Supplemental Site Investigation Work Plan

RockGen Energy Center
Town of Christiana, Wisconsin

August 2021

BRRTS #02-13-587341

Prepared For:

RockGen Energy, LLC
2346 Clear View Road
Cambridge, WI 53523

Prepared By:

TRC
6737 West Washington Street, Suite 2100
West Allis, WI 53214

Lydia Auner
Project Geologist

Alia Enright, P.E. (WI)
Project Engineer

Stephen Sellwood, P.G. (WI)
Senior Hydrogeologist

Jeff Ramey
Senior Project Manager

TABLE OF CONTENTS

TABLES

FIGURES

1.0 Project Management Plan

1.1 Site Information

Parcel #061223285002
Town of Christiana, Dane County, Wisconsin
BRRTS #02-13-587341
X Coordinate (WTM91): 597536
Y Coordinate (WTM91): 278545
NW ¼ of NW ¼, Section 23, T06N R12E

Responsible Party

RockGen Energy, LLC
2346 Clear View Road
Cambridge, WI 53523

Attention: Mr. Dennis Oehring
608-423-1181
dennis.oehring@rockgenenergy.com

Environmental Consultant

TRC Environmental Corporation (TRC)
6737 West Washington Street, Suite 2100
West Allis, WI 53214

Attention: Jeff Ramey, Senior Project Manager
414-294-9247
jramey@trccompanies.com

1.2 Professional Engineer Certification

I, Alia Enright, hereby certify that I am a registered professional engineer in the State of Wisconsin, registered in accordance with the requirements of ch. A-E 4, Wis. Adm. Code; that this document has been prepared in accordance with the Rules of Professional Conduct in ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

Alia Enright E-47666

Signature and P.E. Number

P.E. Stamp

1.3 Certified Hydrogeologist Certification

I, Stephen Sellwood, hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03 (1), Wis. Adm. Code, am registered in accordance with the requirements of ch. GHSS 2, Wis. Adm. Code, or licensed in accordance with the requirements of ch. GHSS 3, Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

Signature

08-06-2021

Date

2.0 Introduction

2.1 Site Location

The subject property is located at 2346 Clear View Road in the Town of Christiana, Dane County, Wisconsin and consists of two parcels (parcel #061223285002 and parcel #061223290005) covering 77.81 acres (**Figure 1**). The RockGen Energy Center, a natural gas- and fuel oil-fired power generation facility, is located on the northeast quadrant of the property. For the purposes of this Site Investigation, the "Site" is considered to be the extent of the RockGen Energy Center, located on the eastern portion of the northern parcel of the property (parcel #061223285002) and covers an area of approximately 10 acres. The Site is located in the NW ¼ of the NW ¼ of Section 23, Township 6N, Range 12E. The mailing address for the property references the City of Cambridge; however, the property is located within the Town of Christiana.

A former limestone quarry is located on the northwest quadrant of the property and agricultural land is located on the southern portion of the property. The subject property is predominantly surrounded by agricultural fields and associated residences (**Figure 2**). The Wisconsin Power & Light Company Rockdale Switching Station is located approximately 1,000 feet east of the Site, and T & T Stone Co., Inc. operates a quarry approximately 1,500 feet northeast of the Site.

2.2 Background

A Phase I Environmental Site Assessment (ESA) for the property was completed on behalf of Calpine Operating Services Company, Inc. (Calpine) in March 2019. The Phase I ESA was conducted for the entire property consisting of 77.81 acres (parcel #061223285002 and parcel #061223290005). No recognized environmental conditions or de minimis conditions were identified. The following historical site use information was obtained from the Phase I ESA:

- 1910 – Agricultural (dairy farm) use on southeast portion of property.
- 1945 – Limestone quarry operated by T&T Stone Co. Inc. on northwest portion of property.
- 2000 – A previous owner started construction of a natural gas- and fuel oil-fired power generation facility on the northeast portion of the property, which included three combustion turbines and generators, three aboveground storage tanks, and support structures.
- 2019 – Property transfer from the previous owner to the current owner of RockGen Energy, LLC (RockGen).
- Current – The Site continues to operate as the RockGen natural gas- and fuel oil-fired power generation facility.

On March 8, 2021, RockGen was notified by a consultant working on behalf of a third party that per- and polyfluoroalkyl substances (PFAS) were detected in a sample collected from a kitchen sink tap at the facility. RockGen immediately discontinued use of the on-site potable well for drinking water purposes and provided bottled water to the employees. RockGen confirmed the presence of PFAS in the unfiltered kitchen sink tap and subsequently reported the results to the Wisconsin Department of Natural Resources (WDNR). On March 19, 2021, the Site was assigned Bureau for Remediation and Redevelopment Tracking System (BRRTS) #02-13-587341 and

RockGen Energy, LLC was identified as the responsible party (RP) in a WDNR letter issued March 23, 2021.

TRC Environmental Corporation (TRC), on behalf of RockGen, filed a Site Investigation Workplan (SIWP) that was approved by the WDNR on April 9, 2021, and is available on BRRTS on the web. TRC conducted the initial phases of investigation from April through May 2021 in accordance with this SIWP and results were submitted to the BRRTS database. Based on the results from the initial site investigation activities, this Supplemental Site investigation has been scoped to more precisely define the degree and extent of PFAS released at the Site. TRC submitted an Interim Action Workplan on July 23, 2021 with proposed interim source control actions that received approval on July 30, 2021 and is available on BRRTS on the web.

2.3 Purpose and Scope

The purpose of this Supplemental Site investigation is to further define the degree and extent of PFAS at the Site. TRC, on behalf of RockGen Energy, LLC, has prepared this Supplemental Site Investigation Work Plan (SIWP) to meet the following objectives:

- Define the nature, degree, and extent of PFAS in groundwater at the Site.
- Further characterize the groundwater flow direction and hydraulic conductivity of materials where PFAS are found in groundwater.

The results of this Supplemental Site investigation will dictate whether additional investigation, interim action, and/or remedial action is required to address the environmental impacts and achieve Site closure.

3.0 Site Conditions

3.1 Topography

Topographical information for the subject property shown on **Figure 1** indicates the site elevation is approximately 930-945 feet (ft) above mean sea level (amsl) and topography generally slopes to the southeast. A drainage swale west of the AFFF inspection testing area runs north/south on the western edge of the site extent area. A former limestone quarry is located approximately 90 ft west of the Site, which appears to intermittently contain water based on aerial imagery. The nearest mapped surface water is an unnamed intermittent stream located approximately 1,360 ft west of the site. Based on aerial imagery, there also appears to be a small pond or drainage basin located approximately 1,400 ft east of the Site, to the south of an electrical substation. Koshkonong Creek is located approximately 4,000 ft (0.75 miles) southeast of the Site and approximately 4,400 ft (0.83 miles) east of the Site.

3.2 Site Features

RockGen has a Fire Suppression System for its fuel oil storage tank that contains PFAS-based Aqueous Film Forming Foam (AFFF). The system is designed to release AFFF only into the fuel oil tank and its secondary containment tank. The secondary containment tank is the tank visible on the aerial photo in **Figure 2**, with the fuel oil tank located inside of that exterior tank. More information on the PFAS-containing AFFF contents of the fire suppression system and intermittent discharges due to foam inspection testing were provided in the April 2021 SIWP. According to Site contacts, AFFF inspection testing was conducted adjacent to the Fire Suppression System as indicated in **Figure 2** as the approximate area of AFFF inspection testing.

Surface water from the AFFF inspection testing area and surrounding fire protection area drains into a storm sewer inlet located to the northwest of the testing area. The storm sewer outlet is located near the northwest corner of the Site, west of the Site boundary (outside of the fenced area), as shown on **Figure 2**. The storm sewer outlet discharges to a storm water drainage channel, which ultimately drains to a storm water retention basin on the northwest corner of the property.

Three water wells are currently in use at the Site, including one potable water well that provides drinking and sanitary water to the facility and two high-capacity wells that provide water used for the power generation processes. Sanitary wastewater from the facility is routed to an on-site septic system and mound drain field locate in the grassy area east of the buildings, as shown on **Figure 2**. Additional details regarding the water supply wells and septic system were included in the April 2021 SIWP.

3.3 Regional Geology and Hydrogeology

Shallow, unconsolidated sediments in the area are mapped as subglacial till of the Horicon Member of the Holy Hill Formation, described as gravelly, clayey, silty sand (Clayton and Attig, 1997). Bedrock at the Site is mapped as the Ordovician Sinnipee Group, consisting of the Galena dolomite, Decorah shale, and Platteville dolomite and shaly dolomite (Brown et al., 2013). Depth to bedrock is mapped at 0 to 50 ft below ground surface (bgs) (Trotta and Cotter, 1973).

The previous well construction records for the three existing facility wells and two abandoned facility wells indicated limestone is present at the ground surface, and generally indicate the following stratigraphy:

- Limestone with some sandstone layers from ground surface (0 ft bgs) to lower depths ranging from 55 to 70 ft bgs.
- Sandstone with shale layers from upper depths ranging from 55 to 70 ft bgs to lower depths ranging from 97 to 135 ft bgs.
- Dolomite with shale and/or sandstone layers from upper depths ranging from 97 to 135 ft bgs to lower depths ranging from 180 to 220 ft bgs.
- Sandstone with dolomite and shale layers from upper depths ranging from 180 to 220 ft bgs to lower depths ranging from 1030 to 1100 ft bgs.
- Granite beginning at depths ranging from 1030 to 1100 ft bgs.

The nearest mapped surface water is an intermittent stream to the west of the Site located at an approximate elevation between 880 and 890 ft amsl. The intermittent nature of the stream indicates that it is located above the water table and is therefore not interpreted to be the nearest groundwater discharge point. The next closest surface water body is Koshkonong Creek, located to the east at an elevation of approximately 815 ft amsl and to the southeast at an elevation of approximately 810 ft amsl. Therefore, the shallowest groundwater at the Site is expected to flow to the east or southeast and discharge to Koshkonong Creek. This interpretation is supported by the 2016 Dane County Groundwater Flow Model, which predicts flow to the east/southeast in the vicinity of the Site (Parsen et al., 2016).

4.0 Initial Site Investigation Results

4.1 Geology and Hydrogeology

4.1.1 Soil and Bedrock Units

Depth to bedrock ranges from approximately 1 to 16 ft bgs based on sampling during the initial phase of Site investigation well drilling and refusal depths from direct push and hand auger soil borings. Soil observed during the investigation included clay, silt, sand, and gravel. In general, sand and gravel (assumed to be fill material) were predominant in the areas where sand and gravel is the visible surficial material at the site, and silt and clay were predominant in the grassy or vegetated portions of the site.

