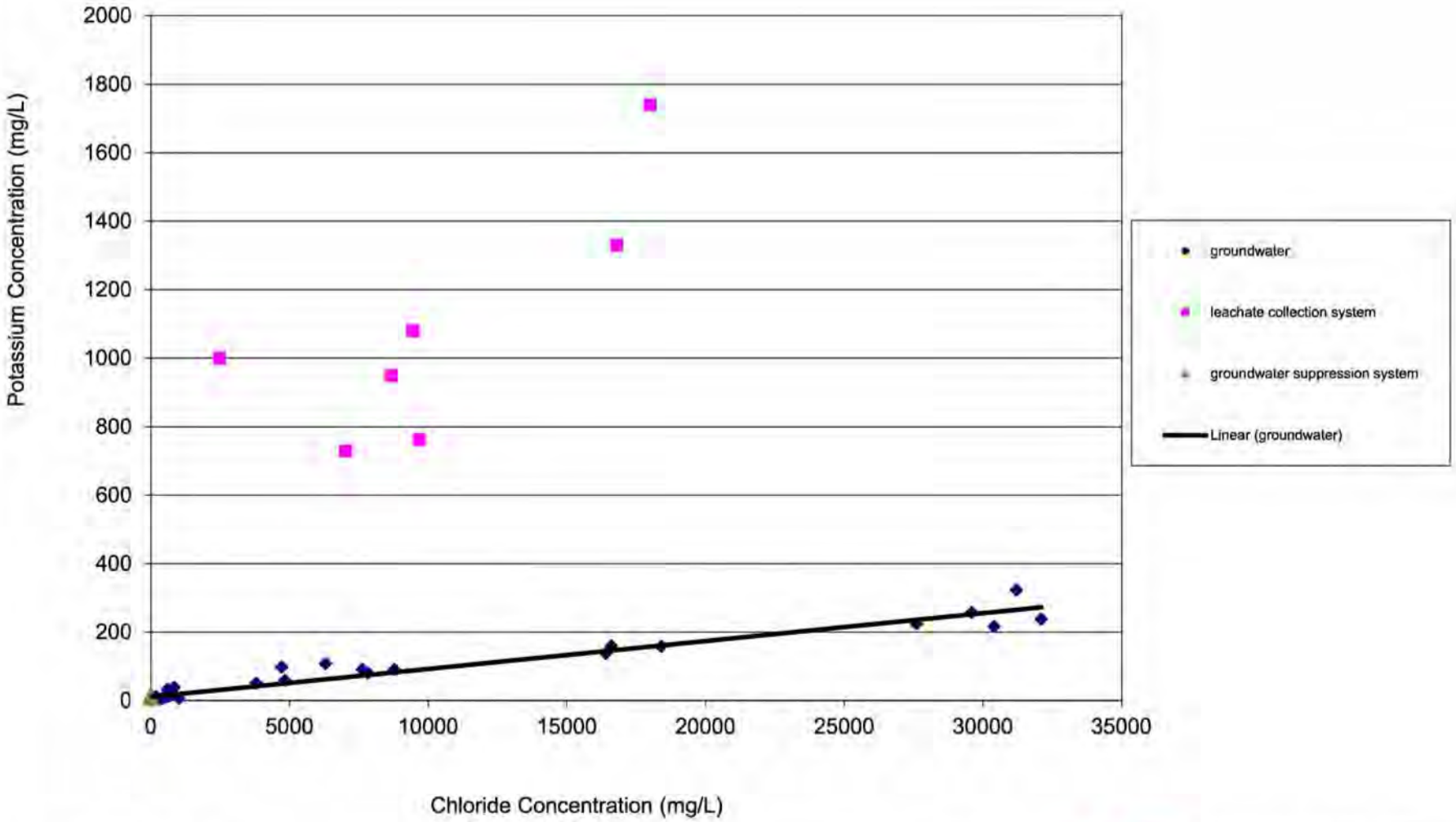
$y = 0.0092x + 26.908$
$R^2 = 0.4703$

Heorot Power Somerset Operating Company	GEI Consultants	Potassium-Chloride Scatterplot First Quarter 2021
Barker, New York	Project # 2201479	May 2021 Figure 12



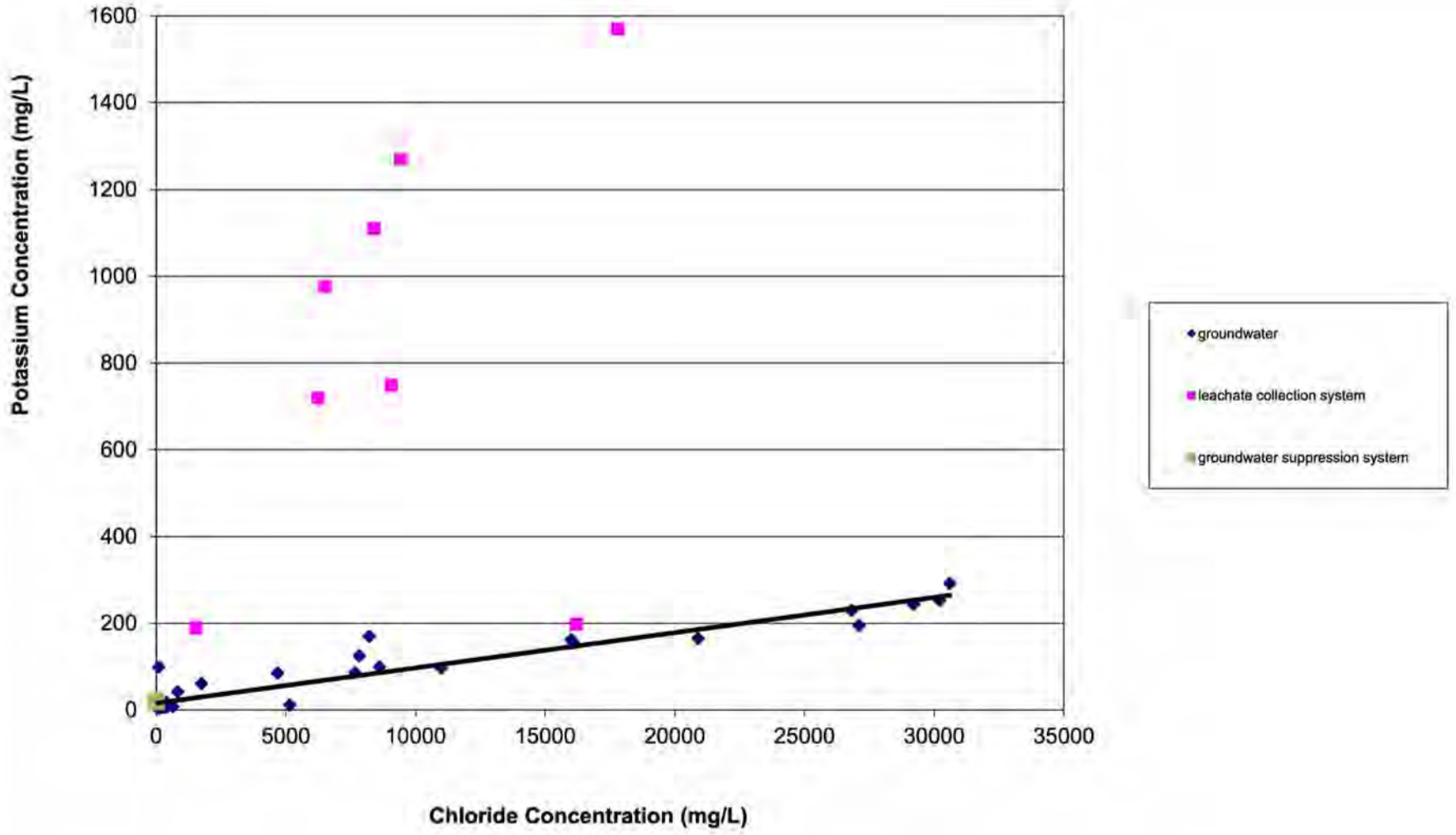
$y = 0.0095x + 18.546$
$R^2 = 0.646$

Heorot Power Somerset Operating Company	GEI Consultants	Potassium-Chloride Scatterplot Second Quarter 2021
Barker, New York	Project # 2201479	May 2022 Figure 13



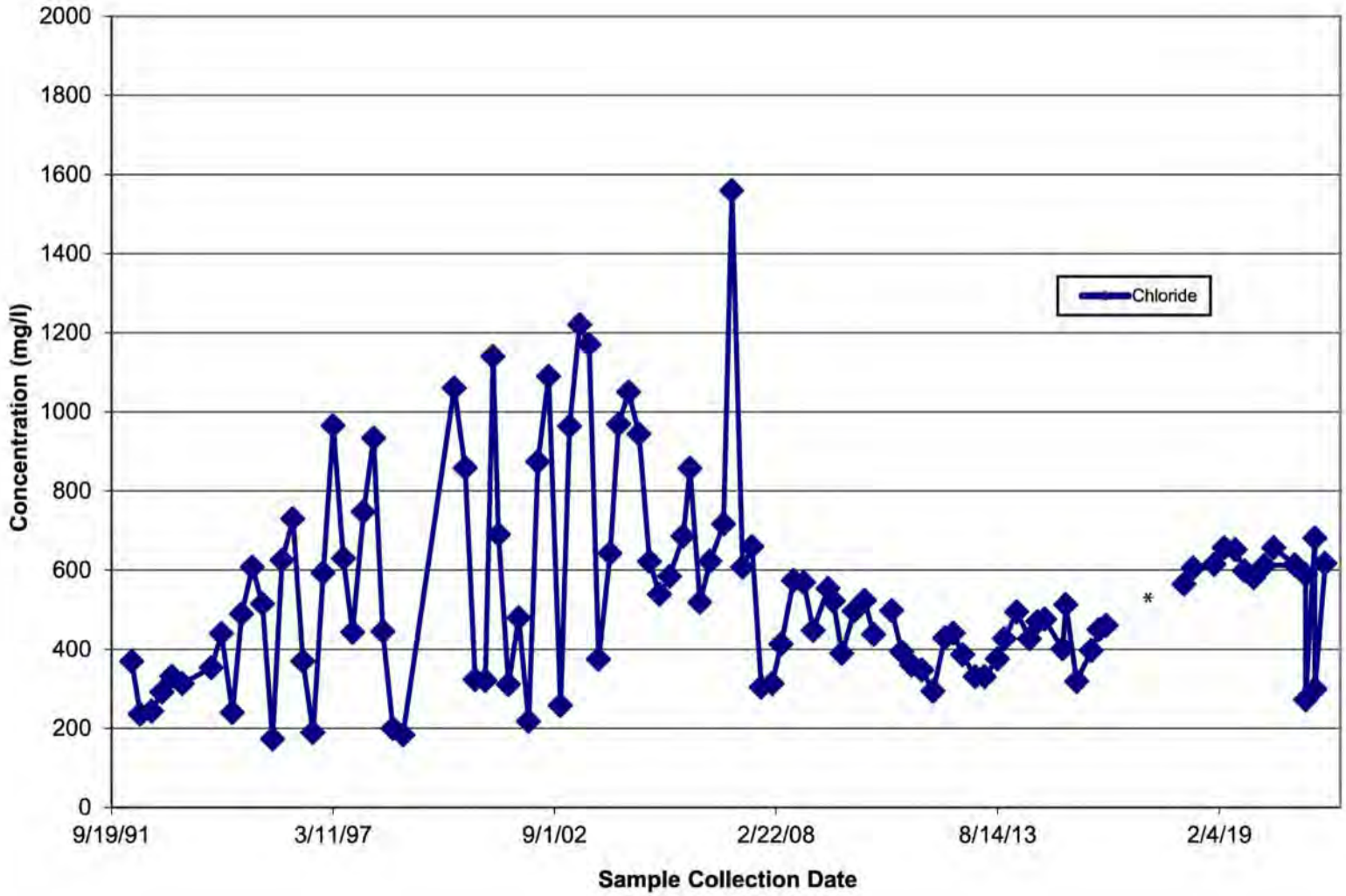
$y = 0.0081x + 11.586$
$R^2 = 0.9549$

Heorot Power Somerset Operating Company	GEI Consultants	Potassium-Chloride Scatterplot Third Quarter 2021
Barker, New York	Project # 2201479	May 2022 Figure 14



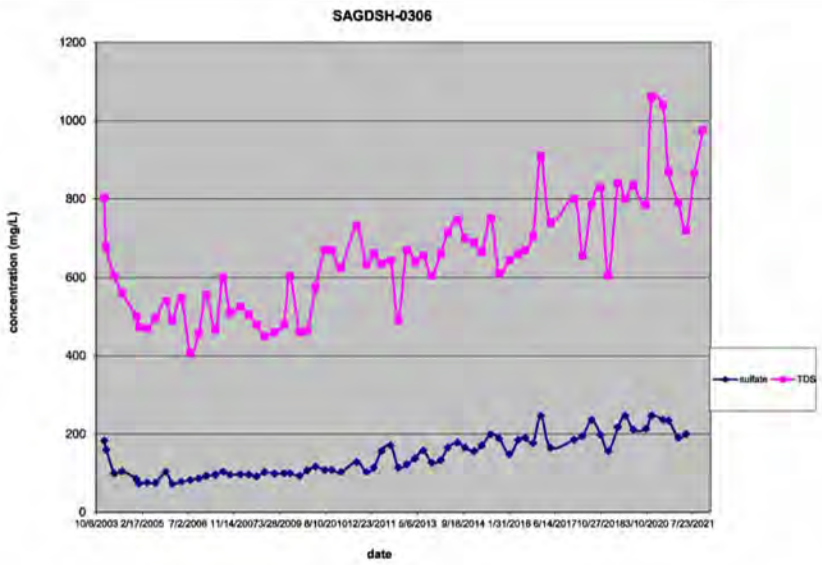
$y = 0.0081x + 16.258$
$R^2 = 0.9065$

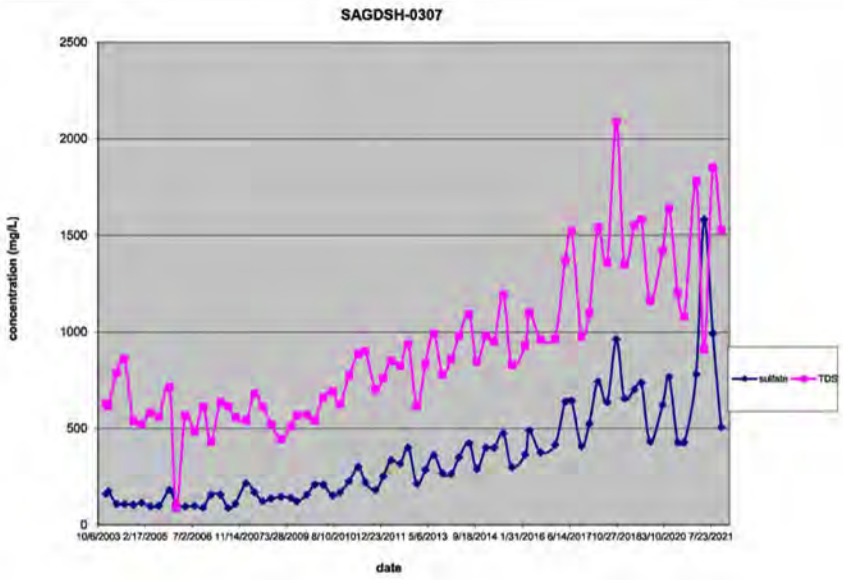
Heorot Power Somerset Operating Company	GEI Consultants	Potassium-Chloride Scatterplot Fourth Quarter 2021
Barker, New York	Project # 2201479	May 2022 Figure 15

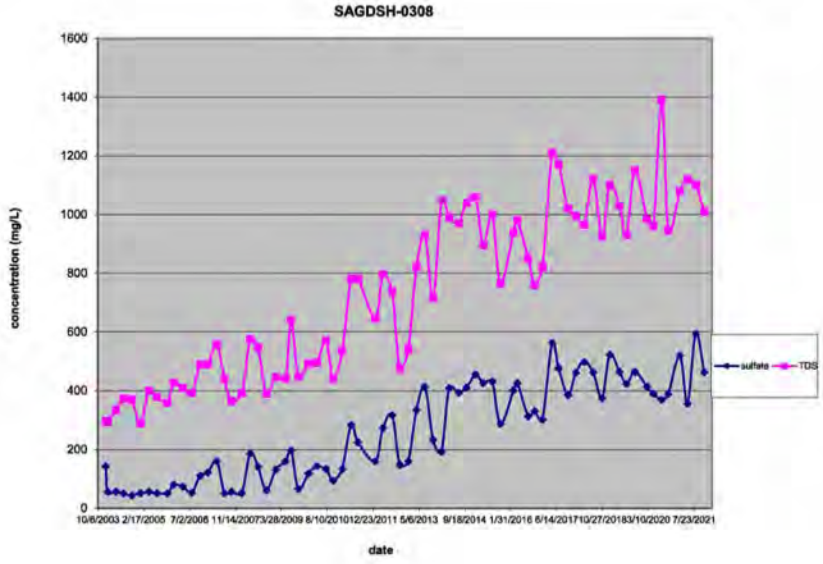


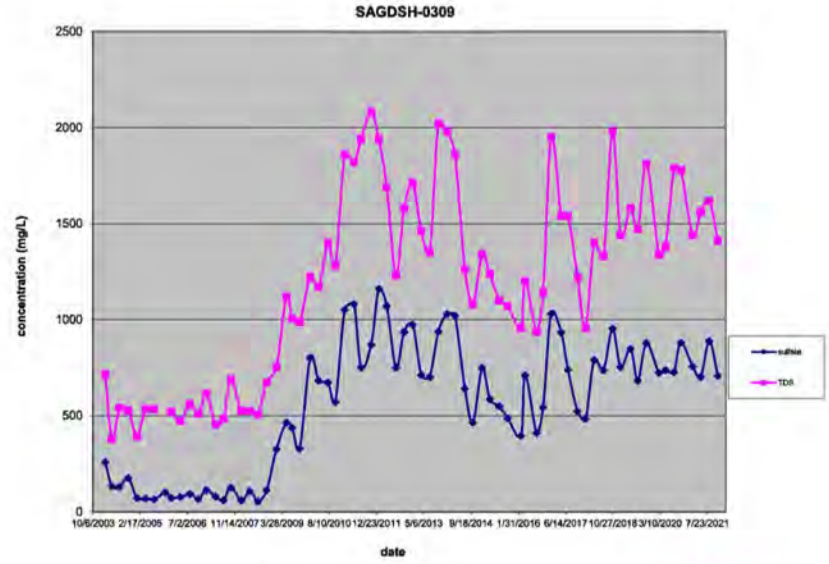
Notes:
-Data outlier of 7570 mg/L on 10/13/10 not plotted to maintain appropriate scaling.
*SAGDSH-9121 was dry during all four quarters in 2017

Heorot Power Somerset Operating Company	GEI Consultants	Chloride Concentration Trend- Well SAGDSH-9121
Barker, New York	Project # 2201479	May 2022 Figure 16

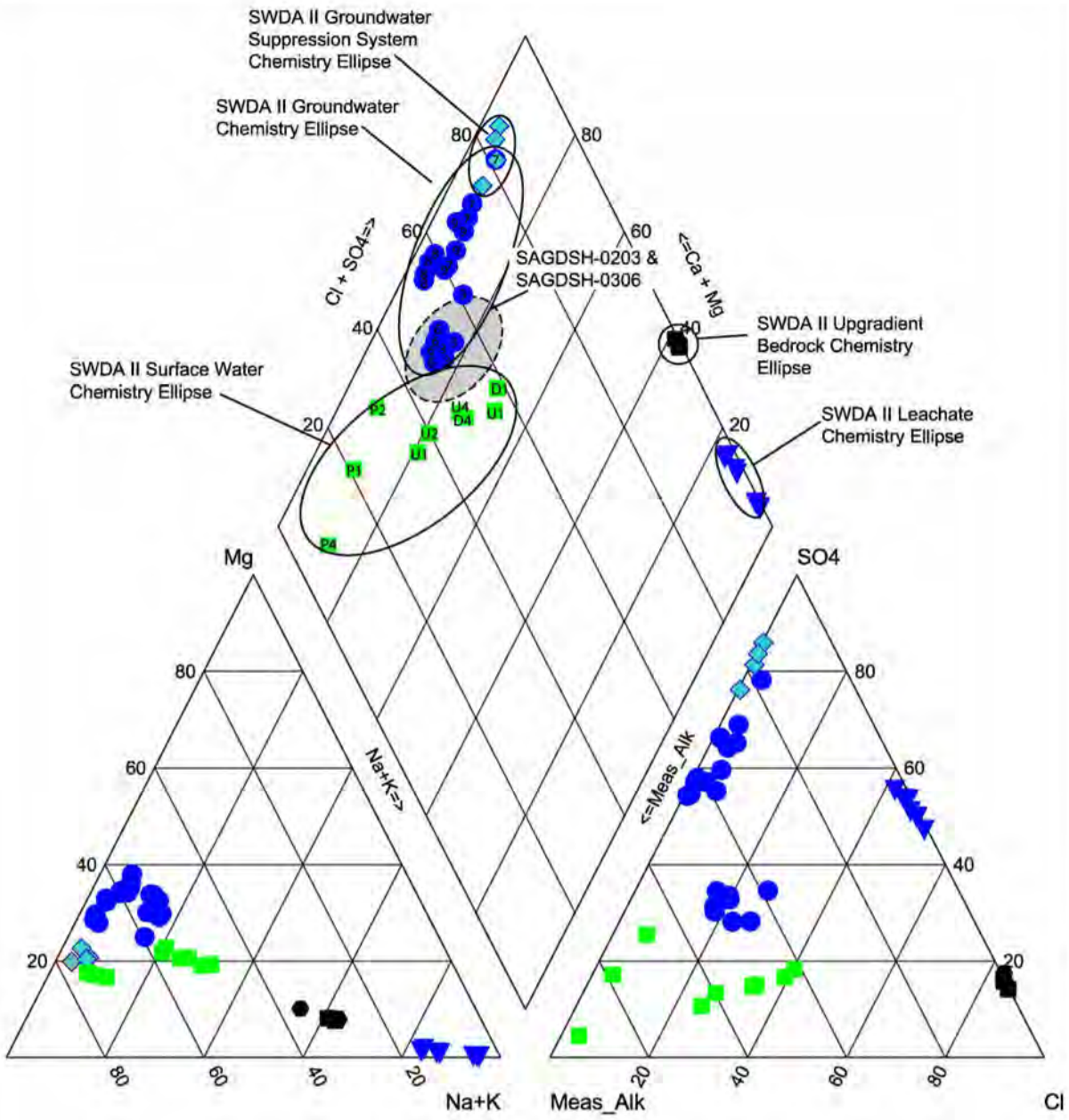








Heorot Power Somerset Operating Company	GEI Consultants	Sulfate and TDS Trends in Wells SAGDSH-0306, SAGDSH07, SAGDSH-0308 and SAGDSH-0309	
Barker, New York	Project # 2201479	May 2022	Figure 17



EXPLANATION

SWDA II Assessment Monitoring Groundwater Monitoring Locations

- SAGDSH-0203
- SAGDSH-0306
- SAGDSH-0307
- SAGDSH-0308
- SAGDSH-0309

SWDA II Assessment Monitoring Surface Water Monitoring Locations

- U1 Fish Creek (upstream)
- D1 Fish Creek (downstream)
- P1 Small Pond

(number [1-4] indicates sampling quarter)

SWDA II System Monitoring Locations

- Area II East Leachate Header
- Area II West Leachate Header
- Area II East Groundwater Depression
- Area II West Groundwater Depression

SWDA II Upgradient Bedrock Groundwater

- SAGUD-0201

Heorot Power Somerset Operating Company	GEI Consultants	SWDA II Assessment Monitoring Piper Plot 2021 Data
Barker, New York	Project # 2201479	May 2022 Figure 18

Appendix A

Station Area Analytical Results

Appendix A. Station Area Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SOGDA-8209

Analyte	Class GA Groundwater Standard[1]	Units	Feb-21		Apr-21		Aug-21		Dec-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	--	mg/l			360		340		330	
Aluminum - Total	--	mg/l			0.109					
Ammonia	2	mg/l								
Arsenic - Total	0.025	mg/l	0.011		0.012		0.005	LT	0.016	
Bromide	--	mg/l			1	LT				
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	--	mg/l	73.6		111		65.9		65.7	
Chloride	250	mg/l	16.6		12.1		37.6		41.7	
Chromium - Total	0.05	mg/l			0.005	LT				
Conductivity	--	UMHO/CM	930		920		980		1015	
Copper - Total	0.2	mg/l			0.005	LT				
EH--	--	VOLTS			-5					
F2--	1.5	mg/l			0.2	LT				
Hardness	--	mg/l			556					
Iron - Total	0.3	mg/l	0.456		0.867		0.612		0.53	
Lead - Total	0.025	mg/l			0.006					
Lithium - Total	--	mg/l			0.314					
Magnesium - Total	--	mg/l	49.2		67.7		46.9		47.6	
Manganese - Total	0.3	mg/l	0.047		0.051		0.042		0.047	
Mercury - Total	0.0007	mg/l			0.0002	LT				
pH	6.5 to 8.5	SU	7.4		7.4		7.5		7.5	
Potassium - Total	--	mg/l	5.19		6.07		7.93		8.69	
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l			26.8					
Strontium - Total	--	mg/l			1.03					
Sulfate	250	mg/l	123		121		157		145	
Total Dissolved Solids	500	mg/l	555		660		595		540	
Turbidity	5	NTU	23		7.4		11		13	
Zinc -Total	--	mg/l			0.01	LT				

Notes:

[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.

[2] A blank cell in the "Value" column indicates the analysis was not performed.

-- = No Class GA guidance value or standard exists.

shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix A. Station Area Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SOGDD-8802

Analyte	Class GA Groundwater Standard[1]	Units	Feb-21		Apr-21		Aug-21		Dec-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	--	mg/l	36				52		52	
Aluminum - Total	--	mg/l								
Ammonia	2	mg/l	10.8				9.2		10	
Arsenic - Total	0.025	mg/l	0.007				0.006		0.005	LT
Bromide	--	mg/l								
Cadmium - Total	0.005	mg/l	0.005	LT			0.005	LT	0.005	LT
Calcium - Total	--	mg/l	1290				1240		1340	
Chloride	250	mg/l	11700				11000		11300	
Chromium - Total	0.05	mg/l								
Conductivity	--	UMHO/CM	30430				27060		29210	
Copper - Total	0.2	mg/l								
EH--	--	VOLTS								
F2--	1.5	mg/l								
Hardness	--	mg/l								
Iron - Total	0.3	mg/l	2.25		DRY		1.92		2.3	
Lead - Total	0.025	mg/l								
Lithium - Total	--	mg/l								
Magnesium - Total	--	mg/l	184				284		251	
Manganese - Total	0.3	mg/l	1.36				1.91		1.38	
Mercury - Total	0.0007	mg/l								
pH	6.5 to 8.5	SU	7.1				7.1		7.1	
Potassium - Total	--	mg/l	118				153		127	
Selenium - Total	0.01	mg/l								
Silver - Total	0.05	mg/l								
Sodium - Total	20	mg/l								
Strontium - Total	--	mg/l								
Sulfate	250	mg/l	1060				1030		1100	
Total Dissolved Solids	500	mg/l	20800				17900		19100	
Turbidity	5	NTU	1.5				10		2	
Zinc -Total	--	mg/l								

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
-- = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix A. Station Area Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SOGDSH-0901

Analyte	Class GA Groundwater Standard[1]	Units	Feb-21		Apr-21		Aug-21		Dec-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	--	mg/l	230		250		260		290	
Aluminum - Total	--	mg/l			0.1	LT				
Ammonia	2	mg/l	0.2		0.3		0.1	LT	0.2	
Arsenic - Total	0.025	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Bromide	--	mg/l			2.25					
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	--	mg/l	85.1		122		106		93.1	
Chloride	250	mg/l	205		226		319		214	
Chromium - Total	0.05	mg/l			0.005	LT				
Conductivity	--	UMHO/CM	1525		1835		1790		1665	
Copper - Total	0.2	mg/l			0.005	LT				
EH--	--	VOLTS			47					
F2--	1.5	mg/l			0.39					
Hardness	--	mg/l			655					
Iron - Total	0.3	mg/l	0.173		0.159		0.085		0.072	
Lead - Total	0.025	mg/l			0.005	LT				
Lithium - Total	--	mg/l			0.057					
Magnesium - Total	--	mg/l	64.2		85		83.8		79.1	
Manganese - Total	0.3	mg/l	0.11		0.104		0.089		0.062	
Mercury - Total	0.0007	mg/l			0.0002	LT				
pH	6.5 to 8.5	SU	7.4		7.4		7.4		7.6	
Potassium - Total	--	mg/l	7.34		9.02		9.52		8.46	
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l			104					
Strontium - Total	--	mg/l			2.71					
Sulfate	250	mg/l	282		296		369		337	
Total Dissolved Solids	500	mg/l	815		1170		1250		1120	
Turbidity	5	NTU	6.9		5.3		14		2.5	
Zinc -Total	--	mg/l			0.01	LT				

Notes:

[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.

[2] A blank cell in the "Value" column indicates the analysis was not performed.

-- = No Class GA guidance value or standard exists.

shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix A. Station Area Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SOGDXX8209

Analyte	Class GA Groundwater Standard[1]	Units	Feb-21		Apr-21		Aug-21		Dec-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	--	mg/l			310		290		340	
Aluminum - Total	--	mg/l			0.1	LT				
Ammonia	2	mg/l								
Arsenic - Total	0.025	mg/l	0.005		0.005		0.005	LT	0.005	LT
Bromide	--	mg/l			1.04					
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	--	mg/l	66.7		104		67.6		66.5	
Chloride	250	mg/l	158		126		117		123	
Chromium - Total	0.05	mg/l			0.005	LT				
Conductivity	--	UMHO/CM	1325		1350		1325		1345	
Copper - Total	0.2	mg/l			0.005	LT				
EH--	--	VOLTS			22					
F2--	1.5	mg/l			0.2	LT				
Hardness	--	mg/l			476					
Iron - Total	0.3	mg/l	0.05	LT	0.05	LT	0.05	LT	0.05	LT
Lead - Total	0.025	mg/l			0.005	LT				
Lithium - Total	--	mg/l			0.072					
Magnesium - Total	--	mg/l	37.6		52.6		38		37.8	
Manganese - Total	0.3	mg/l	0.044		0.06		0.053		0.05	
Mercury - Total	0.0007	mg/l			0.0002	LT				
pH	6.5 to 8.5	SU	7.5		7.5		7.4		7.5	
Potassium - Total	--	mg/l	11.5		13		13		12.9	
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l			173					
Strontium - Total	--	mg/l			1.47					
Sulfate	250	mg/l	176		160		165		160	
Total Dissolved Solids	500	mg/l	755		800		735		775	
Turbidity	5	NTU	2		1.4		10		1.6	
Zinc -Total	--	mg/l			0.01	LT				

Notes:

[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.

[2] A blank cell in the "Value" column indicates the analysis was not performed.

-- = No Class GA guidance value or standard exists.

shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix A. Station Area Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SOGDXX8301

Analyte	Class GA Groundwater Standard[1]	Units	Feb-21		Apr-21		Aug-21		Dec-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	--	mg/l	290				290		292	
Aluminum - Total	--	mg/l								
Ammonia	2	mg/l	0.9				0.8		1.3	
Arsenic - Total	0.025	mg/l	0.005	LT			0.005	LT	0.005	LT
Bromide	--	mg/l								
Cadmium - Total	0.005	mg/l	0.005	LT			0.005	LT	0.005	LT
Calcium - Total	--	mg/l	228				405		385	
Chloride	250	mg/l	1170				1570		1040	
Chromium - Total	0.05	mg/l								
Conductivity	--	UMHO/CM	4305				4160		3905	
Copper - Total	0.2	mg/l								
EH--	--	VOLTS								
F2--	1.5	mg/l								
Hardness	--	mg/l								
Iron - Total	0.3	mg/l	1.3		DRY		1.53		1.42	
Lead - Total	0.025	mg/l								
Lithium - Total	--	mg/l								
Magnesium - Total	--	mg/l	84.8				98.7		101	
Manganese - Total	0.3	mg/l	0.182				0.234		0.244	
Mercury - Total	0.0007	mg/l								
pH	6.5 to 8.5	SU	7.3				7.2		7.3	
Potassium - Total	--	mg/l	11				16.3		16	
Selenium - Total	0.01	mg/l								
Silver - Total	0.05	mg/l								
Sodium - Total	20	mg/l								
Strontium - Total	--	mg/l								
Sulfate	250	mg/l	426				446		374	
Total Dissolved Solids	500	mg/l	2660				3340		2640	
Turbidity	5	NTU	10.2				12		12	
Zinc -Total	--	mg/l								

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
-- = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix A. Station Area Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SOGDXX8302

Analyte	Class GA Groundwater Standard[1]	Units	Feb-21		Apr-21		Aug-21		Dec-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	--	mg/l	260		DRY		250		272	
Aluminum - Total	--	mg/l								
Ammonia	2	mg/l	0.6				0.5		0.5	
Arsenic - Total	0.025	mg/l	0.005	LT			0.005	LT	0.005	LT
Bromide	--	mg/l								
Cadmium - Total	0.005	mg/l	0.005	LT			0.005	LT	0.005	LT
Calcium - Total	--	mg/l	102				90.3		90.1	
Chloride	250	mg/l	484				362		382	
Chromium - Total	0.05	mg/l								
Conductivity	--	UMHO/CM	2630				1935		2150	
Copper - Total	0.2	mg/l								
EH--	--	VOLTS								
F2--	1.5	mg/l								
Hardness	--	mg/l								
Iron - Total	0.3	mg/l	0.276				0.221		0.178	
Lead - Total	0.025	mg/l								
Lithium - Total	--	mg/l								
Magnesium - Total	--	mg/l	84.4				55.4		56.3	
Manganese - Total	0.3	mg/l	0.11				0.095		0.091	
Mercury - Total	0.0007	mg/l								
pH	6.5 to 8.5	SU	7.4				7.4		7.5	
Potassium - Total	--	mg/l	13.6				14.5		13.7	
Selenium - Total	0.01	mg/l								
Silver - Total	0.05	mg/l								
Sodium - Total	20	mg/l								
Strontium - Total	--	mg/l								
Sulfate	250	mg/l	214				228		239	
Total Dissolved Solids	500	mg/l	1370				1160		1350	
Turbidity	5	NTU	8.9				15		3.7	
Zinc -Total	--	mg/l								

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
-- = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix A. Station Area Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SOGDXX8303

Analyte	Class GA Groundwater Standard[1]	Units	Feb-21		Apr-21		Aug-21		Dec-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	--	mg/l			180		210		230	
Aluminum - Total	--	mg/l			0.1	LT				
Ammonia	2	mg/l								
Arsenic - Total	0.025	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Bromide	--	mg/l			1.32					
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	--	mg/l	73.1		108		130		139	
Chloride	250	mg/l	291		152		351		283	
Chromium - Total	0.05	mg/l			0.005	LT				
Conductivity	--	UMHO/CM	1205		1265		1950		2210	
Copper - Total	0.2	mg/l			0.005	LT				
EH--	--	VOLTS			-50					
F2--	1.5	mg/l			0.67					
Hardness	--	mg/l			503					
Iron - Total	0.3	mg/l	0.553		0.721		1.13		1.29	
Lead - Total	0.025	mg/l			0.005	LT				
Lithium - Total	--	mg/l			0.05	LT				
Magnesium - Total	--	mg/l	36.8		56.7		74.6		86.2	
Manganese - Total	0.3	mg/l	0.072		0.148		0.214		0.205	
Mercury - Total	0.0007	mg/l			0.0002	LT				
pH	6.5 to 8.5	SU	7.5		7.6		7.4		7.4	
Potassium - Total	--	mg/l	6.57		10.1		12.1		13.1	
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l			102					
Strontium - Total	--	mg/l			1.85					
Sulfate	250	mg/l	339		227		401		376	
Total Dissolved Solids	500	mg/l	1100		955		1200		1170	
Turbidity	5	NTU	6.3		5.6		13		5.4	
Zinc -Total	--	mg/l			0.01	LT				

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
-- = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix A. Station Area Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SOGDXX8304

Analyte	Class GA Groundwater Standard[1]	Units	Feb-21		Apr-21		Aug-21		Dec-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	--	mg/l			390		280		330	
Aluminum - Total	--	mg/l			0.1	LT				
Ammonia	2	mg/l								
Arsenic - Total	0.025	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Bromide	--	mg/l			1	LT				
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	--	mg/l	140		193		130		135	
Chloride	250	mg/l	30.2		23.4		33.5		33	
Chromium - Total	0.05	mg/l			0.005	LT				
Conductivity	--	UMHO/CM	1240		1225		1130		1260	
Copper - Total	0.2	mg/l			0.005	LT				
EH--	--	VOLTS			54					
F2--	1.5	mg/l			0.2					
Hardness	--	mg/l			717					
Iron - Total	0.3	mg/l	0.537		1.45		0.617		0.788	
Lead - Total	0.025	mg/l			0.005	LT				
Lithium - Total	--	mg/l			0.165					
Magnesium - Total	--	mg/l	46.4		57		42.7		44.2	
Manganese - Total	0.3	mg/l	0.282		0.288		0.265		0.27	
Mercury - Total	0.0007	mg/l			0.0002	LT				
pH	6.5 to 8.5	SU	7.1		7.2		7.2		7.2	
Potassium - Total	--	mg/l	14.6		14.7		14.8		15	
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l			17.3					
Strontium - Total	--	mg/l			0.614					
Sulfate	250	mg/l	314		283		272		275	
Total Dissolved Solids	500	mg/l	870		945		725		810	
Turbidity	5	NTU	4.2		8.8		6.3		2.7	
Zinc -Total	--	mg/l			0.01	LT				

Notes:

[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.

