February 18, 2022
File No. 25221172.00

Ms. Cindy Koepke, PG, Hydrogeologist
Remediation & Redevelopment Program
Wisconsin Department of Natural Resources - South Central Region
3911 Fish Hatchery Road
Fitchburg, WI 53711

Subject: Site Investigation Update Report
Former Bob's Citgo, 602 W. Madison Avenue, Milton, Wisconsin
BRRTS #03-54-000193

Dear Cindy:

SCS Engineers (SCS) is submitting this report on behalf of Mr. Robert Richardson for the former Bob's Citgo and Badgerland Coop leaking underground storage tank (LUST) case at the above-referenced property. The scope of the investigation was based on your comments in a letter to Mr. Robert Richardson, dated September 10, 2021, and was outlined in a work plan submitted on October 13, 2021.

1.0 BACKGROUND

This case was first opened by the Wisconsin Department of Natural Resources (WDNR) in 1983. Groundwater was first sampled in November 2010. Petroleum contamination was identified in soil and groundwater at the site. Sampling of the subslab vapors below the station building in 2015 and 2016 did not identify any vapor intrusion concerns. Groundwater sampling data indicate groundwater impacts are present on site, free product is present in one well, and groundwater impacts extend off site to the west and south. Soil impacts are present mostly at depth, with most of the shallow impacted soil excavated when the underground storage tanks (USTs) were removed from the site in October 2019. Soil impacts extend to the east onto the Jim's Tire property and to the south to the right-of-way along W. Madison Avenue.

The location of the Bob's Citgo site is shown on **Figure 1**.

The Bob's Citgo property and the adjoining Jim's Tire property have a long history of use as auto repair facilities and gas stations. Following is a summary of additional background information obtained from WDNR files.

1.1 WI DOT ROW MADISON AVE. (BRRTS 09-54-546987)

A Phase 2 Site Investigation was conducted in 1992 by the Wisconsin Department of Transportation (WDOT) in in conjunction with planned improvements of Madison Avenue (STH 59). Three soil borings were installed in the road way adjacent Bob's Citgo and Jim's Tire. The approximate locations of the borings are shown on **Figure B.2.b.** The boring logs and a map showing boring locations are included in **Appendix A.** Field observations and analytical testing of soil samples from the borings for gasoline range organics (GRO) and diesel range organics (DRO) did not indicate any petroleum impacts.

A sketch map in the Phase 2 shows the location of gas pumps to the east of the Bob's Citgo building and the former location of the pump island, USTs, and the garage building on the adjacent 520 W. Madison Ave. property. The sketch map also shows gas pumps located between the Bob's Citgo building and the former Jim's Tire garage. These former locations are shown on **Figure B.2.b.** The sketch map is included in **Appendix A**.

In addition to the information about the site conditions in 1992, the WDOT Phase 2 also provides a summary of historic information that was obtained from the Phase 1 Site Assessment that was performed for the WDOT road project. Both the 602 and 520 W. Madison Avenue properties have been gas stations since the 1930's. Noted are the following:

602 West Madison Avenue (Bob's Citgo)

- Formerly Milton Coop Creamery as shown on 1909 Sanborn map.
- Creamery demolished in the 1930's and "Filling Station" with three fuel tanks present.
- Site has been a gas station since the 1930's.

520 West Madison Avenue (Jim's Tire)

- Operated as an auto repair shop and gas station since 1928.
- The 1930 Sanborn shows four tanks adjacent STH 59, near the location of the pump island, and west of the tanks that were onsite in 1992. (The approximate location of the tanks present on site in the 1930's is shown on **Figure B.2.a.**).
- Site has been a gas station since the 1930's.
- The three gas tanks and a waste oil tank onsite in 1992 were installed in 1974.

1.2 JIM'S TIRE (BRRTS CASE #02-54-286788)

Four UST systems containing gasoline and waste motor oil were removed on April 18, 1997. The tank closure report was not available from the WDNR files, but a Tank System Site Assessment (TSSA) was conducted and a report by Moraine Environmental, Inc. (MEI) dated January 8, 2002, includes the TSSA Checklist for Underground Tank Closure. Based on the checklist, no indicators of petroleum contaminated soils (no elevated photoionization detector [PID] readings, no odors) were observed by the site assessor or the certified inspector. The observations indicate that the area on Jim's Tire where the tank system was formerly located was not impacted by petroleum releases.

The current building on Jim's Tire was constructed in 2002. According to the Mr. James Oshel, owner of Jim's Tire, the former building was demolished and used to backfill the basement of the demolished building (personal communication with SCS on October 18, 2021).