The uppermost carbonate bedrock, interpreted as dolomite based on regional geology, was observed to extend to approximately 51-56 ft bgs in monitoring wells MW-02 through MW-07 and the piezometer PZ-01; the monitoring well network is depicted in **Figures 3-7**. During drilling for the monitoring wells, no sample was recovered for the bottom 6-16 feet of each boring; sandstone is presumed to occur in these intervals of no recovery. Drilling for piezometer PZ-01 indicated sandstone from 54-86 ft bgs, dolomite from 86-158 ft bgs, and sandstone from 158-300 ft bgs.

4.1.2 Hydrogeology

Groundwater elevations measured in May and July 2021 are summarized in **Table 1**, and water table contours and flow direction are depicted on **Figures 3 and 4**. Groundwater elevations measured in monitoring wells during May and July 2021 ranged from about 883 to 886 ft amsl, corresponding to depths to water around 54 to 58 ft bgs in wells MW-02 through MW-07 and around 43 ft bgs in MW-01. These water table elevations generally occur within the interval where no bedrock samples were recovered during monitoring well installation, which is presumed to be sandstone underlying the upper dolomite. The groundwater flow direction at the water table is generally to the southeast based on the May and July 2021 measurements.

4.2 Groundwater and Potable Well Results

Groundwater results are summarized and compared to the proposed NR 140 standards in **Table 2**. The PFAS compounds detected at the highest concentrations were 8:2 fluorotelomer sulfonic acid (8:2 FTS) and 6:2 fluorotelomer sulfonic acid (6:2 FTS) and the perfluorocarboxylic acids C4-C8 [perfluorobutanoic acid (PFBA), perfluoropentanoic acid (PFPeA), perfluorohexanoic acid (PFHxA), perfluoroheptanoic acid (PFHpA), and perfluorooctanoic acid (PFOA)]. The highest concentrations of PFAS were detected in the well in the AFFF testing area (MW-04) and the potable well, followed by the well in the northwest corner of the Site (MW-01) and the well on the eastern edge of the Site, southeast of the septic mound (MW-05), then the well along the western edge of the Site (MW-02). Packer interval sampling results from the on-site potable well indicate generally similar PFAS detections from 100 to 200 ft bgs.

Wells in which PFAS concentrations exceeded the proposed NR 140 preventive action limits (PALs) or enforcement standards (ESs) include the potable well, MW-01, MW-02, MW-04, and MW-05. Select results for PFOA and perfluorononanoic acid (PFNA) exceeded the proposed NR 140 ESs, and select results for PFOA, PFNA, and perfluorooctane sulfonic acid (PFOS) exceeded the proposed NR 140 PALs. One or more PFAS compound was detected in MW-03,

MW-06, MW-07, and PZ-01 at low concentrations (<10 ng/L) less than the proposed NR 140 PALs or ESs. Only one PFAS compound, perfluorobutane sulfonic acid (PFBS), was detected in the private well at 2304 Carpenter Swain Road, at an estimated concentration less than the proposed NR 140 PAL.

Figures 5 and 6 depict data for select PFAS compounds, including those that have exceeded the proposed NR 140 ESs or PALs (PFOA, PFNA, and PFOS) and indicator compounds for AFFF impacts (8:2 FTS and 6:2 FTS). These indicator compounds are also sources of degradation to terminal products - perfluorocarboxylic acids C4 – C9. In every monitoring well that detected a PFAS compound above the proposed ES, PFOA exceeded the ES by the highest ratio (detected concentration / ES). For this reason, PFOA is considered the PFAS of concern for delineation of PFAS in groundwater and PFOA isocontours are depicted on **Figures 5 and 6**.

4.3 Water Supply Well Results

Two high-capacity wells that provide water used for the power generation processes are depicted on **Figure 2** as Well #1 and Well #2**.** Well construction records for these wells, provided in the initial SIWP, indicate the wells are both cased to 514 ft bgs and installed to total depths of 982 and 1043 ft bgs, respectively. Groundwater samples taken from these wells are essentially non-detect for PFAS with the exception of an estimated detection during one of the two rounds of sampling for perfluorooctane sulfonamide (PFOSA).

5.0 Site Investigation Plan

The results of the potable water sampling completed in March 2021 and site investigation sampling in April/May 2021 indicate PFAS present in soil, groundwater, and storm water at the Site. Further investigation is needed to determine the degree and extent of the PFAS impacts to groundwater from the Site. The proposed investigation plan well installations are shown on **Figure 7**. A summary of the sampling and analysis plan for the supplemental groundwater sampling is included in **Table 3**. Proposed sampling locations will be modified if required due to site access limitations and/or based on observations made during the site investigation.

5.1 Groundwater Investigation

Sampling of the existing monitoring well network will continue to be conducted as scoped in the previously approved April 2021 SIWP. This proposed supplemental groundwater investigation includes installation, development, and sampling of up to nine multiport monitoring wells (Westbay Systems) with eight intervals per well to determine the horizontal and vertical extent of PFAS in groundwater. Groundwater samples from the monitoring wells will be analyzed by a laboratory certified under NR 149 for the list of 33 PFAS analytes. Groundwater sampling will be conducted following Westbay's methods and TRC's SOP for Groundwater Sampling, as applicable, and the multiport sampling procedure detailed in **Section 5.2.4**. Two rounds of groundwater sampling will be conducted for the newly installed multiport monitoring wells to establish PFAS concentrations. Based on the results from the first two sampling events, additional sampling rounds will be completed at select depth intervals within the multiport wells to assess PFAS trends over time.

5.1.1 Monitoring Wells

The approach for well installation is to use Westbay multiport devices at up to nine locations with eight ports per location. The ports and packers will be set up to sample the entire saturated interval of the borehole (i.e., from 60 ft. below ground to 300 ft. below ground), using a single packer interval between each of the eight ports.

A phased program of well installation will include installing six multiport wells with sampling and measurement of the groundwater elevations at these wells, which will then inform the locations for installation of two additional wells. A ninth contingent well will be installed if required to define the degree and extent.

Installation and sampling of the multiport monitoring wells will be completed as follows:

- A location and elevation survey will be completed prior to mobilization for drilling to provide a reference elevation at each proposed multiport monitoring well location. The elevation marked by the survey will be transferred to the measurement point at the top of the final multiport installation.
- Prior to drilling at each monitoring well location, the upper six inches of soil will be removed from an area of approximately 1.5 ft by 1.5 ft around the proposed well location. Drilling will be completed by sonic drilling using a borehole diameter of 6 inches. A surface casing will be installed into the top of competent rock. Rock cuttings will be logged during drilling.

- Installation of six multiport monitoring wells will be completed first, as indicated on **Figure 7**. These six wells will be developed and sampled to determine the locations of the remaining wells and well depths. The sample port interval depths may be adjusted based on the estimated groundwater flow direction and initial groundwater analytical results.
  - Each multiport well will be installed within a 6-inch borehole drilled to 300 feet bgs, with eight sample interval ports per well. Multiports will be installed at approximately 30-foot spacing, assuming the groundwater table is encountered at approximately 60 feet bgs. Total borehole depth and specific port/packer intervals may be adjusted in the field pending site conditions and laboratory analytical results.
  - Multiport monitoring wells will be constructed using Westbay MP-38 Systems methods and completed with stick-up covers. Each monitoring zone will be completed with two Westbay packers, a Westbay measurement port, a Westbay pumping port, and a magnetic location collar.
- Following receipt of the PFAS groundwater analysis results and confirming groundwater flow directions, it will be determined whether a ninth contingent well is needed to delineate the Site. The installation of monitoring wells off-site, as depicted in **Figure 7**, in the adjacent east and northwest parcels to the Site will require an access agreement with the landowner.

5.2 Site Investigation Procedures

This section describes the specific sampling equipment and methodology to be used for the site investigation activities described above.

5.2.1 Multiport Well Installation

Multiport wells will be advanced using sonic drilling methods. TRC will log rock cuttings during drilling. Bedrock cuttings will be placed in containers and managed as investigation-derived waste (IDW) in accordance with **Section 5.2.10**. Sample processing equipment may be single-use and disposable or may be re-used at the discretion of the field crew, if these materials can be adequately decontaminated following use. All downhole equipment and any other non-dedicated, non-disposable sampling equipment will be decontaminated in accordance with **Section 5.2.9** prior to installing the next borehole.

Westbay System installation will be conducted by a Westbay contractor and TRC field staff in coordination with the drilling crew.

5.2.2 Monitoring Well Development

The drilling crew will develop and purge the borehole before the Westbay System components are installed. The multiport monitoring wells will be allowed to recover prior to sampling. This will include multiple water level measurements to determine whether the water levels are stable following installation.

5.2.3 Water Level Measurements

Water level measurements will be collected using head pressure differentials measured at the sample ports using the in-well Westbay System equipment.

5.2.4 Groundwater Sampling from Multiport Monitoring Wells

Due to the design of Westbay System multiport wells, well purging prior to sampling is not required. Sampling will be conducted using in-well Westbay System sampling equipment and ports.

In-well components that will be submerged in the water column will be determined to be PFAS-free or to not yield PFAS to samples prior to use. Tubing and other sample-contacting material will be high-density polyethylene (HDPE), silicone, or other material determined to be PFAS-free.

5.2.5 Analytical Quality Assurance Samples

Analytical quality assurance will be assessed through the collection of field QA/QC samples, such as blank and duplicate samples. The frequencies for collection of field duplicate, equipment blank, and field blank samples are specified below using general guidelines and in **Table 3** for the groundwater sampling.

5.2.5.1 Field Duplicates

Blind field duplicate samples, prepared by splitting a single sample into two separate sets of laboratory containers, will be used to evaluate sampling precision for water samples. Points where duplicate samples are to be collected will be selected by the field personnel and will be submitted as single-blind duplicates to the laboratory. Field duplicates will be collected at a rate of one for every 10 (or fewer) water samples.

5.2.5.2 Equipment Blanks

Equipment blanks are analyzed to check that equipment coming into contact with the samples is not causing sample contamination. Equipment blanks for groundwater samples will be collected at a frequency of one for every 10 (or fewer) primary samples that are collected with non-dedicated, non-disposable equipment. Equipment blanks for groundwater samples will be collected in the field by running laboratory certified PFAS-free water through new tubing using the same pump set-up used for groundwater sampling. If the pump components are sample-contacting, the equipment blank will be collected after the pump has been decontaminated.

5.2.5.3 Field Blanks

Field blanks are analyzed to check for procedural contamination at the Site that may cause sample contamination. Field blanks will be collected in the field by pouring laboratory certified PFAS-free water into the sample containers and submitting for PFAS analysis. One field blank will be collected during each round of groundwater monitoring.