[2] A blank cell in the "Value" column indicates the analysis was not performed.

-- = No Class GA guidance value or standard exists.

shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix A. Station Area Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SOGDXX8305

Analyte	Class GA Groundwater Standard[1]	Units	Feb-21		Apr-21		Aug-21		Dec-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	--	mg/l			180		240		300	
Aluminum - Total	--	mg/l			0.1	LT				
Ammonia	2	mg/l								
Arsenic - Total	0.025	mg/l	0.014		0.012		0.014		0.011	
Bromide	--	mg/l			2.45					
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	--	mg/l	154		234		149		142	
Chloride	250	mg/l	325		298		257		224	
Chromium - Total	0.05	mg/l			0.005	LT				
Conductivity	--	UMHO/CM	2690		2510		2325		2320	
Copper - Total	0.2	mg/l			0.005	LT				
EH--	--	VOLTS			-22					
F2--	1.5	mg/l			0.2	LT				
Hardness	--	mg/l			994					
Iron - Total	0.3	mg/l	1.11		1.11		1.04		0.935	
Lead - Total	0.025	mg/l			0.006					
Lithium - Total	--	mg/l			0.05	LT				
Magnesium - Total	--	mg/l	78.9		99.6		78.4		71.8	
Manganese - Total	0.3	mg/l	0.113		0.117		0.109		0.097	
Mercury - Total	0.0007	mg/l			0.0002	LT				
pH	6.5 to 8.5	SU	7.3		7.4		7.3		7.4	
Potassium - Total	--	mg/l	9.58		10.3		9.78		9.72	
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l			292					
Strontium - Total	--	mg/l			2.1					
Sulfate	250	mg/l	712		739		697		653	
Total Dissolved Solids	500	mg/l	1820		1870		1640		1600	
Turbidity	5	NTU	1.6		1.4		5.6		3.6	
Zinc -Total	--	mg/l			0.01	LT				

Notes:

[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.

[2] A blank cell in the "Value" column indicates the analysis was not performed.

-- = No Class GA guidance value or standard exists.

shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix A. Station Area Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SOGDXX8306

Analyte	Class GA Groundwater Standard[1]	Units	Feb-21		Apr-21		Aug-21		Dec-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	--	mg/l	260		250		250		270	
Aluminum - Total	--	mg/l			0.1	LT				
Ammonia	2	mg/l	1.2		1.2		1.1		1.5	
Arsenic - Total	0.025	mg/l	0.005	LT	0.008		0.006		0.006	
Bromide	--	mg/l			3.55					
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	--	mg/l	84.2		121		89.4		93.7	
Chloride	250	mg/l	404		366		331		371	
Chromium - Total	0.05	mg/l			0.005	LT				
Conductivity	--	UMHO/CM	2010		2075		1985		2120	
Copper - Total	0.2	mg/l			0.005	LT				
EH--	--	VOLTS			-37					
F2--	1.5	mg/l			0.32					
Hardness	--	mg/l			569					
Iron - Total	0.3	mg/l	0.656		0.983		0.922		0.937	
Lead - Total	0.025	mg/l			0.005	LT				
Lithium - Total	--	mg/l			0.087					
Magnesium - Total	--	mg/l	49.2		64.7		52.6		55.4	
Manganese - Total	0.3	mg/l	0.112		0.114		0.106		0.11	
Mercury - Total	0.0007	mg/l			0.0002	LT				
pH	6.5 to 8.5	SU	7.4		7.5		7.4		7.5	
Potassium - Total	--	mg/l	16.1		18.4		18.3		18.3	
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l			238					
Strontium - Total	--	mg/l			3.88					
Sulfate	250	mg/l	216		231		253		239	
Total Dissolved Solids	500	mg/l	1090		1390		1210		1310	
Turbidity	5	NTU	5.3		0.3		4.2		5.1	
Zinc -Total	--	mg/l			0.01	LT				

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
-- = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix A. Station Area Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SOGDXX8307

Analyte	Class GA Groundwater Standard[1]	Units	Feb-21		Apr-21		Aug-21		Dec-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	--	mg/l	260		30		320		380	
Aluminum - Total	--	mg/l			0.1	LT				
Ammonia	2	mg/l	0.1	LT	0.1	LT	0.1	LT	0.1	LT
Arsenic - Total	0.025	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Bromide	--	mg/l			1	LT				
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	--	mg/l	79.2		141		110		117	
Chloride	250	mg/l	5.66		6.2		15.3		27.2	
Chromium - Total	0.05	mg/l			0.005	LT				
Conductivity	--	UMHO/CM	680		835		810		935	
Copper - Total	0.2	mg/l			0.006					
EH--	--	VOLTS			82					
F2--	1.5	mg/l			0.2	LT				
Hardness	--	mg/l			481					
Iron - Total	0.3	mg/l	0.05	LT	0.05	LT	0.05	LT	0.05	LT
Lead - Total	0.025	mg/l			0.005	LT				
Lithium - Total	--	mg/l			0.075					
Magnesium - Total	--	mg/l	20.6		31.2		31		33.1	
Manganese - Total	0.3	mg/l	0.02	LT	0.02	LT	0.02	LT	0.047	
Mercury - Total	0.0007	mg/l			0.0002	LT				
pH	6.5 to 8.5	SU	7.4		7.2		7.2		7.2	
Potassium - Total	--	mg/l	2.28		3.3		3.49		3.93	
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l			5.97					
Strontium - Total	--	mg/l			0.494					
Sulfate	250	mg/l	65.8		99.6		95.5		90.1	
Total Dissolved Solids	500	mg/l	395		570		565		635	
Turbidity	5	NTU	8.4		0.6		4.6		0.3	
Zinc -Total	--	mg/l			0.01	LT				

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
-- = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix A. Station Area Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SOGDXX8821R

Analyte	Class GA Groundwater Standard[1]	Units	Feb-21		Apr-21		Aug-21		Dec-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	--	mg/l	350		360		340		360	
Aluminum - Total	--	mg/l			0.1	LT				
Ammonia	2	mg/l	0.1	LT	0.1	LT	0.1	LT	0.1	LT
Arsenic - Total	0.025	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Bromide	--	mg/l			1.28					
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	--	mg/l	103		155		109		96.1	
Chloride	250	mg/l	136		137		184		149	
Chromium - Total	0.05	mg/l			0.005	LT				
Conductivity	--	UMHO/CM	1440		1490		1615		1445	
Copper - Total	0.2	mg/l			0.005	LT				
EH--	--	VOLTS			53					
F2--	1.5	mg/l			0.2	LT				
Hardness	--	mg/l			762					
Iron - Total	0.3	mg/l	0.05		0.117		0.054		0.05	LT
Lead - Total	0.025	mg/l			0.005	LT				
Lithium - Total	--	mg/l			0.05	LT				
Magnesium - Total	--	mg/l	68.3		91		86.9		70.7	
Manganese - Total	0.3	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT
Mercury - Total	0.0007	mg/l			0.0002	LT				
pH	6.5 to 8.5	SU	7.2		7.2		7.2		7.4	
Potassium - Total	--	mg/l	4.41		4.77		5.79		5.68	
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l			71.9					
Strontium - Total	--	mg/l			1.3					
Sulfate	250	mg/l	242		243		313		220	
Total Dissolved Solids	500	mg/l	850		1280		1080		995	
Turbidity	5	NTU	6.1		9.8		12		4.9	
Zinc -Total	--	mg/l			0.01	LT				

Notes:

[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.

[2] A blank cell in the "Value" column indicates the analysis was not performed.

-- = No Class GA guidance value or standard exists.

shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix A. Station Area Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SOGDXX8823

Analyte	Class GA Groundwater Standard[1]	Units	Feb-21		Apr-21		Aug-21		Dec-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	510		500		430		530	
Aluminum - Total	–	mg/l			0.1	LT				
Ammonia	2	mg/l	0.1	LT	0.1	LT	0.1	LT	0.1	LT
Arsenic - Total	0.025	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Bromide	–	mg/l			1	LT				
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	–	mg/l	127		165		98		119	
Chloride	250	mg/l	13.8		23.3		35.4		9.95	
Chromium - Total	0.05	mg/l			0.005	LT				
Conductivity	–	UMHO/CM	1205		1215		1080		1170	
Copper - Total	0.2	mg/l			0.006					
EH–	–	VOLTS			39					
F2–	1.5	mg/l			0.2					
Hardness	–	mg/l			731					
Iron - Total	0.3	mg/l	0.077		0.096		0.067		0.129	
Lead - Total	0.025	mg/l			0.005	LT				
Lithium - Total	–	mg/l			0.172					
Magnesium - Total	–	mg/l	62		77.5		58.6		63.9	
Manganese - Total	0.3	mg/l	0.057		0.1		0.066		0.202	
Mercury - Total	0.0007	mg/l			0.0002	LT				
pH	6.5 to 8.5	SU	7.1		7		7.1		7.1	
Potassium - Total	–	mg/l	2.3		2.81		3.34		2.76	
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l			14.1					
Strontium - Total	–	mg/l			0.781					
Sulfate	250	mg/l	137		145		127		130	
Total Dissolved Solids	500	mg/l	740		845		675		660	
Turbidity	5	NTU	8.4		5.8		7.6		7	
Zinc -Total	–	mg/l			0.01	LT				

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
– = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix A. Station Area Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SOGDXX8824

Analyte	Class GA Groundwater Standard[1]	Units	Feb-21		Apr-21		Aug-21		Dec-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	--	mg/l			460				430	
Aluminum - Total	--	mg/l			0.1	LT				
Ammonia	2	mg/l								
Arsenic - Total	0.025	mg/l	0.005	LT	0.005	LT			0.005	LT
Bromide	--	mg/l			1	LT				
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT			0.005	LT
Calcium - Total	--	mg/l	183		329				241	
Chloride	250	mg/l	31		26.2				26.1	
Chromium - Total	0.05	mg/l			0.005	LT				
Conductivity	--	UMHO/CM	1540		1555				1440	
Copper - Total	0.2	mg/l			0.005	LT				
EH--	--	VOLTS			71					
F2--	1.5	mg/l			0.2	LT				
Hardness	--	mg/l			1250					
Iron - Total	0.3	mg/l	0.355		0.178		DRY		0.461	
Lead - Total	0.025	mg/l			0.006					
Lithium - Total	--	mg/l			0.306					
Magnesium - Total	--	mg/l	63.5		104				59.4	
Manganese - Total	0.3	mg/l	0.75		0.865				0.774	
Mercury - Total	0.0007	mg/l			0.0002	LT				
pH	6.5 to 8.5	SU	6.9		7.0				7	
Potassium - Total	--	mg/l	2.09		2.38				2.42	
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l			41.1					
Strontium - Total	--	mg/l			0.448					
Sulfate	250	mg/l	449		410				374	
Total Dissolved Solids	500	mg/l	1170		1240				995	
Turbidity	5	NTU	48		16				18	
Zinc -Total	--	mg/l			0.01	LT				

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
-- = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix A. Station Area Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SOGDXX8826

Analyte	Class GA Groundwater Standard[1]	Units	Feb-21		Apr-21		Aug-21		Dec-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	--	mg/l	380		420		330		330	
Aluminum - Total	--	mg/l			0.1	LT				
Ammonia	2	mg/l	0.1	LT	0.1	LT	0.1	LT	0.1	LT
Arsenic - Total	0.025	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Bromide	--	mg/l			1	LT				
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	--	mg/l	105		194		94.6		85.8	
Chloride	250	mg/l	10.3		21.7		31.4		36.9	
Chromium - Total	0.05	mg/l			0.005	LT				
Conductivity	--	UMHO/CM	945		1175		1030		1080	
Copper - Total	0.2	mg/l			0.005	LT				
EH--	--	VOLTS			76					
F2--	1.5	mg/l			0.2	LT				
Hardness	--	mg/l			836					
Iron - Total	0.3	mg/l	0.05	LT	0.05	LT	0.05	LT	0.05	LT
Lead - Total	0.025	mg/l			0.005	LT				
Lithium - Total	--	mg/l			0.374					
Magnesium - Total	--	mg/l	39.4		85.5		47.6		51.8	
Manganese - Total	0.3	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT
Mercury - Total	0.0007	mg/l			0.0002	LT				
pH	6.5 to 8.5	SU	7		7.1		7.2		7.3	
Potassium - Total	--	mg/l	1.62		3.54		4.49		6.09	
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l			31.2					
Strontium - Total	--	mg/l			0.735					
Sulfate	250	mg/l	130		191		189		201	
Total Dissolved Solids	500	mg/l	580		815		645		755	
Turbidity	5	NTU	1.2		1.1		5.3		0.4	
Zinc -Total	--	mg/l			0.01	LT				

Notes:

[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.

[2] A blank cell in the "Value" column indicates the analysis was not performed.

-- = No Class GA guidance value or standard exists.

shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix A. Station Area Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SOGDXX8827

Analyte	Class GA Groundwater Standard[1]	Units	Feb-21		Apr-21		Aug-21		Dec-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	--	mg/l	330		380		460		450	
Aluminum - Total	--	mg/l			0.1	LT				
Ammonia	2	mg/l	0.1	LT	0.1	LT	0.1	LT	0.1	LT
Arsenic - Total	0.025	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Bromide	--	mg/l			1	LT				
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	--	mg/l	93.9		187		142		129	
Chloride	250	mg/l	2.92		8.71		18.1		2	LT
Chromium - Total	0.05	mg/l			0.005	LT				
Conductivity	--	UMHO/CM	715		995		1175		915	
Copper - Total	0.2	mg/l			0.005	LT				
EH--	--	VOLTS			89					
F2--	1.5	mg/l			0.2	LT				
Hardness	--	mg/l			599					
Iron - Total	0.3	mg/l	0.124		0.05	LT	0.11		0.069	
Lead - Total	0.025	mg/l			0.005	LT				
Lithium - Total	--	mg/l			0.142					
Magnesium - Total	--	mg/l	21		32.1		37.7		29.4	
Manganese - Total	0.3	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT
Mercury - Total	0.0007	mg/l			0.0002	LT				
pH	6.5 to 8.5	SU	7		7.1		7		7	
Potassium - Total	--	mg/l	0.42		0.723		0.953		0.669	
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l			13.7					
Strontium - Total	--	mg/l			0.389					
Sulfate	250	mg/l	55.3		82		122		60.2	
Total Dissolved Solids	500	mg/l	385		655		725		570	
Turbidity	5	NTU	1.9		1.6		7.9		1.3	
Zinc -Total	--	mg/l			0.01	LT				

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
-- = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix A. Station Area Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SOGDXX8828

Analyte	Class GA Groundwater Standard[1]	Units	Feb-21		Apr-21		Aug-21		Dec-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	370		400		400		420	
Aluminum - Total	–	mg/l	0.033	LT	0.1	LT	0.033	LT	0.031	LT
Ammonia	2	mg/l	1.2		0.1	LT	0.1	LT	0.1	LT
Arsenic - Total	0.025	mg/l	0.00449		0.005	LT	0.0031	LT	0.00658	
Bromide	–	mg/l	1	LT	1	LT	1	LT	1	LT
Cadmium - Total	0.005	mg/l	0.0014	LT	0.005	LT	0.0014	LT	0.0011	LT
Calcium - Total	–	mg/l	426		325		363		346	
Chloride	250	mg/l	38		36.9		45		42.8	
Chromium - Total	0.05	mg/l	0.0048	LT	0.005	LT	0.0048	LT	0.004	LT
Conductivity	–	UMHO/CM	2100		2320		2280		2305	
Copper - Total	0.2	mg/l	0.0019	LT	0.005	LT	0.00792		0.00428	
EH–	–	VOLTS	73		89		104		115	
F2–	1.5	mg/l	0.2	LT	0.2	LT	0.2	LT	0.54	
Hardness	–	mg/l	2514		1676		1833		1615	
Iron - Total	0.3	mg/l	0.0142		0.083		0.0234		0.0164	
Lead - Total	0.025	mg/l	0.0023	LT	0.006		0.0023	LT	0.0015	LT
Lithium - Total	–	mg/l	0.034	LT	0.294		0.317		0.206	
Magnesium - Total	–	mg/l	353		210		225		182	
Manganese - Total	0.3	mg/l	0.0384		0.02	LT	0.0026	LT	0.0026	LT
Mercury - Total	0.0007	mg/l	0.0002	LT	0.0002	LT	0.0002	LT	0.0002	LT
pH	6.5 to 8.5	SU	7.1		7.1		7.1		7.1	
Potassium - Total	–	mg/l	20.7		3.93		4.09		4.12	
Selenium - Total	0.01	mg/l	0.0034	LT	0.005	LT	0.0034	LT	0.0045	LT
Silver - Total	0.05	mg/l	0.0092	LT	0.01	LT	0.0092	LT	0.009	LT
Sodium - Total	20	mg/l	158		20.3		26.1		24.2	
Strontium - Total	–	mg/l	7.75		3.47		3.01		2.87	
Sulfate	250	mg/l	940		1040		1160		996	
Total Dissolved Solids	500	mg/l	1860		2280		1900		1980	
Turbidity	5	NTU	1.6		6.8		13		2.1	
Zinc -Total	–	mg/l	0.0038	LT	0.01	LT	0.0038	LT	0.0045	LT

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
– = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix A. Station Area Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SOGDXX8829

Analyte	Class GA Groundwater Standard[1]	Units	Feb-21		Apr-21		Aug-21		Dec-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	--	mg/l	300		260		290		256	
Aluminum - Total	--	mg/l	0.033	LT	0.1	LT	0.033	LT	0.031	LT
Ammonia	2	mg/l	0.3		0.1	LT	0.4		0.1	LT
Arsenic - Total	0.025	mg/l	0.0031	LT	0.005	LT	0.0031	LT	0.00253	
Bromide	--	mg/l	11.6		8.65		16		1.54	
Cadmium - Total	0.005	mg/l	0.0014	LT	0.005	LT	0.0014	LT	0.0011	LT
Calcium - Total	--	mg/l	652		579		815		232	
Chloride	250	mg/l	1060		904		1950		158	
Chromium - Total	0.05	mg/l	0.0048	LT	0.005	LT	0.0048	LT	0.004	LT
Conductivity	--	UMHO/CM	4855		4300		7055		1615	
Copper - Total	0.2	mg/l	0.00403		0.005	LT	0.00502		0.00764	
EH--	--	VOLTS	-2		69		51		107	
F2--	1.5	mg/l	0.21		0.3		0.2	LT	0.72	
Hardness	--	mg/l	3182		2726		3884		883	
Iron - Total	0.3	mg/l	0.0089	LT	0.05	LT	0.0089	LT	0.012	LT
Lead - Total	0.025	mg/l	0.0023	LT	0.006		0.0023	LT	0.0015	LT
Lithium - Total	--	mg/l	0.034	LT	0.05	LT	0.034	LT	0.144	
Magnesium - Total	--	mg/l	377		311		449		73.6	
Manganese - Total	0.3	mg/l	0.274		0.976		1.97		0.0123	
Mercury - Total	0.0007	mg/l	0.0002	LT	0.0002	LT	0.0002	LT	0.0002	LT
pH	6.5 to 8.5	SU	6.7		6.8		6.6		7.5	
Potassium - Total	--	mg/l	7.87		5.02		9.44		2.12	
Selenium - Total	0.01	mg/l	0.0034	LT	0.005	LT	0.0034	LT	0.0045	LT
Silver - Total	0.05	mg/l	0.0092	LT	0.01	LT	0.0092	LT	0.009	LT
Sodium - Total	20	mg/l	145		118		180		23.3	
Strontium - Total	--	mg/l	2.57		1.76		3.67		0.683	
Sulfate	250	mg/l	857		763		1320		390	
Total Dissolved Solids	500	mg/l	3480		3610		5150		1120	
Turbidity	5	NTU	0.4		0.4		5.9		0.4	
Zinc -Total	--	mg/l	0.0349		0.036		0.0421		0.0045	LT

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
-- = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix A. Station Area Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SOGUA-8308

Analyte	Class GA Groundwater Standard[1]	Units	Jan-22		May-22		Jul-22		Oct-22	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	--	mg/l	510		490		450		450	
Aluminum - Total	--	mg/l			0.1	LT				
Ammonia	2	mg/l								
Arsenic - Total	0.025	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Bromide	--	mg/l			1	LT				
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	--	mg/l	129		209		119		103	
Chloride	250	mg/l	52.5		44.3		74.7		74.4	
Chromium - Total	0.05	mg/l			0.005	LT				
Conductivity	--	UMHO/CM	1695		1775		1680		1510	
Copper - Total	0.2	mg/l			0.005					
EH--	--	VOLTS			51					
F2--	1.5	mg/l			0.2	LT				
Hardness	--	mg/l			1210					
Iron - Total	0.3	mg/l	0.433		0.421		0.745		0.557	
Lead - Total	0.025	mg/l			0.006					
Lithium - Total	--	mg/l			0.05	LT				
Magnesium -Total	--	mg/l	110		167		115		84.6	
Manganese - Total	0.3	mg/l	0.16		0.084		0.085		0.074	
Mercury - Total	0.0007	mg/l			0.0002	LT				
pH	6.5 to 8.5	SU	7.2		7.0		7.1		7.2	
Potassium - Total	--	mg/l	9.35		10.1		10.7		11.1	
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l			73.4					
Strontium - Total	--	mg/l			5.69					
Sulfate	250	mg/l	462		412		378		303	
Total Dissolved Solids	500	mg/l	1310		1340		1060		970	
Turbidity	5	NTU	2.6		6.7		12.0		5.2	
Zinc - Total	--	mg/l			0.01	LT				

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
-- = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix A. Station Area Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SOGUD-8811

Analyte	Class GA Groundwater Standard[1]	Units	Jan-22		May-22		Jul-22		Oct-22	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	--	mg/l	88		100		92		68	
Aluminum - Total	--	mg/l			0.1	LT				
Ammonia	2	mg/l								
Arsenic - Total	0.025	mg/l	0.009		0.005		0.005	LT	0.005	LT
Bromide	--	mg/l			162					
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	--	mg/l	1760		3060		1670		2210	
Chloride	250	mg/l	16400		15600		15900		18000	
Chromium - Total	0.05	mg/l			0.005	LT				
Conductivity	--	UMHO/CM	41750		39450		41370		43430	
Copper - Total	0.2	mg/l			0.005	LT				
EH--	--	VOLTS			-13					
F2--	1.5	mg/l			0.71					
Hardness	--	mg/l			1945					
Iron - Total	0.3	mg/l	4.67		4.49		4.52		3.95	
Lead - Total	0.025	mg/l			0.011					
Lithium - Total	--	mg/l			9.61					
Magnesium -Total	--	mg/l	355		502		414		473	
Manganese - Total	0.3	mg/l	2.11		2.1		1.98		1.88	
Mercury - Total	0.0007	mg/l			0.0002	LT				
pH	6.5 to 8.5	SU	6.9		6.9		6.9		7.0	
Potassium - Total	--	mg/l	135		168		171		177	
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l			4750					
Strontium - Total	--	mg/l			58.1					
Sulfate	250	mg/l	1160		1220		1320		1270	
Total Dissolved Solids	500	mg/l	29100		33000		27100		27500	
Turbidity	5	NTU	0.8		1.1		3.4		2.1	
Zinc - Total	--	mg/l			0.01	LT				

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
-- = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix A. Station Area Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SOGUSH8811

Analyte	Class GA Groundwater Standard[1]	Units	Jan-22		May-22		Jul-22		Oct-22	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	--	mg/l	460		460		510		470	
Aluminum - Total	--	mg/l			0.1	LT				
Ammonia	2	mg/l								
Arsenic - Total	0.025	mg/l	0.016		0.007		0.007		0.011	
Bromide	--	mg/l			1	LT				
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	--	mg/l	89.8		99.8		93.7		79.2	
Chloride	250	mg/l	67.8		104		89.8		56.6	
Chromium - Total	0.05	mg/l			0.005	LT				
Conductivity	--	UMHO/CM	1550		1590		1680		1530	
Copper - Total	0.2	mg/l			0.005	LT				
EH--	--	VOLTS			-12					
F2--	1.5	mg/l			0.2	LT				
Hardness	--	mg/l			633					
Iron - Total	0.3	mg/l	1.45		1.2		0.979		1.04	
Lead - Total	0.025	mg/l			0.007					
Lithium - Total	--	mg/l			0.054					
Magnesium -Total	--	mg/l	78.7		93.3		84.1		72.8	
Manganese - Total	0.3	mg/l	0.093		0.06		0.056		0.049	
Mercury - Total	0.0007	mg/l			0.0002	LT				
pH	6.5 to 8.5	SU	7.3		7.3		7.2		7.4	
Potassium - Total	--	mg/l	13.7		15.3		16.2		14.6	
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l			122					
Strontium - Total	--	mg/l			6.91					
Sulfate	250	mg/l	278		269		255		298	
Total Dissolved Solids	500	mg/l	995		1080		1050		1340	
Turbidity	5	NTU	48.0		13.0		25.0		14.0	
Zinc - Total	--	mg/l			0.01	LT				

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
-- = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix A. Station Area Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SOGXDUXX01

Analyte	Class GA Groundwater Standard[1]	Units	Jan-22		May-22		Jul-22		Oct-22	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	--	mg/l							324	
Aluminum - Total	--	mg/l								
Ammonia	2	mg/l							0.1	LT
Arsenic - Total	0.025	mg/l							0.005	LT
Bromide	--	mg/l								
Cadmium - Total	0.005	mg/l							0.005	LT
Calcium - Total	--	mg/l							83.1	
Chloride	250	mg/l							37.6	
Chromium - Total	0.05	mg/l								
Conductivity	--	UMHO/CM							1075	
Copper - Total	0.2	mg/l								
EH--	--	VOLTS								
F2--	1.5	mg/l								
Hardness	--	mg/l								
Iron - Total	0.3	mg/l	DRY		DRY		DRY		0.05	LT
Lead - Total	0.025	mg/l								
Lithium - Total	--	mg/l								
Magnesium -Total	--	mg/l							50.6	
Manganese - Total	0.3	mg/l							0.02	LT
Mercury - Total	0.0007	mg/l								
pH	6.5 to 8.5	SU							7.3	
Potassium - Total	--	mg/l							6.05	
Selenium - Total	0.01	mg/l								
Silver - Total	0.05	mg/l								
Sodium - Total	20	mg/l								
Strontium - Total	--	mg/l								
Sulfate	250	mg/l							198	
Total Dissolved Solids	500	mg/l							740	
Turbidity	5	NTU							0.3	
Zinc - Total	--	mg/l								

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
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-- = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix A. Station Area Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SOGXMH0201

Analyte	Class GA Groundwater Standard[1]	Units	Jan-22		May-22		Jul-22		Oct-22	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	--	mg/l			450		260		310	
Aluminum - Total	--	mg/l			0.729					
Ammonia	2	mg/l			9		6.1		32.9	
Arsenic - Total	0.025	mg/l			0.005	LT	0.005	LT	0.005	LT
Bromide	--	mg/l			7.67		5.96		5.52	
Cadmium - Total	0.005	mg/l			0.005	LT	0.005	LT	0.005	LT
Calcium - Total	--	mg/l			706		472		364	
Chloride	250	mg/l			804		765		563	
Chromium - Total	0.05	mg/l			0.011					
Conductivity	--	UMHO/CM			6640		6075		4850	
Copper - Total	0.2	mg/l			0.005	LT				
EH--	--	VOLTS			-37					
F2--	1.5	mg/l			2.62					
Hardness	--	mg/l			5041					
Iron - Total	0.3	mg/l			41.1		2.92		0.763	
Lead - Total	0.025	mg/l	DRY		0.008					
Lithium - Total	--	mg/l			0.05	LT				
Magnesium -Total	--	mg/l			796		298		274	
Manganese - Total	0.3	mg/l			4.94		3.57		2.41	
Mercury - Total	0.0007	mg/l			0.0002	LT				
pH	6.5 to 8.5	SU			6.5		6.4		7.6	
Potassium - Total	--	mg/l			32.3		29.7		46	
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l			606		482		438	
Strontium - Total	--	mg/l			1.18					
Sulfate	250	mg/l			3650		2660		1740	
Total Dissolved Solids	500	mg/l			7340		5200		3670	
Turbidity	5	NTU			16.0		3.3		41.0	
Zinc - Total	--	mg/l			0.017					

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
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shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix A. Station Area Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SOPILTXX01

Analyte	Class GA Groundwater Standard[1]	Units	Jan-22		May-22		Jul-22		Oct-22	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	--	mg/l	DRY		48		92		130	
Aluminum - Total	--	mg/l			0.1	LT				
Ammonia	2	mg/l			0.1	LT	0.1	LT	0.1	LT
Arsenic - Total	0.025	mg/l			0.005	LT	0.005	LT	0.005	LT
Bromide	--	mg/l			1	LT	1	LT	1	LT
Cadmium - Total	0.005	mg/l			0.005	LT	0.005	LT	0.005	LT
Calcium - Total	--	mg/l			44.8		47.2		66.5	
Chloride	250	mg/l			6.69		7.11		2.98	
Chromium - Total	0.05	mg/l			0.005	LT				
Conductivity	--	UMHO/CM			520		520		575	
Copper - Total	0.2	mg/l			0.005	LT				
EH--	--	VOLTS			64					
F2--	1.5	mg/l			0.31					
Hardness	--	mg/l			242					
Iron - Total	0.3	mg/l			0.096		0.05	LT	0.05	LT
Lead - Total	0.025	mg/l			0.005	LT				
Lithium - Total	--	mg/l			0.058					
Magnesium -Total	--	mg/l			31.7		32.5		25.9	
Manganese - Total	0.3	mg/l			0.02	LT	0.02	LT	0.02	LT
Mercury - Total	0.0007	mg/l			0.0002	LT				
pH	6.5 to 8.5	SU			8.5		8.5		8.2	
Potassium - Total	--	mg/l			2.78		3.24		2.92	
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l			7.43		6.88		8	
Strontium - Total	--	mg/l			0.323					
Sulfate	250	mg/l			151		163		165	
Total Dissolved Solids	500	mg/l			440		265		525	
Turbidity	5	NTU			0.9		1.4		0.7	
Zinc - Total	--	mg/l			0.01	LT				

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
-- = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix A. Station Area Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SOPILTXX02

Analyte	Class GA Groundwater Standard[1]	Units	Jan-22		May-22		Jul-22		Oct-22	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	--	mg/l	DRY		28		80		52	
Aluminum - Total	--	mg/l			0.1	LT				
Ammonia	2	mg/l			0.1	LT	0.1	LT	0.1	LT
Arsenic - Total	0.025	mg/l			0.005	LT	0.005	LT	0.005	LT
Bromide	--	mg/l			1	LT	1	LT	1	LT
Cadmium - Total	0.005	mg/l			0.005	LT	0.005	LT	0.005	LT
Calcium - Total	--	mg/l			29.2		42		53.8	
Chloride	250	mg/l			2	LT	5.33		2.14	
Chromium - Total	0.05	mg/l			0.005	LT				
Conductivity	--	UMHO/CM			375		460		485	
Copper - Total	0.2	mg/l			0.005	LT				
EH--	--	VOLTS			24					
F2--	1.5	mg/l			0.2	LT				
Hardness	--	mg/l			181					
Iron - Total	0.3	mg/l			0.05	LT	0.05	LT	0.05	LT
Lead - Total	0.025	mg/l			0.005	LT				
Lithium - Total	--	mg/l			0.05	LT				
Magnesium -Total	--	mg/l			26.3		27		23.4	
Manganese - Total	0.3	mg/l			0.02	LT	0.02	LT	0.02	LT
Mercury - Total	0.0007	mg/l			0.0002	LT				
pH	6.5 to 8.5	SU			9.6		8.4		8.4	
Potassium - Total	--	mg/l			0.551		4.54		2.7	
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l			4.78		4.82		5.36	
Strontium - Total	--	mg/l			0.162					
Sulfate	250	mg/l			122		161		144	
Total Dissolved Solids	500	mg/l			290		260		370	
Turbidity	5	NTU			1.7		2.0		0.6	
Zinc - Total	--	mg/l			0.01	LT				

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
-- = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix A. Station Area Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SOPILTXX03

Analyte	Class GA Groundwater Standard[1]	Units	Jan-22		May-22		Jul-22		Oct-22	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	--	mg/l	DRY		DRY		DRY		DRY	
Aluminum - Total	--	mg/l								
Ammonia	2	mg/l								
Arsenic - Total	0.025	mg/l								
Bromide	--	mg/l								
Cadmium - Total	0.005	mg/l								
Calcium - Total	--	mg/l								
Chloride	250	mg/l								
Chromium - Total	0.05	mg/l								
Conductivity	--	UMHO/CM								
Copper - Total	0.2	mg/l								
EH--	--	VOLTS								
F2--	1.5	mg/l								
Hardness	--	mg/l								
Iron - Total	0.3	mg/l								
Lead - Total	0.025	mg/l								
Lithium - Total	--	mg/l								
Magnesium -Total	--	mg/l								
Manganese - Total	0.3	mg/l								
Mercury - Total	0.0007	mg/l								
pH	6.5 to 8.5	SU								
Potassium - Total	--	mg/l								
Selenium - Total	0.01	mg/l								
Silver - Total	0.05	mg/l								
Sodium - Total	20	mg/l								
Strontium - Total	--	mg/l								
Sulfate	250	mg/l								
Total Dissolved Solids	500	mg/l								
Turbidity	5	NTU								
Zinc - Total	--	mg/l								

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
-- = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix A. Station Area Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SOPXSPXX01

Analyte	Class GA Groundwater Standard[1]	Units	Jan-22		May-22		Jul-22		Oct-22	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	--	mg/l	DRY		42		28		120	
Aluminum - Total	--	mg/l			0.1	LT				
Ammonia	2	mg/l			0.1	LT	0.1	LT	0.1	LT
Arsenic - Total	0.025	mg/l			0.005	LT	0.005	LT	0.005	LT
Bromide	--	mg/l			1	LT	1	LT	1	LT
Cadmium - Total	0.005	mg/l			0.005	LT	0.005	LT	0.005	LT
Calcium - Total	--	mg/l			207		156		271	
Chloride	250	mg/l			59.7		81.1		53.4	
Chromium - Total	0.05	mg/l			0.005	LT				
Conductivity	--	UMHO/CM			1480		1565		1760	
Copper - Total	0.2	mg/l			0.005	LT				
EH--	--	VOLTS			60					
F2--	1.5	mg/l			0.39					
Hardness	--	mg/l			841					
Iron - Total	0.3	mg/l			0.207		0.05	LT	0.05	LT
Lead - Total	0.025	mg/l			0.005	LT				
Lithium - Total	--	mg/l			0.39					
Magnesium -Total	--	mg/l			78.8		67.1		70.1	
Manganese - Total	0.3	mg/l			0.04		0.02	LT	0.02	LT
Mercury - Total	0.0007	mg/l			0.0002	LT				
pH	6.5 to 8.5	SU			8.6		9.3		8.1	
Potassium - Total	--	mg/l			5.96		6.95		5.96	
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l			47.1		54.8		42.5	
Strontium - Total	--	mg/l			0.912					
Sulfate	250	mg/l			718		804		835	
Total Dissolved Solids	500	mg/l			1280		1220		1490	
Turbidity	5	NTU			1.4		0.8		0.4	
Zinc - Total	--	mg/l			0.01	LT				

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
-- = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix A. Station Area Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SOPXSPXX02

Analyte	Class GA Groundwater Standard[1]	Units	Jan-22		May-22		Jul-22		Oct-22	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	--	mg/l			32		30		60	
Aluminum - Total	--	mg/l			0.1	LT				
Ammonia	2	mg/l			0.1	LT	0.1	LT	0.1	LT
Arsenic - Total	0.025	mg/l			0.005	LT	0.005	LT	0.005	LT
Bromide	--	mg/l			1	LT	5.97		1.58	
Cadmium - Total	0.005	mg/l			0.005	LT	0.005	LT	0.005	LT
Calcium - Total	--	mg/l			197		240		121	
Chloride	250	mg/l			89.2		114		56.5	
Chromium - Total	0.05	mg/l			0.005	LT				
Conductivity	--	UMHO/CM			1565		1710		1255	
Copper - Total	0.2	mg/l			0.005	LT				
EH--	--	VOLTS			61					
F2--	1.5	mg/l			0.65					
Hardness	--	mg/l			744					
Iron - Total	0.3	mg/l			0.354		0.207		0.332	
Lead - Total	0.025	mg/l	DRY		0.005	LT				
Lithium - Total	--	mg/l			0.05	LT				
Magnesium -Total	--	mg/l			56		63.1		46.1	
Manganese - Total	0.3	mg/l			0.049		0.02	LT	0.02	LT
Mercury - Total	0.0007	mg/l			0.0002	LT				
pH	6.5 to 8.5	SU			8.1		8.5		8.1	
Potassium - Total	--	mg/l			8.21		7.61		5.09	
Selenium - Total	0.01	mg/l			0.011					
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l			61.3		67.6		39.5	
Strontium - Total	--	mg/l			0.682					
Sulfate	250	mg/l			638		857		530	
Total Dissolved Solids	500	mg/l			1210		1390		955	
Turbidity	5	NTU			5.1		2		1.1	
Zinc - Total	--	mg/l			0.01	LT				