The MEI report documents remedial activities conducted in response to discovery of petroleum contaminated soil in the area of new building construction (the current building) at Jim's Tire. In October 2001, during excavation of footings for the new building, possible petroleum contaminated

soils were identified by the excavation contractor. A composite soil sample was analyzed for BIO-3 landfill disposal parameters. The results identified the following petroleum related impacts:

Summary of detected parameters in a composite soil sample analyzed for BIO-3 landfill disposal parameters	
Gasoline range organics (GRO)	150 mg/kg,
Diesel range organics (DRO)	6,300 mg/kg,
Total lead	950 mg/kg
TCLP lead	0.66 mg/l.

On November 19, 2001, MEI supervised the excavation and disposal of 127.43 tons of contaminated soil from the site. The soil was disposed at the Waste Management, Deer Track Landfill in Johnson Creek, Wisconsin. The contaminated soil was adjacent to a drain and catch basin system extending between floor drains in the service bays to a catch basin located outside of the building to the north. Eight soil samples were collected from the perimeters of the excavation and analyzed for GRO and petroleum volatile organic compounds (PVOCs) and lead. The approximate location of the soil excavation and locations of the samples are shown on **Figure B.2.a.**

MEI concluded that the WDNR case could be closed for the following reasons:

- Based on the results from the samples, the contaminated soils identified at the northern portion of the site were remediated.
- Soil contamination was not identified during the removal of the four UST systems in April, 1997.
- Redevelopment of the site including capping the site with pavement and the building eliminated the potentials for groundwater contamination or direct contact with any residual contaminated soils.

The WDNR concurred with MEI's conclusions, and on January 18, 2002, issued site closure with no further action for the property located at 520 West Madison.

2.0 OCTOBER 2021 SITE INVESTIGATION

On October 18 and 19, 2021, SCS installed seven soil borings, sampled soils, located on-site subsurface utilities, and conducted hydraulic conductivity tests. SCS evaluated field and laboratory data and prepared this update that documents the field investigation activities and presents the investigation results.

2.1 SOIL SAMPLING AND OTHER FIELD ACTIVITIES

SCS conducted the following field and related site investigation activities:

- Coordinated off-site access with the owner of Jim's Tire & Automotive.
- Installed six soil borings to depths of 15 to 20 feet below ground surface (bgs) depending on site location, potential source, and field-indicated contamination; and one boring near MW2 to 50 feet bgs. The purpose of the boring at MW2 is primarily to obtain stratigraphic information to help interpret the site hydrogeology.
- Logged and classified soil following the Unified Soil Classification System (USCS) and screened soils at approximately 2.5-foot intervals using a PID. Boring logs are included in Appendix A.
- Analyzed one to three soil samples per boring for PVOCs and naphthalene. Soil samples were analyzed by Pace Analytical Services, LLC, Green Bay, Wisconsin. The soil analytical results are summarized on Table A.2 and the analytical report is included in Appendix B.
- Abandoned soil borings consistent with NR 141 Wisconsin Administrative Code. Abandonment forms are included in Appendix A.
- Mapped on-site utilities for possible preferred pathways for contaminant migration and preferential recharge to the MW2 area.
- Conducted single well response (slug) tests at four selected wells (MW1, MW2, MW3, and MW10) and analyzed the data to evaluate hydraulic conductivity. Slug test data plots are included in Appendix C and slug test parameters and results are summarized on Table A.7.
- Shallow soil cuttings with no indication of petroleum contaminaiton, i.e. petroleum odors, staining, and elevated PID readings, were thin spread on-site or disposed in the on-site trash recepticals.
- Deeper soil cuttings with indications of petroleum contamination were contained in 5-gallon buckets and left on-site for disposal pending analytical results.

3.0 FINDINGS

3.1.1 Soil Impacts

Soil analytical results are summarized on Table A.1. Figure B.2.a shows the location of all the soil sampling locations, and the estimated horizontal extent of unsaturated contaminated soil that exceeded a groundwater pathway residual contamination level (RCL). Also shown is the estimated horizontal extent of unsaturated contaminated soil that exceeded a non-industrial direct contact RCL.

Soil contamination has been removed from on-site through remedial soil excavation conducted in association with underground tank removal. The following information is from the documentation report prepared by Seymour Environmental Services, Inc. (2/14/2020).

- Soil in the former tank area was excavated to a depth of about 19 feet at the north end of the excavation and to a depth of about 15 feet at the south end of the excavation. Approximately 885 tons of contaminated soil were removed from the tank area and disposed at a landfill.

- Soil in the area of the former pump islands located adjacent West Madison Avenue was excavated to a depth of about 5 feet. Approximately 115 tons of contaminated soil were removed from this area and disposed at a landfill.

