



# Interim Action Workplan

**RockGen Energy Center  
Town of Christiana, Wisconsin**

July 2021

**BRRTS #02-13-587341**

**Prepared For:**

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

**Prepared By:**

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

A handwritten signature in blue ink, appearing to read "Jeff Ramey".

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Jeff Ramey  
Senior Project Manager

A handwritten signature in blue ink, appearing to read "Alia Enright".

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

A handwritten signature in blue ink, appearing to read "Clair Ruenger".

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Clair Ruenger, P.G. (WI)  
Senior Project Manager

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## 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, Plant Manager  
608.423.1181  
dennis.oehring@rockgenenergy.com

#### Environmental Consultant

TRC Environmental Corporation (TRC)  
6767 West Washington Street, Suite 2100  
West Allis, Wisconsin 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.



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Alia Enright  
License No. 47666

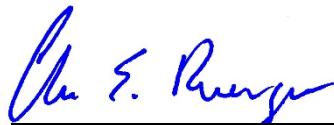


July 23, 2021  
Date

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## 1.3 Certified Hydrogeologist Certification

I, Clair Ruenger, 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.



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Clair E. Ruenger, P.G.  
License No. 153-13



July 23, 2021  
Date

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## 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 (ft) east of the Site, and T & T Stone Co., Inc. operates a quarry approximately 1,500 ft northeast of the Site.

### 2.2 Site History and 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 for more Site background and investigation information. TRC is currently conducting a Site Investigation per the SIWP, and a Site Investigation Report (SIR) will be submitted to the WDNR at a future date.

### **2.3 Purpose and Scope**

Based on the initial findings of the Site Investigation, certain actions can be taken, as soon as practicable, to contribute to the source control of PFAS at the Site. The purpose of this Interim Action Workplan is to take immediate remedial actions to address the infiltration pathways of PFAS-containing soil to groundwater and stormwater at the Site. The scope of this Interim Action Workplan includes:

- Capping of specific areas of the Site believed to be impacted from the discharge of PFAS-containing aqueous film forming foam (AFFF) during periodic foam inspections.
- Removal and relocation of the Site's septic system to address this secondary source of PFAS.

The relocation of the septic system and mound will be conducted after addressing the on-site potable well as an ongoing source of PFAS with one of the following remedies:

- Installation of a point of entry treatment (POET) system on the potable well to reduce PFAS concentrations to below the Cycle 10 and 11 proposed NR 140 ES, or
- Abandonment of the existing potable well.

Following implementation, these interim actions will reduce PFAS stormwater concentrations by addressing the source of the PFAS. By removing the source of stormwater PFAS, the concentrations in the forested stormwater drainage channel area on the northwest portion of the property would naturally attenuate and decrease over time. This is preferable to excavation or capping of this area, which would destroy the native forest and other vegetation.

The implementation of this Interim Action Workplan is contingent on the WDNR's acceptance of the above remedies, including the natural attenuation of the northwestern portion of the Site and the storm sewer outlet area. Acceptance of this workplan does not preclude or require RockGen from conducting future interim actions. A supplemental investigation of the Site will be conducted to expand the groundwater monitoring well network installed during initial Site Investigation. The findings of the supplemental investigation may result in a supplemental interim action for groundwater extraction and treatment.

### 3.0 Site Conditions

#### 3.1 Aqueous Film Forming Foam Testing Area

RockGen has a Fire Suppression System for its fuel oil storage tank that contains PFAS-based 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 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.

#### 3.2 Site Topography

Topographical information for the subject property shown on Figure 1 indicates the site elevation is approximately 930-945 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.

#### 3.3 Water Supply Wells

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 as shown on **Figure 2**.

#### 3.4 Septic System Drain Field

Sanitary wastewater from the facility is routed to an on-site septic system and mound drain field. The mound drain field is located in the grassy area east of the buildings, as shown on **Figure 2**. The water used for sanitary purposes is directly obtained from the potable well and has been filtered with a 3M-NSF certified system since April 31, 2021.

#### 3.5 Storm Sewer

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, as shown on **Figure 2**. 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 stormwater drainage channel, which ultimately drains to a stormwater retention basin on the northwest corner of the property.

## 4.0 Immediate Actions and Site Investigation

RockGen implemented an immediate action at the Site upon notification of the presence of PFAS in the potable well by providing bottled water for the employees. In addition to this immediate action, a 3M-NSF certified filtration system was installed on the potable well to remove PFAS from potable water (which was already being filtered) and sanitary water at the Site. A multi-phased soil and groundwater investigation is being conducted at the Site in accordance with the April 2021 SIWP, with a summary of the initial phases described below.

### 4.1 Soil Investigation

Iterative soil sampling was conducted in two phases in accordance with the SIWP: the first on April 20 and 21, 2021, and the second on May 10 and 11, 2021. Soil sampling locations and results are depicted on **Figure 3** and in **Table 1**, compared to the NR 720 direct contact industrial and non-industrial standards. The May 2021 soil investigation was conducted to further delineate PFAS impacts along the drainage swale on the western edge of the plant area and around the stormwater drainage channel in the northwest portion of the property. Sampling included six soil borings along the western drainage swale and fence line (SB-17 through SB-22), four soil borings in the vicinity of the stormwater drainage channel (SB-23 through SB-26), and one surficial soil sample between the wooded area and the stormwater retention basin (SS-04). The May soil borings were installed primarily using hand augers, but shovels were used to clear rocks from hand auger borings as needed. Borings along the drainage swale were installed to 2 ft bgs or refusal, if shallower. Borings around the stormwater drainage channel were installed to 4 ft bgs or refusal, if shallower. Soil samples were analyzed for PFAS using a lab certified under NR 149 and list of 33 PFAS analytes.

Further explanation and interpretation of the soil investigation will be provided in the Site Investigation Report, including comparison of soil results to generic and site-specific calculated protection of groundwater residual contaminant levels.

### 4.2 Groundwater Investigation

Well locations and results from the first round of groundwater monitoring conducted in May 2021 are shown on Figure 4 and in Table 2, compared to the Cycle 10 and 11 proposed NR 140 groundwater enforcement standards (ES) and preventive action limits (PAL). Figure 4 depicts the detected groundwater concentrations for PFOS, PFOA, perfluorononanoic acid (PFNA), precursor PFAS (8:2 fluorotelomer sulfonic acid) which has the potential to degrade to PFOA, and 6:2 fluorotelomer sulfonic acid.

Groundwater investigation at the Site has included the following:

- Packer interval sampling of the Site potable well.
- Sampling of the two deep production wells (Well #1 and Well #2) by collecting water from the vents present on the well pumps.



- Installation, development, and sampling of seven monitoring wells (MW-01 through MW-07).
  - Monitoring wells MW-01 through MW-03 were installed first and water levels were measured in these wells in order to estimate groundwater flow direction prior to finalizing the locations of the other four monitoring wells.
  - Water level elevations were measured prior to sampling. However, some wells were still being developed while other wells were being sampled, so an additional round of water level measurements was collected following development and sampling to allow wells to recover.
  - Low-flow stabilization was performed prior to sampling.
- Installation, development, and sampling of one piezometer (PZ-01).
- Analysis of groundwater samples for WI 33 PFAS List.
- Hydraulic conductivity analysis at three of the monitoring wells: MW-01, MW-03, and MW-05.

Further explanation and interpretation of the groundwater investigation will be provided in the Site Investigation Report.

### 4.3 Stormwater Investigation

Stormwater samples were collected from the storm sewer outlet (as shown on **Figure 2**) during a rain event on June 29, 2021. Precipitation had started prior to the arrival of TRC field staff for sampling, so the exact time of the start of flow at the outlet is unknown. Sampling included two samples collected 100 minutes apart, a duplicate sample, and a field blank. Samples were collected from the flow of the storm sewer outlet by submerging laboratory containers approximately 2 inches beneath the surface of the flowing water. The stormwater samples, duplicate sample, and field blank and were analyzed for the list of 33 PFAS analytes by a certified lab under NR 149, and the stormwater samples were also analyzed for total suspended solids (TSS). The results from the stormwater sampling are included in Table 3.

Further explanation and interpretation of the stormwater investigation will be provided in the Site Investigation Report.

## 5.0 Interim Actions

Based on the presence of PFAS in soil, groundwater, and stormwater encountered during the initial investigation at the Site, TRC proposes the following interim actions with the purpose of addressing the infiltration pathways to groundwater and stormwater from PFAS-containing soil:

- Capping of specific areas of the Site:
  - Installation of an asphalt cap in the AFFF inspection testing area (adjacent to the Fire Suppression System).
  - Installation of a geosynthetic cap in the drainage swale west of the AFFF inspection testing area.
- Removal of the current septic system, excavation, and off-site disposal of impacted soil at the existing septic mound, and installation of a relocated septic mound.
- The relocation of the septic system and mound will be conducted after addressing the on-site potable well as an ongoing source of PFAS with one of the following remedies:
  - Installation of a point of entry treatment (POET) system on the potable well to reduce PFAS concentrations to the Cycle 10 and 11 proposed NR 140 ES, or
  - Abandonment of the existing potable well.

The interim actions will be completed as shown in the Impacted Soil Remediation 30% Design drawings (**Appendix A**). The implementation of these interim actions is expected to control the historical PFAS sources from further infiltrating to groundwater, migrating through stormwater, and releasing from the septic system.

Following implementation, these interim actions will reduce PFAS stormwater concentrations by addressing the source of the PFAS. By removing the source of stormwater PFAS, the concentrations in the forested stormwater drainage channel area on the northwest portion of the property would naturally attenuate and decrease over time. This is preferable to excavation or capping of this area, which would destroy the native forest and other vegetation.

The implementation of this Interim Action Workplan is contingent on the WDNR's acceptance of the above remedies, including the natural attenuation of the northwestern portion of the Site and the storm sewer outlet area. Acceptance of this workplan does not preclude or require RockGen from conducting future interim actions. A supplemental investigation of the Site will be conducted to expand the groundwater monitoring well network installed during initial Site Investigation. The findings of the supplemental investigation may result in a supplemental interim action for groundwater extraction and treatment.

**Table 1 - Soil Analytical Results**  
**RockGen Energy Center**  
**Town of Christiana, Dane County, Wisconsin**  
**TRC Project # 437865.0000.0000, BRRTS #02-13-587341**