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
-- = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix A. Station Area Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SOPXSPXX03

Analyte	Class GA Groundwater Standard[1]	Units	Jan-22		May-22		Jul-22		Oct-22	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	--	mg/l	DRY		DRY		DRY		DRY	
Aluminum - Total	--	mg/l								
Ammonia	2	mg/l								
Arsenic - Total	0.025	mg/l								
Bromide	--	mg/l								
Cadmium - Total	0.005	mg/l								
Calcium - Total	--	mg/l								
Chloride	250	mg/l								
Chromium - Total	0.05	mg/l								
Conductivity	--	UMHO/CM								
Copper - Total	0.2	mg/l								
EH--	--	VOLTS								
F2--	1.5	mg/l								
Hardness	--	mg/l								
Iron - Total	0.3	mg/l								
Lead - Total	0.025	mg/l								
Lithium - Total	--	mg/l								
Magnesium -Total	--	mg/l								
Manganese - Total	0.3	mg/l								
Mercury - Total	0.0007	mg/l								
pH	6.5 to 8.5	SU								
Potassium - Total	--	mg/l								
Selenium - Total	0.01	mg/l								
Silver - Total	0.05	mg/l								
Sodium - Total	20	mg/l								
Strontium - Total	--	mg/l								
Sulfate	250	mg/l								
Total Dissolved Solids	500	mg/l								
Turbidity	5	NTU								
Zinc - Total	--	mg/l								

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
-- = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix A. Station Area Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SOPXSPXX04

Analyte	Class GA Groundwater Standard[1]	Units	Jan-22		May-22		Jul-22		Oct-22	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	--	mg/l	DRY		DRY		DRY		DRY	
Aluminum - Total	--	mg/l								
Ammonia	2	mg/l								
Arsenic - Total	0.025	mg/l								
Bromide	--	mg/l								
Cadmium - Total	0.005	mg/l								
Calcium - Total	--	mg/l								
Chloride	250	mg/l								
Chromium - Total	0.05	mg/l								
Conductivity	--	UMHO/CM								
Copper - Total	0.2	mg/l								
EH--	--	VOLTS								
F2--	1.5	mg/l								
Hardness	--	mg/l								
Iron - Total	0.3	mg/l								
Lead - Total	0.025	mg/l								
Lithium - Total	--	mg/l								
Magnesium -Total		mg/l								
Manganese - Total	0.3	mg/l								
Mercury - Total	0.0007	mg/l								
pH	6.5 to 8.5	SU								
Potassium - Total	--	mg/l								
Selenium - Total	0.01	mg/l								
Silver - Total	0.05	mg/l								
Sodium - Total	20	mg/l								
Strontium - Total	--	mg/l								
Sulfate	250	mg/l								
Total Dissolved Solids	500	mg/l								
Turbidity	5	NTU								
Zinc - Total	--	mg/l								

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
-- = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix A. Station Area Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SOPXSPXX05

Analyte	Class GA Groundwater Standard[1]	Units	Jan-22		May-22		Jul-22		Oct-22	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	--	mg/l	DRY		DRY		DRY		DRY	
Aluminum - Total	--	mg/l								
Ammonia	2	mg/l								
Arsenic - Total	0.025	mg/l								
Bromide	--	mg/l								
Cadmium - Total	0.005	mg/l								
Calcium - Total	--	mg/l								
Chloride	250	mg/l								
Chromium - Total	0.05	mg/l								
Conductivity	--	UMHO/CM								
Copper - Total	0.2	mg/l								
EH--	--	VOLTS								
F2--	1.5	mg/l								
Hardness	--	mg/l								
Iron - Total	0.3	mg/l								
Lead - Total	0.025	mg/l								
Lithium - Total	--	mg/l								
Magnesium -Total	--	mg/l								
Manganese - Total	0.3	mg/l								
Mercury - Total	0.0007	mg/l								
pH	6.5 to 8.5	SU								
Potassium - Total	--	mg/l								
Selenium - Total	0.01	mg/l								
Silver - Total	0.05	mg/l								
Sodium - Total	20	mg/l								
Strontium - Total	--	mg/l								
Sulfate	250	mg/l								
Total Dissolved Solids	500	mg/l								
Turbidity	5	NTU								
Zinc - Total	--	mg/l								

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
-- = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix B

SWDA I Analytical Results

Appendix A. Station Area Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SOSXDUXX01

Analyte	Class GA Groundwater Standard[1]	Units	Jan-22		May-22		Jul-22		Oct-22	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	--	mg/l			24		30		44	
Aluminum - Total	--	mg/l			0.1	LT				
Ammonia	2	mg/l			0.1	LT	0.1	LT	0.1	LT
Arsenic - Total	0.025	mg/l			0.005	LT	0.005	LT	0.005	LT
Bromide	--	mg/l			1	LT	6.07		1	LT
Cadmium - Total	0.005	mg/l			0.005	LT	0.005	LT	0.005	LT
Calcium - Total	--	mg/l			180		194		246	
Chloride	250	mg/l			60.3		115		53.9	
Chromium - Total	0.05	mg/l			0.005	LT				
Conductivity	--	UMHO/CM			1490		1715		1755	
Copper - Total	0.2	mg/l			0.005	LT				
EH--	--	VOLTS			54					
F2--	--	mg/l			0.32					
Hardness	--	mg/l			735					
Iron - Total	0.3	mg/l			0.2		0.207		0.05	LT
Lead - Total	0.025	mg/l	DRY		0.005	LT				
Lithium - Total	--	mg/l			0.386					
Magnesium -Total	--	mg/l			69.3		62.5		72.7	
Manganese - Total	0.3	mg/l			0.039		0.02	LT	0.02	LT
Mercury - Total	0.0007	mg/l			0.0002	LT				
pH	6.5 to 8.5	SU			8.6		8.5		8.1	
Potassium - Total	--	mg/l			5.83		7.46		6.31	
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l			42.6		66.9		42.7	
Strontium - Total	--	mg/l			0.89					
Sulfate	250	mg/l			720		847		829	
Total Dissolved Solids	500	mg/l			1300		1360		1440	
Turbidity	5	NTU			1.4		1.5		0.5	
Zinc - Total	--	mg/l			0.01	LT				

Notes:

[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.

[2] A blank cell in the "Value" column indicates the analysis was not performed.

-- = No Class GA guidance value or standard exists.

shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGCD-9101

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	22		20		24		24	
Aluminum - Total	–	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Ammonia	2	mg/l	18.9		18.9		20.1		20.7	
Arsenic - Total	0.025	mg/l	0.01	LT	0.01	LT	0.00346	J	0.00433	J
Boron - Total	1	mg/l	2.33		2.16		2.37		2.15	
Bromide	–	mg/l	333		306		306		332	
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	–	mg/l	5410		6240		6000		6140	
Chloride	250	mg/l	30900		28600		29600		29200	
Chromium - Total	0.05	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Conductivity	–	UMHO/CM	67690		67920		65810		67400	
Copper - Total	0.2	mg/l	0.025	LT	0.025	LT	0.02500	LT	0.025	LT
Eh	–	VOLTS			21					
F2--	1.5	mg/l	0.5	LT	0.5	LT	0.50	LT	0.5	LT
Hardness	–	mg/l			19620					
Iron - Total	0.3	mg/l	5.52		5.1		5.85		6.13	
Lead - Total	0.025	mg/l	0.003	LT	0.003	LT	0.003	LT	0.003	LT
Lithium - Total	–	mg/l	16.3		16.8		16		11.4	
Magnesium - Total	–	mg/l	919		981		909		871	
Manganese - Total	0.3	mg/l	3.96		3.92		4.14		4.27	
Mercury - Total	0.0007	mg/l			0.0002	LT				
Molybdenum - Total	–	mg/l								
pH	6.5 to 8.5	SU	6.8		6.8		6.7		6.8	
Potassium - Total	–	mg/l	247	J	292	J	257.00	J	244	J
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l	10500		10300		10600		8450	
Strontium - Total	–	mg/l	113		124		122		120	
Sulfate	250	mg/l	1390		1360		1420		1320	
Temperature	–	Deg. C			11					
Total Dissolved Solids	500	mg/l	48000		50500		49600		46100	
Turbidity	5	NTU	3.9		4.2		3.9		4.6	
Vanadium - Total	–	mg/l								
Zinc - Total	–	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
– = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGCD-0141

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	15		20		18		190	
Aluminum - Total	–	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Ammonia	2	mg/l	17.2		17.5		17.3		18.6	
Arsenic - Total	0.025	mg/l	0.01	LT	0.01	LT	0.01	LT	0.00686	J
Boron - Total	1	mg/l	2.25		1.94		2.11		2.07	
Bromide	–	mg/l	311		291		335		296	
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	–	mg/l	5030		5210		5000		5270	
Chloride	250	mg/l	28900		27100		30400		26800	
Chromium - Total	0.05	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Conductivity	–	UMHO/CM	65100		64640		64120		61750	
Copper - Total	0.2	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
Eh	–	VOLTS			-59					
F2--	1.5	mg/l	0.5	LT	0.5	LT	0.5	LT	0.5	LT
Hardness	–	mg/l			16170					
Iron - Total	0.3	mg/l	6.64		6.27		6.64		6.4	
Lead - Total	0.025	mg/l	0.003	LT	0.003	LT	0.003	LT	0.003	LT
Lithium - Total	–	mg/l	14.4		14.4		13.1		11.1	
Magnesium - Total	–	mg/l	756		767		724		714	
Manganese - Total	0.3	mg/l	3.23		3.07		3.2		3.14	
Mercury - Total	0.0007	mg/l			0.0002	LT				
Molybdenum - Total	–	mg/l								
pH	6.5 to 8.5	SU	7.3		7.1		7.2		7.1	
Potassium - Total	–	mg/l	232	LT	239	LT	217	LT	230	LT
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l	9380		10100		7730		8230	
Strontium - Total	–	mg/l	112		111		108		112	
Sulfate	250	mg/l	1210		1210		1130		1150	
Temperature	–	Deg. C			12					
Total Dissolved Solids	500	mg/l	46900		48100		45100		38900	
Turbidity	5	NTU	3.4		4.7		3.1		8.8	
Vanadium - Total	–	mg/l								
Zinc - Total	–	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
– = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGCD-9122

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	16		20		26		24	
Aluminum - Total	–	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Ammonia	2	mg/l	10		10.4		10		10.7	
Arsenic - Total	0.025	mg/l	0.00861	J	0.00337	J	0.00905	J	0.0147	
Boron - Total	1	mg/l	2.77		2.65		2.89		2.6	
Bromide	–	mg/l	123		117		71.1		92.1	
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	–	mg/l	1870		2160		1850		2010	
Chloride	250	mg/l	11300		10600		6300		7830	
Chromium - Total	0.05	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Conductivity	–	UMHO/CM	28960		29700		28350		29560	
Copper - Total	0.2	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
Eh	–	VOLTS			-54					
F2--	1.5	mg/l	0.5	LT	0.5	LT	0.2	LT	0.36	
Hardness	–	mg/l			6693					
Iron - Total	0.3	mg/l	2.9		3.19		2.44		2.91	
Lead - Total	0.025	mg/l	0.003	LT	0.003	LT	0.003	LT	0.003	LT
Lithium - Total	–	mg/l	7.07		8.62		7.16		7.07	
Magnesium - Total	–	mg/l	299	J	317	J	88.7	J	93.1	J
Manganese - Total	0.3	mg/l	1.55		1.64		1.55		1.6	
Mercury - Total	0.0007	mg/l			0.0002	LT				
Molybdenum - Total	–	mg/l								
pH	6.5 to 8.5	SU	7.6		7.5		7.6		7.5	
Potassium - Total	–	mg/l	115	J	134	J	108	J	125	J
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l	4020		4090		3350		4150	
Strontium - Total	–	mg/l	31		34.4		32.3		33.6	
Sulfate	250	mg/l	1820		1740		1610		1540	
Temperature	–	Deg. C			12					
Total Dissolved Solids	500	mg/l	20400		23200		13600		13000	
Turbidity	5	NTU	0.7		0.6		4.0		1.1	
Vanadium - Total	–	mg/l								
Zinc - Total	–	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
– = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGCD-9136

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	250							
Aluminum - Total	–	mg/l	0.2	LT						
Ammonia	2	mg/l	2							
Arsenic - Total	0.025	mg/l	0.0113							
Boron - Total	1	mg/l	0.881							
Bromide	–	mg/l	25	LT						
Cadmium - Total	0.005	mg/l	0.005	LT						
Calcium - Total	–	mg/l	500	LT						
Chloride	250	mg/l	1720							
Chromium - Total	0.05	mg/l	0.01	LT						
Conductivity	–	UMHO/CM	6540							
Copper - Total	0.2	mg/l	0.025	LT						
Eh	–	VOLTS	26							
F2--	1.5	mg/l	0.2	LT						
Hardness	–									
Iron - Total	0.3	mg/l	2.62							
Lead - Total	0.025	mg/l	0.003	LT						
Lithium - Total	–	mg/l	0.695							
Magnesium - Total	–	mg/l	117							
Manganese - Total	0.3	mg/l	0.212							
Mercury - Total	0.0007	mg/l	0.0002	LT						
Molybdenum - Total	–	mg/l	0.05	LT						
pH	6.5 to 8.5	SU	7.1							
Potassium - Total	–	mg/l	58.2							
Selenium - Total	0.01	mg/l	0.005	LT						
Silver - Total	0.05	mg/l	0.01	LT						
Sodium - Total	20	mg/l	652							
Strontium - Total	–	mg/l	14							
Sulfate	250	mg/l	262							
Temperature	–	Deg. C.								
Total Dissolved Solids	500	mg/l	4690							
Turbidity	5	NTU	1.1							
Vanadium - Total	–	mg/l	0.05	LT						
Zinc - Total	–	mg/l	0.02	LT						
					Not Sampled		Not Sampled		Not Sampled	

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
– = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGCD-9140

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	130							
Aluminum - Total	–	mg/l	0.2	LT						
Ammonia	2	mg/l	2.2							
Arsenic - Total	0.025	mg/l	0.0152							
Boron - Total	1	mg/l	3.3							
Bromide	–	mg/l	9.34							
Cadmium - Total	0.005	mg/l	0.005	LT						
Calcium - Total	–	mg/l	122							
Chloride	250	mg/l	832							
Chromium - Total	0.05	mg/l	0.01	LT						
Conductivity	–	UMHO/CM	4015							
Copper - Total	0.2	mg/l	0.025	LT						
Eh	–	VOLTS	-6							
F2--	1.5	mg/l	1.16							
Hardness	–									
Iron - Total	0.3	mg/l	0.479							
Lead - Total	0.025	mg/l	0.003	LT	Not Sampled		Not Sampled		Not Sampled	
Lithium - Total	–	mg/l	0.268							
Magnesium - Total	–	mg/l	27.1							
Manganese - Total	0.3	mg/l	0.119							
Mercury - Total	0.0007	mg/l	0.0002	LT						
Molybdenum - Total	–	mg/l	0.05	LT						
pH	6.5 to 8.5	SU	7.8							
Potassium - Total	–	mg/l	43.9							
Selenium - Total	0.01	mg/l	0.005	LT						
Silver - Total	0.05	mg/l	0.01	LT						
Sodium - Total	20	mg/l	495							
Strontium - Total	–	mg/l	5.16							
Sulfate	250	mg/l	567							
Temperature	–	Deg. C.								
Total Dissolved Solids	500	mg/l	2360							
Turbidity	5	NTU	2.3							
Vanadium - Total	–	mg/l	0.05	LT						
Zinc - Total	–	mg/l	0.02	LT						

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
– = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGCD-9226

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	17		24		23		24	
Aluminum - Total	–	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Ammonia	2	mg/l	18.6		19.1		16.7		20.6	
Arsenic - Total	0.025	mg/l	0.01	LT	0.01	LT	0.01	LT	0.0071	J
Boron - Total	1	mg/l	2.19		2.11		2.14		2.13	
Bromide	–	mg/l	345		320		362		349	
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	–	mg/l	5680		6830		5450		6640	
Chloride	250	mg/l	32000		29100		32100		30200	
Chromium - Total	0.05	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Conductivity	–	UMHO/CM	69700		68730		63800		70060	
Copper - Total	0.2	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
Eh	–	VOLTS			26					
F2--	1.5	mg/l	0.5	LT	0.5	LT	0.5	LT	0.5	LT
Hardness	–	mg/l			21030					
Iron - Total	0.3	mg/l	1.45		1.49		1.01		1.52	
Lead - Total	0.025	mg/l	0.003	LT	0.003	LT	0.003	LT	0.003	LT
Lithium - Total	–	mg/l	14.3		15.4		12.8		10.8	
Magnesium - Total	–	mg/l	851		964		826		826	
Manganese - Total	0.3	mg/l	3.26		3.05		2.04		3.63	
Mercury - Total	0.0007	mg/l			0.0002	LT				
Molybdenum - Total	–	mg/l								
pH	6.5 to 8.5	SU	6.7		6.5		6.8		6.7	
Potassium - Total	–	mg/l	500	LT	500	LT	500	LT	500	LT
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l	11000		9920		9320		10900	
Strontium - Total	–	mg/l	127		147		121		142	
Sulfate	250	mg/l	1040		1020		923		993	
Temperature	–	Deg. C			12					
Total Dissolved Solids	500	mg/l	48400		51700		47300		45900	
Turbidity	5	NTU	1.6		2.3		2.8		2.5	
Vanadium - Total	–	mg/l								
Zinc - Total	–	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
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shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGCD-9227

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	20		22		24		24	
Aluminum - Total	–	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Ammonia	2	mg/l	0.7		0.6		0.7		1.9	
Arsenic - Total	0.025	mg/l	0.00381	J	0.01	LT	0.00562	J	0.00808	J
Boron - Total	1	mg/l	3.04		2.8		2.93		2.86	
Bromide	–	mg/l	95.6		89.1		102		102	
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	–	mg/l	1690		1890		1660		1630	
Chloride	250	mg/l	8060		8020		8780		8620	
Chromium - Total	0.05	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Conductivity	–	UMHO/CM	23500		22670		22380		23330	
Copper - Total	0.2	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
Eh	–	VOLTS			35					
F2--	1.5	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Hardness	–	mg/l			6004					
Iron - Total	0.3	mg/l	0.1	LT	0.127		0.1	LT	0.1	LT
Lead - Total	0.025	mg/l	0.003	LT	0.003	LT	0.003	LT	0.003	LT
Lithium - Total	–	mg/l	3.94		5.17		4.6		5.44	
Magnesium - Total	–	mg/l	304	J	313	J	281	J	312	J
Manganese - Total	0.3	mg/l	0.0242		0.015	LT	0.021		0.0156	
Mercury - Total	0.0007	mg/l			0.0002	LT				
Molybdenum - Total	–	mg/l								
pH	6.5 to 8.5	SU	8.1		8.4		8.2		7.9	
Potassium - Total	–	mg/l	93.1	J	106	J	91.4	J	99.1	J
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l	2920		2860		2800		3040	
Strontium - Total	–	mg/l	32		36.1		33.7		33.8	
Sulfate	250	mg/l	1580		1450		1550		1440	
Temperature	–	Deg. C			12					
Total Dissolved Solids	500	mg/l	17200		17700		15600		18400	
Turbidity	5	NTU	1.1		2.4		1.5		0.9	
Vanadium - Total	–	mg/l								
Zinc - Total	–	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
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Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGCSH0141

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	310		260		310		290	
Aluminum - Total	–	mg/l			0.2	LT				
Ammonia	2	mg/l	0.1	LT	0.1	LT	0.1	LT	0.1	LT
Arsenic - Total	0.025	mg/l	0.00779	J	0.00423	J	0.00568	J	0.01	LT
Boron - Total	1	mg/l	0.0626		0.05	LT	0.05	LT	0.05	LT
Bromide	–	mg/l			1.93					
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	–	mg/l	134		125		124		119	
Chloride	250	mg/l	142		189		189			
Chromium - Total	0.05	mg/l			0.01	LT				
Conductivity	–	UMHO/CM	1405		1300		1280		1325	
Copper - Total	0.2	mg/l			0.025	LT				
Eh	–	VOLTS			-8				74	
F2--	1.5	mg/l			0.2	LT				
Hardness	–				626					
Iron - Total	0.3	mg/l	0.172		0.167		0.149		0.118	
Lead - Total	0.025	mg/l			0.003	LT				
Lithium - Total	–	mg/l	0.138		0.1	LT	0.24		0.221	
Magnesium - Total	–	mg/l	82.7		76.1		75.2		75.8	
Manganese - Total	0.3	mg/l	0.0423		0.0366		0.0547		0.0362	
Mercury - Total	0.0007	mg/l			0.0002	LT				
Molybdenum - Total	–	mg/l	0.05	LT	0.05	LT	0.05	LT	0.05	LT
pH	6.5 to 8.5	SU	7.5		7.3		7.4		7.4	
Potassium - Total	–	mg/l	6.7		5.9		5.88		6.34	
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l	26.3		25.3		25.1		26	
Strontium - Total	–	mg/l	0.88		0.58		0.552		0.702	
Sulfate	250	mg/l	241		106		126			
Temperature	–	Deg. C.	8.0		8.0		10		12.0	
Total Dissolved Solids	500	mg/l	865		805		775		715	
Turbidity	5	NTU	14.0		23.0		37.0		14.0	
Vanadium - Total	–	mg/l			0.05	LT				
Zinc - Total	–	mg/l			0.02	LT				

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
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Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGCSH9122

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	230		246		180		280	
Aluminum - Total	–	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Ammonia	2	mg/l	0.1		0.2	LT	0.2		0.2	
Arsenic - Total	0.025	mg/l	0.0102		0.0113		0.00955	J	0.0192	
Boron - Total	1	mg/l	0.058		0.0584		0.05	LT	0.059	
Bromide	–	mg/l	3.47		2.89		7.54		2.02	
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	–	mg/l	156		136		376		129	
Chloride	250	mg/l	438		368		1010		258	
Chromium - Total	0.05	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Conductivity	–	UMHO/CM	1915		1495		3585		1435	
Copper - Total	0.2	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
Eh	–	VOLTS			-21					
F2--	1.5	mg/l	0.25		0.2	LT	0.2	LT	0.22	
Hardness	–	mg/l			689					
Iron - Total	0.3	mg/l	1.39		1.1		2.47		1.18	
Lead - Total	0.025	mg/l	0.003	LT	0.003	LT	0.003	LT	0.003	LT
Lithium - Total	–	mg/l	0.213		0.323		0.1	LT	0.231	
Magnesium - Total	–	mg/l	110		85.1		195		82.6	
Manganese - Total	0.3	mg/l	0.0577		0.0524		0.093		0.0422	
Mercury - Total	0.0007	mg/l			0.0002	LT				
Molybdenum - Total	–	mg/l								
pH	6.5 to 8.5	SU	7.5		7.5		7.3		7.5	
Potassium - Total	–	mg/l	5.54		5	LT	6.58		5.65	
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l	36.3		31.3		70.1		32	
Strontium - Total	–	mg/l	1.28		0.997		1.52		1.05	
Sulfate	250	mg/l	161		191		384		117	
Temperature	–	Deg. C			11					
Total Dissolved Solids	500	mg/l	1320		1360		2850		2110	
Turbidity	5	NTU	4.1		5.0		3.0		6.3	
Vanadium - Total	–	mg/l								
Zinc - Total	–	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
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Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGCSH9136

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	330							
Aluminum - Total	–	mg/l	0.2	LT						
Ammonia	2	mg/l	0.1	LT						
Arsenic - Total	0.025	mg/l	0.01	LT						
Boron - Total	1	mg/l	0.0525							
Bromide	–	mg/l	1	LT						
Cadmium - Total	0.005	mg/l	0.005	LT						
Calcium - Total	–	mg/l	150							
Chloride	250	mg/l	79.6							
Chromium - Total	0.05	mg/l	0.01	LT						
Conductivity	–	UMHO/CM	1240							
Copper - Total	0.2	mg/l	0.025	LT						
Eh	–	VOLTS	-22							
F2--	1.5	mg/l	0.22							
Hardness	–									
Iron - Total	0.3	mg/l	0.121							
Lead - Total	0.025	mg/l	0.003	LT	Not Sampled		Not Sampled		Not Sampled	
Lithium - Total	–	mg/l	0.1	LT						
Magnesium - Total	–	mg/l	52.6							
Manganese - Total	0.3	mg/l	0.015	LT						
Mercury - Total	0.0007	mg/l	0.0002	LT						
Molybdenum - Total	–	mg/l	0.05	LT						
pH	6.5 to 8.5	SU	7.1							
Potassium - Total	–	mg/l	5	LT						
Selenium - Total	0.01	mg/l	0.005	LT						
Silver - Total	0.05	mg/l	0.01	LT						
Sodium - Total	20	mg/l	29.6							
Strontium - Total	–	mg/l	0.524							
Sulfate	250	mg/l	155							
Temperature	–	Deg. C.								
Total Dissolved Solids	500	mg/l	810							
Turbidity	5	NTU	0.7							
Vanadium - Total	–	mg/l	0.05	LT						
Zinc - Total	–	mg/l	0.02	LT						

Notes:
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Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGCSH9140

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	370							
Aluminum - Total	–	mg/l	0.2	LT						
Ammonia	2	mg/l	0.1	LT						
Arsenic - Total	0.025	mg/l	0.0157							
Boron - Total	1	mg/l	0.05	LT						
Bromide	–	mg/l	1	LT						
Cadmium - Total	0.005	mg/l	0.005	LT						
Calcium - Total	–	mg/l	134							
Chloride	250	mg/l	21.6							
Chromium - Total	0.05	mg/l	0.01	LT						
Conductivity	–	UMHO/CM	1095							
Copper - Total	0.2	mg/l	0.025	LT						
Eh	–	VOLTS	3							
F2--	1.5	mg/l	0.2	LT						
Hardness	–									
Iron - Total	0.3	mg/l	2.45							
Lead - Total	0.025	mg/l	0.003	LT						
Lithium - Total	–	mg/l	0.1	LT						
Magnesium - Total	–	mg/l	52.2							
Manganese - Total	0.3	mg/l	0.0674							
Mercury - Total	0.0007	mg/l	0.0002	LT						
Molybdenum - Total	–	mg/l	0.05	LT						
pH	6.5 to 8.5	SU	7.3							
Potassium - Total	–	mg/l	5	LT						
Selenium - Total	0.01	mg/l	0.005	LT						
Silver - Total	0.05	mg/l	0.01	LT						
Sodium - Total	20	mg/l	25.1							
Strontium - Total	–	mg/l	0.42							
Sulfate	250	mg/l	180							
Temperature	–	Deg. C.								
Total Dissolved Solids	500	mg/l	705							
Turbidity	5	NTU	7.4							
Vanadium - Total	–	mg/l	0.05	LT						
Zinc - Total	–	mg/l	0.02	LT						
					Not Sampled		Not Sampled		Not Sampled	

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
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Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGCSH9226

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	—	mg/l	300		330		300		332	
Aluminum - Total	—	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Ammonia	2	mg/l	1.1		0.7		0.8		0.8	
Arsenic - Total	0.025	mg/l	0.0211		0.0247		0.0221		0.0266	
Boron - Total	1	mg/l	0.588		0.444		0.481		0.388	
Bromide	—	mg/l	12.2		4.76		6.1		4.33	
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	—	mg/l	500	LT	179		224		139	
Chloride	250	mg/l	1060		461		628		396	
Chromium - Total	0.05	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Conductivity	—	UMHO/CM	4205		3085		3110		2355	
Copper - Total	0.2	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
Eh	—	VOLTS			-13					
F2--	1.5	mg/l	0.2	LT	0.2	LT	0.2	LT	0.29	
Hardness	—	mg/l			807					
Iron - Total	0.3	mg/l	1.83		2.06		1.73		1.42	
Lead - Total	0.025	mg/l	0.003	LT	0.003	LT	0.003	LT	0.003	LT
Lithium - Total	—	mg/l	0.1	LT	0.236		0.235		0.165	
Magnesium - Total	—	mg/l	100		87.7		86.6		82	
Manganese - Total	0.3	mg/l	0.095		0.0712		0.0729		0.0559	
Mercury - Total	0.0007	mg/l			0.0002	LT				
Molybdenum - Total	—	mg/l								
pH	6.5 to 8.5	SU	7.3		7.3		7.3		7.3	
Potassium - Total	—	mg/l	28.5		19.3		20.2		17.6	
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l	500	LT	247		353		204	
Strontium - Total	—	mg/l	5.8		4.36		4.42		3.52	
Sulfate	250	mg/l	326		316		311		296	
Temperature	—	Deg. C			11					
Total Dissolved Solids	500	mg/l	2510		1680		1760		1310	
Turbidity	5	NTU	2.3		3.6		0.8		4.7	
Vanadium - Total	—	mg/l								
Zinc - Total	—	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
— = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGCSH9227

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	330		340		320		340	
Aluminum - Total	–	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Ammonia	2	mg/l	0.1	LT	0.2	LT	0.1	LT	0.1	LT
Arsenic - Total	0.025	mg/l	0.01	LT	0.01	LT	0.01	LT	0.0064	J
Boron - Total	1	mg/l	0.169		0.153		0.169		0.156	
Bromide	–	mg/l	3.84		2.47		2.4		3.61	
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	–	mg/l	249		360		276		233	
Chloride	250	mg/l	444		289		343		407	
Chromium - Total	0.05	mg/l	0.01	LT	0.01	LT	0.01	LT	0.00841	J
Conductivity	–	UMHO/CM	2300		2060		2160		2300	
Copper - Total	0.2	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
Eh	–	VOLTS			35					
F2--	1.5	mg/l	0.26		0.2	LT	0.2	LT	0.33	
Hardness	–	mg/l			1372					
Iron - Total	0.3	mg/l	0.148		0.201		0.14		0.172	
Lead - Total	0.025	mg/l	0.003	LT	0.003	LT	0.003	LT	0.003	LT
Lithium - Total	–	mg/l	0.1	LT	0.1	LT	0.1	LT	0.1	LT
Magnesium - Total	–	mg/l	121		115		110		117	
Manganese - Total	0.3	mg/l	0.046		0.0533		0.0441		0.0483	
Mercury - Total	0.0007	mg/l			0.0002	LT				
Molybdenum - Total	–	mg/l								
pH	6.5 to 8.5	SU	7.1		7.1		7.1		7.1	
Potassium - Total	–	mg/l	6.09		5.02		5.09		6.64	
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l	50	LT	61.2		54.3		50	LT
Strontium - Total	–	mg/l	1.56		1.37		1.35		1.44	
Sulfate	250	mg/l	329		372		321		282	
Temperature	–	Deg. C			10					
Total Dissolved Solids	500	mg/l	1560		1500		1280		1250	
Turbidity	5	NTU	0.5		1.6		0.7		0.2	
Vanadium - Total	–	mg/l								
Zinc - Total	–	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
– = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGDD-0142

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	16		20		22		18	
Aluminum - Total	–	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Ammonia	2	mg/l	14		14.5		12.8		15.2	
Arsenic - Total	0.025	mg/l	0.01	LT	0.00383	J	0.00369	J	0.0087	J
Boron - Total	1	mg/l	2.86		2.75		2.59		2.66	
Bromide	–	mg/l	231		214		189		228	
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	–	mg/l	3910		4910		3770		3670	
Chloride	250	mg/l	20700		19900		18400		20900	
Chromium - Total	0.05	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Conductivity	–	UMHO/CM	48030		47400		47700		48380	
Copper - Total	0.2	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
Eh	–	VOLTS			58					
F2--	1.5	mg/l	0.5	LT	0.5	LT	0.5	LT	0.5	LT
Hardness	–	mg/l			15730					
Iron - Total	0.3	mg/l	0.127		0.452		0.194		0.154	
Lead - Total	0.025	mg/l	0.003	LT	0.003	LT	0.003	LT	0.003	LT
Lithium - Total	–	mg/l	8.68		9.63		8.33		9.31	
Magnesium - Total	–	mg/l	733		845		679		704	
Manganese - Total	0.3	mg/l	2.92		3.05		2.87		2.82	
Mercury - Total	0.0007	mg/l			0.0002	LT				
Molybdenum - Total	–	mg/l								
pH	6.5 to 8.5	SU	6.5		6.5		6.6		6.7	
Potassium - Total	–	mg/l	195	J	227	J	158	J	173	J
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l	5920		6840		4790		6130	
Strontium - Total	–	mg/l	96.6		114		90.2		88.3	
Sulfate	250	mg/l	645		651		623		620	
Temperature	–	Deg. C			11					
Total Dissolved Solids	500	mg/l	34200		38400		33900		29400	
Turbidity	5	NTU	2.1		2.9		1.3		1.2	
Vanadium - Total	–	mg/l								
Zinc - Total	–	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
– = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGDD-8703

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	250		280		260		220	
Aluminum - Total	–	mg/l	0.58		0.2	LT	0.2	LT	0.2	LT
Ammonia	2	mg/l	0.6		0.7		0.6		1.6	
Arsenic - Total	0.025	mg/l	0.00455	J	0.01	LT	0.00719	J	0.00596	J
Boron - Total	1	mg/l	0.232		0.259		0.391		0.611	
Bromide	–	mg/l	1.98		2.51		4.84		20.7	
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	–	mg/l	76.4		87.4		153		391	
Chloride	250	mg/l	240		259		592		1740	
Chromium - Total	0.05	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Conductivity	–	UMHO/CM	1360		1620		2940		5865	
Copper - Total	0.2	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
Eh	–	VOLTS			77					
F2--	1.5	mg/l	0.47		0.37		0.25		0.3	
Hardness	–	mg/l			394					
Iron - Total	0.3	mg/l	1.31		0.17		0.27		0.108	
Lead - Total	0.025	mg/l	0.003	LT	0.003	LT	0.00324		0.003	LT
Lithium - Total	–	mg/l	0.1	LT	0.11		0.158		0.415	
Magnesium - Total	–	mg/l	50.2		42.7		70.2		130	
Manganese - Total	0.3	mg/l	0.0601		0.0816		0.015	LT	0.237	
Mercury - Total	0.0007	mg/l			0.0002	LT				
Molybdenum - Total	–	mg/l								
pH	6.5 to 8.5	SU	7.6		7.4		7.4		7.2	
Potassium - Total	–	mg/l	16.6		21.4		32.6		61.3	
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l	110		180		287		663	
Strontium - Total	–	mg/l	2.32		2.29		4.03		7.76	
Sulfate	250	mg/l	88.1		119		149		219	
Temperature	–	Deg. C			12					
Total Dissolved Solids	500	mg/l	840		990		1470		3140	
Turbidity	5	NTU	39		37		35		17	
Vanadium - Total	–	mg/l								
Zinc - Total	–	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
– = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGDD-8705

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	13		22		18		10	
Aluminum - Total	–	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Ammonia	2	mg/l	17.4		17.8		19		17.7	
Arsenic - Total	0.025	mg/l	0.01	LT	0.01	LT	0.00505	J	0.00305	J
Boron - Total	1	mg/l	2.29		2.14		2.3		2.13	
Bromide	–	mg/l	318		294		289		313	
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	–	mg/l	5510		6250		6060		5180	
Chloride	250	mg/l	28500		27100		27600		27100	
Chromium - Total	0.05	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Conductivity	–	UMHO/CM	63600		63400		62800		63200	
Copper - Total	0.2	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
Eh	–	VOLTS			-24					
F2--	1.5	mg/l	0.5	LT	0.5	LT	0.5	LT	0.5	LT
Hardness	–	mg/l			19320					
Iron - Total	0.3	mg/l	6.36		6.28		7.36		6.23	
Lead - Total	0.025	mg/l	0.003	LT	0.003	LT	0.003	LT	0.003	LT
Lithium - Total	–	mg/l	14		13.9		13.6		13.7	
Magnesium - Total	–	mg/l	874		901		896		823	
Manganese - Total	0.3	mg/l	3.95		3.99		4.24		3.82	
Mercury - Total	0.0007	mg/l			0.0002	LT				
Molybdenum - Total	–	mg/l								
pH	6.5 to 8.5	SU	6.9		7.0		7.0		6.8	
Potassium - Total	–	mg/l	217	J	238	J	224	J	195	J
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l	9260		10400		8530		8540	
Strontium - Total	–	mg/l	116		128		128		108	
Sulfate	250	mg/l	1350		1340		1320		1280	
Temperature	–	Deg. C			11					
Total Dissolved Solids	500	mg/l	46700		46200		46900		42100	
Turbidity	5	NTU	4.4		4.4		6.0		3.4	
Vanadium - Total	–	mg/l								
Zinc - Total	–	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
– = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGDD-9121

