March 14, 2024

Ms. Josie Schultz
Remediation and Redevelopment Program
Wisconsin Department of Natural Resources
2984 Shawano Avenue
Green Bay, Wisconsin 54313-6727

RE: SITE INVESTIGATION WORK PLAN
The Solberg Co – Site 2
1520 Brookfield Avenue
Village of Howard, Wisconsin
CLSE Project Number: E2305.27
BRRTS Number: 02-05-587486 (PFAS)

Dear Ms. Schultz:

Introduction

Carow Land Surveying & Environmental (CLSE) is pleased to submit this Site Investigation Work Plan for the advancement of four soil borings, which will be converted to three monitoring wells and a piezometer at The Solberg Co. – Site 2, located at 1520 Brookfield Avenue, in the Village of Howard, Brown County, Wisconsin (Site). The proposed site investigation activities are further to define the extent of groundwater contamination at the Site resulting from the use of per-and polyfluoroalkyl substances (PFAS). The initial site investigation activities completed by General Engineering Company (GEC) are also summarized within this report.

This Work Plan has been prepared in general accordance with Wisconsin Administrative Code (WAC) NR 716.09.

Responsible Party and Consultant

Site Name and Location:	The Solberg Co. – Site 2 1520 Brookfield Avenue Village of Howard, Wisconsin Brown County, Wisconsin Northwest ¼ of the Southeast ¼ of Section 3, Township 24 North, Range 20 East
Site Operations:	The Site is utilized as an office, laboratory, and production plant for

PFAS containing fire-fighting foams within the building on the western portion of the Site and as a fire-fighting testing building within the eastern building on the Site.

Responsible Party:	Perimeters Solutions c/o Pamela Havelka-Rivard 1520 Brookfield Avenue Village of Howard, Wisconsin 54313 Phone (920) 593-9445 pamela.havelka-rivard@perimeter-solutions.com
Consultant:	Carow Land Surveying & Environmental 615 North Lynndale Drive Appleton, Wisconsin 54914 Phone: (920) 731-4168
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Project Geologist:	Brian Youngwirth Carow Land Surveying & Environmental 615 North Lynndale Drive Appleton, Wisconsin 54914 Phone: (920) 731-4168 brian@clse.pro

Authorization

Authorization to prepare this Site Investigation Work Plan was provided by Mr. Craig McDonnell, an authorized representative of Perimeter Solutions, the owner of the Site and the responsible party (RP) for the release.

Site Features

The Site is an approximate 10-acre parcel of land (Parcel Number VH-3175) owned by Perimeter Solutions, LP. The Site is situated on the east side of Brookfield Avenue, approximately ½ mile south of County Road M (Lineville Road). A Site Location Map is included in Figure 1 in Attachment A.

Based on a review of aerial photographs, the Site was utilized as agricultural land from the at least the 1930s to May of 2011, and was developed with the current facility between May and October of 2011. It should be noted that suspected manure spreading occurred on the Site and surrounding properties to the north and south based on a review of a 2010 aerial photograph. Additionally, manure spreading appeared to have occurred on the northern adjoining property based on a review of a 2020 aerial photograph. It is not known whether other biosolids, such as sewage sludge, were regularly applied to the agricultural land.

The Site is currently developed with two buildings including an office, laboratory, and production plant (primary building) located on the western portion of the Site parcel, and a fire-fighting testing building, with a small contiguous mechanical building to the east. An underground oil/water separator tank system is located just east of the mechanical building. A Current Site Plan is included in Figure 2, Attachment A.

The eastern portion of the primary building contains a production plant with four 5,000-gallon aboveground storage tanks (ASTs) for blending, two of which contain PFAS containing materials. The AST area is located within a concrete basin. Surface spills, drips, and leaks are collected within the basin along with any water utilized to wash down the floor, which is recollected in totes and disposed of properly with the facilities waste stream.

At the fire testing building, unused gasoline and fluids generated during fire suppression testing exercises were historically collected in a drain that was piped below grade to the east of the building to a below grade oil/water separator system. The oil/water separator system is comprised of 3 underground storage tanks (USTs) including a central 3-section oil/water tank with weirs to separate petroleum products and water, a northern product collection tank, and a southern water storage tank. The product tank was generally filled annually, and the product was routinely removed and recycled. The water tank was pumped into an on-site tank, where it was treated and shipped out for proper disposal by Perimeter Solutions.

The surface of the Site is relatively flat and is situated in a region that gently slopes to the south and east toward Green Bay (Lake Michigan), located approximately 1 mile southeast of the Site. The surface of the Site is covered primarily by grass, with asphalt and parking areas present south of the office building. An asphalt drive also extends from the parking area toward the east-northeast to the south side of the fire suppression testing building. Overgrown vegetation is present on the far eastern portion of the Site and along the northern boundary of the Site.

A stormwater detention pond is present on the southern portion of the Site, which is reportedly lined with a Type A or B liner. The pond is approximately 530 feet long and ranges from approximately 65 feet in width along the eastern end (approximately 6-foot depth) to up to 105 feet in width along the western end (approximately 8-foot depth). The pond rim is surrounded by rock rip rap. Water is supplied to the pond by surface runoff and also from a foundation drain system extending from the western building on the Site to the east and then southeast through piping and a drainage swale to the north end of the widest portion of the pond. Highwater outflow from the pond extends from the southwestern limits of the pond into an 8-inch PVC pipe that extends southwest to a drainage swale covered by overgrown vegetation on the south end of the Site, south of the access driveway. The water discharges from the 8-inch pipe along the eastern ditch line of Brookfield Avenue. Photographs of the pond area were included within *Status Update Report 2* (GEC, April 2023).

On March 31, 2023, GEC personnel observed the pond outfall during a period of highwater. The pond outflow reportedly discharged to the eastern ditch line along Brookfield Avenue immediately south of the Site drive entrance. Surface water was observed flowing from north of the Site along the eastern ditch line where it intersected the pond outfall from the Site and flowed southward. The ditch line appeared to collect surface water runoff from several of the properties located south of the Site. The ditch line is also in close proximity to several other detention ponds associated with the other commercial properties located south of the Site. The ditch line flow was observed to cross under Lakeview Drive, located approximately 2,300 feet south of the Site drive entrance. A few hundred feet south of Lakeview Drive the ditch flow appeared to enter and intermittent creek flowing toward the east.

The Site obtains potable water services from the Village of Howard municipal system. It is understood that the properties north/northwest and east of the Site do not receive water from the Village of Howard municipal system and have private wells. At least twelve potable wells may be located within 1,200 feet of the Site. Potable well reconnaissance may be necessary for the potable wells located north/northwest of the Site, pending the results of the additional recommended testing. It should also be noted that based on a review of the Wisconsin Department of Natural Resources (WDNR) Well Drill View and Well Construction Reports databases a municipal well is indicated to be located near the Site (BF215). According to the WDNR, the icon is purposely located beyond the location of the actual well and the municipal well is actually located approximately 3,000 feet from the Site. Utility locations on the Site are shown within the area of the former release to the extent they have been mapped to date.

The Site parcel is bordered to the north by agricultural and wooded land, to the east by wooded land and residential properties, to the south by commercial properties, and to the west/northwest by Brookfield Avenue, across which are commercial and residential properties.

There does not appear to be the potential for impacts to threatened or endangered species; sensitive species, habitat, or ecosystems; outstanding or exceptional resource waters; or sites of historical or archaeological significance with regard to the release of PFAS at the Site.

Background

On March 18, 2019, the WDNR was notified of a spill at the Site. The spill was the result of flood water from significant rain events flooding the entire eastern portion of the Site, causing the sump pump used to remove high groundwater from the oil/water separator UST system backfill to fail. As a result, the oil/water separator tank system subsequently failed, filled with water, and released an estimated 100 gallons of gasoline through the top manway to the surface flood waters surrounding the UST system.

Valley Environmental Response (VER) responded to the spill, surrounded the area impacted with gasoline around the UST system with petroleum absorbent boom and pom-poms, and pumped the fluids remaining in the UST system into a frac tank. At that time the use of the compromised UST system was discontinued until repairs could be made.

As the result of the very wet spring, multiple UST or UST backfill dewatering events were conducted during the system repairs, with water collected and containerized in on-site frac tanks during each event. Final repairs to the UST system and excavation of petroleum impacted soils could not be completed until June 2019. On June 24th, 2019, the area around the UST system was dewatered into frac tanks and the final system repairs were made. In total, approximately 40,000 gallons of gasoline-impacted water were pumped into frac tanks and treated by a carbon filtration system. Groundwater samples were collected (Frac 1, 2, 3, 4, Water Tank and Sump Above Oil Tank) to dispose of the collected water at the Green Bay Metro Sewerage District.

After the final UST system repairs, VER conducted the excavation of gasoline-impacted surface soils surrounding the UST system. On June 25th through 26th, 2019, excavation of approximately 133 tons of gasoline-impacted soils were conducted by VER, with soil disposed of at Waste Management - Ridgeview Security Landfill located in Whitelaw, Wisconsin.

Under the direction of the WDNR, excavated soils were field-screened using a photoionization detector (PID) to assist in confirmation that gasoline-impacted soils were removed. Excavation depths ranged from 4 to 12 inches below ground surface (bgs) except for areas excavated to make the final water UST

repair, where the excavation extended to approximately 3 feet bgs. In total, 13 soil samples were collected approximately every 30 feet along the base of the excavation. Soil samples were analyzed for petroleum volatile organic compounds (PVOCs) and naphthalene. Soil sample results did not identify residual soil exceeding Wisconsin Administrative Code (WAC) NR 720 standards. The estimated extent of the remedial excavation and confirmation soil sample locations (June, 2019) are shown on Figure 4, Attachment A.

Shallow groundwater was present at the Site at approximately 16-inches bgs. As directed by the WDNR, three test pits were created just outside the excavation limits on June 25th, 2019. Water samples were collected from the test pits (GW-1 to GW-3) and the UST excavation (GW UST) adjacent to the water tank, prior to backfill on June 26th, 2019. Water samples were analyzed for PVOCs and naphthalene. Analytical results from the groundwater samples collected from the test pits did not exceed WAC NR 140 standards. The water samples collected from the UST backfill near the water tank (GW UST), contained benzene (95 micrograms per liter (µg/L)), naphthalene (186 J ug/L), toluene (1,380 ug/L), total trimethylbenzenes (1,266 ug/L) and total xylenes (3,210 µg/L), at concentrations exceeding their respective WAC NR 140 enforcement standards (ES).

As a result of the impacted water identified in the UST system backfill, the WDNR created a case for the spill, issued an RP letter, dated August 14th, 2019. was subsequently retained to perform a site investigation.

Three soil borings (B-1 to B-3) were advanced on the Site on November 19th, 2019. The borings were advanced just beyond the tank system and converted to NR 141 compliant monitoring wells designated MW-1 to MW-3, respectively. The monitoring wells were developed on November 26th, 2019.

Soil samples for laboratory analysis were collected from B-1 to B-3 at depths ranging from 2.5 feet to 5 feet bgs. The soil samples collected did not report detectable concentrations of PVOCs or naphthalene.

Groundwater samples were collected from the monitoring wells and tank sump on December 13th, 2019, March 24th, 2020, June 11th, 2020, and October 12th, 2020. The groundwater samples collected at monitoring wells MW-1 and MW-2 reported concentrations of benzene above the WAC NR 140 preventive action limit (PAL) during a few of the sampling rounds (but below its ES), and the groundwater samples collected from the sump reported benzene concentrations exceeding the WAC NR 140 ES during the initial three sampling rounds but no WAC NR 140 ES exceedances were reported in the final sampling round.

A Closure Request for the leaking underground storage tank (LUST) petroleum case was subsequently submitted to the WDNR during June of 2021. The LUST petroleum case was closed by the WDNR on July 1st, 2021 (The Solberg Co. BRRTS No. 03-05-584180). However, as part of the petroleum site investigation under WAC NR 716, emerging contaminants were evaluated at the Site. Due to the Site operations at that time, which included the testing of various fire suppression foams known to contain PFAS, groundwater samples were also collected from MW-1, MW-3, and the tank sump and analyzed by the Wisconsin State Laboratory of Hygiene in Madison, Wisconsin for the presence of PFAS during the October 12th, 2020 groundwater sampling event. The groundwater samples collected from monitoring wells MW-1 and MW-3 and the tank sump reported concentrations of several PFAS. The highest concentrations were detected at MW-3. The most notable were Perfluorohexanoic Acid (C6) (PFHxA), Perfluoropentanoic Acid (C5) (PFPeA), and 6:2 fluorotelomer sulfonate (6:2 FTSA) with concentrations of 43,900 nanograms per liter (ng/L), 48,000 ng/L, and 1,320,000 ng/L, respectively.

Therefore, an additional case was opened by the WDNR with PFAS as the contaminants of concern (The Solberg Co. – Site 2, BRRTS No. 02-05-587486).

On May 13, 2021, prior to the performance of the initial site investigation activities for the PFAS investigation, Valley Environmental Response (VER) was contracted by the Solberg Company/Perimeter Solutions to respond to and clean up impacts from a gasoline spill resulting from a line failure while transferring gasoline from the product UST into the testing building. According to the Spill Report, (VER, August 18, 2021), it was estimated that approximately 300-gallons of a solution of gasoline mixed with water spilled onto the ground north and west of the concrete pad located above the gasoline UST, and ran over ground to the west, toward the Site building, and to the south around the edge of the concrete pad where it soaked into the ground surface. The tank area is surrounded by concrete bumper guards. VER dispatched to the Site on May 13, 2021, to evaluate the situation, surrounded the spill location with petroleum-absorbent booms and determined the resources that would be necessary to properly respond to the release. On May 19th through May 27th, 2021, VER mobilized staff to the Site to complete the response actions associated with the gasoline spill, which included spill containment, surface cleaning efforts, and remedial excavation activities.

As indicated in the Spill Report, between May 19th and May 27th, 2021, under direction of WDNR Northeast Region Spills Coordinator, Maizie Reif, gasoline-impacted soils were assessed and excavated until there was no remaining evidence of the presence of gasoline in the soil samples, with the exception of the location just north of the UST system within the concrete bumpers at sample location SS-4, where excavation to water occurred. The majority of the shallow soils in the location of the spill were assessed by using visual and olfactory evidence, and by field screening soils utilizing a PID. Thirteen soil samples (S-1 to S-13) were collected for PID confirmation sampling. Select soil samples located to the north of the UST system, where the vast majority of the gasoline and water pooled during the spill were collected from the sidewalls and bottom of the excavation (SS-1 to SS-4). Based on the petroleum odors and PID results at SS-4, it was apparent during excavation in this location that complete excavation of impacted soils could not be completed.

The excavation limits reportedly extended north of the concrete pad located over the UST system, beyond the bumpers (approximately 20 feet north of the concrete), west to the site building (approximately 65 feet), south to the south side of the concrete pad where fuel had migrated during the spill (approximately 12 inches wide along the south side of the pad); and to a depth of approximately 18 inches bgs. The Estimated Limits of the Remedial Excavation and the Confirmation Soil Sampling Locations (May, 2021) are shown on Figure 4A, Attachment A.

Soil samples SS-1 to SS-4 were evaluated for laboratory analysis for the presence of PVOCs and naphthalene. The soil samples collected at SS-1 to SS-3 did not report detectable concentration of PVOCs and naphthalene. The soil sample collected at SS-4 from the bottom of the excavation, between the concrete pad and the bumpers, at the soil/water interface, identified PVOCs and naphthalene exceeding the WAC NR 720 soil to groundwater pathway and/or cancer and direct contact residual contaminant levels (RCLs). Specifically, the soil sample reported concentrations of benzene (10,800 micrograms per kilogram (µg/kg)), ethylbenzene (9,600 µg/kg), naphthalene (3,400 µg/kg), toluene (24,300 µg/kg), total trimethylbenzenes (29,100 µg/kg), and total xylenes (48,600 µg/kg).

Due to the known presence of PFAS at the Site (The Solberg Co – Site 2, WDNR BRRTS # 02-05-587486), the WDNR did not require PFAS soil sample analysis associated with this spill. A profile sample was collected for soil disposal and due to the presence of PFAS, soils were required to be disposed of as impacted with both gasoline and PFAS.

In total, approximately 94 tons of gasoline and PFAS-impacted soils, were excavated and disposed at Waste Management Columbia Ridge Landfill in Arlington, Oregon. Additionally, three cubic yard boxes of gasoline and PFAS-impacted absorbents and plastic were also disposed at Waste Management Columbia Ridge Landfill.

An additional LUST petroleum case was opened by the WDNR on August 27, 2021 (The Solberg Co-PVOC BRRTS No. 03-05-588286), and subsequent groundwater monitoring by GEC and Carow was performed for the LUST petroleum case from May 2022 through October 2023. Status Updates for the LUST case were submitted to the WDNR (GEC, September 26, 2022 and CLSE, August 23, 2023). CLSE was retained to perform the site investigation activities for the LUST case during June of 2023. It should be noted that the USTs associated with the fire testing building are planned to be removed during 2024. Subsequent to the removal and the removal of additional petroleum contaminated soils, a Site Investigation Report and Closure Request will be prepared for the LUST case.

Nine soil borings (B-4 to B-12) were advanced on the Site on May 25th and 26th, 2021 under the direction of GEC to evaluate PFAS contamination. Soil borings B-4 to B-11 were advanced beyond MW-1 to MW-3 to the north, south, east, and west of the UST area. Soil boring B-12 was advanced within a few feet of MW-3. Soil samples were collected continuously by driving a 5-foot plastic sleeve into undisturbed soils to depths of approximately 13.5 feet to 30 feet bgs. Subsequent to soil sampling, soil borings B-4 to B-11 were converted to WAC NR 141 compliant monitoring wells designated MW-4 to MW-11, respectively. Soil boring B-12 was converted to a WAC NR 141 compliant piezometer PZ-1. The monitoring wells were advanced to depths of 13.5 feet to 28 feet bgs utilizing 4.25-inch diameter (8-inch borehole) augers.

Soil samples were collected for laboratory analysis from B-4 to B-12 at depths ranging from 0.25 feet to 3 feet bgs. Two or more PFAS were identified in eight of the nine soil samples submitted for laboratory analyses. Only B-4 reported no concentrations above the laboratory method detection limits. The identified compounds were Perfluoroheptanoic Acid (C7) (PFHpA), PFHxA, PFPeA, Perflurooctanesulfonic Acid (PFOS), Perfluoroburanoic Acid (C4) (PFBA), and 6:2 FTSA. The concentrations of detected PFAS ranged from 0.312F nanograms per gram (ng/g) to 15.2ng/g (PFPeA), 1.15 ng/g to 9.19 ng/g (PFHxA), 0.565 ng/g to 9.34 ng/g (PFHpA), 0.543 ng/g to 63.8 ng/g (6:2 FTSA), and 0.929 ng/g to 3.3 ng/g (PFBA). PFOS was reported in one sample (B-9) at a concentration of 0.446F ng/g. The “F” quantifier indicates the parameter was identified above the laboratory detection limit but below the limit of quantitation. PFOS is the only PFAS compound with an established WAC NR 720 RCL (16,400 ng/g, industrial direct contact RCL, and 1,260 ng/g, non-industrial direct contact RCL). The highest total concentrations of PFAS were reported in B-12 (70.96 ng/g), and B-11 (38.38 ng/g).

Monitoring wells MW-4 to MW-11 and piezometer PZ-1 were developed by GEC on May 26th and 27th, 2021. One round of groundwater samples was collected from monitoring wells MW-1 to MW-11, piezometer PZ-1, the tank sump, and the on-site pond by GEC on June 2nd, 2021 and submitted for laboratory analyses of PFAS at three independent laboratories (Wisconsin State Laboratory of Hygiene in Madison, Wisconsin (WSLH), Pace Analytical Services LLC in Green Bay, Wisconsin (Pace), and SGS – AXYS Analytical Services in Sydney, British Columbia, Canada (SGS)). The results discussed below in the “Background Section” of this report reflect those reported by the WSLH.

The groundwater samples collected from MW-1 to MW-11, the tank sump and the on-site pond reported significant detections of PFHpA, PFHxA, PFBA, PFPeA, and 6:2 FTSA as well as other PFAS. The highest concentrations from the groundwater samples submitted for laboratory analysis at the WSLH were detected within the groundwater samples collected from source area monitoring well MW-3, which reported Perfluoroctanoic Acid (C8) (PFOA) (79.9 ng/L), Perfluorobutanesulfonic Acid (C4) (PFBS) (12.6 ng/L), PFHpA (926 ng/L), PFHxA (13,300 ng/L), PFBA (2,590 ng/L), PFPeA (19,700 ng/L), 4:2

fluorotelomer sulfonate (C6) (4:2 FTSA) (79.2 ng/L), and 6:2 FTSA (3,000 ng/L). The concentration of 6:2 FTSA failed the qualitative control limit at MW-3 but ranged from 243,000 ng/L to 460,000 ng/L in the sample results reported by SGS and Pace, respectively.

The groundwater sample collected from PZ-1 reported 6:2 FTSA (2.3F ng/L) in the sample analyzed by the WSLH. PFHxA (1.2J ng/L) and 6:2 FTSA (36 ng/L) were reported in the sample analyzed by Pace. GEC submitted *Status Update 1* to the WDNR summarizing the site investigation activities (GEC, September 13, 2021). Since the extent of PFAS-contaminated soil and groundwater had not been defined, the report recommended the installation of additional soil borings/monitoring wells.

Seven soil borings (B-13 to B-19) were advanced on the Site and adjoining northern and southern properties on July 11, 2022 under the direction of GEC, and converted to 6 WAC NR 141 compliant monitoring wells and a piezometer. Soil borings B-13 and B-14 were advanced on the northern portion of the northern adjoining property and converted to monitoring wells MW-12 and MW-13, respectively. Soil borings B-15 and B-18 were performed on the western and eastern portions of the Site, respectively, and converted to monitoring wells MW-14 and MW-17, respectively. Soil borings B-16 and B-17 were performed on the southern adjoining property and converted to monitoring wells MW-15 and MW-16, respectively. Soil boring B-19 was performed within a few of MW-15 and converted to piezometer PZ-2. Soil samples were collected continuously by driving a 5-foot plastic sleeve into undisturbed soils to depths of approximately 13 feet to 28.5 feet bgs with the exception of B-16/MW-15, which was performed within a few of B-19/PZ-2. After soil sample collection, the soil borings were advanced to depths of 13.5 feet to 28.5 feet bgs utilizing 4.25-inch diameter (8-inch borehole) augers, and WAC NR 141 compliant monitoring wells were installed.

Soil samples for laboratory analysis were collected from B-13, B-14, B-17, B-18, and B-19 at depths ranging from 0.5 feet to 1-foot bgs. The collected soil samples did not report detectable concentrations of PFAS.

Monitoring wells MW-12 to MW-17 and PZ-2 were developed by GEC on July 11, 2022. One round of groundwater samples was collected by GEC personnel from monitoring wells MW-1 to MW-17, piezometers PZ-1 and PZ-2, the tank sump, and the on-site pond on July 12, 2022. The groundwater samples were collected by purging 4 well volumes from each monitoring well utilizing dedicated PFAS-free pumps and PFAS-free tubing. The pond sample was collected by dipping a sampling bottle into the pond at the surface, as requested by the WDNR. The groundwater samples were submitted for laboratory analyses of PFAS at three independent laboratories (WSLH, Pace, and SGS). The results discussed below are associated with the WSLH.

Soil samples for laboratory analysis were collected from B-13, B-14, B-17, B-18, and B-19 at depths ranging from 0.5 feet to 1-foot bgs. The collected soil samples did not report detectable concentrations of PFAS.

The groundwater samples collected from Site monitoring wells MW-1 to MW-11 the tank sump, pond, and off-site monitoring wells MW-15 and MW-16 reported significant detections of PFHpA, PFHxA, PFBA, PFPeA, and 6:2 FTSA as well as other PFAS. The highest concentrations from the groundwater samples submitted for laboratory analysis at the WSLH were detected within the groundwater sample collected from source area monitoring well MW-3, which reported PFOA (143 ng/L), PFBS (12.5 ng/L), PFHpA (1,870D ng/L), Perfluorohexanesulfonic Acid (PFHxS) (2.5F ng/L), PFHxA (19,800D ng/L), PFBA (4,480D ng/L), PFPeA (28,200D ng/L), 4:2 FTSA (125 ng/L), and 6:2 FTSA (552,000D ng/L). By comparison the detections of those compounds within off-site monitoring wells MW-15 and MW-16 reported PFOA (2.3F ng/L and 3.99 ng/L), PFBS (2.46F ng/L, and 5.14 ng/L), PFHpA (19.9 ng/L and 75.9 µg/L) PFHxA (99.7

ng/L and 294 ng/L), PFBA (51.5 ng/L and 121 ng/L), PFPeA (164 ng/L and 473 ng/L), and 6:2 FTSA (70.6 ng/L and 283 ng/L). The “D” indicates that the laboratory methods required the sample to be diluted.

The groundwater samples collected from off-site locations MW-12, MW-13 and Site monitoring well MW-14 reported lesser concentrations of five to eight PFAS ranging from 2.05F ng/L to 6.22F ng/L (PFOA), <1.43 ng/L to 3.17F ng/L (PFOS), <2.31 ng/L to 4.58F ng/L (PFBS), <1.50 ng/L to 4.84F ng/L (PFHpA), <1.42 ng/L to 4.56F ng/L (PFHxS), 6.42F ng/L to 18.4 ng/L (PFHxA), 16.2 ng/L to 77.6 ng/L (PFBA) , 8.07F ng/L to 27.2 ng/L (PFPeA) , and <2.72 ng/L to 7.54F ng/L (6:2 FTSA) . Only PFBA (4.79F ng/L) was reported at Site monitoring well MW-17 in the State Laboratory of Hygiene analyses.

The groundwater sample collected from PZ-1 reported only 6:2 FTSA (5.24F ng/L) and the groundwater sample collected from PZ -2 reported only PFOA at a concentration of 1.68F ng/L. “F” indicates that this constituent was identified above the laboratory limit of detection but below the laboratory limit of quantitation.

It should be noted that the three laboratories generally detected the same compounds in the submitted samples. The comparison of the data from the laboratories was generally consistent with the following exceptions noted by GEC:

The groundwater samples collected from MW-3 and the pond (July 11, 2023) that were tested by Pace did not correlate with the other two laboratories, and may have been reported in error by either a labeling mistake during collection or at the laboratory. The sample labels were checked, and the samples were re-run by the lab, but similar results were reported to the initial run. Therefore, GEC believed that the results at MW-3 and the pond provided by Pace were not accurate and should not be utilized in the assessment of the July 11, 2023 data (which appears to have been corroborated by the test results from the most recent sampling round on July 24, 2023).

The reporting results for 6:2 FTSA reported by Pace at MW-1, MW-2, MW-3, MW-5, and MW-8 to MW- ranged from 2x to 5x lower than those form the other labs.

Hydraulic conductivity testing was performed by GEC within the monitoring wells MW-1 and MW-9 where variable natural soils consisting of silty clay, clayey silt, and silty fine sand were encountered. The hydraulic conductivity value was calculated by performing a draw down test and recording recharging water levels every half second with an Onset Data Logger with barometric pressure sensor. The information (time and drawdown) was then plotted on semi-log paper and the conductivities were calculated using the Bouwer and Rice method. The hydraulic conductivities at MW-1 and MW-9 were calculated to be 4.48 x 10^{-5} centimeters (cm)/second and 7.65 x 10^{-5} cm/second, respectively.

The site investigation activities were summarized in the *Status Update 2* Report (GEC, April 1, 2023). CLSE was subsequently retained to perform the remainder of the site investigation activities on June 27, 2023.

Groundwater samples were collected from monitoring wells MW-1 to MW-17, piezometers PZ-1 and PZ-2, the tank sump, and the on-site pond on July 24, 2023. The groundwater samples were submitted to Pace for laboratory analysis for the presence of PFAS.