- A total of 1,000 tons of contaminated soil was removed from the site and disposed at a landfill.

3.1.2 Residual Soil Impacts

Soil contamination exceeding groundwater pathway RCLs remains on-site north of the tank excavation, east of the tank excavation along the property line, and on the west side of Jim's Tire property. A small area of soil contamination exceeding groundwater pathway RCLs also remains south of the Bob's Citgo building in the area of the former pump island, and extends into the right-of-way along West Madison Avenue.

Soil contamination exceeding non-industrial direct contact RCLs remains in a small area at the east end of the former pump island, and in a small area near the southwest corner of the Jim's Tire building (**Figure B.2.a**).

3.1.3 Groundwater Impacts

Groundwater analytical results are summarized on **Table A.1**. Groundwater levels and elevations are summarized on the attached **Table A.6**. Monitoring wells were last sampled in July 2021.

Figure B.3.b shows the location of all the groundwater monitoring wells, and the estimated extent of groundwater contamination that exceeds an NR 140 preventive action limit (PAL) or enforcement standard exceedance (ES). Currently the groundwater plume extends off site to the west. Contaminants have not been detected at monitoring well, MW10, located to the southeast of the site.

3.1.4 Groundwater Flow Pattern

Previous water table contour maps have shown groundwater flow to the west/southwest, with an apparent component of flow to the southeast (**Figure B.3.c**.). The onsite well MW2 has had higher groundwater elevations than the adjacent wells, and MW10 has had groundwater elevations that have been several feet lower than the on-site wells, MW1, MW2, and MW3. Groundwater levels are provided in **Table A.6.**

Based on the recently obtained stratigraphic information, the elevated groundwater elevation at MW2 appears to be controlled by strata of lower permeability sediment (silt and clay) near the water

table. In addition MW10 is screened about 5 feet lower than MW2, and is not screened in the same stratigraphic unit as MW2 and the other on-site wells, MW1 and MW3.

The hydraulic conductivity (1.7 $X10^{-4}$ cm/sec) at MW2 is 3 orders of magnitude lower than at MW10 where a hydraulic conductivity of 2.0 $X10^{-1}$ cm/sec is indicated by the single well hydraulic conductivity test (**Table A-7**). The hydraulic conductivity at MW1 and MW3 (2.1 $X10^{-4}$ cm/sec, and 5.6 $X10^{-4}$ cm/sec, respectively) are also much lower than at MW10 which likely, in part, account for the higher groundwater elevations onsite.

Figure B.3.c.a. shows the water table contours prepared without using the groundwater elevation at MW10. The groundwater flow is predominantly to the west, and is consistent with the groundwater quality data. We conclude that **Figure B.3.c.a** more accurately depicts the actual groundwater flow conditions in the area of the site than previous groundwater flow maps that used groundwater elevations from MW10. MW 10 is not installed in the same hydrostratigraphic unit as the on-site wells, and water levels measured at MW10 should not be used in water table contour maps.

4.0 GEOLOGY

4.1 REGIONAL SITE GEOLOGY

The following summary of the regional site geology is based on information in the Wisconsin Geological & Natural History Survey, 2011 publication, The Glaciation of Wisconsin, by Attig and others.

> The site area was glaciated during the Late Wisconsinan by the Green Bay Lobe of the Laurentide Ice Sheet that reached its maximum extent about 30,000 years ago. The Johnstown Moraine, which formed at the margin of the ice lobe at its maximum extent is located a few miles south of the site. The site is located between the Johnstown terminal moraine and the Milton recessional moraine. The Milton recessional moraine formed during the Milton Phase about 16,000 years before present (BP). The area farther south of the Johnstown Moraine was glaciated prior to about 35,000 years BP. The sediment deposited by the Green Bay Lobe in this area belongs to the Holy Hill Formation which includes brown gravelly, clayey, silty sandy till of the Horicon Member.

The sediments in the general area of the site likely include till of the Horicon Member, outwash sand and gravel, and finer grained lacustrine sediment that were intermittently deposited in the area between the moraines as the ice margin retreated. The area was also glaciated prior to the late Wisconsinan and older glacial and related sediments may be present at depth.

4.2 SITE GEOLOGY

Geologic cross-sections were prepared from the boring logs available for the site. The boring logs are included in **Appendix A**. The borings installed by SCS in 2021 were continuously sampled and provide information that is very useful in evaluating the distribution of soil and groundwater impacts, and aid in interpreting the soil and contaminant distribution described in previous borings that were logged from cuttings. The locations of the geologic cross-section are shown on **Figure B.3.a**.