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	36		110		108		60	
Aluminum - Total	–	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Ammonia	2	mg/l	10.5		5.3		5.6		9.1	
Arsenic - Total	0.025	mg/l	0.01	LT	0.01	LT	0.0101		0.00584	J
Boron - Total	1	mg/l	2.56		2.41		2.54		2.42	
Bromide	–	mg/l	149		52.1		48.6		116	
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	–	mg/l	2770		911		873		2110	
Chloride	250	mg/l	13800		4890		4830		11000	
Chromium - Total	0.05	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Conductivity	–	UMHO/CM	33500		14200		14440		27840	
Copper - Total	0.2	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
Eh	–	VOLTS			-41					
F2--	1.5	mg/l	0.5	LT	0.2	LT	0.2	LT	0.5	LT
Hardness	–	mg/l			3192					
Iron - Total	0.3	mg/l	6.86		4.07		4.32		6.6	
Lead - Total	0.025	mg/l	0.003	LT	0.003	LT	0.003	LT	0.003	LT
Lithium - Total	–	mg/l	7.39		2.92		2.82		6.15	
Magnesium - Total	–	mg/l	500	LT	500	LT	500	LT	500	LT
Manganese - Total	0.3	mg/l	2.08		0.755		0.778		1.63	
Mercury - Total	0.0007	mg/l			0.0002	LT				
Molybdenum - Total	–	mg/l								
pH	6.5 to 8.5	SU	7.1		7.3		7.2		7.1	
Potassium - Total	–	mg/l	128	J	53	J	59.4	J	96.9	J
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l	4180		1600		1580		3380	
Strontium - Total	–	mg/l	52.3		27.3		26.7		43.6	
Sulfate	250	mg/l	1500		483		485		1320	
Temperature	–	Deg. C			11					
Total Dissolved Solids	500	mg/l	24200		11100		10300		20400	
Turbidity	5	NTU	17		28		15		42	
Vanadium - Total	–	mg/l								
Zinc - Total	–	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
– = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGDD-9123

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	200		170		210		232	
Aluminum - Total	–	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Ammonia	2	mg/l	2.2		2.3		2		2.4	
Arsenic - Total	0.025	mg/l	0.0093	J	0.00678	J	0.00951	J	0.0105	
Boron - Total	1	mg/l	2.48		2.33		2.35		2.33	
Bromide	–	mg/l	8.88		8.66		9.67		8.98	
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	–	mg/l	72.5		77.6		67.6		68.1	
Chloride	250	mg/l	820		794		842		828	
Chromium - Total	0.05	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Conductivity	–	UMHO/CM	3300		3280		3200		3270	
Copper - Total	0.2	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
Eh	–	VOLTS			17					
F2--	1.5	mg/l	0.72		0.63		0.66		0.69	
Hardness	–	mg/l			260					
Iron - Total	0.3	mg/l	0.2		0.225		0.224		0.239	
Lead - Total	0.025	mg/l	0.003	LT	0.003	LT	0.003	LT	0.003	LT
Lithium - Total	–	mg/l	0.1	LT	0.485		0.409		0.41	
Magnesium - Total	–	mg/l	16.5		16		14.3		14.5	
Manganese - Total	0.3	mg/l	0.0935		0.0957		0.0884		0.0883	
Mercury - Total	0.0007	mg/l			0.0002	LT				
Molybdenum - Total	–	mg/l								
pH	6.5 to 8.5	SU	7.8		7.7		7.7		7.7	
Potassium - Total	–	mg/l	42.3		41.9		38.2		42.4	
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l	720		536		500	LT	500	LT
Strontium - Total	–	mg/l	2.3		2.34		2.09		2.07	
Sulfate	250	mg/l	198		182		162		174	
Temperature	–	Deg. C			12					
Total Dissolved Solids	500	mg/l	1860		1760		1720		2850	
Turbidity	5	NTU	2.9		2.6		4.2		10.0	
Vanadium - Total	–	mg/l								
Zinc - Total	–	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
– = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGDD-9124

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	20		14		31		32	
Aluminum - Total	–	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Ammonia	2	mg/l	9		9.1		8.8		9.3	
Arsenic - Total	0.025	mg/l	0.016		0.0116		0.0191		0.0196	
Boron - Total	1	mg/l	3.01		2.8		2.78		2.85	
Bromide	–	mg/l	89.9		85.7		92.2		87.7	
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	–	mg/l	1240		1460		1190		1260	
Chloride	250	mg/l	7750		7670		7820		7670	
Chromium - Total	0.05	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Conductivity	–	UMHO/CM	22660		22600		22000		22820	
Copper - Total	0.2	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
Eh	–	VOLTS			-77					
F2--	1.5	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Hardness	–	mg/l			1244					
Iron - Total	0.3	mg/l	2.52		2.5		2.55		2.56	
Lead - Total	0.025	mg/l	0.003	LT	0.003	LT	0.003	LT	0.003	LT
Lithium - Total	–	mg/l	5.13		6.03		5.33		6.05	
Magnesium - Total	–	mg/l	207		214		197		218	
Manganese - Total	0.3	mg/l	1.13		1.16		1.11		1.13	
Mercury - Total	0.0007	mg/l			0.0002	LT				
Molybdenum - Total	–	mg/l								
pH	6.5 to 8.5	SU	7.6		7.6		7.6		7.7	
Potassium - Total	–	mg/l	88.7	J	102	J	80.7	J	85.9	J
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l	3110		3210		2940		3170	
Strontium - Total	–	mg/l	26.2		27.8		22.5		27.1	
Sulfate	250	mg/l	1350		1310		1350		1270	
Temperature	–	Deg. C			12					
Total Dissolved Solids	500	mg/l	15000		16600		14400		13300	
Turbidity	5	NTU	0.8		0.9		2.3		0.4	
Vanadium - Total	–	mg/l								
Zinc - Total	–	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
– = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGDD-9125

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	13		18		36		16	
Aluminum - Total	–	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Ammonia	2	mg/l	19		19		20.6		21.3	
Arsenic - Total	0.025	mg/l	0.00499	J	0.01	LT	0.00839	J	0.0105	
Boron - Total	1	mg/l	2.31		2.16		2.26		2.12	
Bromide	–	mg/l	364		324		315		363	
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	–	mg/l	6700		5870		7810		6930	
Chloride	250	mg/l	32800		28600		31200		30600	
Chromium - Total	0.05	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Conductivity	–	UMHO/CM	69610		68300		70100		71810	
Copper - Total	0.2	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
Eh	–	VOLTS			-26					
F2--	1.5	mg/l	0.5	LT	0.5	LT	0.5	LT	0.5	LT
Hardness	–	mg/l			19120					
Iron - Total	0.3	mg/l	6.51		6.07		6.63		6.16	
Lead - Total	0.025	mg/l	0.003	LT	0.003	LT	0.003	LT	0.003	LT
Lithium - Total	–	mg/l	13.8		13.7		13.5		11.8	
Magnesium - Total	–	mg/l	1040		1090		1160		1050	
Manganese - Total	0.3	mg/l	4.09		4.03		4.13		4.17	
Mercury - Total	0.0007	mg/l			0.0002	LT				
Molybdenum - Total	–	mg/l								
pH	6.5 to 8.5	SU	7.1		7.1		7.2		7.2	
Potassium - Total	–	mg/l	281	J	295	J	323	J	292	J
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l	9880		11400		9060		10900	
Strontium - Total	–	mg/l	151		130		175		151	
Sulfate	250	mg/l	1160		1130		1090		1090	
Temperature	–	Deg. C			12					
Total Dissolved Solids	500	mg/l	52800		50500		51300		47500	
Turbidity	5	NTU	5.9		7.7		10.0		5.2	
Vanadium - Total	–	mg/l								
Zinc - Total	–	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
– = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGDD-9131

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	330							
Aluminum - Total	–	mg/l	0.2	LT						
Ammonia	2	mg/l	0.1	LT						
Arsenic - Total	0.025	mg/l	0.01	LT						
Boron - Total	1	mg/l	0.28							
Bromide	–	mg/l	1	LT						
Cadmium - Total	0.005	mg/l	0.005	LT						
Calcium - Total	–	mg/l	164							
Chloride	250	mg/l	10.1							
Chromium - Total	0.05	mg/l	0.01	LT						
Conductivity	–	UMHO/CM	1385							
Copper - Total	0.2	mg/l	0.025	LT						
Eh	–	VOLTS	119							
F2--	1.5	mg/l	0.2	LT						
Hardness	–									
Iron - Total	0.3	mg/l	0.1	LT						
Lead - Total	0.025	mg/l	0.003	LT						
Lithium - Total	–	mg/l	0.1	LT	Not Sampled		Not Sampled		Not Sampled	
Magnesium - Total	–	mg/l	57.6							
Manganese - Total	0.3	mg/l	0.015	LT						
Mercury - Total	0.0007	mg/l	0.0002	LT						
Molybdenum - Total	–	mg/l	0.05	LT						
pH	6.5 to 8.5	SU	7.4							
Potassium - Total	–	mg/l	15.6							
Selenium - Total	0.01	mg/l	0.005	LT						
Silver - Total	0.05	mg/l	0.01	LT						
Sodium - Total	20	mg/l	56.9							
Strontium - Total	–	mg/l	3.32							
Sulfate	250	mg/l	381							
Temperature	–	Deg. C.								
Total Dissolved Solids	500	mg/l	1040							
Turbidity	5	NTU	1.4							
Vanadium - Total	–	mg/l	0.05	LT						
Zinc - Total	–	mg/l	0.02	LT						

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
– = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGDD-9132

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	290							
Aluminum - Total	–	mg/l	0.2	LT						
Ammonia	2	mg/l	1							
Arsenic - Total	0.025	mg/l	0.0104							
Boron - Total	1	mg/l	0.905							
Bromide	–	mg/l	1	LT						
Cadmium - Total	0.005	mg/l	0.005	LT						
Calcium - Total	–	mg/l	85.2							
Chloride	250	mg/l	86.7							
Chromium - Total	0.05	mg/l	0.01	LT						
Conductivity	–	UMHO/CM	1195							
Copper - Total	0.2	mg/l	0.025	LT						
Eh	–	VOLTS	74							
F2--	1.5	mg/l	0.3							
Hardness	–									
Iron - Total	0.3	mg/l	0.1	LT						
Lead - Total	0.025	mg/l	0.003	LT						
Lithium - Total	–	mg/l	0.1	LT	Not Sampled		Not Sampled		Not Sampled	
Magnesium - Total	–	mg/l	31.5							
Manganese - Total	0.3	mg/l	0.015	LT						
Mercury - Total	0.0007	mg/l	0.0002	LT						
Molybdenum - Total	–	mg/l	0.05	LT						
pH	6.5 to 8.5	SU	7.4							
Potassium - Total	–	mg/l	21.7							
Selenium - Total	0.01	mg/l	0.005	LT						
Silver - Total	0.05	mg/l	0.01	LT						
Sodium - Total	20	mg/l	114							
Strontium - Total	–	mg/l	3.72							
Sulfate	250	mg/l	188							
Temperature	–	Deg. C.								
Total Dissolved Solids	500	mg/l	760							
Turbidity	5	NTU	0.6							
Vanadium - Total	–	mg/l	0.05	LT						
Zinc - Total	–	mg/l	0.02	LT						

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
– = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGDD-9133

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	42							
Aluminum - Total	–	mg/l	0.2	LT						
Ammonia	2	mg/l	0.1	LT						
Arsenic - Total	0.025	mg/l	0.01	LT						
Boron - Total	1	mg/l	3.59							
Bromide	–	mg/l	25	LT						
Cadmium - Total	0.005	mg/l	0.005	LT						
Calcium - Total	–	mg/l	50	LT						
Chloride	250	mg/l	2000							
Chromium - Total	0.05	mg/l	0.01	LT						
Conductivity	–	UMHO/CM	6970							
Copper - Total	0.2	mg/l	0.025	LT						
Eh	–	VOLTS	70							
F2--	1.5	mg/l	0.42							
Hardness	–									
Iron - Total	0.3	mg/l	0.1	LT						
Lead - Total	0.025	mg/l	0.003	LT						
Lithium - Total	–	mg/l	0.608		Not Sampled		Not Sampled		Not Sampled	
Magnesium - Total	–	mg/l	114							
Manganese - Total	0.3	mg/l	0.015	LT						
Mercury - Total	0.0007	mg/l	0.0002	LT						
Molybdenum - Total	–	mg/l	0.05	LT						
pH	6.5 to 8.5	SU	7.9							
Potassium - Total	–	mg/l	77.7							
Selenium - Total	0.01	mg/l	0.005	LT						
Silver - Total	0.05	mg/l	0.01	LT						
Sodium - Total	20	mg/l	69.7							
Strontium - Total	–	mg/l	16.2							
Sulfate	250	mg/l	211							
Temperature	–	Deg. C.								
Total Dissolved Solids	500	mg/l	4760							
Turbidity	5	NTU	2.3							
Vanadium - Total	–	mg/l	0.05	LT						
Zinc - Total	–	mg/l	0.02	LT						

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
– = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGDD-9134

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	160							
Aluminum - Total	–	mg/l	0.2	LT						
Ammonia	2	mg/l	1.8							
Arsenic - Total	0.025	mg/l	0.01	LT						
Boron - Total	1	mg/l	3.02							
Bromide	–	mg/l	25	LT						
Cadmium - Total	0.005	mg/l	0.005	LT						
Calcium - Total	–	mg/l	500	LT						
Chloride	250	mg/l	2090							
Chromium - Total	0.05	mg/l	0.01	LT						
Conductivity	–	UMHO/CM	7200							
Copper - Total	0.2	mg/l	0.025	LT						
Eh	–	VOLTS	52							
F2--	1.5	mg/l	0.32							
Hardness	–									
Iron - Total	0.3	mg/l	0.139							
Lead - Total	0.025	mg/l	0.003	LT						
Lithium - Total	–	mg/l	0.609		Not Sampled		Not Sampled		Not Sampled	
Magnesium - Total	–	mg/l	111							
Manganese - Total	0.3	mg/l	0.209							
Mercury - Total	0.0007	mg/l	0.0002	LT						
Molybdenum - Total	–	mg/l	0.05	LT						
pH	6.5 to 8.5	SU	7.3							
Potassium - Total	–	mg/l	72							
Selenium - Total	0.01	mg/l	0.005	LT						
Silver - Total	0.05	mg/l	0.01	LT						
Sodium - Total	20	mg/l	742							
Strontium - Total	–	mg/l	15.7							
Sulfate	250	mg/l	147							
Temperature	–	Deg. C.								
Total Dissolved Solids	500	mg/l	4670							
Turbidity	5	NTU	1.2							
Vanadium - Total	–	mg/l	0.05	LT						
Zinc - Total	–	mg/l	0.02	LT						

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
– = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGDD-9751

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	36		42		40		40	
Aluminum - Total	–	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Ammonia	2	mg/l	11		11.7		10.5		12.3	
Arsenic - Total	0.025	mg/l	0.00355	J	0.01	LT	0.01	LT	0.00547	J
Boron - Total	1	mg/l	2.56		2.28		2.3		2.36	
Bromide	–	mg/l	164		163		186		175	
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	–	mg/l	3680		2860		3080		3870	
Chloride	250	mg/l	15200		14000		16400		16100	
Chromium - Total	0.05	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Conductivity	–	UMHO/CM	38030		38070		37750		38150	
Copper - Total	0.2	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
Eh	–	VOLTS			36					
F2--	1.5	mg/l	0.5	LT	0.5	LT	0.5	LT	0.5	LT
Hardness	–	mg/l			9739					
Iron - Total	0.3	mg/l	0.929		2.11		0.908		0.717	
Lead - Total	0.025	mg/l	0.003	LT	0.003	LT	0.003	LT	0.003	LT
Lithium - Total	–	mg/l	6.58		7.39		6.71		5.86	
Magnesium - Total	–	mg/l	692		634		587		652	
Manganese - Total	0.3	mg/l	2.54		2.51		2.43		2.62	
Mercury - Total	0.0007	mg/l			0.0002	LT				
Molybdenum - Total	–	mg/l								
pH	6.5 to 8.5	SU	6.5		6.5		6.5		6.6	
Potassium - Total	–	mg/l	159	J	153	J	138	J	155	J
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l	4400		3820		3420		4480	
Strontium - Total	–	mg/l	105		79.7		87.3		106	
Sulfate	250	mg/l	510		547		494		523	
Temperature	–	Deg. C			11					
Total Dissolved Solids	500	mg/l	26700		30500		25600		27500	
Turbidity	5	NTU	1.5		2.0		2.3		2.4	
Vanadium - Total	–	mg/l								
Zinc - Total	–	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
– = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGDSH-0142

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value [2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	—	mg/l	330		332		310		348	
Aluminum - Total	—	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Ammonia	2	mg/l	0.2		0.3		0.2		0.3	
Arsenic - Total	0.025	mg/l	0.0196		0.0203		0.018		0.0226	
Boron - Total	1	mg/l	0.188		0.19		0.194		0.192	
Bromide	—	mg/l	1.42		1.39		1.5		1.16	
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	—	mg/l	112		109		115		112	
Chloride	250	mg/l	154		164		169		143	
Chromium - Total	0.05	mg/l	0.01	LT	0.01	LT	0.0056	J	0.00487	J
Conductivity	—	UMHO/CM	1620		1640		1615		1580	
Copper - Total	0.2	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
Eh	—	VOLTS			-47					
F2--	1.5	mg/l	0.2	LT	0.2	LT	0.2	LT	0.22	
Hardness	—	mg/l			775					
Iron - Total	0.3	mg/l	1.22		1.48		1.34		1.47	
Lead - Total	0.025	mg/l	0.003	LT	0.003	LT	0.003	LT	0.003	LT
Lithium - Total	—	mg/l	0.1	LT	0.1	LT	0.1	LT	0.1	LT
Magnesium - Total	—	mg/l	112		122		109		113	
Manganese - Total	0.3	mg/l	0.0616		0.0826		0.0677		0.0892	
Mercury - Total	0.0007	mg/l			0.0002	LT				
Molybdenum - Total	—	mg/l								
pH	6.5 to 8.5	SU	7.5		7.3		7.4		7.4	
Potassium - Total	—	mg/l	8.79		9.37		8.74		10.6	
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l	82		89.2		58.2		62	
Strontium - Total	—	mg/l	2.46		2.35		2.55		2.46	
Sulfate	250	mg/l	309		328		318		310	
Temperature	—	Deg. C			11					
Total Dissolved Solids	500	mg/l	1150		1330		1040		1920	
Turbidity	5	NTU	4		9.2		8.2		18.0	
Vanadium - Total	—	mg/l								
Zinc - Total	—	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
— = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGDSH8701

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	200		230		150		124	
Aluminum - Total	–	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Ammonia	2	mg/l	0.4		0.2	LT	1.3		2.7	
Arsenic - Total	0.025	mg/l	0.01	LT	0.01	LT	0.00362	J	0.0071	J
Boron - Total	1	mg/l	0.127		0.101		1.21		1.82	
Bromide	–	mg/l	34.2		27.5		35.2		53.5	
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	–	mg/l	1040		833		1280		1140	
Chloride	250	mg/l	3610		3210		3790		5160	
Chromium - Total	0.05	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Conductivity	–	UMHO/CM	10910		9680		11860		14550	
Copper - Total	0.2	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
Eh	–	VOLTS			464					
F2--	1.5	mg/l	0.2	LT	0.2	LT	0.2	LT	0.24	
Hardness	–	mg/l			3681					
Iron - Total	0.3	mg/l	0.1	LT	0.1	LT	0.1	LT	0.119	
Lead - Total	0.025	mg/l	0.003	LT	0.003	LT	0.003	LT	0.003	LT
Lithium - Total	–	mg/l	2.27		2.58		2.4		2.27	
Magnesium - Total	–	mg/l	500	LT	500	LT	533		500	LT
Manganese - Total	0.3	mg/l	0.0233		0.015	LT	0.408		0.842	
Mercury - Total	0.0007	mg/l			0.0002	LT				
Molybdenum - Total	–	mg/l								
pH	6.5 to 8.5	SU	7.1		7.1		7		7.0	
Potassium - Total	–	mg/l	15.1		13.1		50.5		85.2	
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l	582		576		1110		1260	
Strontium - Total	–	mg/l	2.29		1.86		11.1		17.9	
Sulfate	250	mg/l	377		367		438		482	
Temperature	–	Deg. C			11					
Total Dissolved Solids	500	mg/l	8150		8700		8860		8860	
Turbidity	5	NTU	9.3		8.1		14		12.0	
Vanadium - Total	–	mg/l								
Zinc - Total	–	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
– = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGDSH9104

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	300		300		290		310	
Aluminum - Total	–	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Ammonia	2	mg/l	0.5		0.5		0.6		0.6	
Arsenic - Total	0.025	mg/l	0.0193		0.0168		0.0181		0.0193	
Boron - Total	1	mg/l	0.178		0.173		0.188		0.171	
Bromide	–	mg/l	1.91		1.85		1.53		2	
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	–	mg/l	74.6		67.5		77.4		78.2	
Chloride	250	mg/l	207		213		204		223	
Chromium - Total	0.05	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Conductivity	–	UMHO/CM	1360		1360		1370		1400	
Copper - Total	0.2	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
Eh	–	VOLTS			-38					
F2--	1.5	mg/l	0.2	LT	0.26		0.41		0.26	
Hardness	–	mg/l			518					
Iron - Total	0.3	mg/l	0.741		0.68		0.473		0.5	
Lead - Total	0.025	mg/l	0.003	LT	0.003	LT	0.00375		0.003	LT
Lithium - Total	–	mg/l	0.1	LT	0.1	LT	0.1	LT	0.1	LT
Magnesium - Total	–	mg/l	83.4		85		78.1		80.4	
Manganese - Total	0.3	mg/l	0.0274		0.0288		0.031		0.0298	
Mercury - Total	0.0007	mg/l			0.0002	LT				
Molybdenum - Total	–	mg/l								
pH	6.5 to 8.5	SU	7.7		7.6		7.6		7.6	
Potassium - Total	–	mg/l	10.7		10.4		9.73		11.9	
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l	73.7		75.2		76.9		81.5	
Strontium - Total	–	mg/l	2.7		2.42		2.85		2.79	
Sulfate	250	mg/l	86.4		91		86.3		86.8	
Temperature	–	Deg. C			11					
Total Dissolved Solids	500	mg/l	890		870		795		1190	
Turbidity	5	NTU	1.2		1.6		1.8		1.0	
Vanadium - Total	–	mg/l								
Zinc - Total	–	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
– = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGDSH9121

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	230		330		330		368	
Aluminum - Total	–	mg/l	0.2	LT	0.2	LT	0.2	LT	0.20	LT
Ammonia	2	mg/l	0.2		0.2		0.1		0.3	
Arsenic - Total	0.025	mg/l	0.01	LT	0.00543	J	0.0039	J	0.00752	J
Boron - Total	1	mg/l	0.179		0.152		0.181		0.22	
Bromide	–	mg/l	5.94		6.27		4.76		6.91	
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.01	LT
Calcium - Total	–	mg/l	271		193		245		254	
Chloride	250	mg/l	589		682		617		687	
Chromium - Total	0.05	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Conductivity	–	UMHO/CM	2850		3150		2935		3150	
Copper - Total	0.2	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
Eh	–	VOLTS			31					
F2--	1.5	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Hardness	–	mg/l			1169					
Iron - Total	0.3	mg/l	1.19		0.473		0.599		0.81	
Lead - Total	0.025	mg/l	0.003	LT	0.003	LT	0.003	LT	0.003	LT
Lithium - Total	–	mg/l	0.1	LT	0.158		0.11		0.18	
Magnesium - Total	–	mg/l	151		167		151		164	
Manganese - Total	0.3	mg/l	0.101		0.116		0.108		0.13	
Mercury - Total	0.0007	mg/l			0.0002	LT				
Molybdenum - Total	–	mg/l								
pH	6.5 to 8.5	SU	7.2		7.1		7.2		7.1	
Potassium - Total	–	mg/l	12.9		11.9		12		16	
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l	137		92.1		108		133	
Strontium - Total	–	mg/l	2.95		2.57		2.94		3.33	
Sulfate	250	mg/l	272		299		302		294	
Temperature	–	Deg. C			11					
Total Dissolved Solids	500	mg/l	1740		2190		1640		1830	
Turbidity	5	NTU	4.6		8.9		6.4		8.9	
Vanadium - Total	–	mg/l								
Zinc - Total	–	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
– = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGDSH9123

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	270		190		270		276	
Aluminum - Total	–	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Ammonia	2	mg/l	0.5		0.6		0.7		0.8	
Arsenic - Total	0.025	mg/l	0.0105		0.00887	J	0.0115		0.011	
Boron - Total	1	mg/l	0.392		0.369		0.459		0.426	
Bromide	–	mg/l	1.17		1	LT	1.42		1.32	
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	–	mg/l	39.3		33.2		43.8		44.1	
Chloride	250	mg/l	119		110		183		131	
Chromium - Total	0.05	mg/l	0.01	LT	0.01	LT	0.00564	J	0.01	LT
Conductivity	–	UMHO/CM	935		885		955		1010	
Copper - Total	0.2	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
Eh	–	VOLTS			-70					
F2--	1.5	mg/l	0.31		0.41		0.53		0.38	
Hardness	–	mg/l			270					
Iron - Total	0.3	mg/l	0.492		0.44		0.544		0.581	
Lead - Total	0.025	mg/l	0.003	LT	0.003	LT	0.0056		0.003	LT
Lithium - Total	–	mg/l	0.1	LT	0.1	LT	0.1	LT	0.1	LT
Magnesium - Total	–	mg/l	48		45.6		47.8		49.5	
Manganese - Total	0.3	mg/l	0.0534		0.0514		0.0606		0.0593	
Mercury - Total	0.0007	mg/l			0.0002	LT				
Molybdenum - Total	–	mg/l								
pH	6.5 to 8.5	SU	7.9		7.8		7.8		7.7	
Potassium - Total	–	mg/l	11.4		10.9		11.8		13.9	
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l	74.2		65		83.6		83.8	
Strontium - Total	–	mg/l	1.9		1.59		2.13		2.07	
Sulfate	250	mg/l	21.5		23.3		22.2		21.8	
Temperature	–	Deg. C			11					
Total Dissolved Solids	500	mg/l	520		515		655		655	
Turbidity	5	NTU	6.2		8.8		3.4		5.2	
Vanadium - Total	–	mg/l								
Zinc - Total	–	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
– = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGDSH9124

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	310		320		300		316	
Aluminum - Total	–	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Ammonia	2	mg/l	0.4		0.3		0.5		0.4	
Arsenic - Total	0.025	mg/l	0.0214		0.0204		0.023		0.027	
Boron - Total	1	mg/l	0.185		0.181		0.189		0.179	
Bromide	–	mg/l	1	LT	1	LT	1	LT	1	LT
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	–	mg/l	29.6		32		31.5		33.9	
Chloride	250	mg/l	20.6		18.6		22.3		18.7	
Chromium - Total	0.05	mg/l	0.0107		0.01	LT	0.01	LT	0.01	LT
Conductivity	–	UMHO/CM	700		750		730		760	
Copper - Total	0.2	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
Eh	–	VOLTS			-34					
F2--	1.5	mg/l	0.32		0.38		0.56		0.35	
Hardness	–	mg/l			314					
Iron - Total	0.3	mg/l	0.189		0.246		0.156		0.599	
Lead - Total	0.025	mg/l	0.003	LT	0.003	LT	0.0045		0.003	LT
Lithium - Total	–	mg/l	0.1	LT	0.42		0.297		0.319	
Magnesium - Total	–	mg/l	52.3		56.9		50.9		52.3	
Manganese - Total	0.3	mg/l	0.0207		0.023		0.0202		0.0508	
Mercury - Total	0.0007	mg/l			0.0002	LT				
Molybdenum - Total	–	mg/l								
pH	6.5 to 8.5	SU	7.9		7.9		7.9		8.0	
Potassium - Total	–	mg/l	6.34		6.56		5.92		7.41	
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l	40.6		43.4		40.1		44.5	
Strontium - Total	–	mg/l	1.67		1.75		1.81		1.78	
Sulfate	250	mg/l	40.4		44.3		39.9		40.8	
Temperature	–	Deg. C			11					
Total Dissolved Solids	500	mg/l	440		475		415		370	
Turbidity	5	NTU	7.1		12.0		6.2		7.5	
Vanadium - Total	–	mg/l								
Zinc - Total	–	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
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shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGDSH9125

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	230		34		260		320	
Aluminum - Total	–	mg/l	0.2	LT	0.33		10.1		0.2	LT
Ammonia	2	mg/l	0.2		0.3		0.3		0.4	
Arsenic - Total	0.025	mg/l	0.0175		0.0142		0.0208		0.0248	
Boron - Total	1	mg/l	0.103		0.144		0.119		0.146	
Bromide	–	mg/l	1.11		1	LT	1	LT	1.66	
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	–	mg/l	38.6		66.7		89.6		71.4	
Chloride	250	mg/l	115		107		120		183	
Chromium - Total	0.05	mg/l	0.01	LT	0.00875	J	0.0172		0.01	LT
Conductivity	–	UMHO/CM	790		1105		1040		1265	
Copper - Total	0.2	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
Eh	–	VOLTS			156					
F2--	1.5	mg/l	0.25		0.32		0.49		0.26	
Hardness	–	mg/l			491					
Iron - Total	0.3	mg/l	0.854		1.46		18.3		1.27	
Lead - Total	0.025	mg/l	0.003	LT	0.003	LT	0.00698		0.003	LT
Lithium - Total	–	mg/l	0.223		0.1	LT	0.1	LT	0.1	LT
Magnesium - Total	–	mg/l	50.9		78.8		77.3		83.6	
Manganese - Total	0.3	mg/l	0.0748		0.128		0.542		0.0652	
Mercury - Total	0.0007	mg/l			0.0002	LT				
Molybdenum - Total	–	mg/l								
pH	6.5 to 8.5	SU	7.9		7.7		7.7		7.7	
Potassium - Total	–	mg/l	5.26		7.94		9.23		9.68	
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l	38.6		63.1		50	LT	74.1	
Strontium - Total	–	mg/l	1.38		2.06		2.1		2.32	
Sulfate	250	mg/l	63.3		63.2		62.7		78.9	
Temperature	–	Deg. C			12					
Total Dissolved Solids	500	mg/l	615		575		660		610	
Turbidity	5	NTU	44.0		38.0		37.0		22.0	
Vanadium - Total	–	mg/l								
Zinc - Total	–	mg/l	0.02	LT	0.02	LT	0.0447		0.02	LT

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
– = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGDSH9131

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	330							
Aluminum - Total	–	mg/l	0.2	LT						
Ammonia	2	mg/l	0.1	LT						
Arsenic - Total	0.025	mg/l	0.01	LT						
Boron - Total	1	mg/l	0.144							
Bromide	–	mg/l	1	LT						
Cadmium - Total	0.005	mg/l	0.005	LT						
Calcium - Total	–	mg/l	188							
Chloride	250	mg/l	4.7							
Chromium - Total	0.05	mg/l	0.01	LT						
Conductivity	–	UMHO/CM	1345							
Copper - Total	0.2	mg/l	0.025	LT						
Eh	–	VOLTS	106							
F2--	1.5	mg/l	0.35							
Hardness	–									
Iron - Total	0.3	mg/l	0.1	LT						
Lead - Total	0.025	mg/l	0.003	LT						
Lithium - Total	–	mg/l	0.1	LT	Not Sampled		Not Sampled		Not Sampled	
Magnesium - Total	–	mg/l	62.8							
Manganese - Total	0.3	mg/l	0.015	LT						
Mercury - Total	0.0007	mg/l	0.0002	LT						
Molybdenum - Total	–	mg/l	0.05	LT						
pH	6.5 to 8.5	SU	7.2							
Potassium - Total	–	mg/l	5	LT						
Selenium - Total	0.01	mg/l	0.005	LT						
Silver - Total	0.05	mg/l	0.01	LT						
Sodium - Total	20	mg/l	10.6							
Strontium - Total	–	mg/l	0.255							
Sulfate	250	mg/l	412							
Temperature	–	Deg. C.								
Total Dissolved Solids	500	mg/l	1050							
Turbidity	5	NTU	1.1							
Vanadium - Total	–	mg/l	0.05	LT						
Zinc - Total	–	mg/l	0.02	LT						

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
– = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGDSH9132

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	420							
Aluminum - Total	–	mg/l	0.2	LT						
Ammonia	2	mg/l	0.1	LT						
Arsenic - Total	0.025	mg/l	0.01	LT						
Boron - Total	1	mg/l	1.98							
Bromide	–	mg/l	1	LT						
Cadmium - Total	0.005	mg/l	0.005	LT						
Calcium - Total	–	mg/l	291							
Chloride	250	mg/l	42.4							
Chromium - Total	0.05	mg/l	0.01	LT						
Conductivity	–	UMHO/CM	2065							
Copper - Total	0.2	mg/l	0.025	LT						
Eh	–	VOLTS	112							
F2--	1.5	mg/l	0.2	LT						
Hardness	–									
Iron - Total	0.3	mg/l	0.174							
Lead - Total	0.025	mg/l	0.003	LT	Not Sampled		Not Sampled		Not Sampled	
Lithium - Total	–	mg/l	0.1	LT						
Magnesium - Total	–	mg/l	95.7							
Manganese - Total	0.3	mg/l	0.0655							
Mercury - Total	0.0007	mg/l	0.0002	LT						
Molybdenum - Total	–	mg/l	0.05	LT						
pH	6.5 to 8.5	SU	7.0							
Potassium - Total	–	mg/l	5	LT						
Selenium - Total	0.01	mg/l	0.005	LT						
Silver - Total	0.05	mg/l	0.01	LT						
Sodium - Total	20	mg/l	30.4							
Strontium - Total	–	mg/l	0.709							
Sulfate	250	mg/l	812							
Temperature	–	Deg. C.								
Total Dissolved Solids	500	mg/l	1630							
Turbidity	5	NTU	3.8							
Vanadium - Total	–	mg/l	0.05	LT						
Zinc - Total	–	mg/l	0.02	LT						

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
– = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGDSH9133

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	290							
Aluminum - Total	–	mg/l	0.2	LT						
Ammonia	2	mg/l	0.2							
Arsenic - Total	0.025	mg/l	0.01	LT						
Boron - Total	1	mg/l	1.17							
Bromide	–	mg/l	1	LT						
Cadmium - Total	0.005	mg/l	0.005	LT						
Calcium - Total	–	mg/l	357							
Chloride	250	mg/l	38.4							
Chromium - Total	0.05	mg/l	0.01	LT						
Conductivity	–	UMHO/CM	2460							
Copper - Total	0.2	mg/l	0.025	LT						
Eh	–	VOLTS	117							
F2--	1.5	mg/l	0.21							
Hardness	–									
Iron - Total	0.3	mg/l	0.1	LT						
Lead - Total	0.025	mg/l	0.003	LT						
Lithium - Total	–	mg/l	0.1	LT	Not Sampled		Not Sampled		Not Sampled	
Magnesium - Total	–	mg/l	134							
Manganese - Total	0.3	mg/l	0.0296							
Mercury - Total	0.0007	mg/l	0.0002	LT						
Molybdenum - Total	–	mg/l	0.05	LT						
pH	6.5 to 8.5	SU	7.1							
Potassium - Total	–	mg/l	5	LT						
Selenium - Total	0.01	mg/l	0.005	LT						
Silver - Total	0.05	mg/l	0.01	LT						
Sodium - Total	20	mg/l	47.5							
Strontium - Total	–	mg/l	0.841							
Sulfate	250	mg/l	1230							
Temperature	–	Deg. C.								
Total Dissolved Solids	500	mg/l	2160							
Turbidity	5	NTU	0.3							
Vanadium - Total	–	mg/l	0.05	LT						
Zinc - Total	–	mg/l	0.02	LT						

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
– = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGDSH9134

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	300							
Aluminum - Total	–	mg/l	0.2	LT						
Ammonia	2	mg/l	0.1	LT						
Arsenic - Total	0.025	mg/l	0.01	LT						
Boron - Total	1	mg/l	0.882							
Bromide	–	mg/l	1	LT						
Cadmium - Total	0.005	mg/l	0.005	LT						
Calcium - Total	–	mg/l	584							
Chloride	250	mg/l	10.3							
Chromium - Total	0.05	mg/l	0.01	LT						
Conductivity	–	UMHO/CM	2365							
Copper - Total	0.2	mg/l	0.025	LT						
Eh	–	VOLTS	157							
F2--	1.5	mg/l	0.2	LT						
Hardness	–									
Iron - Total	0.3	mg/l	0.1	LT						
Lead - Total	0.025	mg/l	0.003	LT						
Lithium - Total	–	mg/l	0.1	LT	Not Sampled		Not Sampled		Not Sampled	
Magnesium - Total	–	mg/l	66.1							
Manganese - Total	0.3	mg/l	0.015	LT						
Mercury - Total	0.0007	mg/l	0.0002	LT						
Molybdenum - Total	–	mg/l	0.05	LT						
pH	6.5 to 8.5	SU	7.0							
Potassium - Total	–	mg/l	5	LT						
Selenium - Total	0.01	mg/l	0.005	LT						
Silver - Total	0.05	mg/l	0.01	LT						
Sodium - Total	20	mg/l	25.2							
Strontium - Total	–	mg/l	0.693							
Sulfate	250	mg/l	1210							
Temperature	–	Deg. C.								
Total Dissolved Solids	500	mg/l	2140							
Turbidity	5	NTU	2.1							
Vanadium - Total	–	mg/l	0.05	LT						
Zinc - Total	–	mg/l	0.02	LT						

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
– = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGDSH9751