Sample Point Type		NR 720		Soil Borings															
				Direct Contact RCLs <sup>(1)</sup>		SB-01	SB-02	SB-03	SB-04	SB-05	SB-06	SB-07	SB-08	SB-09	SB-10	SB-10	SB-11		
Sample Location ID				0 - 2 ft	0 - 2 ft	0 - 2 ft	0 - 2 ft	0 - 2 ft	0 - 1.5 ft	0 - 2 ft	0 - 2 ft	0 - 2 ft	2 - 4 ft	7.5 - 9.5 ft	2 - 4 ft				
Sample Depth				04/20/2021	04/20/2021	04/20/2021	04/20/2021	04/20/2021	04/20/2021	04/20/2021	04/20/2021	04/20/2021	04/20/2021	04/20/2021	04/20/2021				
Sample Date				Non-Industrial		Industrial													
CAS RN	Constituent	Units	Non-Industrial	Industrial															
<b>Carboxylic Acids</b>																			
375-22-4	Perfluorobutanoic acid (PFBA)	ug/kg	-	-	0.39	0.23	< 0.027	< 0.028	< 0.029	0.38	0.13 J	0.14 J	0.23	0.17 J	< 0.029	0.80			
2706-90-3	Perfluoropentanoic acid (PFPeA)	ug/kg	-	-	1.7	0.99	< 0.075	< 0.078	< 0.080	1.1	< 0.089	< 0.090	0.091 J	0.60	0.11 J	2.2			
307-24-4	Perfluorohexanoic acid (PFHxA)	ug/kg	-	-	0.73	0.98	0.041 J	0.084 J	< 0.044	0.72	< 0.049	< 0.049	0.089 J	0.57	0.15 J	1.0			
375-85-9	Perfluoroheptanoic acid (PFHpA)	ug/kg	-	-	0.92	0.71	0.046 J	0.054 J	0.043 J	2.2	0.034 J	< 0.034	0.067 J	1.1	0.34	1.0			
335-67-1	Perfluorooctanoic acid (PFOA)	ug/kg	1,260	16,400	1.3	2.6	0.10 J	0.14 J	< 0.090	6.5	< 0.10	< 0.10	< 0.096	4.0	1.7	1.0			
375-95-1	Perfluorononanoic acid (PFNA)	ug/kg	-	-	0.64	0.49	< 0.035	0.037 J	< 0.038	6.3	0.043 J	< 0.042	< 0.040	1.4	0.95	0.065 J			
335-76-2	Perfluorodecanoic acid (PFDA)	ug/kg	-	-	0.95	0.70	< 0.022	0.13 J	< 0.023	0.29	< 0.025	< 0.026	< 0.025	1.5	0.51	< 0.026			
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ug/kg	-	-	0.84	0.23	< 0.035	0.040 J	< 0.038	< 0.040	< 0.042	< 0.042	< 0.040	0.40	< 0.037	< 0.042			
307-55-1	Perfluorododecanoic acid (PFDoA)	ug/kg	-	-	0.86	0.53	< 0.066	< 0.068	< 0.070	< 0.075	< 0.078	< 0.078	< 0.075	0.47	< 0.069	< 0.079			
72629-94-8	Perfluorotridecanoic acid (PFTTrDA)	ug/kg	-	-	0.23	0.19 J	< 0.050	< 0.052	< 0.053	< 0.057	< 0.059	< 0.059	< 0.057	0.058 J	< 0.052	< 0.060			
376-06-7	Perfluorotetradecanoic acid (PFTA)	ug/kg	-	-	0.30	0.29	< 0.053	< 0.055	< 0.056	< 0.060	< 0.063	< 0.063	< 0.061	< 0.059	< 0.055	< 0.063			
<b>Sulfonic Acids</b>																			
375-73-5	Perfluorobutane sulfonic acid (PFBS)	ug/kg	1,260,000	16,400,000	< 0.028	< 0.027	< 0.024	< 0.025	< 0.026	< 0.028	< 0.029	< 0.029	< 0.028	< 0.027	< 0.026	< 0.029			
2706-91-4	Perfluoropentane sulfonic acid (PFPeS)	ug/kg	-	-	< 0.022	< 0.022	< 0.020	< 0.020	< 0.021	< 0.022	< 0.023	< 0.023	< 0.022	< 0.022	< 0.021	< 0.023			
355-46-4	Perfluorohexane sulfonic acid (PFHxS)	ug/kg	-	-	< 0.034	< 0.034	< 0.030	< 0.031	< 0.032	< 0.035	< 0.036	< 0.036	< 0.035	< 0.034	< 0.032	< 0.036			
375-92-8	Perfluoroheptane sulfonic acid (PFHpS)	ug/kg	-	-	< 0.039	< 0.038	< 0.034	< 0.035	< 0.037	< 0.039	< 0.041	< 0.041	< 0.039	< 0.038	< 0.036	< 0.041			
1763-23-1	Perfluorooctane sulfonic acid (PFOS)	ug/kg	1,260	16,400	< 0.22	< 0.22	< 0.20	< 0.20	< 0.21	0.23 JI	< 0.23	< 0.23	< 0.22	0.75	0.28 J	< 0.23			
68259-12-1	Perfluorononane sulfonic acid (PFNS)	ug/kg	-	-	< 0.022	< 0.022	< 0.020	< 0.020	< 0.021	< 0.022	< 0.023	< 0.023	< 0.022	< 0.022	< 0.021	< 0.023			
335-77-3	Perfluorodecane sulfonic acid (PFDS)	ug/kg	-	-	< 0.043	< 0.043	< 0.038	< 0.039	< 0.041	< 0.044	< 0.045	< 0.045	< 0.044	0.12 J	< 0.040	< 0.046			
79780-39-5	Perfluorododecane sulfonic acid (PFDoS)	ug/kg	-	-	< 0.066	< 0.066	< 0.059	< 0.061	< 0.063	< 0.067	< 0.069	< 0.070	< 0.067	< 0.065	< 0.062	< 0.070			
75124-72-4	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	ug/kg	-	-	< 0.41	< 0.41	< 0.36	< 0.37	< 0.39	< 0.41	< 0.43	< 0.43	< 0.41	< 0.40	< 0.38	< 0.43			
27619-97-2	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	ug/kg	-	-	3.1	11	< 0.15	0.90 J	< 0.16	< 0.17	< 0.17	< 0.17	< 0.17	6.5	2.5	< 0.18			
39108-34-4	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	ug/kg	-	-	26	45	< 0.24	30	< 0.26	0.30 J	< 0.29	< 0.29	< 0.28	44	28	< 0.29			
<b>Sulfonamides, Sulfonamidoacetic acids, Sulfonamidoethanols</b>																			
754-91-6	Perfluorooctane sulfonamide (PFOSA)	ug/kg	-	-	< 0.091	< 0.090	< 0.080	< 0.083	< 0.086	< 0.092	< 0.095	< 0.096	< 0.092	< 0.089	< 0.084	< 0.096			
31506-32-8	N-Methylperfluorooctane sulfonamide (NMeFOSA)	ug/kg	-	-	< 0.045	< 0.045	< 0.040	< 0.041	< 0.043	< 0.046	< 0.047	< 0.048	< 0.046	< 0.044	< 0.042	< 0.048			
4151-50-2	N-Ethylperfluorooctane sulfonamide (NEtFOSA)	ug/kg	-	-	< 0.026	< 0.026	< 0.023	< 0.024	< 0.025	< 0.027	< 0.028	< 0.028	< 0.027	< 0.026	< 0.025	< 0.028			
2355-31-9	N-Methyl perfluorooctane sulfonamido acetic acid (NMeFOSAA)	ug/kg	-	-	< 0.43	< 0.43	< 0.38	< 0.39	< 0.41	< 0.44	< 0.45	< 0.45	< 0.44	< 0.42	< 0.40	< 0.46			
2991-50-6	N-Ethyl perfluorooctane sulfonamido acetic acid (NEtFOSAA)	ug/kg	-	-	< 0.41	< 0.41	< 0.36	< 0.37	< 0.39	< 0.41	< 0.43	< 0.43	< 0.41	< 0.40	< 0.38	< 0.43			
24448-09-7	N-Methyl perfluorooctane sulfonamido ethanol (NMeFOSE)	ug/kg	-	-	< 0.078	< 0.078	< 0.069	< 0.072	< 0.074	< 0.079	< 0.082	< 0.083	< 0.080	< 0.077	< 0.073	< 0.083			
1691-99-2	N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE)	ug/kg	-	-	< 0.040	< 0.040	< 0.035	< 0.036	< 0.038	< 0.040	< 0.042	< 0.042	< 0.040	< 0.039	< 0.037	< 0.042			
<b>Replacement Chemicals</b>																			
13252-13-6	Perfluoro-2-methyl-3-oxahexanoic acid (HFPO-DA)	ug/kg	-	-	< 0.12	< 0.12	< 0.11	< 0.11	< 0.11	< 0.12	< 0.13	< 0.13	< 0.12	< 0.12	< 0.11	< 0.13			
919005-14-4	4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ug/kg	-	-	< 0.020	< 0.020	< 0.018	< 0.018	< 0.019	< 0.020	< 0.021	< 0.021	< 0.020	< 0.020	< 0.018	< 0.021			
756426-58-1	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ug/kg	-	-	< 0.030	< 0.030	< 0.026	< 0.027	< 0.028	< 0.030	< 0.031	< 0.031	< 0.030	< 0.029	< 0.028	< 0.032			
763051-92-9	11-Chloroheicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ug/kg	-	-	< 0.024	< 0.024	< 0.022	< 0.022	< 0.023	< 0.025	< 0.025	< 0.026	< 0.025	< 0.024	< 0.023	< 0.026			

**Notes:**  
CAS RN = Chemical Abstract Service Registry Number  
ug/kg = micrograms per kilogram (ppb)  
- = Value not established  
J = Estimated concentration at or above the method detection limit and below the laboratory reporting limit.  
J+ = Estimated concentration with a potential high bias  
I = Value is EMPC (estimated maximum possible concentration).  
**Bold** = Meets or exceeds NR 720 Industrial or Non-Industrial Direct Contact RCL  
*Italic* = Meets or exceeds Protection of Groundwater Generic Screening Level  
> = greater than soil saturation limit

**Footnotes:**  
<sup>(1)</sup> NR 720 RCLs taken from WDNR RCL spreadsheet (December 2018 update), in which RCLs are calculated using default exposure assumptions listed in NR 720.12(3).  
<sup>(2)</sup> Generic groundwater pathway criteria calculated using WDNR guidance document PUB-RR-890.  
<sup>(3)</sup> Site-specific groundwater pathway criteria calculated using GSI's RBCA Tool Kit for Chemical Releases, Version 2.6.

**Table 1 - Soil Analytical Results**  
**RockGen Energy Center**  
**Town of Christiana, Dane County, Wisconsin**  
**TRC Project # 437865.0000.0000, BRRTS #02-13-587341**

Sample Point Type		NR 720		Soil Borings												
				Direct Contact RCLs <sup>(1)</sup>		SB-12	SB-13	SB-13	SB-14	SB-15	SB-16	SB-17	SB-18	SB-19	SB-20	SB-21
Sample Location ID				2 - 4 ft	2.25 - 4 ft	9 - 11 ft	0 - 4 ft	0 - 2 ft	0 - 2 ft	0 - 1.5 ft	0 - 1 ft	0 - 1.75 ft	0 - 2 ft	0 - 0.9 ft	0 - 2 ft	
Sample Depth				04/20/2021	04/20/2021	04/20/2021	04/20/2021	04/21/2021	04/21/2021	05/10/2021	05/10/2021	05/10/2021	05/10/2021	05/10/2021	05/10/2021	
Sample Date				Non-Industrial		Industrial										
CAS RN	Constituent	Units														
<b>Carboxylic Acids</b>																
375-22-4	Perfluorobutanoic acid (PFBA)	ug/kg	-	-	0.52	0.13 J	0.034 J	< 0.028	< 0.029	< 0.030	0.34	0.38	0.20 J	0.16 J	0.15 J	0.21
2706-90-3	Perfluoropentanoic acid (PFPeA)	ug/kg	-	-	1.2	0.58	0.15 J	< 0.078	< 0.081	< 0.083	0.63	0.83	0.23	< 0.089	0.17 J	0.24
307-24-4	Perfluorohexanoic acid (PFHxA)	ug/kg	-	-	0.64	0.46	0.14 J	< 0.043	< 0.044	0.064 J	0.36	0.51	0.19 J	0.066 J	0.17 J	0.19 J
375-85-9	Perfluoroheptanoic acid (PFHpA)	ug/kg	-	-	0.40	0.25	0.085 J	< 0.029	< 0.030	0.044 J	0.59	0.93	0.24	0.075 J	0.20 J	0.27
335-67-1	Perfluorooctanoic acid (PFOA)	ug/kg	1,260	16,400	0.17 J	0.52	0.29	< 0.087	< 0.090	0.099 J	1.2	2.8	0.36	0.11 J	0.30	0.40
375-95-1	Perfluorononanoic acid (PFNA)	ug/kg	-	-	< 0.043	0.35	0.18 J	< 0.037	0.040 J	0.042 J	0.83	4.1	0.19 J	0.072 J	0.15 J	0.33
335-76-2	Perfluorodecanoic acid (PFDA)	ug/kg	-	-	< 0.027	0.90	1.1	0.043 J	< 0.023	0.12 J	0.051 J	0.58	0.039 J	< 0.025	< 0.027	0.043 J
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ug/kg	-	-	< 0.043	0.28	< 0.039	< 0.037	< 0.038	0.11 J	< 0.043	0.15 J	< 0.038	< 0.041	< 0.044	< 0.037
307-55-1	Perfluorododecanoic acid (PFDoA)	ug/kg	-	-	< 0.081	1.0	< 0.072	< 0.068	< 0.070	0.20 J	< 0.080	< 0.077	< 0.072	< 0.077	< 0.082	< 0.068
72629-94-8	Perfluorotridecanoic acid (PFTTrDA)	ug/kg	-	-	< 0.061	0.12 J	< 0.055	< 0.052	< 0.053	0.081 J	< 0.061	< 0.059	< 0.055	< 0.059	< 0.062	< 0.052
376-06-7	Perfluorotetradecanoic acid (PFTA)	ug/kg	-	-	< 0.065	0.24	< 0.058	< 0.055	< 0.057	0.13 J	< 0.064	< 0.062	< 0.058	< 0.062	< 0.066	< 0.055
<b>Sulfonic Acids</b>																
375-73-5	Perfluorobutane sulfonic acid (PFBS)	ug/kg	1,260,000	16,400,000	< 0.030	< 0.029	< 0.027	< 0.025	< 0.026	< 0.027	< 0.030	< 0.029	< 0.027	< 0.029	< 0.031	< 0.026
2706-91-4	Perfluoropentane sulfonic acid (PFPeS)	ug/kg	-	-	< 0.024	< 0.023	< 0.021	< 0.020	< 0.021	< 0.021	< 0.024	< 0.023	< 0.021	< 0.023	< 0.024	< 0.020
355-46-4	Perfluorohexane sulfonic acid (PFHxS)	ug/kg	-	-	< 0.037	< 0.036	< 0.033	< 0.032	< 0.032	< 0.033	< 0.037	< 0.036	< 0.033	< 0.036	< 0.038	< 0.032
375-92-8	Perfluoroheptane sulfonic acid (PFHpS)	ug/kg	-	-	< 0.042	< 0.040	< 0.038	< 0.036	< 0.037	< 0.038	< 0.042	< 0.040	< 0.037	< 0.040	< 0.043	< 0.036
1763-23-1	Perfluorooctane sulfonic acid (PFOS)	ug/kg	1,260	16,400	< 0.24	< 0.23	< 0.21	< 0.20	< 0.21	< 0.21	< 0.24	< 0.23	< 0.21	< 0.23	< 0.24	< 0.20
68259-12-1	Perfluorononane sulfonic acid (PFNS)	ug/kg	-	-	< 0.024	< 0.023	< 0.021	< 0.020	< 0.021	< 0.021	< 0.024	< 0.023	< 0.021	< 0.023	< 0.024	< 0.020
335-77-3	Perfluorodecane sulfonic acid (PFDS)	ug/kg	-	-	< 0.047	0.18 J	< 0.042	< 0.040	< 0.041	< 0.042	< 0.047	< 0.045	< 0.042	< 0.045	< 0.048	< 0.040
79780-39-5	Perfluorododecane sulfonic acid (PFDoS)	ug/kg	-	-	< 0.072	< 0.069	< 0.064	< 0.061	< 0.063	< 0.064	< 0.072	< 0.069	< 0.064	< 0.069	< 0.073	< 0.061
75124-72-4	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	ug/kg	-	-	< 0.45	< 0.43	< 0.40	< 0.38	< 0.39	< 0.40	< 0.44	< 0.43	< 0.40	< 0.43	< 0.45	< 0.38
27619-97-2	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	ug/kg	-	-	< 0.18	2.2 J	0.70 J	< 0.15	< 0.16	0.30 J	< 0.18	0.17 J	< 0.16	< 0.17	< 0.18	< 0.15
39108-34-4	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	ug/kg	-	-	< 0.30	3.0	17	< 0.25	< 0.26	5.0	0.69 J	7.1	< 0.27	< 0.29	< 0.31	< 0.26
<b>Sulfonamides, Sulfonamidoacetic acids, Sulfonamidoethanols</b>																
754-91-6	Perfluorooctane sulfonamide (PFOSA)	ug/kg	-	-	< 0.099	< 0.095	< 0.088	< 0.083	< 0.086	< 0.088	< 0.098	< 0.094	< 0.088	< 0.094	< 0.10	< 0.084
31506-32-8	N-Methylperfluorooctane sulfonamide (NMeFOSA)	ug/kg	-	-	< 0.049	< 0.047	< 0.044	< 0.042	< 0.043	< 0.044	< 0.049	< 0.047	< 0.044	< 0.047	< 0.050	< 0.042
4151-50-2	N-Ethylperfluorooctane sulfonamide (NEtFOSA)	ug/kg	-	-	< 0.029	< 0.028	< 0.026	< 0.024	< 0.025	< 0.026	< 0.029	< 0.028	< 0.026	< 0.028	< 0.029	< 0.025
2355-31-9	N-Methyl perfluorooctane sulfonamido acetic acid (NMeFOSAA)	ug/kg	-	-	< 0.47	< 0.45	< 0.42	< 0.40	< 0.41	< 0.42	< 0.47	< 0.45	< 0.42	< 0.45	< 0.48	< 0.40
2991-50-6	N-Ethyl perfluorooctane sulfonamido acetic acid (NEtFOSAA)	ug/kg	-	-	< 0.45	< 0.43	< 0.40	< 0.38	< 0.39	< 0.40	< 0.44	< 0.43	< 0.40	< 0.43	< 0.45	< 0.38
24448-09-7	N-Methyl perfluorooctane sulfonamido ethanol (NMeFOSE)	ug/kg	-	-	< 0.086	< 0.082	< 0.076	< 0.072	< 0.074	< 0.076	< 0.085	< 0.082	< 0.076	< 0.082	< 0.087	< 0.073
1691-99-2	N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE)	ug/kg	-	-	< 0.043	< 0.042	< 0.039	< 0.037	< 0.038	< 0.039	< 0.043	< 0.041	< 0.038	< 0.041	< 0.044	< 0.037
<b>Replacement Chemicals</b>																
13252-13-6	Perfluoro-2-methyl-3-oxahexanoic acid (HFPO-DA)	ug/kg	-	-	< 0.13	< 0.13	< 0.12	< 0.11	< 0.12	< 0.12	< 0.13	< 0.13	< 0.12	< 0.13	< 0.13	< 0.11
919005-14-4	4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ug/kg	-	-	< 0.022	< 0.021	< 0.019	< 0.018	< 0.019	< 0.019	< 0.021	< 0.021	< 0.019	< 0.021	< 0.022	< 0.018
756426-58-1	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ug/kg	-	-	< 0.033	< 0.031	< 0.029	< 0.027	< 0.028	< 0.029	< 0.032	< 0.031	< 0.029	< 0.031	< 0.033	< 0.028
763051-92-9	11-Chloroheptadecafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ug/kg	-	-	< 0.027	< 0.025	< 0.024	< 0.022	< 0.023	< 0.024	< 0.026	< 0.025	< 0.024	< 0.025	< 0.027	< 0.022