The groundwater samples collected from Site monitoring wells MW-1 to MW-11 the tank sump, pond, and off-site monitoring wells MW-15 and MW-16 reported significant detections of PFHpA, PFHxA, PFBA, PFPeA, and 6:2 FTSA as well as other PFAS. The highest concentrations were detected within the groundwater samples collected from source area monitoring well MW-3, which reported PFOA (57.2

ng/L), PFBS (10.1 ng/L), PFHpA (1,950D ng/L), PFHxS (5.9 ng/L), PFHxA (16,900D ng/L), PFBA (3,550D ng/L), PFPeA (30,400D ng/L), 4:2 FTSA (65.6 ng/L), and 6:2 FTSA (15,800D ng/L). By comparison the detections of those compounds within off-site monitoring wells MW15 and MW-16 reported PFOA (1.1J ng/L, and 2.6 ng/L), PFOS (<0.68 ng/L to 0.79J ng/L), PFBS (3.3 ng/L to 5.5 ng/L), PFHpA (19 ng/L and 64.5 µg/L) PFHxS (< 0.53 ng/L to 0.89J ng/L), PFHxA (105 ng/L and 353D ng/L), PFBA (52.3 ng/L and 150 ng/L), PFPeA (190 ng/L and 633D ng/L), and 6:2 FTSA (45.7 ng/L and 224D ng/L). The "D" indicates that the laboratory methods required the sample to be diluted.

The groundwater samples collected from off-site locations MW-12, MW-13 and Site monitoring well MW-14 reported lesser concentrations of four to nine PFAS ranging from <1.8 ng/L to 4.8 ng/L (PFOA), <1.4 ng/L to 3.6 ng/L (PFOS), 1.9 ng/L to 5.1 ng/L (PFBS), <1.4 ng/L to 4.3 ng/L (PFHpA), <1.1 ng/L to 4.3 ng/L (PFHxS), 5.8 ng/L to 17.4 ng/L (PFHxA), 17.5 ng/L to 87.3 ng/L (PFBA) , 6.6 ng/L to 25.2 ng/L (PFPeA) , and <1.4 ng/L to 4.7 ng/L (6:2 FTSA) . Only PFBS (1.4J ng/L) and PFBA (14.7 ng/L) were reported at Site monitoring well MW-17.

The results of the groundwater samples collected from PZ-1 reported only 6:2 FTSA (7.1J ng/L) and the groundwater results from PZ -2 did not report detectable concentrations of PFAS.

The individual and total concentrations drinking water standard of 70 ng/L for PFOS and PFOA were not exceeded at any of the test locations.

The results of the groundwater sampling round were submitted to the WDNR within *Status Update 3* (CLSE, September 5, 2023). During a phone conversation on October 19, 2023, Perimeter Solutions personnel requested that 3 additional soil borings/monitoring wells around the area of the production plant.

On November 14, 2023, three soil borings (B-20 to B-22) were advanced on the Site to the south, east, and north, respectively, of the production building and converted to monitoring wells MW-18 to MW-20, respectively. Soil samples were collected from each boring at depths of 0.5 to 2 feet bgs.

Each soil sample reported concentrations of PFPeA (0.68 ng/g to 3.2 ng/g), PFHxA (0.47 ng/g to 3.3 ng/g, PFHpA (0.3 ng/g to 4.2 ng/g), PFOS (0.044J ng/g to 0.13 ng/g), and PFBA (0.21 ng/g to 0.61 ng/g), which are well below their direct contact standards, where established. The soil samples collected from B-20 also reported concentrations of PFBS (0.071J ng/g), 6:2 FTSA (3.4 ng/g), PFOA (0.081J ng/g), and PFNA (0.052J ng/g), which are also well below their direct contact standards, where established.

Monitoring wells MW-18 to MW-20 were developed on November 16, 2023. Groundwater samples were collected from MW-18 to MW-20 on November 29, 2023.

The groundwater samples collected from monitoring wells MW-18 to MW-20 reported detections of 4:2 FTSA (9.2 ng/L to 97.5 ng/L), 6:2 FTSA (2,190 ng/L to 3,510 ng/L), PFBA (996 ng/L to 2,030 ng/L), PFPeA (5,450 ng/L to 7,330 ng/L), PFBS (7.4 ng/L to 43.1 ng/L), PFHpA (293 ng/L to 527 ng/L), PFHxS (0.72J ng/L to 82.9 ng/L), PFHxA (1,740 ng/L to 2,830 ng/L), and PFOA (2.7 ng/L to 11 ng/L). The groundwater sample collected from MW-20 also reported PFOS at a concentration of 94.5 ng/L. The compounds detected were similar to those within source area near the fire testing building with the exception of the PFOS concentration detected at MW-20, which had been detected at a maximum concentration of 14 ng/L at MW-14 (Pace) during 2022.

The soil boring and monitoring well locations are shown on Figure 3, Attachment A. The results of the chemical analyses of the groundwater and soil samples are summarized in Tables A.1 and A.2, respectively, in Attachment B. Water Level Elevations are summarized on Table A.6, Attachment B.

The results of the additional soil and groundwater sampling round were submitted to the WDNR within *Status Update 4* (CLSE, February 20, 2024). The report recommended that three additional groundwater monitoring wells be installed on and off-site and that an additional piezometer be installed. The Site Investigation Work Plan discussed herein was subsequently prepared.

Site Geology

The surface at soil borings B-1 to B-3 consisted of grass followed by 18-inches of topsoil at B-1 and B-2, and 12 inches of sand and gravel at B-3. The surface materials were generally underlain by natural soils consisting of tan or brown silty fine sand to depths of 10 feet to 12.5 feet bgs. Reddish brown silty clay soils were encountered at B-1 at depths of 8.5 to 10 feet bgs; at B-2 at depths of 1.5 feet to 2.5 feet bgs and 9 feet to 12.5 feet bgs; and B-3 at depths of 10 to 12.5 feet bgs. Brown sand was also encountered at B-2 at depths ranging from approximately 6.5 feet to 9 feet bgs.

The surface at soil borings B-4 to B-12 consisted of grass or overgrown vegetation, except for B-12, which consisted of sand and gravel. The surface materials, except for B-12, were underlain by topsoil ranging in depths from approximately 3-inches to 1.25 feet bgs. The near-surface sand and gravel at B-12 and topsoil at the remaining locations were underlain by variable natural soils primarily consisting of silt and sand mixtures in the upper to central portions of the borings to depths of approximately 5 feet bgs to 12 feet bgs. The upper sand and silt layer was generally underlain by finer-grain soils consisting of silty clay or clayey silt to boring termini ranging from 13 feet to 28.5 feet bgs.

The surface at soil borings B-13 to B-19 consisted of grass or overgrown vegetation. The surface materials, except for B-17 and B-18, were underlain by topsoil ranging in depths from approximately 6-inches to 2.25 feet bgs. The near surface vegetation at B-17 was underlain by gray and black silty sand topsoil fill with varying amounts of gravel to a depth of 5 feet bgs. The surface vegetation at B-18 was underlain by grayish brown clayey silt. The fill at B-17, clayey silt at B-18, and topsoil at the remaining borings were underlain by natural soils primarily consisting of light brown, tan, tannish brown, and orangish brown silty sand to depths of approximately 7 feet to 12.5 feet bgs. The silty sand was underlain by tannish-gray, grayish-brown, and reddish-brown silty clay and clayey silt to the termination depths of the borings from 15 feet to 28.5 feet bgs.

The surface at soil borings B-20 to B-22 consisted of grass. The surface materials were underlain by 6 to 10-inches of topsoil fill. At B-21, the topsoil fill was underlain by light brown silty sand and dark brown sandy silt fill to a depth of 4 feet bgs and by 3/8-inch crushed gravel fill to depths of 6 feet bgs. The topsoil fill at B-20 and B-22 and fill at B-21 were underlain by variable natural soils primarily consisting of light brown, brown, yellowish brown, and orangish brown silty sand with varying amounts of clay to depths of 14 feet bgs. At B-20 and B-21 the silty sand was underlain by reddish brown silty clay, trace sand and gravel, and gray and black silt and silty clay, respectively, to the termination depths of the borings at 15 feet bgs.

Regional Geology/Hydrogeology/Topography

The regional geology of Brown County in the relative vicinity of the Site consists of Quaternary-age unconsolidated glacial deposits described as the Tedrow loamy fine sand, which is associated with drainageways and has a parent material of sandy glaciolacustrine deposits (United States Department of

Agriculture (USDA) Web Soil Survey, September 7, 2023). According to the Bedrock Geologic Map of Wisconsin (Mudrey, M.G. et at., 1982) bedrock beneath the Site is described as Ordovician age dolomite with some limestone and shale of the Sinnipee Group and occurs within 50 to 100 feet bgs. The well construction reports for the twelve closest wells identified on the WDNR Well Construction Reports and Well Driller Viewer databases are included in Attachment C.

Topography in the vicinity of the Site is relatively flat. The elevation of the Site is approximately 589 feet above Mean Sea Level (MSL) and slopes down to the east/southeast toward Lake Michigan, located approximately 1-mile to the southeast at an elevation near 580 MSL. Groundwater flow has been primarily toward the north during the groundwater sampling rounds performed, but may be impacted by the Site pond.

Potential Receptors

CLSE will document the locations of public utilities identified during the planned site investigation activities to further evaluate whether utility corridors are a potential conduit for the identified contamination. A private utility contractor may also be hired to document the location of private utility lines located near the planned boring locations. Based on a review the WDNR Well Construction Reports database, at least 12 potable wells appear to be present within 1,200 feet of the Site. CLSE with further evaluate the presence of off-site wells and locations subsequent to the performance of the additional site investigation activities.

The Site is located within a commercial and residential area of the Village of Howard. No sensitive species, habitat, ecosystem, wetlands, or outstanding resource waters are located in the direct vicinity of the known affected area.

Scope of Work

The field exploration for this phase will include the advancement of 3 soil borings to depths of 13 feet bgs, which will be converted to monitoring wells, and 1 soil boring to a depth of approximately 30 feet bgs, which will be converted to a piezometer. The purpose of the proposed monitoring wells and piezometers will be to further evaluate the horizontal and vertical extent of contaminated groundwater. The locations of the proposed soil borings and monitoring wells are shown on Figure 5, Attachment A.

The soil borings will be advanced with a track-mounted Geoprobe® unit, and soil samples will be secured continuously at 5-foot intervals utilizing a steel sampler with a new disposable plastic sleeve inserted into the sampler for each interval. After the completion of the soil sampling activities, 4.25” ID hollow stem augers will be utilized to auger 8-inch diameter boreholes for installation of the planned monitoring well depths. The augers will be decontaminated with a pressure washer between sampling locations. The installation of the monitoring wells, and the sample collection and analysis will be performed in general accordance with the guidelines and codes utilized by the WDNR (NR 141 WAC).

Soil samples will be screened in the field utilizing visual and olfactory observations and with a Honeywell ppbRAE 3000+ PID. Soil cuttings generated during the drilling activities will be placed into 55-gallon drums and remain on site until proper disposal can be arranged. Soil sampling tools will be cleaned with a non-phosphate detergent solution and potable water followed with multiple rinses of distilled water prior to development of each well. Selected soil samples from the upper 2 feet will be submitted for to Pace for laboratory analysis of PFAS (Method ASTM D2974 ENV-SOP-MIN4-0178). Soil samples submitted for PFAS analysis will be transferred into laboratory provided 250-milliliter HPDE plastic containers. The sample containers will be immediately placed on ice and standard chain-of-custody procedures will be

initiated.

The monitoring well construction will consist of a 10-foot section of 0.010-inch 2-inch diameter, schedule 40 PVC screen placed at or near the bottom of the borehole. The piezometer construction will consist of a 5-foot section of 0.010-inch 2-inch diameter, schedule 40 PVC screen placed at or near the bottom of the borehole. A coarse sand filter pack will be placed surrounding the slotted PVC to approximately 2 feet above the screen, followed by fine sand topped with chipped bentonite. Steel flush-mounted or stick up covers will be used to protect the wells. The covers will be set in place by 2-foot by 2-foot concrete pads.

New wells will be developed by alternately surging and purging with a pump. Based on the observed geology, it is anticipated that the newly installed monitoring wells will not purge dry and that the piezometer will purge dry. To confirm the wells cannot be purged dry, the wells will be first only pumped to limit agitation. The wells will be developed for a minimum of 30 minutes or until they produce relatively sediment-free water. The development water will be placed into drums until after receipt of the testing results of the wells. Well development tools will be cleaned with a non-phosphate detergent solution and potable water followed with multiple rinses of distilled water prior to development of each well.

Two rounds of groundwater sampling will be performed subsequent to installation and development of the new monitoring wells (April and October 2024). The groundwater samples will be collected by purging 4 well volumes from each monitoring well utilizing dedicated PFAS-free pumps and PFAS-free tubing. Groundwater samples submitted for PFAS analysis will be transferred into laboratory provided 250-milliliter HPDE plastic containers. The sample containers will be immediately placed on ice and standard chain-of-custody procedures will be initiated. The groundwater samples will be submitted to Pace (Method ENV-SOP-MIN4-0178).

Groundwater elevations and the top of casing (TOC) elevations at each monitoring well will be established by CLSE. The monitoring well TOC will be referenced to MSL. Static groundwater levels within the wells will be measured to the nearest 0.01 feet, prior to obtaining the samples for analysis.

Following the completion of each groundwater sampling round and receipt of the analytical results, status update reports will be prepared in general accordance with standards set forth by the WDNR.

General

The soil borings and monitoring wells are scheduled to be performed during the first week of April, 2024. If you have any questions, please contact CLSE at (920) 229-8600.

Sincerely,

CAROW LAND SURVEYING & ENVIRONMENTAL

Brian Youngwirth, P.G.
Senior Geologist

cc: Perimeter Solutions

Certification of Professional(s)

"I Brian Youngwirth, hereby certify that I am a hydrogeologist as that term is denied in s. NR 712.03 (1), Wisconsin Administrative 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 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."

_____ ***3/14/24***

Brian Youngwirth, PG
Senior Geologist

Attachment A: Figures

- Figure 1 – Site Location Map
- Figure 2 – Current Site Plan
- Figure 3 – Soil Boring and Monitoring Well Location Map
- Figure 4 – Estimated Extent of Remedial Excavation & Confirmation Soil Sample Location Map – June 2019
- Figure 4A – Estimated Extent of Remedial Excavation & Confirmation Soil Sample Location Map – May 2021
- Figure 5 – Proposed Soil Boring, Monitoring Well, and Piezometer Location Map

Attachment B: Tables

- Table A.1 –Groundwater Analytical Results Table
- Table A.2 – Soil Analytical Results Table
- Table A.6 – Water Level Elevations

Attachment C: Well Construction Reports

APPENDIX A

FIGURES

GREEN BAY WEST QUADRANGLE
BROWN COUNTY WISCONSIN
7.5 MINUTE SERIES

0 2000'
1000'

CAROW LAND SURVEYING & ENVIRONMENTAL
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N5841 STATE HIGHWAY 47/55, SHAWANO, WI 54166
PHONE: (715) 526-3638

SITE LOCATION MAP

THE SOLBERG COMPAY - SITE 2
1520 BROOKFIELD AVE.
VILLAGE OF HOWARD
BROWN COUNTY, WI

DATE	FEB 2024
FILE NO.	E2305.27
DRAWN BY	KSP
REVIEWED BY	BLY

FIGURE 1

N
W E
S
0 100'
50'

MW-13

MW-12

0 100'
50'

1550 BROOKFIELD AVE.
PARCEL # VH-118

EDGE OF VEGETATION AREA

ELECTRICAL TRANSFORMER

APPROXIMATE PROPERTY LINE

MW-9

MW-11

MW-10

GRASS

MW-1

BOLLARDS, TYP.

TANK SUMP

MW-2

FENCED IN TANK AREA WITH CONCRETE PAD

MW-6

PZ-1

MW-3

TALLER GRASS & VEGETATION AREA

MW-17

GRASS

CONCRETE PAD

MW-20

BUILDING

MW-4

SIDEWALK

MW-14

1520 BROOKFIELD AVE.
PARCEL # VH-3175

BUILDING

MW-19

SANITARY MANHOLE, TYP.

LIGHT POLE

ASPHALT

GRASS

SANITARY SEWER, TYP.

HYDRANT, TYP.

MW-18

MW-8

MW-5

MW-7

GRAVEL

CONCRETE, TYP.

POND

CONCRETE, TYP.

ASPHALT

WATER MAIN, TYP.

STORM SEWER, TYP.

BROOKFIELD AVE.

1769 DEVON ST.
PARCEL # VH-130-1

MW-16

MW-15

PZ-2

1510 BROOKFIELD AVE.
PARCEL # VH-3176

BUILDING

LAND SURVEYING & ENVIRONMENTAL
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N5841 STATE HIGHWAY 47/55, SHAWANO, WI 54166
PHONE: (715) 526-3638

CURREN SITE PLAN

THE SOLBERG COMPANY - SITE 2
1520 BROOKFIELD AVE.
VILLAGE OF HOWARD
BROWN COUNTY, WI

LEGEND
- APPROXIMATE PROPERTY BOUNDARY
- MONITORING WELL (MW-2)
- TANK SUMP

DATE	FEB 2024
FILE NO.	E2305.27
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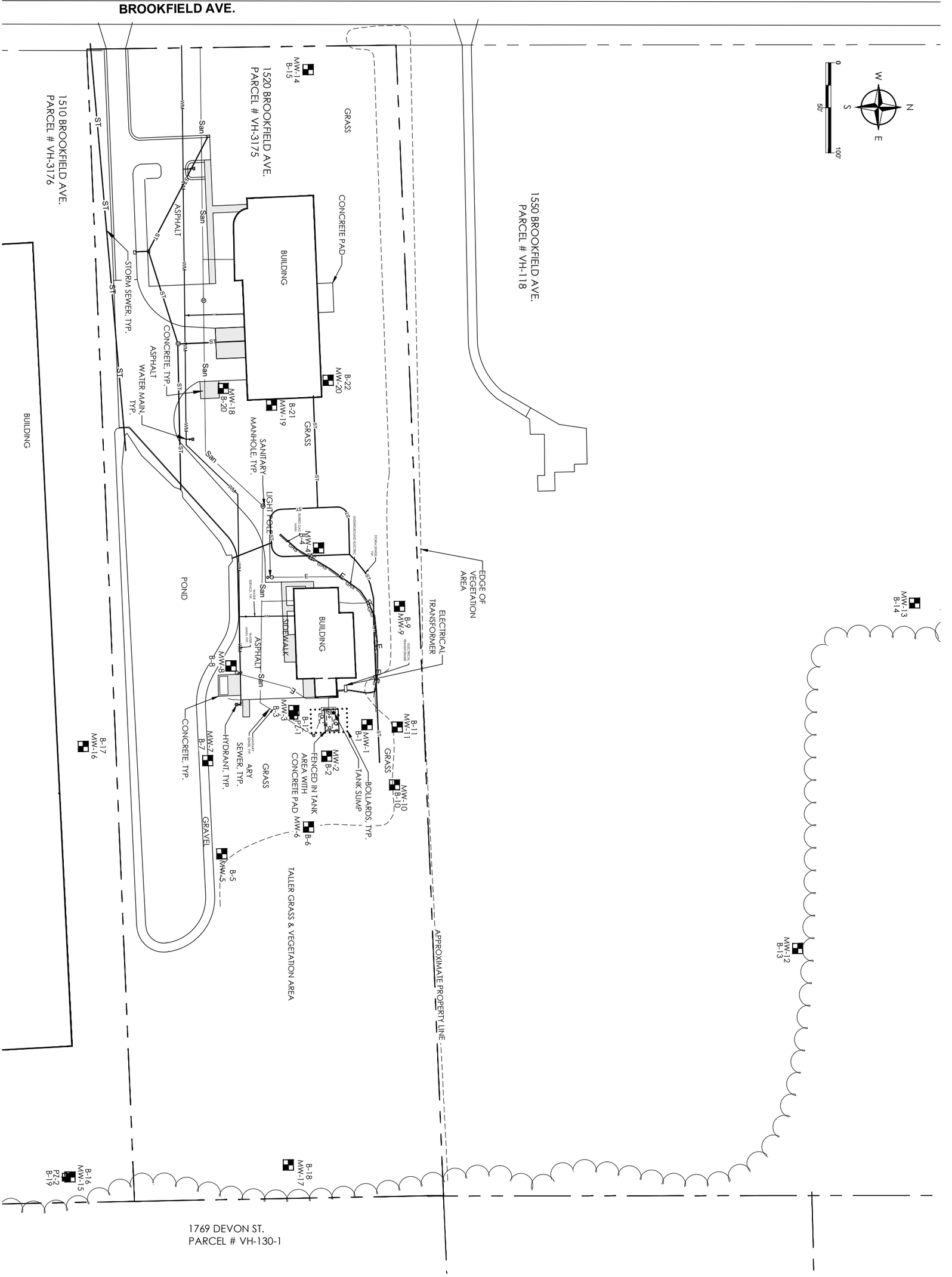
REVIEWED BY	BLY

FIGURE 2



LEGEND	
MW-2 B-2	SOIL BORING & MONITORING WELL
PZ-1	PIEZOMETER
	TANK SUMP

SOIL BORING AND MONITORING WELL LOCATION MAP

THE SOLBERG COMPANY - SITE 2
1520 BROOKFIELD AVE.
VILLAGE OF HOWARD
BROWN COUNTY, WI

FIGURE 3

DATE	FEB 2024
FILE NO.	E2305.27
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REVIEWED BY	BLY

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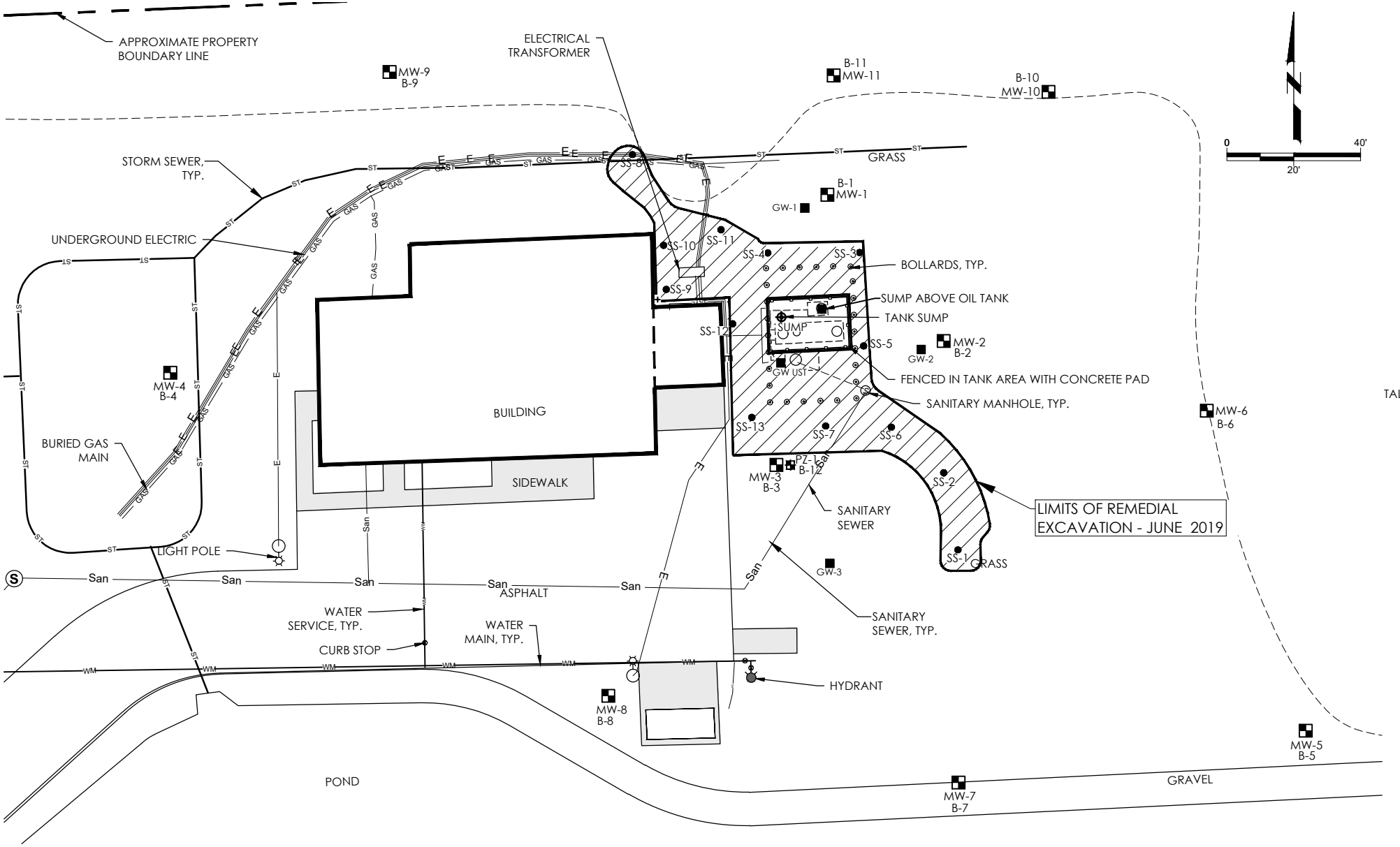
PHONE: (715) 526-3638



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PHONE: (715) 526-3638

LEGEND

- MW-2 B-2 — SOIL BORING & MONITORING WELL
- PZ-1 — PIEZOMETER
- TANK SUMP
- SS-8 — CONFIRMATION SOIL SAMPLE - JUNE 2019
- GW-3 — TEST PIT GROUNDWATER SAMPLE
- LIMITS OF EXCAVATION - JUNE 2019

ESTIMATED EXTENT OF REMEDIAL EXCAVATION & CONFIRMATION SOIL SAMPLE LOCATION MAP - JUNE 2019

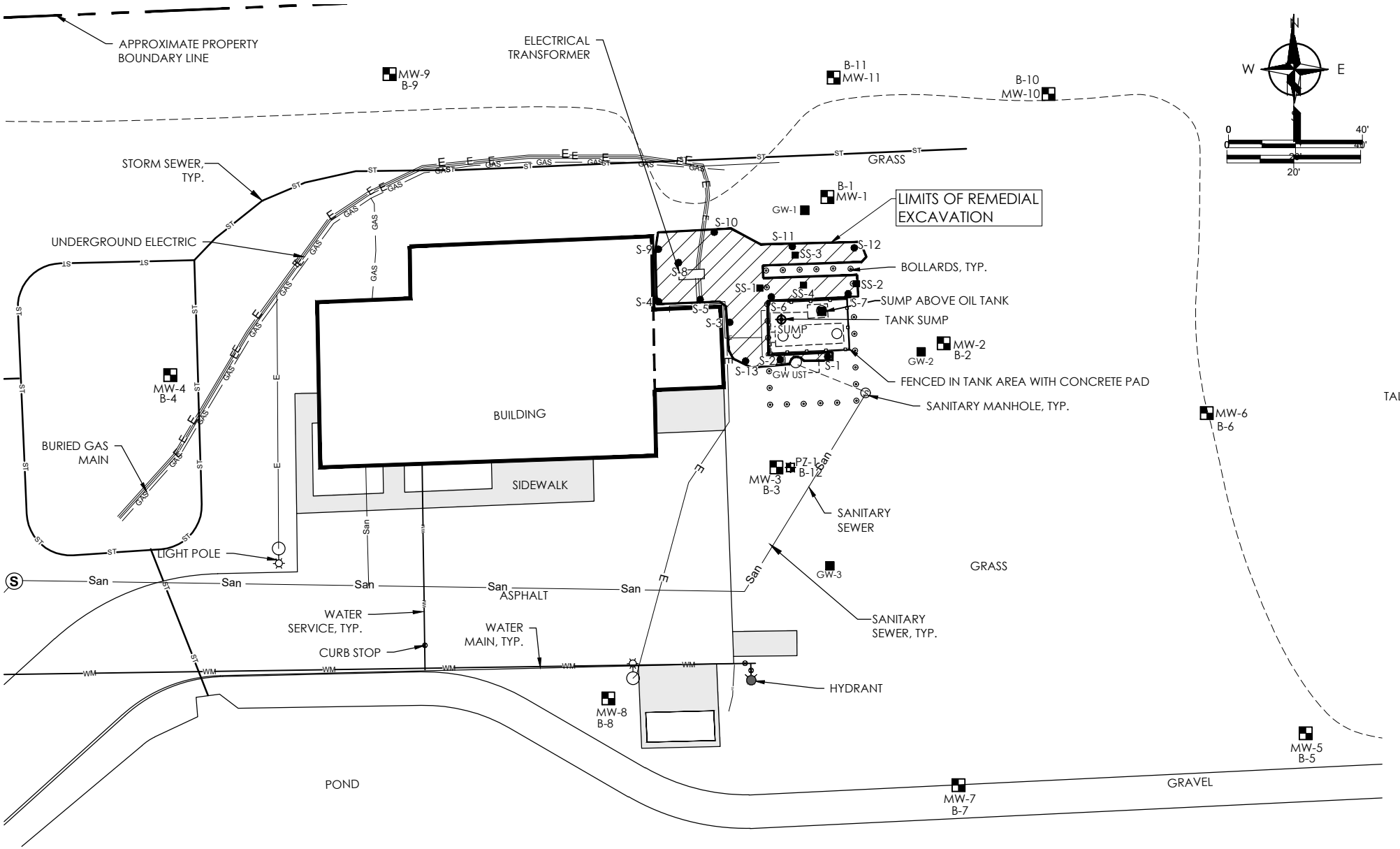
THE SOLBERG COMPANY - SITE 2

1520 BROOKFIELD AVE.

VILLAGE OF HOWARD
BROWN COUNTY, WI

DATE: FEB 2024
FILE NO.: E2305.27
DRAWN BY: KSP
REVIEWED BY: BLY

FIGURE 4



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PHONE: (715) 526-3638

LEGEND

- MW-2 / B-2 — SOIL BORING & MONITORING WELL
- PZ-1 — PIEZOMETER
- TANK SUMP
- SS-8 — CONFIRMATION SOIL SAMPLE - JUNE 2019
- GW-3 — TEST PIT GROUNDWATER SAMPLE
- LIMITS OF EXCAVATION - JUNE 2019