5.2.6 Sample Identification

Sample IDs will be recorded in the field notes and laboratory chain of custody.

Each multiport monitoring well will be identified with "MP" followed by a location number assigned sequentially in the order of installation, followed by the multiport screen interval. Each groundwater sample will be identified with the unique well/multiport ID followed by the sampling event year and month. For example, a sample collected at MP-01 from the screen interval of 100 to 110 ft bgs in August 2021 would be named "MP-01(100-110)-202108" and the first field duplicate for that event would be named "DUP-01-202108."

Field blanks will be identified with "FB" followed by a number assigned sequentially in the order of collection and the sampling event year and month. Equipment blanks will be identified with "EB" followed by a number assigned sequentially in the order of collection and the sampling event year and month.

5.2.7 Sample Shipment and Laboratory Analysis

Groundwater samples for laboratory analysis will be placed in appropriate sample containers provided by the laboratory. Sample containers will be placed on ice immediately after collection for transport to a laboratory certified by Wisconsin DNR for PFAS under NR 149 for non-potable water matrices and report the list of 33 PFAS analytes. A summary of the sampling and analysis plan for the initial round of groundwater monitoring is included in **Table 3**. Method detection limits for the proposed analytes will be the same as those used for the initial phase of site investigation, which were previously included in Appendix F of the April 2021 SIWP.

5.2.8 Well Locations

The final locations of monitoring wells will be logged using differential Global Positioning System (GPS) techniques. The Juniper Geode GPS receiver, a real-time sub-meter Bluetooth Global Navigation Satellite System GNSS receiver, will be used to collect these locations while paired with a tablet or phone. GPS averaging will be used to ensure a more accurate point. All data will be collected in Web Mercator within the ESRI Field Maps application and will then be transformed and projected into the State Plane coordinate system (NAD83, US Feet) using Geographic Information System (GIS) software.

5.2.9 Sampling Equipment and Decontamination

An appropriately developed, executed, and documented equipment decontamination procedure is an integral and essential part of environmental site investigations. The benefits include minimizing the spread of contaminants and improved data quality and reliability.

5.2.9.1 Single-Use Sampling Equipment

To the extent practicable, single-use sampling equipment and materials will be used for the collection of samples. The single-use materials used will be new and clean and will be placed in plastic for transport to the Site. Once used, single-use equipment will be placed in plastic bags and managed as investigation-derived waste material. Single-use equipment includes, but is not limited to, HDPE and silicone tubing. Single-use equipment and materials will not require field decontamination.

5.2.9.2 Non-Dedicated Equipment

Proper decontamination of equipment is essential to minimize the possibility of cross-contamination of samples. Non-dedicated equipment such as water level indicators and non-dedicated submersible pumps will be decontaminated prior to their initial use on-site and in between sampling points and transported to the Site in a protected and decontaminated condition. Decontamination procedures will include the following steps:

- Wash the equipment in a non-phosphate detergent.
- Rinse with potable tap water.
- Rinse with water determined to be PFAS-free.

Field decontamination of equipment may take place at the sampling location. Decontamination water will be collected in 5-gallon buckets or similar containers and managed as described in **Section 5.2.10**.

5.2.10 Investigation-Derived Waste (IDW)

IDW streams generated during this investigation are expected to include rock and soil cuttings, decontamination fluids, monitoring well development water, and general refuse (e.g., used personal protective equipment, single-use sampling equipment, and trash). Rock and soil cuttings, monitoring well development water, and decontamination fluids will be containerized, labeled with the date and contents, and left on Site pending characterization results. Pending results, IDW will be disposed off-site by an approved contractor. General refuse will be collected in trash bags and placed in a waste dumpster.

6.0 Schedule and Reporting

6.1 Schedule

The Supplemental Site investigation will be initiated as soon as practicable and is anticipated to be initiated mid-September, but mobilization will be determined as field conditions and contractor availability allow. The timing for the installation of the off-site monitoring wells will be contingent on gaining access to the properties with the current landowner. The results of the Supplemental Site investigation will include the proposed multiport wells installation and at least two rounds of groundwater monitoring and will be compiled into a Supplemental Site Investigation Report to be submitted to WDNR within 60 days of completing the Supplemental Site investigation.

6.2 Reporting

TRC will tabulate and evaluate the results of the Supplemental Site investigation and will present the results in a NR 716 Supplemental Site Investigation Report to be submitted to the WDNR. Groundwater results will be compared to proposed NR 140 PALs and ESs for PFAS that are under Cycle 10 and Cycle 11 rule-making procedures. Water level data will be used to create groundwater flow and isoconcentration contour maps.

The results of this Supplemental Site investigation will dictate whether additional investigation, interim action, and/or remedial action is required to address the environmental impacts and ultimately achieve Site closure.

7.0 References

Brown, B.A., et al. 2013. *Preliminary Bedrock Geology of Dane County, Wisconsin*. Wisconsin Geological and Natural History Survey Open File Report 2013-01, Plate 1.

Clayton, L. and Attig, J.W. 1997. *Pleistocene Geology of Dane County, Wisconsin.* Wisconsin Geological and Natural History Survey Bulletin 95.

Parsen, M.J. et al. 2016. *The 2016 Groundwater Flow Model for Dane County, Wisconsin*. Wisconsin Geological and Natural History Survey Bulletin 110.

Trotta, L.C., and R.D. Cotter. 1973. *Depth to Bedrock in Wisconsin*. University of Wisconsin-Extension Geological and Natural History Survey and U.S. Geological Survey

Table 1 - Groundwater Elevations
RockGen Energy Center
Town of Christiana, Dane County, Wisconsin
TRC Project # 437865.0000.0000, BRRTS #02-13-587341

Well	MW-01		MW-02		MW-03		MW-04		MW-05		MW-06		MW-07		PZ-01	
Top of Casing Elevation (ft amsl)	930.73		941.55		942.03		943.25		945.48		941.84		941.63		944.95	
Ground Surface Elevation (ft amsl)	928.28		938.88		939.53		940.77		942.92		939.40		939.14		942.57	
Top of Screen Elevation (ft amsl)	893.7		891.4		889.9		891.1		889.4		889.5		890.7		652.6	
Bottom of Screen Elevation (ft amsl)	878.7		881.4		874.9		876.1		874.4		874.5		875.7		642.6	
Screen Length (ft)	15		10		15		15		15		15		15		10	
Date	Depth to Water (ft btoc)	Groundwater Elevation (ft amsl)	Depth to Water (ft btoc)	Groundwater Elevation (ft amsl)	Depth to Water (ft btoc)	Groundwater Elevation (ft amsl)	Depth to Water (ft btoc)	Groundwater Elevation (ft amsl)	Depth to Water (ft btoc)	Groundwater Elevation (ft amsl)	Depth to Water (ft btoc)	Groundwater Elevation (ft amsl)	Depth to Water (ft btoc)	Groundwater Elevation (ft amsl)	Depth to Water (ft btoc)	Groundwater Elevation (ft amsl)
5/17/2021	44.88	885.85	56.77	884.78	57.92	884.11	58.45	884.80	60.95	884.53	57.44	884.40	57.45	884.18	--	--
5/27/2021	45.37	885.36	57.15	884.40	58.32	883.71	58.82	884.43	61.41	884.07	57.77	884.07	58.04	883.59	--	--
7/14/2021	44.98	885.75	56.83	884.72	58.04	883.99	58.52	884.73	60.98	884.50	57.67	884.17	58.30	883.33	99.97	844.98

Notes:
Elevations measurements are relative to NAVD 88 datum.
ft btoc = feet below top of casing
ft amsl = feet above mean sea level

Prepared by: L. Auner, 5/27/2021
Checked by: S. Sellwood, 5/27/2021
Updated: W. Braga/L. Auner 7/21/21
Checked by: A. Enright 7/29/2021

Table 2 - Groundwater Analytical Results
RockGen Energy Center
Town of Christiana, Dane County, Wisconsin
TRC Project # 437865.0000.0000, BRRTS #02-13-587341