**Notes:**  
CAS RN = Chemical Abstract Service Registry Number  
ug/kg = micrograms per kilogram (ppb)  
- = Value not established  
J = Estimated concentration at or above the method detection limit and below the laboratory reporting limit.  
J+ = Estimated concentration with a potential high bias  
I = Value is EMPC (estimated maximum possible concentration).  
**Bold** = Meets or exceeds NR 720 Industrial or Non-Industrial Direct Contact RCL  
*Italic* = Meets or exceeds Protection of Groundwater Generic Screening Level  
> = greater than soil saturation limit

**Footnotes:**  
<sup>(1)</sup> NR 720 RCLs taken from WDNR RCL spreadsheet (December 2018 update), in which RCLs are calculated using default exposure assumptions listed in NR 720.12(3).  
<sup>(2)</sup> Generic groundwater pathway criteria calculated using WDNR guidance document PUB-RR-890.  
<sup>(3)</sup> Site-specific groundwater pathway criteria calculated using GSI's RBCA Tool Kit for Chemical Releases, Version 2.6.

**Table 1 - Soil Analytical Results**  
**RockGen Energy Center**  
**Town of Christiana, Dane County, Wisconsin**  
**TRC Project # 437865.0000.0000, BRRTS #02-13-587341**

Sample Point Type		NR 720		Soil Borings								Surficial Soil Samples			
Sample Location ID		Direct Contact RCLs <sup>(1)</sup>		SB-23	SB-23	SB-24	SB-24	SB-25	SB-25	SB-26	SS-01	SS-02	SS-03	SS-04	
Sample Depth				0 - 2 ft	2 - 3.75 ft	0 - 2 ft	2 - 4 ft	0 - 2 ft	2 - 4 ft	0 - 2 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	
Sample Date				05/10/2021	05/10/2021	05/10/2021	05/10/2021	05/11/2021	05/11/2021	05/11/2021	04/21/2021	04/21/2021	04/21/2021	05/11/2021	
CAS RN	Constituent	Units	Non-Industrial	Industrial											
<b>Carboxylic Acids</b>															
375-22-4	Perfluorobutanoic acid (PFBA)	ug/kg	-	-	0.82	0.30	1.6	0.33	1.5	0.76	1.1	< 0.027	< 0.029	0.048 J	1.5
2706-90-3	Perfluoropentanoic acid (PFPeA)	ug/kg	-	-	2.6	1.2	3.4	1.4	2.7	1.7	2.5	0.16 J	< 0.079	0.12 J	2.7
307-24-4	Perfluorohexanoic acid (PFHxA)	ug/kg	-	-	0.68	0.33	1.1	0.35	1.0	0.61	0.80	0.23	< 0.043	0.32 J	1.3
375-85-9	Perfluoroheptanoic acid (PFHpA)	ug/kg	-	-	1.3	0.50	1.2	0.55	1.3	0.68	1.8	0.30	< 0.030	0.099 J	3.4
335-67-1	Perfluorooctanoic acid (PFOA)	ug/kg	1,260	16,400	1.4	0.66	3.3	0.73	3.6	1.3 J+	2.7	0.65	< 0.088	0.49 J	4.8
375-95-1	Perfluorononanoic acid (PFNA)	ug/kg	-	-	0.89	0.48	0.86	0.48	1.8	0.38	3.0	0.13 J	< 0.037	0.13 J	3.6
335-76-2	Perfluorodecanoic acid (PFDA)	ug/kg	-	-	0.44	0.17 J	0.14 J	0.20 J	0.30	0.040 J	1.2	0.22	< 0.022	0.60 J	2.1
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ug/kg	-	-	0.18 J	< 0.042	0.059 J	< 0.044	0.12 J	< 0.040	0.64	< 0.035	< 0.037	0.31 J	1.7
307-55-1	Perfluorododecanoic acid (PFDoA)	ug/kg	-	-	0.11 J	< 0.078	< 0.080	< 0.081	< 0.072	< 0.074	0.17 J	< 0.065	< 0.068	0.22 J	0.87
72629-94-8	Perfluorotridecanoic acid (PFTrDA)	ug/kg	-	-	< 0.062	< 0.059	< 0.061	< 0.062	< 0.055	< 0.057	< 0.063	< 0.050	< 0.052	< 0.052	0.19 J
376-06-7	Perfluorotetradecanoic acid (PFTA)	ug/kg	-	-	< 0.066	< 0.063	< 0.065	< 0.066	< 0.058	< 0.060	< 0.067	< 0.052	< 0.055	0.12 J	0.15 J
<b>Sulfonic Acids</b>															
375-73-5	Perfluorobutane sulfonic acid (PFBS)	ug/kg	1,260,000	16,400,000	< 0.031	< 0.029	< 0.030	< 0.030	< 0.027	< 0.028	< 0.031	< 0.024	< 0.026	< 0.025	< 0.033
2706-91-4	Perfluoropentane sulfonic acid (PFPeS)	ug/kg	-	-	< 0.024	< 0.023	< 0.024	< 0.024	< 0.022	< 0.022	< 0.025	< 0.019	< 0.020	< 0.020	< 0.027
355-46-4	Perfluorohexane sulfonic acid (PFHxS)	ug/kg	-	-	< 0.038	< 0.036	< 0.037	< 0.038	< 0.033	< 0.034	< 0.038	< 0.030	< 0.032	< 0.032	< 0.041
375-92-8	Perfluoroheptane sulfonic acid (PFHpS)	ug/kg	-	-	< 0.043	< 0.041	< 0.042	< 0.043	< 0.038	< 0.039	< 0.043	< 0.034	< 0.036	< 0.036	< 0.047
1763-23-1	Perfluorooctane sulfonic acid (PFOS)	ug/kg	1,260	16,400	< 0.24	< 0.23	< 0.24	< 0.24	0.25 J	< 0.22	0.48 JI	< 0.19	< 0.20	< 0.20	0.42 JI
68259-12-1	Perfluorononane sulfonic acid (PFNS)	ug/kg	-	-	< 0.024	< 0.023	< 0.024	< 0.024	< 0.022	< 0.022	< 0.025	< 0.019	< 0.020	< 0.020	< 0.027
335-77-3	Perfluorodecane sulfonic acid (PFDS)	ug/kg	-	-	< 0.048	< 0.045	< 0.047	< 0.047	< 0.042	< 0.043	< 0.048	< 0.038	< 0.040	< 0.040	< 0.052
79780-39-5	Perfluorododecane sulfonic acid (PFDoS)	ug/kg	-	-	< 0.073	< 0.070	< 0.072	< 0.073	< 0.065	< 0.067	< 0.074	< 0.058	< 0.061	< 0.061	< 0.080
757124-72-4	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	ug/kg	-	-	< 0.45	< 0.43	< 0.44	< 0.45	< 0.40	< 0.41	< 0.46	< 0.36	< 0.38	< 0.38	< 0.49
27619-97-2	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	ug/kg	-	-	1.5 J	0.29 J	< 0.18	0.30 J	0.28 J	< 0.17	1.4 J	5.5	< 0.15	7.2 J	0.38 J
39108-34-4	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	ug/kg	-	-	14	1.2 J	2.0 J	1.1 J	4.4	< 0.28	22	74	< 0.26	130 J	5.3
<b>Sulfonamides, Sulfonidoacetic acids, Sulfonamidoethanols</b>															
754-91-6	Perfluorooctane sulfonamide (PFOSA)	ug/kg	-	-	< 0.10	< 0.095	< 0.098	< 0.10	< 0.088	< 0.091	< 0.10	< 0.080	< 0.084	< 0.083	< 0.11
31506-32-8	N-Methylperfluorooctane sulfonamide (NMeFOSA)	ug/kg	-	-	< 0.050	< 0.048	< 0.049	< 0.050	< 0.044	< 0.046	< 0.051	< 0.040	< 0.042	< 0.042	< 0.055
4151-50-2	N-Ethylperfluorooctane sulfonamide (NEtFOSA)	ug/kg	-	-	< 0.029	< 0.028	< 0.029	< 0.029	< 0.026	< 0.027	< 0.030	< 0.023	< 0.024	< 0.024	< 0.032
2355-31-9	N-Methyl perfluorooctane sulfonamido acetic acid (NMeFOSAA)	ug/kg	-	-	< 0.48	< 0.45	< 0.47	< 0.47	< 0.42	< 0.43	< 0.48	< 0.38	< 0.40	< 0.40	< 0.52
2991-50-6	N-Ethyl perfluorooctane sulfonamido acetic acid (NEtFOSAA)	ug/kg	-	-	< 0.45	< 0.43	< 0.44	< 0.45	< 0.40	< 0.41	< 0.46	< 0.36	< 0.38	< 0.38	< 0.49
24448-09-7	N-Methyl perfluorooctane sulfonamido ethanol (NMeFOSE)	ug/kg	-	-	< 0.087	< 0.083	< 0.085	< 0.086	< 0.077	< 0.079	< 0.088	< 0.069	< 0.072	< 0.072	< 0.095
1691-99-2	N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE)	ug/kg	-	-	< 0.044	< 0.042	< 0.043	< 0.044	< 0.039	< 0.040	< 0.045	< 0.035	< 0.037	< 0.037	< 0.048
<b>Replacement Chemicals</b>															
13252-13-6	Perfluoro-2-methyl-3-oxahexanoic acid (HFPO-DA)	ug/kg	-	-	< 0.13	< 0.13	< 0.13	< 0.13	< 0.12	< 0.12	< 0.14	< 0.11	< 0.11	< 0.11	< 0.15
919005-14-4	4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ug/kg	-	-	< 0.022	< 0.021	< 0.022	< 0.022	< 0.019	< 0.020	< 0.022	< 0.017	< 0.018	< 0.018	< 0.024
756426-58-1	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ug/kg	-	-	< 0.033	< 0.031	< 0.032	< 0.033	< 0.029	< 0.030	< 0.033	< 0.026	< 0.028	< 0.027	< 0.036
763051-92-9	11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ug/kg	-	-	< 0.027	< 0.026	< 0.026	< 0.027	< 0.024	< 0.024	< 0.027	< 0.021	< 0.022	< 0.022	< 0.029

**Notes:**  
CAS RN = Chemical Abstract Service Registry Number  
ug/kg = micrograms per kilogram (ppb)  
- = Value not established  
J = Estimated concentration at or above the method detection limit and below the laboratory reporting limit.  
J+ = Estimated concentration with a potential high bias  
I = Value is EMPC (estimated maximum possible concentration).  
**Bold** = Meets or exceeds NR 720 Industrial or Non-Industrial Direct Contact RCL  
*Italic* = Meets or exceeds Protection of Groundwater Generic Screening Level  
> = greater than soil saturation limit

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

**Footnotes:**  
<sup>(1)</sup> NR 720 RCLs taken from WDNR RCL spreadsheet (December 2018 update), in which RCLs are calculated using default exposure assumptions listed in NR 720.12(3).  
<sup>(2)</sup> Generic groundwater pathway criteria calculated using WDNR guidance document PUB-RR-890.  
<sup>(3)</sup> Site-specific groundwater pathway criteria calculated using GSI's RBCA Tool Kit for Chemical Releases, Version 2.6.