ESTIMATED EXTENT OF REMEDIAL EXCAVATION & CONFIRMATION SOIL SAMPLE LOCATION MAP - MAY 2021

THE SOLBERG COMPANY - SITE 2

1520 BROOKFIELD AVE.

VILLAGE OF HOWARD
BROWN COUNTY, WI

DATE: FEB 2024
FILE NO.: E2305.27
DRAWN BY: KSP
REVIEWED BY: BLY

FIGURE 4A

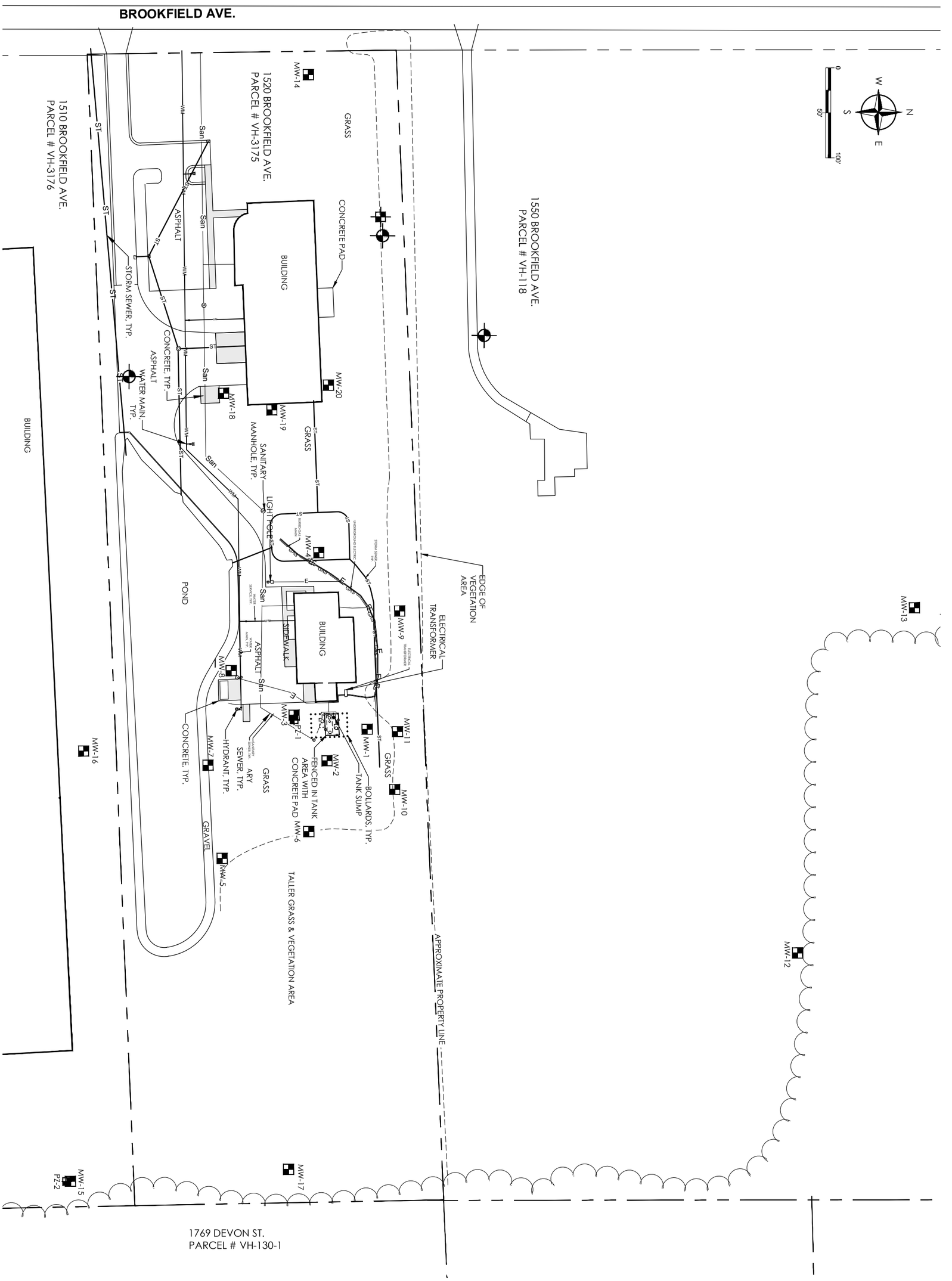

FIGURE 5

DATE	FEB 2024
FILE NO.	E2303.27
DRAWN BY	KSP
REVIEWED BY	BLY

LEGEND

- MW-2 / B-2 — SOIL BORING & MONITORING WELL
- * PZ-1 — PIEZOMETER
- TANK SUMP
- PROPOSED SOIL BORING / MONITORING WELL
- PROPOSED PIEZOMETER

PROPOSED SOIL BORING AND MONITORING WELL LOCATION MAP

THE SOLBERG COMPANY - SITE 2

1520 BROOKFIELD AVE.

VILLAGE OF HOWARD

BROWN COUNTY, WI

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APPENDIX B

TABLES

TABLE A.1.
GROUNDWATER ANALYTICAL RESULTS
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
CLSE PROJECT # E2305.27

Monitoring Well	MW-1		
Lab	Pace Analytical		
Sampling Date	6/2/2021	7/12/2022	7/24/2023
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)			
11Cl-PF3OUdS	<63	<0.43	<1.2
4:2 FTSA	<83	**12**	**13.4**
6:2 FTSA	**35,000**	**3,700D**	**11,300D**
8:2 FTSA	<150	**11**	**20.7**
9Cl-PF3ONS	<46	<0.3	<1
ADONA	<46	<0.51	<2
GenX (HFPO-DA)	<200	<0.53	<1.1
N-EtFOSA	<130	<0.61	<1.2
N-EtFOSAA	<72	<0.55	<1.7
N-EtFOSE	<91	<0.5	<1.9
N-MeFOSA	<120	<0.51	<1.2
N-MeFOSAA	<89	<0.43	<1.5
N-MeFOSE	<120	<0.33	<1.1
PFBA	**1,300**	**760D**	**693D**
PFDS	<74	<0.45	<1.4
PFDoS	<100	<0.46	<1.3
PFHpS	<48	<0.41	<1.4
PFNS	<68	<0.44	<1.3
PFOSA	<58	<0.81	<1.5
PFPeA	**8,600**	**4,400D**	**8,400D**
PFPeS	<57	<0.47	<1.3
PFBS	<40	**13**	**8.9**
PFDA	<50	**0.85J**	<1.3
PFDoA	<45	<0.48	<1
PFHpA	**1,000**	**460D**	**710D**
PFHxS	<53	**1.2J**	<1.1
PFHxA	**6,100**	**3,100D**	**4,680D**
PFNA	<44	**2J**	**2.1J**
PFOS	<190	**1J**	**2.5J**
PFOA	<79	**9.5**	**13**
PFTeDA	<57	<0.47	<1.3
PFTrDA	<50	<0.62	<1.3
PFUnA	<380	<0.54	<1

Notes:
ng/L = nanograms per liter (parts per trillion)
< = compound below laboratory detection limit
Bold indicates laboratory detections
B=Analyte detected in the field blank
F/J = result is between laboratory limit of detection and laboratory limit of quantitation
D = dilution of sample aliquot
ES= NR 140 Enforcement Standard
PAL = NR 140 Preventive Action Limit
NE = NR 140 ES/PAL Not Established

ANALYTE ACRONYM (CAS) FULL NAME (CHAIN LENGTH)

11Cl-PF3OUdS (763051-92-9) 11-chloroeicosafluoro-3oxaundecane-1-sulfonic acid (C10)
4:2 FTSA (757124-72-4) 4:2 fluorotelomer sulfonate (C6)
6:2 FTSA (27619-97-2) 6:2 fluorotelomer sulfonate (C8)
8:2 FTSA (39108-34-4) 8:2 fluorotelomer sulfonate (C10)
9Cl-PF3ONS (756426-58-1) 9-clorohexadecafluoro-3-oxaneonane-1-sulfonic acid (C8)
ADONA (919005-14-4) 4,8-Dioxa-3H-perfluorononanoic acid (C7)
GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)
N-EtFOSA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)
N-EtFOSAA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)
N-EtFOSE (1691-99-2) N-ethylperfluorooctanesulfonamidoethanol (C12)
N-MeFOSA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)
N-MeFOSAA (2355-31-9) N-methyperfluorooctanesulfonamidoacetic Acid (C11)
N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)
PFBA (375-22-4) Perfluoroburanoic Acid (C4)
PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)
PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)
PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)
PFNS (68259-12-1) Perfluorononanesulfonic Acid (C9)
PFOSA (754-91-6) Perfluorooctainesulfonamide (C8)
PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)
PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)
PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)
PFDA (335-76-2) Perfluorodecanoic Acid (C10)
PFDoA (307-55-1) Perfluorododecanoic Acid (C12)
PFHpA (375-85-9) Perfluoroheptanoic Acid (C7)
PFHxS (355-46-4) Perfluorohexanesulfonic Acid (C6)
PFHxA (307-24-4) Perfluorohexanoic Acid (C6)
PFNA (375-95-1) Perfluorononanoic Acid (C9)
PFOS (1963-23-1) Perfluorooctanesulfonic Acid (C8)
PFOA (355-67-1) Perfluorooctanoic Acid (C8)
PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)
PFTrDA (72629-94-8) Perfluorotridecanoic Acid (C13)
PFUnA (2058-94-8) Perfluoroundecanoic Acid (C11)

TABLE A.1.
GROUNDWATER ANALYTICAL RESULTS
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
CLSE PROJECT # E2305.27

Monitoring Well	MW-2		
Lab	Pace Analytical		
Sampling Date	6/2/2021	7/12/2022	7/24/2023
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)			
11Cl-PF3OUdS	<30	<0.43	<1.2
4:2 FTSA	<39	**12**	**12**
6:2 FTSA	**16,000**	**3,300D**	**17,500D**
8:2 FTSA	<72	**3.4**	**2.3J**
9Cl-PF3ONS	<22	<0.3	<0.98
ADONA	<22	<0.51	<1.9
GenX (HFPO-DA)	<93	<0.52	<1
N-EtFOSA	<60	<0.6	<1.2
N-EtFOSAA	<33	<0.55	<1.7
N-EtFOSE	<43	<0.49	<1.9
N-MeFOSA	<56	<0.51	<1.2
N-MeFOSAA	<42	<0.43	<1.5
N-MeFOSE	<57	<0.33	<1.1
PFBA	**1,100**	**710D**	**1,050D**
PFDS	>35	<0.45	<1.3
PFDoS	<47	<0.46	<1.2
PFHpS	<22	<0.41	<1.4
PFNS	<32	<0.44	<1.2
PFOSA	<27	<0.81	<1.5
PFPeA	**8,000**	**4,600D**	**7,290D**
PFPeS	<27	<0.47	<1.3
PFBS	**23J**	**15**	**7.7**
PFDA	<23	<0.56	<1.3
PFDoA	<21	<0.48	<1
PFHpA	**1,100**	**610D**	**842D**
PFHxS	<25	**1.5J**	1.7J
PFHxA	**5,200**	**3,300D**	**4,870D**
PFNA	<21	**1.2J**	<1.7
PFOS	<89	**0.73J**	<1.4
PFOA	<37	**12**	**11.9**
PFTeDA	<27	<0.47	<1.3
PFTrDA	<24	<0.62	<1.3
PFUnA	<28	<0.53	<1

Notes:
ng/L = nanograms per liter (parts per trillion)
< = compound below laboratory detection limit
Bold indicates laboratory detections
B=Analyte detected in the field blank
F/J = result is between laboratory limit of detection and laboratory limit of quantitation
D = dilution of sample aliquot
ES= NR 140 Enforcement Standard
PAL = NR 140 Preventive Action Limit
NE = NR 140 ES/PAL Not Established

ANALYTE ACRONYM (CAS) FULL NAME (CHAIN LENGTH)

11Cl-PF3OUdS (763051-92-9) 11-chloroeicosafluoro-3oxaundecane-1-sulfonic acid (C10)
4:2 FTSA (757124-72-4) 4:2 fluorotelomer sulfonate (C6)
6:2 FTSA (27619-97-2) 6:2 fluorotelomer sulfonate (C8)
8:2 FTSA (39108-34-4) 8:2 fluorotelomer sulfonate (C10)
9Cl-PF3ONS (756426-58-1) 9-clorohexadecafluoro-3-oxaneonane-1-sulfonic acid (C8)
ADONA (919005-14-4) 4,8-Dioxa-3H-perfluorononanoic acid (C7)
GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)
N-EtFOSA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)
N-EtFOSAA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)
N-EtFOSE (1691-99-2) N-ethylperfluorooctanesulfonamidoethanol (C12)
N-MeFOSA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)
N-MeFOSAA (2355-31-9) N-methyperfluorooctanesulfonamidoacetic Acid (C11)
N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)
PFBA (375-22-4) Perfluoroburanoic Acid (C4)
PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)
PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)
PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)
PFNS (68259-12-1) Perfluorononanesulfonic Acid (C9)
PFOSA (754-91-6) Perfluorooctainesulfonamide (C8)
PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)
PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)
PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)
PFDA (335-76-2) Perfluorodecanoic Acid (C10)
PFDoA (307-55-1) Perfluorododecanoic Acid (C12)
PFHpA (375-85-9) Perfluoroheptanoic Acid (C7)
PFHxS (355-46-4) Perfluorohexanesulfonic Acid (C6)
PFHxA (307-24-4) Perfluorohexanoic Acid (C6)
PFNA (375-95-1) Perfluorononanoic Acid (C9)
PFOS (1963-23-1) Perfluorooctanesulfonic Acid (C8)
PFOA (355-67-1) Perfluorooctanoic Acid (C8)
PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)
PFTrDA (72629-94-8) Perfluorotridecanoic Acid (C13)
PFUnA (2058-94-8) Perfluoroundecanoic Acid (C11)

TABLE A.1.
GROUNDWATER ANALYTICAL RESULTS
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
CLSE PROJECT # E2305.27

Monitoring Well	MW-3		
Lab	Pace Analytical		
Sampling Date	6/2/2021	7/12/2022	7/24/2023
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)			
11Cl-PF3OUdS	<1,200	<0.43	<1.1
4:2 FTSA	<1,600	<0.56	**65.6**
6:2 FTSA	**460,000**	**530D**	**15,800D**
8:2 FTSA	<2,900	<0.65	<1
9Cl-PF3ONS	<880	<0.3	<0.97
ADONA	<880	<0.51	<1.9
GenX (HFPO-DA)	<3,800	<0.53	<1
N-EtFOSA	<2,500	<0.61	<1.2
N-EtFOSAA	<1,400	<0.55	<1.7
N-EtFOSE	<1,700	<0.5	<1.8
N-MeFOSA	<2,300	<0.51	<1.1
N-MeFOSAA	<1,700	<0.43	<1.4
N-MeFOSE	<2,300	<0.33	<1.1
PFBA	**3,300J**	**110**	**3,550D**
PFDS	<1,400	<0.45	<1.3
PFDoS	<1,900	<0.46	<1.2
PFHpS	<910	<0.41	<1.4
PFNS	<1,300	<0.44	<1.2
PFOSA	<1,100	<0.82	<1.5
PFPeA	**20,000**	**520D**	**30,400D**
PFPeS	<1,100	<0.47	<1.2
PFBS	<760	**14**	**10.1**
PFDA	<960	<0.56	<1.3
PFDoA	<860	<0.48	<0.99
PFHpA	**1,200J**	**110**	**1,950D**
PFHxS	<1,000	<0.51	**5.9**
PFHxA	**13,000**	**360D**	**16,900D**
PFNA	<840	**0.87J**	<1.6
PFOS	<3,700	**1.7J**	<1.4
PFOA	<1,500	**1.9J**	**57.2**
PFTeDA	<1,100	<0.47	<1.2
PFTrDA	<970	<0.62	<1.3
PFUnA	<1,100	<0.54	<1

Notes:
ng/L = nanograms per liter (parts per trillion)
< = compound below laboratory detection limit
Bold indicates laboratory detections
B=Analyte detected in the field blank
F/J = result is between laboratory limit of detection and laboratory limit of quantitation
D = dilution of sample aliquot
ES= NR 140 Enforcement Standard
PAL = NR 140 Preventive Action Limit
NE = NR 140 ES/PAL Not Established

ANALYTE ACRONYM (CAS) FULL NAME (CHAIN LENGTH)

11Cl-PF3OUdS (763051-92-9) 11-chloroeicosafluoro-3oxaundecane-1-sulfonic acid (C10)
4:2 FTSA (757124-72-4) 4:2 fluorotelomer sulfonate (C6)
6:2 FTSA (27619-97-2) 6:2 fluorotelomer sulfonate (C8)
8:2 FTSA (39108-34-4) 8:2 fluorotelomer sulfonate (C10)
9Cl-PF3ONS (756426-58-1) 9-clorohexadecafluoro-3-oxaneonane-1-sulfonic acid (C8)
ADONA (919005-14-4) 4,8-Dioxa-3H-perfluorononanoic acid (C7)
GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)
N-EtFOSA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)
N-EtFOSAA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)
N-EtFOSE (1691-99-2) N-ethylperfluorooctanesulfonamidoethanol (C12)
N-MeFOSA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)
N-MeFOSAA (2355-31-9) N-methyperfluorooctanesulfonamidoacetic Acid (C11)
N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)
PFBA (375-22-4) Perfluoroburanoic Acid (C4)
PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)
PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)
PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)
PFNS (68259-12-1) Perfluorononanesulfonic Acid (C9)
PFOSA (754-91-6) Perfluorooctainesulfonamide (C8)
PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)
PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)
PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)
PFDA (335-76-2) Perfluorodecanoic Acid (C10)
PFDoA (307-55-1) Perfluorododecanoic Acid (C12)
PFHpA (375-85-9) Perfluoroheptanoic Acid (C7)
PFHxS (355-46-4) Perfluorohexanesulfonic Acid (C6)
PFHxA (307-24-4) Perfluorohexanoic Acid (C6)
PFNA (375-95-1) Perfluorononanoic Acid (C9)
PFOS (1963-23-1) Perfluorooctanesulfonic Acid (C8)
PFOA (355-67-1) Perfluorooctanoic Acid (C8)
PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)
PFTrDA (72629-94-8) Perfluorotridecanoic Acid (C13)
PFUnA (2058-94-8) Perfluoroundecanoic Acid (C11)

TABLE A.1.
GROUNDWATER ANALYTICAL RESULTS
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
CLSE PROJECT # E2305.27

Monitoring Well	MW-4		
Lab	Pace Analytical		
Sampling Date	6/2/2021	7/12/2022	7/24/2023
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)			
11Cl-PF3OUdS		<0.43	<0.56
4:2 FTSA	**3.6J**	**1.6J**	**3.4**
6:2 FTSA	**42**	**79**	**4,710D**
8:2 FTSA	<1.5	<0.64	**0.56J**
9Cl-PF3ONS	<0.44	<0.3	<0.48
ADONA	<0.44	<0.5	<0.93
GenX (HFPO-DA)	<1.9	<0.52	<0.5
N-EtFOSA	<1.2	<0.59	<0.58
N-EtFOSAA	<0.69	<0.54	<0.83
N-EtFOSE	<0.87	<0.49	<0.9
N-MeFOSA	<1.2	<0.5	<0.56
N-MeFOSAA	<0.85	<0.42	<0.7
N-MeFOSE	<1.2	<0.32	<0.53
PFBA	**74**	**51**	**534D**
PFDS	<0.71	<0.44	<0.65
PFDoS	<0.96	<0.45	<0.60
PFHpS	<0.46	<0.4	<0.68
PFNS	<0.65	<0.44	<0.59
PFOSA	<0.56	<0.8	<0.73
PFPeA	**140**	**100**	**3,860D**
PFPeS	<0.54	<0.46	<0.61
PFBS	**600**	**170**	<4.9D
PFDA	<0.48	<0.55	<0.62
PFDoA	<0.43	<0.47	<0.49
PFHpA	**20**	**14**	**135**
PFHxS	<51	**2**	**0.59J**
PFHxA	**60**	**51**	**2,370D**
PFNA	**0.46J**	<0.72	<0.80
PFOS	<1.8	**0.74J**	**0.93J**
PFOA	**2.9J**	**5**	**4.4**
PFTeDA	<55	<0.47	<0.61
PFTrDA	<48	<0.61	<0.63
PFUnA	<57	<0.33	<0.49

Notes:
ng/L = nanograms per liter (parts per trillion)
< = compound below laboratory detection limit
Bold indicates laboratory detections
B=Analyte detected in the field blank
F/J = result is between laboratory limit of detection and laboratory limit of quantitation
D = dilution of sample aliquot
ES= NR 140 Enforcement Standard
PAL = NR 140 Preventive Action Limit
NE = NR 140 ES/PAL Not Established

ANALYTE ACRONYM (CAS) FULL NAME (CHAIN LENGTH)

11Cl-PF3OUdS (763051-92-9) 11-chloroeicosafluoro-3oxaundecane-1-sulfonic acid (C10)
4:2 FTSA (757124-72-4) 4:2 fluorotelomer sulfonate (C6)
6:2 FTSA (27619-97-2) 6:2 fluorotelomer sulfonate (C8)
8:2 FTSA (39108-34-4) 8:2 fluorotelomer sulfonate (C10)
9Cl-PF3ONS (756426-58-1) 9-clorohexadecafluoro-3-oxaneonane-1-sulfonic acid (C8)
ADONA (919005-14-4) 4,8-Dioxa-3H-perfluorononanoic acid (C7)
GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)
N-EtFOSA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)
N-EtFOSAA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)
N-EtFOSE (1691-99-2) N-ethylperfluorooctanesulfonamidoethanol (C12)
N-MeFOSA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)
N-MeFOSAA (2355-31-9) N-methyperfluorooctanesulfonamidoacetic Acid (C11)
N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)
PFBA (375-22-4) Perfluoroburanoic Acid (C4)
PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)
PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)
PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)
PFNS (68259-12-1) Perfluorononanesulfonic Acid (C9)
PFOSA (754-91-6) Perfluorooctainesulfonamide (C8)
PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)
PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)
PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)
PFDA (335-76-2) Perfluorodecanoic Acid (C10)
PFDoA (307-55-1) Perfluorododecanoic Acid (C12)
PFHpA (375-85-9) Perfluoroheptanoic Acid (C7)
PFHxS (355-46-4) Perfluorohexanesulfonic Acid (C6)
PFHxA (307-24-4) Perfluorohexanoic Acid (C6)
PFNA (375-95-1) Perfluorononanoic Acid (C9)
PFOS (1963-23-1) Perfluoroctanesulfonic Acid (C8)
PFOA (355-67-1) Perfluoroctanoic Acid (C8)
PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)
PFTrDA (72629-94-8) Perfluorotridecanoic Acid (C13)
PFUnA (2058-94-8) Perfluoroundecanoic Acid (C11)

TABLE A.1.
GROUNDWATER ANALYTICAL RESULTS
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
CLSE PROJECT # E2305.27

Monitoring Well	MW-5		
Lab	Pace Analytical		
Sampling Date	6/2/2021	7/12/2022	7/24/2023
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)			
11Cl-PF3OUdS	<6	<4.3D	<0.57
4:2 FTSA	<7.9	<5.5D	**2.7**
6:2 FTSA	**2,100**	**1,600D**	**2,410D**
8:2 FTSA	<14	<6.5D	<0.52
9Cl-PF3ONS	<4.4	<3D	<0.49
ADONA	<4.4	<5.1D	<0.95
GenX (HFPO-DA)	<19	<5.2D	<0.51
N-EtFOSA	<12	**36D**	<0.59
N-EtFOSAA	<6.8	<5.5D	<0.84
N-EtFOSE	<8.6	<4.9D	<0.92
N-MeFOSA	<11	<5.1D	<0.57
N-MeFOSAA	<8.4	<4.3D	<0.72
N-MeFOSE	<12	<3.3D	<0.54
PFBA	**310**	**360D**	**552D**
PFDS	<7	<4.5D	<0.66
PFDoS	<9.4	<4.6D	<0.61
PFHpS	<4.5	<4.1D	<0.69
PFNS	<6.4	<4.4D	<0.61
PFOSA	<5.5	<8.1D	**0.82J**
PFPeA	**2,500**	**1,900D**	**4,160D**
PFPeS	<5.4	<4.7D	<0.62
PFBS	**12J**	**30D**	**14.4**
PFDA	<4.7	<5.6D	<0.63
PFDoA	<4.3	<4.8D	<0.5
PFHpA	**490**	**410D**	**490D**
PFHxS	<5	<5D	**0.58J**
PFHxA	**1,600**	**1,300D**	**2,390D**
PFNA	<4.2	<7.3D	<0.82
PFOS	<18	<5.4D	**1J**
PFOA	**11J**	**7.1J,D**	**6.5**
PFTeDA	<5.4	<4.7D	<0.62
PFTrDA	<4.8	<6.2D	<0.64
PFUnA	<5.7	<5.4D	<0.5

Notes:
ng/L = nanograms per liter (parts per trillion)
< = compound below laboratory detection limit
Bold indicates laboratory detections
B=Analyte detected in the field blank
F/J = result is between laboratory limit of detection and laboratory limit of quantitation
D = dilution of sample aliquot
ES= NR 140 Enforcement Standard
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ANALYTE ACRONYM (CAS) FULL NAME (CHAIN LENGTH)

11Cl-PF3OUdS (763051-92-9) 11-chloroeicosafluoro-3oxaundecane-1-sulfonic acid (C10)
4:2 FTSA (757124-72-4) 4:2 fluorotelomer sulfonate (C6)
6:2 FTSA (27619-97-2) 6:2 fluorotelomer sulfonate (C8)
8:2 FTSA (39108-34-4) 8:2 fluorotelomer sulfonate (C10)
9Cl-PF3ONS (756426-58-1) 9-clorohexadecafluoro-3-oxaneonane-1-sulfonic acid (C8)
ADONA (919005-14-4) 4,8-Dioxa-3H-perfluorononanoic acid (C7)
GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)
N-EtFOSA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)
N-EtFOSAA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)
N-EtFOSE (1691-99-2) N-ethylperfluorooctanesulfonamidoethanol (C12)
N-MeFOSA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)
N-MeFOSAA (2355-31-9) N-methyperfluorooctanesulfonamidoacetic Acid (C11)
N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)
PFBA (375-22-4) Perfluoroburanoic Acid (C4)
PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)
PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)
PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)
PFNS (68259-12-1) Perfluorononanesulfonic Acid (C9)
PFOSA (754-91-6) Perfluorooctainesulfonamide (C8)
PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)
PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)
PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)
PFDA (335-76-2) Perfluorodecanoic Acid (C10)
PFDoA (307-55-1) Perfluorododecanoic Acid (C12)
PFHpA (375-85-9) Perfluoroheptanoic Acid (C7)
PFHxS (355-46-4) Perfluorohexanesulfonic Acid (C6)
PFHxA (307-24-4) Perfluorohexanoic Acid (C6)
PFNA (375-95-1) Perfluorononanoic Acid (C9)
PFOS (1963-23-1) Perfluoroctanesulfonic Acid (C8)
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PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)
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TABLE A.1.
GROUNDWATER ANALYTICAL RESULTS
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
CLSE PROJECT # E2305.27