				Well Type	On-Site Potable Well										
				Sample Location ID	Raw Tap	Kitchen Tap	Filter Tap	Fridge Tap	PW-01 100 - 117 ft	PW-01 116.25 - 137.25 ft	PW-01 136.75 - 157.75 ft	PW-01 157.5 - 178.5 ft	PW-01 175.25 - 196.25 ft	PW-01
				Sample Depth										
				Sample Date	03/10/2021	03/10/2021	03/10/2021	03/10/2021	04/22/2021	04/22/2021	04/22/2021	04/22/2021	04/22/2021	07/16/2021
CAS RN	Constituent	Units	Proposed NR 140 PAL[1]	Proposed NR 140 ES[1]										
Carboxylic Acids														
375-22-4	Perfluorobutanoic acid (PFBA)	ng/L	2,000	10,000	120	120	4.0	2.1 J	77	88	56	73	82	110
2706-90-3	Perfluoropentanoic acid (PFPeA)	ng/L	-	-	500	490	< 0.96	< 0.93	300	360	230	290	280	480
307-24-4	Perfluorohexanoic acid (PFHxA)	ng/L	30,000	150,000	340	350	< 0.96	< 0.93	210	240	150	190	210	260
375-85-9	Perfluoroheptanoic acid (PFHpA)	ng/L	-	-	190	200	< 0.96	< 0.93	100	110	63	99	97	140
335-67-1	Perfluorooctanoic acid (PFOA)	ng/L	2[2]	20[2]	***210***	***200***	< 0.96	< 0.93	***100***	***130***	***62***	***100***	***100***	***170***
375-95-1	Perfluorononanoic acid (PFNA)	ng/L	3	30	*23*	*24*	< 0.96	< 0.93	*10*	*11*	*5*	*9.2*	*8.9*	*17*
335-76-2	Perfluorodecanoic acid (PFDA)	ng/L	60	300	5.6	5.6	< 0.96	< 0.93	2.4	2.0	1.1 J	2.0	2.1	3.9
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ng/L	600	3000	< 1.0	< 0.93	< 0.96	< 0.93	< 1.1	< 1.1	< 1.0	< 0.99	< 1.0	< 0.97
307-55-1	Perfluorododecanoic acid (PFDoA)	ng/L	100	500	< 1.0	< 0.93	< 0.96	< 0.93	< 0.57	< 0.56	< 0.52	< 0.49	< 0.52	< 0.49
72629-94-8	Perfluorotridecanoic acid (PFTrDA)	ng/L	-	-	< 1.0	< 0.93	< 0.96	< 0.93	< 1.3	< 1.3	< 1.2	< 1.2	< 1.2	< 1.1
376-06-7	Perfluorotetradecanoic acid (PFTA)	ng/L	2000	10000	< 1.0	< 0.93	< 0.96	< 0.93	< 0.75	< 0.74	< 0.69	< 0.65	< 0.69	< 0.64
Sulfonic Acids														
375-73-5	Perfluorobutane sulfonic acid (PFBS)	ng/L	90000	450000	1.1 J	1.4 J	< 0.96	< 0.93	0.45 J	0.40 J	0.40 J	0.67 J	0.52 J	0.73 J
2706-91-4	Perfluoropentane sulfonic acid (PFPeS)	ng/L	-	-	< 1.0	< 0.93	< 0.96	< 0.93	< 0.31	< 0.31	< 0.28	< 0.27	< 0.28	< 0.27
355-46-4	Perfluorohexane sulfonic acid (PFHxS)	ng/L	4	40	1.2 J	< 0.93	< 0.96	< 0.93	1.2 J	1.2 J	0.82 J	0.87 J	1.0 J	1.5 J
375-92-8	Perfluoroheptane sulfonic acid (PFHpS)	ng/L	-	-	< 1.0	< 0.93	< 0.96	< 0.93	< 0.20	< 0.19	< 0.18	< 0.17	< 0.18	< 0.17
1763-23-1	Perfluorooctane sulfonic acid (PFOS)	ng/L	2[2]	20[2]	*7.8*	*8.9*	< 0.96	< 0.93	< 5.3 U	< 5.3 U	< 0.51 U	< 5.3 U	< 5.3 U	*6.6*
68259-12-1	Perfluorononane sulfonic acid (PFNS)	ng/L	-	-	< 1.0	< 0.93	< 0.96	< 0.93	< 0.38	< 0.38	< 0.35	< 0.33	< 0.35	< 0.33
335-77-3	Perfluorodecane sulfonic acid (PFDS)	ng/L	-	-	< 1.0	< 0.93	< 0.96	< 0.93	< 0.33	< 0.33	< 0.30	< 0.29	< 0.30	< 0.28
79780-39-5	Perfluorododecane sulfonic acid (PFDoS)	ng/L	-	-	< 2.0	< 1.9	< 1.9	< 1.9	< 1.0	< 0.99	< 0.92	< 0.87	< 0.91	< 0.86
757124-72-4	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	ng/L	-	-	8.7	8.5	< 1.9	< 1.9	4.9	8.9	3.0	4.5	4.2	7.7
27619-97-2	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	ng/L	-	-	2700	3000	< 1.9	14	1100	1600	680	1100	1200	1500
39108-34-4	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	ng/L	-	-	750	860	< 1.9	< 1.9	290	250	120	270	270	530
Sulfonamides, Sulfomidoacetic acids, Sulfonamidoethanols														
754-91-6	Perfluorooctane sulfonamide (PFOSA)	ng/L	2[2]	20[2]	1.1 J	1.5 J	< 0.96	< 0.93	*8.9*	*5.8*	*4.4*	*4*	*5.2*	1.8
31506-32-8	N-Methylperfluorooctane sulfonamide (NMeFOSA)	ng/L	-	-	< 4.0	< 3.7	< 3.8	< 3.7	< 0.44	< 0.44	< 0.41	< 0.39	< 0.40	< 0.38
4151-50-2	N-Ethylperfluorooctane sulfonamide (NEtFOSA)	ng/L	2[2]	20[2]	< 2.0	< 1.9	< 1.9	< 1.9	< 0.90	< 0.89	< 0.83	< 0.78	< 0.82	< 0.77
2355-31-9	N-Methyl perfluorooctane sulfonamido acetic acid (NMeFOSAA)	ng/L	-	-	< 2.0	< 1.9	< 1.9	< 1.9	< 1.2	< 1.2	< 1.1	< 1.1	< 1.1	< 1.1
2991-50-6	N-Ethyl perfluorooctane sulfonamido acetic acid (NEtFOSAA)	ng/L	2[2]	20[2]	< 2.0	< 1.9	< 1.9	< 1.9	< 1.3	< 1.3	< 1.2	< 1.2	< 1.2	< 1.1
24448-09-7	N-Methyl perfluorooctane sulfonamido ethanol (NMeFOSE)	ng/L	-	-	< 2.0	< 1.9	< 1.9	< 1.9	< 1.4	< 1.4	< 1.3	< 1.3	< 1.3	< 1.2
1691-99-2	N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE)	ng/L	2[2]	20[2]	< 2.0	< 1.9	< 1.9	< 1.9	< 0.88	< 0.86	< 0.81	< 0.76	< 0.80	< 0.75
Replacement Chemicals														
13252-13-6	Perfluoro-2-methyl-3-oxahexanoic acid (HFPO-DA)	ng/L	30	300	< 2.0	< 1.9	< 1.9	< 1.9	< 1.6	< 1.5	< 1.4	< 1.3	< 1.4	< 1.3
919005-14-4	4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ng/L	600	3000	< 2.0	< 1.9	< 1.9	< 1.9	< 0.41	< 0.41	< 0.38	< 0.36	< 0.38	< 0.35
756426-58-1	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ng/L	-	-	< 2.0	< 1.9	< 1.9	< 1.9	< 0.25	< 0.24	< 0.23	< 0.22	< 0.23	< 0.21
763051-92-9	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ng/L	-	-	< 2.0	< 1.9	< 1.9	< 1.9	< 0.33	< 0.33	< 0.30	< 0.29	< 0.30	< 0.28
Combined Standard														
-	Combined Standard[2]	ng/L	2	20	**218.9**	**210.4**	ND	ND	**108.9**	**135.8**	**66.4**	**104**	**105.2**	**178.4**

Notes:

CAS RN = Chemical Abstract Service Registry Number

NR 140 ES = Wisconsin Administrative Code Chapter NR 140 enforcement standard

NR 140 PAL = Wisconsin Administrative Code Chapter NR 140 preventive action limit

ng/L = nanograms per liter (ppt)

- = Value not established

J = Estimated concentration at or above the method detection limit and below the laboratory reporting limit.

U = Evaluated to be undetected due to contamination

Italic = Concentration meets or exceeds proposed NR 140 PAL

Bold italics = Concentration meets or exceeds proposed NR 140 ES

ND = not detected

Footnotes:

(1) Proposed NR 140 ESs and PALs were recommended by the Department of Health Services (DHS) to the DNR. The DNR is in the rule-making process to include these values in ch. NR 140.

(2) Combined standards proposed for PFOS, PFOA, PFOSA, NEtFOSA, NEtFOSAA, and NEtFOSE.

Table 2 - Groundwater Analytical Results
RockGen Energy Center
Town of Christiana, Dane County, Wisconsin
TRC Project # 437865.0000.0000, BRRTS #02-13-587341