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

					Potable Well									
Well Type					Raw Tap	Kitchen Tap	Filter Tap	Fridge Tap	PW-01	PW-01	PW-01	PW-01	PW-01	
Sample Location ID					100 - 117 ft	116.25 - 137.25 ft	136.75 - 157.75 ft	157.5 - 178.5 ft	175.25 - 196.25 ft					
Sample Depth					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	
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	
CAS RN	Constituent	Units	Proposed NR 140 PAL <sup>(1)</sup>	Proposed NR 140 ES <sup>(1)</sup>										
<b>Carboxylic Acids</b>														
375-22-4	Perfluorobutanoic acid (PFBA)	ng/L	2,000	10,000	120	120	4.0	2.1 J	77	88	56	73	82	
2706-90-3	Perfluoropentanoic acid (PFPeA)	ng/L	-	-	500	490	< 0.96	< 0.93	300	360	230	290	280	
307-24-4	Perfluorohexanoic acid (PFHxA)	ng/L	30,000	150,000	340	350	< 0.96	< 0.93	210	240	150	190	210	
375-85-9	Perfluoroheptanoic acid (PFHpA)	ng/L	-	-	190	200	< 0.96	< 0.93	100	110	63	99	97	
335-67-1	Perfluorooctanoic acid (PFOA)	ng/L	2 <sup>(2)</sup>	20 <sup>(2)</sup>	<b>210</b>	<b>200</b>	< 0.96	< 0.93	<b>100</b>	<b>130</b>	<b>62</b>	<b>100</b>	<b>100</b>	
375-95-1	Perfluorononanoic acid (PFNA)	ng/L	3	30	<b>23</b>	<b>24</b>	< 0.96	< 0.93	<b>10</b>	<b>11</b>	<b>5</b>	<b>9.2</b>	<b>8.9</b>	
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	
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	
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	
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	
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	
<b>Sulfonic Acids</b>														
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	
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	
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	
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	
1763-23-1	Perfluorooctane sulfonic acid (PFOS)	ng/L	2 <sup>(2)</sup>	20 <sup>(2)</sup>	<b>7.8</b>	<b>8.9</b>	< 0.96	< 0.93	< 5.3 U	< 5.3 U	< 0.51 U	< 5.3 U	< 5.3 U	
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	
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	
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	
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	
27619-97-2	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	ng/L	-	-	2700	3000	< 1.9	< 1.9	1100	1600	680	1100	1200	
39108-34-4	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	ng/L	-	-	750	860	< 1.9	< 1.9	290	250	120	270	270	
<b>Sulfonamides, Sulfomidoacetic acids, Sulfonamidoethanols</b>														
754-91-6	Perfluorooctane sulfonamide (PFOSA)	ng/L	2 <sup>(2)</sup>	20 <sup>(2)</sup>	1.1 J	1.5 J	< 0.96	< 0.93	<b>8.9</b>	<b>5.8</b>	<b>4.4</b>	<b>4</b>	<b>5.2</b>	
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	
4151-50-2	N-Ethylperfluorooctane sulfonamide (NEtFOSA)	ng/L	2 <sup>(2)</sup>	20 <sup>(2)</sup>	< 2.0	< 1.9	< 1.9	< 1.9	< 0.90	< 0.89	< 0.83	< 0.78	< 0.82	
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	
2991-50-6	N-Ethyl perfluorooctane sulfonamido acetic acid (NEtFOSAA)	ng/L	2 <sup>(2)</sup>	20 <sup>(2)</sup>	< 2.0	< 1.9	< 1.9	< 1.9	< 1.3	< 1.3	< 1.2	< 1.2	< 1.2	
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	
1691-99-2	N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE)	ng/L	2 <sup>(2)</sup>	20 <sup>(2)</sup>	< 2.0	< 1.9	< 1.9	< 1.9	< 0.88	< 0.86	< 0.81	< 0.76	< 0.80	
<b>Replacement Chemicals</b>														
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	
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	
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	
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	
<b>Combined Standard</b>														
-	Combined Standard <sup>(2)</sup>	ng/L	2	20	<b>218.9</b>	<b>210.4</b>	ND	ND	<b>108.9</b>	<b>135.8</b>	<b>66.4</b>	<b>104</b>	<b>105.2</b>	

**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 italic** = Concentration meets or exceeds proposed NR 140 ES  
ND = not detected

**Footnotes:**  
<sup>(1)</sup> 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.  
<sup>(2)</sup> 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						Piezometer
Sample Location ID		IPW-01	IPW-02	MW-01	MW-02	MW-03	MW-03 Dup	MW-04	MW-05	MW-06	MW-07	PZ-01			
Sample Depth															
Sample Date		05/17/2021	05/17/2021	05/17/2021	05/17/2021	05/17/2021	05/17/2021	05/19/2021	05/19/2021	05/19/2021	05/19/2021	07/01/2021			
CAS RN	Constituent	Units	Proposed NR 140 PAL <sup>(1)</sup>	Proposed NR 140 ES <sup>(1)</sup>											
<b>Carboxylic Acids</b>															
375-22-4	Perfluorobutanoic acid (PFBA)	ng/L	2,000	10,000	< 2.1	< 2.1	110	20	3.8 J	3.7 J	300	78	2.7 J	< 2.1	< 1.9
2706-90-3	Perfluoropentanoic acid (PFPeA)	ng/L	-	-	< 0.43	< 0.44	410	79	1.2 J	0.89 J	1400	320	< 0.44	< 0.43	< 0.40
307-24-4	Perfluorohexanoic acid (PFHxA)	ng/L	30,000	150,000	< 0.51	< 0.52	170	53	0.99 J	1.0 J	930	190	< 0.52	< 0.51	< 0.47
375-85-9	Perfluoroheptanoic acid (PFHpA)	ng/L	-	-	< 0.22	< 0.22	93	15	0.69 J	0.58 J	490	96	< 0.22	< 0.22	< 0.20
335-67-1	Perfluorooctanoic acid (PFOA)	ng/L	2 <sup>(2)</sup>	20 <sup>(2)</sup>	< 0.75	< 0.76	<b>51</b>	<b>10</b>	< 0.77	< 0.75	<b>630</b>	<b>69</b>	< 0.76	< 0.75	< 0.69
375-95-1	Perfluorononanoic acid (PFNA)	ng/L	3	30	< 0.24	< 0.24	2.4	0.82 J	< 0.24	< 0.24	<b>55</b>	0.28 J	< 0.24	< 0.24	< 0.22
335-76-2	Perfluorodecanoic acid (PFDA)	ng/L	60	300	< 0.27	< 0.28	< 0.29	< 0.28	< 0.28	< 0.27	18	< 0.28	< 0.28	< 0.27	0.28 J
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ng/L	600	3000	< 0.97	< 0.98	< 1.0	< 0.98	< 0.99	< 0.97	1.2 J	< 0.98	< 0.98	< 0.97	< 0.89
307-55-1	Perfluorododecanoic acid (PFDoA)	ng/L	100	500	< 0.49	< 0.49	< 0.51	< 0.49	< 0.50	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.45
72629-94-8	Perfluorotridecanoic acid (PFTrDA)	ng/L	-	-	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.1	< 1.2	< 1.2	< 1.2	< 1.1	< 1.1
376-06-7	Perfluorotetradecanoic acid (PFTA)	ng/L	2000	10000	< 0.65	< 0.65	< 0.67	< 0.65	< 0.66	< 0.64	< 0.65	< 0.65	< 0.65	< 0.64	< 0.59
<b>Sulfonic Acids</b>															
375-73-5	Perfluorobutane sulfonic acid (PFBS)	ng/L	90000	450000	< 0.18	< 0.18	0.33 J	< 0.18	0.47 J	0.45 J	0.49 J	0.44 J	< 0.18	3.0	< 0.16
2706-91-4	Perfluoropentane sulfonic acid (PFPeS)	ng/L	-	-	< 0.27	< 0.27	< 0.28	< 0.27	< 0.27	< 0.26	0.29 J	< 0.27	< 0.27	< 0.26	< 0.24
355-46-4	Perfluorohexane sulfonic acid (PFHxS)	ng/L	4	40	< 0.50	< 0.51	0.53 J	< 0.51	< 0.51	< 0.50	2.5	0.69 J	< 0.51	< 0.50	< 0.46
375-92-8	Perfluoroheptane sulfonic acid (PFHpS)	ng/L	-	-	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.15
1763-23-1	Perfluorooctane sulfonic acid (PFOS)	ng/L	2 <sup>(2)</sup>	20 <sup>(2)</sup>	< 0.48	< 0.48	< 0.50	< 0.48	< 0.49	< 0.48	<b>14</b>	< 0.48	< 0.48	< 0.48	< 0.44
68259-12-1	Perfluorononane sulfonic acid (PFNS)	ng/L	-	-	< 0.33	< 0.33	< 0.34	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.30
335-77-3	Perfluorodecane sulfonic acid (PFDS)	ng/L	-	-	< 0.28	< 0.29	< 0.29	< 0.28	< 0.29	< 0.28	< 0.28	< 0.29	< 0.28	< 0.28	< 0.26
79780-39-5	Perfluorododecane sulfonic acid (PFDoS)	ng/L	-	-	< 0.86	< 0.87	< 0.89	< 0.86	< 0.88	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.79
757124-72-4	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	ng/L	-	-	< 0.21	< 0.21	< 0.22	< 0.21	< 0.22	< 0.21	34	< 0.21	< 0.21	< 0.21	< 0.19
27619-97-2	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	ng/L	-	-	< 2.2	< 2.2	340	87	< 2.3	< 2.2	4100	460	< 2.2	< 2.2	< 2.0
39108-34-4	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	ng/L	-	-	< 0.41	< 0.41	2.8	3.0	< 0.42	< 0.41	1700	1.0 J	< 0.41	< 0.41	< 0.37
<b>Sulfonamides, Sulfomidoacetic acids, Sulfonamidoethanols</b>															
754-91-6	Perfluorooctane sulfonamide (PFOSA)	ng/L	2 <sup>(2)</sup>	20 <sup>(2)</sup>	< 0.87	< 0.88	< 0.90	< 0.87	< 0.89	< 0.86	1.0 J	< 0.87	< 0.87	< 0.87	1.5 J
31506-32-8	N-Methylperfluorooctane sulfonamide (NMeFOSA)	ng/L	-	-	< 0.38	< 0.38	< 0.40	< 0.38	< 0.39	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.35
4151-50-2	N-Ethylperfluorooctane sulfonamide (NEtFOSA)	ng/L	2 <sup>(2)</sup>	20 <sup>(2)</sup>	< 0.77	< 0.78	< 0.80	< 0.77	< 0.79	< 0.77	< 0.77	< 0.78	< 0.77	< 0.77	< 0.71
2355-31-9	N-Methyl perfluorooctane sulfonamido acetic acid (NMeFOSAA)	ng/L	-	-	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.97
2991-50-6	N-Ethyl perfluorooctane sulfonamido acetic acid (NEtFOSAA)	ng/L	2 <sup>(2)</sup>	20 <sup>(2)</sup>	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.1	< 1.2	< 1.2	< 1.2	< 1.1	< 1.1
24448-09-7	N-Methyl perfluorooctane sulfonamido ethanol (NMeFOSE)	ng/L	-	-	< 1.2	< 1.3	< 1.3	< 1.2	< 1.3	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.1
1691-99-2	N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE)	ng/L	2 <sup>(2)</sup>	20 <sup>(2)</sup>	< 0.75	< 0.76	< 0.78	< 0.75	< 0.77	< 0.75	< 0.75	< 0.76	< 0.76	< 0.75	< 0.69
<b>Replacement Chemicals</b>															
13252-13-6	Perfluoro-2-methyl-3-oxahexanoic acid (HFPO-DA)	ng/L	30	300	< 1.3	< 1.3	< 1.4	< 1.3	< 1.4	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.2
919005-14-4	4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ng/L	600	3000	< 0.35	< 0.36	< 0.37	< 0.36	< 0.36	< 0.35	< 0.35	< 0.36	< 0.36	< 0.35	< 0.32
756426-58-1	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ng/L	-	-	< 0.21	< 0.21	< 0.22	< 0.21	< 0.22	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.19
763051-92-9	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ng/L	-	-	< 0.28	< 0.29	< 0.29	< 0.28	< 0.29	< 0.28	< 0.28	< 0.29	< 0.28	< 0.28	< 0.26
<b>Combined Standard</b>															
-	Combined Standard <sup>(2)</sup>	ng/L	2	20	ND	ND	<b>51</b>	<b>10</b>	ND	ND	<b>645</b>	<b>69</b>	ND	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 italic** = 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

**Footnotes:**  
<sup>(1)</sup> 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.  
<sup>(2)</sup> Combined standards proposed for PFOS, PFOA, PFOSA, NEtFOSA, NEtFOSAA, and NEtFOSE.