Monitoring Well	MW-6		
Lab	Pace Analytical		
Sampling Date	6/2/2021	7/12/2022	7/24/2023
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)			
11Cl-PF3OUdS	<30	<4.4D	<0.56
4:2 FTSA	<39	<5.6D	2.8
6:2 FTSA	**3,000**	**1,400D**	**993D**
8:2 FTSA	<72	<6.6D	<0.51
9Cl-PF3ONS	<22	<3.1D	<0.48
ADONA	<22	<5.2D	<0.93
GenX (HFPO-DA)	<93	<5.3D	<0.50
N-EtFOSA	<61	<6.1D	<0.58
N-EtFOSAA	<34	<5.6D	<0.83
N-EtFOSE	<43	<5D	<0.90
N-MeFOSA	<56	<5.1D	<0.56
N-MeFOSAA	<42	<4.4D	<0.70
N-MeFOSE	<58	<3.3D	<0.53
PFBA	**820**	**650D**	**289D**
PFDS	<35	<4.5D	<0.65
PFDoS	<47	<4.6D	<0.6
PFHpS	<22	<4.1D	<0.68
PFNS	<32	<4.5D	<0.59
PFOSA	<27	<8.2D	<0.73
PFPeA	**6,600**	**5,700D**	**3,090D**
PFPeS	<27	<4.8D	<0.61
PFBS	**27J**	**38D**	**18.7**
PFDA	<24	<5.7D	<0.62
PFDoA	<21	<4.9D	<0.49
PFHpA	**1,000**	**760D**	**355D**
PFHxS	<25	<5.1D	0.9J
PFHxA	**3,800**	**3,400D**	**1,560D**
PFNA	<21	<7.4D	<0.8
PFOS	<90	<5.5D	**1.7J**
PFOA	<37	**8.7J,D**	**8.4**
PFTeDA	<27	<4.8D	<0.61
PFTrDA	<24	<6.2D	<0.63
PFUnA	<28	<5.4D	<0.49

Notes:
ng/L = nanograms per liter (parts per trillion)
< = compound below laboratory detection limit
Bold indicates laboratory detections
B=Analyte detected in the field blank
F/J = result is between laboratory limit of detection and laboratory limit of quantitation
D = dilution of sample aliquot
ES= NR 140 Enforcement Standard
PAL = NR 140 Preventive Action Limit
NE = NR 140 ES/PAL Not Established

ANALYTE ACRONYM (CAS) FULL NAME (CHAIN LENGTH)

11Cl-PF3OUdS (763051-92-9) 11-chloroeicosafluoro-3oxaundecane-1-sulfonic acid (C10)
4:2 FTSA (757124-72-4) 4:2 fluorotelomer sulfonate (C6)
6:2 FTSA (27619-97-2) 6:2 fluorotelomer sulfonate (C8)
8:2 FTSA (39108-34-4) 8:2 fluorotelomer sulfonate (C10)
9Cl-PF3ONS (756426-58-1) 9-clorohexadecafluoro-3-oxaneonane-1-sulfonic acid (C8)
ADONA (919005-14-4) 4,8-Dioxa-3H-perfluorononanoic acid (C7)
GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)
N-EtFOSA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)
N-EtFOSAA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)
N-EtFOSE (1691-99-2) N-ethylperfluorooctanesulfonamidoethanol (C12)
N-MeFOSA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)
N-MeFOSAA (2355-31-9) N-methyperfluorooctanesulfonamidoacetic Acid (C11)
N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)
PFBA (375-22-4) Perfluoroburanoic Acid (C4)
PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)
PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)
PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)
PFNS (68259-12-1) Perfluorononanesulfonic Acid (C9)
PFOSA (754-91-6) Perfluorooctainesulfonamide (C8)
PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)
PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)
PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)
PFDA (335-76-2) Perfluorodecanoic Acid (C10)
PFDoA (307-55-1) Perfluorododecanoic Acid (C12)
PFHpA (375-85-9) Perfluoroheptanoic Acid (C7)
PFHxS (355-46-4) Perfluorohexanesulfonic Acid (C6)
PFHxA (307-24-4) Perfluorohexanoic Acid (C6)
PFNA (375-95-1) Perfluorononanoic Acid (C9)
PFOS (1963-23-1) Perfluoroctanesulfonic Acid (C8)
PFOA (355-67-1) Perfluoroctanoic Acid (C8)
PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)
PFTrDA (72629-94-8) Perfluorotridecanoic Acid (C13)
PFUnA (2058-94-8) Perfluoroundecanoic Acid (C11)

TABLE A.1.
GROUNDWATER ANALYTICAL RESULTS
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
CLSE PROJECT # E2305.27

Monitoring Well	MW-7		
Lab	Pace Analytical		
Sampling Date	6/2/2021	7/12/2022	7/24/2023
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)			
11Cl-PF3OUdS	<3.2	<0.43	<1.2
4:2 FTSA	<4.2	**1.1J**	<1
6:2 FTSA	**750**	**550D**	**1,110D**
8:2 FTSA	<7.7	<0.65	<1.1
9Cl-PF3ONS	<2.3	<0.3	<1
ADONA	<2.3	<0.51	<2
GenX (HFPO-DA)	<9.9	<0.53	<1.1
N-EtFOSA	<6.5	<0.60	<1.2
N-EtFOSAA	<3.6	<0.55	<1.7
N-EtFOSE	<4.6	<0.49	<1.9
N-MeFOSA	<6	<0.51	<1.2
N-MeFOSAA	<4.5	<0.43	<1.5
N-MeFOSE	<6.2	<0.33	<1.1
PFBA	**210**	**160**	**226**
PFDS	<3.7	<0.45	<1.4
PFDoS	<5	<0.46	<1.3
PFHpS	<2.4	<0.41	<1.4
PFNS	<3.4	<0.44	<1.3
PFOSA	<2.9	<0.81	<1.5
PFPeA	**1,500**	**860D**	**1,250D**
PFPeS	<2.8	<0.47	<1.3
PFBS	**8.3J**	**10**	**10**
PFDA	<2.5	<0.56	<1.3
PFDoA	<2.3	<0.48	<1
PFHpA	**190**	**130**	**159**
PFHxS	<2.6	**0.57J**	<1.1
PFHxA	**860**	**600D**	**706D**
PFNA	**2.9J**	**1.7J**	**2.7J**
PFOS	<9.6	**3.8**	**4.9**
PFOA	**5.4J**	**4.6**	**6**
PFTeDA	<2.9	<0.47	<1.3
PFTrDA	<2.5	<0.62	<1.3
PFUnA	<3	<0.54	<1

Notes:
ng/L = nanograms per liter (parts per trillion)
< = compound below laboratory detection limit
Bold indicates laboratory detections
B=Analyte detected in the field blank
F/J = result is between laboratory limit of detection and laboratory limit of quantitation
D = dilution of sample aliquot
ES= NR 140 Enforcement Standard
PAL = NR 140 Preventive Action Limit
NE = NR 140 ES/PAL Not Established

ANALYTE ACRONYM (CAS) FULL NAME (CHAIN LENGTH)

11Cl-PF3OUdS (763051-92-9) 11-chloroeicosafluoro-3oxaundecane-1-sulfonic acid (C10)
4:2 FTSA (757124-72-4) 4:2 fluorotelomer sulfonate (C6)
6:2 FTSA (27619-97-2) 6:2 fluorotelomer sulfonate (C8)
8:2 FTSA (39108-34-4) 8:2 fluorotelomer sulfonate (C10)
9Cl-PF3ONS (756426-58-1) 9-clorohexadecafluoro-3-oxaneonane-1-sulfonic acid (C8)
ADONA (919005-14-4) 4,8-Dioxa-3H-perfluorononanoic acid (C7)
GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)
N-EtFOSA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)
N-EtFOSAA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)
N-EtFOSE (1691-99-2) N-ethylperfluorooctanesulfonamidoethanol (C12)
N-MeFOSA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)
N-MeFOSAA (2355-31-9) N-methyperfluorooctanesulfonamidoacetic Acid (C11)
N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)
PFBA (375-22-4) Perfluoroburanoic Acid (C4)
PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)
PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)
PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)
PFNS (68259-12-1) Perfluorononanesulfonic Acid (C9)
PFOSA (754-91-6) Perfluorooctainesulfonamide (C8)
PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)
PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)
PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)
PFDA (335-76-2) Perfluorodecanoic Acid (C10)
PFDoA (307-55-1) Perfluorododecanoic Acid (C12)
PFHpA (375-85-9) Perfluoroheptanoic Acid (C7)
PFHxS (355-46-4) Perfluorohexanesulfonic Acid (C6)
PFHxA (307-24-4) Perfluorohexanoic Acid (C6)
PFNA (375-95-1) Perfluorononanoic Acid (C9)
PFOS (1963-23-1) Perfluoroctanesulfonic Acid (C8)
PFOA (355-67-1) Perfluoroctanoic Acid (C8)
PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)
PFTrDA (72629-94-8) Perfluorotridecanoic Acid (C13)
PFUnA (2058-94-8) Perfluoroundecanoic Acid (C11)

TABLE A.1.
GROUNDWATER ANALYTICAL RESULTS
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
CLSE PROJECT # E2305.27

Monitoring Well	MW-8		
Lab	Pace Analytical		
Sampling Date	6/2/2021	7/12/2022	7/24/2023
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)			
11Cl-PF3OUdS	<120	<4.4D	<0.56
4:2 FTSA	<160	**13 J,D**	**9.5**
6:2 FTSA	**34,000**	**3,600D**	**5,040D**
8:2 FTSA	<300	<6.6D	<0.51
9Cl-PF3ONS	<90	<3.1D	<0.48
ADONA	<90	<5.2D	<0.93
GenX (HFPO-DA)	<390	<5.3D	<0.50
N-EtFOSA	<250	<6.1D	<0.58
N-EtFOSAA	<140	<5.6D	<0.83
N-EtFOSE	<180	<5D	<0.90
N-MeFOSA	<230	<5.2D	<0.56
N-MeFOSAA	<170	<4.4D	<0.70
N-MeFOSE	<240	<3.3D	<0.53
PFBA	**2,300**	**2,800D**	**1,820D**
PFDS	<140	<4.5D	<0.65
PFDoS	<190	<4.6D	<0.60
PFHpS	<93	<4.1D	<0.68
PFNS	<130	<4.5D	<0.59
PFOSA	<110	<8.3D	<0.73
PFPeA	**19,000**	**17,000D**	**15,500D**
PFPeS	<110	<4.8D	**0.7J**
PFBS	<77	**24D**	**5.9**
PFDA	<98	<5.7D	<0.62
PFDoA	<88	<4.9D	<0.49
PFHpA	**2,100**	**3,400D**	**2,340D**
PFHxS	<100	**11 J,D**	**8.7**
PFHxA	**7,000**	**8,600D**	**5,500D**
PFNA	<86	<7.5D	**7.1**
PFOS	<370	<5.5D	**5.4**
PFOA	<150	**24D**	**29.1**
PFTeDA	<110	<4.8D	<0.61
PFTrDA	<98	<6.3D	<0.63
PFUnA	<120	<5.5D	<0.49

Notes:
ng/L = nanograms per liter (parts per trillion)
< = compound below laboratory detection limit
Bold indicates laboratory detections
B=Analyte detected in the field blank
F/J = result is between laboratory limit of detection and laboratory limit of quantitation
D = dilution of sample aliquot
ES= NR 140 Enforcement Standard
PAL = NR 140 Preventive Action Limit
NE = NR 140 ES/PAL Not Established

ANALYTE ACRONYM (CAS) FULL NAME (CHAIN LENGTH)

11Cl-PF3OUdS (763051-92-9) 11-chloroeicosafluoro-3oxaundecane-1-sulfonic acid (C10)
4:2 FTSA (757124-72-4) 4:2 fluorotelomer sulfonate (C6)
6:2 FTSA (27619-97-2) 6:2 fluorotelomer sulfonate (C8)
8:2 FTSA (39108-34-4) 8:2 fluorotelomer sulfonate (C10)
9Cl-PF3ONS (756426-58-1) 9-clorohexadecafluoro-3-oxaneonane-1-sulfonic acid (C8)
ADONA (919005-14-4) 4,8-Dioxa-3H-perfluorononanoic acid (C7)
GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)
N-EtFOSA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)
N-EtFOSAA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)
N-EtFOSE (1691-99-2) N-ethylperfluorooctanesulfonamidoethanol (C12)
N-MeFOSA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)
N-MeFOSAA (2355-31-9) N-methyperfluorooctanesulfonamidoacetic Acid (C11)
N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)
PFBA (375-22-4) Perfluoroburanoic Acid (C4)
PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)
PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)
PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)
PFNS (68259-12-1) Perfluorononanesulfonic Acid (C9)
PFOSA (754-91-6) Perfluorooctainesulfonamide (C8)
PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)
PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)
PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)
PFDA (335-76-2) Perfluorodecanoic Acid (C10)
PFDoA (307-55-1) Perfluorododecanoic Acid (C12)
PFHpA (375-85-9) Perfluoroheptanoic Acid (C7)
PFHxS (355-46-4) Perfluorohexanesulfonic Acid (C6)
PFHxA (307-24-4) Perfluorohexanoic Acid (C6)
PFNA (375-95-1) Perfluorononanoic Acid (C9)
PFOS (1963-23-1) Perfluorooctanesulfonic Acid (C8)
PFOA (355-67-1) Perfluorooctanoic Acid (C8)
PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)
PFTrDA (72629-94-8) Perfluorotridecanoic Acid (C13)
PFUnA (2058-94-8) Perfluoroundecanoic Acid (C11)

TABLE A.1.
GROUNDWATER ANALYTICAL RESULTS
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
CLSE PROJECT # E2305.27

Monitoring Well	MW-9		
Lab	Pace Analytical		
Sampling Date	6/2/2021	7/12/2022	7/24/2023
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)			
11Cl-PF3OUdS	<12	<4.4D	<1.2
4:2 FTSA	<15	**220D**	**147**
6:2 FTSA	**6,100**	**3,300D**	**14,700D**
8:2 FTSA	<28	<6.5D	<1.1
9Cl-PF3ONS	<8.5	<3D	<0.99
ADONA	<8.5	<5.1D	<1.9
GenX (HFPO-DA)	<37	<5.3D	<1
N-EtFOSA	<24	<6.1D	<1.2
N-EtFOSAA	<13	<5.5D	<1.7
N-EtFOSE	<17	<5D	<1.9
N-MeFOSA	<22	<5.1D	<1.2
N-MeFOSAA	<16	<4.3D	<1.5
N-MeFOSE	<23	<3.3D	<1.1
PFBA	**590**	**1,300D**	**3,190D**
PFDS	<14	<4.5D	<1.4
PFDoS	<18	<4.6D	<1.2
PFHpS	<8.8	<4.1D	<1.4
PFNS	<13	<4.5D	<1.2
PFOSA	<11	<8.2D	<1.5
PFPeA	**5,700**	**6,800D**	**14,900D**
PFPeS	<10	<4.7D	1.3J
PFBS	**27J**	**42D**	**28**
PFDA	<9.2	<5.6D	<1.3
PFDoA	<8.3	<4.8D	<1
PFHpA	**760**	**880D**	**2,080D**
PFHxS	<9.7	**5.2 J,D**	**13.2**
PFHxA	**3,100**	**8,500D**	**26,700D**
PFNA	<8.1	<7.4D	<1.7
PFOS	<35	<5.5D	**5.7**
PFOA	<15	**15 J,D**	**31.5**
PFTeDA	<11	<4.8D	<1.3
PFTrDA	<9.3	<6.2D	<1.3
PFUnA	<11	<5.4D	<1

Notes:
ng/L = nanograms per liter (parts per trillion)
< = compound below laboratory detection limit
Bold indicates laboratory detections
B=Analyte detected in the field blank
F/J = result is between laboratory limit of detection and laboratory limit of quantitation
D = dilution of sample aliquot
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ANALYTE ACRONYM (CAS) FULL NAME (CHAIN LENGTH)

11Cl-PF3OUdS (763051-92-9) 11-chloroeicosafluoro-3oxaundecane-1-sulfonic acid (C10)
4:2 FTSA (757124-72-4) 4:2 fluorotelomer sulfonate (C6)
6:2 FTSA (27619-97-2) 6:2 fluorotelomer sulfonate (C8)
8:2 FTSA (39108-34-4) 8:2 fluorotelomer sulfonate (C10)
9Cl-PF3ONS (756426-58-1) 9-clorohexadecafluoro-3-oxaneonane-1-sulfonic acid (C8)
ADONA (919005-14-4) 4,8-Dioxa-3H-perfluorononanoic acid (C7)
GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)
N-EtFOSA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)
N-EtFOSAA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)
N-EtFOSE (1691-99-2) N-ethylperfluorooctanesulfonamidoethanol (C12)
N-MeFOSA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)
N-MeFOSAA (2355-31-9) N-methyperfluorooctanesulfonamidoacetic Acid (C11)
N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)
PFBA (375-22-4) Perfluoroburanoic Acid (C4)
PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)
PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)
PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)
PFNS (68259-12-1) Perfluorononanesulfonic Acid (C9)
PFOSA (754-91-6) Perfluorooctainesulfonamide (C8)
PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)
PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)
PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)
PFDA (335-76-2) Perfluorodecanoic Acid (C10)
PFDoA (307-55-1) Perfluorododecanoic Acid (C12)
PFHpA (375-85-9) Perfluoroheptanoic Acid (C7)
PFHxS (355-46-4) Perfluorohexanesulfonic Acid (C6)
PFHxA (307-24-4) Perfluorohexanoic Acid (C6)
PFNA (375-95-1) Perfluorononanoic Acid (C9)
PFOS (1963-23-1) Perfluoroctanesulfonic Acid (C8)
PFOA (355-67-1) Perfluoroctanoic Acid (C8)
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PFTrDA (72629-94-8) Perfluorotridecanoic Acid (C13)
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TABLE A.1.
GROUNDWATER ANALYTICAL RESULTS
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
CLSE PROJECT # E2305.27

Monitoring Well	MW-10		
Lab	Pace Analytical		
Sampling Date	6/2/2021	7/12/2022	7/24/2023
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)			
11Cl-PF3OUdS	<30	<4.4D	<0.56
4:2 FTSA	<40	**15 J,D**	**5.2**
6:2 FTSA	**11,000**	**3,300D**	**2,310D**
8:2 FTSA	<73	<6.6D	<0.51
9Cl-PF3ONS	<22	<3.1D	<0.47
ADONA	<22	<5.2D	<0.93
GenX (HFPO-DA)	<95	<5.4D	<0.50
N-EtFOSA	<62	<6.2D	<0.58
N-EtFOSAA	<34	<5.6D	<0.82
N-EtFOSE	<43	<5D	<0.90
N-MeFOSA	<57	<5.2	<0.56
N-MeFOSAA	<43	<4.4D	<0.70
N-MeFOSE	<59	<3.3D	<0.53
PFBA	**1,500**	**1,100D**	**1,010D**
PFDS	<35	<4.6D	<0.65
PFDoS	<48	<4.7D	<0.60
PFHpS	<23	<4.2D	<0.67
PFNS	<32	<4.5D	<0.59
PFOSA	<28	<8.3D	<0.72
PFPeA	**15,000**	**9,500D**	**10,900D**
PFPeS	<27	<4.8D	<0.61
PFBS	**44J**	**54D**	**28.7**
PFDA	<24	<5.7D	<0.61
PFDoA	<22	<4.9D	<0.48
PFHpA	**1,500**	**1,000D**	**907D**
PFHxS	<25	<5.2D	**0.82J**
PFHxA	**8,700**	**6,200D**	**5,630D**
PFNA	<21	<7.5D	<0.80
PFOS	<91	<5.6D	<0.67
PFOA	<38	**18 J,D**	**9.2**
PFTeDA	<27	<4.8D	<0.60
PFTrDA	<24	<6.3D	<0.63
PFUnA	<29	<5.5D	<0.49

Notes:
ng/L = nanograms per liter (parts per trillion)
< = compound below laboratory detection limit
Bold indicates laboratory detections
B=Analyte detected in the field blank
F/J = result is between laboratory limit of detection and laboratory limit of quantitation
D = dilution of sample aliquot
ES= NR 140 Enforcement Standard
PAL = NR 140 Preventive Action Limit
NE = NR 140 ES/PAL Not Established

ANALYTE ACRONYM (CAS) FULL NAME (CHAIN LENGTH)

11Cl-PF3OUdS (763051-92-9) 11-chloroeicosafluoro-3oxaundecane-1-sulfonic acid (C10)
4:2 FTSA (757124-72-4) 4:2 fluorotelomer sulfonate (C6)
6:2 FTSA (27619-97-2) 6:2 fluorotelomer sulfonate (C8)
8:2 FTSA (39108-34-4) 8:2 fluorotelomer sulfonate (C10)
9Cl-PF3ONS (756426-58-1) 9-clorohexadecafluoro-3-oxaneonane-1-sulfonic acid (C8)
ADONA (919005-14-4) 4,8-Dioxa-3H-perfluorononanoic acid (C7)
GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)
N-EtFOSA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)
N-EtFOSAA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)
N-EtFOSE (1691-99-2) N-ethylperfluorooctanesulfonamidoethanol (C12)
N-MeFOSA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)
N-MeFOSAA (2355-31-9) N-methyperfluorooctanesulfonamidoacetic Acid (C11)
N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)
PFBA (375-22-4) Perfluoroburanoic Acid (C4)
PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)
PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)
PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)
PFNS (68259-12-1) Perfluorononanesulfonic Acid (C9)
PFOSA (754-91-6) Perfluorooctainesulfonamide (C8)
PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)
PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)
PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)
PFDA (335-76-2) Perfluorodecanoic Acid (C10)
PFDoA (307-55-1) Perfluorododecanoic Acid (C12)
PFHpA (375-85-9) Perfluoroheptanoic Acid (C7)
PFHxS (355-46-4) Perfluorohexanesulfonic Acid (C6)
PFHxA (307-24-4) Perfluorohexanoic Acid (C6)
PFNA (375-95-1) Perfluorononanoic Acid (C9)
PFOS (1963-23-1) Perfluorooctanesulfonic Acid (C8)
PFOA (355-67-1) Perfluorooctanoic Acid (C8)
PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)
PFTrDA (72629-94-8) Perfluorotridecanoic Acid (C13)
PFUnA (2058-94-8) Perfluoroundecanoic Acid (C11)

TABLE A.1.
GROUNDWATER ANALYTICAL RESULTS
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
CLSE PROJECT # E2305.27

Monitoring Well	MW-11		
Lab	Pace Analytical		
Sampling Date	6/2/2021	7/12/2022	7/12/2022
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)			
11Cl-PF3OUdS	<30	<4.3D	<0.55
4:2 FTSA	<40	**12D**	**7.8**
6:2 FTSA	**19,000**	**3,500D**	**2,730D**
8:2 FTSA	<73	<6.4D	**1.6J**
9Cl-PF3ONS	<22	<3D	<0.46
ADONA	<22	<5.1D	<0.90
GenX (HFPO-DA)	<95	<5.2D	<0.48
N-EtFOSA	<62	<6D	<0.56
N-EtFOSAA	<34	<5.5D	<0.80
N-EtFOSE	<43	<4.9D	<0.87
N-MeFOSA	<57	<5D	<0.54
N-MeFOSAA	<43	<4.3D	<0.68
N-MeFOSE	<59	<3.2D	<0.51
PFBA	**1,200**	**930D**	**333D**
PFDS	<35	<4.4D	<0.63
PFDoS	<48	<4.5D	<0.58
PFHpS	<23	<4.1D	<0.66
PFNS	<32	<4.4D	<0.58
PFOSA	<28	<8.1D	<0.70
PFPeA	**9,500**	**7,700D**	**4,970D**
PFPeS	<27	<4.7D	<0.59
PFBS	**39J**	**46D**	**30.4**
PFDA	<24	<5.6D	<0.6
PFDoA	<22	<4.8D	<0.47
PFHpA	**910**	**730D**	**306D**
PFHxS	<25	<5D	**1J**
PFHxA	**5,800**	**4,200D**	**2,330D**
PFNA	<21	<7.3	**1.6J**
PFOS	<91	<5.4D	**1.1J**
PFOA	<38	**18 J,D**	**12.4**
PFTeDA	<27	<4.7D	<0.59
PFTrDA	<24	<6.1D	<0.61
PFUnA	<29	<5.3D	<0.48

Notes:
ng/L = nanograms per liter (parts per trillion)
< = compound below laboratory detection limit
Bold indicates laboratory detections
B=Analyte detected in the field blank
F/J = result is between laboratory limit of detection and laboratory limit of quantitation
D = dilution of sample aliquot
ES= NR 140 Enforcement Standard
PAL = NR 140 Preventive Action Limit
NE = NR 140 ES/PAL Not Established

ANALYTE ACRONYM (CAS) FULL NAME (CHAIN LENGTH)

11Cl-PF3OUdS (763051-92-9) 11-chloroeicosafluoro-3oxaundecane-1-sulfonic acid (C10)
4:2 FTSA (757124-72-4) 4:2 fluorotelomer sulfonate (C6)
6:2 FTSA (27619-97-2) 6:2 fluorotelomer sulfonate (C8)
8:2 FTSA (39108-34-4) 8:2 fluorotelomer sulfonate (C10)
9Cl-PF3ONS (756426-58-1) 9-clorohexadecafluoro-3-oxaneonane-1-sulfonic acid (C8)
ADONA (919005-14-4) 4,8-Dioxa-3H-perfluorononanoic acid (C7)
GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)
N-EtFOSA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)
N-EtFOSAA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)
N-EtFOSE (1691-99-2) N-ethylperfluorooctanesulfonamidoethanol (C12)
N-MeFOSA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)
N-MeFOSAA (2355-31-9) N-methyperfluorooctanesulfonamidoacetic Acid (C11)
N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)
PFBA (375-22-4) Perfluoroburanoic Acid (C4)
PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)
PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)
PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)
PFNS (68259-12-1) Perfluorononanesulfonic Acid (C9)
PFOSA (754-91-6) Perfluorooctainesulfonamide (C8)
PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)
PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)
PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)
PFDA (335-76-2) Perfluorodecanoic Acid (C10)
PFDoA (307-55-1) Perfluorododecanoic Acid (C12)
PFHpA (375-85-9) Perfluoroheptanoic Acid (C7)
PFHxS (355-46-4) Perfluorohexanesulfonic Acid (C6)
PFHxA (307-24-4) Perfluorohexanoic Acid (C6)
PFNA (375-95-1) Perfluorononanoic Acid (C9)
PFOS (1963-23-1) Perfluorooctanesulfonic Acid (C8)
PFOA (355-67-1) Perfluorooctanoic Acid (C8)
PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)
PFTrDA (72629-94-8) Perfluorotridecanoic Acid (C13)
PFUnA (2058-94-8) Perfluoroundecanoic Acid (C11)

TABLE A.1.
GROUNDWATER ANALYTICAL RESULTS
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
CLSE PROJECT # E2305.27

Monitoring Well	MW-12	
Lab	Pace Analytical	
Sampling Date	7/12/2022	7/24/2023
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)		
11Cl-PF3OUdS	<0.44	<1.2
4:2 FTSA	<0.56	<0.98
6:2 FTSA	<0.65	<1.4
8:2 FTSA	<0.66	<1.1
9Cl-PF3ONS	<0.31	<0.99
ADONA	<0.52	<1.9
GenX (HFPO-DA)	<0.53	<1
N-EtFOSA	<0.61	<1.2
N-EtFOSAA	<0.56	<1.7
N-EtFOSE	<0.5	<1.9
N-MeFOSA	<0.51	<1.2
N-MeFOSAA	<0.44	<1.5
N-MeFOSE	<0.33	<1.1
PFBA	**140**	**87.3**
PFDS	<0.45	<1.4
PFDoS	<0.46	<1.2
PFHpS	<0.41	<1.4
PFNS	<0.45	<1.2
PFOSA	<0.82	<1.5
PFPeA	**21**	**12**
PFPeS	**1.2J**	<1.3
PFBS	**8.3**	**5.1**
PFDA	<0.57	<1.3
PFDoA	<0.49	<1
PFHpA	**6.7**	**3.9J**
PFHxS	**1.6J**	<1.1
PFHxA	**17**	**11.6**
PFNA	<0.74	<1.7
PFOS	<0.55	<1.4
PFOA	**5.5**	**4.1J**
PFTeDA	<0.48	<1.3
PFTrDA	<0.63	<1.3
PFUnA	<0.54	<1