Cross-section A-A' (**Figure B.3.a.a**) includes boring BMW2 which was installed in 2021 to provide geologic information in the area of MW2 which has had higher groundwater levels than nearby wells,

and has had free product present. The boring log for BMW2 is included in **Appendix A**. The detailed geologic information from BMW2 indicates that the elevated water levels at MW2 are due to lower permeability strata at the zone near the depth of the water table. The higher water level at MW2 is attributable to site stratigraphy, and not associated with surface recharge from a storm sewer or water line. Underground utility locations are shown on **Figure B.2.a**.

We note the following based on Cross-section A-A' (**Figure B.3.a.a**):

- The sediments at the site are very variable and include silty sand, sand and gravel, and silt and clay, and are consist with the location of the site between the terminal and recessional moraines where till, outwash, and lacustrine sediment were intermittently deposited.

- The hydraulic conductivity at MW1 and MW2 (2.0 $X10^{-4}$ cm/sec, and 1.7 $X10^{-4}$ cm/sec, respectively) is 3 orders of magnitude lower than at MW10 (2.0 $X10^{-1}$ cm/sec) as indicated by single well hydraulic conductivity tests.

- The relatively lower water levels measured at MW10 may in part be due to the well being screened about 5 feet lower than MW2. Also MW10 is screened in a sandy layer below clay, whereas MW2 is screened in fine-grained sediment below a sand layer.

- Soil contamination at BMW2, as indicated by elevated PID readings, odor and staining, is predominantly focused in a zone about 17 to 25 feet bgs, and is associated with sediment layering. Below this zone there is no indication of contamination in the sand and gravel, and fine-grained sediment, until at the water table where free product is present.

We note the following based on Cross-section B-B' (**Figure B.3.a.b**):

- The shallow stratigraphy is very variable and includes organic silt, silt, clay, silty sand, and sandy fill.

- The only shallow residual soil contamination (less than about 5 feet bgs) is in the area of the former pump island. Near the property line with Jim's Tire, at B4R and B21, soil contamination is present at about 10 feet bgs. Farther to the north near the property line, at BMW2 and B11, the soil contamination is at about 17 feet bgs.

4.3 SITE CONCEPTUAL MODEL

The site has a very long history (nearly 100 years) of use for petroleum storage and dispensing.

- Petroleum products have been released at several locations including the dispenser island along W. Madison Avenue, the former kerosene UST and dispensers along the eastern property border, and the main tank bed in the central portion of the site.

- Contaminants migrated down to varying depths depending on the permeability of the sediment layers, and the time of the release. Some releases occurred several decades ago.

- Contaminants eventually migrated to the water table which is located at depths ranging from 47 to 67 feet bgs.

- Groundwater flow is to the west, consistent with the groundwater quality data.

- The steeper groundwater flow gradients on site are associated with lower permeability sediment at the water table in this area. The groundwater elevation at MW10 is lower that at the onsite wells likely because MW10 is screened deeper, and is not screened in the same hydrostratigraphic unit as the onsite wells.

- The adjacent site to the east has also had a long history of petroleum storage and use. However analytical data and observations from the tank closure assessment do not indicate petroleum impacts in the area of the former tanks or pump islands.

5.0 CONCLUSIONS

- Both the Bob's Citgo site and the adjacent Jim's Tire site have had a long history of petroleum storage and use. Some petroleum releases may have occurred several decades ago.

- Shallow soil contamination has been removed from on-site through remedial soil excavation conducted in association with underground tank removal.

- Some petroleum impacted soil remains on the Bob's Citgo site and on the west side of Jim's Tire. Most of the residual soil impacts are deeper than about 10 feet bgs.

- The extent of soil contamination has been adequately defined. The site can be closed with a cap maintenance plan for residual soil contamination that exceed NR 720 RCLs.

- Capping of the area with remaining soil contamination is consistent with the property use for commercial purposes.

- Groundwater flow is predominantly to the west. The existing groundwater monitoring well network adequately defines the extent of groundwater impacts.

- The groundwater plume is stable or decreasing following removal of the tanks system and contaminated soil.

- Subslab vapors have been investigated and vapor intrusion is not a concern.

6.0 RECOMMENDATIONS

We recommend conducting one additional round of groundwater monitoring at selected wells, and preparing a case closure request with use restrictions and inclusion of the site on the registry of impacted sites maintained by the WDNR.

Please contact Betty at 608-212-6664 if you have any questions or comments.