					Well Type	Production Wells				Monitoring Wells								
					Sample Location ID	IPW-01	IPW-01	IPW-02	IPW-02	MW-01	MW-01	MW-02	MW-02	MW-03	MW-03 Dup	MW-03	MW-04	MW-04
					Sample Depth													
					Sample Date	05/17/2021	07/16/2021	05/17/2021	07/16/2021	05/17/2021	07/16/2021	05/17/2021	07/16/2021	05/17/2021	05/17/2021	07/15/2021	05/19/2021	07/16/2021
CAS RN	Constituent	Units	Proposed NR 140 PAL[1]	Proposed NR 140 ES[1]														
Carboxylic Acids																		
375-22-4	Perfluorobutanoic acid (PFBA)	ng/L	2,000	10,000	< 2.1	< 2.1	< 2.1	< 2.6	110	270	20	240	3.8 J	3.7 J	6.2	300	300
2706-90-3	Perfluoropentanoic acid (PFPeA)	ng/L	-	-	< 0.43	< 0.42	< 0.44	< 0.53	410	1200	79	1100	1.2 J	0.89 J	< 0.43	1400	1200
307-24-4	Perfluorohexanoic acid (PFHxA)	ng/L	30,000	150,000	< 0.51	< 0.50	< 0.52	< 0.63	170	530	53	720	0.99 J	1.0 J	0.99 J	930	880
375-85-9	Perfluoroheptanoic acid (PFHpA)	ng/L	-	-	< 0.22	< 0.21	< 0.22	< 0.27	93	210	15	200	0.69 JI	0.58 J	< 0.22	490	540
335-67-1	Perfluorooctanoic acid (PFOA)	ng/L	2[2]	20[2]	< 0.75	< 0.73	< 0.76	< 0.92	***51***	***160***	*10*	***90***	< 0.77	< 0.75	< 0.75	***630***	***900***
375-95-1	Perfluorononanoic acid (PFNA)	ng/L	3	30	< 0.24	< 0.23	< 0.24	< 0.29	2.4	*15*	0.82 J	*4.8*	< 0.24	< 0.24	< 0.24	***55***	***68***
335-76-2	Perfluorodecanoic acid (PFDA)	ng/L	60	300	< 0.27	< 0.27	< 0.28	< 0.34	< 0.29	< 0.29	< 0.28	< 0.27	< 0.28	< 0.27	< 0.27	18	23
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ng/L	600	3000	< 0.97	< 0.95	< 0.98	< 1.2	< 1.0	< 1.0	< 0.98	< 0.96	< 0.99	< 0.97	< 0.96	1.2 J	1.8
307-55-1	Perfluorododecanoic acid (PFDoA)	ng/L	100	500	< 0.49	< 0.47	< 0.49	< 0.60	< 0.51	< 0.51	< 0.49	< 0.48	< 0.50	< 0.49	< 0.48	< 0.49	< 0.47
72629-94-8	Perfluorotridecanoic acid (PFTrDA)	ng/L	-	-	< 1.2	< 1.1	< 1.2	< 1.4	< 1.2	< 1.2	< 1.2	< 1.1	< 1.2	< 1.1	< 1.1	< 1.2	< 1.1
376-06-7	Perfluorotetradecanoic acid (PFTA)	ng/L	2000	10000	< 0.65	< 0.63	< 0.65	< 0.79	< 0.67	< 0.67	< 0.65	< 0.64	< 0.66	< 0.64	< 0.64	< 0.65	< 0.63
Sulfonic Acids																		
375-73-5	Perfluorobutane sulfonic acid (PFBS)	ng/L	90000	450000	< 0.18	< 0.17	< 0.18	< 0.22	0.33 J	0.83 J	< 0.18	0.37 J	0.47 J	0.45 J	0.85 J	0.49 J	0.78 J
2706-91-4	Perfluoropentane sulfonic acid (PFPeS)	ng/L	-	-	< 0.27	< 0.26	< 0.27	< 0.33	< 0.28	< 0.28	< 0.27	< 0.26	< 0.27	< 0.26	< 0.26	0.29 J	0.32 J
355-46-4	Perfluorohexane sulfonic acid (PFHxS)	ng/L	4	40	< 0.50	< 0.49	< 0.51	< 0.62	0.53 J	0.64 J	< 0.51	1.4 J	< 0.51	< 0.50	< 0.50	2.5	3.1
375-92-8	Perfluoroheptane sulfonic acid (PFHpS)	ng/L	-	-	< 0.17	< 0.16	< 0.17	< 0.21	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.16
1763-23-1	Perfluorooctane sulfonic acid (PFOS)	ng/L	2[2]	20[2]	< 0.48	< 0.46	< 0.48	< 0.59	< 0.50	*2.4*	< 0.48	0.87 J	< 0.49	< 0.48	< 0.47	*14*	*17*
68259-12-1	Perfluorononane sulfonic acid (PFNS)	ng/L	-	-	< 0.33	< 0.32	< 0.33	< 0.40	< 0.34	< 0.34	< 0.33	< 0.32	< 0.33	< 0.33	< 0.32	< 0.33	< 0.32
335-77-3	Perfluorodecane sulfonic acid (PFDS)	ng/L	-	-	< 0.28	< 0.27	< 0.29	< 0.35	< 0.29	< 0.29	< 0.28	< 0.28	< 0.29	< 0.28	< 0.28	< 0.28	< 0.28
79780-39-5	Perfluorododecane sulfonic acid (PFDoS)	ng/L	-	-	< 0.86	< 0.83	< 0.87	< 1.1	< 0.89	< 0.89	< 0.86	< 0.85	< 0.88	< 0.86	< 0.85	< 0.86	< 0.84
757124-72-4	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	ng/L	-	-	< 0.21	< 0.21	< 0.21	< 0.26	< 0.22	< 0.22	< 0.21	2.7	< 0.22	< 0.21	< 0.21	34	40
27619-97-2	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	ng/L	-	-	< 2.2	< 2.1	< 2.2	< 2.7	340	870	87	610	< 2.3	< 2.2	< 2.2	4100	3600
39108-34-4	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	ng/L	-	-	< 0.41	< 0.40	< 0.41	< 0.50	2.8	13	3.0	39	< 0.42	< 0.41	< 0.40	1700	2300
Sulfonamides, Sulfomidoacetic acids, Sulfonamidoethanols																		
754-91-6	Perfluorooctane sulfonamide (PFOSA)	ng/L	2[2]	20[2]	< 0.87	< 0.84	< 0.88	1.2 J	< 0.90	< 0.90	< 0.87	< 0.86	< 0.89	< 0.86	< 0.86	1.0 J	0.89 J
31506-32-8	N-Methylperfluorooctane sulfonamide (NMeFOSA)	ng/L	-	-	< 0.38	< 0.37	< 0.38	< 0.47	< 0.40	< 0.40	< 0.38	< 0.38	< 0.39	< 0.38	< 0.38	< 0.38	< 0.37
4151-50-2	N-Ethylperfluorooctane sulfonamide (NEtFOSA)	ng/L	2[2]	20[2]	< 0.77	< 0.75	< 0.78	< 0.95	< 0.80	< 0.80	< 0.77	< 0.76	< 0.79	< 0.77	< 0.76	< 0.77	< 0.75
2355-31-9	N-Methyl perfluorooctane sulfonamido acetic acid (NMeFOSAA)	ng/L	-	-	< 1.1	< 1.0	< 1.1	< 1.3	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.0
2991-50-6	N-Ethyl perfluorooctane sulfonamido acetic acid (NEtFOSAA)	ng/L	2[2]	20[2]	< 1.2	< 1.1	< 1.2	< 1.4	< 1.2	< 1.2	< 1.2	< 1.1	< 1.2	< 1.1	< 1.1	< 1.2	< 1.1
24448-09-7	N-Methyl perfluorooctane sulfonamido ethanol (NMeFOSE)	ng/L	-	-	< 1.2	< 1.2	< 1.3	< 1.5	< 1.3	< 1.3	< 1.2	< 1.2	< 1.3	< 1.2	< 1.2	< 1.2	< 1.2
1691-99-2	N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE)	ng/L	2[2]	20[2]	< 0.75	< 0.73	< 0.76	< 0.92	< 0.78	< 0.78	< 0.75	< 0.74	< 0.77	< 0.75	< 0.75	< 0.75	< 0.73
Replacement Chemicals																		
13252-13-6	Perfluoro-2-methyl-3-oxahexanoic acid (HFPO-DA)	ng/L	30	300	< 1.3	< 1.3	< 1.3	< 1.6	< 1.4	< 1.4	< 1.3	< 1.3	< 1.4	< 1.3	< 1.3	< 1.3	< 1.3
919005-14-4	4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ng/L	600	3000	< 0.35	< 0.34	< 0.36	< 0.43	< 0.37	< 0.37	< 0.36	< 0.35	< 0.36	< 0.35	< 0.35	< 0.35	< 0.34
756426-58-1	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ng/L	-	-	< 0.21	< 0.21	< 0.21	< 0.26	< 0.22	< 0.22	< 0.21	< 0.21	< 0.22	< 0.21	< 0.21	< 0.21	< 0.21
763051-92-9	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ng/L	-	-	< 0.28	< 0.27	< 0.29	< 0.35	< 0.29	< 0.29	< 0.28	< 0.28	< 0.29	< 0.28	< 0.28	< 0.28	< 0.28
Combined Standard																		
-	Combined Standard[2]	ng/L	2	20	ND	ND	ND	1.2 J	**51**	**162.4**	*10*	**90.87**	ND	ND	ND	**645**	**917.89**

Notes:
CAS RN = Chemical Abstract Service Registry Number
NR 140 ES = Wisconsin Administrative Code Chapter NR 140 enforcement standard
NR 140 PAL = Wisconsin Administrative Code Chapter NR 140 preventive action limit
ng/L = nanograms per liter (ppt)
- = Value not established
J = Estimated concentration at or above the method detection limit and below the laboratory reporting limit.
U = Evaluated to be undetected due to contamination
Italic = Concentration meets or exceeds proposed NR 140 PAL
Bold italics = Concentration meets or exceeds proposed NR 140 ES
ND = not detected

Footnotes:
(1) Proposed NR 140 ESs and PALs were recommended by the Department of Health Services (DHS) to the DNR. The DNR is in the rule-making process to include these values in ch. NR 140.
(2) Combined standards proposed for PFOS, PFOA, PFOSA, NEtFOSA, NEtFOSAA, and NEtFOSE.

Table 2 - Groundwater Analytical Results
RockGen Energy Center
Town of Christiana, Dane County, Wisconsin
TRC Project # 437865.0000.0000, BRRTS #02-13-587341