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	240		260		250		144	
Aluminum - Total	–	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Ammonia	2	mg/l	0.6		0.4		0.6		1.1	
Arsenic - Total	0.025	mg/l	0.04		0.067		0.0348		0.0339	
Boron - Total	1	mg/l	0.171		0.166		0.181		0.176	
Bromide	–	mg/l	4.38		4.22		4.06		4.63	
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	–	mg/l	112		119		120		116	
Chloride	250	mg/l	472		499		519		513	
Chromium - Total	0.05	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Conductivity	–	UMHO/CM	2020		2085		2140		2125	
Copper - Total	0.2	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
Eh	–	VOLTS			-3					
F2--	1.5	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Hardness	–	mg/l			882					
Iron - Total	0.3	mg/l	0.923		1.77		0.83		0.76	
Lead - Total	0.025	mg/l	0.003	LT	0.003	LT	0.003	LT	0.003	LT
Lithium - Total	–	mg/l	0.1	LT	0.1	LT	0.1	LT	0.1	LT
Magnesium - Total	–	mg/l	134		142		136		135	
Manganese - Total	0.3	mg/l	0.0406		0.0407		0.0445		0.0434	
Mercury - Total	0.0007	mg/l			0.0002	LT				
Molybdenum - Total	–	mg/l								
pH	6.5 to 8.5	SU	7.5		7.4		7.4		7.4	
Potassium - Total	–	mg/l	12.4		12.7		11.8		13.6	
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l	75.6		79.2		70.9		81.6	
Strontium - Total	–	mg/l	3.66		3.81		3.97		3.88	
Sulfate	250	mg/l	66.5		70.3		70.9		69.5	
Temperature	–	Deg. C			12					
Total Dissolved Solids	500	mg/l	1160		1230		1100		1930	
Turbidity	5	NTU	1.5		4.8		1.6		1.3	
Vanadium - Total	–	mg/l								
Zinc - Total	–	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
– = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGDXX8301

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	290		290		400		320	
Aluminum - Total	–	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Ammonia	2	mg/l	0.2		0.2	LT	0.1	LT	0.4	
Arsenic - Total	0.025	mg/l	0.0175		0.0121		0.0141		0.0257	
Boron - Total	1	mg/l	0.229		0.227		0.229		0.209	
Bromide	–	mg/l	1	LT	1	LT	1	LT	1	LT
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	–	mg/l	28.9		30.8		32.3		28	
Chloride	250	mg/l	45.5		46.5		50.7		37.1	
Chromium - Total	0.05	mg/l	0.01	LT	0.0103		0.01	LT	0.01	LT
Conductivity	–	UMHO/CM	750		825		790		785	
Copper - Total	0.2	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
Eh	–	VOLTS			90					
F2--	1.5	mg/l	0.31		0.4		0.33		0.3	
Hardness	–	mg/l			311					
Iron - Total	0.3	mg/l	0.594		0.107		0.173		0.336	
Lead - Total	0.025	mg/l	0.003	LT	0.003	LT	0.003	LT	0.003	LT
Lithium - Total	–	mg/l	0.1	LT	0.1	LT	0.344		0.352	
Magnesium - Total	–	mg/l	53.4		56.7		53.1		58.6	
Manganese - Total	0.3	mg/l	0.0241		0.0194		0.015	LT	0.0287	
Mercury - Total	0.0007	mg/l			0.0002	LT				
Molybdenum - Total	–	mg/l								
pH	6.5 to 8.5	SU	7.9		7.8		7.9		7.9	
Potassium - Total	–	mg/l	7.97		8.13		7.23		7.87	
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l	49.6		51.2		48.9		46.3	
Strontium - Total	–	mg/l	1.71		1.8		1.77		1.97	
Sulfate	250	mg/l	41.7		44.6		43.5		42.4	
Temperature	–	Deg. C			11					
Total Dissolved Solids	500	mg/l	495		430		430		485	
Turbidity	5	NTU	5.9		7.6		8.0		18.0	
Vanadium - Total	–	mg/l								
Zinc - Total	–	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
– = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGDXX8303

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	300		280		230		268	
Aluminum - Total	–	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Ammonia	2	mg/l	0.1	LT	0.2	LT	0.4		0.7	
Arsenic - Total	0.025	mg/l	0.0091	J	0.01	LT	0.0108		0.012	
Boron - Total	1	mg/l	0.108		0.0836		0.289		0.345	
Bromide	–	mg/l	1	LT	1	LT	1.6		2.32	
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	–	mg/l	124		117		73.7		79.3	
Chloride	250	mg/l	75.1		70.6		205		232	
Chromium - Total	0.05	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Conductivity	–	UMHO/CM	1235		1082		1260		1355	
Copper - Total	0.2	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
Eh	–	VOLTS			77					
F2--	1.5	mg/l	0.2	LT	0.2	LT	0.48		0.31	
Hardness	–	mg/l			555					
Iron - Total	0.3	mg/l	0.1	LT	0.1	LT	0.1	LT	0.1	LT
Lead - Total	0.025	mg/l	0.003	LT	0.003	LT	0.00532		0.003	LT
Lithium - Total	–	mg/l	0.221		0.287		0.1	LT	0.1	LT
Magnesium - Total	–	mg/l	74.2		63.7		66.3		73.1	
Manganese - Total	0.3	mg/l	0.015	LT	0.015	LT	0.015	LT	0.0445	
Mercury - Total	0.0007	mg/l			0.0002	LT				
Molybdenum - Total	–	mg/l								
pH	6.5 to 8.5	SU	7.5		7.5		7.6		7.6	
Potassium - Total	–	mg/l	5	LT	5	LT	10.4		13.4	
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l	38.2		29.5		82.8		92	
Strontium - Total	–	mg/l	1.13		0.639		2.72		2.98	
Sulfate	250	mg/l	213		188		43.2		61.2	
Temperature	–	Deg. C			12					
Total Dissolved Solids	500	mg/l	825		900		700		2780	
Turbidity	5	NTU	2.2		2.4		1.7		0.6	
Vanadium - Total	–	mg/l								
Zinc - Total	–	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
– = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGDXX8305

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	470		490		500		530	
Aluminum - Total	–	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Ammonia	2	mg/l	0.2		0.2		0.2		0.2	
Arsenic - Total	0.025	mg/l	0.00564	J	0.00322	J	0.0107		0.0128	
Boron - Total	1	mg/l	0.0889		0.0925		0.0976		0.0773	
Bromide	–	mg/l	2.73		1.67		1.5		1.52	
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	–	mg/l	169		162		150		163	
Chloride	250	mg/l	229		154		167		135	
Chromium - Total	0.05	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Conductivity	–	UMHO/CM	1925		1810		1695		1500	
Copper - Total	0.2	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
Eh	–	VOLTS			4					
F2--	1.5	mg/l	0.2	LT	0.2	LT	0.25		0.24	
Hardness	–	mg/l			766					
Iron - Total	0.3	mg/l	1.89		1.86		2.27		2.42	
Lead - Total	0.025	mg/l	0.003	LT	0.003	LT	0.0056		0.003	LT
Lithium - Total	–	mg/l	0.1	LT	0.1	LT	0.1	LT	0.1	LT
Magnesium - Total	–	mg/l	92.3		87.8		74.1		78.4	
Manganese - Total	0.3	mg/l	0.219		0.162		0.12		0.3	
Mercury - Total	0.0007	mg/l			0.0002	LT				
Molybdenum - Total	–	mg/l								
pH	6.5 to 8.5	SU	7.2		7.1		7.1		7.0	
Potassium - Total	–	mg/l	8.47		8.24		7.38		7.1	
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l	70.7		67.8		60.8		60.9	
Strontium - Total	–	mg/l	1.77		1.7		1.58		1.41	
Sulfate	250	mg/l	151		145		129		135	
Temperature	–	Deg. C			10					
Total Dissolved Solids	500	mg/l	1090		965		1010		765	
Turbidity	5	NTU	24.0		27.0		14.0		5.6	
Vanadium - Total	–	mg/l								
Zinc - Total	–	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
– = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGDXX8306

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	330		340		330		340	
Aluminum - Total	–	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Ammonia	2	mg/l	0.1	LT	0.2	LT	0.1	LT	0.1	LT
Arsenic - Total	0.025	mg/l	0.01	LT	0.01	LT	0.00346	J	0.00758	J
Boron - Total	1	mg/l	0.223		0.151		0.219		0.226	
Bromide	–	mg/l	3.85		2.37		3.8		4.63	
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	–	mg/l	310		242		305		308	
Chloride	250	mg/l	408		292		465		493	
Chromium - Total	0.05	mg/l	0.01	LT	0.012		0.01	LT	0.01	LT
Conductivity	–	UMHO/CM	2470		2010		2275		2595	
Copper - Total	0.2	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
Eh	–	VOLTS			102					
F2--	1.5	mg/l	0.2	LT	0.2	LT	0.2	LT	0.26	
Hardness	–	mg/l			992					
Iron - Total	0.3	mg/l	0.505		0.159		0.236		0.309	
Lead - Total	0.025	mg/l	0.003	LT	0.003	LT	0.00308		0.003	LT
Lithium - Total	–	mg/l	0.1	LT	0.1	LT	0.1	LT	0.125	
Magnesium - Total	–	mg/l	109		94.1		103		106	
Manganese - Total	0.3	mg/l	0.0409		0.0224		0.0539		0.0457	
Mercury - Total	0.0007	mg/l			0.0002	LT				
Molybdenum - Total	–	mg/l								
pH	6.5 to 8.5	SU	7.2		7.1		7.0		7.1	
Potassium - Total	–	mg/l	9.29		7.14		9.11		10.3	
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l	98.9		63.3		94.6		95.9	
Strontium - Total	–	mg/l	2.34		1.92		2.65		2.38	
Sulfate	250	mg/l	280		226		217		319	
Temperature	–	Deg. C			11					
Total Dissolved Solids	500	mg/l	1580		1200		1530		1490	
Turbidity	5	NTU	16.0		18.0		16.0		18.0	
Vanadium - Total	–	mg/l								
Zinc - Total	–	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
– = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGUD-8713

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	88							
Aluminum - Total	–	mg/l	0.2	LT						
Ammonia	2	mg/l	8.3							
Arsenic - Total	0.025	mg/l	0.01	LT						
Boron - Total	1	mg/l	2.15							
Bromide	–	mg/l	91.7							
Cadmium - Total	0.005	mg/l	0.005	LT						
Calcium - Total	–	mg/l	1740							
Chloride	250	mg/l	8130							
Chromium - Total	0.05	mg/l	0.01	LT						
Conductivity	–	UMHO/CM	23220							
Copper - Total	0.2	mg/l	0.025	LT						
Eh	–	VOLTS								
F2--	1.5	mg/l	0.2	LT						
Hardness	–	mg/l								
Iron - Total	0.3	mg/l	7.05							
Lead - Total	0.025	mg/l	0.003	LT	Not Sampled		Not Sampled		Not Sampled	
Lithium - Total	–	mg/l	5.65							
Magnesium - Total	–	mg/l	500	LT						
Manganese - Total	0.3	mg/l	1.39							
Mercury - Total	0.0007	mg/l								
Molybdenum - Total	–	mg/l								
pH	6.5 to 8.5	SU	7.1							
Potassium - Total	–	mg/l	500	LT						
Selenium - Total	0.01	mg/l								
Silver - Total	0.05	mg/l								
Sodium - Total	20	mg/l	3020							
Strontium - Total	–	mg/l	32.2							
Sulfate	250	mg/l	1790							
Temperature	–	Deg. C								
Total Dissolved Solids	500	mg/l	17400							
Turbidity	5	NTU	11							
Vanadium - Total	–	mg/l								
Zinc - Total	–	mg/l	0.02	LT						

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
– = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGUD-9128

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	20		22		20		18	
Aluminum - Total	–	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Ammonia	2	mg/l	13.1		12.6		13.7		15.1	
Arsenic - Total	0.025	mg/l	0.01	LT	0.01	LT	0.01	LT	0.00349	J
Boron - Total	1	mg/l	2.62		2.47		2.49		2.32	
Bromide	–	mg/l	168		160		185		176	
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	–	mg/l	2860		2770		2900		2680	
Chloride	250	mg/l	16600		15800		16600		16000	
Chromium - Total	0.05	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Conductivity	–	UMHO/CM	39550		39230		40320		40600	
Copper - Total	0.2	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
Eh	–	VOLTS			33					
F2--	1.5	mg/l	0.5	LT	0.5	LT	0.5	LT	0.5	LT
Hardness	–	mg/l			8649					
Iron - Total	0.3	mg/l	0.995		0.8		3.26		3	
Lead - Total	0.025	mg/l	0.003	LT	0.003	LT	0.003	LT	0.003	LT
Lithium - Total	–	mg/l	7.91		9.9		8.52		7.81	
Magnesium - Total	–	mg/l	500	LT	500	LT	500	LT	500	LT
Manganese - Total	0.3	mg/l	2.01		1.85		2.11		1.93	
Mercury - Total	0.0007	mg/l			0.0002	LT				
Molybdenum - Total	–	mg/l								
pH	6.5 to 8.5	SU	6.9		6.7		7.1		7.1	
Potassium - Total	–	mg/l	500	LT	500	LT	500	LT	500	LT
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l	5340		5470		5070		5770	
Strontium - Total	–	mg/l	94.6		88.8		95.8		87.3	
Sulfate	250	mg/l	1110		1090		1010		1020	
Temperature	–	Deg. C			12					
Total Dissolved Solids	500	mg/l	27000		29200		27200		24000	
Turbidity	5	NTU	8.6		12.0		5.0		5.9	
Vanadium - Total	–	mg/l								
Zinc - Total	–	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
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Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGUD-9137

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	68							
Aluminum - Total	–	mg/l	0.2	LT						
Ammonia	2	mg/l	4							
Arsenic - Total	0.025	mg/l	0.01	LT						
Boron - Total	1	mg/l	1.83							
Bromide	–	mg/l	116							
Cadmium - Total	0.005	mg/l	0.005	LT						
Calcium - Total	–	mg/l	1890							
Chloride	250	mg/l	10500							
Chromium - Total	0.05	mg/l	0.01	LT						
Conductivity	–	UMHO/CM	27870							
Copper - Total	0.2	mg/l	0.025	LT						
Eh	–	VOLTS	444							
F2--	1.5	mg/l	2.45							
Hardness	–	mg/l								
Iron - Total	0.3	mg/l	0.1	LT						
Lead - Total	0.025	mg/l	0.003	LT	Not Sampled		Not Sampled		Not Sampled	
Lithium - Total	–	mg/l	6.02							
Magnesium - Total	–	mg/l	500	LT						
Manganese - Total	0.3	mg/l	0.207							
Mercury - Total	0.0007	mg/l	0.0002	LT						
Molybdenum - Total	–	mg/l	0.05	LT						
pH	6.5 to 8.5	SU	7.3							
Potassium - Total	–	mg/l	500	LT						
Selenium - Total	0.01	mg/l	0.005	LT						
Silver - Total	0.05	mg/l	0.01	LT						
Sodium - Total	20	mg/l	3330							
Strontium - Total	–	mg/l	43.2							
Sulfate	250	mg/l	690							
Temperature	–	Deg. C								
Total Dissolved Solids	500	mg/l	24100							
Turbidity	5	NTU	3.5							
Vanadium - Total	–	mg/l	0.05	LT						
Zinc - Total	–	mg/l	0.02	LT						

Notes:
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Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGUD-9138

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	60							
Aluminum - Total	–	mg/l	0.2	LT						
Ammonia	2	mg/l	4.9							
Arsenic - Total	0.025	mg/l	0.01	LT						
Boron - Total	1	mg/l	2.41							
Bromide	–	mg/l	127							
Cadmium - Total	0.005	mg/l	0.005	LT						
Calcium - Total	–	mg/l	2830							
Chloride	250	mg/l	11700							
Chromium - Total	0.05	mg/l	0.01	LT						
Conductivity	–	UMHO/CM	37210							
Copper - Total	0.2	mg/l	0.025	LT						
Eh	–	VOLTS	194							
F2--	1.5	mg/l	0.5	LT						
Hardness	–	mg/l								
Iron - Total	0.3	mg/l	0.1	LT						
Lead - Total	0.025	mg/l	0.003	LT						
Lithium - Total	–	mg/l	8.65		Not Sampled		Not Sampled		Not Sampled	
Magnesium - Total	–	mg/l	562							
Manganese - Total	0.3	mg/l	0.63							
Mercury - Total	0.0007	mg/l	0.0002	LT						
Molybdenum - Total	–	mg/l	0.05	LT						
pH	6.5 to 8.5	SU	7.1							
Potassium - Total	–	mg/l	500	LT						
Selenium - Total	0.01	mg/l	0.005	LT						
Silver - Total	0.05	mg/l	0.01	LT						
Sodium - Total	20	mg/l	3950							
Strontium - Total	–	mg/l	75.5							
Sulfate	250	mg/l	1010							
Temperature	–	Deg. C								
Total Dissolved Solids	500	mg/l	28600							
Turbidity	5	NTU	6.9							
Vanadium - Total	–	mg/l	0.05	LT						
Zinc - Total	–	mg/l	0.02	LT						

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
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Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGUD-9139

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	76							
Aluminum - Total	–	mg/l	0.2	LT						
Ammonia	2	mg/l	1.6							
Arsenic - Total	0.025	mg/l	0.01	LT						
Boron - Total	1	mg/l	3.56							
Bromide	–	mg/l	3.8							
Cadmium - Total	0.005	mg/l	0.005	LT						
Calcium - Total	–	mg/l	78.5							
Chloride	250	mg/l	359							
Chromium - Total	0.05	mg/l	0.01	LT						
Conductivity	–	UMHO/CM	2650							
Copper - Total	0.2	mg/l	0.025	LT						
Eh	–	VOLTS	34							
F2--	1.5	mg/l	1.04							
Hardness	–	mg/l								
Iron - Total	0.3	mg/l	0.1	LT						
Lead - Total	0.025	mg/l	0.003	LT						
Lithium - Total	–	mg/l	0.1	LT	Not Sampled		Not Sampled		Not Sampled	
Magnesium - Total	–	mg/l	17.4							
Manganese - Total	0.3	mg/l	0.0568							
Mercury - Total	0.0007	mg/l	0.0002	LT						
Molybdenum - Total	–	mg/l	0.05	LT						
pH	6.5 to 8.5	SU	7.9							
Potassium - Total	–	mg/l	30.4							
Selenium - Total	0.01	mg/l	0.005	LT						
Silver - Total	0.05	mg/l	0.01	LT						
Sodium - Total	20	mg/l	487							
Strontium - Total	–	mg/l	3.25							
Sulfate	250	mg/l	674							
Temperature	–	Deg. C								
Total Dissolved Solids	500	mg/l	1760							
Turbidity	5	NTU	0.8							
Vanadium - Total	–	mg/l	0.05	LT						
Zinc - Total	–	mg/l	0.02	LT						

Notes:
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Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGUSH9128

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	290		280		310		300	
Aluminum - Total	–	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Ammonia	2	mg/l	0.1	LT	0.2	LT	0.1	LT	0.1	LT
Arsenic - Total	0.025	mg/l	0.00424	J	0.01	LT	0.01	LT	0.00602	J
Boron - Total	1	mg/l	0.444		0.499		0.56		0.551	
Bromide	–	mg/l	1	LT	1.48		4.28		1	LT
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	–	mg/l	317		345		386		449	
Chloride	250	mg/l	103		162		414		91.4	
Chromium - Total	0.05	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Conductivity	–	UMHO/CM	1810		1950		2545		1910	
Copper - Total	0.2	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
Eh	–	VOLTS			82					
F2--	1.5	mg/l	0.26		0.2	LT	0.2	LT	0.25	
Hardness	–	mg/l			1110					
Iron - Total	0.3	mg/l	0.1	LT	0.1	LT	0.1	LT	0.1	LT
Lead - Total	0.025	mg/l	0.003	LT	0.003	LT	0.003	LT	0.003	LT
Lithium - Total	–	mg/l	0.163		0.436		0.1	LT	0.208	
Magnesium - Total	–	mg/l	57.6		60.4		82.9		54.9	
Manganese - Total	0.3	mg/l	0.0196		0.0336		0.0411		0.015	LT
Mercury - Total	0.0007	mg/l			0.0002	LT				
Molybdenum - Total	–	mg/l								
pH	6.5 to 8.5	SU	7.1		7.1		7.0		7.1	
Potassium - Total	–	mg/l	5	LT	5	LT	6.44		5	LT
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l	38.1		50	LT	83.4		32.5	
Strontium - Total	–	mg/l	0.888		1.12		1.69		0.741	
Sulfate	250	mg/l	669		657		537		705	
Temperature	–	Deg. C			11					
Total Dissolved Solids	500	mg/l	1580		1510		1670		4690	
Turbidity	5	NTU	6.3		3.3		12.0		1.0	
Vanadium - Total	–	mg/l								
Zinc - Total	–	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

Notes:
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Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGUSH9137

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	310							
Aluminum - Total	–	mg/l	0.2	LT						
Ammonia	2	mg/l	0.1	LT						
Arsenic - Total	0.025	mg/l	0.01	LT						
Boron - Total	1	mg/l	0.185							
Bromide	–	mg/l	1.89							
Cadmium - Total	0.005	mg/l	0.005	LT						
Calcium - Total	–	mg/l	110							
Chloride	250	mg/l	192							
Chromium - Total	0.05	mg/l	0.01	LT						
Conductivity	–	UMHO/CM	1440							
Copper - Total	0.2	mg/l	0.025	LT						
Eh	–	VOLTS	161							
F2--	1.5	mg/l	0.37							
Hardness	–	mg/l								
Iron - Total	0.3	mg/l	0.1	LT						
Lead - Total	0.025	mg/l	0.003	LT						
Lithium - Total	–	mg/l	0.1	LT	Not Sampled		Not Sampled		Not Sampled	
Magnesium - Total	–	mg/l	64.1							
Manganese - Total	0.3	mg/l	0.0232							
Mercury - Total	0.0007	mg/l	0.0002	LT						
Molybdenum - Total	–	mg/l	0.05	LT						
pH	6.5 to 8.5	SU	7.3							
Potassium - Total	–	mg/l	9.97							
Selenium - Total	0.01	mg/l	0.005	LT						
Silver - Total	0.05	mg/l	0.01	LT						
Sodium - Total	20	mg/l	71.2							
Strontium - Total	–	mg/l	2.11							
Sulfate	250	mg/l	144							
Temperature	–	Deg. C								
Total Dissolved Solids	500	mg/l	905							
Turbidity	5	NTU	3.9							
Vanadium - Total	–	mg/l	0.05	LT						
Zinc - Total	–	mg/l	0.02	LT						

Notes:
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Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGUSH9138

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	350							
Aluminum - Total	–	mg/l	0.2	LT						
Ammonia	2	mg/l	0.1	LT						
Arsenic - Total	0.025	mg/l	0.01	LT						
Boron - Total	1	mg/l	0.146							
Bromide	–	mg/l	1	LT						
Cadmium - Total	0.005	mg/l	0.005	LT						
Calcium - Total	–	mg/l	92.1							
Chloride	250	mg/l	51.7							
Chromium - Total	0.05	mg/l	0.01	LT						
Conductivity	–	UMHO/CM	1065							
Copper - Total	0.2	mg/l	0.025	LT						
Eh	–	VOLTS	158							
F2--	1.5	mg/l	0.42							
Hardness	–	mg/l								
Iron - Total	0.3	mg/l	0.1	LT						
Lead - Total	0.025	mg/l	0.003	LT						
Lithium - Total	–	mg/l	0.1	LT	Not Sampled		Not Sampled		Not Sampled	
Magnesium - Total	–	mg/l	59.1							
Manganese - Total	0.3	mg/l	0.015	LT						
Mercury - Total	0.0007	mg/l	0.0002	LT						
Molybdenum - Total	–	mg/l	0.05	LT						
pH	6.5 to 8.5	SU	7.4							
Potassium - Total	–	mg/l	5.86							
Selenium - Total	0.01	mg/l	0.005	LT						
Silver - Total	0.05	mg/l	0.01	LT						
Sodium - Total	20	mg/l	45.8							
Strontium - Total	–	mg/l	1.16							
Sulfate	250	mg/l	108							
Temperature	–	Deg. C								
Total Dissolved Solids	500	mg/l	495							
Turbidity	5	NTU	0.4							
Vanadium - Total	–	mg/l	0.05	LT						
Zinc - Total	–	mg/l	0.02	LT						

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2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGUSH9139

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	320							
Aluminum - Total	–	mg/l	0.2	LT						
Ammonia	2	mg/l	0.1	LT						
Arsenic - Total	0.025	mg/l	0.01	LT						
Boron - Total	1	mg/l	0.0774							
Bromide	–	mg/l	1	LT						
Cadmium - Total	0.005	mg/l	0.005	LT						
Calcium - Total	–	mg/l	117							
Chloride	250	mg/l	19.2							
Chromium - Total	0.05	mg/l	0.01	LT						
Conductivity	–	UMHO/CM	1005							
Copper - Total	0.2	mg/l	0.025	LT						
Eh	–	VOLTS	72							
F2--	1.5	mg/l	0.4							
Hardness	–	mg/l								
Iron - Total	0.3	mg/l	0.353							
Lead - Total	0.025	mg/l	0.003	LT	Not Sampled		Not Sampled		Not Sampled	
Lithium - Total	–	mg/l	0.1	LT						
Magnesium - Total	–	mg/l	54							
Manganese - Total	0.3	mg/l	0.0893							
Mercury - Total	0.0007	mg/l	0.0002	LT						
Molybdenum - Total	–	mg/l	0.05	LT						
pH	6.5 to 8.5	SU	7.3							
Potassium - Total	–	mg/l	5	LT						
Selenium - Total	0.01	mg/l	0.005	LT						
Silver - Total	0.05	mg/l	0.01	LT						
Sodium - Total	20	mg/l	22.1							
Strontium - Total	–	mg/l	0.75							
Sulfate	250	mg/l	195							
Temperature	–	Deg. C								
Total Dissolved Solids	500	mg/l	690							
Turbidity	5	NTU	1.6							
Vanadium - Total	–	mg/l	0.05	LT						
Zinc - Total	–	mg/l	0.02	LT						

Notes:
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Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGUXX8213

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	310							
Aluminum - Total	–	mg/l	0.2	LT						
Ammonia	2	mg/l	0.1	LT						
Arsenic - Total	0.025	mg/l	0.01	LT						
Boron - Total	1	mg/l	0.313							
Bromide	–	mg/l	1	LT						
Cadmium - Total	0.005	mg/l	0.005	LT						
Calcium - Total	–	mg/l	196							
Chloride	250	mg/l	3.71							
Chromium - Total	0.05	mg/l	0.01	LT						
Conductivity	–	UMHO/CM	1130							
Copper - Total	0.2	mg/l	0.028							
Eh	–	VOLTS								
F2--	1.5	mg/l	0.47							
Hardness	–	mg/l								
Iron - Total	0.3	mg/l	0.154							
Lead - Total	0.025	mg/l	0.00459		Not Sampled		Not Sampled		Not Sampled	
Lithium - Total	–	mg/l	0.1	LT						
Magnesium - Total	–	mg/l	28.6							
Manganese - Total	0.3	mg/l	0.015	LT						
Mercury - Total	0.0007	mg/l								
Molybdenum - Total	–	mg/l								
pH	6.5 to 8.5	SU	6.9							
Potassium - Total	–	mg/l	5	LT						
Selenium - Total	0.01	mg/l								
Silver - Total	0.05	mg/l								
Sodium - Total	20	mg/l	12.4							
Strontium - Total	–	mg/l	0.498							
Sulfate	250	mg/l	315							
Temperature	–	Deg. C								
Total Dissolved Solids	500	mg/l	890							
Turbidity	5	NTU	8.6							
Vanadium - Total	–	mg/l								
Zinc - Total	–	mg/l	0.02	LT						

Notes:
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Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGXGDXX01

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l			200					
Aluminum - Total	–	mg/l			0.2	LT				
Ammonia	2	mg/l			0.7					
Arsenic - Total	0.025	mg/l			0.01	LT				
Boron - Total	1	mg/l			0.367					
Bromide	–	mg/l			21.6					
Cadmium - Total	0.005	mg/l			0.005	LT				
Calcium - Total	–	mg/l			982					
Chloride	250	mg/l			2510					
Chromium - Total	0.05	mg/l			0.01	LT				
Conductivity	–	UMHO/CM			8225					
Copper - Total	0.2	mg/l			0.025	LT				
Eh	–	VOLTS			-7					
F2--	1.5	mg/l			0.29					
Hardness	–	mg/l			3394					
Iron - Total	0.3	mg/l			0.289					
Lead - Total	0.025	mg/l	DRY		0.003	LT	DRY		DRY	
Lithium - Total	–	mg/l			1.83					
Magnesium - Total	–	mg/l			229					
Manganese - Total	0.3	mg/l			0.87					
Mercury - Total	0.0007	mg/l			0.0002	LT				
Molybdenum - Total	–	mg/l			0.05	LT				
pH	6.5 to 8.5	SU			7.4					
Potassium - Total	–	mg/l			105					
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l			340					
Strontium - Total	–	mg/l			18.7					
Sulfate	250	mg/l			394					
Temperature	–	Deg. C			15					
Total Dissolved Solids	500	mg/l			7540					
Turbidity	5	NTU			4.2					
Vanadium - Total	–	mg/l			0.05	LT				
Zinc - Total	–	mg/l			0.02	LT				

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
– = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAPXUDXX01

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	28		14		28		30	
Aluminum - Total	–	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Ammonia	2	mg/l	2.1		2.6		2.6		2.7	
Arsenic - Total	0.025	mg/l	0.0176		0.0153		0.0116		0.0165	
Boron - Total	1	mg/l	0.672		0.594		0.659		0.642	
Bromide	–	mg/l	65.1		149		66.1		60.3	
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	–	mg/l	3300		2470		2520		2410	
Chloride	250	mg/l	6880		6110		7020		6510	
Chromium - Total	0.05	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Conductivity	–	UMHO/CM	18780		17880		18940		18900	
Copper - Total	0.2	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
Eh	–	VOLTS			-53					
F2--	1.5	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Hardness	–	mg/l			6192					
Iron - Total	0.3	mg/l	0.1	LT	0.1	LT	0.1	LT	0.1	LT
Lead - Total	0.025	mg/l	0.003	LT	0.003	LT	0.003	LT	0.003	LT
Lithium - Total	–	mg/l	12.7		13.4		13.1		12.3	
Magnesium - Total	–	mg/l	5	LT	5	LT	5	LT	5	LT
Manganese - Total	0.3	mg/l	0.015	LT	0.015	LT	0.015	LT	0.015	LT
Mercury - Total	0.0007	mg/l			0.0002	LT				
Molybdenum - Total	–	mg/l	0.216		0.206		0.221		0.222	
pH	6.5 to 8.5	SU	9.9		9.8		9.6		10	
Potassium - Total	–	mg/l	994		684		729		976	
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l	1520		1080		1130		1250	
Strontium - Total	–	mg/l	70.2		48.3		56.4		47.2	
Sulfate	250	mg/l	849		790		808		769	
Temperature	–	Deg. C			14					
Total Dissolved Solids	500	mg/l	13400		13800		13700		11700	
Turbidity	5	NTU	0.2		1.2		0.2		0.2	
Vanadium - Total	–	mg/l	0.05	LT	0.05	LT	0.05	LT	0.0533	
Zinc - Total	–	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
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Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAPXUDXX02

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	58		40		60		62	
Aluminum - Total	–	mg/l	0.2	LT	0.221		0.21		0.2	LT
Ammonia	2	mg/l	11.6		11.7		12.7		1.3	
Arsenic - Total	0.025	mg/l	0.0171		0.0154		0.0141		0.0456	
Boron - Total	1	mg/l	0.654		0.552		0.629		2.64	
Bromide	–	mg/l	111		96.8		113		103	
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	–	mg/l	6890		6190		6700		500	LT
Chloride	250	mg/l	16200		14700		16800		16200	
Chromium - Total	0.05	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Conductivity	–	UMHO/CM	37920		36880		38050		38100	
Copper - Total	0.2	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
Eh	–	VOLTS			-191					
F2--	1.5	mg/l	0.5	LT	0.5	LT	0.5	LT	0.5	LT
Hardness	–	mg/l			15470					
Iron - Total	0.3	mg/l	0.1	LT	0.1	LT	0.1	LT	0.1	LT
Lead - Total	0.025	mg/l	0.003	LT	0.003	LT	0.003	LT	0.003	LT
Lithium - Total	–	mg/l	15.4		16.9		15.4		2.41	
Magnesium - Total	–	mg/l	5	LT	5	LT	5	LT	15.7	
Manganese - Total	0.3	mg/l	0.015	LT	0.015	LT	0.015	LT	0.0157	
Mercury - Total	0.0007	mg/l			0.0002	LT				
Molybdenum - Total	–	mg/l	0.317		0.314		0.335		0.902	
pH	6.5 to 8.5	SU	9.9		9.7		9.7		10	
Potassium - Total	–	mg/l	1320		1180		1330		500	LT
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l	1860		1620		1760		1690	
Strontium - Total	–	mg/l	142		135		145		2.5	
Sulfate	250	mg/l	446		364		415		426	
Temperature	–	Deg. C			14					
Total Dissolved Solids	500	mg/l	25900		28200		27200		23800	
Turbidity	5	NTU	0.1		0.7		0.4		0.4	
Vanadium - Total	–	mg/l	0.05	LT	0.05	LT	0.05	LT	0.123	
Zinc - Total	–	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
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Appendix B. SWDA I Groundwater Analytical Summary
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Heorot Power - Somerset Operating Company
Barker, New York
SAPXUDXX03

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	92		44		100		100	
Aluminum - Total	–	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Ammonia	2	mg/l	12.6		12.5		12.7		13.2	
Arsenic - Total	0.025	mg/l	0.0158		0.0172		0.0137		0.0191	
Boron - Total	1	mg/l	0.673		0.583		0.707		0.671	
Bromide	–	mg/l	128		106		122		116	
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	–	mg/l	6760		7170		7230		6960	
Chloride	250	mg/l	18000		15700		18000		17800	
Chromium - Total	0.05	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Conductivity	–	UMHO/CM	42750		40740		41040		42320	
Copper - Total	0.2	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
Eh	–	VOLTS			-236					
F2--	1.5	mg/l	0.5	LT	0.5	LT	0.5	LT	0.5	LT
Hardness	–	mg/l			17930					
Iron - Total	0.3	mg/l	0.1	LT	0.1	LT	0.1	LT	0.1	LT
Lead - Total	0.025	mg/l	0.003	LT	0.003	LT	0.003	LT	0.003	LT
Lithium - Total	–	mg/l	19		20.2		17.4		18	
Magnesium - Total	–	mg/l	5.82		5.52		5.81		5.78	
Manganese - Total	0.3	mg/l	0.015	LT	0.015	LT	0.015	LT	0.015	LT
Mercury - Total	0.0007	mg/l			0.0002	LT				
Molybdenum - Total	–	mg/l	0.05	LT	0.12		0.05	LT	0.05	LT
pH	6.5 to 8.5	SU	9.9		9.7		9.7		10	
Potassium - Total	–	mg/l	1480		1530		1740		1570	
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l	2040		2140		2110		2120	
Strontium - Total	–	mg/l	142		156		157		145	
Sulfate	250	mg/l	644		382		612		3350	
Temperature	–	Deg. C			14					
Total Dissolved Solids	500	mg/l	29800		31100		29100		27000	
Turbidity	5	NTU	0.2		0.5		0.3		0.3	
Vanadium - Total	–	mg/l	0.05	LT	0.05	LT	0.05	LT	0.05	LT
Zinc - Total	–	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
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Appendix B. SWDA I Groundwater Analytical Summary
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Heorot Power - Somerset Operating Company
Barker, New York
SAPXUDXX04

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	48		52		68		68	
Aluminum - Total	–	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Ammonia	2	mg/l	7.7		7		8.8		8.9	
Arsenic - Total	0.025	mg/l	0.0115		0.00921	J	0.00802	J	0.0151	
Boron - Total	1	mg/l	1.21		1.25		1.23		1.16	
Bromide	–	mg/l	101		75.3		98.4		92.9	
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	–	mg/l	4340		3250		4370		4220	
Chloride	250	mg/l	9850		7670		9680		9070	
Chromium - Total	0.05	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Conductivity	–	UMHO/CM	25810		22000		24440		25700	
Copper - Total	0.2	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
Eh	–	VOLTS			-245					
F2--	1.5	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Hardness	–	mg/l			8215					
Iron - Total	0.3	mg/l	0.1	LT	0.1	LT	0.121		0.117	
Lead - Total	0.025	mg/l	0.003	LT	0.003	LT	0.003	LT	0.003	LT
Lithium - Total	–	mg/l	10.9		10.5		10		10.6	
Magnesium - Total	–	mg/l	23.8		22.1		20.8		22.2	
Manganese - Total	0.3	mg/l	0.07		0.0662		0.0646		0.0622	
Mercury - Total	0.0007	mg/l			0.0002	LT				
Molybdenum - Total	–	mg/l	0.05	LT	0.05	LT	0.05	LT	0.05	LT
pH	6.5 to 8.5	SU	7.6		7.0		7.0		7.2	
Potassium - Total	–	mg/l	726		513		762		749	
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l	1190		846		1200		1220	
Strontium - Total	–	mg/l	88.6		71.8		92.7		85.7	
Sulfate	250	mg/l	1220		1030		1090		985	
Temperature	–	Deg. C			14					
Total Dissolved Solids	500	mg/l	17900		16700		18800		16400	
Turbidity	5	NTU	95.0		3.3		2.0		18.0	
Vanadium - Total	–	mg/l	0.05	LT	0.05	LT	0.05	LT	0.05	LT
Zinc - Total	–	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
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Appendix B. SWDA I Groundwater Analytical Summary
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Heorot Power - Somerset Operating Company
Barker, New York
SAPXUDXX05