Notes:
ng/L = nanograms per liter (parts per trillion)
< = compound below laboratory detection limit
Bold indicates laboratory detections
B=Analyte detected in the field blank
F/J = result is between laboratory limit of detection and laboratory limit of quantitation
D = dilution of sample aliquot
ES= NR 140 Enforcement Standard
PAL = NR 140 Preventive Action Limit
NE = NR 140 ES/PAL Not Established

ANALYTE ACRONYM (CAS) FULL NAME (CHAIN LENGTH)

11Cl-PF3OUdS (763051-92-9) 11-chloroeicosafluoro-3oxaundecane-1-sulfonic acid (C10)
4:2 FTSA (757124-72-4) 4:2 fluorotelomer sulfonate (C6)
6:2 FTSA (27619-97-2) 6:2 fluorotelomer sulfonate (C8)
8:2 FTSA (39108-34-4) 8:2 fluorotelomer sulfonate (C10)
9Cl-PF3ONS (756426-58-1) 9-clorohexadecafluoro-3-oxaneonane-1-sulfonic acid (C8)
ADONA (919005-14-4) 4,8-Dioxa-3H-perfluorononanoic acid (C7)
GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)
N-EtFOSA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)
N-EtFOSAA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)
N-EtFOSE (1691-99-2) N-ethylperfluorooctanesulfonamidoethanol (C12)
N-MeFOSA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)
N-MeFOSAA (2355-31-9) N-methyperfluorooctanesulfonamidoacetic Acid (C11)
N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)
PFBA (375-22-4) Perfluoroburanoic Acid (C4)
PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)
PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)
PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)
PFNS (68259-12-1) Perfluorononanesulfonic Acid (C9)
PFOSA (754-91-6) Perfluorooctainesulfonamide (C8)
PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)
PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)
PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)
PFDA (335-76-2) Perfluorodecanoic Acid (C10)
PFDoA (307-55-1) Perfluorododecanoic Acid (C12)
PFHpA (375-85-9) Perfluoroheptanoic Acid (C7)
PFHxS (355-46-4) Perfluorohexanesulfonic Acid (C6)
PFHxA (307-24-4) Perfluorohexanoic Acid (C6)
PFNA (375-95-1) Perfluorononanoic Acid (C9)
PFOS (1963-23-1) Perfluorooctanesulfonic Acid (C8)
PFOA (355-67-1) Perfluorooctanoic Acid (C8)
PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)
PFTrDA (72629-94-8) Perfluorotridecanoic Acid (C13)
PFUnA (2058-94-8) Perfluoroundecanoic Acid (C11)

TABLE A.1.
GROUNDWATER ANALYTICAL RESULTS
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
CLSE PROJECT # E2305.27

Monitoring Well	MW-13	
Lab	Pace Analytical	
Sampling Date	7/12/2022	7/24/2023
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)		
11Cl-PF3OUdS	<0.43	<1.2
4:2 FTSA	<0.55	<0.97
6:2 FTSA	<0.64	<1.4
8:2 FTSA	<0.65	<1.1
9Cl-PF3ONS	<0.3	<0.98
ADONA	<0.51	<1.9
GenX (HFPO-DA)	<0.52	<1
N-EtFOSA	<0.6	<1.2
N-EtFOSAA	<0.55	<1.7
N-EtFOSE	<0.49	<1.9
N-MeFOSA	<0.43	<1.2
N-MeFOSAA	<0.5	<1.5
N-MeFOSE	<0.32	<1.1
PFBA	**61**	**50**
PFDS	<0.44	<1.3
PFDoS	<0.45	<1.2
PFHpS	<0.41	<1.4
PFNS	<0.44	<1.2
PFOSA	<0.81	<1.5
PFPeA	**9.9**	**6.6**
PFPeS	<0.47	<1.3
PFBS	**4.6B**	**3.1J**
PFDA	<0.56	<1.3
PFDoA	<0.48	<1
PFHpA	**1.7J**	<1.4
PFHxS	**0.53J**	<1.1
PFHxA	**7.6**	**5.8**
PFNA	<0.73	<1.7
PFOS	<0.54	<1.4
PFOA	**2J**	<1.8
PFTeDA	<0.47	<1.3
PFTrDA	<0.61	<1.3
PFUnA	<0.53	<1

Notes:
ng/L = nanograms per liter (parts per trillion)
< = compound below laboratory detection limit
Bold indicates laboratory detections
B=Analyte detected in the field blank
F/J = result is between laboratory limit of detection and laboratory limit of quantitation
D = dilution of sample aliquot
ES= NR 140 Enforcement Standard
PAL = NR 140 Preventive Action Limit
NE = NR 140 ES/PAL Not Established

ANALYTE ACRONYM (CAS) FULL NAME (CHAIN LENGTH)

11Cl-PF3OUdS (763051-92-9) 11-chloroeicosafluoro-3oxaundecane-1-sulfonic acid (C10)
4:2 FTSA (757124-72-4) 4:2 fluorotelomer sulfonate (C6)
6:2 FTSA (27619-97-2) 6:2 fluorotelomer sulfonate (C8)
8:2 FTSA (39108-34-4) 8:2 fluorotelomer sulfonate (C10)
9Cl-PF3ONS (756426-58-1) 9-clorohexadecafluoro-3-oxaneonane-1-sulfonic acid (C8)
ADONA (919005-14-4) 4,8-Dioxa-3H-perfluorononanoic acid (C7)
GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)
N-EtFOSA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)
N-EtFOSAA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)
N-EtFOSE (1691-99-2) N-ethylperfluorooctanesulfonamidoethanol (C12)
N-MeFOSA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)
N-MeFOSAA (2355-31-9) N-methyperfluorooctanesulfonamidoacetic Acid (C11)
N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)
PFBA (375-22-4) Perfluoroburanoic Acid (C4)
PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)
PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)
PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)
PFNS (68259-12-1) Perfluorononanesulfonic Acid (C9)
PFOSA (754-91-6) Perfluorooctainesulfonamide (C8)
PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)
PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)
PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)
PFDA (335-76-2) Perfluorodecanoic Acid (C10)
PFDoA (307-55-1) Perfluorododecanoic Acid (C12)
PFHpA (375-85-9) Perfluoroheptanoic Acid (C7)
PFHxS (355-46-4) Perfluorohexanesulfonic Acid (C6)
PFHxA (307-24-4) Perfluorohexanoic Acid (C6)
PFNA (375-95-1) Perfluorononanoic Acid (C9)
PFOS (1963-23-1) Perfluorooctanesulfonic Acid (C8)
PFOA (355-67-1) Perfluorooctanoic Acid (C8)
PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)
PFTrDA (72629-94-8) Perfluorotridecanoic Acid (C13)
PFUnA (2058-94-8) Perfluoroundecanoic Acid (C11)

TABLE A.1.
GROUNDWATER ANALYTICAL RESULTS
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
CLSE PROJECT # E2305.27

Monitoring Well	MW-14	
Lab	Pace Analytical	
Sampling Date	7/12/2022	7/24/2023
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)		
11Cl-PF3OUdS	<0.44	<0.56
4:2 FTSA	<0.56	<0.47
6:2 FTSA	**23**	**4.7**
8:2 FTSA	<0.66	<0.50
9Cl-PF3ONS	<0.31	<0.47
ADONA	<0.52	<0.92
GenX (HFPO-DA)	<0.53	<0.49
N-EtFOSA	<0.61	<0.57
N-EtFOSAA	<0.56	<0.82
N-EtFOSE	<0.50	<0.89
N-MeFOSA	<0.52	<0.55
N-MeFOSAA	<0.44	<0.69
N-MeFOSE	<0.33	<0.52
PFBA	**35**	**17.5**
PFDS	<0.45	<0.64
PFDoS	<0.46	<0.59
PFHpS	<0.41	<0.67
PFNS	<0.45	<0.59
PFOSA	<0.82	<0.72
PFPeA	**63**	**25.2**
PFPeS	**0.79J**	<0.60
PFBS	**5.0B**	**1.9**
PFDA	<0.57	<0.61
PFDoA	<0.49	<0.48
PFHpA	**15**	**4.3**
PFHxS	**11**	**4.3**
PFHxA	**40**	**17.4**
PFNA	**1.3J**	<0.79
PFOS	**14**	**3.6**
PFOA	**14**	**4.8**
PFTeDA	<0.48	<0.60
PFTrDA	<0.63	<0.62
PFUnA	<0.54	<0.49

Notes:
ng/L = nanograms per liter (parts per trillion)
< = compound below laboratory detection limit
Bold indicates laboratory detections
B=Analyte detected in the field blank
F/J = result is between laboratory limit of detection and laboratory limit of quantitation
D = dilution of sample aliquot
ES= NR 140 Enforcement Standard
PAL = NR 140 Preventive Action Limit
NE = NR 140 ES/PAL Not Established

ANALYTE ACRONYM (CAS) FULL NAME (CHAIN LENGTH)

11Cl-PF3OUdS (763051-92-9) 11-chloroeicosafluoro-3oxaundecane-1-sulfonic acid (C10)
4:2 FTSA (757124-72-4) 4:2 fluorotelomer sulfonate (C6)
6:2 FTSA (27619-97-2) 6:2 fluorotelomer sulfonate (C8)
8:2 FTSA (39108-34-4) 8:2 fluorotelomer sulfonate (C10)
9Cl-PF3ONS (756426-58-1) 9-clorohexadecafluoro-3-oxaneonane-1-sulfonic acid (C8)
ADONA (919005-14-4) 4,8-Dioxa-3H-perfluorononanoic acid (C7)
GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)
N-EtFOSA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)
N-EtFOSAA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)
N-EtFOSE (1691-99-2) N-ethylperfluorooctanesulfonamidoethanol (C12)
N-MeFOSA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)
N-MeFOSAA (2355-31-9) N-methyperfluorooctanesulfonamidoacetic Acid (C11)
N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)
PFBA (375-22-4) Perfluoroburanoic Acid (C4)
PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)
PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)
PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)
PFNS (68259-12-1) Perfluorononanesulfonic Acid (C9)
PFOSA (754-91-6) Perfluorooctainesulfonamide (C8)
PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)
PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)
PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)
PFDA (335-76-2) Perfluorodecanoic Acid (C10)
PFDoA (307-55-1) Perfluorododecanoic Acid (C12)
PFHpA (375-85-9) Perfluoroheptanoic Acid (C7)
PFHxS (355-46-4) Perfluorohexanesulfonic Acid (C6)
PFHxA (307-24-4) Perfluorohexanoic Acid (C6)
PFNA (375-95-1) Perfluorononanoic Acid (C9)
PFOS (1963-23-1) Perfluoroctanesulfonic Acid (C8)
PFOA (355-67-1) Perfluoroctanoic Acid (C8)
PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)
PFTrDA (72629-94-8) Perfluorotridecanoic Acid (C13)
PFUnA (2058-94-8) Perfluoroundecanoic Acid (C11)

TABLE A.1.
GROUNDWATER ANALYTICAL RESULTS
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
CLSE PROJECT # E2305.27

Monitoring Well	MW-15	
Lab	Pace Analytical	
Sampling Date	7/12/2022	7/24/2023
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)		
11Cl-PF3OUdS	<0.43	<0.56
4:2 FTSA	<0.55	<0.47
6:2 FTSA	**57**	**45.7**
8:2 FTSA	<0.65	<0.51
9Cl-PF3ONS	<0.3	<0.48
ADONA	<0.51	<0.93
GenX (HFPO-DA)	<0.52	<0.50
N-EtFOSA	<0.6	<0.58
N-EtFOSAA	<0.55	<0.83
N-EtFOSE	<0.49	<0.90
N-MeFOSA	<0.51	<0.56
N-MeFOSAA	<0.43	<0.70
N-MeFOSE	<0.33	<0.53
PFBA	**94**	**52.3**
PFDS	<0.45	<0.65
PFDoS	<0.46	<0.60
PFHpS	<0.41	<0.68
PFNS	<0.44	<0.60
PFOSA	<0.81	<0.73
PFPeA	**180**	**190**
PFPeS	**1.2J**	<0.61
PFBS	**5.2B**	**3.3**
PFDA	<0.56	<0.62
PFDoA	<0.48	<0.49
PFHpA	**18**	**19**
PFHxS	**3.9**	**0.89J**
PFHxA	**110**	**105**
PFNA	<0.73	<0.81
PFOS	<0.54	<0.68
PFOA	**3.3**	**1.1J**
PFTeDA	<0.47	<0.61
PFTrDA	<0.62	<0.63
PFUnA	<0.54	<0.49

Notes:
ng/L = nanograms per liter (parts per trillion)
< = compound below laboratory detection limit
Bold indicates laboratory detections
B=Analyte detected in the field blank
F/J = result is between laboratory limit of detection and laboratory limit of quantitation
D = dilution of sample aliquot
ES= NR 140 Enforcement Standard
PAL = NR 140 Preventive Action Limit
NE = NR 140 ES/PAL Not Established

ANALYTE ACRONYM (CAS) FULL NAME (CHAIN LENGTH)

11Cl-PF3OUdS (763051-92-9) 11-chloroeicosafluoro-3oxaundecane-1-sulfonic acid (C10)
4:2 FTSA (757124-72-4) 4:2 fluorotelomer sulfonate (C6)
6:2 FTSA (27619-97-2) 6:2 fluorotelomer sulfonate (C8)
8:2 FTSA (39108-34-4) 8:2 fluorotelomer sulfonate (C10)
9Cl-PF3ONS (756426-58-1) 9-clorohexadecafluoro-3-oxaneonane-1-sulfonic acid (C8)
ADONA (919005-14-4) 4,8-Dioxa-3H-perfluorononanoic acid (C7)
GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)
N-EtFOSA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)
N-EtFOSAA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)
N-EtFOSE (1691-99-2) N-ethylperfluorooctanesulfonamidoethanol (C12)
N-MeFOSA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)
N-MeFOSAA (2355-31-9) N-methyperfluorooctanesulfonamidoacetic Acid (C11)
N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)
PFBA (375-22-4) Perfluoroburanoic Acid (C4)
PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)
PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)
PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)
PFNS (68259-12-1) Perfluorononanesulfonic Acid (C9)
PFOSA (754-91-6) Perfluorooctainesulfonamide (C8)
PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)
PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)
PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)
PFDA (335-76-2) Perfluorodecanoic Acid (C10)
PFDoA (307-55-1) Perfluorododecanoic Acid (C12)
PFHpA (375-85-9) Perfluoroheptanoic Acid (C7)
PFHxS (355-46-4) Perfluorohexanesulfonic Acid (C6)
PFHxA (307-24-4) Perfluorohexanoic Acid (C6)
PFNA (375-95-1) Perfluorononanoic Acid (C9)
PFOS (1963-23-1) Perfluorooctanesulfonic Acid (C8)
PFOA (355-67-1) Perfluorooctanoic Acid (C8)
PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)
PFTrDA (72629-94-8) Perfluorotridecanoic Acid (C13)
PFUnA (2058-94-8) Perfluoroundecanoic Acid (C11)

TABLE A.1.
GROUNDWATER ANALYTICAL RESULTS
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
CLSE PROJECT # E2305.27

Monitoring Well	MW-16	
Lab	Pace Analytical	
Sampling Date	7/12/2022	7/24/2023
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)		
11Cl-PF3OUdS	<0.46	<0.55
4:2 FTSA	**1.2J**	**0.66J**
6:2 FTSA	**310D**	**224D**
8:2 FTSA	<0.69	<0.50
9Cl-PF3ONS	<0.32	<0.47
ADONA	<0.54	<0.91
GenX (HFPO-DA)	<0.56	<0.49
N-EtFOSA	<0.64	<0.57
N-EtFOSAA	<0.58	<0.81
N-EtFOSE	<0.52	<0.88
N-MeFOSA	<0.54	<0.55
N-MeFOSAA	<0.46	<0.69
N-MeFOSE	<0.35	<0.52
PFBA	**120**	**150**
PFDS	<0.47	<0.64
PFDoS	<0.48	<0.59
PFHpS	<0.43	<0.66
PFNS	<0.47	<0.58
PFOSA	<0.86	<0.71
PFPeA	**500D**	**633D**
PFPeS	<0.50	<0.6
PFBS	**6.6B**	**5.5**
PFDA	<0.59	<0.60
PFDoA	<0.51	<0.48
PFHpA	**80**	**64.5**
PFHxS	**0.59J**	<0.53
PFHxA	**290D**	**353D**
PFNA	**1.2J**	<0.79
PFOS	**1.4J**	**0.79J**
PFOA	**5.6**	**2.6**
PFTeDA	<0.66	<0.60
PFTrDA	<0.50	<0.62
PFUnA	<0.57	<0.48

Notes:
ng/L = nanograms per liter (parts per trillion)
< = compound below laboratory detection limit
Bold indicates laboratory detections
B=Analyte detected in the field blank
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ANALYTE ACRONYM (CAS) FULL NAME (CHAIN LENGTH)

11Cl-PF3OUdS (763051-92-9) 11-chloroeicosafluoro-3oxaundecane-1-sulfonic acid (C10)
4:2 FTSA (757124-72-4) 4:2 fluorotelomer sulfonate (C6)
6:2 FTSA (27619-97-2) 6:2 fluorotelomer sulfonate (C8)
8:2 FTSA (39108-34-4) 8:2 fluorotelomer sulfonate (C10)
9Cl-PF3ONS (756426-58-1) 9-clorohexadecafluoro-3-oxaneonane-1-sulfonic acid (C8)
ADONA (919005-14-4) 4,8-Dioxa-3H-perfluorononanoic acid (C7)
GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)
N-EtFOSA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)
N-EtFOSAA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)
N-EtFOSE (1691-99-2) N-ethylperfluorooctanesulfonamidoethanol (C12)
N-MeFOSA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)
N-MeFOSAA (2355-31-9) N-methyperfluorooctanesulfonamidoacetic Acid (C11)
N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)
PFBA (375-22-4) Perfluoroburanoic Acid (C4)
PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)
PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)
PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)
PFNS (68259-12-1) Perfluorononanesulfonic Acid (C9)
PFOSA (754-91-6) Perfluorooctainesulfonamide (C8)
PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)
PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)
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PFDA (335-76-2) Perfluorodecanoic Acid (C10)
PFDoA (307-55-1) Perfluorododecanoic Acid (C12)
PFHpA (375-85-9) Perfluoroheptanoic Acid (C7)
PFHxS (355-46-4) Perfluorohexanesulfonic Acid (C6)
PFHxA (307-24-4) Perfluorohexanoic Acid (C6)
PFNA (375-95-1) Perfluorononanoic Acid (C9)
PFOS (1963-23-1) Perfluoroctanesulfonic Acid (C8)
PFOA (355-67-1) Perfluoroctanoic Acid (C8)
PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)
PFTrDA (72629-94-8) Perfluorotridecanoic Acid (C13)
PFUnA (2058-94-8) Perfluoroundecanoic Acid (C11)

TABLE A.1.
GROUNDWATER ANALYTICAL RESULTS
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
CLSE PROJECT # E2305.27

Monitoring Well	MW-17	
Lab	Pace Analytical	
Sampling Date	7/12/2022	7/24/2023
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)		
11Cl-PF3OUdS	<0.43	<1.2
4:2 FTSA	<0.55	<0.97
6:2 FTSA	<0.64	<1.4
8:2 FTSA	<0.65	<1
9Cl-PF3ONS	<0.3	<0.98
ADONA	<0.51	<1.9
GenX (HFPO-DA)	<0.52	<1
N-EtFOSA	<0.60	<1.2
N-EtFOSAA	<0.55	<1.7
N-EtFOSE	<0.49	<1.8
N-MeFOSA	<0.51	<1.1
N-MeFOSAA	<0.43	<1.4
N-MeFOSE	<0.33	<1.1
PFBA	**11**	**14.7**
PFDS	<0.45	<1.3
PFDoS	<0.46	<1.2
PFHpS	<0.41	<1.4
PFNS	<0.44	<1.2
PFOSA	<0.81	<1.5
PFPeA	**0.82J**	<1.7
PFPeS	<0.47	<1.2
PFBS	**1.8B**	**1.4J**
PFDA	<0.56	<1.3
PFDoA	<0.48	<1
PFHpA	<0.55	<1.4
PFHxS	<0.5	<1.1
PFHxA	**0.6J**	<1.9
PFNA	<0.73	<1.6
PFOS	<0.54	<1.4
PFOA	**0.68J**	<1.8
PFTeDA	<0.47	<1.2
PFTrDA	<0.62	<1.3
PFUnA	<0.54	<1

Notes:
ng/L = nanograms per liter (parts per trillion)
< = compound below laboratory detection limit
Bold indicates laboratory detections
B=Analyte detected in the field blank
F/J = result is between laboratory limit of detection and laboratory limit of quantitation
D = dilution of sample aliquot
ES= NR 140 Enforcement Standard
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NE = NR 140 ES/PAL Not Established

ANALYTE ACRONYM (CAS) FULL NAME (CHAIN LENGTH)

11Cl-PF3OUdS (763051-92-9) 11-chloroeicosafluoro-3oxaundecane-1-sulfonic acid (C10)
4:2 FTSA (757124-72-4) 4:2 fluorotelomer sulfonate (C6)
6:2 FTSA (27619-97-2) 6:2 fluorotelomer sulfonate (C8)
8:2 FTSA (39108-34-4) 8:2 fluorotelomer sulfonate (C10)
9Cl-PF3ONS (756426-58-1) 9-clorohexadecafluoro-3-oxaneonane-1-sulfonic acid (C8)
ADONA (919005-14-4) 4,8-Dioxa-3H-perfluorononanoic acid (C7)
GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)
N-EtFOSA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)
N-EtFOSAA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)
N-EtFOSE (1691-99-2) N-ethylperfluorooctanesulfonamidoethanol (C12)
N-MeFOSA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)
N-MeFOSAA (2355-31-9) N-methyperfluorooctanesulfonamidoacetic Acid (C11)
N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)
PFBA (375-22-4) Perfluoroburanoic Acid (C4)
PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)
PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)
PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)
PFNS (68259-12-1) Perfluorononanesulfonic Acid (C9)
PFOSA (754-91-6) Perfluorooctainesulfonamide (C8)
PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)
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PFTrDA (72629-94-8) Perfluorotridecanoic Acid (C13)
PFUnA (2058-94-8) Perfluoroundecanoic Acid (C11)

TABLE A.1.
GROUNDWATER ANALYTICAL RESULTS
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
CLSE PROJECT # E2305.27

Monitoring Well	MW-18	MW-19	MW-20
Lab	Pace Analytical		
Sampling Date	11/29/2023		
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)			
11Cl-PF3OUdS	<0.52	<0.56	<0.57
4:2 FTSA	**12**	**9.2**	**97.5**
6:2 FTSA	**2,730**	**2,190**	**3,510**
8:2 FTSA	<0.48	<0.5	<0.51
9Cl-PF3ONS	<0.44	<0.47	<0.48
ADONA	<0.87	<0.92	<0.93
GenX (HFPO-DA)	<0.46	<0.49	<0.50
N-EtFOSA	<0.54	<0.57	<0.58
N-EtFOSAA	<0.77	<0.82	<0.83
N-EtFOSE	<0.84	<0.89	<0.90
N-MeFOSA	<0.52	<0.55	<0.56
N-MeFOSAA	<0.65	<0.69	<0.71
N-MeFOSE	<0.49	<0.52	<0.53
PFBA	**996**	**1,130**	**2,030**
PFDS	<0.6	<0.64	<0.65
PFDoS	<0.56	<0.59	<0.60
PFHpS	<0.63	<0.67	<0.68
PFNS	<0.55	<0.59	<0.60
PFOSA	<0.68	<0.72	<0.73
PFPeA	**5,450**	**6,050**	**7,330**
PFPeS	<0.57	<0.6	<0.61
PFBS	**7.4**	**43.1**	**31.9**
PFDA	<0.57	<0.61	<0.62
PFDoA	<0.45	<0.48	<0.49
PFHpA	**527**	**293**	**343**
PFHxS	**0.72J**	**0.75J**	**82.9**
PFHxA	**1,740**	**2,110**	**2,830**
PFNA	<0.75	<0.79	<0.81
PFOS	<0.63	<0.67	**94.5**
PFOA	**2.7**	**3.4**	**11**
PFTeDA	<0.57	<0.60	<0.61
PFTrDA	<0.59	<0.62	<0.63
PFUnA	<0.46	<0.49	<0.49

Notes:
ng/L = nanograms per liter (parts per trillion)
< = compound below laboratory detection limit
Bold indicates laboratory detections
B=Analyte detected in the field blank
F/J = result is between laboratory limit of detection and laboratory limit of quantitation
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ANALYTE ACRONYM (CAS) FULL NAME (CHAIN LENGTH)

11Cl-PF3OUdS (763051-92-9) 11-chloroeicosafluoro-3oxaundecane-1-sulfonic acid (C10)
4:2 FTSA (757124-72-4) 4:2 fluorotelomer sulfonate (C6)
6:2 FTSA (27619-97-2) 6:2 fluorotelomer sulfonate (C8)
8:2 FTSA (39108-34-4) 8:2 fluorotelomer sulfonate (C10)
9Cl-PF3ONS (756426-58-1) 9-clorohexadecafluoro-3-oxaneonane-1-sulfonic acid (C8)
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N-EtFOSAA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)
N-EtFOSE (1691-99-2) N-ethylperfluorooctanesulfonamidoethanol (C12)
N-MeFOSA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)
N-MeFOSAA (2355-31-9) N-methyperfluorooctanesulfonamidoacetic Acid (C11)
N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)
PFBA (375-22-4) Perfluoroburanoic Acid (C4)
PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)
PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)
PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)
PFNS (68259-12-1) Perfluorononanesulfonic Acid (C9)
PFOSA (754-91-6) Perfluorooctainesulfonamide (C8)
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TABLE A.1.
GROUNDWATER ANALYTICAL RESULTS
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
CLSE PROJECT # E2305.27

Monitoring Well	PZ-1		
Lab	Pace Analytical		
Sampling Date	6/2/2021	7/12/2022	7/24/2023
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)			
11Cl-PF3OUdS	<0.88	<0.49	<2.9
4:2 FTSA	<1.2	<0.62	<2.5
6:2 FTSA	**36**	**11**	**7.1J**
8:2 FTSA	<2.1	<0.73	<2.7
9Cl-PF3ONS	<0.64	<0.34	<2.5
ADONA	<0.64	<0.57	<4.8
GenX (HFPO-DA)	<2.8	<0.59	<2.6
N-EtFOSA	<1.8	<0.68	<3
N-EtFOSAA	<1	<0.62	<4.3
N-EtFOSE	<1.3	<0.55	<4.7
N-MeFOSA	<1.7	<0.57	<2.9
N-MeFOSAA	<1.2	<0.48	<3.7
N-MeFOSE	<1.7	<0.37	<2.7
PFBA	<0.8	<0.49	<2.6
PFDS	<1	<0.5	<3.4
PFDoS	<1.4	<0.51	<3.1
PFHpS	<0.66	<0.46	<3.5
PFNS	<0.95	<0.5	<3.1
PFOSA	<0.82	<0.91	<3.8
PFPeA	<0.72	**0.49J**	<4.3
PFPeS	<0.79	<0.53	<3.2
PFBS	<0.55	<0.53	<2.6
PFDA	<0.7	<0.63	<3.2
PFDoA	<0.63	<0.54	<2.5
PFHpA	<0.59	<0.61	<3.6
PFHxS	<0.73	<0.57	<2.8
PFHxA	**1.2J**	**0.72J**	<4.8
PFNA	<0.61	<0.82	<4.2
PFOS	<2.7	**0.73J**	<3.5
PFOA	<1.1	<0.65	<4.5
PFTeDA	<0.8	<0.53	<3.2
PFTrDA	<0.7	<0.69	<3.3
PFUnA	<0.83	<0.60	<2.6

Notes:
ng/L = nanograms per liter (parts per trillion)
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ANALYTE ACRONYM (CAS) FULL NAME (CHAIN LENGTH)

11Cl-PF3OUdS (763051-92-9) 11-chloroeicosafluoro-3oxaundecane-1-sulfonic acid (C10)
4:2 FTSA (757124-72-4) 4:2 fluorotelomer sulfonate (C6)
6:2 FTSA (27619-97-2) 6:2 fluorotelomer sulfonate (C8)
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N-EtFOSA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)
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N-MeFOSAA (2355-31-9) N-methyperfluorooctanesulfonamidoacetic Acid (C11)
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PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)
PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)
PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)
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PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)
PFTrDA (72629-94-8) Perfluorotridecanoic Acid (C13)
PFUnA (2058-94-8) Perfluoroundecanoic Acid (C11)