Sincerely,

Betty J. Socha, PhD, PG
Senior Project Manager
SCS Engineers

Tony Kollasch
Project Manager
SCS Engineers

BJS/AJR/TK

CC: Mr. Robert Richardson

Encl. Table A.1 – Groundwater Analytical Results Summary – VOCs
Table A.2 – Soil Analytical Results Summary – PVOCs
Table A.6 – Water Level Elevations
Table A.7 – Slug Test Parameters and Results

Figure 1 – Site Location Map
Figure B.2.a. – Soil Contamination
Figure B.3.a – Geologic Cross Section Locations
Figure B.3.a.a – Geologic Cross Section A-A'
Figure B.3.a.b. – Geologic Cross Section B-B'
Figure B.3.b. – Groundwater Isoconcentration
Figure B.3.c. – Groundwater Flow Direction – 07/08/2021
Figure B.3.c.a. – Groundwater Flow – 07/08/2021

Appendix A – Boring Logs & Well Forms
Appendix B – Soil Analytical Report
Appendix C – Slug Test Results

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Tables

Table A. 1 Groundwater Analytical Results Summary - VOCs
Bob's Citgo, Milton, Wisconsin / SCS Engineers Project #25221172.00
(Results are in µg/L)

Sample	Date	Lab Notes	Benzene	Ethylbenzene	MTBE	Toluene	TMBs	Xylenes	Naphthalene	Other VOCs	
MW-1	11/4/2010	--	**6,950**	**2,380**	**912**	**17,000**	**1,564**	**11,140**	**426**	ND	
	3/3/2011	--	**8,700**	**2,810**	**914**	**18,300**	**2,136**	**13,650**	**478**	Methylene Chloride	113 *
										n-Propylbenzene	208
	9/15/2011	--	**7,550**	**2,540**	**867**	**15,300**	**2,153**	**12,160**	**640**	NA	
	8/15/2013	--	**6,600**	**2,630**	**302**	**15,600**	**2,226**	**11,890**	**663**	NA	
	9/11/2013	--	**5,170**	**2,230**	**184**	**13,200**	**1,889**	**10,300**	**525**	Isopropylbenzene	73.6
										n-Propylbenzene	185
	5/28/2015	--	**5,620**	**2,060**	**160**	**12,800**	**1,854**	**9,360**	**567**	NA	
	6/24/2017	--	**6,970**	**2,980**	**390**	**17,100**	**2,224**	**12,880**	**734**	NA	
	10/23/2017	--	**5,170**	**2,940**	**222**	**14,000**	**2,324**	**13,170**	**711**	NA	
	7/8/2021	--	**2,420**	**2,890**	<11.3	**1,800**	**2,576**	**10,800**	**579**	NA	
MW-2	3/11/2011	--	**5,260**	**3,270**	**284**	**11,100**	**2,887**	**15,270**	**529**	Isopropylbenzene	101
										Methylene Chloride	66.5 *
										n-Propylbenzene	294
	9/15/2011	--	**4,760**	**3,720**	**280**	**10,900**	**3,238**	**16,550**	**891**	NA	
	8/15/2013	--	NA	NA	NA	NA	NA	NA	NA	NA	
	9/11/2013	--	**1,810**	**2,930**	*37.3*	**2,660**	**3,155**	**11,020**	**828**	Isopropylbenzene	150
										n-Propylbenzene	406
										p-Isopropyltoluene	11.3
										sec-Butylbenzene	19.6 J*
	5/28/2015	--	**2,020**	**3,400**	*49.6*	**2,560**	**3,843**	**14,150**	**826**	NA	
	6/24/2017	--	**2,310**	**3,300**	**60.6** J	*480*	**5,160**	**12,950**	**1,560**	NA	
	10/23/2017	--	**1,080**	**2,310**	<24.2	*204*	**4,055**	**8,640**	**928**	NA	
	7/8/2021	--	**335**	**2,000**	<45.2	57.1	**3,861**	**7,360**	**964**	NA	

Table A. 1 Groundwater Analytical Results Summary - VOCs
Bob's Citgo, Milton, Wisconsin / SCS Engineers Project #25221172.00
(Results are in µg/L)