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	76		60		68		70	
Aluminum - Total	–	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Ammonia	2	mg/l	17.3		17.1		18.7		21.2	
Arsenic - Total	0.025	mg/l	0.0139		0.00774	J	0.0113		0.0162	
Boron - Total	1	mg/l	2.06		1.98		2.04		1.95	
Bromide	–	mg/l	93.8		81.1		96.8		97.2	
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	–	mg/l	3630		3390		3680		4300	
Chloride	250	mg/l	8920		8100		9440		9420	
Chromium - Total	0.05	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Conductivity	–	UMHO/CM	24100		22980		23840		26830	
Copper - Total	0.2	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
Eh	–	VOLTS			-186					
F2--	1.5	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Hardness	–	mg/l			8583					
Iron - Total	0.3	mg/l	1.08		0.602		0.827		0.775	
Lead - Total	0.025	mg/l	0.003	LT	0.003	LT	0.003	LT	0.003	LT
Lithium - Total	–	mg/l	14.7		16		14.6		15.5	
Magnesium - Total	–	mg/l	27		27.6		26.3		27.8	
Manganese - Total	0.3	mg/l	0.579		0.567		0.558		0.632	
Mercury - Total	0.0007	mg/l			0.0002	LT				
Molybdenum - Total	–	mg/l	0.05	LT	0.05	LT	0.05	LT	0.05	LT
pH	6.5 to 8.5	SU	7		7.1		7.1		7.2	
Potassium - Total	–	mg/l	1040		948		1080		1270	
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l	1310		1170		1310		1570	
Strontium - Total	–	mg/l	76.2		67.2		80.9		91.7	
Sulfate	250	mg/l	927		849		942		815	
Temperature	–	Deg. C			15					
Total Dissolved Solids	500	mg/l	16500		20600		18100		17700	
Turbidity	5	NTU	11.0		20.0		9.2		19.0	
Vanadium - Total	–	mg/l	0.05	LT	0.05	LT	0.05	LT	0.05	LT
Zinc - Total	–	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
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Appendix B. SWDA I Groundwater Analytical Summary
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Heorot Power - Somerset Operating Company
Barker, New York
SAPXUDXX06

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	64		40		76		75	
Aluminum - Total	–	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Ammonia	2	mg/l	19.5		17		20.4		22.6	
Arsenic - Total	0.025	mg/l	0.0255		0.0237		0.0165		0.0237	
Boron - Total	1	mg/l	2.41		2.37		2.35		2.19	
Bromide	–	mg/l	82.3		77.9		91.5		89.7	
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Total	–	mg/l	4060		3610		2970		3420	
Chloride	250	mg/l	8090		7340		8670		8390	
Chromium - Total	0.05	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Conductivity	–	UMHO/CM	24370		21070		22480		24900	
Copper - Total	0.2	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
Eh	–	VOLTS			-200					
F2--	1.5	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Hardness	–	mg/l			9145					
Iron - Total	0.3	mg/l	0.112		0.112		0.1	LT	0.1	LT
Lead - Total	0.025	mg/l	0.003	LT	0.003	LT	0.003	LT	0.003	LT
Lithium - Total	–	mg/l	13.6		13.5		13		13.5	
Magnesium - Total	–	mg/l	28.2		29.7		26.9		26.3	
Manganese - Total	0.3	mg/l	0.343		0.297		0.314		0.302	
Mercury - Total	0.0007	mg/l			0.0002	LT				
Molybdenum - Total	–	mg/l	0.05	LT	0.0535		0.05	LT	0.05	LT
pH	6.5 to 8.5	SU	7.3		7.2		7.3		7.8	
Potassium - Total	–	mg/l	1260		1120		949		1110	
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l	1630		1400		1190		1430	
Strontium - Total	–	mg/l	88.3		81		67.2		75.3	
Sulfate	250	mg/l	737		783		794		727	
Temperature	–	Deg. C			15					
Total Dissolved Solids	500	mg/l	16700		17500		16200		15700	
Turbidity	5	NTU	57.0		2.6		13.0		79.0	
Vanadium - Total	–	mg/l	0.05	LT	0.05	LT	0.05	LT	0.05	LT
Zinc - Total	–	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
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Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SASXSPXX01

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l	DRY		14		30		38	
Aluminum - Total	–	mg/l			0.2	LT	0.2	LT	0.2	LT
Ammonia	2	mg/l			2.8		3.8		4.7	
Arsenic - Total	0.025	mg/l			0.0055	J	0.0225		0.0132	
Boron - Total	1	mg/l			0.754		1.26		0.765	
Bromide	–	mg/l			49.6		80.9		51.9	
Cadmium - Total	0.005	mg/l			0.005	LT	0.005	LT	0.005	LT
Calcium - Total	–	mg/l			2610		3470		2930	
Chloride	250	mg/l			5510		8880		5770	
Chromium - Total	0.05	mg/l			0.01	LT	0.01	LT	0.01	LT
Conductivity	–	UMHO/CM			16070		22720		17250	
Copper - Total	0.2	mg/l			0.025	LT	0.025	LT	0.025	LT
Eh	–	VOLTS			-23					
F2--	1.5	mg/l			0.2	LT	0.2	LT	0.2	LT
Hardness	–	mg/l			6589					
Iron - Total	0.3	mg/l			0.122		0.479		0.258	
Lead - Total	0.025	mg/l			0.003	LT	0.003	LT	0.003	LT
Lithium - Total	–	mg/l			8.06		10.4		7.51	
Magnesium - Total	–	mg/l			20.3		22.6		19.2	
Manganese - Total	0.3	mg/l			0.216		0.383		0.188	
Mercury - Total	0.0007	mg/l			0.0002	LT				
Molybdenum - Total	–	mg/l			0.0543		0.05	LT	0.0563	
pH	6.5 to 8.5	SU			8.4		6.2		7.9	
Potassium - Total	–	mg/l			500	LT	731		590	
Selenium - Total	0.01	mg/l			0.005	LT				
Silver - Total	0.05	mg/l			0.01	LT				
Sodium - Total	20	mg/l			752		1050		915	
Strontium - Total	–	mg/l			46.8		71.7		57.6	
Sulfate	250	mg/l			763		1020		692	
Temperature	–	Deg. C			23					
Total Dissolved Solids	500	mg/l			13200		16300		10500	
Turbidity	5	NTU			3.9		12.0		5.6	
Vanadium - Total	–	mg/l			0.05	LT	0.05	LT	0.05	LT
Zinc - Total	–	mg/l			0.02	LT	0.02	LT	0.02	LT

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
– = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix B. SWDA I Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SASXSPXX02

Analyte	Class GA Groundwater Standard [1]	Units	Jan-21		Apr-21		Jul-21		Oct-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	–	mg/l							62	
Aluminum - Total	–	mg/l							0.2	LT
Ammonia	2	mg/l							0.2	
Arsenic - Total	0.025	mg/l							0.0063	J
Boron - Total	1	mg/l							0.547	
Bromide	–	mg/l							14.3	
Cadmium - Total	0.005	mg/l							0.005	LT
Calcium - Total	–	mg/l							827	
Chloride	250	mg/l							1550	
Chromium - Total	0.05	mg/l							0.0129	
Conductivity	–	UMHO/CM							5870	
Copper - Total	0.2	mg/l							0.025	LT
Eh	–	VOLTS								
F2--	1.5	mg/l							0.2	LT
Hardness	–	mg/l								
Iron - Total	0.3	mg/l							0.198	
Lead - Total	0.025	mg/l	DRY		DRY		DRY		0.003	LT
Lithium - Total	–	mg/l							2.72	
Magnesium - Total	–	mg/l							12.9	
Manganese - Total	0.3	mg/l							0.0407	
Mercury - Total	0.0007	mg/l								
Molybdenum - Total	–	mg/l							0.05	LT
pH	6.5 to 8.5	SU							7.9	
Potassium - Total	–	mg/l							234	
Selenium - Total	0.01	mg/l								
Silver - Total	0.05	mg/l								
Sodium - Total	20	mg/l							327	
Strontium - Total	–	mg/l							11.8	
Sulfate	250	mg/l							592	
Temperature	–	Deg. C								
Total Dissolved Solids	500	mg/l							3770	
Turbidity	5	NTU							9.1	
Vanadium - Total	–	mg/l							0.05	LT
Zinc - Total	–	mg/l							0.02	LT

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
– = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix C

SWDA II Analytical Results

Appendix C. SWDA II Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGUSH-0201

Analyte	Class GA Groundwater Standard [1]	Assessment Trigger Value	Units	Mar-21		May-21		Sep-21		Nov-21	
				Value	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	—	419	mg/l	400		380		390		408	
Aluminum-Dissolved	0.1	0.050	mg/l								
Aluminum-Total	0.1	9.79	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Ammonia	2	0.50	mg/l	0.1	LT	0.1	LT	0.1	LT	0.1	LT
Arsenic-Dissolved	0.025	0.020	mg/l								
Arsenic-Total	0.025	0.0141	mg/l	0.00611	J	0.01	LT	0.00737	J	0.01	LT
Boron-Dissolved	1	0.221	mg/l								
Boron-Total	1	0.28	mg/l	0.0812		0.064		0.0861		0.0786	
Bromide	—	5.2	mg/l	1	LT	1	LT	1	LT		
Cadmium-Dissolved	0.005	0.005	mg/l								
Cadmium-Total	0.005	0.0029	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium-Dissolved	—	290	mg/l								
Calcium-Total	—	317	mg/l	257		281		214		251	
Chloride	250	730	mg/l	564		618		429		635	
Chromium-Dissolved	0.05	0.010	mg/l								
Chromium-Total	0.05	0.017	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Conductivity	—	7697	UMHO/CM	2845		2800		2335		2795	
Copper-Dissolved	0.2	0.010	mg/l								
Copper-Total	0.2	0.0139	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
EH–	—	477	VOLTS	22		63		8		65	
Fluoride	1.5	0.3	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Hardness	—		mg/l	1040		1150		884		1018	
Iron-Dissolved	0.3	0.384	mg/l								
Iron-Total	0.3	17.01	mg/l	0.1	LT	0.1	LT	0.1	LT	0.1	LT
Lead-Dissolved	0.025	0.020	mg/l								
Lead-Total	0.025	0.0092	mg/l	0.003	LT	0.003	LT	0.003	LT	0.003	LT
Lithium-Dissolved	—	0.5	mg/l								
Lithium-Total	—	0.385	mg/l	0.1	LT	0.1	LT	0.1	LT	0.1	LT
Magnesium-Dissolved	35	129.3	mg/l								
Magnesium-Total	35	136.0	mg/l	96.6		109		84.9		95.2	
Manganese-Dissolved	0.3	0.027	mg/l								
Manganese-Total	0.3	0.72	mg/l	0.015	LT	0.0232		0.0175		0.015	LT
Mercury-Dissolved	0.0007	0.0002	mg/l								
Mercury-Total	0.0007	0.0003	mg/l	0.0002	LT	0.0002	LT	0.0002	LT	0.0002	LT
Molybdenum-Dissolved	—	0.010	mg/l								
Molybednum-Total	—	0.0057	mg/l	0.05	LT	0.05	LT	0.05	LT	0.05	LT
pH	6.5 to 8.5	7.6	SU	7.1		7		7.0		7.0	
Potassium-Dissolved	—	7.31	mg/l								
Potassium-Total	—	8.78	mg/l	8.01		8.55		6.93		8.18	
Selenium-Dissolved	0.01	0.012	mg/l								
Selenium-Total	0.01	0.0109	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Silver-Dissolved	0.05	0.010	mg/l								
Silver-Total	0.05	0.0102	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Sodium-Dissolved	20	175	mg/l								
Sodium-Total	20	183	mg/l	218		265		196		253	
Strontium-Dissolved	—	2.55	mg/l								
Strontium-Total	—	2.59	mg/l	1.78		1.89		1.43		1.5	
Sulfate	250	253	mg/l	191		195		194		187	
Temperature	—		Deg. C.	9.0		9.0		9.0		12.0	
Total Dissolved Solids	500	2116	mg/l	1500		1740		1480		1640	
Turbidity	5	463	NTU	2.3		0.6		7.6		1.4	
Vanadium-Dissolved	—	0.010	mg/l								
Vanadium-Total	—	0.019	mg/l	0.05	LT	0.05	LT	0.05	LT	0.05	LT
Zinc-Dissolved	2.0	0.010	mg/l								
Zinc-Total	2.0	0.0416	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

See "notes page" at end of table.

Appendix C. SWDA II Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGUD-0201

Analyte	Class GA Groundwater Standard [1]	Assessment Trigger Value	Units	Mar-21		May-21		Sep-21		Nov-21	
				Value	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	—	34.7	mg/l	34		30		34		28	
Aluminum-Dissolved	0.1	0.107	mg/l								
Aluminum-Total	0.1	0.1486	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Ammonia	2	6.83	mg/l	8.9		8.6		8.7		8.7	
Arsenic-Dissolved	0.025	0.020	mg/l								
Arsenic-Total	0.025	0.0224	mg/l	0.011		0.00839	J	0.012		0.0035	J
Boron-Dissolved	1	4.05	mg/l								
Boron-Total	1	4.07	mg/l	2.9		2.74		2.87		2.73	
Bromide	—	166	mg/l	72.8		71.6		86.7			
Cadmium-Dissolved	0.005	0.005	mg/l								
Cadmium-Total	0.005	0.0029	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium-Dissolved	—	1321	mg/l								
Calcium-Total	—	1328	mg/l	1210		1240		1330		1320	
Chloride	250	8992	mg/l	6650		6550		7620		8220	
Chromium-Dissolved	0.05	0.010	mg/l								
Chromium-Total	0.05	0.005	mg/l	0.01	LT	0.0735		0.01	LT	0.01	LT
Conductivity	—	25596	UMHO/CM	21110		20840		20700		22150	
Copper-Dissolved	0.2	0.010	mg/l								
Copper-Total	0.2	0.0045	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
EH–	—	232	VOLTS	-70		-23		-81		-72	
Fluoride	1.5	0.66	mg/l	0.2	LT	2.69		0.2	LT	0.2	LT
Hardness	—		mg/l	3829		3956		4167		4205	
Iron-Dissolved	0.3	2.97	mg/l								
Iron-Total	0.3	3.08	mg/l	1.9		2.17		2.25		2.13	
Lead-Dissolved	0.025	0.020	mg/l								
Lead-Total	0.025	0.0102	mg/l	0.003	LT	0.003	LT	0.003	LT	0.003	LT
Lithium-Dissolved	—	4.81	mg/l								
Lithium-Total	—	4.34	mg/l	4.51		3.6		5.3		5.84	
Magnesium-Dissolved	35	198	mg/l								
Magnesium-Total	35	195	mg/l	194		206		208		218	
Manganese-Dissolved	0.3	1.50	mg/l								
Manganese-Total	0.3	1.49	mg/l	0.899		0.969		0.996		0.982	
Mercury-Dissolved	0.0007	0.0002	mg/l								
Mercury-Total	0.0007	0.0003	mg/l	0.0002	LT	0.0002	LT	0.0002	LT	0.0002	LT
Molybdenum-Dissolved	—	0.011	mg/l								
Molybednum-Total	—	0.0184	mg/l	0.05	LT	0.05	LT	0.05	LT	0.05	LT
pH	6.5 to 8.5	7.8	SU	7.6		7.5		7.4		7.5	
Potassium-Dissolved	—	105	mg/l								
Potassium-Total	—	128	mg/l	87.5	J	88.3	LT	90.6	LT	170	
Selenium-Dissolved	0.01	0.010	mg/l								
Selenium-Total	0.01	0.0181	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Silver-Dissolved	0.05	0.010	mg/l								
Silver-Total	0.05	0.0101	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Sodium-Dissolved	20	4026	mg/l								
Sodium-Total	20	4906	mg/l	2690		2940		3180		3140	
Strontium-Dissolved	—	27.9	mg/l								
Strontium-Total	—	27.6	mg/l	23.2		26		25		25.7	
Sulfate	250	1931	mg/l	1690		1670		1980		1840	
Temperature	—		Deg. C.	11.0		10.0		9.0		10.0	
Total Dissolved Solids	500	18492	mg/l	14000		14800		14200		15200	
Turbidity	5	20	NTU	0.3		0.5		3.6		0.5	
Vanadium-Dissolved	—	0.010	mg/l								
Vanadium-Total	—	0.004	mg/l	0.05	LT	0.05	LT	0.05	LT	0.05	LT
Zinc-Dissolved	2.0	0.010	mg/l								
Zinc-Total	2.0	0.0053	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

See "notes page" at end of table.

Appendix C. SWDA II Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGCSH-0202

Analyte	Class GA Groundwater Standard [1]	Assessment Trigger Value	Units	Jan-21		Apr-21		Jul-21		Oct-21	
				Value	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	—	359	mg/l	330		300		320		310	
Aluminum-Dissolved	0.1	0.357	mg/l								
Aluminum-Total	0.1	6.54	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Ammonia	2	0.50	mg/l	0.1	LT	0.1	LT	0.1	LT	0.1	LT
Arsenic-Dissolved	0.025	0.020	mg/l								
Arsenic-Total	0.025	0.0131	mg/l	0.01	LT	0.0051	J	0.00437	J	0.01	LT
Boron-Dissolved	1	0.928	mg/l								
Boron-Total	1	0.988	mg/l	0.315		0.05	LT	0.322		0.206	
Bromide	—	1.1	mg/l	1	LT	1	LT	1	LT		
Cadmium-Dissolved	0.005	0.005	mg/l								
Cadmium-Total	0.005	0.0029	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium-Dissolved	—	120	mg/l								
Calcium-Total	—	126	mg/l	124		139		123		134	
Chloride	250	97	mg/l	97.8		24.2		111		66.7	
Chromium-Dissolved	0.05	0.010	mg/l								
Chromium-Total	0.05	0.011	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Conductivity	—	2338	UMHO/CM	1155		1060		1125		1080	
Copper-Dissolved	0.2	0.010	mg/l								
Copper-Total	0.2	0.0044	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
EH–	—	553	VOLTS	68		99		40		96	
Fluoride	1.5	0.3	mg/l	0.2	LT	0.2	LT	0.23		0.2	LT
Hardness	—		mg/l	518		505		512		493	
Iron-Dissolved	0.3	0.378	mg/l								
Iron-Total	0.3	9.53	mg/l	0.101		0.1	LT	0.1	LT	0.1	LT
Lead-Dissolved	0.025	0.020	mg/l								
Lead-Total	0.025	0.0094	mg/l	0.003	LT	0.003	LT	0.003	LT	0.003	LT
Lithium-Dissolved	—	0.5	mg/l								
Lithium-Total	—	0.387	mg/l	0.172		0.1	LT	0.313		0.214	
Magnesium-Dissolved	35	50.2	mg/l								
Magnesium-Total	35	48.5	mg/l	50.5		37.7		49.9		38.4	
Manganese-Dissolved	0.3	0.086	mg/l								
Manganese-Total	0.3	0.30	mg/l	0.015	LT	0.015	LT	0.015	LT	0.015	LT
Mercury-Dissolved	0.0007	0.0003	mg/l								
Mercury-Total	0.0007	0.0003	mg/l	0.0002	LT	0.0002	LT	0.0002	LT	0.0002	LT
Molybdenum-Dissolved	—	0.010	mg/l								
Molybednum-Total	—	0.0107	mg/l	0.05	LT	0.05	LT	0.05	LT	0.05	LT
pH	6.5 to 8.5	8.0	SU	7.3		7.2		7.2		7.1	
Potassium-Dissolved	—	12.72	mg/l								
Potassium-Total	—	12.18	mg/l	5.9		1.4	J	6.46		3.6	J
Selenium-Dissolved	0.01	0.010	mg/l								
Selenium-Total	0.01	0.0109	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Silver-Dissolved	0.05	0.010	mg/l								
Silver-Total	0.05	0.0101	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Sodium-Dissolved	20	51.5	mg/l								
Sodium-Total	20	47.0	mg/l	30.3		15.9		31.2		22.6	
Strontium-Dissolved	—	2.63	mg/l								
Strontium-Total	—	2.57	mg/l	1.52		0.567		1.62		0.991	
Sulfate	250	165	mg/l	124		172		131		189	
Temperature	—		Deg. C.	9.0		9.0		10.0		12.0	
Total Dissolved Solids	500	622	mg/l	690		730		685		575	
Turbidity	5	885	NTU	9.3		7.2		12.0		9.2	
Vanadium-Dissolved	—	0.010	mg/l								
Vanadium-Total	—	0.014	mg/l	0.05	LT	0.05	LT	0.05	LT	0.05	LT
Zinc-Dissolved	2.0	0.010	mg/l								
Zinc-Total	2.0	0.0228	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

See "notes page" at end of table.

Appendix C. SWDA II Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGDD-0203

Analyte	Class GA Groundwater Standard [1]	Assessment Trigger Value	Units	Mar-21		May-21		Sep-21		Nov-21	
				Value	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	—	30.6	mg/l			22				16	
Aluminum-Dissolved	0.1	0.719	mg/l								
Aluminum-Total	0.1	0.739	mg/l			0.2	LT				
Ammonia	2	16.3	mg/l			17.9				18.5	
Arsenic-Dissolved	0.025	0.025	mg/l								
Arsenic-Total	0.025	0.0350	mg/l			0.00389	J			0.00443	J
Boron-Dissolved	1	3.82	mg/l								
Boron-Total	1	3.94	mg/l			2.08				2.07	
Bromide	—	670	mg/l			289					
Cadmium-Dissolved	0.005	0.005	mg/l								
Cadmium-Total	0.005	0.0020	mg/l			0.005	LT			0.005	LT
Calcium-Dissolved	—	5923	mg/l								
Calcium-Total	—	6290	mg/l			4850				4980	
Chloride	250	27742	mg/l			25300					
Chromium-Dissolved	0.05	0.010	mg/l								
Chromium-Total	0.05	0.004	mg/l			0.01	LT				
Conductivity	—	104393	UMHO/CM			62000				64610	
Copper-Dissolved	0.2	0.010	mg/l								
Copper-Total	0.2	0.0042	mg/l			0.025	LT				
EH–	—	660	VOLTS			16				21	
Fluoride	1.5	0.217	mg/l			0.5	LT				
Hardness	—		mg/l			15220					
Iron-Dissolved	0.3	11.40	mg/l								
Iron-Total	0.3	11.61	mg/l			4.28				4.37	
Lead-Dissolved	0.025	0.020	mg/l								
Lead-Total	0.025	0.0099	mg/l			0.003	LT				
Lithium-Dissolved	—	8.71	mg/l								
Lithium-Total	—	9.11	mg/l	DRY		12.8		DRY		16.8	
Magnesium-Dissolved	35	762	mg/l								
Magnesium-Total	35	782	mg/l			756				789	
Manganese-Dissolved	0.3	6.89	mg/l								
Manganese-Total	0.3	7.04	mg/l			2.93				3.02	
Mercury-Dissolved	0.0007	0.0002	mg/l								
Mercury-Total	0.0007	0.0004	mg/l			0.0002	LT				
Molybdenum-Dissolved	—	0.010	mg/l								
Molybednum-Total	—	0.0055	mg/l			0.05	LT			0.05	LT
pH	6.5 to 8.5	7.7	SU			7				6.9	
Potassium-Dissolved	—	284	mg/l								
Potassium-Total	—	268	mg/l			268	J			253	J
Selenium-Dissolved	0.01	0.010	mg/l								
Selenium-Total	0.01	0.0095	mg/l			0.005	LT				
Silver-Dissolved	0.05	0.031	mg/l								
Silver-Total	0.05	0.0554	mg/l			0.01	LT				
Sodium-Dissolved	20	10429	mg/l								
Sodium-Total	20	11670	mg/l			8290				9640	
Strontium-Dissolved	—	102.8	mg/l								
Strontium-Total	—	101.1	mg/l			111				111	
Sulfate	250	1396	mg/l			1240					
Temperature	—		Deg. C.			8				13	
Total Dissolved Solids	500	89719	mg/l			46400				45500	
Turbidity	5	23	NTU			13				2.1	
Vanadium-Dissolved	—	0.010	mg/l								
Vanadium-Total	—	0.011	mg/l			0.05	LT				
Zinc-Dissolved	2.0	0.029	mg/l								
Zinc-Total	2.0	0.0227	mg/l			0.02	LT				

See "notes page" at end of table.

Appendix C. SWDA II Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGDSH-0203

Analyte	Class GA Groundwater Standard [1]	Assessment Trigger Value	Units	Mar-21		May-21		Sep-21		Nov-21	
				Value	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	—	360	mg/l	290		280		300		320	
Aluminum-Dissolved	0.1	0.107	mg/l								
Aluminum-Total	0.1	1.94	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Ammonia	2	0.50	mg/l	0.1	LT	0.1	LT	0.1	LT	0.1	LT
Arsenic-Dissolved	0.025	0.020	mg/l								
Arsenic-Total	0.025	0.0127	mg/l	0.00506	J	0.01	LT	0.00412	J	0.01	LT
Boron-Dissolved	1	0.259	mg/l								
Boron-Total	1	0.240	mg/l	0.079		0.0614		0.0992		0.0915	
Bromide	—	8.4	mg/l	1.28		1	LT	1.05			
Cadmium-Dissolved	0.005	0.005	mg/l								
Cadmium-Total	0.005	0.0029	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium-Dissolved	—	264	mg/l								
Calcium-Total	—	242	mg/l	164		153		134		136	
Chloride	250	778	mg/l	143		83.7		124		106	
Chromium-Dissolved	0.05	0.010	mg/l								
Chromium-Total	0.05	0.004	mg/l	0.01	LT	0.01	LT	0.01	LT	0.00568	J
Conductivity	—	1947	UMHO/CM	1455		1240		1235		1275	
Copper-Dissolved	0.2	0.010	mg/l								
Copper-Total	0.2	0.0043	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
EH–	—	670	VOLTS	64		81		-11		52	
Fluoride	1.5	0.3	mg/l	0.2	LT	0.2	LT	0.23		0.24	
Hardness	—		mg/l	627		543		520		521	
Iron-Dissolved	0.3	0.187	mg/l								
Iron-Total	0.3	2.37	mg/l	0.372		0.402		0.591		0.342	
Lead-Dissolved	0.025	0.020	mg/l								
Lead-Total	0.025	0.0088	mg/l	0.003	LT	0.003	LT	0.003	LT	0.003	LT
Lithium-Dissolved	—	0.5	mg/l								
Lithium-Total	—	0.387	mg/l	0.1	LT	0.1	LT	0.1	LT	0.401	
Magnesium-Dissolved	35	88	mg/l								
Magnesium-Total	35	79.6	mg/l	53		38.9		45.1		44.2	
Manganese-Dissolved	0.3	0.123	mg/l								
Manganese-Total	0.3	0.16	mg/l	0.0339		0.015	LT	0.0337		0.015	LT
Mercury-Dissolved	0.0007	0.0002	mg/l								
Mercury-Total	0.0007	0.0003	mg/l	0.0002	LT	0.0002	LT	0.0002	LT	0.0002	LT
Molybdenum-Dissolved	—	0.010	mg/l								
Molybednum-Total	—	0.0059	mg/l	0.05	LT	0.05	LT	0.05	LT	0.05	LT
pH	6.5 to 8.5	7.9	SU	7.2		7.3		7.2		7.2	
Potassium-Dissolved	—	8.4	mg/l								
Potassium-Total	—	7.05	mg/l	4.27	J	3.92	J	4.92	J	4.56	J
Selenium-Dissolved	0.01	0.010	mg/l								
Selenium-Total	0.01	0.0120	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Silver-Dissolved	0.05	0.010	mg/l								
Silver-Total	0.05	0.0109	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Sodium-Dissolved	20	143.3	mg/l								
Sodium-Total	20	114.2	mg/l	42.4		43.4		50	LT	44.3	
Strontium-Dissolved	—	2.32	mg/l								
Strontium-Total	—	1.92	mg/l	1		0.838		0.997		0.909	
Sulfate	250	140	mg/l	249		186		179		176	
Temperature	—		Deg. C.	9.0		9.0		9.0		12.0	
Total Dissolved Solids	500	2507	mg/l	845		855		790		665	
Turbidity	5	54	NTU	16.0		6.6		40.0		10.0	
Vanadium-Dissolved	—	0.010	mg/l								
Vanadium-Total	—	0.004	mg/l	0.05	LT	0.05	LT	0.05	LT	0.05	LT
Zinc-Dissolved	2.0	0.010	mg/l								
Zinc-Total	2.0	0.0069	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

See "notes page" at end of table.

Appendix C. SWDA II Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGDSH-0204

Analyte	Class GA Groundwater Standard [1]	Assessment Trigger Value	Units	Mar-21		May-21		Sep-21		Nov-21	
				Value	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	—	347	mg/l	380		300		380		150	
Aluminum-Dissolved	0.1	0.155	mg/l								
Aluminum-Total	0.1	16.64	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Ammonia	2	0.50	mg/l	0.1	LT	0.1	LT	0.1	LT	0.1	LT
Arsenic-Dissolved	0.025	0.020	mg/l								
Arsenic-Total	0.025	0.0210	mg/l	0.00476	J	0.01	LT	0.00468	J	0.01	LT
Boron-Dissolved	1	0.204	mg/l								
Boron-Total	1	0.238	mg/l	0.0558		0.05	LT	0.0618		0.0613	
Bromide	—	10.9	mg/l	1.61		1	LT	1.35			
Cadmium-Dissolved	0.005	0.005	mg/l								
Cadmium-Total	0.005	0.0029	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium-Dissolved	—	234	mg/l								
Calcium-Total	—	285	mg/l	163		143		168		139	
Chloride	250	1188	mg/l	169		104		150		150	
Chromium-Dissolved	0.05	0.010	mg/l								
Chromium-Total	0.05	0.044	mg/l	0.0054	J	0.01	LT	0.01	LT	0.01	LT
Conductivity	—	2632	UMHO/CM	1505		1135		1445		1235	
Copper-Dissolved	0.2	0.010	mg/l								
Copper-Total	0.2	0.0185	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
EH–	—	524	VOLTS	90		75		22		82	
Fluoride	1.5	0.3	mg/l	0.2	LT	0.2	LT	0.21		0.22	
Hardness	—		mg/l	630		513		651		544	
Iron-Dissolved	0.3	0.137	mg/l								
Iron-Total	0.3	45.1	mg/l	0.115		0.597		0.176		0.1	LT
Lead-Dissolved	0.025	0.020	mg/l								
Lead-Total	0.025	0.0139	mg/l	0.003	LT	0.003	LT	0.003	LT	0.003	LT
Lithium-Dissolved	—	0.5	mg/l								
Lithium-Total	—	0.382	mg/l	0.1	LT	0.1	LT	0.1	LT	0.376	
Magnesium-Dissolved	35	66.0	mg/l								
Magnesium-Total	35	76.4	mg/l	54		37.9		56.3		47.8	
Manganese-Dissolved	0.3	0.091	mg/l								
Manganese-Total	0.3	1.36	mg/l	0.015	LT	0.015	LT	0.015	LT	0.015	LT
Mercury-Dissolved	0.0007	0.0002	mg/l								
Mercury-Total	0.0007	0.0003	mg/l	0.0002	LT	0.0002	LT	0.0002	LT	0.0002	LT
Molybdenum-Dissolved	—	0.010	mg/l								
Molybednum-Total	—	0.0078	mg/l	0.05	LT	0.05	LT	0.05	LT	0.05	LT
pH	6.5 to 8.5	8.1	SU	7.2		7.2		7.1		7.1	
Potassium-Dissolved	—	10.17	mg/l								
Potassium-Total	—	16.51	mg/l	3.22	J	1.23	J	3.27	J	2.97	J
Selenium-Dissolved	0.01	0.012	mg/l								
Selenium-Total	0.01	0.0110	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Silver-Dissolved	0.05	0.010	mg/l								
Silver-Total	0.05	0.0101	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Sodium-Dissolved	20	184	mg/l								
Sodium-Total	20	183	mg/l	71.5		36.4		54.1		45.4	
Strontium-Dissolved	—	2.67	mg/l								
Strontium-Total	—	2.88	mg/l	0.83		0.411		0.857		0.613	
Sulfate	250	171	mg/l	146		92.7		166		151	
Temperature	—		Deg. C.	9.0		9.0		11.0		13	
Total Dissolved Solids	500	1973	mg/l	800		700		915		710	
Turbidity	5	1142	NTU	6.0		5.0		21.0		1.9	
Vanadium-Dissolved	—	0.010	mg/l								
Vanadium-Total	—	0.053	mg/l	0.05	LT	0.05	LT	0.05	LT	0.05	LT
Zinc-Dissolved	2.0	0.010	mg/l								
Zinc-Total	2.0	0.0838	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

See "notes page" at end of table.

Appendix C. SWDA II Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGDSH-0205

Analyte	Class GA Groundwater Standard [1]	Assessment Trigger Value	Units	Mar-21		May-21		Sep-21		Nov-21	
				Value	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	—	462	mg/l	360		360		300		360	
Aluminum-Dissolved	0.1	0.050	mg/l								
Aluminum-Total	0.1	12.78	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Ammonia	2	0.50	mg/l	0.1	LT	0.1	LT	0.1	LT	0.1	LT
Arsenic-Dissolved	0.025	0.020	mg/l								
Arsenic-Total	0.025	0.0122	mg/l	0.00347	J	0.00517	J	0.00468	J	0.01	LT
Boron-Dissolved	1	0.197	mg/l								
Boron-Total	1	0.256	mg/l	0.0589		0.0516		0.0778		0.0746	
Bromide	—	1.0	mg/l	1	LT	1	LT	1	LT		
Cadmium-Dissolved	0.005	0.005	mg/l								
Cadmium-Total	0.005	0.0029	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium-Dissolved	—	82.3	mg/l								
Calcium-Total	—	101.9	mg/l	86		80.8		95.6		84.6	
Chloride	250	66.8	mg/l	41		35.4		86.9		61.7	
Chromium-Dissolved	0.05	0.010	mg/l								
Chromium-Total	0.05	0.0231	mg/l	0.01	LT	0.01	LT	0.00486	J	0.01	LT
Conductivity	—	980	UMHO/CM	1015		970		1120		1070	
Copper-Dissolved	0.2	0.010	mg/l								
Copper-Total	0.2	0.0060	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
EH-	—	597	VOLTS	93		92		26		84	
Fluoride	1.5	0.3	mg/l	0.2	LT	0.2	LT	0.23		0.21	
Hardness	—		mg/l	491		470		542		473	
Iron-Dissolved	0.3	0.114	mg/l								
Iron-Total	0.3	16.6	mg/l	0.1	LT	0.1	LT	0.104		0.1	LT
Lead-Dissolved	0.025	0.020	mg/l								
Lead-Total	0.025	0.0093	mg/l	0.003	LT	0.003	LT	0.003	LT	0.003	LT
Lithium-Dissolved	—	0.5	mg/l								
Lithium-Total	—	0.387	mg/l	0.139		0.118		0.325		0.275	
Magnesium-Dissolved	35	72.7	mg/l								
Magnesium-Total	35	78.1	mg/l	67.3		65.1		73.6		63.7	
Manganese-Dissolved	0.3	0.093	mg/l								
Manganese-Total	0.3	0.46	mg/l	0.015	LT	0.015	LT	0.015	LT	0.015	LT
Mercury-Dissolved	0.0007	0.0002	mg/l								
Mercury-Total	0.0007	0.0003	mg/l	0.0002	LT	0.0002	LT	0.0002	LT	0.0002	LT
Molybdenum-Dissolved	—	0.039	mg/l								
Molybednum-Total	—	0.0657	mg/l	0.05	LT	0.05	LT	0.05	LT	0.05	LT
pH	6.5 to 8.5	8.1	SU	7.4		7.4		7.4		7.3	
Potassium-Dissolved	—	19.3	mg/l								
Potassium-Total	—	22.9	mg/l	4.56	J	4.18	J	5.16		4.79	J
Selenium-Dissolved	0.01	0.014	mg/l								
Selenium-Total	0.01	0.0109	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Silver-Dissolved	0.05	0.010	mg/l								
Silver-Total	0.05	0.0101	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Sodium-Dissolved	20	28.0	mg/l								
Sodium-Total	20	28.9	mg/l	24.5		24.7		32.6		28.8	
Strontium-Dissolved	—	0.545	mg/l								
Strontium-Total	—	0.676	mg/l	0.57		0.561		0.648		0.573	
Sulfate	250	131	mg/l	127		110		144		135	
Temperature	—		Deg. C.	8.0		7.0		10.0		12.0	
Total Dissolved Solids	500	636	mg/l	560		600		765		560	
Turbidity	5	413	NTU	7.8		1.4		19.0		3.0	
Vanadium-Dissolved	—	0.010	mg/l								
Vanadium-Total	—	0.022	mg/l	0.05	LT	0.05	LT	0.05	LT	0.05	LT
Zinc-Dissolved	2.0	0.010	mg/l								
Zinc-Total	2.0	0.0359	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

See "notes page" at end of table.