**Table 3 - Stormwater Analytical Results**  
**RockGen Energy Center**  
**Town of Christiana, Dane County, Wisconsin**  
**TRC Project # 437865.0000.0000, BRRTS #02-13-587341**

		Sample Location/Type	SW-01-A	SW-01-A Dup	SW-01-B
		Sample Date and Time	6/29/2021 10:35	6/29/2021 10:35	6/29/2021 12:15
CAS RN	Constituent	Units			
<b>Carboxylic Acids</b>					
375-22-4	Perfluorobutanoic acid (PFBA)	ng/L	< 2.0	< 2.0	6.4
2706-90-3	Perfluoropentanoic acid (PFPeA)	ng/L	2.0	2.0	25
307-24-4	Perfluorohexanoic acid (PFHxA)	ng/L	4.3	4.1	19
375-85-9	Perfluoroheptanoic acid (PFHpA)	ng/L	1.6 J	1.4 J	18
335-67-1	Perfluorooctanoic acid (PFOA)	ng/L	6.1	5.8	23
375-95-1	Perfluorononanoic acid (PFNA)	ng/L	2.2	2.3	5.3
335-76-2	Perfluorodecanoic acid (PFDA)	ng/L	2.7	2.6	3.5
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ng/L	< 0.92	< 0.90	< 1.0
307-55-1	Perfluorododecanoic acid (PFDoA)	ng/L	0.86 J	0.93 J	0.93 J
72629-94-8	Perfluorotridecanoic acid (PFTrDA)	ng/L	< 1.1	< 1.1	< 1.2
376-06-7	Perfluorotetradecanoic acid (PFTA)	ng/L	< 0.61	< 0.60	< 0.66
<b>Sulfonic Acids</b>					
375-73-5	Perfluorobutane sulfonic acid (PFBS)	ng/L	< 0.17	< 0.16	< 0.18
2706-91-4	Perfluoropentane sulfonic acid (PFPeS)	ng/L	< 0.25	< 0.25	< 0.27
355-46-4	Perfluorohexane sulfonic acid (PFHxS)	ng/L	< 0.48	< 0.47	< 0.52
375-92-8	Perfluoroheptane sulfonic acid (PFHpS)	ng/L	< 0.16	< 0.16	< 0.17
1763-23-1	Perfluorooctane sulfonic acid (PFOS)	ng/L	1.5 J	1.2 J	1.5 J
68259-12-1	Perfluorononane sulfonic acid (PFNS)	ng/L	< 0.31	< 0.30	< 0.34
335-77-3	Perfluorodecane sulfonic acid (PFDS)	ng/L	< 0.27	< 0.26	< 0.29
79780-39-5	Perfluorododecane sulfonic acid (PFDoS)	ng/L	< 0.81	< 0.79	< 0.88
757124-72-4	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	ng/L	< 0.20	< 0.20	< 0.22
27619-97-2	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	ng/L	16	16	44
39108-34-4	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	ng/L	130	140	180
<b>Sulfonamides, Sulfomidoacetic acids, Sulfonamidoethanols</b>					
754-91-6	Perfluorooctane sulfonamide (PFOSA)	ng/L	< 0.82	< 0.80	< 0.89
31506-32-8	N-Methylperfluorooctane sulfonamide (NMeFOSA)	ng/L	< 0.36	< 0.35	< 0.39
4151-50-2	N-Ethylperfluorooctane sulfonamide (NEtFOSA)	ng/L	< 0.73	< 0.71	< 0.79
2355-31-9	N-Methyl perfluorooctane sulfonamido acetic acid (NMeFOSAA)	ng/L	< 1.0	< 0.98	< 1.1
2991-50-6	N-Ethyl perfluorooctane sulfonamido acetic acid (NEtFOSAA)	ng/L	< 1.1	< 1.1	< 1.2
24448-09-7	N-Methyl perfluorooctane sulfonamido ethanol (NMeFOSE)	ng/L	< 1.2	< 1.1	< 1.3
1691-99-2	N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE)	ng/L	< 0.71	< 0.70	< 0.77
<b>Replacement Chemicals</b>					
13252-13-6	Perfluoro-2-methyl-3-oxahexanoic acid (HFPO-DA)	ng/L	< 1.3	< 1.2	< 1.4
919005-14-4	4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ng/L	< 0.33	< 0.33	< 0.36
756426-58-1	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ng/L	< 0.20	< 0.20	< 0.22
763051-92-9	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ng/L	< 0.27	< 0.26	< 0.29
<b>Solids</b>					
TSS	Total Suspended Solids (TSS)	mg/L	120	--	11

**Notes:**

CAS RN = Chemical Abstract Service Registry Number

ng/L = nanograms per liter (ppt)

-- = Not analyzed

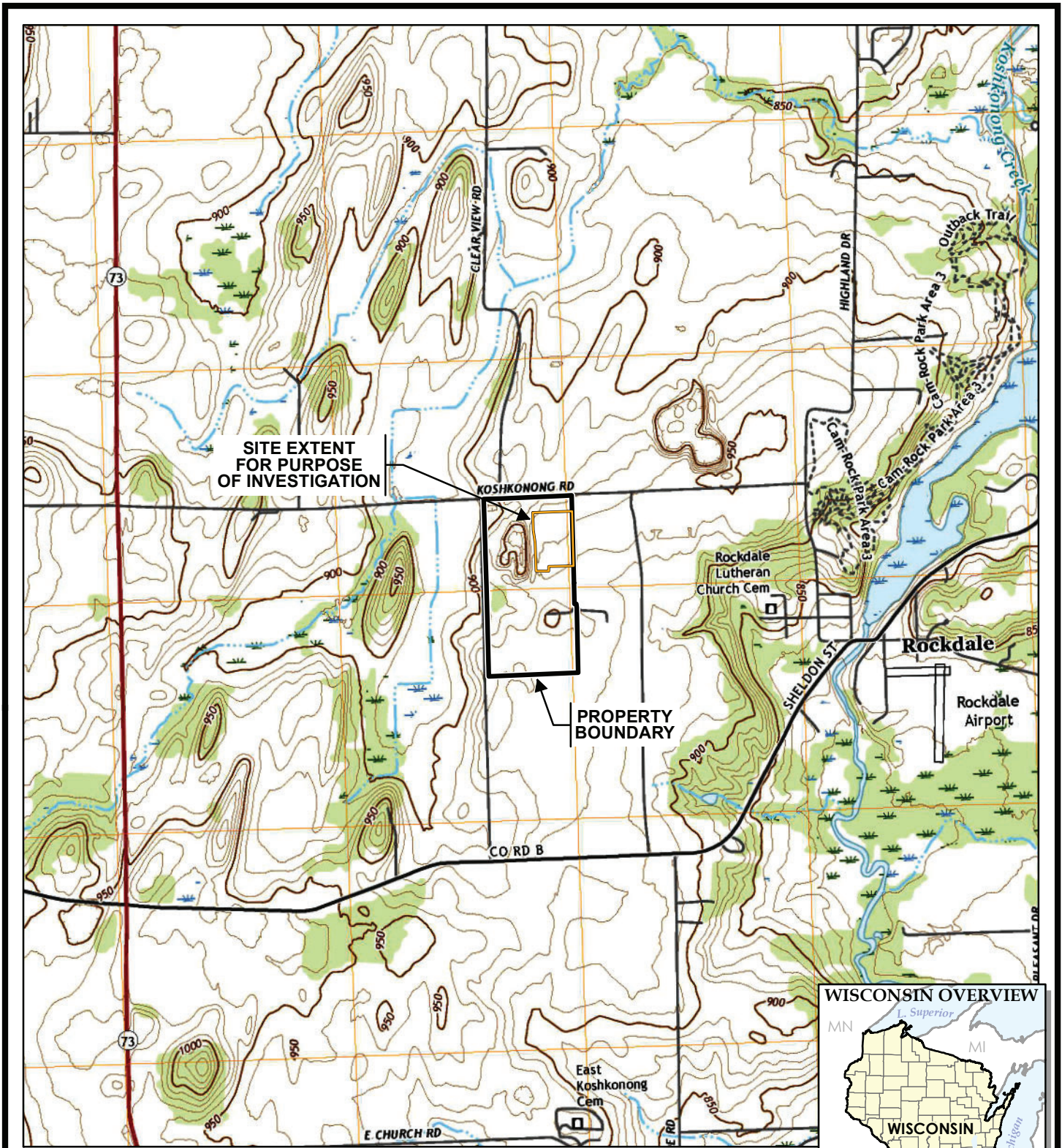
J = Estimated concentration at or above the method detection limit and below the laboratory reporting limit.

Prepared by: P. Popp, 7/14/2021

Checked and revised by: L. Auner, 7/15/2021

Checked by: J. Ramey 7/16/2021





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



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

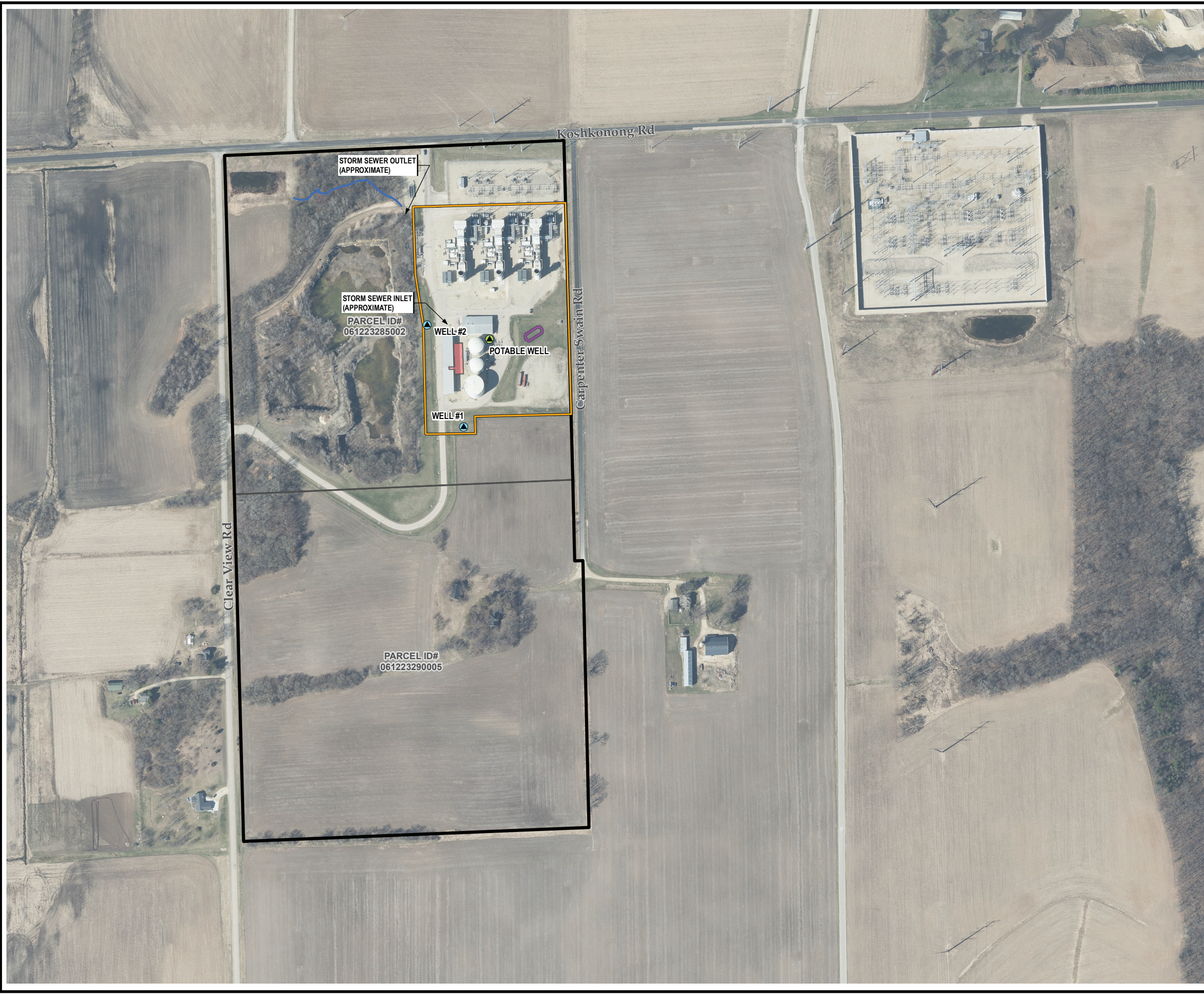
TRC - GIS

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**



**LEGEND**

- POTABLE WELL
- DEEP PRODUCTION WELL
- 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: <b>BRRTS #02-13-587341 ROCKGEN ENERGY CENTER 2346 CLEAR VIEW RD, TOWN OF CHRISTIANA DANE COUNTY, WISCONSIN 53523</b>	
TITLE: <b>SITE VICINITY MAP</b>	
DRAWN BY: R. SUEMNICHT	PROJ. NO.: 437865-001
CHECKED BY: J. RAMEY	<b>FIGURE 2</b>
APPROVED BY: J. RAMEY	
DATE: JULY 2021	
<span style="float: right; font-size: small;">708 Heartland Trail, Suite 3000 Madison, WI 53717 Phone: 608.826.3600 www.trccompanies.com</span>	
FILE NO.: 437865-001_IAW.mxd	



### LEGEND

- MONITORING WELL
- PIEZOMETER
- GEOPROBE SOIL BORING (APRIL 2021)
- HAND AUGER SOIL BORING (MAY 2021)
- SOIL SAMPLE
- POTABLE WELL
- DEEP PRODUCTION WELL
- DRAINAGE CHANNEL\*
- APPROXIMATE AREA OF AFFF INSPECTION TESTING
- APPROXIMATE EXTENT OF SEPTIC MOUND
- PROPERTY BOUNDARY
- PARCEL BOUNDARY
- SITE EXTENT FOR PURPOSE OF INVESTIGATION

- ### NOTES
- BASE MAP IMAGERY FROM DANE COUNTY, 2020.
  - CONTOUR DATA FROM DANE COUNTY LAND INFORMATION OFFICE, 2017.
  - PARCEL BOUNDARIES ACQUIRED FROM WISCONSIN STATE CARTOGRAPHER'S OFFICE PARCEL DATA.
  - APPROXIMATE EXTENT OF SEPTIC MOUND BASED ON DESIGN INFORMATION AND AERIAL IMAGERY.
  - \* = DRAINAGE CHANNEL APPEARS TO BIFURCATE; MAP SHOWS CHANNEL THAT APPEARS TO BE PRIMARY DRAINAGE PATHWAY.