Sample	Date	Lab Notes	Benzene	Ethylbenzene	MTBE	Toluene	TMBs	Xylenes	Naphthalene	Other VOCs	
MW-3	3/3/2011	--	**3,150**	**3,230**	<76.2	**10,500**	**2,888**	**14,130**	**589**	Isopropylbenzene	105
										n-Propylbenzene	284
										Methylene Chloride	65.6 *
	9/15/2011	--	**2,670**	**2,610**	**74.30**	**6,420**	**2,932**	**10,660**	**680**	NA	
	8/15/2013	--	**2,290**	**3,760**	**562**	**1,750**	**3,411**	**15,650**	**926**	NA	
	9/11/2013	--	**2,290**	**2,580**	**532**	**1,120**	**2,393**	**11,030**	**684**	Isopropylbenzene	93.3
										n-Propylbenzene	230
	5/28/2015	--	**1,360**	**3,040**	<24.2	*719*	**3,342**	**12,610**	**831**	NA	
	6/24/2017	--	**1,100**	**2,900**	*28.6* J	68.3	**3,063**	**9,208**	**743**	NA	
	10/23/2017	--	**1,760**	**2,730**	*58.3* J	*163*	**3,515**	**9,630**	**884**	NA	
	7/8/2021	--	**1,220**	**2,330**	<28.2	35.3	**4,227**	**4,170**	**813**	NA	
MW-4	9/15/2011	--	<0.41	<0.54	**154**	<0.67	<1.80	<2.63	<0.89	1,2-Dichloroethane	2.3
										Chloromethane	0.33
	8/15/2013	--	<0.34	<0.34	**210**	<0.34	<0.69	<1.03	<0.37	NA	
	9/11/2013	--	<0.50	<0.50	**154**	<0.44	<1.00	<1.32	<2.5	1,2-Dichloroethane	1
										Isopropylbenzene	1.4
	5/28/2015	--	<0.40	<0.39	**95.0**	<0.39	<0.84	<1.25	<0.42	NA	
	6/24/2017	--	<0.40	<0.39	0.68 J	<0.39	<0.84	<1.25	<0.42	NA	
	10/23/2017	--	<0.40	<0.39	*21.7*	<0.39	<0.84	<1.25	<0.42	NA	
MW-5	9/15/2011	--	**623**	58.5	**776**	6.3	<9.0	271	<4.4	ND	
	8/15/2013	--	**3,930**	**1,330**	**270**	**969**	**486**	**2,890**	**307**	NA	
	9/11/2013	--	**3,220**	**1,080**	**216**	*737*	*338.8*	**2,152**	**209**	Isopropylbenzene	36.6
										n-Propylbenzene	78.3
	5/28/2015	--	**2,170**	**917**	**105**	**1,690**	**900**	**3,920**	**275**	NA	
	6/24/2017	--	<0.40	<0.39	<0.48	<0.39	<0.84	<1.25	<0.42	NA	
	10/23/2017	--	<0.40	<0.39	<0.48	<0.39	<0.84	<1.25	2.6	NA	
	7/8/2021	--	**16.6**	26.5	4.7 J1	2.1	23.1	63.8	6.9	NA	

Table A. 1 Groundwater Analytical Results Summary - VOCs
Bob's Citgo, Milton, Wisconsin / SCS Engineers Project #25221172.00
(Results are in µg/L)

Sample	Date	Lab Notes	Benzene	Ethylbenzene	MTBE	Toluene	TMBs	Xylenes	Naphthalene	Other VOCs	
MW-6	9/15/2011	--	**289**	75.6	*53.8*	1.7	27.2	6.9	*19.2*	Isopropylbenzene	7.3
										n-Propylbenzene	7.3
	8/15/2013	--	*4.1*	1.2	5.3	<0.34	<0.69	<1.03	<0.37	NA	
	9/11/2013	--	**208**	121	3.2	11.3	35.0	162.1	*20.0*	Isopropylbenzene	6.5
										n-Propylbenzene	13.1
	5/28/2015	--	<0.40	<0.39	<0.48	<0.39	<0.84	<1.25	<0.42	NA	
	6/24/2017	--	**1,060**	**1,360**	**109**	*166*	**870**	**3,164**	**354**	NA	
	10/23/2017	--	**103**	98.7	4.1	7.9	65.3	160	*22.2*	NA	
	7/8/2021	--	**5.1**	4.1	<1.1	<0.29	0.60 J1	1.9 J1	<1.1	NA	
MW-7	9/11/2013	--	**56.6**	<0.50	**125**	<0.44	<l.00	<1.32	<2.5	1,2-Dichloroethane	1.1
	5/28/2015	--	**18.8**	1.3	**126**	<0.39	<0.84	5.2	1.7	NA	
	6/24/2017	(2)	**244**	8.2	**96.9**	3.2	<1.67	3.0	2.7	NA	
	10/23/2017	--	<0.40	<0.39	<0.48	<0.39	<0.84	<1.25	<0.42	NA	
MW-8	9/11/2013	--	**12.8**	<0.50	4.30	<0.44	<1.00	<l.32	<2.5	ND	
	5/28/2015	--	*0.75* J	<0.39	10.30	<0.39	1.6	<1.25	0.67 J	NA	
	6/24/2017	--	*2.1*	12.2	2.30	0.441	<0.84	3.0	*14.4*	NA	
	10/23/2017	--	<0.40	<0.39	2.90	<0.39	<0.84	<1.25	<0.42	NA	
MW-9	9/11/2013	--	<0.50	<0.50	1.1	<0.44	<1.00	<1.32	<2.5	ND	
	5/28/2015	--	<0.40	<0.39	<0.48	<0.39	<0.84	<1.25	<0.42	NA	
	6/24/2017	--	<0.40	<0.39	<0.48	<0.39	<0.84	<1.25	<0.42	NA	
	10/23/2017	--	<0.40	<0.39	<0.48	<0.39	<0.84	<1.25	<0.42	NA	
MW-10	9/11/2013	--	<0.50	<0.50	<0.49	<0.44	<1.00	<l.32	<2.5	ND	
	5/28/2015	--	<0.40	<0.39	<0.48	<0.39	<0.84	<1.25	<0.42	NA	
	6/24/2017	--	<0.40	<0.39	<0.48	<0.39	<0.84	<1.25	<0.42	NA	
	10/23/2017	(1)(2)	<0.40	<0.39	<0.48	<0.39	<0.84	<1.25	<0.42	NA	