					Well Type	Monitoring Wells (continued)							Piezometer		Off-Site Potable Well
					Sample Location ID	MW-05	MW-05	MW-05 Dup	MW-06	MW-06	MW-07	MW-07	PZ-01	PZ-01	
					Sample Depth										2304 CARPENTER SWAIN
					Sample Date	05/19/2021	07/15/2021	07/15/2021	05/19/2021	07/15/2021	05/19/2021	07/14/2021	07/01/2021	07/15/2021	07/21/2021
CAS RN	Constituent	Units	Proposed NR 140 PAL[1]	Proposed NR 140 ES[1]											
Carboxylic Acids															
375-22-4	Perfluorobutanoic acid (PFBA)	ng/L	2,000	10,000	78	51	51	2.7 J	< 2.1	< 2.1	< 2.1	< 1.9	< 2.1	< 2.3
2706-90-3	Perfluoropentanoic acid (PFPeA)	ng/L	-	-	320	230	220	< 0.44	< 0.44	< 0.43	< 0.43	< 0.40	< 0.43	< 0.47
307-24-4	Perfluorohexanoic acid (PFHxA)	ng/L	30,000	150,000	190	140	130	< 0.52	0.51 J	< 0.51	< 0.51	< 0.47	< 0.51	< 0.55
375-85-9	Perfluoroheptanoic acid (PFHpA)	ng/L	-	-	96	98	93	< 0.22	< 0.22	< 0.22	< 0.22	< 0.20	< 0.22	< 0.24
335-67-1	Perfluorooctanoic acid (PFOA)	ng/L	2[2]	20[2]	***69***	***61***	***56***	< 0.76	< 0.75	< 0.75	< 0.74	< 0.69	< 0.74	< 0.81
375-95-1	Perfluorononanoic acid (PFNA)	ng/L	3	30	0.28 J	*6.2*	*7.1*	< 0.24	< 0.24	< 0.24	< 0.24	< 0.22	0.91 J	< 0.26
335-76-2	Perfluorodecanoic acid (PFDA)	ng/L	60	300	< 0.28	1.9	1.8 J	< 0.28	< 0.28	< 0.27	< 0.27	0.28 J	2.6	< 0.30
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ng/L	600	3000	< 0.98	< 1.0	< 1.1	< 0.98	< 0.98	< 0.97	< 0.96	< 0.89	6.2	< 1.0
307-55-1	Perfluorododecanoic acid (PFDoA)	ng/L	100	500	< 0.49	< 0.50	< 0.53	< 0.49	< 0.49	< 0.49	< 0.48	< 0.45	4.5	< 0.52
72629-94-8	Perfluorotridecanoic acid (PFTrDA)	ng/L	-	-	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.1	< 1.1	< 1.1	5.2	< 1.2
376-06-7	Perfluorotetradecanoic acid (PFTA)	ng/L	2000	10000	< 0.65	< 0.67	< 0.70	< 0.65	< 0.65	< 0.64	< 0.64	< 0.59	3.5	< 0.70
Sulfonic Acids															
375-73-5	Perfluorobutane sulfonic acid (PFBS)	ng/L	90000	450000	0.44 J	0.61 J	0.50 J	< 0.18	< 0.18	3.0	8.4	< 0.16	< 0.17	0.83 J
2706-91-4	Perfluoropentane sulfonic acid (PFPeS)	ng/L	-	-	< 0.27	< 0.28	< 0.29	< 0.27	< 0.27	< 0.26	< 0.26	< 0.24	< 0.26	< 0.29
355-46-4	Perfluorohexane sulfonic acid (PFHxS)	ng/L	4	40	0.69 J	< 0.52	< 0.55	< 0.51	< 0.51	< 0.50	< 0.50	< 0.46	< 0.50	< 0.54
375-92-8	Perfluoroheptane sulfonic acid (PFHpS)	ng/L	-	-	< 0.17	< 0.17	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17	< 0.15	< 0.17	< 0.18
1763-23-1	Perfluorooctane sulfonic acid (PFOS)	ng/L	2[2]	20[2]	< 0.48	*3.2*	*2.9*	< 0.48	< 0.48	< 0.48	< 0.47	< 0.44	< 0.47	< 0.52
68259-12-1	Perfluorononane sulfonic acid (PFNS)	ng/L	-	-	< 0.33	< 0.34	< 0.36	< 0.33	< 0.33	< 0.33	< 0.32	< 0.30	< 0.32	< 0.35
335-77-3	Perfluorodecane sulfonic acid (PFDS)	ng/L	-	-	< 0.29	< 0.29	< 0.31	< 0.28	< 0.28	< 0.28	< 0.28	< 0.26	< 0.28	< 0.31
79780-39-5	Perfluorododecane sulfonic acid (PFDoS)	ng/L	-	-	< 0.86	< 0.89	< 0.93	< 0.86	< 0.86	< 0.86	< 0.85	< 0.79	< 0.84	< 0.93
757124-72-4	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	ng/L	-	-	< 0.21	< 0.22	< 0.23	< 0.21	< 0.21	< 0.21	< 0.21	< 0.19	< 0.21	< 0.23
27619-97-2	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	ng/L	-	-	460	120	120	< 2.2	< 2.2	< 2.2	< 2.2	< 2.0	< 2.2	< 2.4
39108-34-4	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	ng/L	-	-	1.0 J	96	81	< 0.41	< 0.41	< 0.41	< 0.40	< 0.37	< 0.40	< 0.44
Sulfonamides, Sulfomidoacetic acids, Sulfonamidoethanols															
754-91-6	Perfluorooctane sulfonamide (PFOSA)	ng/L	2[2]	20[2]	< 0.87	< 0.90	< 0.94	< 0.87	< 0.87	< 0.87	< 0.85	1.5 J	< 0.85	< 0.94
31506-32-8	N-Methylperfluorooctane sulfonamide (NMeFOSA)	ng/L	-	-	< 0.38	< 0.39	< 0.41	< 0.38	< 0.38	< 0.38	< 0.38	< 0.35	< 0.37	< 0.41
4151-50-2	N-Ethylperfluorooctane sulfonamide (NEtFOSA)	ng/L	2[2]	20[2]	< 0.78	< 0.80	< 0.84	< 0.77	< 0.77	< 0.77	< 0.76	< 0.71	< 0.76	< 0.83
2355-31-9	N-Methyl perfluorooctane sulfonamido acetic acid (NMeFOSAA)	ng/L	-	-	< 1.1	< 1.1	< 1.2	< 1.1	< 1.1	< 1.1	< 1.0	< 0.97	< 1.0	< 1.1
2991-50-6	N-Ethyl perfluorooctane sulfonamido acetic acid (NEtFOSAA)	ng/L	2[2]	20[2]	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.1	< 1.1	< 1.1	< 1.1	< 1.2
24448-09-7	N-Methyl perfluorooctane sulfonamido ethanol (NMeFOSE)	ng/L	-	-	< 1.2	< 1.3	< 1.3	< 1.2	< 1.2	< 1.2	< 1.2	< 1.1	< 1.2	< 1.3
1691-99-2	N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE)	ng/L	2[2]	20[2]	< 0.76	< 0.78	< 0.82	< 0.76	< 0.75	< 0.75	< 0.74	< 0.69	< 0.74	< 0.81
Replacement Chemicals															
13252-13-6	Perfluoro-2-methyl-3-oxahexanoic acid (HFPO-DA)	ng/L	30	300	< 1.3	< 1.4	< 1.4	< 1.3	< 1.3	< 1.3	< 1.3	< 1.2	< 1.3	< 1.4
919005-14-4	4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ng/L	600	3000	< 0.36	< 0.37	< 0.38	< 0.36	< 0.36	< 0.35	< 0.35	< 0.32	< 0.35	< 0.38
756426-58-1	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ng/L	-	-	< 0.21	< 0.22	< 0.23	< 0.21	< 0.21	< 0.21	< 0.21	< 0.19	< 0.21	< 0.23
763051-92-9	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ng/L	-	-	< 0.29	< 0.29	< 0.31	< 0.28	< 0.28	< 0.28	< 0.28	< 0.26	< 0.28	< 0.31
Combined Standard															
-	Combined Standard[2]	ng/L	2	20	**69**	**64.2**	**58.9**	ND	ND	ND	ND	1.5 J	ND	ND

Notes:
CAS RN = Chemical Abstract Service Registry Number
NR 140 ES = Wisconsin Administrative Code Chapter NR 140 enforcement standard
NR 140 PAL = Wisconsin Administrative Code Chapter NR 140 preventive action limit
ng/L = nanograms per liter (ppt)
- = Value not established
J = Estimated concentration at or above the method detection limit and below the laboratory reporting limit.
U = Evaluated to be undetected due to contamination
Italic = Concentration meets or exceeds proposed NR 140 PAL
Bold italics = Concentration meets or exceeds proposed NR 140 ES
ND = not detected

Prepared by: P. Popp, 7/14/2021
Checked and revised by: L. Auner, 7/15/2021
Checked by: J. Ramey 7/16/2021
Updated by: L. Auner, 7/29/2021
Checked by: A. Enright 7/29/2021

Footnotes:
(1) Proposed NR 140 ESs and PALs were recommended by the Department of Health Services (DHS) to the DNR. The DNR is in the rule-making process to include these values in ch. NR 140.
(2) Combined standards proposed for PFOS, PFOA, PFOSA, NEtFOSA, NEtFOSAA, and NEtFOSE.

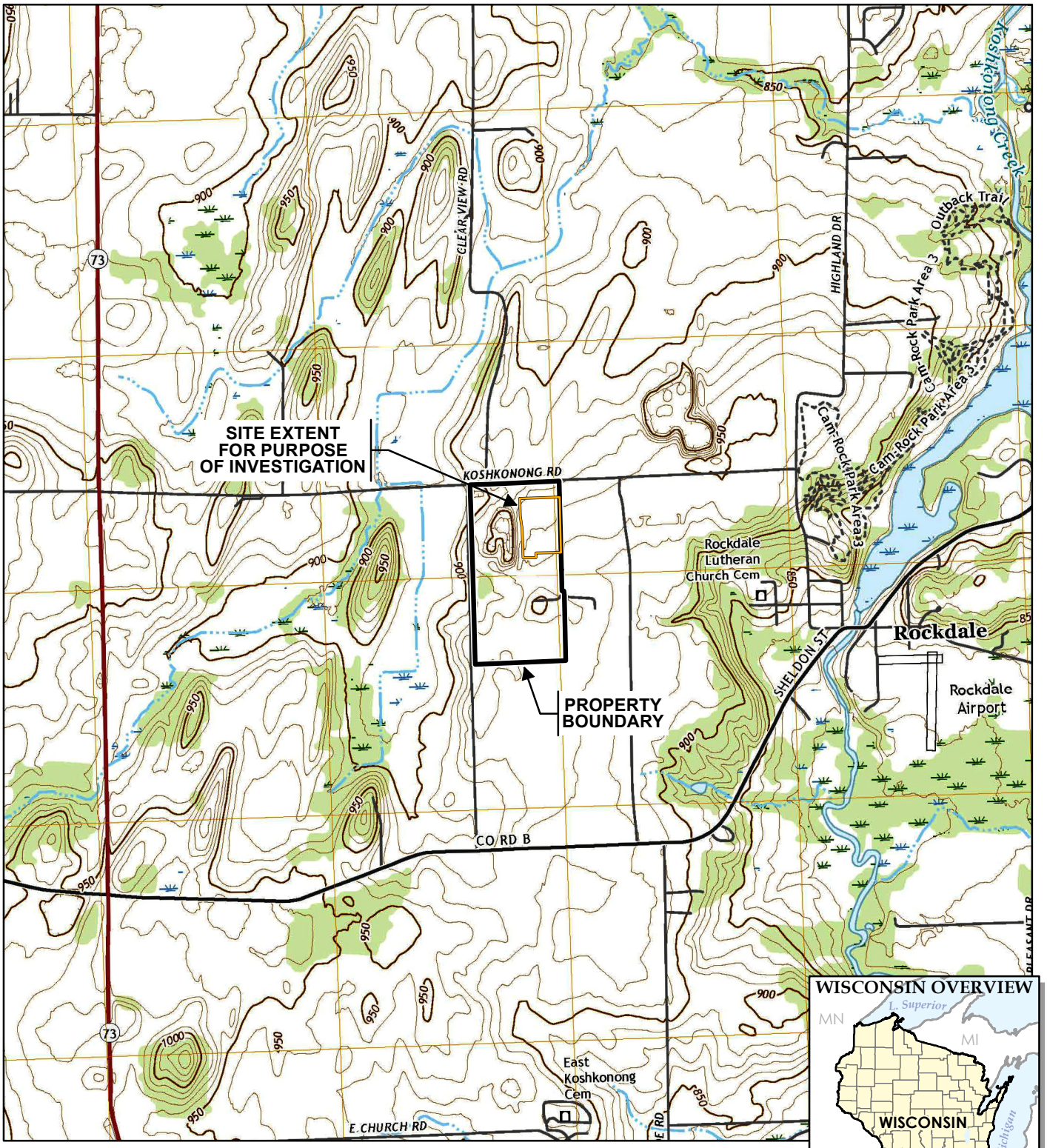
Table 3 - Supplemental Sampling and Analysis Plan
RockGen Energy Center
Town of Christiana, Dane County, Wisconsin
TRC Project # 437865.0000.0000, BRRTS #02-13-587341

Sample Types	Initial Sampling
Multiport Wells (8 wells + 1 contingent well)	*9*
Multiport Intervals Per Well	*8*
Total Multiport Well Samples	72
Field Duplicate Samples	8
Equipment Blank Samples	8
Field Blank Samples	1
Total Water Samples	89

Notes:

1. Analyze for Wisconsin 33 PFAS list by the certified laboratory's SOP for PFAS certified under NR 149.
2. This Supplemental Sampling and Analysis Plan applies to the initial round of groundwater monitoring.

Created by: A. Enright 7/27/2021
Checked by: J. Ramey 7/30/2021



BASE MAP FROM USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE SERIES, 2018.