### SOIL RESULTS FOR SELECT PFAS (µg/kg)

PROJECT:		<b>BRRTS #02-13-587341</b>	
		<b>ROCKGEN ENERGY CENTER</b>	
		<b>2346 CLEAR VIEW RD, TOWN OF CHRISTIANA</b>	
		<b>DANE COUNTY, WISCONSIN 53523</b>	
TITLE:			
<b>SOIL SAMPLING RESULTS MAP</b>			
DRAWN BY:	R. SUEMNICHT	PROJ. NO.:	437865
CHECKED BY:	J. RAMEY	<b>FIGURE 3</b>	
APPROVED BY:	J. RAMEY		
DATE:	JULY 2021		
		708 Heartland Trail, Suite 3000 Madison, WI 53717 Phone: 608.826.3600 www.trccompanies.com	
FILE NO.:		435526-015_IAW.mxd	

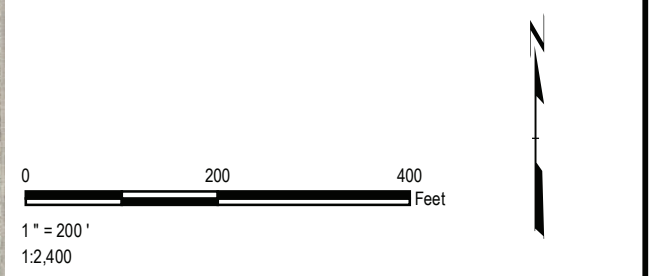


### LEGEND

- MONITORING WELL
- PIEZOMETER
- GEOPROBE SOIL BORING (APRIL 2021)
- HAND AUGER SOIL BORING (MAY 2021)
- SOIL SAMPLE
- POTABLE WELL
- DEEP PRODUCTION WELL
- DRAINAGE CHANNEL\*
- APPROXIMATE AREA OF AFFF INSPECTION TESTING
- APPROXIMATE EXTENT OF SEPTIC MOUND
- PROPERTY BOUNDARY
- PARCEL BOUNDARY
- SITE EXTENT FOR PURPOSE OF INVESTIGATION

- ### NOTES
- BASE MAP IMAGERY FROM DANE COUNTY, 2020.
  - CONTOUR DATA FROM DANE COUNTY LAND INFORMATION OFFICE, 2017.
  - PARCEL BOUNDARIES ACQUIRED FROM WISCONSIN STATE CARTOGRAPHER'S OFFICE PARCEL DATA.
  - APPROXIMATE EXTENT OF SEPTIC MOUND BASED ON DESIGN INFORMATION AND AERIAL IMAGERY.
  - \* = DRAINAGE CHANNEL APPEARS TO BIFURCATE; MAP SHOWS CHANNEL THAT APPEARS TO BE PRIMARY DRAINAGE PATHWAY.

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



PROJECT:		<b>BRRTS #02-13-587341</b>	
		<b>ROCKGEN ENERGY CENTER</b>	
		<b>2346 CLEAR VIEW RD, TOWN OF CHRISTIANA</b>	
		<b>DANE COUNTY, WISCONSIN 53523</b>	
TITLE:			
<b>GROUNDWATER RESULTS MAP</b>			
DRAWN BY:	R. SUEMNICHT	PROJ. NO.:	437865
CHECKED BY:	J. RAMEY	<b>FIGURE 4</b>	
APPROVED BY:	J. RAMEY		
DATE:	JULY 2021		
		708 Heartland Trail, Suite 3000 Madison, WI 53717 Phone: 608.826.3600 www.trccompanies.com	
FILE NO.:		435526-016_IAW.mxd	

## **Appendix A: Impacted Soil Remediation 30% Design**



## GEOSYNTHETIC CAP

### SUBGRADE PREPARATION

1. STRIP VEGETATION AND REMOVE DEBRIS FROM THE LIMITS OF THE GEOSYNTHETIC CAP PRIOR TO ANCHOR TRENCH EXCAVATION AND GRADING.
2. EXCAVATE THE GEOSYNTHETICS ANCHOR TRENCH ALONG THE LIMITS OF THE GEOSYNTHETIC CAP AREA SHOWN ON THE DRAWINGS. SOIL FROM ANCHOR TRENCH TO BE PLACED IN A THIN LIFT ACROSS THE LIMITS OF THE GEOSYNTHETIC CAP.
3. FINE GRADE AND COMPACT THE SUBGRADE TO PROVIDE A SMOOTH SURFACE FOR GEOSYNTHETIC DEPLOYMENT. PREPARED SUBGRADE WILL BE SUBSTANTIALLY SMOOTH, UNIFORM, FIRM AND FREE FROM ROCKS OR OTHER DEBRIS WHICH MAY CAUSE DAMAGE TO THE GEOTEXTILE CUSHION AND GEOMEMBRANE.
4. GEOSYNTHETIC CAP WILL CONSIST OF AN 8-OZ/SY (MIN.) NON-WOVEN GEOTEXTILE CUSHION, A 60-MIL HDPE TEXTURED GEOMEMBRANE, AN ENGINEERED TURF COMPONENT AND MANUFACTURED SAND INFILL. SEE DETAIL 1 ON PLAN SHEETS.
5. PRIOR TO GEOSYNTHETIC DEPLOYMENT, VISUALLY EXAMINE SUBGRADE TO CONFIRM SUITABILITY FOR INSTALLATION.
6. INSTALL GEOMEMBRANE ACCORDING TO AN APPROVED PANEL LAYOUT DIAGRAM. DO NOT PLACE GEOMEMBRANE DURING PRECIPITATION, IN AREAS OF PONDED WATER, OR DURING EXCESSIVE WINDS.
7. USE APPROVED PROCESSES FOR FIELD SEAMING, WHICH ARE EXTRUSION WELDS AND DUAL HOT WEDGE FUSION WELDS.
8. PREPARE, SEAM, TEST AND DOCUMENT GEOMEMBRANE INSTALLATION CONSISTENT WITH THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES NR 500 REQUIREMENTS.

### NON-WOVEN GEOTEXTILE

1. HANDLE AND PLACE GEOTEXTILE IN SUCH A MANNER AS TO ENSURE IT IS NOT DAMAGED. TAKE CARE NOT TO ENTRAP STONES OR DEBRIS UNDER THE GEOTEXTILE DURING PLACEMENT.
2. PLACE GEOTEXTILE IN A MANNER TO MINIMIZE WRINKLING. SEAMS SHALL OVERLAP THE ADJACENT GEOTEXTILE PANELS A MINIMUM OF 6 INCHES AND BE CONTINUOUSLY SEWN OR FUSION WELDED.

### CLOSURETURF®

1. PRIOR TO DEPLOYMENT OF CLOSURETURF®, VERIFY THE SUPPORTING SURFACE FOR THE CLOSURETURF® (E.G. THE GEOMEMBRANE AND GEOTEXTILE) IS FREE OF STONES AND DEBRIS.
2. INSTALL AND TEST CLOSURETURF® DURING DEPLOYMENT IN ACCORDANCE WITH THE SPECIFICATIONS PROVIDED BY THE MANUFACTURER.
3. CLOSURETURF® SEAMING SHALL BE COMPLETED USING A DEVICE SPECIFICALLY MADE FOR CLOSURETURF® SEAMING.

## ASPHALT CAP

### SUBGRADE PREPARATION

1. PRIOR TO PLACING FILL USE COMPACTION EQUIPMENT EQUIPED WITH SMOOTH DRUM ROLLER WITH A MINIMUM STATIC WEIGHT OF 15,000 LBS AND ROLL SUBGRADE UNTIL NO OBSERVABLE DEFORMATION BELOW ROLLER.
2. MINIMIZE SUBGRADE CUT AND FILL AS NECESSARY TO LIMIT THE NEED FOR IMPACTED SOIL EXCESS DISPOSAL.
3. PREPARE SUBGRADE IN SUCH A WAY THAT DOES NOT ALTER THE CURRENT DRAINAGE PATTERN.
4. REPLACE OR STABILIZE SUBGRADE THAT IS PUMPING OR HEAVING.
5. PLACE SEPERATION GEOTEXTILE ON PREPARED SUBGRADE. OVERLAP ADJACENT PANELS MINIMUM OF 12 INCHES.

### ASPHALT PLACEMENT

1. VERIFY COMPACTED SUBGRADE IS DRY AND READY TO SUPPORT PAVING AND IMPOSED LOADS.
2. KEEP EDGES OF EXISTING PAVEMENT FREE OF LOOSE STONES OR PAVEMENT PIECES.
3. LAY ASPHALT IN TWO LIFTS FOLLOWING WISDOT SECTION 458 SPECIFICATIONS. MATCH EXITING PAVEMENT GRADES.


## MOUND SYSTEM EXCAVATION AND REGRADING

### EXCAVATION

1. LOCATE, IDENTIFY, AND PROTECT EXISTING UTILITIES FROM DAMAGE
2. GRADE PERIMETER OF EXCAVATION TO PREVENT SURFACE WATER DRAINAGE INTO EXCAVATION AREA
3. PROTECT EXCAVATION BY SHORING, BRACING, OR OTHER METHODS REQUIRED TO PREVENT CAVE-IN OR LOOSE SOIL FROM FALLING INTO EXCAVATION.
4. PFOS/PFOA CONTAMINATED SOIL SHALL BE TESTED, CATEGORIZED, AND DISPOSED OF AT A LICENSED LANDFILL.
5. SOILS SHALL BE EXCAVATED TO THE DEPTH NECESSARY TO CONFIRM THAT SOIL AT THE BASE AND SIDEWALLS OF THE EXCAVATION IS BELOW SITE CRITERIA FOR PFAS/PFOA.

### BACKFILL

1. SOIL FILL SHOULD BE FREE FROM ORGANIC MATTER AND REFUSE, MASONRY, METAL SHARP OBJECTS, BOULDERS, SNOW AND ICE.
2. NO SOLID MATERIAL LARGER THAN 6 INCHES IN ITS LARGEST DIMENSION.
3. MAINTAIN PROPER MOISTURE CONTENT TO ACHIEVE SPECIFIED COMPACTION.
4. PLACE AND SPREAD GENERAL FILL IN LIFT THICKNESSES AS REQUIRED TO OBTAIN THE SPECIFIED LEVELS OF COMPACTION.
5. COMPACT TO A MINIMUM DRY DENSITY OF 90 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE MODIFIED PROCTOR TEST (ASTM D1557).