Table A. 1 Groundwater Analytical Results Summary - VOCs
Bob's Citgo, Milton, Wisconsin / SCS Engineers Project #25221172.00
(Results are in µg/L)

Sample	Date	Lab Notes	Benzene	Ethylbenzene	MTBE	Toluene	TMBs	Xylenes	Naphthalene	Other VOCs	
Trip Blank	7/8/2021	--	<0.30	<0.33	<1.1	<0.29	<0.81	<1.0	<1.1	NA	
NR 140 Enforcement Standards (ESs)			5	700	60	800	480	2,000	100	1,2-Dichloroethane	5
										sec-Butylbenzene	NE
										Isopropylbenzene	NE
										n-Propylbenzene	NE
										p-Isopropyltoluene	NE
										Methylene Chloride	0.5
										Chloromethane	30
NR 140 Preventive Action Limits (PALs)			0.5	140	12	160	96	400	10	1,2-Dichloroethane	0.5
										sec-Butylbenzene	NE
										Isopropylbenzene	NE
										n-Propylbenzene	NE
										p-Isopropyltoluene	NE
										Methylene Chloride	5
										Chloromethane	3

Abbreviations:
µg/L = micrograms per liter or parts per billion (ppb)
-- = Not Applicable
NA = Not Analyzed
NE = No Standard Established
MTBE = Methyl tert-butyl ether
VOCs = Volatile Organic Compounds
TMBs = 1,2,4- and 1,3,5-trimethylbenzenes

Notes:
NR 140 ESs - Wisconsin Administrative Code (WAC), Chapter NR 140.10 Table 1 - Public Health Groundwater Quality Standards from February 2021
NR 140 PALs - WAC, Chapter NR 140.10 Table 1 - Public Health Groundwater Quality Standards from February 2021
Bold+underlined values meet or exceed NR 140 ESs.
Italic+underlined values meet or exceed NR 140 PALs.

Laboratory Notes/Qualifiers:
* = May be laboratory contaminant
J = Estimated concentration below quantitation limit
J1 = Estimated concentration at or above the Limit of Detection (LOD) and below the Limit of Quantitation (LOQ).
(1) = Lab flagged sample for insufficient preservation pH
(2) = Lab flagged sample for headspace in sample

Created by:	AJR	Date:	7/22/2021
Last revision by:	AJR	Date:	7/26/2021
Checked by:	BJS	Date:	7/31/2021
Proj Mgr QA/QC:	BJS	Date:	7/31/2021

I:\25221172.00\Deliverables\2022-2 GWM Reprt\Tables\[Table A.1_Groundwater VOCs_Bob's CITGO.xlsx]GW VOCs

Table A.2 Soil Analytical Results Summary - PVOCs
Former Bob's Citgo - Milton, Wisconsin / SCS Engineers Project #25221172.00
(Results are in µg/kg, except where noted otherwise)