N

1 " = 2,000 '
1:24,000

0 2,000 4,000
FEET

TRC

708 Heartland Trail., Suite 3000
Madison, WI 53717
Phone: 608.826.3600

TRC - GIS

PROJECT:

BRRTS #02-13-587341
ROCKGEN ENERGY CENTER
2346 CLEAR VIEW RD, TOWN OF CHRISTIANA
DANE COUNTY, WISCONSIN 53523

TITLE:

SITE LOCATION MAP

DRAWN BY:	R. SUEMNICHT
CHECKED BY:	L. AUNER
APPROVED BY:	K. QUINN
DATE:	APRIL 2021
PROJ. NO.:	435526
FILE:	435526-001slm.mxd

FIGURE 1

S:\1-PROJECTS\RockGen_Energy_Center\CambridgeWI\435526\435526-001slm.mxd -- Saved By: BLEE on 4/2/2021, 11:37:23 AM

LEGEND

- POTABLE WELL
- DEEP PRODUCTION WELL
- STORM SEWER INLET/OUTLET
- APPROXIMATE AREA OF AFFF INSPECTION TESTING
- APPROXIMATE EXTENT OF SEPTIC MOUND
- PROPERTY BOUNDARY
- PARCEL BOUNDARY
- SITE EXTENT FOR PURPOSE OF INVESTIGATION
- DRAINAGE CHANNEL*

NOTES

1. BASE MAP IMAGERY FROM DANE COUNTY, 2020.
2. PARCEL BOUNDARIES ACQUIRED FROM WISCONSIN STATE CARTOGRAPHER'S OFFICE PARCEL DATA.
3. APPROXIMATE EXTENT OF SEPTIC MOUND BASED ON DESIGN INFORMATION AND AERIAL IMAGERY.
4. * = DRAINAGE CHANNEL APPEARS TO BIFURCATE; MAP SHOWS CHANNEL THAT APPEARS TO BE PRIMARY DRAINAGE PATHWAY.

N

0 350 700 Feet

1 " = 350 '

1:4,200

PROJECT:
BRRTS #02-13-587341
ROCKGEN ENERGY CENTER
2346 CLEAR VIEW RD, TOWN OF CHRISTIANA
DANE COUNTY, WISCONSIN 53523

TITLE:
SITE VICINITY MAP

DRAWN BY:	R. SUEMNICHT	PROJ. NO.:	437865-001
CHECKED BY:	L. AUNER		
APPROVED BY:	A. ENRIGHT		
DATE:	AUGUST 2021		

FIGURE 2

TRC
708 Heartland Trail, Suite 3000
Madison, WI 53717
Phone: 608.826.3600
www.trccompanies.com

FILE NO.: 437865-001_SWP.mxd

Plot Date: 8/2/2021, 15:26:59 PM by BLEE -- LAYOUT: ANSI B(11"x17")
Path: S:\1-PROJECTS\RockGen Energy Center\Cambridge\WI\435526\437865-001_SWP.mxd
Coordinate System: NAD 1983 StatePlane Wisconsin South FIPS 4803 Feet (Foot US)
Map Rotation: 0

TRC - GIS

LEGEND

- MONITORING WELL
- GEOPROBE SOIL BORING (APRIL 2021)
- HAND AUGER SOIL BORING (MAY 2021)
- SOIL SAMPLE
- POTABLE WELL
- DEEP PRODUCTION WELL
- STORM SEWER INLET/OUTLET
- DRAINAGE CHANNEL*
- GROUNDWATER FLOW DIRECTION
- GROUNDWATER ELEVATION CONTOUR (0.5 FT, FT AMSL)
- (884.57) GROUNDWATER ELEVATION (FT AMSL)
- APPROXIMATE AREA OF AFFF INSPECTION TESTING
- APPROXIMATE EXTENT OF SEPTIC MOUND
- PROPERTY BOUNDARY
- PARCEL BOUNDARY
- SITE EXTENT FOR PURPOSE OF INVESTIGATION

NOTES

1. BASE MAP IMAGERY FROM DANE COUNTY, 2020.
2. PARCEL BOUNDARIES ACQUIRED FROM WISCONSIN STATE CARTOGRAPHER'S OFFICE PARCEL DATA.
3. APPROXIMATE EXTENT OF SEPTIC MOUND BASED ON DESIGN INFORMATION AND AERIAL IMAGERY.
4. * = DRAINAGE CHANNEL APPEARS TO BIFURCATE; MAP SHOWS CHANNEL THAT APPEARS TO BE PRIMARY DRAINAGE PATHWAY.

N

0 200 400 Feet

1 " = 200 '

1:2,400

PROJECT:
BRRTS #02-13-587341
ROCKGEN ENERGY CENTER
2346 CLEAR VIEW RD, TOWN OF CHRISTIANA
DANE COUNTY, WISCONSIN 53523

TITLE:
WATER TABLE MAP
MAY 27, 2021

DRAWN BY:	R. SUEMNICHT	PROJ. NO.:	437865
CHECKED BY:	L. AUNER		
APPROVED BY:	A. ENRIGHT		**FIGURE 3**
DATE:	AUGUST 2021		

TRC
708 Heartland Trail, Suite 3000
Madison, WI 53717
Phone: 608.826.3600
www.trccompanies.com

FILE NO.: 435526-012_SWP_.mxd

TRC - GIS
Plot Date: 8/3/2021, 13:05:11 PM by BLEE -- LAYOUT: ANSI B(11"x17")
Path: S:\1-PROJECTS\RockGen_Energy_Center\CambridgeWI\435526\435526-012_SWP_.mxd
Coordinate System: NAD 1983 StatePlane Wisconsin South FIPS 4803 Feet (Foot US)
Map Rotation: 0

LEGEND

- MONITORING WELL
- GEOPROBE SOIL BORING (APRIL 2021)
- HAND AUGER SOIL BORING (MAY 2021)
- SOIL SAMPLE
- POTABLE WELL
- DEEP PRODUCTION WELL
- STORM SEWER INLET/OUTLET
- DRAINAGE CHANNEL*
- GROUNDWATER FLOW DIRECTION
- GROUNDWATER ELEVATION CONTOUR (0.5 FT, FT AMSL)
- (884.57) GROUNDWATER ELEVATION (FT AMSL)
- APPROXIMATE AREA OF AFFF INSPECTION TESTING
- APPROXIMATE EXTENT OF SEPTIC MOUND
- PROPERTY BOUNDARY
- PARCEL BOUNDARY
- SITE EXTENT FOR PURPOSE OF INVESTIGATION

NOTES

1. BASE MAP IMAGERY FROM DANE COUNTY, 2020.
2. PARCEL BOUNDARIES ACQUIRED FROM WISCONSIN STATE CARTOGRAPHER'S OFFICE PARCEL DATA.
3. APPROXIMATE EXTENT OF SEPTIC MOUND BASED ON DESIGN INFORMATION AND AERIAL IMAGERY.
4. * = DRAINAGE CHANNEL APPEARS TO BIFURCATE; MAP SHOWS CHANNEL THAT APPEARS TO BE PRIMARY DRAINAGE PATHWAY.
5. WATER TABLE CONTOURS AND FLOW DIRECTION BASED ON MONITORING WELLS ONLY (PZ-01 NOT INCLUDED).

N

0 200 400 Feet

1 " = 200 '

1:2,400

PROJECT:
BRRTS #02-13-587341
ROCKGEN ENERGY CENTER
2346 CLEAR VIEW RD, TOWN OF CHRISTIANA
DANE COUNTY, WISCONSIN 53523

TITLE:
WATER TABLE MAP
JULY 14, 2021

DRAWN BY:	R. SUEMNICHT	PROJ. NO.:	437865
CHECKED BY:	L. AUNER		
APPROVED BY:	A. ENRIGHT		
DATE:	AUGUST 2021		

FIGURE 4

TRC
708 Heartland Trail, Suite 3000
Madison, WI 53717
Phone: 608.826.3600
www.trccompanies.com

FILE NO.: 435526-014_SWP.mxd

TRC - GIS
Plot Date: 8/3/2021, 13:05:36 PM by BLEE -- LAYOUT: ANSI B (11"x17")
Path: S:\1-PROJECTS\RockGen_Energy_Center\CambridgeWI\435526\435526-014_SWP.mxd
Coordinate System: NAD 1983 StatePlane Wisconsin South FIPS 4803 Feet (Foot US)
Map Rotation: 0

LEGEND

- MONITORING WELL
- GEOPROBE SOIL BORING (APRIL 2021)
- HAND AUGER SOIL BORING (MAY 2021)
- SOIL SAMPLE
- POTABLE WELL
- DEEP PRODUCTION WELL
- STORM SEWER INLET/OUTLET
- DRAINAGE CHANNEL*
- GROUNDWATER FLOW DIRECTION
- PFOA ISOCONTOUR (ng/L), DASHED WHERE INFERRED
- GROUNDWATER ELEVATION CONTOUR (0.5 FT, FT AMSL)
- (884.57) GROUNDWATER ELEVATION (FT AMSL)
- APPROXIMATE AREA OF AFFF INSPECTION TESTING
- APPROXIMATE EXTENT OF SEPTIC MOUND
- PROPERTY BOUNDARY
- PARCEL BOUNDARY
- SITE EXTENT FOR PURPOSE OF INVESTIGATION

GROUNDWATER RESULTS FOR SELECT PFAS (ng/L)
RED BOLD = RESULT EXCEEDS RECOMMENDED NR 140 ES
BLUE BOLD = RESULT EXCEEDS RECOMMENDED NR 140 PAL

NOTES

1. BASE MAP IMAGERY FROM DANE COUNTY, 2020.
2. PARCEL BOUNDARIES ACQUIRED FROM WISCONSIN STATE CARTOGRAPHER'S OFFICE PARCEL DATA.
3. APPROXIMATE EXTENT OF SEPTIC MOUND BASED ON DESIGN INFORMATION AND AERIAL IMAGERY.
4. * = DRAINAGE CHANNEL APPEARS TO BIFURCATE; MAP SHOWS CHANNEL THAT APPEARS TO BE PRIMARY DRAINAGE PATHWAY.
5. GROUNDWATER ELEVATIONS MEASURED MAY 27, 2021. MONITORING WELL SAMPLE RESULTS FROM MAY 2021, POTABLE WELL SAMPLE RESULTS FROM MARCH 2021.