PROJECT: <b>ROCKGEN ENERGY CENTER</b>	
IMPACTED SOIL REMEDIATION - 30% DESIGN	
TOWN OF CHRISTIANA	
DANE COUNTY, WISCONSIN	
TITLE: <b>GENERAL NOTES</b>	
DRAWN BY: A. BLEECKER	PROJ. NO.: 437865.0000.0000
CHECKED BY: Z. BAUMAN	<b>SHEET 2 OF 5</b>
APPROVED BY: T. MARTIN	
DATE: JULY 2021	
	150 North Patrick Blvd, Suite 180 Brookfield, WI 53045 Phone: 262.879.1212
FILE NO.: 437865.0000 - GN.dwg	

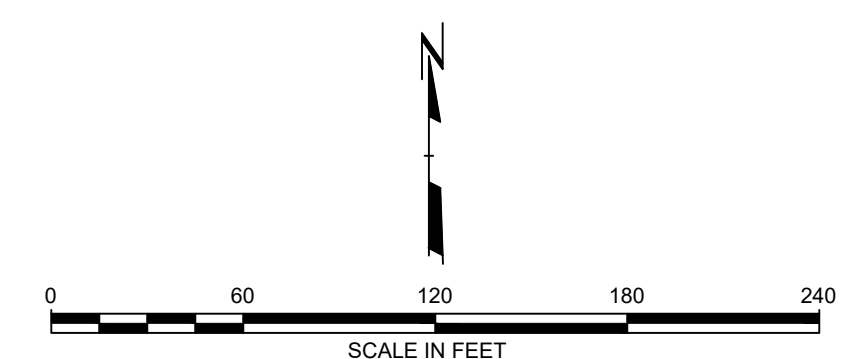
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 DRAWING NAME: J:\RockGen\437865 - 30% Plan Set\0001\437865.0000 - EX.dwg -- PLOT DATE: July 16, 2021 - 1:42PM -- LAYOUT: 22X34L



**LEGEND**

	APPROXIMATE PROPERTY BOUNDARY
	EXISTING 10' CONTOUR
	EXISTING 2' CONTOUR
	APPROXIMATE EXISTING CONCRETE ROAD
	APPROXIMATE EXISTING FENCE
	EXISTING GATE ENTRANCE
	APPROXIMATE EXISTING STRUCTURE/BUILDING/TANK
	EXISTING DRAINAGE DITCH
	APPROXIMATE STORM SEWER LINE
	APPROXIMATE EXTENT OF INVESTIGATION
	POTABLE WELL LOCATION
	DEEP PRODUCTION WELL LOCATION
	SOIL BORING LOCATION
	SOIL SAMPLE LOCATION

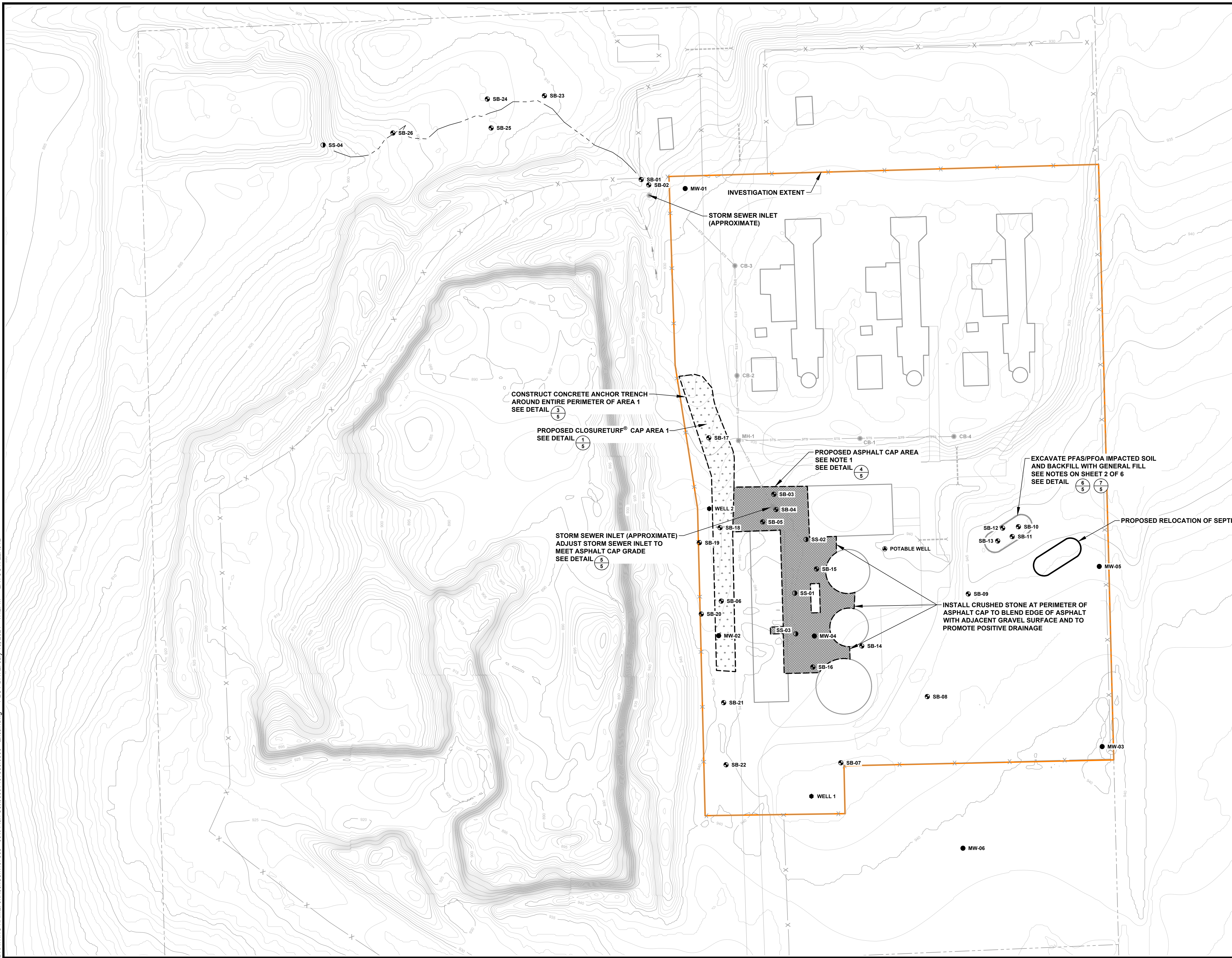
- NOTES**
1. BASE MAP IMAGERY FROM DANE COUNTY, 2020.
  2. CONTOUR DATA FROM DANE COUNTY LAND INFORMATION OFFICE, 2017.
  3. PARCEL BOUNDARIES ACQUIRED FROM WISCONSIN STATE CARTOGRAPHERS OFFICE PARCEL DATA.
  4. APPROXIMATE EXTENT OF SEPTIC MOUND BASED ON DESIGN INFORMATION AND AERIAL IMAGERY.
  5. CALCULATED GW-RCLS - PFOA = 0.61 µG/KG, PFOS = 0.038 µG/KG.



<b>PROJECT:</b>		ROCKGEN ENERGY CENTER IMPACTED SOIL REMEDIATION - 30% DESIGN TOWN OF CHRISTIANA DANE COUNTY, WISCONSIN	
<b>TITLE:</b>		EXISTING CONDITIONS	
<b>DRAWN BY:</b>	A. BLEECKER	<b>PROJ. NO.:</b>	437865.0000.0000
<b>CHECKED BY:</b>	Z. BAUMAN	<b>SHEET 3 OF 5</b>	
<b>APPROVED BY:</b>	T. MARTIN		
<b>DATE:</b>	JULY 2021		
		150 North Patrick Blvd, Suite 180 Brookfield, WI 53045 Phone: 262.879.1212	
<b>FILE NO.:</b>	437865.0000 - EX.dwg		



2034 -- USER: A\bleecker -- ATTACHED XREFS: Sample Points, EX - Util, EG - Lide Contours, EX - Site Features, PR - Site Features -- ATTACHED IMAGES: Dana County, 2020  
 DRAWING NAME: J:\RockGen\437865 - 30% Plan Set\0001\437865.0000 - Excav.dwg -- PLOT DATE: July 16, 2021 - 1:42PM -- LAYOUT: 22X34L



**LEGEND**

	APPROXIMATE PROPERTY BOUNDARY
	EXISTING 10' CONTOUR
	EXISTING 2' CONTOUR
	APPROXIMATE EXISTING CONCRETE ROAD
	APPROXIMATE EXISTING FENCE
	EXISTING GATE ENTRANCE
	APPROXIMATE EXISTING STRUCTURE/BUILDING/TANK
	EXISTING DRAINAGE DITCH
	APPROXIMATE STORM SEWER LINE
	APPROXIMATE EXTENT OF INVESTIGATION
	MONITORING WELL LOCATION
	POTABLE WELL LOCATION
	DEEP PRODUCTION WELL LOCATION
	SOIL BORING LOCATION
	SOIL SAMPLE LOCATION
	PROPOSED ASPHALT CAP AREA
	PROPOSED CLOSURETURF® CAP AREA
	PROPOSED CONTINGENT GEOMEMBRANE COVER AREA
	PROPOSED ANCHOR TRENCH

**NOTES**

- MINIMAL GRADING OF CRUSHED STONE SHALL BE DONE IN THE PROPOSED ASPHALT CAP AREA TO PROVIDE A SMOOTH DUBGRADE AND MAINTAIN DRAINAGE PATTERNS. CUT AND FILL SHOULD BE KEPT BALANCED TO ELIMINATE THE NEED FOR OFF-SITE DISPOSAL. SEE SHEET 2 FOR FURTHER NOTES FOR THE ASPHALT CAP.

CONSTRUCT CONCRETE ANCHOR TRENCH AROUND ENTIRE PERIMETER OF AREA 1 SEE DETAIL 3

PROPOSED CLOSURETURF® CAP AREA 1 SEE DETAIL 1

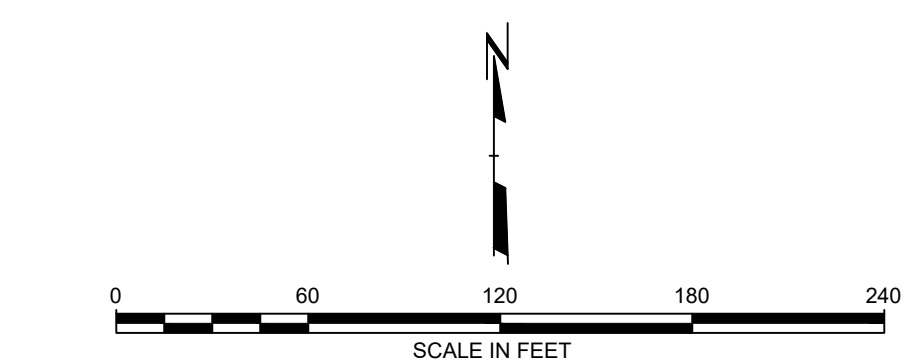
PROPOSED ASPHALT CAP AREA SEE NOTE 1 SEE DETAIL 4

STORM SEWER INLET (APPROXIMATE) ADJUST STORM SEWER INLET TO MEET ASPHALT CAP GRADE SEE DETAIL 5

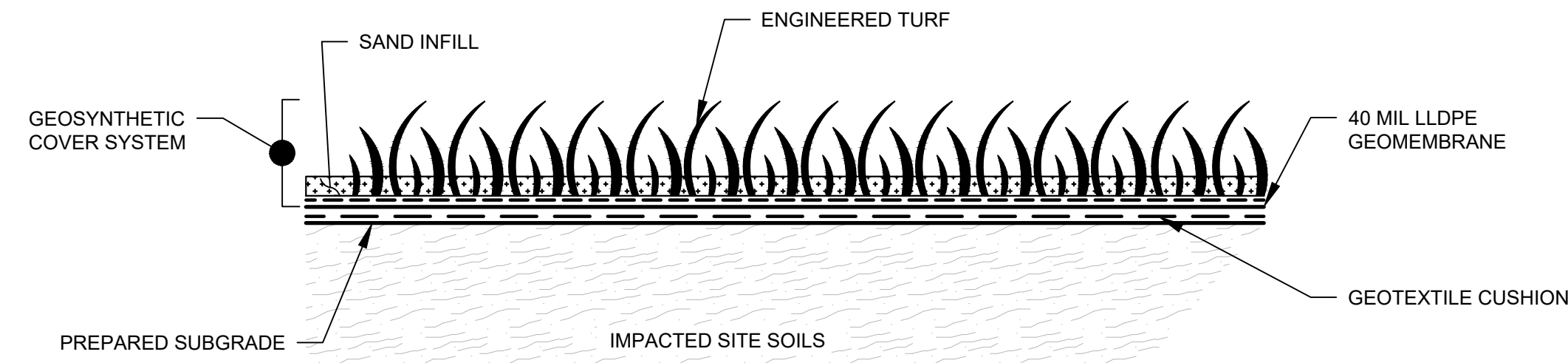
EXCAVATE PFAS/PFOA IMPACTED SOIL AND BACKFILL WITH GENERAL FILL SEE NOTES ON SHEET 2 OF 6 SEE DETAIL 6

PROPOSED RELOCATION OF SEPTIC MOUND

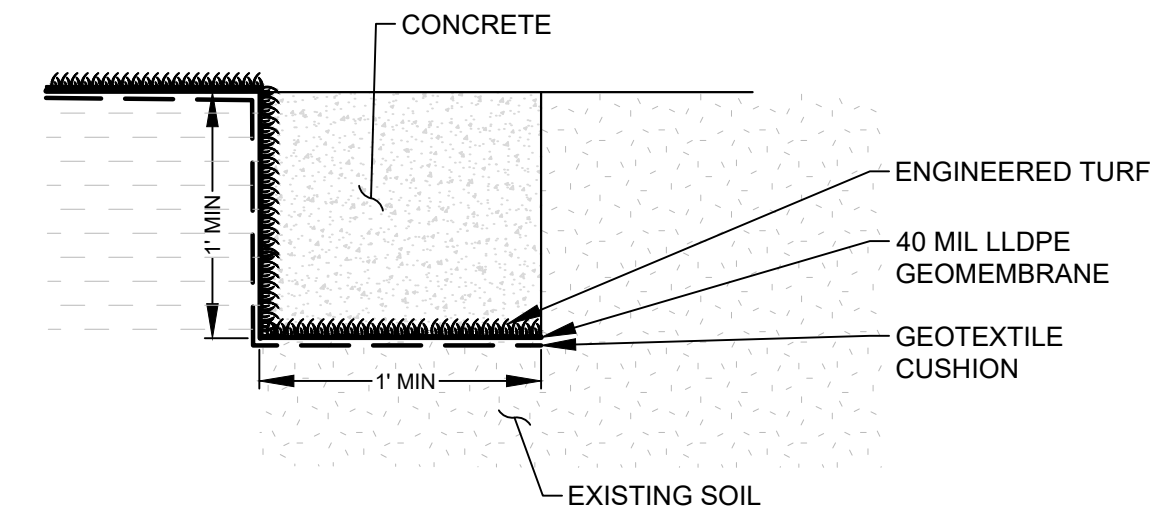
INSTALL CRUSHED STONE AT PERIMETER OF ASPHALT CAP TO BLEND EDGE OF ASPHALT WITH ADJACENT GRAVEL SURFACE AND TO PROMOTE POSITIVE DRAINAGE