Appendix C. SWDA II Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGDD-0204

Analyte	Class GA Groundwater Standard [1]	Assessment Trigger Value	Units	Mar-21		May-21		Sep-21		Nov-21	
				Value	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	—	27.6	mg/l			190				60	
Aluminum-Dissolved	0.1	0.480	mg/l								
Aluminum-Total	0.1	0.896	mg/l			0.2	LT				
Ammonia	2	14.55	mg/l			6				12.1	
Arsenic-Dissolved	0.025	0.023	mg/l								
Arsenic-Total	0.025	0.0288	mg/l			0.00497	J			0.00251	J
Boron-Dissolved	1	3.79	mg/l								
Boron-Total	1	3.84	mg/l			1.14				1.98	
Bromide	—	472	mg/l			77.6					
Cadmium-Dissolved	0.005	0.005	mg/l								
Cadmium-Total	0.005	0.0030	mg/l			0.005	LT			0.005	LT
Calcium-Dissolved	—	5228	mg/l								
Calcium-Total	—	5268	mg/l			1240				3590	
Chloride	250	24857	mg/l			6760					
Chromium-Dissolved	0.05	0.010	mg/l								
Chromium-Total	0.05	0.0056	mg/l			0.01	LT				
Conductivity	—	90006	UMHO/CM			18630				44060	
Copper-Dissolved	0.2	0.010	mg/l								
Copper-Total	0.2	0.0128	mg/l			0.025	LT				
EH–	—	545	VOLTS			49				141	
Fluoride	1.5	0.5	mg/l			0.2	LT				
Hardness	—		mg/l			4015					
Iron-Dissolved	0.3	5.51	mg/l								
Iron-Total	0.3	6.28	mg/l			0.1	LT			0.104	
Lead-Dissolved	0.025	0.020	mg/l								
Lead-Total	0.025	0.0178	mg/l			0.003	LT				
Lithium-Dissolved	—	13.33	mg/l								
Lithium-Total	—	11.73	mg/l	DRY		2.39		DRY		11.7	
Magnesium-Dissolved	35	686	mg/l								
Magnesium-Total	35	712	mg/l			223				607	
Manganese-Dissolved	0.3	6.15	mg/l								
Manganese-Total	0.3	6.26	mg/l			0.816				1.71	
Mercury-Dissolved	0.0007	0.0002	mg/l								
Mercury-Total	0.0007	0.0003	mg/l			0.0002	LT				
Molybdenum-Dissolved	—	0.010	mg/l								
Molybednum-Total	—	0.0090	mg/l			0.05	LT			0.05	LT
pH	6.5 to 8.5	7.4	SU			7				6.8	
Potassium-Dissolved	—	230	mg/l								
Potassium-Total	—	223	mg/l			176	J			67.9	J
Selenium-Dissolved	0.01	0.015	mg/l								
Selenium-Total	0.01	0.0133	mg/l			0.005	LT				
Silver-Dissolved	0.05	0.010	mg/l								
Silver-Total	0.05	0.0101	mg/l			0.01	LT				
Sodium-Dissolved	20	9404	mg/l								
Sodium-Total	20	9463	mg/l			2270				7850	
Strontium-Dissolved	—	95.4	mg/l								
Strontium-Total	—	96.7	mg/l			28.9				92.3	
Sulfate	250	1465	mg/l			503					
Temperature	—		Deg. C.			8				13	
Total Dissolved Solids	500	57240	mg/l			15400				31100	
Turbidity	5	31	NTU			1.2				2.6	
Vanadium-Dissolved	—	0.010	mg/l								
Vanadium-Total	—	0.008	mg/l			0.05	LT				
Zinc-Dissolved	2.0	0.018	mg/l								
Zinc-Total	2.0	0.0180	mg/l			0.02	LT				

See "notes page" at end of table.

Appendix C. SWDA II Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGDSH-0306

Analyte	Class GA Groundwater Standard [1]	Assessment Trigger Value	Units	Mar-21		May-21		Sep-21		Nov-21	
				Value	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	—	338	mg/l	340		340		360		360	
Aluminum-Dissolved	0.1	0.050	mg/l								
Aluminum-Total	0.1	2.359	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Ammonia	2	0.50	mg/l	0.1	LT	0.1	LT	0.1	LT	0.1	LT
Arsenic-Dissolved	0.025	0.020	mg/l								
Arsenic-Total	0.025	0.0126	mg/l	0.00528	J	0.01	LT	0.01	LT	0.01	LT
Boron-Dissolved	1	0.208	mg/l								
Boron-Total	1	0.232	mg/l	0.153		0.107		0.116		0.13	
Bromide	—	1.6	mg/l	1	LT	1	LT	1	LT		
Cadmium-Dissolved	0.005	0.005	mg/l								
Cadmium-Total	0.005	0.0032	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium-Dissolved	—	121.8	mg/l								
Calcium-Total	—	123.5	mg/l	142		148		155		148	
Chloride	250	153.9	mg/l	85.3		83.2		86.1		105	
Chromium-Dissolved	0.05	0.010	mg/l								
Chromium-Total	0.05	0.0061	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Conductivity	—	1172	UMHO/CM	1290		1260		1265		1280	
Copper-Dissolved	0.2	0.010	mg/l								
Copper-Total	0.2	0.0040	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
EH–	—	629	VOLTS	63		52		2		54	
Fluoride	1.5		mg/l	0.2	LT	0.2	LT	0.24		0.24	
Hardness	—		mg/l	573		602		629		600	
Iron-Dissolved	0.3	0.069	mg/l								
Iron-Total	0.3	4.42	mg/l	0.23		0.1	LT	10		0.238	
Lead-Dissolved	0.025	0.020	mg/l								
Lead-Total	0.025	0.0103	mg/l	0.003	LT	0.003	LT	0.003	LT	0.003	LT
Lithium-Dissolved	—	0.5	mg/l								
Lithium-Total	—	0.393	mg/l	0.1	LT	0.1	LT	0.364		0.313	
Magnesium-Dissolved	35	43.8	mg/l								
Magnesium-Total	35	44.0	mg/l	52.9		56.6		58.8		56.2	
Manganese-Dissolved	0.3	0.043	mg/l								
Manganese-Total	0.3	0.127	mg/l	0.015	LT	0.015	LT	0.0335		0.015	LT
Mercury-Dissolved	0.0007	0.0002	mg/l								
Mercury-Total	0.0007	0.0003	mg/l	0.0002	LT	0.0002	LT	0.0002	LT	0.0002	LT
Molybdenum-Dissolved	—	0.010	mg/l								
Molybednum-Total	—	0.0069	mg/l	0.05	LT	0.05	LT	0.05	LT	0.05	LT
pH	6.5 to 8.5	8.1	SU	7.2		7.1		7.2		7.2	
Potassium-Dissolved	—	7.1	mg/l								
Potassium-Total	—	7.5	mg/l	5.21		4.34	J	4.64	J	4.26	J
Selenium-Dissolved	0.01	0.011	mg/l								
Selenium-Total	0.01	0.0115	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Silver-Dissolved	0.05	0.010	mg/l								
Silver-Total	0.05	0.0113	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Sodium-Dissolved	20	69.0	mg/l								
Sodium-Total	20	57.9	mg/l	41.9		38.6		39.2		36.1	
Strontium-Dissolved	—	1.9	mg/l								
Strontium-Total	—	1.689	mg/l	1.28		1.09		1.17		1.07	
Sulfate	250	165	mg/l	191		200		243		246	
Temperature	—		Deg. C.	12.0		11.0		11.0		13.0	
Total Dissolved Solids	500	736	mg/l	720		975		865		790	
Turbidity	5	124.6	NTU	2.3		0.3		12.0		2.6	
Vanadium-Dissolved	—	0.010	mg/l								
Vanadium-Total	—	0.006	mg/l	0.05	LT	0.05	LT	0.05	LT	0.05	LT
Zinc-Dissolved	2.0	0.010	mg/l								
Zinc-Total	2.0	0.0093	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

See "notes page" at end of table.

Appendix C. SWDA II Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGDSH-0307

Analyte	Class GA Groundwater Standard [1]	Assessment Trigger Value	Units	Mar-21		May-21		Sep-21		Nov-21	
				Value	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	—	393	mg/l	370		380		410		370	
Aluminum-Dissolved	0.1	0.050	mg/l								
Aluminum-Total	0.1	2.754	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Ammonia	2	0.50	mg/l	0.1	LT	0.1	LT	0.1	LT	0.1	LT
Arsenic-Dissolved	0.025	0.020	mg/l								
Arsenic-Total	0.025	0.0125	mg/l	0.0055	J	0.00403	J	0.00431	J	0.01	LT
Boron-Dissolved	1	0.127	mg/l								
Boron-Total	1	0.159	mg/l	0.308		0.362		0.559		0.178	
Bromide	—	1.4	mg/l	1	LT	1	LT	1	LT		
Cadmium-Dissolved	0.005	0.005	mg/l								
Cadmium-Total	0.005	0.0032	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium-Dissolved	—	150.5	mg/l								
Calcium-Total	—	153.3	mg/l	244		316		352		195	
Chloride	250	174.8	mg/l	45.7		55.9		39.6		41.1	
Chromium-Dissolved	0.05	0.010	mg/l								
Chromium-Total	0.05	0.0057	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Conductivity	—	1227	UMHO/CM	1970		2115		2145		1455	
Copper-Dissolved	0.2	0.010	mg/l								
Copper-Total	0.2	0.0041	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
EH–	—	576	VOLTS	74		57		0		62	
Fluoride	1.5		mg/l	0.2	LT	0.2	LT	0.2	LT	0.24	
Hardness	—		mg/l	1026		1257		1376		773	
Iron-Dissolved	0.3	0.024	mg/l								
Iron-Total	0.3	4.37	mg/l	0.473		0.1	LT	0.1	LT	0.1	LT
Lead-Dissolved	0.025	0.020	mg/l								
Lead-Total	0.025	0.0100	mg/l	0.003	LT	0.003	LT	0.003	LT	0.003	LT
Lithium-Dissolved	—	0.5	mg/l								
Lithium-Total	—	0.394	mg/l	0.156		0.1	LT	0.348		0.242	
Magnesium-Dissolved	35	57.1	mg/l								
Magnesium-Total	35	57.7	mg/l	101		112		121		69.6	
Manganese-Dissolved	0.3	0.048	mg/l								
Manganese-Total	0.3	0.169	mg/l	0.015	LT	0.015	LT	0.015	LT	0.015	LT
Mercury-Dissolved	0.0007	0.0002	mg/l								
Mercury-Total	0.0007	0.0003	mg/l	0.0002	LT	0.0002	LT	0.0002	LT	0.0002	LT
Molybdenum-Dissolved	—	0.010	mg/l								
Molybednum-Total	—	0.0061	mg/l	0.05	LT	0.05	LT	0.05	LT	0.05	LT
pH	6.5 to 8.5	7.5	SU	7.0		7		6.9		7.0	
Potassium-Dissolved	—	3.9	mg/l								
Potassium-Total	—	4.5	mg/l	3.87	J	3.51	J	4.03	J	3.43	J
Selenium-Dissolved	0.01	0.011	mg/l								
Selenium-Total	0.01	0.0113	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Silver-Dissolved	0.05	0.010	mg/l								
Silver-Total	0.05	0.0113	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Sodium-Dissolved	20	28.2	mg/l								
Sodium-Total	20	33.6	mg/l	30.5		35		37.2		26.5	
Strontium-Dissolved	—	0.6	mg/l								
Strontium-Total	—	0.784	mg/l	1		0.922		0.981		0.704	
Sulfate	250	205	mg/l	781		1580		992		506	
Temperature	—		Deg. C.	11.0		10.0		12.0		13.0	
Total Dissolved Solids	500	979	mg/l	1530		1780		1850		910	
Turbidity	5	151.0	NTU	2.9		0.9		0.6		0.7	
Vanadium-Dissolved	—	0.010	mg/l								
Vanadium-Total	—	0.004	mg/l	0.05	LT	0.05	LT	0.05	LT	0.05	LT
Zinc-Dissolved	2.0	0.010	mg/l								
Zinc-Total	2.0	0.0111	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

See "notes page" at end of table.

Appendix C. SWDA II Groundwater Analytical Summary
2021 Annual Report
Heerot Power - Somerset Operating Company
Barker, New York
SAGDSH-0308

Analyte	Class GA Groundwater Standard [1]	Assessment Trigger Value	Units	Mar-21		May-21		Sep-21		Nov-21	
				Value	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	—	334	mg/l	400		300		400		440	
Aluminum-Dissolved	0.1	0.153	mg/l								
Aluminum-Total	0.1	3.309	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Ammonia	2	0.50	mg/l	0.1	LT	0.1	LT	0.1	LT	0.1	LT
Arsenic-Dissolved	0.025	0.020	mg/l								
Arsenic-Total	0.025	0.0126	mg/l	0.00533	J	0.01	LT	0.01		0.01	LT
Boron-Dissolved	1	0.111	mg/l								
Boron-Total	1	0.110	mg/l	0.0529		0.05	LT	0.0536		0.0651	
Bromide	—	1.0	mg/l	1	LT	1	LT	1	LT		
Cadmium-Dissolved	0.005	0.005	mg/l								
Cadmium-Total	0.005	0.0032	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium-Dissolved	—	128.3	mg/l								
Calcium-Total	—	129.3	mg/l	276		241		208		241	
Chloride	250	68.5	mg/l	5.62		5.62		4.44		6.82	
Chromium-Dissolved	0.05	0.010	mg/l								
Chromium-Total	0.05	0.0065	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Conductivity	—	852	UMHO/CM	1600		1300		1420		1640	
Copper-Dissolved	0.2	0.010	mg/l								
Copper-Total	0.2	0.0329	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
EH–	—	505	VOLTS	86		68		-114		63	
Fluoride	1.5		mg/l	0.2	LT	0.2	LT	0.2		0.39	
Hardness	—		mg/l	994		854		784		914	
Iron-Dissolved	0.3	0.247	mg/l								
Iron-Total	0.3	4.05	mg/l	0.222		0.1	LT	1.71		0.158	
Lead-Dissolved	0.025	0.020	mg/l								
Lead-Total	0.025	0.0100	mg/l	0.003	LT	0.003	LT	0.003	LT	0.003	LT
Lithium-Dissolved	—	0.5	mg/l								
Lithium-Total	—	0.396	mg/l	0.1	LT	0.1	LT	0.157		0.135	
Magnesium-Dissolved	35	34.6	mg/l								
Magnesium-Total	35	35.7	mg/l	74		61.4		64.1		76	
Manganese-Dissolved	0.3	0.099	mg/l								
Manganese-Total	0.3	0.211	mg/l	0.0288		0.015	LT	0.1		0.0243	
Mercury-Dissolved	0.0007	0.0002	mg/l								
Mercury-Total	0.0007	0.0003	mg/l	0.0002	LT	0.0002	LT	0.0002	LT	0.0002	LT
Molybdenum-Dissolved	—	0.010	mg/l								
Molybednum-Total	—	0.0061	mg/l	0.05	LT	0.05	LT	0.05	LT	0.05	LT
pH	6.5 to 8.5	8.1	SU	7.0		7		7.0		6.9	
Potassium-Dissolved	—	3.1	mg/l								
Potassium-Total	—	4.1	mg/l	1.76	J	1.37	J	1.84	J	1.89	J
Selenium-Dissolved	0.01	0.011	mg/l								
Selenium-Total	0.01	0.0129	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Silver-Dissolved	0.05	0.010	mg/l								
Silver-Total	0.05	0.0132	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Sodium-Dissolved	20	14.5	mg/l								
Sodium-Total	20	13.8	mg/l	14.2		13.6		14.2		15	
Strontium-Dissolved	—	0.5	mg/l								
Strontium-Total	—	0.353	mg/l	0.424		0.362		0.4		0.432	
Sulfate	250	117	mg/l	520		355		462		593	
Temperature	—		Deg. C.	9.0		9.0		10.0		12.0	
Total Dissolved Solids	500	543	mg/l	1100		1010		1080		1120	
Turbidity	5	194.4	NTU	1.5		2.2		11.0		2.6	
Vanadium-Dissolved	—	0.010	mg/l								
Vanadium-Total	—	0.005	mg/l	0.05	LT	0.05	LT	0.05	LT	0.05	LT
Zinc-Dissolved	2.0	0.010	mg/l								
Zinc-Total	2.0	0.0128	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

See "notes page" at end of table.

Appendix C. SWDA II Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGDSH-0309

Analyte	Class GA Groundwater Standard [1]	Assessment Trigger Value	Units	Mar-21		May-21		Sep-21		Nov-21	
				Value	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	—	463	mg/l	470		360		510		460	
Aluminum-Dissolved	0.1	0.050	mg/l								
Aluminum-Total	0.1	11.386	mg/l	0.642		0.2	LT	0.2	LT	0.2	LT
Ammonia	2	0.50	mg/l	0.1	LT	0.1	LT	0.1	LT	0.1	LT
Arsenic-Dissolved	0.025	0.020	mg/l								
Arsenic-Total	0.025	0.0124	mg/l	0.00704	J	0.0126		0.0149		0.00938	J
Boron-Dissolved	1	0.721	mg/l								
Boron-Total	1	0.811	mg/l	0.14		0.0907		0.148		0.148	
Bromide	—	1.8	mg/l	1	LT	1	LT	1	LT		
Cadmium-Dissolved	0.005	0.005	mg/l								
Cadmium-Total	0.005	0.0032	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium-Dissolved	—	151.6	mg/l								
Calcium-Total	—	155.0	mg/l	280		307		298		312	
Chloride	250	125.1	mg/l	46.5		10.3		28.2		40.1	
Chromium-Dissolved	0.05	0.010	mg/l								
Chromium-Total	0.05	0.0218	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Conductivity	—	1243	UMHO/CM	1865		1775		2185		2200	
Copper-Dissolved	0.2	0.010	mg/l								
Copper-Total	0.2	0.0114	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
EH–	—	687	VOLTS	88		13		29		-13	
Fluoride	1.5		mg/l	0.25		0.2	LT	0.23		0.29	
Hardness	—		mg/l	1129		1085		1215		1277	
Iron-Dissolved	0.3	3.432	mg/l								
Iron-Total	0.3	19.04	mg/l	1.22		3.33		0.856		4.16	
Lead-Dissolved	0.025	0.020	mg/l								
Lead-Total	0.025	0.0132	mg/l	0.003	LT	0.003	LT	0.003	LT	0.003	LT
Lithium-Dissolved	—	0.5	mg/l								
Lithium-Total	—	0.393	mg/l	0.208		0.1	LT	0.369		0.358	
Magnesium-Dissolved	35	62.1	mg/l								
Magnesium-Total	35	66.6	mg/l	104		77.1		115		121	
Manganese-Dissolved	0.3	0.907	mg/l								
Manganese-Total	0.3	0.911	mg/l	0.137		0.295		0.826		0.441	
Mercury-Dissolved	0.0007	0.0002	mg/l								
Mercury-Total	0.0007	0.0003	mg/l	0.0002	LT	0.0002	LT	0.0002	LT	0.0002	LT
Molybdenum-Dissolved	—	0.020	mg/l								
Molybednum-Total	—	0.0232	mg/l	0.05	LT	0.05	LT	0.05	LT	0.05	LT
pH	6.5 to 8.5	7.8	SU	7.0		7.1		7.0		6.9	
Potassium-Dissolved	—	27.3	mg/l								
Potassium-Total	—	26.2	mg/l	8.54		2.58	J	7.59		6.77	
Selenium-Dissolved	0.01	0.011	mg/l								
Selenium-Total	0.01	0.0113	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Silver-Dissolved	0.05	0.010	mg/l								
Silver-Total	0.05	0.0113	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Sodium-Dissolved	20	86.9	mg/l								
Sodium-Total	20	117.5	mg/l	36.7		23		38.8		41	
Strontium-Dissolved	—	2.7	mg/l								
Strontium-Total	—	3.497	mg/l	1.37		0.956		1.63		1.51	
Sulfate	250	285	mg/l	757		707		702		888	
Temperature	—		Deg. C.	11.0		9.0		9.0		12.0	
Total Dissolved Solids	500	784	mg/l	1620		1410		1440		1560	
Turbidity	5	256.1	NTU	24.0		4.0		22.0		12.0	
Vanadium-Dissolved	—	0.010	mg/l								
Vanadium-Total	—	0.023	mg/l	0.05	LT	0.05	LT	0.05	LT	0.05	LT
Zinc-Dissolved	2.0	0.010	mg/l								
Zinc-Total	2.0	0.0669	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

See "notes page" at end of table.

Appendix C. SWDA II Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGDSH-0310

Analyte	Class GA Groundwater Standard [1]	Assessment Trigger Value	Units	Mar-21		May-21		Sep-21		Nov-21	
				Value	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	—	361	mg/l	380		360		360		350	
Aluminum-Dissolved	0.1	0.050	mg/l								
Aluminum-Total	0.1	0.375	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Ammonia	2	0.50	mg/l	0.1	LT	0.1	LT	0.1	LT	0.1	LT
Arsenic-Dissolved	0.025	0.020	mg/l								
Arsenic-Total	0.025	0.0126	mg/l	0.00388	J	0.01	LT	0.00581	J	0.01	LT
Boron-Dissolved	1	0.116	mg/l								
Boron-Total	1	0.122	mg/l	0.06		0.05	LT	0.1		0.085	
Bromide	—	1.0	mg/l	1	LT	1	LT	1	LT		
Cadmium-Dissolved	0.005	0.005	mg/l								
Cadmium-Total	0.005	0.0032	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium-Dissolved	—	107.6	mg/l								
Calcium-Total	—	115.3	mg/l	125		125		140		116	
Chloride	250	64.1	mg/l	34.6		26.1		72.1		103	
Chromium-Dissolved	0.05	0.010	mg/l								
Chromium-Total	0.05	0.0043	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Conductivity	—	992	UMHO/CM	1125		1070		1205		1160	
Copper-Dissolved	0.2	0.010	mg/l								
Copper-Total	0.2	0.0041	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
EH–	—	547	VOLTS	81		75		-2.0		67	
Fluoride	1.5		mg/l	0.2	LT	0.2	LT	0.24		0.21	
Hardness	—		mg/l	558		545		623		517	
Iron-Dissolved	0.3	0.017	mg/l								
Iron-Total	0.3	0.70	mg/l	0.1	LT	0.1	LT	0.1	LT	0.1	LT
Lead-Dissolved	0.025	0.020	mg/l								
Lead-Total	0.025	0.0103	mg/l	0.003	LT	0.003	LT	0.003	LT	0.003	LT
Lithium-Dissolved	—	0.5	mg/l								
Lithium-Total	—	0.395	mg/l	0.161		0.104		0.333		0.321	
Magnesium-Dissolved	35	57.7	mg/l								
Magnesium-Total	35	56.1	mg/l	59.4		56.5		66.4		55	
Manganese-Dissolved	0.3	0.010	mg/l								
Manganese-Total	0.3	0.017	mg/l	0.015	LT	0.015	LT	0.015	LT	0.015	LT
Mercury-Dissolved	0.0007	0.0002	mg/l								
Mercury-Total	0.0007	0.0003	mg/l	0.0002	LT	0.0002	LT	0.0002	LT	0.0002	LT
Molybdenum-Dissolved	—	0.010	mg/l								
Molybednum-Total	—	0.0061	mg/l	0.05	LT	0.05	LT	0.05	LT	0.05	LT
pH	6.5 to 8.5	8.0	SU	7.2		7.1		7.2		7.1	
Potassium-Dissolved	—	3.2	mg/l								
Potassium-Total	—	3.9	mg/l	3.2	J	2.59	J	3.62	J	3.71	J
Selenium-Dissolved	0.01	0.011	mg/l								
Selenium-Total	0.01	0.0113	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Silver-Dissolved	0.05	0.010	mg/l								
Silver-Total	0.05	0.0113	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Sodium-Dissolved	20	31.4	mg/l								
Sodium-Total	20	32.8	mg/l	28.4		24.8		35.7		38.1	
Strontium-Dissolved	—	0.5	mg/l								
Strontium-Total	—	0.561	mg/l	0.537		0.472		0.632		0.537	
Sulfate	250	150	mg/l	181		177		200		176	
Temperature	—		Deg. C.	10.0		9.0		12.0		12.0	
Total Dissolved Solids	500	667	mg/l	660		680		875		680	
Turbidity	5	26.3	NTU	1.2		1.1		9.5		0.6	
Vanadium-Dissolved	—	0.010	mg/l								
Vanadium-Total	—	0.003	mg/l	0.05	LT	0.05	LT	0.05	LT	0.05	LT
Zinc-Dissolved	2.0	0.010	mg/l								
Zinc-Total	2.0	0.0058	mg/l	0.02	LT	0.02	LT	0.02	LT	0.0286	

See "notes page" at end of table.

Appendix C. SWDA II Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGDSH-0543

Analyte	Class GA Groundwater Standard [1]	Assessment Trigger Value	Units	Mar-21		May-21		Sep-21		Nov-21	
				Value	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	--	580	mg/l	DRY		DRY		DRY		DRY	
Aluminum-Dissolved	0.1	0.081	mg/l								
Aluminum-Total	0.1	34.5	mg/l								
Ammonia	2	0.500	mg/l								
Arsenic-Dissolved	0.025	0.020	mg/l								
Arsenic-Total	0.025	0.026	mg/l								
Boron-Dissolved	1	0.294	mg/l								
Boron-Total	1	0.403	mg/l								
Bromide	--	2.65	mg/l								
Cadmium-Dissolved	0.005	0.005	mg/l								
Cadmium-Total	0.005	0.003	mg/l								
Calcium-Dissolved	--	201	mg/l								
Calcium-Total	--	231	mg/l								
Chloride	250	237	mg/l								
Chromium-Dissolved	0.05	0.010	mg/l								
Chromium-Total	0.05	0.048	mg/l								
Conductivity	--	1599	UMHO/CM								
Copper-Dissolved	0.2	0.010	mg/l								
Copper-Total	0.2	0.030	mg/l								
EH--	--	506	VOLTS								
Fluoride	1.5	0.260	mg/l								
Hardness	--		mg/l								
Iron-Dissolved	0.3	0.166	mg/l								
Iron-Total	0.3	69.5	mg/l								
Lead-Dissolved	0.025	0.020	mg/l								
Lead-Total	0.025	0.023	mg/l								
Lithium-Dissolved	--	0.500	mg/l								
Lithium-Total	--	0.441	mg/l								
Magnesium-Dissolved	35	80.0	mg/l								
Magnesium-Total	35	91.1	mg/l								
Manganese-Dissolved	0.3	0.165	mg/l								
Manganese-Total	0.3	1.05	mg/l								
Mercury-Dissolved	0.0007	0.0002	mg/l								
Mercury-Total	0.0007	0.0003	mg/l								
Molybdenum-Dissolved	--	0.010	mg/l								
Molybednum-Total	--	0.010	mg/l								
pH	6.5 to 8.5	8.22	SU								
Potassium-Dissolved	--	9.44	mg/l								
Potassium-Total	--	17.7	mg/l								
Selenium-Dissolved	0.01	0.012	mg/l								
Selenium-Total	0.01	0.018	mg/l								
Silver-Dissolved	0.05	0.010	mg/l								
Silver-Total	0.05	0.010	mg/l								
Sodium-Dissolved	20	106	mg/l								
Sodium-Total	20	99.8	mg/l								
Strontium-Dissolved	--	1.88	mg/l								
Strontium-Total	--	1.80	mg/l								
Sulfate	250	332	mg/l								
Temperature	--		Deg. C.								
Total Dissolved Solids	500	1299	mg/l								
Turbidity	5	1182	NTU								
Vanadium-Dissolved	--	0.010	mg/l								
Vanadium-Total	--	0.072	mg/l								
Zinc-Dissolved	2.0	0.010	mg/l								
Zinc-Total	2.0	0.130	mg/l								

See "notes page" at end of table.

Appendix C. SWDA II Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGDSH-0544

Analyte	Class GA Groundwater Standard [1]	Assessment Trigger Value	Units	Mar-21		May-21		Sep-21		Nov-21	
				Value	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	—	384	mg/l			330					
Aluminum-Dissolved	0.1	1.00	mg/l								
Aluminum-Total	0.1	4.09	mg/l			0.2	LT				
Ammonia	2	0.50	mg/l			0.1	LT				
Arsenic-Dissolved	0.025	0.020	mg/l								
Arsenic-Total	0.025	0.012	mg/l			0.01	LT				
Boron-Dissolved	1	0.207	mg/l								
Boron-Total	1	0.314	mg/l			0.0705					
Bromide	—	3.620	mg/l			1.53					
Cadmium-Dissolved	0.005	0.005	mg/l								
Cadmium-Total	0.005	0.003	mg/l			0.005	LT				
Calcium-Dissolved	—	130	mg/l								
Calcium-Total	—	152	mg/l			164					
Chloride	250	210	mg/l			171					
Chromium-Dissolved	0.05	0.010	mg/l								
Chromium-Total	0.05	0.009	mg/l			0.01	LT				
Conductivity	—	1337	UMHO/CM			1565					
Copper-Dissolved	0.2	0.010	mg/l								
Copper-Total	0.2	0.006	mg/l			0.025	LT				
EH–	—	532	VOLTS			34					
Fluoride	1.5	0.280	mg/l			0.2					
Hardness	—		mg/l			713					
Iron-Dissolved	0.3	2.127	mg/l								
Iron-Total	0.3	5.76	mg/l			0.106					
Lead-Dissolved	0.025	0.020	mg/l								
Lead-Total	0.025	0.009	mg/l			0.003	LT				
Lithium-Dissolved	—	0.500	mg/l								
Lithium-Total	—	0.425	mg/l	DRY		0.1	LT	DRY		DRY	
Magnesium-Dissolved	35	79.4	mg/l								
Magnesium-Total	35	86.0	mg/l			74					
Manganese-Dissolved	0.3	0.233	mg/l								
Manganese-Total	0.3	0.233	mg/l			0.0183					
Mercury-Dissolved	0.0007	0.0002	mg/l								
Mercury-Total	0.0007	0.0003	mg/l			0.0002	LT				
Molybdenum-Dissolved	—	0.010	mg/l								
Molybednum-Total	—	0.0189	mg/l			0.05	LT				
pH	6.5 to 8.5	8.09	SU			7.2					
Potassium-Dissolved	—	14.4	mg/l								
Potassium-Total	—	17.2	mg/l			2.32	J				
Selenium-Dissolved	0.01	0.011	mg/l								
Selenium-Total	0.01	0.016	mg/l			0.005	LT				
Silver-Dissolved	0.05	0.010	mg/l								
Silver-Total	0.05	0.010	mg/l			0.01	LT				
Sodium-Dissolved	20	101	mg/l								
Sodium-Total	20	112	mg/l			47.9					
Strontium-Dissolved	—	2.38	mg/l								
Strontium-Total	—	2.27	mg/l			0.635					
Sulfate	250	274	mg/l			186					
Temperature	—		Deg. C.			9.0					
Total Dissolved Solids	500	1106	mg/l			1010					
Turbidity	5	524	NTU			5.3					
Vanadium-Dissolved	—	0.010	mg/l								
Vanadium-Total	—	0.008	mg/l			0.05	LT				
Zinc-Dissolved	2.0	0.048	mg/l								
Zinc-Total	2.0	0.016	mg/l			0.02	LT				

See "notes page" at end of table.

Appendix C. SWDA II Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGUD-9141

Analyte	Class GA Groundwater Standard [1]	Assessment Trigger Value	Units	Mar-21		May-21		Sep-21		Nov-21	
				Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	—	260	mg/l			120				80	
Aluminum - Dissolved	0.1	0.099	mg/l								
Aluminum - Total	0.1	0.101	mg/l			0.2	LT				
Ammonia	2	3.66	mg/l			4.2				5.5	
Arsenic - Dissolved	0.025	0.020	mg/l								
Arsenic - Total	0.025	0.020	mg/l			0.0147				0.00932	J
Boron-Dissolved	1	3.51	mg/l								
Boron - Total	1	3.46	mg/l			2.35				2.59	
Bromide	—	81.2	mg/l			29.2					
Cadmium - Dissolved	0.005	0.005	mg/l								
Cadmium - Total	0.005	0.003	mg/l			0.005	LT			0.005	LT
Calcium - Dissolved	—	925	mg/l								
Calcium - Total	—	944	mg/l			586				889	
Chloride	250	4536	mg/l			2620					
Chromium - Dissolved	0.05	0.010	mg/l								
Chromium - Total	0.05	0.004	mg/l			0.01	LT				
Conductivity	—	12547	UMHO/CM			9240				13140	
Copper - Dissolved	0.2	0.010	mg/l								
Copper - Total	0.2	0.049	mg/l			0.025	LT				
Eh	—	476	VOLTS			-12				-33	
F2–	1.5	0.496	mg/l			0.26					
Hardness	—		mg/l			2061					
Iron - Dissolved	0.3	4.33	mg/l								
Iron - Total	0.3	4.34	mg/l			2.12				2.81	
Lead - Dissolved	0.025	0.020	mg/l								
Lead - Total	0.025	0.009	mg/l			0.003	LT				
Lithium - Dissolved	—	1.57	mg/l								
Lithium - Total	—	1.34	mg/l	DRY		0.712		DRY		3.06	
Magnesium -Dissolved	35	207	mg/l								
Magnesium - Total	35	204	mg/l			145				219	
Manganese - Dissolved	0.3	1.14	mg/l								
Manganese - Total	0.3	1.16	mg/l			0.532				0.807	
Mercury - Dissolved	0.0007	0.0002	mg/l								
Mercury - Total	0.0007	0.0003	mg/l			0.0002	LT				
Molybdenum - Dissolved	—	0.010	mg/l								
Molybdenum - Total	—	0.007	mg/l			0.05	LT			0.05	LT
pH	6.5 to 8.5	7.70	SU			7.2				7.2	
Potassium - Dissolved	—	77.8	mg/l								
Potassium - Total	—	74.4	mg/l			90.8				54.3	J
Selenium - Dissolved	0.01	0.013	mg/l								
Selenium - Total	0.01	0.013	mg/l			0.005	LT				
Silver - Dissolved	0.05	0.010	mg/l								
Silver - Total	0.05	0.0101	mg/l			0.01	LT				
Sodium - Dissolved	20	1717	mg/l								
Sodium - Total	20	2083	mg/l			1120				1580	
Strontium - Dissolved	—	23.0	mg/l								
Strontium - Total	—	23.5	mg/l			14.9				21.5	
Sulfate	250	1288	mg/l			771					
Temperature	—		Deg. C.			9				10	
Total Dissolved Solids	500	9712	mg/l			6560				9070	
Turbidity	5	38.0	NTU			0.9				0.5	
Vanadium - Dissolved	—	0.010	mg/l								
Vanadium - Total	—	0.004	mg/l			0.05	LT				
Zinc - Dissolved	2.0	0.010	mg/l								
Zinc - Total	2.0	0.010	mg/l			0.02	LT				

See "notes page" at end of table.

Appendix C. SWDA II Groundwater Analytical Summary
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Heorot Power - Somerset Operating Company
Barker, New York
SAGUSH-9141

Analyte	Class GA Groundwater Standard [1]	Assessment Trigger Value	Units	Mar-21		May-21		Sep-21		Nov-21	
				Value [2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	—	379	mg/l	350		330		330		528	
Aluminum - Dissolved	0.1	0.050	mg/l								
Aluminum - Total	0.1	0.159	mg/l			0.2	LT				
Ammonia	2	0.500	mg/l	0.1	LT	0.1	LT	0.1	LT	0.1	LT
Arsenic - Dissolved	0.025	0.0200	mg/l								
Arsenic - Total	0.025	0.0121	mg/l	0.00513	J	0.00504	J	0.00749	J	0.01	LT
Boron-Dissolved	1	0.229	mg/l								
Boron - Total	1	0.329	mg/l	0.131		0.109		0.137		0.144	
Bromide	—	2.13	mg/l			1	LT				
Cadmium - Dissolved	0.005	0.005	mg/l								
Cadmium - Total	0.005	0.0029	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Dissolved	—	157	mg/l								
Calcium - Total	—	167	mg/l	144		146		149		144	
Chloride	250	225	mg/l	210		189		234			
Chromium - Dissolved	0.05	0.010	mg/l								
Chromium - Total	0.05	0.0037	mg/l			0.01	LT				
Conductivity	—	1529	UMHO/CM	1620		1545		1625		1650	
Copper - Dissolved	0.2	0.010	mg/l								
Copper - Total	0.2	0.0043	mg/l			0.025	LT				
Eh	—	474	VOLTS			83				60	
F2–	1.5	0.262	mg/l			0.2	LT				
Hardness	—		mg/l			656					
Iron - Dissolved	0.3	0.140	mg/l								
Iron - Total	0.3	0.591	mg/l	0.1	LT	0.1	LT	0.1	LT	0.1	LT
Lead - Dissolved	0.025	0.020	mg/l								
Lead - Total	0.025	0.0097	mg/l			0.003	LT				
Lithium - Dissolved	—	0.500	mg/l								
Lithium - Total	—	0.385	mg/l	0.1	LT	0.1	LT	0.1	LT	0.1	LT
Magnesium -Dissolved	35	75.5	mg/l								
Magnesium - Total	35	76.9	mg/l	72.2		71		75.3		75.4	
Manganese - Dissolved	0.3	0.039	mg/l								
Manganese - Total	0.3	0.051	mg/l	0.015	LT	0.015	LT	0.015	LT	0.015	LT
Mercury - Dissolved	0.0007	0.0002	mg/l								
Mercury - Total	0.0007	0.0003	mg/l			0.0002	LT				
Molybdenum - Dissolved	—	0.010	mg/l								
Molybdenum - Total	—	0.0057	mg/l	0.05	LT	0.05	LT	0.05	LT	0.05	LT
pH	6.5 to 8.5	7.98	SU	7.3		7.2		7.2		7.2	
Potassium - Dissolved	—	7.57	mg/l								
Potassium - Total	—	7.30	mg/l	6.33		5.95		6.47		7.27	
Selenium - Dissolved	0.01	0.010	mg/l								
Selenium - Total	0.01	0.0109	mg/l			0.005	LT				
Silver - Dissolved	0.05	0.010	mg/l								
Silver - Total	0.05	0.0101	mg/l			0.01	LT				
Sodium - Dissolved	20	63.9	mg/l								
Sodium - Total	20	63.2	mg/l	80.4		77		67.6		86.1	
Strontium - Dissolved	—	1.38	mg/l								
Strontium - Total	—	1.419	mg/l	1.2		1.16		1.26		1.23	
Sulfate	250	282	mg/l	170		159		200			
Temperature	—		Deg. C.	9.0		9.0		11.0		12.0	
Total Dissolved Solids	500	17168	mg/l	910		990		1000		970	
Turbidity	5	9.71	NTU	0.3		0.3		4.3		0.3	
Vanadium - Dissolved	—	0.010	mg/l								
Vanadium - Total	—	0.004	mg/l			0.05	LT				
Zinc - Dissolved	2.0	0.010	mg/l								
Zinc - Total	2.0	0.0057	mg/l			0.02	LT				

See "notes page" at end of table.