TABLE A.1.
GROUNDWATER ANALYTICAL RESULTS
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
CLSE PROJECT E2305.27

Monitoring Well	PZ-2	
Lab	Pace Analytical	
Sampling Date	7/12/2022	7/24/2023
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)		
11Cl-PF3OUdS	<0.47	<1.2
4:2 FTSA	<0.60	<1
6:2 FTSA	<0.69	<1.5
8:2 FTSA	<0.70	<1.1
9Cl-PF3ONS	<0.33	<1
ADONA	<0.55	<2
GenX (HFPO-DA)	<0.56	<1.1
N-EtFOSA	<0.65	<1.3
N-EtFOSAA	<0.59	<1.8
N-EtFOSE	<0.53	<2
N-MeFOSA	<0.55	<1.2
N-MeFOSAA	<0.46	<1.5
N-MeFOSE	<0.35	<1.1
PFBA	**0.60J**	<1.1
PFDS	<0.48	<1.4
PFDoS	<0.49	<1.3
PFHpS	<0.44	<1.5
PFNS	<0.48	<1.3
PFOSA	<0.87	<1.6
PFPeA	<0.47	<1.8
PFPeS	<0.51	<1.3
PFBS	<0.50	<1.1
PFDA	<0.60	<1.3
PFDoA	<0.52	<1.1
PFHpA	<0.59	<1.5
PFHxS	<0.54	<1.2
PFHxA	<0.47	<2
PFNA	<0.79	<1.7
PFOS	<0.58	<1.5
PFOA	<0.62	<1.9
PFTeDA	<0.51	<1.3
PFTrDA	<0.66	<1.4
PFUnA	<0.58	<1.1

Notes:
ng/L = nanograms per liter (parts per trillion)
< = compound below laboratory detection limit
Bold indicates laboratory detections
B=Analyte detected in the field blank
F/J = result is between laboratory limit of detection and laboratory limit of quantitation
D = dilution of sample aliquot
ES= NR 140 Enforcement Standard
PAL = NR 140 Preventive Action Limit
NE = NR 140 ES/PAL Not Established

ANALYTE ACRONYM (CAS) FULL NAME (CHAIN LENGTH)

11Cl-PF3OUdS (763051-92-9) 11-chloroeicosafluoro-3oxaundecane-1-sulfonic acid (C10)
4:2 FTSA (757124-72-4) 4:2 fluorotelomer sulfonate (C6)
6:2 FTSA (27619-97-2) 6:2 fluorotelomer sulfonate (C8)
8:2 FTSA (39108-34-4) 8:2 fluorotelomer sulfonate (C10)
9Cl-PF3ONS (756426-58-1) 9-clorohexadecafluoro-3-oxaneonane-1-sulfonic acid (C8)
ADONA (919005-14-4) 4,8-Dioxa-3H-perfluorononanoic acid (C7)
GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)
N-EtFOSA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)
N-EtFOSAA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)
N-EtFOSE (1691-99-2) N-ethylperfluorooctanesulfonamidoethanol (C12)
N-MeFOSA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)
N-MeFOSAA (2355-31-9) N-methyperfluorooctanesulfonamidoacetic Acid (C11)
N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)
PFBA (375-22-4) Perfluoroburanoic Acid (C4)
PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)
PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)
PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)
PFNS (68259-12-1) Perfluorononanesulfonic Acid (C9)
PFOSA (754-91-6) Perfluorooctainesulfonamide (C8)
PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)
PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)
PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)
PFDA (335-76-2) Perfluorodecanoic Acid (C10)
PFDoA (307-55-1) Perfluorododecanoic Acid (C12)
PFHpA (375-85-9) Perfluoroheptanoic Acid (C7)
PFHxS (355-46-4) Perfluorohexanesulfonic Acid (C6)
PFHxA (307-24-4) Perfluorohexanoic Acid (C6)
PFNA (375-95-1) Perfluorononanoic Acid (C9)
PFOS (1963-23-1) Perfluorooctanesulfonic Acid (C8)
PFOA (355-67-1) Perfluorooctanoic Acid (C8)
PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)
PFTrDA (72629-94-8) Perfluorotridecanoic Acid (C13)
PFUnA (2058-94-8) Perfluoroundecanoic Acid (C11)

TABLE A.1.
GROUNDWATER ANALYTICAL RESULTS
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
CLSE PROJECT # E2305.27

Monitoring Well	SUMP		
Lab	Pace Analytical		
Sampling Date	6/2/2021	7/12/2022	7/24/2023
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)			
11Cl-PF3OUdS	<31	<0.42	<0.55
4:2 FTSA	<41	<0.53	1.9
6:2 FTSA	**9,000**	**270D**	**3,420D**
8:2 FTSA	<75	**1.6J**	**9.2**
9Cl-PF3ONS	<22	<0.29	<0.46
ADONA	<23	<0.49	<0.90
GenX (HFPO-DA)	<97	<0.5	<0.48
N-EtFOSA	<63	<0.58	<0.56
N-EtFOSAA	<35	<0.53	<0.80
N-EtFOSE	<44	<0.47	<0.87
N-MeFOSA	<59	<0.49	<0.54
N-MeFOSAA	<43	<0.41	<0.68
N-MeFOSE	<60	<0.31	<0.51
PFBA	**910**	**33**	**261D**
PFDS	<36	<0.43	<0.63
PFDoS	<49	<0.44	<0.58
PFHpS	<23	<0.39	<0.66
PFNS	<33	<0.42	<0.58
PFOSA	<29	<0.78	<0.70
PFPeA	**5,900**	**110**	**1,740D**
PFPeS	<28	<0.45	<0.59
PFBS	<19	**1.3J**	**0.89J**
PFDA	<24	**1J**	**0.80J**
PFDoA	<22	<0.46	<0.47
PFHpA	**980**	**27**	**263D**
PFHxS	<26	<0.48	<0.52
PFHxA	**4,200**	**73**	**1,090D**
PFNA	<22	**1.3J**	**2.7**
PFOS	<93	**0.71J**	**0.99J**
PFOA	**53J**	**1.3J**	**9.7**
PFTeDA	<28	<0.45	<0.59
PFTrDA	<25	<0.59	<0.61
PFUnA	<29	<0.51	<0.48

Notes:
ng/L = nanograms per liter (parts per trillion)
< = compound below laboratory detection limit
Bold indicates laboratory detections
B=Analyte detected in the field blank
F/J = result is between laboratory limit of detection and laboratory limit of quantitation
D = dilution of sample aliquot
ES= NR 140 Enforcement Standard
PAL = NR 140 Preventive Action Limit
NE = NR 140 ES/PAL Not Established

ANALYTE ACRONYM (CAS) FULL NAME (CHAIN LENGTH)

11Cl-PF3OUdS (763051-92-9) 11-chloroeicosafluoro-3oxaundecane-1-sulfonic acid (C10)
4:2 FTSA (757124-72-4) 4:2 fluorotelomer sulfonate (C6)
6:2 FTSA (27619-97-2) 6:2 fluorotelomer sulfonate (C8)
8:2 FTSA (39108-34-4) 8:2 fluorotelomer sulfonate (C10)
9Cl-PF3ONS (756426-58-1) 9-clorohexadecafluoro-3-oxaneonane-1-sulfonic acid (C8)
ADONA (919005-14-4) 4,8-Dioxa-3H-perfluorononanoic acid (C7)
GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)
N-EtFOSA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)
N-EtFOSAA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)
N-EtFOSE (1691-99-2) N-ethylperfluorooctanesulfonamidoethanol (C12)
N-MeFOSA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)
N-MeFOSAA (2355-31-9) N-methyperfluorooctanesulfonamidoacetic Acid (C11)
N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)
PFBA (375-22-4) Perfluoroburanoic Acid (C4)
PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)
PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)
PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)
PFNS (68259-12-1) Perfluorononanesulfonic Acid (C9)
PFOSA (754-91-6) Perfluorooctainesulfonamide (C8)
PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)
PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)
PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)
PFDA (335-76-2) Perfluorodecanoic Acid (C10)
PFDoA (307-55-1) Perfluorododecanoic Acid (C12)
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PFHxS (355-46-4) Perfluorohexanesulfonic Acid (C6)
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TABLE A.1.
GROUNDWATER ANALYTICAL RESULTS
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
GEC PROJECT # 2-0919-397B

Monitoring Well	POND		
Lab	Pace Analytical		
Sampling Date	6/2/2021	7/12/2022	7/24/2023
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)			
11Cl-PF3OUdS	<2.9	<0.43	<5.5D
4:2 FTSA	<3.9	**99**	<4.6D
6:2 FTSA	**470**	**4,200D**	**388D**
8:2 FTSA	<7.1	<0.64	<5D
9Cl-PF3ONS	<2.1	<0.3	<4.6D
ADONA	<2.1	<0.5	<9D
GenX (HFPO-DA)	<9.2	**0.64J**	<4.9D
N-EtFOSA	<6	<0.59	<5.6D
N-EtFOSAA	<3.3	<0.54	<8D
N-EtFOSE	<4.2	<0.48	<8.7D
N-MeFOSA	<5.6	<0.5	<5.4D
N-MeFOSAA	<4.1	<0.42	<6.8D
N-MeFOSE	<5.7	<0.32	<5.1D
PFBA	**180**	**5,600D**	**160D**
PFDS	<3.4	<0.44	<6.3D
PFDoS	<4.6	<0.45	<5.8D
PFHpS	<2.2	<0.4	<6.6D
PFNS	<3.1	<0.44	<5.8D
PFOSA	<2.7	<0.8	<7.1D
PFPeA	**980**	**35,000D**	**674D**
PFPeS	<2.6	<0.46	<5.9D
PFBS	**12J**	**14**	**8.7J,D**
PFDA	<2.3	<0.55	<6D
PFDoA	<2.1	<0.47	<4.7D
PFHpA	**190**	**2,600D**	**132D**
PFHxS	<2.4	**4**	<5.2D
PFHxA	**640**	**17,000 I,D**	**361D**
PFNA	<2	**1.6J**	<7.8D
PFOS	<8.8	**1.9**	<6.6D
PFOA	**4.7J**	***83***	<8.5D
PFTeDA	<2.6	<0.46	<5.9D
PFTrDA	<2.3	<0.61	<6.1D
PFUnA	<2.8	<0.53	<4.8D

Notes:
ng/L = nanograms per liter (parts per trillion)
< = compound below laboratory detection limit
Bold indicates laboratory detections
B=Analyte detected in the field blank
F/J = result is between laboratory limit of detection and laboratory limit of quantitation
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8:2 FTSA (39108-34-4) 8:2 fluorotelomer sulfonate (C10)
9Cl-PF3ONS (756426-58-1) 9-clorohexadecafluoro-3-oxaneonane-1-sulfonic acid (C8)
ADONA (919005-14-4) 4,8-Dioxa-3H-perfluorononanoic acid (C7)
GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)
N-EtFOSA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)
N-EtFOSAA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)
N-EtFOSE (1691-99-2) N-ethylperfluorooctanesulfonamidoethanol (C12)
N-MeFOSA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)
N-MeFOSAA (2355-31-9) N-methyperfluorooctanesulfonamidoacetic Acid (C11)
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PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)
PFTrDA (72629-94-8) Perfluorotridecanoic Acid (C13)
PFUnA (2058-94-8) Perfluoroundecanoic Acid (C11)

TABLE A.2.
SOIL ANALYTICAL RESULTS TABLE
THE SOLBERG COMPANY - SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
CLSE PROJECT # E2305.27

Boring	Industrial Direct Contact RCL	Non-Industrial Direct Contact RCL	B-4	B-5	B-6	B-7	B-8	B-9	B-10	B-11	B-12
Depth			1-1.5 (U/S)	0.5-1 (U)	2.5-3 (S)	0.5-1 (U/S)	0.5-1 (U)	0.25-1 (U)	0.5-1 (U)	0.5 - 1 (U)	2-2.5 (U/S)
Sampling Date			5/26/2021	5/25/2021	5/25/2021	5/25/2021	5/26/2021	5/26/2021	5/26/2021	5/26/2021	5/26/2021
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/g UNITS)											
PFPeA	NE	NE	<0.366	**1.13**	**0.312F**	**3.82**	**6.53**	**3.29**	**2.66**	**15.2**	**1.96**
PFBS	16,400,000	1,260,000	<0.288	<0.263	<0.236	<0.285	<0.265	<0.279	<0.295	<0.363	<0.299
4:2 FTSA	NE	NE	<0.266	<0.243	<0.217	<0.263	<0.244	<0.257	<0.273	<0.335	<0.276
PFHxA	NE	NE	<0.363	**1.15**	<0.296	**2.28**	**3.3**	**3.8**	**3.29**	**9.19**	**3.97**
PFPeS	NE	NE	<0.311	<0.284	<0.254	<0.307	<0.285	<0.300	<0.318	<0.392	<0.322
PFHpA	NE	NE	<0.343	**0.565F**	<0.280	**0.639F**	**1.25**	**1.85**	**2.59**	**9.34**	**1.23**
HFPO-DA (GenX)	NE	NE	<0.267	<0.244	<0.218	<0.264	<0.245	<0.258	<0.274	<0.337	<0.277
PFHxS	NE	NE	<0.346	<0.316	<0.282	<0.341	<0.318	<0.334	<0.354	<0.436	<0.359
DONA	NE	NE	<0.320	<0.293	<0.262	<0.316	<0.294	<0.310	<0.328	<0.404	<0.332
6:2 FTSA	NE	NE	<0.336	**0.543F**	**0.766F**	**2.01**	**33.8**	<0.325	**0.654F**	**1.35**	**63.8**
PFOA	16,400	1,260	<0.339	<0.310	<0.277	<0.335	<0.312	<0.328	<0.348	<0.428	<0.352
PFHpS	NE	NE	<0.368	<0.336	<0.3	<0.363	<0.338	<0.356	<0.377	<0.464	<0.382
PFOS	16,400	1,260	<0.363	<0.331	<0.296	<0.358	<0.333	**0.446F**	<0.371	<0.457	<0.376
PFNA	NE	NE	<0.308	<0.281	<0.251	<0.303	<0.282	<0.297	<0.315	<0.388	<0.319
9Cl-PF3ONS	NE	NE	<0.343	<0.313	<0.280	<0.338	<0.315	<0.331	<0.351	<0.432	<0.355
8:2 FTSA	NE	NE	<0.421	<0.385	<0.344	<0.415	<0.387	<0.407	<0.431	<0.530	<0.437
PFDA	NE	NE	<0.346	<0.316	<0.282	<0.341	<0.318	<0.334	<0.354	<0.436	<0.359
PFNS	NE	NE	<0.306	<0.280	<0.250	<0.302	<0.281	<0.296	<0.314	<0.386	<0.318
N-MeFOSAA	NE	NE	<0.481	<0.440	<0.393	<0.475	<0.442	<0.466	<0.493	<0.607	<0.499
N-EtFOSAA	NE	NE	<0.303	<0.277	<0.248	<0.299	<0.279	<0.293	<0.311	<0.382	<0.315
FOSA	NE	NE	<0.347	<0.317	<0.283	<0.342	<0.319	<0.335	<0.355	<0.437	<0.360
PFUnA	NE	NE	<0.289	<0.264	<0.236	<0.286	<0.266	<0.280	<0.297	<0.365	<0.300
PFDS	NE	NE	<0.308	<0.281	<0.251	<0.303	<0.282	<0.297	<0.315	<0.388	<0.319
11Cl-PF3OUdS	NE	NE	<0.328	<0.299	<0.268	<0.323	<0.301	<0.317	<0.336	<0.413	<0.340
PFDoA	NE	NE	<0.405	<0.370	<0.331	<0.400	<0.372	<0.392	<0.415	<0.510	<0.420
10:2 FTSA	NE	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR
PFDoS	NE	NE	<0.387	<0.354	<0.316	<0.382	<0.356	<0.374	<0.396	<0.488	<0.402
PFTrDA	NE	NE	<0.365	<0.333	<0.298	<0.360	<0.335	<0.353	<0.374	<0.460	<0.378
N-MeFOSA	NE	NE	<0.394	<0.360	<0.322	<0.389	<0.362	<0.382	<0.404	<0.497	<0.409
N-MeFOSE	NE	NE	<0.468	<0.427	<0.382	<0.461	<0.430	<0.452	<0.479	<0.589	<0.485
N-EtFOSA	NE	NE	<0.252	<0.231	<0.206	<0.249	<0.232	<0.244	<0.259	<0.318	<0.262
N-EtFOSE	NE	NE	<0.378	<0.345	<0.308	<0.372	<0.347	<0.365	<0.387	<0.476	<0.392
PFTeDA	NE	NE	<0.367	<0.335	<0.300	<0.362	<0.337	<0.355	<0.376	<0.476	<0.381
PFHxDA	NE	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR
PFODA	NE	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR
PFBA	NE	NE	<0.616	<0.563	<0.503	<0.608	**0.929F**	<0.596	<0.631	**3.30F**	<0.639

NE - Standard Not Established NR-Not Reported
ng/g - parts per billion U=Unsaturated S=Saturated
< = compound below laboratory detection limit
Bold indicates laboratory detections F=Result Is Between Limit of Detection and Limit of Quantitation
PFOA = Perfluorooctanoic Acid (C8) Soil Samples Collected by General Engineering Company
PFOS = Perfluorooctanesulfonic Acid (C8)
PFBS = Perfluorobutanesulfonic Acid (C4)
PFHpA = Perfluoroheptanoic Acid (C7)
PFHxS = Perfluorohexanesulfonic Acid (C6)
PFNA = Perfluorononanoic Acid (C9)
PFDA = Perfluorodecanoic Acid (C10)
PFDoA = Perfluorododecanoic Acid (C12)
PFHxA: Perfluorohexanoic Acid (C6)
PFTeDA = Perfluorotetradecanoic Acid (C14)
PFTrDA = Perfluorotridecanoic Acid (C13)
PFUnA = Perfluoroundecanoic Acid (C11)
NEtFOSAA = N-ethylperfluorooctanesulfonamidoacetic Acid (C12)
NMeFOSAA = N-methyperfluorooctanesulfonamidoacetic Acid (C11)
PFBA = Perfluoroburanoic Acid (C4)
PFPeA = Perfluoropentanoic Acid (C5)
PFHxDA = Perfluoro-n-hexadecanoic Acid (C16)
PFODA = Perfluoro-n-octadecanoic Acid (C18)
PFPeS = Perfluoropentanesulfonic Acid (C5)
PFHpS = Perfluoroheptanesulfonic Acid (C7)
PFNS = Perfluorononanesulfonic Acid (C9)
PFDS = Perfluorodecanesulfonic Acid (C10)
PFDoS = Perfluorododecanesulfonic Acid (C12)
FOSA = Perfluorooctainesulfonamide (C8)
NEtFOSA = N-ethylperfluorooctanesulfonamide (C10)
NMeFOSA = N-methylperfluorooctanesulfonamide (C9)
NMeFOSE = N-methylperfluorooctanesulfonamidoethanol (C11)
NEtFOSE = N-ethylperfluorooctanesulfonamidoethanol (C12)
4:2 FTSA = 4:2 fluorotelomer sulfonate (C6)
6:2 FTSA = 6:2 fluorotelomer sulfonate (C8)
8:2 FTSA = 8:2 fluorotelomer sulfonate (C10)
10:2 FTSA = 10:2 fluorotelomer sulfonate (C12)
DONA = 4,8-Dioxa-3H-perfluorononanoic acid (C7)
HFPO-DA (GenX) = Hexafluoropropylene oxide dimer acid (C6)
9Cl-PF3ONS = 9-clorohexadecafluoro-3-oxaneonane-1-sulfonic acid (C8)
11Cl-PF3OUdS = 11-chloroeicosafluoro-3oxaundecane-1-sulfonic acid (C10)

TABLE A.2.
SOIL ANALYTICAL RESULTS TABLE
THE SOLBERG COMPANY - SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
CLSE PROJECT # E2305.27

Boring	Industrial Direct Contact RCL	Non-Industrial Direct Contact RCL	B-13	B-14	B-17	B-18	B-19	B-20	B-21	B-22
Depth (Feet)			1 (U)	0.5 (U)	1 (U)	0.5 (U)	0.5 (U)	0.5-1 (U)	0.5-1 (U)	1-2 (U)
Sampling Date			7/11/2022	7/11/2022	7/11/2022	7/11/2022	7/11/2022	11/14/2023	11/14/2023	11/14/2023
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/g UNITS)										
PFPeA	NE	NE	<0.368	<0.405	<0.325	<0.402	<0.361	**3.2**	**0.68**	**1.4**
PFBS	16,400,000	1,260,000	<0.290	<0.319	<0.256	<0.317	<0.285	**0.071J**	<0.029	<0.031
4:2 FTSA	NE	NE	<0.268	<0.294	<0.236	<0.292	<0.263	<0.026	<0.025	<0.027
PFHxA	NE	NE	<0.365	<0.401	<0.322	<0.398	<0.358	**3.3**	**0.47**	**1.1**
PFPeS	NE	NE	<0.313	<0.344	<0.276	<0.341	<0.307	<0.027	<0.026	<0.028
PFHpA	NE	NE	<0.345	<0.379	<0.304	<0.376	<0.338	**4.2**	**0.3**	**0.84**
HFPO-DA (GenX)	NE	NE	<0.269	<0.295	<0.237	<0.294	<0.264	<0.031	<0.030	<0.032
PFHxS	NE	NE	<0.348	<0.382	<0.307	<0.380	<0.341	<0.025	<0.024	<0.026
DONA	NE	NE	<0.322	<0.354	<0.284	<0.352	<0.316	<0.041	<0.040	<0.042
6:2 FTSA	NE	NE	<0.338	<0.372	<0.298	<0.369	<0.332	**3.4**	<0.045	<0.048
PFOA	16,400	1,260	<0.341	<0.375	<0.301	<0.373	<0.335	**0.081J**	<0.034	<0.036
PFHpS	NE	NE	<0.370	<0.407	<0.327	<0.404	<0.363	<0.031	<0.030	<0.032
PFOS	16,400	1,260	<0.365	<0.401	<0.322	<0.398	<0.358	**0.091J**	**0.044J**	**0.13**
PFNA	NE	NE	<0.309	<0.340	<0.273	<0.338	<0.304	**0.052J**	<0.034	<0.036
9Cl-PF3ONS	NE	NE	<0.345	<0.379	<0.304	<0.376	<0.338	<0.028	<0.027	<0.029
8:2 FTSA	NE	NE	<0.424	<0.466	<0.374	<0.463	<0.416	<0.050	<0.048	<0.051
PFDA	NE	NE	<0.348	<0.382	<0.307	<0.380	<0.341	<0.026	<0.025	<0.027
PFNS	NE	NE	<0.308	<0.339	<0.272	<0.337	<0.303	<0.039	<0.038	<0.040
N-MeFOSAA	NE	NE	<0.484	<0.532	<0.427	<0.529	<0.475	<0.032	<0.031	<0.033
N-EtFOSAA	NE	NE	<0.305	<0.335	<0.269	<0.333	<0.299	<0.045	<0.044	<0.047
FOSA	NE	NE	<0.349	<0.383	<0.308	<0.381	<0.342	<0.033	<0.032	<0.034
PFUnA	NE	NE	<0.291	<0.320	<0.257	<0.318	<0.286	<0.034	<0.033	<0.035
PFDS	NE	NE	<0.309	<0.340	<0.273	<0.338	<0.304	<0.032	<0.031	<0.033
11Cl-PF3OUdS	NE	NE	<0.330	<0.362	<0.291	<0.360	<0.323	<0.029	<0.028	<0.029
PFDoA	NE	NE	<0.408	<0.448	<0.360	<0.445	<0.400	<0.037	<0.036	<0.038
10:2 FTSA	NE	NE	NR	NR	NR	NR	NR	NR	NR	NR
PFDoS	NE	NE	<0.390	<0.428	<0.344	<0.425	<0.382	<0.029	<0.028	<0.030
PFTrDA	NE	NE	<0.367	<0.403	<0.324	<0.401	<0.360	<0.036	<0.035	<0.037
N-MeFOSA	NE	NE	<0.397	<0.436	<0.350	<0.433	<0.389	<0.031	<0.030	<0.032
N-MeFOSE	NE	NE	<0.471	<0.517	<0.415	<0.514	<0.462	<0.034	<0.033	<0.035
N-EtFOSA	NE	NE	<0.254	<0.279	<0.224	<0.277	<0.249	<0.029	<0.028	<0.030
N-EtFOSE	NE	NE	<0.380	<0.417	<0.335	<0.415	<0.373	<0.036	<0.035	<0.038
PFTeDA	NE	NE	<0.369	<0.406	<0.326	<0.403	<0.362	<0.039	<0.037	<0.040
PFHxDA	NE	NE	NR	NR	NR	NR	NR	NR	NR	NR
PFODA	NE	NE	NR	NR	NR	NR	NR	NR	NR	NR
PFBA	NE	NE	<0.620	<0.681	<0.547	<0.677	<0.608	**0.61**	**0.21**	**0.37**

NE - Standard Not Established NR-Not Reported
ng/g - parts per billion U=Unsaturated S=Saturated
< = compound below laboratory detection limit
Bold indicates laboratory detections F=Result Is Between Limit of Detection and Limit of Quantitation
Soil Samples B-13 to B-19 Collected by General Engineering Company

PFOA = Perfluoroctanoic Acid (C8)
PFOS = Perfluoroctanesulfonic Acid (C8)
PFBS = Perfluorobutanesulfonic Acid (C4)
PFHpA = Perfluoroheptanoic Acid (C7)
PFHxS = Perfluorohexanesulfonic Acid (C6)
PFNA = Perfluorononanoic Acid (C9)
PFDA = Perfluorodecanoic Acid (C10)
PFDoA = Perfluorododecanoic Acid (C12)
PFHxA: Perfluorohexanoic Acid (C6)
PFTeDA = Perfluorotetradecanoic Acid (C14)
PFTrDA = Perfluorotridecanoic Acid (C13)
PFUnA = Perfluoroundecanoic Acid (C11)
NEtFOSAA = N-ethylperfluorooctanesulfonamidoacetic Acid (C12)
NMeFOSAA = N-methyperfluorooctanesulfonamidoacetic Acid (C11)
PFBA = Perfluoroburanoic Acid (C4)
PFPeA = Perfluoropentanoic Acid (C5)
PFHxDA = Perfluoro-n-hexadecanoic Acid (C16)
PFODA = Perfluoro-n-octadecanoic Acid (C18)
PFPeS = Perfluoropentanesulfonic Acid (C5)
PFHpS = Perfluoroheptanesulfonic Acid (C7)
PFNS = Perfluorononanesulfonic Acid (C9)
PFDS = Perfluorodecanesulfonic Acid (C10)
PFDoS = Perfluorododecanesulfonic Acid (C12)
FOSA = Perfluorooctainesulfonamide (C8)
NEtFOSA = N-ethylperfluorooctanesulfonamide (C10)
NMeFOSA = N-methylperfluorooctanesulfonamide (C9)
NMeFOSE = N-methylperfluorooctanesulfonamidoethanol (C11)
NEtFOSE = N-ethylperfluorooctanesulfonamidoethanol (C12)
4:2 FTSA = 4:2 fluorotelomer sulfonate (C6)
6:2 FTSA = 6:2 fluorotelomer sulfonate (C8)
8:2 FTSA = 8:2 fluorotelomer sulfonate (C10)
10:2 FTSA = 10:2 fluorotelomer sulfonate (C12)
DONA = 4,8-Dioxa-3H-perfluorononanoic acid (C7)
HFPO-DA (GenX) = Hexafluoropropylene oxide dimer acid (C6)
9Cl-PF3ONS = 9-clorohexadecafluoro-3-oxaneonane-1-sulfonic acid (C8)
11Cl-PF3OUdS = 11-chloroeicosafluoro-3oxaundecane-1-sulfonic acid (C10)