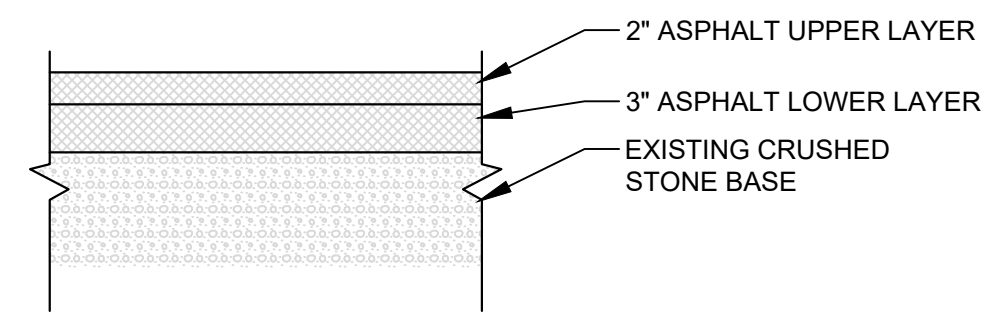
PROJECT: <b>ROCKGEN ENERGY CENTER IMPACTED SOIL REMEDIATION - 30% DESIGN TOWN OF CHRISTIANA DANE COUNTY, WISCONSIN</b>	
TITLE: <b>PROPOSED REMEDIATION DESIGN</b>	
DRAWN BY: A. BLEECKER	PROJ. NO.: 437865.0000.0000
CHECKED BY: Z. BAUMAN	<b>SHEET 4 OF 5</b>
APPROVED BY: T. MARTIN	
DATE: JULY 2021	
150 North Patrick Blvd, Suite 180 Brookfield, WI 53045 Phone: 262.879.1212	
FILE NO.:	437865.0000 - Excav.dwg



**1**  
**5** **GEOSYNTHETIC COVER SYSTEM OVER GEOTEXTILE CUSHION**  
NOT TO SCALE



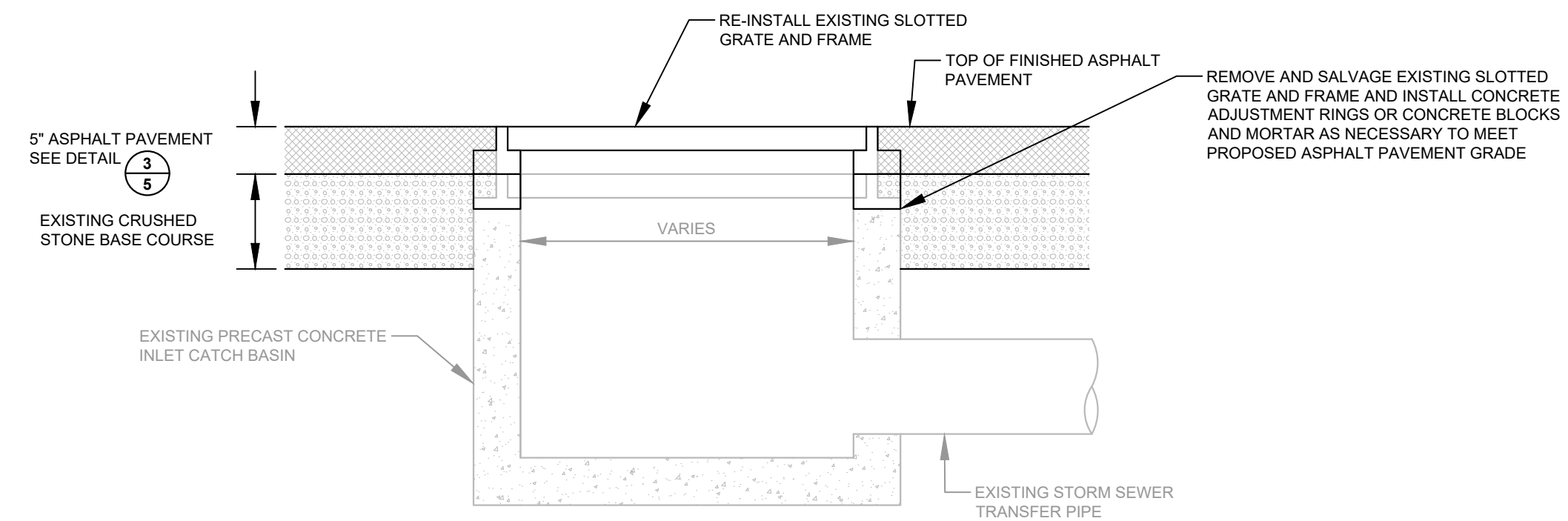
**2**  
**5** **CONCRETE ANCHOR TRENCH**  
NOT TO SCALE



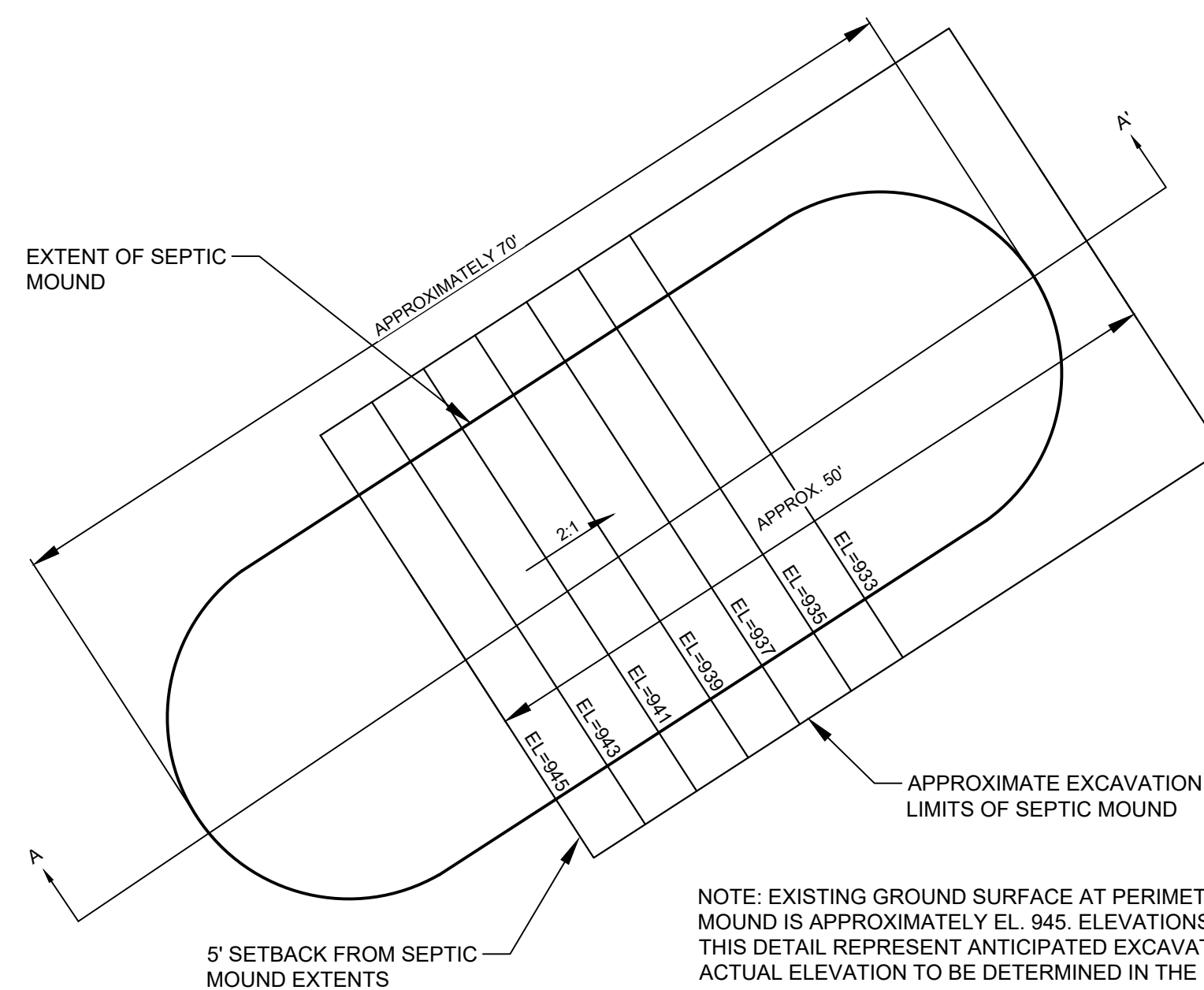
**NOTES**

1. ASPHALT 4 HT 58-28 S, SECTION 460.3.1
2. 2" WIDOT NO. 4 UPPER LAYER, SECTION 460.3.2
3. 3" WIDOT NO. 4 LOWER LAYER SECTION 460.3.2

**3**  
**5** **PAVEMENT DETAIL**  
NOT TO SCALE

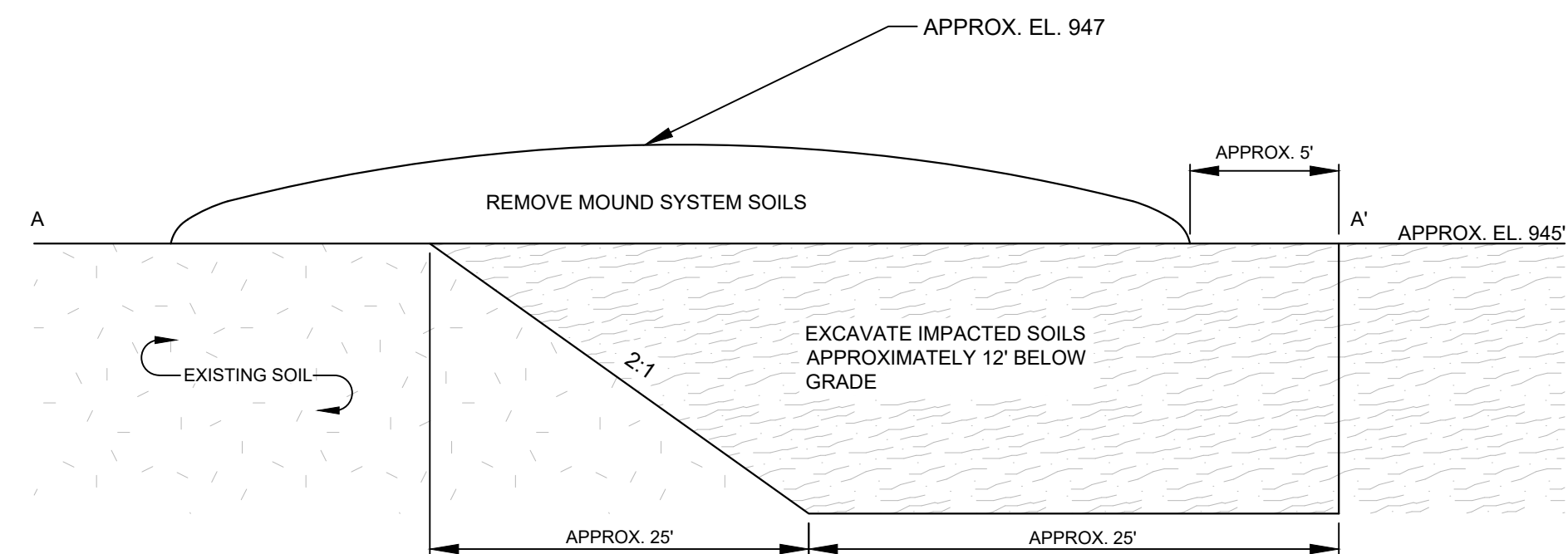


**4**  
**5** **STORM SEWER INLET CATCH BASIN AND GRATE**  
NOT TO SCALE



NOTE: EXISTING GROUND SURFACE AT PERIMETER OF SEPTIC MOUND IS APPROXIMATELY EL. 945. ELEVATIONS SHOWN ON THIS DETAIL REPRESENT ANTICIPATED EXCAVATION GRADES. ACTUAL ELEVATION TO BE DETERMINED IN THE FIELD BASED ON ADDITIONAL SAMPLING AND LABORATORY TEST RESULT

**5**  
**5** **SEPTIC MOUND SYSTEM EXCAVATION**  
NOT TO SCALE



**6**  
**5** **SEPTIC MOUND SYSTEM EXCAVATION PROFILE**  
NOT TO SCALE

2024 -- USER: A.Bleeker -- ATTACHED XREFS: Details/Views -- ATTACHED IMAGES: -- PLOT DATE: July 16, 2021 - 3:20PM -- LAYOUT: DETAILS  
DRAWING NAME: J:\RockGen\437865 - 30% Plan Set\0001\437865.0000 - DT.dwg

<b>PROJECT:</b>		<b>ROCKGEN ENERGY CENTER IMPACTED SOIL REMEDIATION - 30% DESIGN TOWN OF CHRISTIANA DANE COUNTY, WISCONSIN</b>	
<b>TITLE:</b>		<b>DETAILS</b>	
<b>DRAWN BY:</b>	A. BLEECKER	<b>PROJ. NO.:</b>	437865.0000.0000
<b>CHECKED BY:</b>	Z. BAUMAN	<b>SHEET 5 OF 5</b>	
<b>APPROVED BY:</b>	T. MARTIN		
<b>DATE:</b>	JULY 2021		
<b>TRC</b>		708 Heartland Trail Suite 3000 Madison, WI 53717 Phone: 608.826.3600	
<b>FILE NO.:</b>	437865.0000 - DT.dwg		