Appendix C. SWDA II Groundwater Analytical Summary
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Heorot Power - Somerset Operating Company
Barker, New York
SAGDSH-0711

Analyte	Class GA Groundwater Standard [1]	Assessment Trigger Value	Units	Mar-21		May-21		Sep-21		Nov-21	
				Value [2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	--	420	mg/l	150		280		124		124	
Aluminum - Dissolved	0.1	0.074	mg/l								
Aluminum - Total	0.1	3.43	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Ammonia	2	3.87	mg/l	2		0.4		2.6		3.2	
Arsenic - Dissolved	0.025	0.020	mg/l								
Arsenic - Total	0.025	0.0199	mg/l	0.00511	J	0.00322	J	0.00649	J	0.01	LT
Boron-Dissolved	1	3.734	mg/l								
Boron - Total	1	3.42	mg/l	2		1.15		1.99		1.99	
Bromide	--	81.5	mg/l	41.6		18.8		55			
Cadmium - Dissolved	0.005	0.005	mg/l								
Cadmium - Total	0.005	0.0017	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Dissolved	--	929	mg/l								
Calcium - Total	--	903	mg/l	571		500	LT	639		585	
Chloride	250	7204	mg/l	3780		1640		4720		4680	
Chromium - Dissolved	0.05	0.010	mg/l								
Chromium - Total	0.05	0.009	mg/l	0.01	LT	0.00902	J	0.01	LT	0.01	LT
Conductivity	--	20749	UMHO/CM	13110		9950		13220		13130	
Copper - Dissolved	0.2	0.010	mg/l								
Copper - Total	0.2	0.0036	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
Eh	--	119	VOLTS	29		17		-33		9	
F2--	1.5	0.5	mg/l	0.67		0.25		0.2	LT	0.2	LT
Hardness	--		mg/l	1899		1231		2127		1927	
Iron - Dissolved	0.3	3.701	mg/l								
Iron - Total	0.3	6.84	mg/l	0.365		0.352		0.856		0.795	
Lead - Dissolved	0.025	0.020	mg/l								
Lead - Total	0.025	0.0104	mg/l	0.003	LT	0.003	LT	0.003	LT	0.003	LT
Lithium - Dissolved	--	3.3	mg/l								
Lithium - Total	--	3.396	mg/l	2		0.507		2.98		3	
Magnesium -Dissolved	35	129.3	mg/l								
Magnesium - Total	35	138.2	mg/l	115		81		129		113	
Manganese - Dissolved	0.3	0.788	mg/l								
Manganese - Total	0.3	0.95	mg/l	0.323		0.212		0.44		0.389	
Mercury - Dissolved	0.0007	0.0002	mg/l								
Mercury - Total	0.0007	0.0002	mg/l	0.0002	LT	0.0002	LT	0.0002	LT	0.0002	LT
Molybdenum - Dissolved	--	0.015	mg/l								
Molybdenum - Total	--	0.0211	mg/l	0.05	LT	0.05	LT	0.05	LT	0.05	LT
pH	6.5 to 8.5	7.8	SU	7.4		7.1		7.2		7.2	
Potassium - Dissolved	--	88.27	mg/l								
Potassium - Total	--	137.53	mg/l	88		60.4		98.3		99.4	
Selenium - Dissolved	0.01	0.010	mg/l								
Selenium - Total	0.01	0.0229	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Silver - Dissolved	0.05	0.010	mg/l								
Silver - Total	0.05	0.0024	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Sodium - Dissolved	20	3188	mg/l								
Sodium - Total	20	3911	mg/l	1660		979		2390		1880	
Strontium - Dissolved	--	24.77	mg/l								
Strontium - Total	--	23.74	mg/l	12.9		8.16		15.2		13.8	
Sulfate	250	586	mg/l	423		301		470		458	
Temperature	--		Deg. C.	12.0		12.0		12.0		13.0	
Total Dissolved Solids	500	13506	mg/l	7240		3720		8240		8300	
Turbidity	5	127	NTU	15.0		3.1		33.0		3.6	
Vanadium - Dissolved	--	0.010	mg/l								
Vanadium - Total	--	0.005	mg/l	0.05	LT	0.05	LT	0.05	LT	0.05	LT
Zinc - Dissolved	2.0	0.010	mg/l								
Zinc - Total	2.0	0.0198	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

See "notes page" at end of table.

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Barker, New York
SAGDD-0711

Analyte	Class GA Groundwater Standard [1]	Assessment Trigger Value	Units	Mar-21		May-21		Sep-21		Nov-21	
				Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	—	51	mg/l			48				44	
Aluminum - Dissolved	0.1	0.059	mg/l								
Aluminum - Total	0.1	0.75	mg/l			0.2	LT				
Ammonia	2	6.77	mg/l			8.9				9.2	
Arsenic - Dissolved	0.025	0.021	mg/l								
Arsenic - Total	0.025	0.0540	mg/l			0.0115				0.00978	J
Boron-Dissolved	1	3.481	mg/l								
Boron - Total	1	3.38	mg/l			2.24				2.26	
Bromide	—	172.5	mg/l			112					
Cadmium - Dissolved	0.005	0.005	mg/l								
Cadmium - Total	0.005	0.0025	mg/l			0.005	LT			0.005	LT
Calcium - Dissolved	—	2319	mg/l								
Calcium - Total	—	2110	mg/l			1510				1630	
Chloride	250	13599	mg/l			9540					
Chromium - Dissolved	0.05	0.010	mg/l								
Chromium - Total	0.05	0.007	mg/l			0.01	LT				
Conductivity	—	42719	UMHO/CM			27330				30250	
Copper - Dissolved	0.2	0.010	mg/l								
Copper - Total	0.2	0.0057	mg/l			0.025	LT				
Eh	—	55	VOLTS			-8				-24	
F2–	1.5	0.6	mg/l			0.2	LT				
Hardness	—		mg/l			4760					
Iron - Dissolved	0.3	4.489	mg/l								
Iron - Total	0.3	4.17	mg/l			2.27				2.41	
Lead - Dissolved	0.025	0.020	mg/l								
Lead - Total	0.025	0.0142	mg/l			0.003	LT				
Lithium - Dissolved	—	7.3	mg/l								
Lithium - Total	—	7.675	mg/l	DRY		4.89		DRY		7.32	
Magnesium -Dissolved	35	302.6	mg/l								
Magnesium - Total	35	268.5	mg/l			239				243	J
Manganese - Dissolved	0.3	2.648	mg/l								
Manganese - Total	0.3	2.38	mg/l			1.22				1.27	
Mercury - Dissolved	0.0007	0.0002	mg/l								
Mercury - Total	0.0007	0.0002	mg/l			0.0002	LT				
Molybdenum - Dissolved	—	0.012	mg/l								
Molybdenum - Total	—	0.0172	mg/l			0.05	LT			0.05	LT
pH	6.5 to 8.5	7.7	SU			7.2				7.3	
Potassium - Dissolved	—	139.74	mg/l								
Potassium - Total	—	153.48	mg/l			102	J			112	J
Selenium - Dissolved	0.01	0.037	mg/l								
Selenium - Total	0.01	0.0299	mg/l			0.005	LT				
Silver - Dissolved	0.05	0.010	mg/l								
Silver - Total	0.05	0.0024	mg/l			0.01	LT				
Sodium - Dissolved	20	6675	mg/l								
Sodium - Total	20	7312	mg/l			3720				4110	
Strontium - Dissolved	—	49.54	mg/l								
Strontium - Total	—	43.78	mg/l			32.8				32.6	
Sulfate	250	867	mg/l			658					
Temperature	—		Deg. C.			12				12	
Total Dissolved Solids	500	25242	mg/l			20500				20100	
Turbidity	5	17	NTU			1.1				1.9	
Vanadium - Dissolved	—	0.010	mg/l								
Vanadium - Total	—	0.004	mg/l			0.05	LT				
Zinc - Dissolved	2.0	0.010	mg/l								
Zinc - Total	2.0	0.0163	mg/l			0.02	LT				

See "notes page" at end of table.

Appendix C. SWDA II Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGXGDX02A

Analyte	Class GA Groundwater Standard [1]	Units	Mar-21		May-21		Sep-21		Nov-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	--	mg/l	280		190		240		330	
Aluminum - Dissolved	--	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Aluminum - Total	--	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Ammonia	2	mg/l	0.1	LT	0.1	LT	0.2		0.1	LT
Arsenic - Dissolved	0.025	mg/l	0.00427	J	0.0102	R	0.00344	J	0.01	LT
Arsenic - Total	0.025	mg/l	0.00471	J	0.01	LT	0.00441	J	0.00465	J
Boron - Dissolved	1	mg/l	0.95	R	0.637	R	0.67	R	0.607	
Boron - Total	1	mg/l	0.929		0.53		0.652		0.634	
Bromide	--	mg/l	1	LT	1	LT	1	LT	1	LT
Cadmium - Dissolved	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Dissolved	--	mg/l	512	R	520	R	529	R	456	
Calcium - Total	--	mg/l	510		496		419		465	
Chloride	250	mg/l	8.02		2.42		2.84		3.62	
Chromium - Dissolved	0.05	mg/l	0.01	LT	0.01	LT	0.0109		0.01	LT
Chromium - Total	0.05	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Conductivity	--	UMHO/CM	2490		2295		2210		2210	
Copper - Dissolved	0.2	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
Copper - Total	0.2	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
Eh	--	VOLTS	25		89		47		172	
F2--	1.5	mg/l	0.61		0.26		0.2		0.39	
Hardness	--	mg/l	1636		1558		1369		1482	
Iron - Dissolved	0.3	mg/l	0.1	LT	0.1	LT	0.1	LT	0.1	LT
Iron - Total	0.3	mg/l	0.642		0.243		0.1	LT	0.124	
Lead - Dissolved	0.025	mg/l	0.003	LT	0.003	LT	0.003	LT	0.003	LT
Lead - Total	0.025	mg/l	0.003	LT	0.003	LT	0.003	LT	0.003	LT
Lithium - Dissolved	--	mg/l	0.305		0.207	R	0.141		0.223	
Lithium - Total	--	mg/l	0.317		0.175		0.154		0.227	
Magnesium -Dissolved	--	mg/l	91.8	R	78.5	R	79.3	R	72.8	
Magnesium - Total	--	mg/l	87.9		77.7		78.3		78	
Manganese - Dissolved	0.3	mg/l	0.015	LT	0.015	LT	0.015	LT	0.015	LT
Manganese - Total	0.3	mg/l	0.024		0.015	LT	0.015	LT	0.015	LT
Mercury - Dissolved	0.0007	mg/l	0.0002	LT	0.0002	LT	0.0002	LT	0.0002	LT
Mercury - Total	0.0007	mg/l	0.0002	LT	0.0002	LT	0.0002	LT	0.0002	LT
Molybdenum - Dissolved	--	mg/l	0.05	LT	0.05	LT	0.05	LT	0.05	LT
Molybdenum - Total	--	mg/l	0.05	LT	0.05	LT	0.05	LT	0.05	LT
pH	6.5 to 8.5	SU	7.1		7.0		7.8		7.1	
Potassium - Dissolved	--	mg/l	24.6	R	9.64	R	10.9	R	17.3	
Potassium - Total	--	mg/l	24		9.53		10.7		19.1	
Selenium - Dissolved	0.01	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Selenium - Total	0.01	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Silver - Dissolved	0.05	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Silver - Total	0.05	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Sodium - Dissolved	20	mg/l	28.5		19.4	R	18.9		30.2	
Sodium - Total	20	mg/l	36.5		19		19.1		33	
Strontium - Dissolved	--	mg/l	1.87	R	1.14		1.2	R	1.2	
Strontium - Total	--	mg/l	1.69		1.15		1.16		1.22	
Sulfate	250	mg/l	1220		1130		1200		1030	
Temperature	--	Deg. C	5		13		17		10	
Total Dissolved Solids	500	mg/l	2100		2150		1980.0		1960.0	
Turbidity	5	NTU	27.0		14.0		3.1		6.6	
Vanadium - Dissolved	--	mg/l	0.05	LT	0.05	LT	0.05	LT	0.05	LT
Vanadium - Total	--	mg/l	0.05	LT	0.05	LT	0.05	LT	0.05	LT
Zinc - Dissolved	--	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT
Zinc - Total	--	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
-- = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix C. SWDA II Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAGXGDX02B

Analyte	Class GA Groundwater Standard [1]	Units	Mar-21		May-21		Sep-21		Nov-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	--	mg/l								
Aluminum - Dissolved	--	mg/l								
Aluminum - Total	--	mg/l								
Ammonia	2	mg/l								
Arsenic - Dissolved	0.025	mg/l								
Arsenic - Total	0.025	mg/l								
Boron - Dissolved	1	mg/l								
Boron - Total	1	mg/l								
Bromide	--	mg/l								
Cadmium - Dissolved	0.005	mg/l								
Cadmium - Total	0.005	mg/l								
Calcium - Dissolved	--	mg/l								
Calcium - Total	--	mg/l								
Chloride	250	mg/l								
Chromium - Dissolved	0.05	mg/l								
Chromium - Total	0.05	mg/l								
Conductivity	--	UMHO/CM								
Copper - Dissolved	0.2	mg/l								
Copper - Total	0.2	mg/l								
Eh	--	VOLTS								
F2--	1.5	mg/l								
Hardness	--	mg/l								
Iron - Dissolved	0.3	mg/l								
Iron - Total	0.3	mg/l								
Lead - Dissolved	0.025	mg/l								
Lead - Total	0.025	mg/l								
Lithium - Dissolved	--	mg/l								
Lithium - Total	--	mg/l	DRY		DRY		DRY		DRY	
Magnesium -Dissolved	--	mg/l								
Magnesium - Total	--	mg/l								
Manganese - Dissolved	0.3	mg/l								
Manganese - Total	0.3	mg/l								
Mercury - Dissolved	0.0007	mg/l								
Mercury - Total	0.0007	mg/l								
Molybdenum - Dissolved	--	mg/l								
Molybdenum - Total	--	mg/l								
pH	6.5 to 8.5	SU								
Potassium - Dissolved	--	mg/l								
Potassium - Total	--	mg/l								
Selenium - Dissolved	0.01	mg/l								
Selenium - Total	0.01	mg/l								
Silver - Dissolved	0.05	mg/l								
Silver - Total	0.05	mg/l								
Sodium - Dissolved	20	mg/l								
Sodium - Total	20	mg/l								
Strontium - Dissolved	--	mg/l								
Strontium - Total	--	mg/l								
Sulfate	250	mg/l								
Temperature	--	Deg. C								
Total Dissolved Solids	500	mg/l								
Turbidity	5	NTU								
Vanadium - Dissolved	--	mg/l								
Vanadium - Total	--	mg/l								
Zinc - Dissolved	--	mg/l								
Zinc - Total	--	mg/l								

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
-- = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix C. SWDA II Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAPXUDX07A

Analyte	Class GA Groundwater Standard [1]	Units	Mar-21		May-21		Sep-21		Nov-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	--	mg/l	160		190		160		130	
Aluminum - Dissolved	--	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Aluminum - Total	--	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Ammonia	2	mg/l	13.3		12.4		15.9		9.5	
Arsenic - Dissolved	0.025	mg/l	0.0687	R	0.114	R	0.0855		0.0772	
Arsenic - Total	0.025	mg/l	0.0556		0.102		0.113		0.0822	
Boron - Dissolved	1	mg/l	2.45		2.76	R	2.3		2.74	R
Boron - Total	1	mg/l	2.53		2.39		2.3		2.69	
Bromide	--	mg/l	65.2		61.7		72.7		54.5	
Cadmium - Dissolved	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Dissolved	--	mg/l	375	R	337	J	361	R	330	J
Calcium - Total	--	mg/l	327	J	361	J	352	J	389	J
Chloride	250	mg/l	7360		7330		8330		6240	
Chromium - Dissolved	0.05	mg/l	0.0049	J	0.01	LT	0.01	LT	0.00646	J
Chromium - Total	0.05	mg/l	0.01	LT	0.01	LT	0.0126		0.01	LT
Conductivity	--	UMHO/CM	34460		32360		34940		29680	
Copper - Dissolved	0.2	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
Copper - Total	0.2	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
Eh	--	VOLTS	-260		-223		-245		62	
F2--	1.5	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Hardness	--	mg/l	870		959		932		1031	
Iron - Dissolved	0.3	mg/l	0.1	LT	0.1	LT	0.1	LT	0.1	LT
Iron - Total	0.3	mg/l	0.1	LT	0.1	LT	0.1	LT	0.1	LT
Lead - Dissolved	0.025	mg/l	0.003	LT	0.003	LT	0.003	LT	0.003	LT
Lead - Total	0.025	mg/l	0.003	LT	0.003	LT	0.003	LT	0.003	LT
Lithium - Dissolved	--	mg/l	6.12		6.8		6.61		4.43	R
Lithium - Total	--	mg/l	6.33		6.88		6.98		4.36	
Magnesium -Dissolved	--	mg/l	13.2		13.9		12.5		14.6	R
Magnesium - Total	--	mg/l	13.2		14.2		12.7		14.5	
Manganese - Dissolved	0.3	mg/l	0.0502	R	0.0468		0.0631		0.0546	R
Manganese - Total	0.3	mg/l	0.0476		0.0493		0.0622		0.0538	
Mercury - Dissolved	0.0007	mg/l	0.0002	LT	0.0002	LT	0.0002	LT	0.0002	LT
Mercury - Total	0.0007	mg/l	0.0002	LT	0.0002	LT	0.0002	LT	0.0002	LT
Molybdenum - Dissolved	--	mg/l	1.42		2.22	R	1.91		1.57	
Molybdenum - Total	--	mg/l	1.52		2.17		2.81		1.78	
pH	6.5 to 8.5	SU	8.3		8.2		8.2		7.8	
Potassium - Dissolved	--	mg/l	1030	R	802		1000		579	
Potassium - Total	--	mg/l	920		892		1000		719	
Selenium - Dissolved	0.01	mg/l	0.0654	R	0.0634		0.0583		0.0435	
Selenium - Total	0.01	mg/l	0.0647		0.07		0.0629		0.0635	
Silver - Dissolved	0.05	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Silver - Total	0.05	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Sodium - Dissolved	20	mg/l	7560	R	6710		7440		6050	
Sodium - Total	20	mg/l	7310		6770		8680		7390	
Strontium - Dissolved	--	mg/l	4.69		4.56		4.69		4.88	
Strontium - Total	--	mg/l	4.44		4.75		4.66		4.76	
Sulfate	250	mg/l	10100		10000		10200		9880	
Temperature	--	Deg. C	14		16		16		14	
Total Dissolved Solids	500	mg/l	26000		25000		26200.0		21600.0	
Turbidity	5	NTU	42.0		27.0		29.0		62.0	
Vanadium - Dissolved	--	mg/l	0.732		0.892		0.794		0.653	
Vanadium - Total	--	mg/l	0.834		0.94		0.809		0.676	
Zinc - Dissolved	--	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT
Zinc - Total	--	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
-- = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix C. SWDA II Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SASUSSXX01

Analyte	Class GA Groundwater Standard [1]	Units	Mar-21		May-21		Sep-21		Nov-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	--	mg/l	130		280				238	
Aluminum - Dissolved	--	mg/l								
Aluminum - Total	--	mg/l	0.2	LT	0.2	LT			0.2	LT
Ammonia	2	mg/l	0.1	LT	0.1	LT			0.1	LT
Arsenic - Dissolved	0.025	mg/l								
Arsenic - Total	0.025	mg/l	0.00359	J	0.00318	J			0.0063	J
Boron - Dissolved	1	mg/l								
Boron - Total	1	mg/l	0.05	LT	0.0594				0.0566	
Bromide	--	mg/l	1	LT	1	LT			1	LT
Cadmium - Dissolved	0.005	mg/l								
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT			0.005	LT
Calcium - Dissolved	--	mg/l								
Calcium - Total	--	mg/l	52.1		95.4				108	
Chloride	250	mg/l	81.7		78.3				110	
Chromium - Dissolved	0.05	mg/l								
Chromium - Total	0.05	mg/l	0.01	LT	0.01	LT			0.01	LT
Conductivity	--	UMHO/CM	620		805				1055	
Copper - Dissolved	0.2	mg/l								
Copper - Total	0.2	mg/l	0.025	LT	0.025	LT			0.025	LT
Eh	--	VOLTS	40		7				65	
F2--	1.5	mg/l	0.52		0.2	LT			0.2	LT
Hardness	--	mg/l	181		328					
Iron - Dissolved	0.3	mg/l								
Iron - Total	0.3	mg/l	0.295		0.206				0.1	LT
Lead - Dissolved	0.025	mg/l								
Lead - Total	0.025	mg/l	0.003	LT	0.003	LT			0.003	LT
Lithium - Dissolved	--	mg/l								
Lithium - Total	--	mg/l	0.16		0.293		DRY		0.261	
Magnesium -Dissolved	--	mg/l								
Magnesium - Total	--	mg/l	12.4		21.8				24.7	
Manganese - Dissolved	0.3	mg/l								
Manganese - Total	0.3	mg/l	0.015	LT	0.299				0.015	LT
Mercury - Dissolved	0.0007	mg/l								
Mercury - Total	0.0007	mg/l	0.0002	LT	0.0002	LT			0.0002	LT
Molybdenum - Dissolved	--	mg/l								
Molybdenum - Total	--	mg/l	0.05	LT	0.05	LT			0.05	LT
pH	6.5 to 8.5	SU	7.8		7.9				8.2	
Potassium - Dissolved	--	mg/l								
Potassium - Total	--	mg/l	5	LT	5.21				10.8	
Selenium - Dissolved	0.01	mg/l								
Selenium - Total	0.01	mg/l	0.005	LT	0.005	LT			0.005	LT
Silver - Dissolved	0.05	mg/l								
Silver - Total	0.05	mg/l	0.01	LT	0.01	LT			0.01	LT
Sodium - Dissolved	20	mg/l								
Sodium - Total	20	mg/l	35.9		36				50	LT
Strontium - Dissolved	--	mg/l								
Strontium - Total	--	mg/l	0.164		0.352				0.367	
Sulfate	250	mg/l	46.9		44.9				65.2	
Temperature	--	Deg. C	9		24				5	
Total Dissolved Solids	500	mg/l	355		590				640	
Turbidity	5	NTU	9.5		3.2				1.1	
Vanadium - Dissolved	--	mg/l								
Vanadium - Total	--	mg/l	0.05	LT	0.05	LT			0.05	LT
Zinc - Dissolved	--	mg/l								
Zinc - Total	--	mg/l	0.02	LT	0.02	LT			0.02	LT

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
-- = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix C. SWDA II Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SASDSSXX02

Analyte	Class GA Groundwater Standard [1]	Units	Mar-21		May-21		Sep-21		Nov-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	--	mg/l	110		270				220	
Aluminum - Dissolved	--	mg/l								
Aluminum - Total	--	mg/l	0.2	LT	0.2	LT			0.2	LT
Ammonia	2	mg/l	0.1	LT	0.1	LT			0.1	LT
Arsenic - Dissolved	0.025	mg/l								
Arsenic - Total	0.025	mg/l	0.00433	J	0.01	LT			0.00643	J
Boron - Dissolved	1	mg/l								
Boron - Total	1	mg/l	0.05	LT	0.057				0.05	LT
Bromide	--	mg/l	1	LT	1	LT			1	LT
Cadmium - Dissolved	0.005	mg/l								
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT			0.005	LT
Calcium - Dissolved	--	mg/l								
Calcium - Total	--	mg/l	56.5		99.5				98.4	
Chloride	250	mg/l	75.8		85.9				105	
Chromium - Dissolved	0.05	mg/l								
Chromium - Total	0.05	mg/l	0.01	LT	0.01	LT			0.01	LT
Conductivity	--	UMHO/CM	600		850				935	
Copper - Dissolved	0.2	mg/l								
Copper - Total	0.2	mg/l	0.025	LT	0.025	LT			0.025	LT
Eh	--	VOLTS	44		91				90	
F2--	1.5	mg/l	0.53		0.2	LT			0.2	LT
Hardness	--	mg/l	194		349					
Iron - Dissolved	0.3	mg/l								
Iron - Total	0.3	mg/l	0.212		0.274				0.133	
Lead - Dissolved	0.025	mg/l								
Lead - Total	0.025	mg/l	0.003	LT	0.003	LT			0.003	LT
Lithium - Dissolved	--	mg/l								
Lithium - Total	--	mg/l	0.162		0.312		DRY		0.277	
Magnesium -Dissolved	--	mg/l								
Magnesium - Total	--	mg/l	12.8		24.4				23.5	
Manganese - Dissolved	0.3	mg/l								
Manganese - Total	0.3	mg/l	0.015	LT	0.191				0.015	LT
Mercury - Dissolved	0.0007	mg/l								
Mercury - Total	0.0007	mg/l	0.0002	LT	0.0002	LT			0.0002	LT
Molybdenum - Dissolved	--	mg/l								
Molybdenum - Total	--	mg/l	0.05	LT	0.05	LT			0.05	LT
pH	6.5 to 8.5	SU	7.7		8				8.1	
Potassium - Dissolved	--	mg/l								
Potassium - Total	--	mg/l	5	LT	5.68				10.7	
Selenium - Dissolved	0.01	mg/l								
Selenium - Total	0.01	mg/l	0.005	LT	0.005	LT			0.005	LT
Silver - Dissolved	0.05	mg/l								
Silver - Total	0.05	mg/l	0.01	LT	0.01	LT			0.01	LT
Sodium - Dissolved	20	mg/l								
Sodium - Total	20	mg/l	35.2		38.9				50.9	
Strontium - Dissolved	--	mg/l								
Strontium - Total	--	mg/l	0.184		0.372				0.328	
Sulfate	250	mg/l	46.5		57.8				62.7	
Temperature	--	Deg. C	8		21				5	
Total Dissolved Solids	500	mg/l	335		680				730	
Turbidity	5	NTU	5.1		10				3.4	
Vanadium - Dissolved	--	mg/l								
Vanadium - Total	--	mg/l	0.05	LT	0.05	LT			0.05	LT
Zinc - Dissolved	--	mg/l								
Zinc - Total	--	mg/l	0.02	LT	0.02	LT			0.02	LT

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
-- = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix C. SWDA II Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAPXUDX07B

Analyte	Class GA Groundwater Standard [1]	Units	Mar-21		May-21		Sep-21		Nov-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	--	mg/l	100		100		110		130	
Aluminum - Dissolved	--	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Aluminum - Total	--	mg/l	0.2	LT	0.2	LT	0.2	LT	0.2	LT
Ammonia	2	mg/l	1.4		1.7		2.6		1.4	
Arsenic - Dissolved	0.025	mg/l	0.0693		0.0559		0.0551		0.0436	
Arsenic - Total	0.025	mg/l	0.0628		0.0482		0.0571		0.0476	
Boron - Dissolved	1	mg/l	2.65		3.91		3.01		2.71	
Boron - Total	1	mg/l	2.45		3.4		2.93		2.64	
Bromide	--	mg/l	17.9		16.6		20.5		13.2	
Cadmium - Dissolved	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT	0.005	LT	0.005	LT
Calcium - Dissolved	--	mg/l	500	LT	500	LT	500	LT	500	LT
Calcium - Total	--	mg/l	500	LT	500	LT	500	LT	500	LT
Chloride	250	mg/l	1880		1960		2470		1530	
Chromium - Dissolved	0.05	mg/l	0.01	LT	0.01	LT	0.0056	J	0.01	LT
Chromium - Total	0.05	mg/l	0.01	LT	0.00558	J	0.01	LT	0.01	LT
Conductivity	--	UMHO/CM	11200		11260		12680		9500	
Copper - Dissolved	0.2	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
Copper - Total	0.2	mg/l	0.025	LT	0.025	LT	0.025	LT	0.025	LT
Eh	--	VOLTS	-67		-107		-178		71	
F2--	1.5	mg/l	0.2	LT	0.2	LT	0.2	LT	0.26	
Hardness	--	mg/l	790		766		849		804	
Iron - Dissolved	0.3	mg/l	0.1	LT	0.1	LT	0.1	LT	0.1	LT
Iron - Total	0.3	mg/l	0.1	LT	0.1	LT	0.1	LT	0.1	LT
Lead - Dissolved	0.025	mg/l	0.003	LT	0.003	LT	0.003	LT	0.003	LT
Lead - Total	0.025	mg/l	0.003	LT	0.003	LT	0.003	LT	0.003	LT
Lithium - Dissolved	--	mg/l	2.4		3.29		3.73		2.44	
Lithium - Total	--	mg/l	2.43		3.32		3.73		2.45	
Magnesium -Dissolved	--	mg/l	14.7		20.2		16.4		15.7	
Magnesium - Total	--	mg/l	14.1		20.6		16.3		15.7	
Manganese - Dissolved	0.3	mg/l	0.0229		0.0211		0.0156		0.0164	
Manganese - Total	0.3	mg/l	0.0213		0.0236		0.0152		0.0157	
Mercury - Dissolved	0.0007	mg/l	0.0002	LT	0.0002	LT	0.0002	LT	0.0002	LT
Mercury - Total	0.0007	mg/l	0.0002	LT	0.0002	LT	0.0002	LT	0.0002	LT
Molybdenum - Dissolved	--	mg/l	1.04		1.15		1.42		0.873	
Molybdenum - Total	--	mg/l	0.957		1.19		1.41		0.905	
pH	6.5 to 8.5	SU	7.6		7.4		8.1		7.3	
Potassium - Dissolved	--	mg/l	230	J	224	R	85.9	J	198	R
Potassium - Total	--	mg/l	259	J	198	J	295	J	189	J
Selenium - Dissolved	0.01	mg/l	0.0258		0.018		0.005	LT	0.0105	
Selenium - Total	0.01	mg/l	0.0269		0.0208		0.00666		0.00868	
Silver - Dissolved	0.05	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Silver - Total	0.05	mg/l	0.01	LT	0.01	LT	0.01	LT	0.01	LT
Sodium - Dissolved	20	mg/l	1350		1990		2410		1680	
Sodium - Total	20	mg/l	2340		1680		2330		1720	
Strontium - Dissolved	--	mg/l	2.89		3.38		3.16		2.6	
Strontium - Total	--	mg/l	2.63		3.5		3.07		2.52	
Sulfate	250	mg/l	3060		3180		3600		2730	
Temperature	--	Deg. C	11		15		16		13	
Total Dissolved Solids	500	mg/l	7700		8000		8750.0		7070.0	
Turbidity	5	NTU	1.9		5.4		4.4		5.4	
Vanadium - Dissolved	--	mg/l	0.239		0.153		0.145		0.115	
Vanadium - Total	--	mg/l	0.259		0.146		0.143		0.119	
Zinc - Dissolved	--	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT
Zinc - Total	--	mg/l	0.02	LT	0.02	LT	0.02	LT	0.02	LT

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
-- = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix C. SWDA II Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York
SAPONDXX01

Analyte	Class GA Groundwater Standard [1]	Units	Mar-21		May-21		Sep-21		Nov-21	
			Value[2]	Notation	Value	Notation	Value	Notation	Value	Notation
Alkalinity	--	mg/l	56		28				72	
Aluminum - Dissolved	--	mg/l								
Aluminum - Total	--	mg/l	0.2	LT	0.2	LT			0.2	LT
Ammonia	2	mg/l	0.1	LT	0.5	LT			0.3	
Arsenic - Dissolved	0.025	mg/l								
Arsenic - Total	0.025	mg/l	0.01	LT	0.01	LT			0.01	LT
Boron - Dissolved	1	mg/l								
Boron - Total	1	mg/l	0.052		0.05	LT			0.0588	
Bromide	--	mg/l	1	LT	1	LT				
Cadmium - Dissolved	0.005	mg/l								
Cadmium - Total	0.005	mg/l	0.005	LT	0.005	LT			0.005	LT
Calcium - Dissolved	--	mg/l								
Calcium - Total	--	mg/l	20.1		23.7				22.4	
Chloride	250	mg/l	2.08		2	LT			2	LT
Chromium - Dissolved	0.05	mg/l								
Chromium - Total	0.05	mg/l	0.01	LT	0.00632	J			0.00714	J
Conductivity	--	UMHO/CM	160		160				200	
Copper - Dissolved	0.2	mg/l								
Copper - Total	0.2	mg/l	0.025	LT	0.025	LT			0.025	LT
Eh	--	VOLTS	69		118				21	
F2--	1.5	mg/l	0.51		0.2	LT			0.77	
Hardness	--	mg/l	62		73				69	
Iron - Dissolved	0.3	mg/l								
Iron - Total	0.3	mg/l	0.406		0.318				1.15	
Lead - Dissolved	0.025	mg/l								
Lead - Total	0.025	mg/l	0.003	LT	0.003	LT			0.003	LT
Lithium - Dissolved	--	mg/l								
Lithium - Total	--	mg/l	0.1	LT	0.1	LT	DRY		0.1	LT
Magnesium -Dissolved	--	mg/l								
Magnesium - Total	--	mg/l	5	LT	5	LT			5	LT
Manganese - Dissolved	0.3	mg/l								
Manganese - Total	0.3	mg/l	0.0638		0.101				0.207	
Mercury - Dissolved	0.0007	mg/l								
Mercury - Total	0.0007	mg/l	0.0002	LT	0.0002	LT			0.0002	LT
Molybdenum - Dissolved	--	mg/l								
Molybdenum - Total	--	mg/l	0.05	LT	0.05	LT			0.05	LT
pH	6.5 to 8.5	SU	7		7				6.8	
Potassium - Dissolved	--	mg/l								
Potassium - Total	--	mg/l	5	LT	5	LT			5	LT
Selenium - Dissolved	0.01	mg/l								
Selenium - Total	0.01	mg/l	0.005	LT	0.005	LT			0.005	LT
Silver - Dissolved	0.05	mg/l								
Silver - Total	0.05	mg/l	0.01	LT	0.01	LT			0.01	LT
Sodium - Dissolved	20	mg/l								
Sodium - Total	20	mg/l	5	LT	5	LT			5	LT
Strontium - Dissolved	--	mg/l								
Strontium - Total	--	mg/l	0.0375		0.062				0.0517	
Sulfate	250	mg/l	11.7		10.1				3.42	
Temperature	--	Deg. C	11		22.0				9	
Total Dissolved Solids	500	mg/l	100		265				125	
Turbidity	5	NTU	7.2						10	
Vanadium - Dissolved	--	mg/l								
Vanadium - Total	--	mg/l	0.05	LT	0.05	LT			0.05	LT
Zinc - Dissolved	--	mg/l								
Zinc - Total	--	mg/l	0.02	LT	0.02	LT			0.02	LT

Notes:
[1] Groundwater standards from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.
[2] A blank cell in the "Value" column indicates the analysis was not performed.
-- = No Class GA guidance value or standard exists.
shaded cells indicate exceedence of the Class GA Groundwater Standard

Appendix C. SWDA II Groundwater Analytical Summary
2021 Annual Report
Heorot Power - Somerset Operating Company
Barker, New York

Notes:

(1) Groundwater standards or Guidance value from: New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operation Guidance Series (TOGS 1.1.1), August 1999.

(2) A blank cell in the "Value" column indicates the analysis was not performed.

(3) Well was installed in August 2007.

--	=	NY Class GA Groundwater Standard or Guidance value does not exist.
B	=	Analyte was detected in equipment blank.
J	=	Laboratory estimated concentration.
LT	=	Indicates the compound was analyzed for but not detected.
M =	=	Matrix spike failed.
S+/M+	=	LCS Spike recovery is over acceptable limits and Matrix Spike is over acceptable limits
Z	=	RPD outside accepted recovery limits
		Concentration exceeds the Class GA Groundwater Standard (Appendices A and B) or the Assessment Trigger Value (Appendix C)