TABLE A.6
WATER LEVEL ELEVATIONS
THE SOLBERG COMPANY - SITE 2 - 1520 BROOKFIELD AVENUE
CLSE PROJECT NO. E2305.27

Monitoring Well Number	Top of Well Casing Elevation (MSL)	Ground Surface Elevation (MSL)	Screened Interval Elevation (MSL)	Date Measured	Depth To Water Below Top Of Casing (Ft.)	Groundwater Elevation (Ft.) (MSL)
MW-1	590.63	588.80	585.58 575.58	11/26/2019	2.61	588.02
				12/13/2019	2.70	587.93
				3/24/2020	2.65	587.98
				6/11/2020	2.68	587.95
				10/12/2020	6.48	584.15
				6/2/2021	4.12	586.51
				5/13/2022	4.55	586.08
				7/12/2022	5.12	585.51
				7/24/2023	7.23	583.40
				10/9/2023	8.00	582.63
MW-2	590.84	588.96	585.79 575.79	11/26/2019	3.01	587.83
				12/13/2019	3.03	587.81
				3/24/2020	3.00	587.84
				6/11/2020	3.06	587.78
				10/12/2020	6.69	584.15
				6/2/2021	3.85	586.99
				5/13/2022	4.85	585.99
				7/12/2022	5.24	585.60
				7/24/2023	7.39	583.45
				10/9/2023	8.27	582.57
MW-3	590.88	588.95	585.83 575.83	11/26/2019	3.01	587.87
				12/13/2019	3.03	587.85
				3/24/2020	3.00	587.88
				6/11/2020	3.06	587.82
				10/12/2020	6.69	584.19
				6/2/2021	3.98	586.90
				5/13/2022	4.35	586.53
				7/12/2022	4.41	586.47
				7/24/2023	6.19	584.69
				10/9/2023	7.26	583.62
MW-4	589.93	587.62	583.27 573.27	5/26/2021	3.65	586.28
				6/2/2021	3.12	586.81
				7/12/2022	3.66	586.27
				7/24/2023	5.27	584.66
				10/9/2023	6.73	583.20
MW-5	589.78	588.06	585.48 575.48	5/26/2021	2.94	586.84
				6/2/2021	2.65	587.13
				7/12/2022	3.10	586.68
				7/24/2023	4.89	584.89
MW-6	589.9	588.09	583.13 573.13	5/26/2021	3.12	586.78
				6/2/2021	2.32	587.58
				7/12/2022	3.19	586.71
				7/24/2023	6.37	583.53
MW-7	589.61	587.31	584.68 574.68	5/26/2021	2.95	586.66
				6/2/2021	2.85	586.76
				7/12/2022	3.09	586.52
				7/24/2023	4.32	585.29
MW-8	590.27	588.4	585.33 575.33	5/26/2021	4.06	586.21
				6/2/2021	3.49	586.78
				7/12/2022	3.79	586.48
				7/24/2023	5.13	585.14
MW-9	590.2	588.02	585.33 575.33	5/26/2021	5.01	585.19
				6/2/2021	4.08	586.12
				7/12/2022	4.91	585.29
				7/24/2023	6.91	583.29
				10/9/2023	7.67	582.53
MW-10	590.41	588.3	585.37 575.37	5/27/2021	5.69	584.72
				6/2/2021	3.84	586.57
				7/12/2022	4.73	585.68
				7/24/2023	7.46	582.95
				10/9/2023	8.14	582.27
MW-11	590.46	588.4	585.47 575.47	5/27/2021	5.30	585.16
				6/2/2021	4.21	586.25
				5/13/2022	4.55	585.91
				7/12/2022	5.06	585.40
				7/24/2023	7.37	583.09
				10/9/2023	8.03	582.43

Elevations are referenced to Mean Sea Level (MSL).
ft = feet

TABLE A.6
WATER LEVEL ELEVATIONS
THE SOLBERG COMPANY - SITE 2 - 1520 BROOKFIELD AVENUE
CLSE PROJECT NO. E2305.27

Monitoring Well Number	Top of Well Casing Elevation (MSL)	Ground Surface Elevation (MSL)	Screened Interval Elevation (MSL)	Date Measured	Depth To Water Below Top Of Casing (Ft.)	Groundwater Elevation (Ft.) (MSL)
MW-12	590.74	588.37	585.22	7/11/2022	4.40	586.34
				7/12/2022	4.56	586.18
				7/24/2023	7.49	583.25
			575.22			
MW-13	590.86	588.32	585.19	7/11/2022	5.26	585.60
				7/12/2022	5.34	585.52
				7/24/2023	7.73	583.13
			575.19			
MW-14	588	588.43	586.73	7/11/2022	1.57	586.43
				7/12/2022	1.69	586.31
				7/24/2023	3.90	584.10
			576.73			
MW-15	587.73	588.24	584.8	7/11/2022	1.88	585.85
				7/12/2022	2.00	585.73
				7/24/2023	4.59	583.14
			574.8			
MW-16	591.63	589.46	586.03	7/11/2022	7.85	583.78
				7/12/2022	5.09	586.54
				7/24/2023	6.38	585.25
			576.03			
MW-17	590.52	589.46	584.74	7/11/2022	3.50	587.02
				7/12/2022	3.74	586.78
				7/24/2023	7.57	582.95
			574.74			
MW-18	590.89	NA	588.07	11/16/2023	5.50	585.39
				11/29/2023	5.66	585.23
			578.07			
MW-19	591.83	NA	589.05	11/16/2023	6.60	585.23
				11/29/2023	6.73	585.10
			579.05			
MW-20	592.67	NA	589.84	11/16/2023	7.68	584.99
				11/29/2023	7.75	584.92
			579.84			
PZ-1	590.92	588.56	566.47	5/27/2021	5.39	585.53
				6/2/2021	4.40	586.52
				7/12/2022	4.55	586.37
				7/24/2023	6.41	584.51
			561.47			
PZ-2	590.68	588.32	565.05	7/11/2022	11.35	579.33
				7/12/2022	4.98	585.70
				7/24/2023	7.43	583.25
			560.05			

Elevations are referenced to Mean Sea Level (MSL).
ft = feet

APPENDIX C

POTABLE WELL CONSTRUCTION LOGS

BN-662-U

State of Wisconsin
Department of Natural Resources
Box 450
Madison, Wisconsin 53701

NOTE:
White Copy – Division's Copy
Green Copy – Driller's Copy
Yellow Copy – Owner's Copy

WELL CONSTRUCTOR'S REPORT
Form 3300–15
Rev. 10–75

JAN 22 1979

1. COUNTY: BROWN

CHECK (✓) ONE: ☐ Town ☒ Village ☐ City Name: HOWARD

2. LOCATION: SE SE NW ¼ Section: SE | Section: 3 | Township: 24N | Range: 20E

OR – Grid or Street No. | Street Name: BROOK FIELD

AND – If available subdivision name, lot & block No.

3. NAME ☒ OWNER ☐ AGENT AT TIME OF DRILLING CHECK (✓) ONE: DAVID PLATTEN

ADDRESS: SYRINGA

POST OFFICE: GREEN BAY, WI.

4. Distance in feet from well to nearest: (Record answer in appropriate block)

Building	Sanitary Bldg. Drain		Sanitary Bldg. Sewer		Floor Drain Connected To:		Storm Bldg. Drain		Storm Bldg. Sewer	
	C.I.	Other	C.I.	Other	C.I. Sewer	Other Sewer	C.I.	Other	C.I.	Other
14'										

Street Sewer		Other Sewers		Foundation Drain Connected to:				Sewage Sump		Clearwater Sump	Septic Tank	Holding Tank	Sewage Absorption Unit	
San.	Storm	C.I.	Other	Sewer		Sewage Sump		C.I.	Other		NOT IN		Seepage Pit	
				Clearwater Dr.		Clearwater Sump							Seepage Bed	
													Seepage Trench	

Privy	Pet Waste Pit	Pit: Nonconforming Existing		Subsurface Pumproom Nonconforming Existing	Barn Gutter	Animal Barn Pen	Animal Yard	Silo With Pit	Glass Lined Storage Facility	Silo w/o Pit	Earthen Silage Storage Trench Or Pit
		Well									
		Pump									
		Tank									

Temporary Manure Stack	Watertight Liquid Manure Tank	Solid Manure Storage Structure	Subsurface Gasoline or Oil Tank	Waste Pond or Land Disposal Unit (Specify Type)	Other (Give Description)

5. Well is intended to supply water for: HOME

6. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
10	Surface	20			
6	20	63			

7. CASING, LINER, CURBING AND SCREEN
Material, Weight, Specification & Method of Assembly

Dia. (in.)	Material, Weight, Specification & Method of Assembly	From (ft.)	To (ft.)
6	NEW BLACK STEEL CASING T+C 1945 #/PER FT TESTED 1200 PSI. ASTM A-53 REPUBLIC STEEL	Surface	56

8. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
POOLED CLAY	Surface	20

9. FORMATIONS

Kind	From (ft.)	To (ft.)
SAND	Surface	10
CLAY	10	56
LIMESTONE	56	63

BN 4665

10. TYPE OF DRILLING MACHINE USED

☒ Cable Tool
☐ Rotary-air w/drilling mud
☐ Rotary-w/drilling mud
☐ Rotary-hammer w/drilling mud & air
☐ Rotary-hammer & air
☐ Reverse Rotary
☐ Jetting with: ☐ Air ☐ Water

Well construction completed on 11 / 19 / 1978

11. MISCELLANEOUS DATA

Yield Test: 8 Hrs. at 10 GPM

Depth from surface to normal water level 20 Ft.

Depth of water level when pumping 40 Ft. Stabilized ☒ Yes ☐ No

Well is terminated 18" inches ☒ above ☐ below final grade

Well disinfected upon completion ☒ Yes ☐ No

Well sealed watertight upon completion ☒ Yes ☐ No

Water sample sent to MADISON laboratory on 10 / 18 / 1978

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.

Signature: Leo Lee Murphy Registered Well Driller

Complete Mail Address: RS SHORT OR
OSPERE, WI. 54115

2 1978

State of Wisconsin
Department of Natural Resources
Box 7921
Madison, Wisconsin 53707

NOTE:
White Copy – Division's Copy
Green Copy – Driller's Copy
Yellow Copy – Owner's Copy

WELL CONSTRUCTOR'S REPORT
Form 3300–15 Rev 12-76

BN-663-U

1 COUNTY: Brown

CHECK (✓) ONE: ☐ Town ☒ Village ☐ City — Name: Howard

2 LOCATION: ¼ Section ✓: SE¼-NE¼ | Section: 3 | Township: 24N | Range: 20E

OR – Grid or Street No. | Street Name

AND – If available subdivision name, lot & block No.

3. NAME ☐ OWNER ☒ AGENT AT TIME OF DRILLING CHECK (✓) ONE: T & J Homes

ADDRESS: 190 Sun-Lite Dr.

POST OFFICE: Oneida, Wis. 54155

4 **Distance in feet from well to nearest:** (Record answer in appropriate block)

Building	Sanitary Bldg. Drain		Sanitary Bldg Sewer		Floor Drain Connected To		Storm Bldg. Drain		Storm Bldg Sewer	
	C.I	Other	C I	Other	C I Sewer	Other Sewer	C.I	Other	C I.	Other
10			50							

Street Sewer		Other Sewers		Foundation Drain Connected to:				Sewage Sump		Clearwater Sump	Septic Tank	Holding Tank	Sewage Absorption Unit	
San	Storm	C.I	Other	Sewer		Sewage Sump		C I	Other				Seepage Pit	
				Clearwater Dr.		Clearwater Sump	10			55	60		Seepage Bed	
													Seepage Trench	

Privy	Pet Waste Pit	Pit Nonconforming Existing		Subsurface Pumproom Nonconforming Existing	Barn Gutter	Animal Barn Pen	Animal Yard	Silo With Pit	Glass Lined Storage Facility	Silo w/o Pit	Earthen Silage Storage Trench Or Pit
		Well									
		Pump									
		Tank									

Temporary Manure Stack	Watertight Liquid Manure Tank	Solid Manure Storage Structure	Subsurface ~~Gasoline or~~ Oil Tank	Waste Pond or Land Disposal Unit (Specify Type)	Other (Give Description)
			Resident 27		

5. **Well is intended to supply water for:** Home

6 **DRILLHOLE**

Dia (in)	From (ft)	To (ft.)	Dia (in)	From (ft.)	To (ft.)
8 3/4	Surface	66			
6	66	185			

7. **CASING, LINER, CURBING AND SCREEN**

Dia (in)	Material, Weight, Specification & Method of Assembly	From (ft.)	To (ft)
6	New, black steel 18.97 lbs/ft.	Surface	66
	A 53 Grade B		
	PE		
	Sumitomo Metal I.		

8 **GROUT OR OTHER SEALING MATERIAL**

Kind	From (ft)	To (ft)
Mud & Cuttings	Surface	66

9. **FORMATIONS**

Kind	From (ft.)	To (ft.)
Sand	Surface	16
Clay	16	22
Sand	22	26
Clay & Stones	26	51
Hard Pan	51	64
Limestone	64	165
Sandstone	165	185

10 **TYPE OF DRILLING MACHINE USED**

☐ Cable Tool
☐ Rotary-air w/drilling mud
☐ Rotary-w/drilling mud
☒ Rotary-hammer w/drilling mud & air
☐ Rotary-hammer & air
☐ Reverse Rotary
☐ Jetting with
  ☐ Air
  ☐ Water

Well construction completed on Feb. 24 19 78

11. **MISCELLANEOUS DATA**

Yield Test: 24 Hrs. at 15 GPM

Depth from surface to normal water level 20 Ft.

Depth of water level when pumping 45 Ft. Stabilized ☒ Yes ☐ No

Well is terminated 12 inches ☒ above ☐ below final grade

Well disinfected upon completion ☒ Yes ☐ No

Well sealed watertight upon completion ☒ Yes ☐ No

BN 4668

Madison, Wis. laboratory on Feb. 27 19 78

pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of cement used in grouting, blasting, etc., should be given on reverse side.

Signature: James A. Vetch
Registered Well Driller

Complete Mail Address: 425 Muehl St., Seymour, Wis. 54165

WELL CONSTRUCTION REPORT
WISCONSIN STATE BOARD OF HEALTH
WELL CONSTRUCTION DIVISION

FEB 26 1945

Note: Section 31 of the Wisconsin Well Construction Code, having the force and effect of law, provides that within thirty days after completion of every well the driller shall submit a report covering all essential details of construction to the State Board of Health on a form provided by the Board.

Owner John Jankowski — Driller Landry & Gleason

~~Street or~~ RFD 4 — Post Office Green Bay Wis

Post Office Green Bay Wis — Date April 26-1944 — Permit No. 14

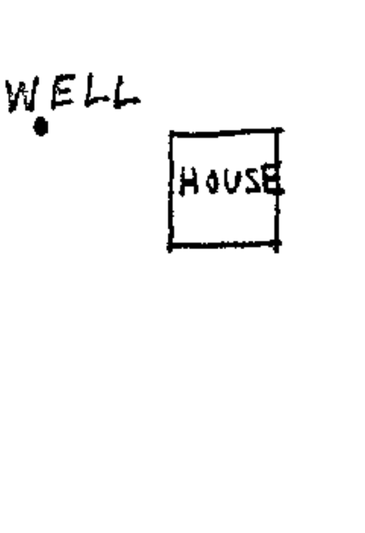
LOCATION OF PREMISES

Brown (County) — Howard (Town)

Describe further by subdivision, plat, district, lake, lot.

block, nearest principal highway, etc., whichever apply.

The square below represents a section of land divided into 40 acre tracts. Mark the position of the premises in the section. NE, SW,



Sec. No. 3

Twp. North 24 N

Range 20 { E / ~~W~~

DIAGRAM OF PREMISES

See Well Construction Report bulletin. In making the diagram in the space below consider 10 ft. as the distance between lines. Be sure to indicate NORTH.

m may be obtained in lots of 12 for 25c. Send remittance with order to State Board of Health, Well Construction

WELL LOG *and* REPORT

For method of making report, refer to bulletin entitled "Well Construction Report," 7-5-39. Accuracy is essential.

In this column indicate the kind of casing, liner, shoe and other accessories used.

6" STD. W. T.
pipe. 61.
FORGED
STEEL-DRIVE
SHOE

WELL DIAGRAM
Use a red line to show casing or liner pipe. Use black for drill or borehole.

Inches Diameter
2 3 4 5 6 8 10 12 14 16

Depth

20'
25
50
61'
75
80'
100
150
200
400
800
1200

In this column state the kind of formations penetrated, their thickness in feet and if water bearing.

SAND 20'
BLUE CLAY 55'
CLAYEY GRAVEL 11'
LIMESTONE 19'

Record of FINAL Pumping test

Duration of test
Hours 2

Pumping rate
G.P.M. 10

Depth of pump in well. Ft. 18

Standing water-level (from surface)
Ft. 7

Water-level when pumping Ft. 10

Water. End of test.
Clear X
Cloudy
Turbid

Was the well sterilized?
Yes X No

To which laboratory was sample sent?
Green Bay Lbrs
Date April 27 - 1944

Was the well sealed on completion?
Yes X No

How high did you leave the casing-pipe above grade?
8 inch

Well was completed
Date April 26 - 1944

Well Constructor
Sundry & Gleason
Signature

Draw the diagram to show the full diameter and right section of well only.

4664-2

WELL CONSTRUCTION REPORT
WISCONSIN STATE BOARD OF HEALTH
WELL CONSTRUCTION DIVISION

FEB 21 1944

Note: Section 31 of the Wisconsin Well Construction Code, having the force and effect of law, provides that within thirty days after completion of every well the driller shall submit a report covering all essential details of construction to the State Board of Health on a form provided by the Board.

Owner Geo Hallam — Driller Alfred Landuy

~~Street~~ or RFD 4 — Post Office Green Bay 8

Post Office Green Bay — Date 2-8-44 — Permit No. 14

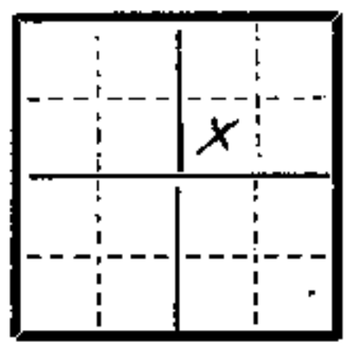
LOCATION OF PREMISES

Brown (County) — Howard (Town)

FARM - U.S. HIGHWAY 41 IS THE
Describe further by subdivision, plat, district, lake, lot.

NEAREST PRINCIPAL HIGHWAY
block, nearest principal highway, etc., whichever apply.

The square below represents a section of land divided into 40 acre tracts. Mark the position of the premises in the section. SW, NE



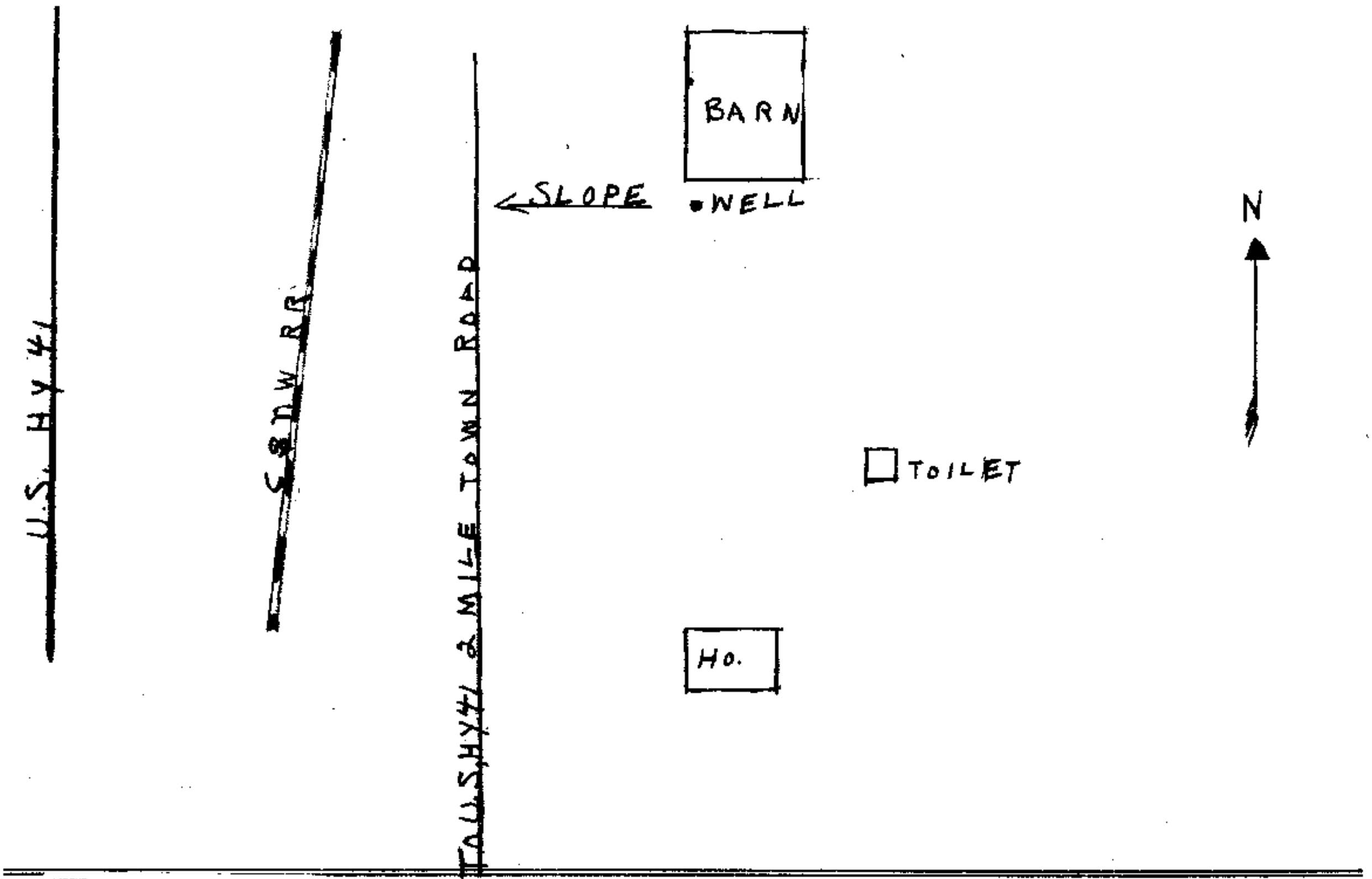
Sec. No. 3

Twp. North 24 N

Range 20 { E ~~W~~

DIAGRAM OF PREMISES

See Well Construction Report bulletin. In making the diagram in the space below consider 10 ft. as the distance between lines. Be sure to indicate NORTH.



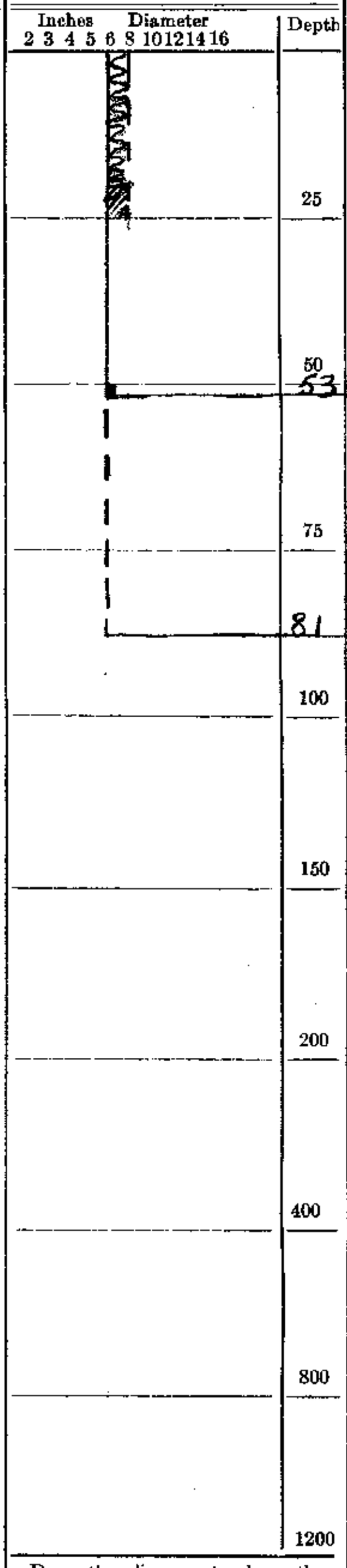
WELL LOG *and* REPORT

For method of making report, refer to bulletin entitled "Well Construction Report," 7-5-39. Accuracy is essential.

In this column indicate the kind of casing, liner, shoe and other accessories used.

STD-WEIGHT-PIPE
FORGED-STEEL
SHOE

WELL DIAGRAM
Use a red line to show casing or liner pipe. Use black for drill or borehole.



Draw the diagram to show the full diameter and right section of well only.

In this column state the kind of formations penetrated, their thickness in feet and if water bearing.

SAND
15'

BLUE CLAY
30'

CLAYEY GRAVEL
8'

53

LIMESTONE
28'

Record of FINAL Pumping test

Duration of test
Hours 2 hr

Pumping rate
G.P.M. 1 gal minute

Depth of pump in well. Ft. 30'

Standing water-level (from surface)
Ft. 10

Water-level when pumping Ft. 14

Water. End of test.
Clear yes
Cloudy
Turbid

Was the well sterilized?
Yes yes No

To which laboratory was sample sent?
Green Bay
Date 12-28-43

Was the well sealed on completion?
Yes yes No

How high did you leave the casing-pipe above grade?
10 inch

Well was completed
Date 12-2-43

Well Constructor
Alfred Landry
Signature

BN 4667-2

Well Construction Report
WISCONSIN UNIQUE WELL NUMBER AAH224

Drinking Water and Groundwater - DG/5
Department of Natural Resources, Box 7921
Madison WI 53707
Form 3300-077A

Property Owner: ALLEN LEE INVESTMENTS LLC	Phone #
Mailing Address: 1651 BROOKFIELD AVE STE A	
City: GREEN BAY	State: WI — Zip Code: 54313
County: Brown	Co. Permit #: — Notification #: 8266224202 — Completed: 02-11-2021
Well Constructor (Business Name): VAN DE YACHT LEO WELL DRILLING INC	Lic. #: 6097 — Facility ID # (Public Wells):
Address: 1267 LAKEVIEW DR, GREEN BAY WI 54313	Well Plan Approval #: — Approval Date (mm-dd-yyyy):
Hicap Permanent Well #: — Common Well #: — Specific Capacity: 0.8	

1. Well Location

Village of HOWARD — Fire # (if avail.):

Street Address or Road Name and Number: BROOKFIELD AVENUE

Subdivision Name: — Lot #: — Block #:

Latitude / Longitude in Decimal Degree (DD): 44.587 °N -88.0585 °W — Method Code: GPS008

SW NE or Govt Lot #: — Section: 3 — Township: 24 N — Range: 20 E

2. Well Type New Well

of previous unique well #: — constructed in:

Reason for replaced or reconstructed well ?:

Construction Type: Drilled

3. Well serves 1 # of BUILDING

Non-community

Heat Exchange____# of drillholes

Hicap Well ? No

Hicap Property ? No

Hicap Potable ? No

4. Potential Contamination Sources - ON REVERSE SIDE

5. Drillhole Dimensions and Construction Method

Dia. (in.)	From (ft.)	To (ft.)
9	Surface	83
6	83	181

Upper Enlarged Drillhole		Lower Open Bedrock
Yes	Rotary - Mud Circulation	No
No	Rotary - Air	Yes
No	Rotary - Air & Foam	No
No	Drill-Through Casing Hammer	
No	Reverse Rotary	
No	Cable-tool Bit ____in. dia...	No
No	Dual Rotary	No
No	Temp. Outer Casing ____in. dia	
No	Removed? ____depth ft. (If NO explain on back side)	

8. Geology

Geology Codes				8. Geology Type, Caving/Noncaving, Color, Hardness, etc...	From (ft.)	To (ft.)
		S		S-SAND	Surface	10
		C		C-CLAY	10	60
		Z		Z-CLAY & GRAVEL	60	82
		L	H	L-LIMESTONE/DOLOMITE H-SHALEY	82	150
		N		N-SANDSTONE	150	181

6. Casing, Liner, Screen

Dia. (in.)	Material, Weight, Specification Manufacturer & Method of Assembly	From (ft.)	To (ft.)
6	NEW BLACK STEEL PLAIN END WELDED ASTM A 53B 18.97# PER FT IPSCO PIPE	Surface	83
Dia. (in.)	Screen type, material & slot size	From (ft.)	To (ft.)

9. Static Water Level

10 ft. below ground surface

10. Pump Test

Pumping level 60 ft. below surface

Pumping at 40 GP M for 2 Hrs.