0 200 400 Feet
N
1 " = 200 '
1:2,400

PROJECT:
BRRTS #02-13-587341
ROCKGEN ENERGY CENTER
2346 CLEAR VIEW RD, TOWN OF CHRISTIANA
DANE COUNTY, WISCONSIN 53523

TITLE:
GROUNDWATER RESULTS MARCH/MAY 2021

DRAWN BY:	R. SUEMNICHT	PROJ. NO.:	437865
CHECKED BY:	L. AUNER		
APPROVED BY:	A. ENRIGHT		**FIGURE 5**
DATE:	AUGUST 2021		

TRC
708 Heartland Trail, Suite 3000
Madison, WI 53717
Phone: 608.826.3600
www.trccompanies.com

FILE NO.: 435526-013_SWP_.mxd

Plot Date: 8/4/2021, 09:22:35 AM by BLEE - LAYOUT: ANSI B(11"x17")
Path: S:\1-PROJECTS\RockGen_Energy_Center\Cambridge\WI\435526\435526-013_SWP_.mxd
Coordinate System: NAD 1983 StatePlane Wisconsin South FIPS 4803 Feet (Foot US)
Map Rotation: 0
TRC - GIS

LEGEND

- MONITORING WELL
- GEOPROBE SOIL BORING (APRIL 2021)
- HAND AUGER SOIL BORING (MAY 2021)
- SOIL SAMPLE
- POTABLE WELL
- DEEP PRODUCTION WELL
- STORM SEWER INLET/OUTLET
- DRAINAGE CHANNEL*
- GROUNDWATER FLOW DIRECTION
- (884.57) GROUNDWATER ELEVATION (FT AMSL)
- PFOA ISOCONTOUR (ng/L), DASHED WHERE INFERRED
- GROUNDWATER ELEVATION CONTOUR (0.5 FT, FT AMSL)
- APPROXIMATE AREA OF AFFF INSPECTION TESTING
- APPROXIMATE EXTENT OF SEPTIC MOUND
- PROPERTY BOUNDARY
- PARCEL BOUNDARY
- SITE EXTENT FOR PURPOSE OF INVESTIGATION

GROUNDWATER RESULTS FOR SELECT PFAS (ng/L)
RED BOLD = RESULT EXCEEDS RECOMMENDED NR 140 ES
BLUE BOLD = RESULT EXCEEDS RECOMMENDED NR 140 PAL

NOTES

1. BASE MAP IMAGERY FROM DANE COUNTY, 2020.
2. PARCEL BOUNDARIES ACQUIRED FROM WISCONSIN STATE CARTOGRAPHER'S OFFICE PARCEL DATA.
3. APPROXIMATE EXTENT OF SEPTIC MOUND BASED ON DESIGN INFORMATION AND AERIAL IMAGERY.
4. * = DRAINAGE CHANNEL APPEARS TO BIFURCATE; MAP SHOWS CHANNEL THAT APPEARS TO BE PRIMARY DRAINAGE PATHWAY.
5. GROUNDWATER ELEVATIONS MEASURED JULY 14, 2021. GROUNDWATER RESULTS FROM SAMPLES COLLECTED JULY 14-16, 2021.

0 200 400 Feet
1 " = 200 '
1:2,400
N

PROJECT:
BRRTS #02-13-587341
ROCKGEN ENERGY CENTER
2346 CLEAR VIEW RD, TOWN OF CHRISTIANA
DANE COUNTY, WISCONSIN 53523

TITLE:
GROUNDWATER RESULTS JULY 2021

DRAWN BY:	R. SUEMNICHT	PROJ. NO.:	437865
CHECKED BY:	L. AUNER		
APPROVED BY:	A. ENRIGHT		**FIGURE 6**
DATE:	AUGUST 2021		

TRC
708 Heartland Trail, Suite 3000
Madison, WI 53717
Phone: 608.826.3600
www.trccompanies.com

FILE NO.: 435526-015_SWP.mxd

Plot Date: 8/4/2021, 11:25:49 AM by BLEE – LAYOUT: ANSI B (11"x17")
Path: S:\1-PROJECTS\RockGen_Energy_Center\Cambridge\WI\435526\435526-015_SWP.mxd
Coordinate System: NAD 1983 StatePlane Wisconsin South FIPS 4803 Feet (Foot US)
Map Rotation: 0
TRC - GIS

TRC - GIS

Plot Date: 8/4/2021, 09:23:10 AM by BLEE -- LAYOUT: ANSI B (11"x17")
Path: S:\11-PROJECTS\RockGen_Energy_Center\Cambridge\WI\435526\435526-016_SWP.mxd
Coordinate System: NAD 1983 StatePlane Wisconsin South FIPS 4803 Feet (Foot US)
Map Rotation: 0

HOWARD LIEN & SONS INC 061215495005
HOWARD LIEN & SONS INC 061214390010
HOWARD LIEN & SONS INC 061214390010
HEPTA`S INC 061214395008
Koshkonong Rd
AMERICAN TRANSMISSION COMPANY LLC 061223187000
ROCKGEN ENERGY LLC 061223285002
Carpenter Swain Rd
HOWARD LIEN & SONS INC 061223281000
AMERICAN TRANSMISSION COMPANY LLC 061223187000
HOWARD LIEN & SONS INC 061222180000
Clear View Rd
GARY R RATTMANN 061222190900
ROCKGEN ENERGY LLC 061223290005
HOWARD LIEN & SONS INC 061223295010
2304 CARPENTER SWAIN NATHAN LYLE 061223296600
GARY R RATTMANN 061222190900

SB-04 SB-26 SB-24 SB-23 SB-25 SB-01 SB-02 SS-04
STORM SEWER OUTLET
STORM SEWER INLET
SB-17 SB-03 SB-18 SB-04 SB-05 SB-19 SB-06 SB-20 SB-21 SB-22 SB-15 SB-16 SB-14 SB-07 SB-08 SB-09 SB-10 SB-11 SB-12 SB-13
WELL #2 WELL #1 POTABLE WELL
SS-01 SS-02 SS-03
PZ-01 (844.98)

MW-01
6:2 FTS: 870
8:2 FTS: 13
PFNA: 15
PFOS: 2.4
PFOA: 160
MW-01 (885.75)

MW-04
6:2 FTS: 3600
8:2 FTS: 2300
PFNA: 68
PFOS: 17
PFOA: 900
MW-04 (884.73)

PW-01
6:2 FTS: 1500
8:2 FTS: 530
PFNA: 17
PFOS: 6.6
PFOA: 170

MW-05
6:2 FTS: 120
8:2 FTS: 96
PFNA: 6.2
PFOS: 3.2
PFOA: 61
MW-05 (884.50)

PZ-01
6:2 FTS: <2.2
8:2 FTS: <0.4
PFNA: 0.91 J
PFOS: <0.47
PFOA: <0.74

IPW-02
6:2 FTS: <2.7
8:2 FTS: <0.50
PFNA: <0.29
PFOS: <0.59
PFOA: <0.92

MW-02
6:2 FTS: 610
8:2 FTS: 39
PFNA: 4.8
PFOS: 0.87 J
PFOA: 90
MW-02 (884.72)

IPW-01
6:2 FTS : <2.1
8:2 FTS : <0.40
PFNA: <0.23
PFOS : <0.46
PFOA: <0.73

MW-06
6:2 FTS : <2.2
8:2 FTS : <0.41
PFNA: <0.24
PFOS : <0.48
PFOA: <0.75
MW-06 (884.17)

MW-03
6:2 FTS : <2.2
8:2 FTS : <0.40
PFNA: <0.24
PFOS : <0.47
PFOA: <0.75
MW-03 (883.99)

MW-07
6:2 FTS : <2.2
8:2 FTS : <0.40
PFNA: <0.24
PFOS : <0.47
PFOA: <0.74
MW-07 (883.33)

2304 CARPENTER SWAIN
6:2 FTS : <2.4
8:2 FTS : <0.44
PFNA: <0.26
PFOS : <0.52
PFOA: <0.81

885.5 885.0 884.5 884.0 883.5 20 200

LEGEND

- MONITORING WELL
- GEOPROBE SOIL BORING (APRIL 2021)
- HAND AUGER SOIL BORING (MAY 2021)
- SOIL SAMPLE
- POTABLE WELL
- DEEP PRODUCTION WELL
- PROPOSED WELL
- PROPOSED WELL, LOCATIONS TO BE ADJUSTED BASED ON INITIAL RESULTS
- STORM SEWER INLET/OUTLET
- DRAINAGE CHANNEL*
- GROUNDWATER FLOW DIRECTION
- (884.57) GROUNDWATER ELEVATION (FT AMSL)
- PFOA ISOCONTOUR (ng/L), DASHED WHERE INFERRED
- GROUNDWATER ELEVATION CONTOUR (0.5 FT, FT AMSL)
- APPROXIMATE AREA OF AFFF INSPECTION TESTING
- APPROXIMATE EXTENT OF SEPTIC MOUND
- PROPERTY BOUNDARY
- PARCEL BOUNDARY
- SITE EXTENT FOR PURPOSE OF INVESTIGATION

GROUNDWATER RESULTS FOR SELECT PFAS (ng/L)
RED BOLD = RESULT EXCEEDS RECOMMENDED NR 140 ES
BLUE BOLD = RESULT EXCEEDS RECOMMENDED NR 140 PAL

NOTES

1. BASE MAP IMAGERY FROM DANE COUNTY, 2020.
2. PARCEL BOUNDARIES ACQUIRED FROM WISCONSIN STATE CARTOGRAPHER'S OFFICE PARCEL DATA. PARCEL LABELED BY OWNER AND PARCEL ID.
3. APPROXIMATE EXTENT OF SEPTIC MOUND BASED ON DESIGN INFORMATION AND AERIAL IMAGERY.
4. * = DRAINAGE CHANNEL APPEARS TO BIFURCATE; MAP SHOWS CHANNEL THAT APPEARS TO BE PRIMARY DRAINAGE PATHWAY.
5. GROUNDWATER ELEVATIONS MEASURED JULY 14, 2021. GROUNDWATER RESULTS FROM SAMPLES COLLECTED JULY 14-16, 2021.
6. NINTH PROPOSED WELL NOT SHOWN, AS LOCATION WILL BE DETERMINED FOLLOWING INSTALLATION AND RESULTS OBTAINED FROM OTHER WELLS.

0 200 400 Feet
1 " = 200 '
1:2,400
N

PROJECT:
BRRTS #02-13-587341
ROCKGEN ENERGY CENTER
2346 CLEAR VIEW RD, TOWN OF CHRISTIANA
DANE COUNTY, WISCONSIN 53523

TITLE:
PROPOSED WELL LOCATIONS

DRAWN BY:	R. SUEMNICHT	PROJ. NO.:	437865
CHECKED BY:	L. AUNER		
APPROVED BY:	A. ENRIGHT		
DATE:	AUGUST 2021		

FIGURE 7

TRC
708 Heartland Trail, Suite 3000
Madison, WI 53717
Phone: 608.826.3600
www.trccompanies.com

FILE NO.: 435526-016_SWP.mxd