Pumping Method ? Airlift

11. Well Is

12 in. above grade

Developed ? Yes

Disinfected ? Yes

Capped ? Yes

7. Grout or Other Sealing Material

Method TREMIE PIPE - PUMPED

Kind of Sealing Material	From (ft.)	To (ft.)	# Sacks Cement
HIGH SOLIDS BENTONITE	Surface	83	4 S

12. Notified Owner of need to fill & seal ? No

Filled & Sealed Well(s) as needed? No

13. Constructor / Supervisory Driller	Lic #	Date Signed
TLV	6378	03-23-2021
Drill Rig Operator	**Lic or Reg #**	**Date Signed**
KZ	7365	03-23-2021

4a. Potential Contamination Sources Is the well located in floodplain ? No

Type	Qualifier	Distance
Septic or Holding, or POWTS Tank	=	70

Comment: YES IT IS PRIVATE POTABLE AND ITS A COMMERCIAL BUSINESS BUILDING

4/23/21 (DNR REVIEWER) SERVICE CATEGORY CHANGED TO NON-COMMUNITY, DUE TO INFORMATION PROVIDED THAT IT IS A COMMERCIAL BUSINESS BUILDING

Water Quality Text:

Water Quantity Text:

Difficulty Text:

Created On: 03-23-2021 Created by: EVANDEYACHT Updated On: 04-23-2021 Updated by: WELL PROCESS

Well Construction Report
WISCONSIN UNIQUE WELL NUMBER DT091

Drinking Water and Groundwater - DG/5
Department of Natural Resources, Box 7921
Madison WI 53707

Form 3300-077A

Property Owner: HAVERKORN, MIKE			Phone #: (414)434-9522
Mailing Address: 2852 NORTHWOOD RD			
City: GREEN BAY	State: WI	Zip Code: 54313	
County: Brown	Co. Permit #:	Notification #:	Completed: 10-27-1993

Well Constructor (Business Name): VAN DE YACHT LEO WELL DRILLING I	Lic. #: 6097	Facility ID # (Public Wells):
Address: 3383 OAK FOREST DR GREEN BAY WI 54313		Well Plan Approval #:
		Approval Date (mm-dd-yyyy):
Hicap Permanent Well #:	Common Well #:	Specific Capacity: 0.6

3. Well serves 1 # of WAREHOUSE
Private,potable
Heat Exchange____# of drillholes

Hicap Well ? No
Hicap Property ? No
Hicap Potable ?

1. Well Location
Village of HOWARD

Fire # (if avail.):

Street Address or Road Name and Number: BROOKFIELD AVE

Subdivision Name:	Lot #:	Block #:	
Latitude / Longitude in Decimal Degree (DD): °N °W			Method Code: GPS008
SE NW or Govt Lot #:	Section: 3	Township: 24 N	Range: 20 E

2. Well Type New Well
of previous unique well # constructed in

Reason for replaced or reconstructed well ?
WAREHOUSE

Construction Type: Drilled

4. Potential Contamination Sources - ON REVERSE SIDE

5. Drillhole Dimensions and Construction Method

Dia. (in.)	From (ft.)	To (ft.)
9	Surface	82
6	82	182

Upper Enlarged Drillhole / Lower Open Bedrock

Yes Rotary - Mud Circulation .....
Yes Rotary - Air .....
Rotary - Air & Foam .....
Drill-Through Casing Hammer
Reverse Rotary
Cable-tool Bit ____in. dia...
Dual Rotary .....
Temp. Outer Casing ____in. dia
Removed? ____depth ft. (If NO explain on back side)

8. Geology

Geology Codes	8. Geology Type, Caving/Noncaving, Color, Hardness, etc...	From (ft.)	To (ft.)
S	SAND	Surface	20
C	CLAY	20	75
P	HARDPAN	75	82
L	LIMESTONE	82	160
N	SANDSTONE	160	182

6. Casing, Liner, Screen

Dia. (in.)	Material, Weight, Specification Manufacturer & Method of Assembly	From (ft.)	To (ft.)
6	NEW BLACK STEEL PLAIN END WELDED ASTM-A-53B 18.97#PER FT. SAWHILL PIPE	Surface	82
Dia. (in.)	Screen type, material & slot size	From (ft.)	To (ft.)

9. Static Water Level
80 ft. below ground surface

10. Pump Test
Pumping level 120 ft. below surface
Pumping at 25 GP M for 2 Hrs.
Pumping Method ?

11. Well Is
12 in. above grade
Developed ? Yes
Disinfected ? Yes
Capped ? Yes

7. Grout or Other Sealing Material
Method

Kind of Sealing Material	From (ft.)	To (ft.)	# Sacks Cement
DRILL SLURRY	Surface	82	

12. Notified Owner of need to fill & seal ?

Filled & Sealed Well(s) as needed? No
N/APP

13. Constructor / Supervisory Driller	Lic #	Date Signed
LV		10-27-1993
Drill Rig Operator	**Lic or Reg #**	**Date Signed**
TV		10-27-1993

4a. Potential Contamination Sources Is the well located in floodplain ? No

Type	Qualifier	Distance
Building Overhang		12

Comment:

Water Quality Text:

Water Quantity Text:

Difficulty Text:

Created On: 02-04-1994 Created by: HFRC LOAD Updated On: 02-04-1994 Updated by: MIGRATION

Well Construction Report
WISCONSIN UNIQUE WELL NUMBER KS080

Drinking Water and Groundwater - DG/5
Department of Natural Resources, Box 7921
Madison WI 53707

Form 3300-077A

Property Owner: MIKE HAVERKORN CONST			Phone #: (414)434-3983
Mailing Address: 2852 NORTHWOOD RD			
City: GREEN BAY	State: WI	Zip Code: 54313	
County: Brown	Co. Permit #:	Notification #:	Completed: 01-16-1996

Well Constructor (Business Name): VAN DE YACHT LEO WELL DRILLING I	Lic. #: 6097	Facility ID # (Public Wells):
Address: 3383 OAK FOREST DR GREEN BAY WI 54313		Well Plan Approval #: Approval Date (mm-dd-yyyy):
Hicap Permanent Well #:	Common Well #:	Specific Capacity: 0.7

3. Well serves 1 # of WAREHOUSE
Private,potable
Heat Exchange____# of drillholes

Hicap Well ? No
Hicap Property ? No
Hicap Potable ?

1. Well Location
Village of HOWARD

Fire # (if avail.)

Street Address or Road Name and Number: BROOKFIELD AVE

Subdivision Name	Lot #	Block #

Latitude / Longitude in Decimal Degree (DD): °N °W
Method Code: GPS008

SE NW or Govt Lot #	Section: 3	Township: 24 N	Range: 20 E

2. Well Type New Well
of previous unique well # constructed in

Reason for replaced or reconstructed well ?
WAREHOUSE

Construction Type: Drilled

4. Potential Contamination Sources - ON REVERSE SIDE

5. Drillhole Dimensions and Construction Method

Dia. (in.)	From (ft.)	To (ft.)
9	Surface	79
6	79	222

Upper Enlarged Drillhole / Lower Open Bedrock

Yes Rotary - Mud Circulation .....
Yes Rotary - Air .....
Rotary - Air & Foam .....
Drill-Through Casing Hammer
Reverse Rotary
Cable-tool Bit ____in. dia...
Dual Rotary .....
Temp. Outer Casing ____in. dia
Removed? ____depth ft. (If NO explain on back side)

8. Geology

Geology Codes	8. Geology Type, Caving/Noncaving, Color, Hardness, etc...	From (ft.)	To (ft.)
S	SAND	Surface	10
C	CLAY	10	70
P	HARDPAN	70	79
L	LIMESTONE	79	140
N	SANDSTONE	140	222

6. Casing, Liner, Screen

Dia. (in.)	Material, Weight, Specification Manufacturer & Method of Assembly	From (ft.)	To (ft.)
6	NEW BLACK STEEL PLAIN END WELDED ASTM A53B 18 97LB PER FT SAWHILL PIPE	Surface	79
Dia. (in.)	Screen type, material & slot size	From (ft.)	To (ft.)

9. Static Water Level
40 ft. below ground surface

10. Pump Test
Pumping level 100 ft. below surface
Pumping at 40 GP M for 2 Hrs.
Pumping Method ?

11. Well Is
12 in. above grade
Developed ? Yes
Disinfected ? Yes
Capped ? Yes

7. Grout or Other Sealing Material
Method

Kind of Sealing Material	From (ft.)	To (ft.)	# Sacks Cement
DRILL SLURRY	Surface	79	

12. Notified Owner of need to fill & seal ?
Filled & Sealed Well(s) as needed?

13. Constructor / Supervisory Driller	Lic #	Date Signed
LV		01-16-1996
Drill Rig Operator	**Lic or Reg #**	**Date Signed**
TV		01-16-1996

4a. Potential Contamination Sources Is the well located in floodplain ? No

Type	Qualifier	Distance	Type	Qualifier	Distance
Building Overhang		10	Collector Sewer - San or Storm		75
Clearwater Sump		30	Foundation Drain to Clearwater		12
			Sewer - Building Sanitary		50

Comment:

Water Quality Text:

Water Quantity Text:

Difficulty Text:

Created On: 05-10-1996 Created by: HFRC LOAD Updated On: 10-24-2002 Updated by: WELL PROCESS

Well Construction Report
WISCONSIN UNIQUE WELL NUMBER NQ153

Drinking Water and Groundwater - DG/5
Department of Natural Resources, Box 7921
Madison WI 53707
Form 3300-077A

Property Owner: MIKE HAVERKORN CONST		Phone #: (920)434-3983
Mailing Address: 2852 NORTHWOOD RD		
City: GREEN BAY	State: WI	Zip Code: 54313
County: Brown	Co. Permit #:	Notification #:
Completed: 09-21-1999		

1. Well Location
Village of HOWARD
Fire # (if avail.)
Street Address or Road Name and Number: BROOKFIELD RD
Subdivision Name | Lot # | Block #

Well Constructor (Business Name): VAN DE YACHT LEO WELL DRILLING INC	Lic. #: 6097	Facility ID # (Public Wells)	
Address: 3383 OAK FOREST DR GREEN BAY WI 54313		Well Plan Approval #	
		Approval Date (mm-dd-yyyy)	
Hicap Permanent Well #	Common Well #	Specific Capacity: 0.5	

Latitude / Longitude in Decimal Degree (DD): °N °W
Method Code: GPS008

SE	NW	Section	Township	Range
or Govt Lot #		3	24 N	20 E

2. Well Type New Well
of previous unique well # constructed in
Reason for replaced or reconstructed well ?: WAREHOUSE

3. Well serves 1 # of
Private,potable
Heat Exchange____# of drillholes
Hicap Well ? No
Hicap Property ? No
Hicap Potable ?
Construction Type: Drilled

4. Potential Contamination Sources - ON REVERSE SIDE

5. Drillhole Dimensions and Construction Method

Dia. (in.)	From (ft.)	To (ft.)
9	Surface	83
6	83	202

Upper Enlarged Drillhole | Lower Open Bedrock

Yes Rotary - Mud Circulation .....
Yes Rotary - Air .....
Rotary - Air & Foam .....
Drill-Through Casing Hammer
Reverse Rotary
Cable-tool Bit ____in. dia...
Dual Rotary .....
Temp. Outer Casing ____in. dia
Removed? ____depth ft. (If NO explain on back side)

8. Geology

Geology Codes	8. Geology Type, Caving/Noncaving, Color, Hardness, etc...	From (ft.)	To (ft.)
S	SAND	Surface	35
C	CLAY	35	78
P	HARDPAN	78	83
L	LIMESTONE	83	135
N	SANDSTONE	135	202

6. Casing, Liner, Screen

Dia. (in.)	Material, Weight, Specification Manufacturer & Method of Assembly	From (ft.)	To (ft.)
6	NEW BLACK STEEL PLAIN END WELDED ASTM-A-53B, 18.97 # PER FT. SAWHILL PIPE	Surface	83
Dia. (in.)	Screen type, material & slot size	From (ft.)	To (ft.)

9. Static Water Level
40 ft. below ground surface

10. Pump Test
Pumping level 120 ft. below surface
Pumping at 40 GP M for 2 Hrs.
Pumping Method ?

11. Well Is
12 in. above grade
Developed ? Yes
Disinfected ? Yes
Capped ? Yes

7. Grout or Other Sealing Material
Method

Kind of Sealing Material	From (ft.)	To (ft.)	# Sacks Cement
DRILL SLURRY	Surface	83	

12. Notified Owner of need to fill & seal ?
Filled & Sealed Well(s) as needed? No
N/APP

13. Constructor / Supervisory Driller	Lic #	Date Signed
LV		09-21-1999
Drill Rig Operator	**Lic or Reg #**	**Date Signed**
KS		09-21-1999

4a. Potential Contamination Sources Is the well located in floodplain ? No

Type	Qualifier	Distance
Building Overhang		4

Comment:

Water Quality Text:

Water Quantity Text:

Difficulty Text:

Created On: 12-17-1999 Created by: WELL CONST LOAD Updated On: 12-17-1999 Updated by: WELL PROCESS

BN-662-U

State of Wisconsin
Department of Natural Resources
Box 450
Madison, Wisconsin 53701

NOTE:
White Copy – Division's Copy
Green Copy – Driller's Copy
Yellow Copy – Owner's Copy

WELL CONSTRUCTOR'S REPORT
Form 3300–15
Rev. 10–75

JAN 22 1979

1. COUNTY: BROWN

CHECK (✓) ONE: ☐ Town ☒ Village ☐ City Name: HOWARD

2. LOCATION: SE SE NW ¼ Section: SE | Section: 3 | Township: 24N | Range: 20E

OR – Grid or Street No. | Street Name: BROOK FIELD

AND – If available subdivision name, lot & block No.

3. NAME ☒ OWNER ☐ AGENT AT TIME OF DRILLING CHECK (✓) ONE: DAVID PLATTEN

ADDRESS: SYRINGA

POST OFFICE: GREEN BAY, WI.

4. Distance in feet from well to nearest: (Record answer in appropriate block)

Building	Sanitary Bldg. Drain		Sanitary Bldg. Sewer		Floor Drain Connected To:		Storm Bldg. Drain		Storm Bldg. Sewer	
	C.I.	Other	C.I.	Other	C.I. Sewer	Other Sewer	C.I.	Other	C.I.	Other
14'										

Street Sewer		Other Sewers		Foundation Drain Connected to:				Sewage Sump		Clearwater Sump	Septic Tank	Holding Tank	Sewage Absorption Unit	
San.	Storm	C.I.	Other	Sewer		Sewage Sump		C.I.	Other		NOT IN		Seepage Pit	
				Clearwater Dr.		Clearwater Sump							Seepage Bed	
													Seepage Trench	

Privy	Pet Waste Pit	Pit: Nonconforming Existing		Subsurface Pumproom Nonconforming Existing	Barn Gutter	Animal Barn Pen	Animal Yard	Silo With Pit	Glass Lined Storage Facility	Silo w/o Pit	Earthen Silage Storage Trench Or Pit
		Well									
		Pump									
		Tank									

Temporary Manure Stack	Watertight Liquid Manure Tank	Solid Manure Storage Structure	Subsurface Gasoline or Oil Tank	Waste Pond or Land Disposal Unit (Specify Type)	Other (Give Description)

5. Well is intended to supply water for: HOME

6. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
10	Surface	20			
6	20	63			

7. CASING, LINER, CURBING AND SCREEN
Material, Weight, Specification & Method of Assembly

Dia. (in.)	Material, Weight, Specification & Method of Assembly	From (ft.)	To (ft.)
6	NEW BLACK STEEL CASING T+C 1945 #/PER FT TESTED 1200 PSI. ASTM A-53 REPUBLIC STEEL	Surface	56

8. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
POOLED CLAY	Surface	20

9. FORMATIONS

Kind	From (ft.)	To (ft.)
SAND	Surface	10
CLAY	10	56
LIMESTONE	56	63

BN 4665

10. TYPE OF DRILLING MACHINE USED

☒ Cable Tool
☐ Rotary-air w/drilling mud
☐ Rotary-w/drilling mud
☐ Rotary-hammer w/drilling mud & air
☐ Rotary-hammer & air
☐ Reverse Rotary
☐ Jetting with: ☐ Air ☐ Water

Well construction completed on 11 / 19 / 1978

11. MISCELLANEOUS DATA

Yield Test: 8 Hrs. at 10 GPM

Depth from surface to normal water level 20 Ft.

Depth of water level when pumping 40 Ft. Stabilized ☒ Yes ☐ No

Well is terminated 18" inches ☒ above ☐ below final grade

Well disinfected upon completion ☒ Yes ☐ No

Well sealed watertight upon completion ☒ Yes ☐ No

Water sample sent to MADISON laboratory on 10 / 18 / 1978

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.

Signature: Leo Lee Murphy Registered Well Driller

Complete Mail Address: RS SHORT OR
OSPERE, WI. 54115

Well Construction Report
WISCONSIN UNIQUE WELL NUMBER RQ188

Drinking Water and Groundwater - DG/5
Department of Natural Resources, Box 7921
Madison WI 53707

Form 3300-077A

Property Owner: MIKE HAVERKORN CONST			Phone #: (920)434-3983
Mailing Address: 1601 BROOKFIELD AVE			
City: GREEN BAY	State: WI	Zip Code: 54313	
County: Brown	Co. Permit #:	Notification #:	Completed: 07-01-2003

Well Constructor (Business Name): VAN DE YACHT LEO WELL DRILLING INC	Lic. #: 6097	Facility ID # (Public Wells):	
Address: 2352 LINEVILLE RD GREEN BAY WI 54313		Well Plan Approval #:	
		Approval Date (mm-dd-yyyy):	
Hicap Permanent Well #:	Common Well #:	Specific Capacity: 1	

1. Well Location

Village of HOWARD

Fire # (if avail.):

Street Address or Road Name and Number: 1681 BROOKFIELD AVE

Subdivision Name:	Lot #: 4	Block #:	
Latitude / Longitude in Decimal Degree (DD): °N °W			Method Code: GPS008
SE NE or Govt Lot #:	Section: 3	Township: 24 N	Range: 20 E

2. Well Type New Well

of previous unique well #: constructed in

Reason for replaced or reconstructed well ?:

Construction Type: Drilled

3. Well serves 1 # of SHOP

Private,potable

Heat Exchange____# of drillholes

Hicap Well ? No

Hicap Property ? No

Hicap Potable ?

4. Potential Contamination Sources - ON REVERSE SIDE

5. Drillhole Dimensions and Construction Method

Dia. (in.)	From (ft.)	To (ft.)
9	Surface	83
6	83	182

Upper Enlarged Drillhole / Lower Open Bedrock

- Yes / No — Rotary - Mud Circulation ..... — No
- No / Yes — Rotary - Air ..... — Yes
- Rotary - Air & Foam .....
- Drill-Through Casing Hammer
- Reverse Rotary
- Cable-tool Bit ____in. dia...
- Dual Rotary .....
- Temp. Outer Casing ____in. dia
  - Removed? ____depth ft. (If NO explain on back side)

8. Geology

Geology Codes				8. Geology Type, Caving/Noncaving, Color, Hardness, etc...	From (ft.)	To (ft.)
-	-	S	-	SAND	Surface	20
-	-	C	-	CLAY	20	75
-	-	P	-	HARDPAN	75	83
-	-	L	-	LIMESTONE	83	140
-	-	N	-	SANDSTONE	140	182

6. Casing, Liner, Screen

Dia. (in.)	Material, Weight, Specification Manufacturer & Method of Assembly	From (ft.)	To (ft.)
6	NEW BLACK STEEL PLAIN END WELDED ASTMA53B 18.97# PER FT WHEATLAND PIPE	Surface	83
Dia. (in.)	Screen type, material & slot size	From (ft.)	To (ft.)

9. Static Water Level

80 ft. below ground surface

10. Pump Test

Pumping level 120 ft. below surface

Pumping at 40 GP M for 2 Hrs.

Pumping Method ?

11. Well Is

12 in. above grade

Developed ? Yes

Disinfected ? Yes

Capped ? Yes

7. Grout or Other Sealing Material

Method

Kind of Sealing Material	From (ft.)	To (ft.)	# Sacks Cement
DRILL SLURRY	Surface	83	

12. Notified Owner of need to fill & seal ?

Filled & Sealed Well(s) as needed? No

N/APP

13. Constructor / Supervisory Driller	Lic #	Date Signed
TV		07-01-2003
Drill Rig Operator	**Lic or Reg #**	**Date Signed**
KS		07-01-2003

4a. Potential Contamination Sources Is the well located in floodplain ? No

Type	Qualifier	Distance	Type	Qualifier	Distance
Building Overhang		8	Collector Sewer - San or Storm		100
Clearwater Sump		30	Foundation Drain to Clearwater		10
			Sewer - Building Sanitary		20

Comment:

Water Quality Text:

Water Quantity Text:

Difficulty Text:

Created On: 10-08-2003 Created by: WELL CONST LOAD Updated On: 02-18-2008 Updated by: HERSHS

Well Construction Report
WISCONSIN UNIQUE WELL NUMBER WI442

Drinking Water and Groundwater - DG/5
Department of Natural Resources, Box 7921
Madison WI 53707

Form 3300-077A

Property Owner: VDY Properties			Phone #: (920)434-2969
Mailing Address: 2352 Lineville Rd			
City: Green Bay	State: WI	Zip Code: 54313	
County: Brown	Co. Permit #:	Notification #: 25239350	Completed: 03-06-2007

1. Well Location

Town of HOWARD

Fire # (if avail.)

Street Address or Road Name and Number: BROOKFIELD

Subdivision Name	Lot #	Block #

Well Constructor (Business Name)	Lic. #	Facility ID # (Public Wells)
VAN DE YACHT LEO WELL DRILLING INC	6097	

Latitude / Longitude in Decimal Degree (DD): 44.58348 °N -88.05015 °W

Method Code: GPS006

Well Plan Approval #:

SW NE or Govt Lot #	Section	Township	Range
	3	24 N	19 E

Address: 2352 LINEVILLE RD, GREEN BAY WI 54313

Approval Date (mm-dd-yyyy):

2. Well Type New Well

of previous unique well #: constructed in

Hicap Permanent Well #	Common Well #	Specific Capacity
		0.2

Reason for replaced or reconstructed well ?

3. Well serves 1 # of test well

Private,potable Test Well

Heat Exchange____# of drillholes

Hicap Well ? No

Hicap Property ? No

Hicap Potable ?

Construction Type: Drilled

4. Potential Contamination Sources - ON REVERSE SIDE

5. Drillhole Dimensions and Construction Method

Dia. (in.)	From (ft.)	To (ft.)
9	Surface	81
6	81	202

Upper Enlarged Drillhole		Lower Open Bedrock
Yes	Rotary - Mud Circulation	No
No	Rotary - Air	Yes
No	Rotary - Air & Foam	No
No	Drill-Through Casing Hammer	
No	Reverse Rotary	
No	Cable-tool Bit ____in. dia...	No
	Dual Rotary	
No	Temp. Outer Casing ____in. dia	
No	Removed? ____depth ft. (If NO explain on back side)	

8. Geology

Geology Codes				8. Geology Type, Caving/Noncaving, Color, Hardness, etc...	From (ft.)	To (ft.)
-	-	S	-	Sand	Surface	15
-	-	C	-	Clay	15	60
-	-	Z	-	Clay & Gravel	60	75
-	-	P	-	Hardpan	75	80
-	-	L	-	Limestone/Dolomite	80	85
-	-	N	-	Sandstone	85	90
-	-	L	-	Limestone/Dolomite	90	150
-	-	N	-	Sandstone	150	202

6. Casing, Liner, Screen

Dia. (in.)	Material, Weight, Specification Manufacturer & Method of Assembly	From (ft.)	To (ft.)
6	New black steel plain end welded astm a 53b 18 97# per ft wheatland pipe	Surface	81
Dia. (in.)	Screen type, material & slot size	From (ft.)	To (ft.)

9. Static Water Level

60 ft. below ground surface

10. Pump Test

Pumping level 120 ft. below surface

Pumping at 10 GP M for 2 Hrs.

Pumping Method ?

11. Well Is

12 in. above grade

Developed ? Yes

Disinfected ? Yes

Capped ? Yes

7. Grout or Other Sealing Material

Method

Kind of Sealing Material	From (ft.)	To (ft.)	# Sacks Cement
Drill Slurry	Surface	81	

12. Notified Owner of need to fill & seal ?

Filled & Sealed Well(s) as needed? No

n/a

13. Constructor / Supervisory Driller	Lic #	Date Signed
TLV		03-13-2007
Drill Rig Operator	**Lic or Reg #**	**Date Signed**
SC		03-13-2007

4a. Potential Contamination Sources Is the well located in floodplain ? No

Comment:

Water Quality Text:

Water Quantity Text:

Difficulty Text:

Created On: 04-05-2007 Created by: WELL CONST LOAD Updated On: 04-05-2007 Updated by: WELL PROCESS

Well Construction Report
WISCONSIN UNIQUE WELL NUMBER ZT298

Drinking Water and Groundwater - DG/5
Department of Natural Resources, Box 7921
Madison WI 53707

Form 3300-077A

Property Owner: RON SINCLAIR CONSTRUCTION	Phone #
Mailing Address: 2989 YELLOW JASMINE WAY	
City: GREEN BAY	State: WI — Zip Code: 54313
County: Brown	Co. Permit #: — Notification #: 7444805004 — Completed: 11-15-2018
Well Constructor (Business Name): VAN DE YACHT LEO WELL DRILLING INC	Lic. #: 6097 — Facility ID # (Public Wells):
Address: 1267 LAKEVIEW DR, GREEN BAY WI 54313	Well Plan Approval #: — Approval Date (mm-dd-yyyy):
Hicap Permanent Well #:	Common Well #: — Specific Capacity: 0.4

1. Well Location

Town of HOWARD

Fire # (if avail.):

Street Address or Road Name and Number: BROOKFIELD

Subdivision Name: — Lot #: — Block #:

Latitude / Longitude in Decimal Degree (DD): 44.5876 °N -88.0585 °W — Method Code: GPS008

SW NE or Govt Lot #: — Section: 3 — Township: 24 N — Range: 20 E

2. Well Type New Well

of previous unique well #: — constructed in:

Reason for replaced or reconstructed well ?:

Construction Type: Drilled

3. Well serves 1 # of BUILDING

Private,potable

Heat Exchange____# of drillholes

Hicap Well ? No

Hicap Property ? No

Hicap Potable ? No

4. Potential Contamination Sources - ON REVERSE SIDE

5. Drillhole Dimensions and Construction Method

Dia. (in.)	From (ft.)	To (ft.)
9	Surface	83
6	83	182

Upper Enlarged Drillhole		Lower Open Bedrock
Yes	Rotary - Mud Circulation	No
No	Rotary - Air	Yes
No	Rotary - Air & Foam	No
No	Drill-Through Casing Hammer	
No	Reverse Rotary	
No	Cable-tool Bit ____in. dia...	No
No	Dual Rotary	No
No	Temp. Outer Casing ____in. dia	
No	Removed? ____depth ft. (If NO explain on back side)	

8. Geology

Geology Codes	8. Geology Type, Caving/Noncaving, Color, Hardness, etc...	From (ft.)	To (ft.)
S	S-SAND	Surface	15
C	C-CLAY	15	70
P	P-HARDPAN	70	83
L	L-LIMESTONE/DOLOMITE	83	140
N	N-SANDSTONE	140	182

6. Casing, Liner, Screen

Dia. (in.)	Material, Weight, Specification Manufacturer & Method of Assembly	From (ft.)	To (ft.)
6	NEW BLACK STEEL PLAIN END WELDED ASTM A 53B 18 97# PER FT IPSCO PIPE	Surface	83
Dia. (in.)	Screen type, material & slot size	From (ft.)	To (ft.)

9. Static Water Level

10 ft. below ground surface

10. Pump Test

Pumping level 100 ft. below surface

Pumping at 40 GP M for 2 Hrs.

Pumping Method ? Airlift

11. Well Is

12 in. above grade

Developed ? Yes

Disinfected ? Yes

Capped ? Yes

7. Grout or Other Sealing Material

Method

Kind of Sealing Material	From (ft.)	To (ft.)	# Sacks Cement
DRILLING MUD & CUTTINGS	Surface	83	

12. Notified Owner of need to fill & seal ? No

Filled & Sealed Well(s) as needed? No

13. Constructor / Supervisory Driller	Lic #	Date Signed
TLV	6378	11-16-2018
Drill Rig Operator	Lic or Reg #	Date Signed

4a. Potential Contamination Sources Is the well located in floodplain ? No

Type	Qualifier	Distance
Septic or Holding, or POWTS Tank	=	35

Comment:

Water Quality Text:

Water Quantity Text:

Difficulty Text:

Created On: 11-16-2018 Created by: EVANDEYACHT Updated On: 11-28-2018 Updated by: WELL PROCESS