Sample	Date	Depth (feet)	PID (ppm)	Lab Notes	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-TMB	1,3,5-TMB	1,2,4- & 1,3,5-TMB Combined	MTBE	Naphthalene	Lead (mg/kg)	Other VOCs
B-1	8/24/2005	16-20	--	--	<200	**14,600**	**6,240**	**68,800**	57,300	20,000	**77,300**	<200	NA	5.43	NA
		27	--	--	<25	<25	<25	<50	<25	<25	<50	<25	NA	1.26	NA
B-2	8/24/2005	16-20	--	--	<25	<25	<25	<50	<25	<25	<50	<25	NA	0.552	NA
B-3	8/24/2005	12-16	--	--	<25	<25	<25	<50	33.7	<25	33.7	<25	NA	4	NA
B-4	8/24/2005	6-8	--	--	**1,720**	**2,780**	460	**19,950**	10,500	3,820	**14,320**	<25	NA	13.3	NA
B-5	8/24/2005	6-7	--	--	**1,190**	**15,400**	**7,450**	**76,100**	44,800	13,900	**58,700**	<200	NA	15.6	NA
B-6	8/24/2005	6-7	--	--	**1,370**	1,040	144	**4,020**	1,670	493	**2,163**	**44**	NA	11.8	NA
B-7	4/6/2011	18	--	--	<25.0	<25.0	<25.0	<75.0	56.1	<25.0	56.1	<25.0	<25.0	NA	NA
	4/6/2011	20	--	--	<25.0	<25.0	<25.0	219.4	252	81.1	333.1	<25.0	44.8	NA	NA
B-8	4/6/2011	7	--	--	**618**	1,180	<100	**4,770**	13,300	4,620	**17,920**	<100	**5,770**	NA	NA
B-9	4/6/2011	10	--	--	<25.0	<25.0	<25.0	76.6	46	<25.0	46	<25.0	<25.0	NA	NA
B-10	4/6/2011	16-20	--	--	<25.0	<25.0	<25.0	<75.0	<25.0	<25.0	<50.0	<25.0	<25.0	NA	NA
	4/6/2011	20-24	--	--	<25.0	64.7	56.7	345.8	286	85.6	371.6	<25.0	184	NA	NA
B-11	4/6/2011	18	--	--	<26.9	<26.9	<26.9	<80.7	<26.9	<26.9	<53.8	<26.9	<26.9	NA	NA
	4/6/2011	20	--	--	**2,170**	**42,200**	**12,200**	**180,500**	89,900	29,800	**119,700**	<1000	**14,700**	NA	NA
MW-1	10/25/2010	23.5-25	--	--	<25.0	<25.0	<25.0	<75.0	<25.0	<25.0	<50.0	<25.0	<25.0	NA	NA
	10/25/2010	53*	--	--	**1,040**	989	**3,780**	**4,690**	1,430	411	**1,841**	**147**	**726**	NA	NA
MW-2	2/23/2011	15	--	--	<25.0	<25.0	<25.0	88.1	82.2	<25.0	82.2	<25.0	42.1	NA	NA
MW-3	2/23/2011	3-5	--	--	<25.0	<25.0	<25.0	68.6	37.9	<25.0	37.9	<25.0	<25.0	NA	NA
	2/23/2011	13-15	--	--	**1,920**	**33,300**	**14,600**	**146,300**	104,000	37,200	**141,200**	<500	**17,500**	NA	NA
	2/23/2011	23-25	--	--	<25.0	156	75.2	710	461	156	617	<25.0	176	NA	NA
#1	10/30/2019	18	--	--	**608**	**8,780**	**3,810**	**40,600**	19,600	6,040	**25,640**	<62.5	**2,730**	NA	NA
#2	10/30/2019	20	--	--	**4,310**	**90,500**	**44,000**	**628,000**	**323,000**	102,000	**425,000**	<1000	**39,600**	NA	NA
#3	10/30/2019	16	--	--	<25.0	255	184	1,966	864	248	1112	<25.0	116 J	NA	NA
#4	10/30/2019	12	--	--	<25.0	34.8 J	44.7 J	206	40.5 J	<25.0	40.5 J	<25.0	<40.0	NA	NA
#5	10/30/2019	18	--	--	<25.0	<25.0	<25.0	<75.0	<25.0	<25.0	<50.0	<25.0	<40.0	NA	NA
#6	10/31/2019	14	--	--	<25.0	132	<25.0	310.3	1,360	434	**1,794**	<25.0	328	NA	NA
#7	10/31/2019	5	--	--	<25.0	34.6 J	<25.0	275	174	39.3 J	213.3	<25.0	80.5 J	NA	NA
#8	10/31/2019	5	--	--	**64.1** J	294	135	938	592	176	768	<25.0	126 J	NA	NA
#9	10/31/2019	5	--	--	<25.0	<25.0	<25.0	<75.0	<25.0	<25.0	<50.0	<25.0	<40.0	NA	NA
#10	11/1/2019	5	--	--	<25.0	<25.0	<25.0	<75.0	<25.0	<25.0	<50.0	<25.0	<40.0	NA	NA
B4R	10/18/2021	14.5-15	363	--	**193**	619	<28.5	1,860	1,120	340	**1,460**	<28.5	384	NA	NA

Table A.2 Soil Analytical Results Summary - PVOCs
Former Bob's Citgo - Milton, Wisconsin / SCS Engineers Project #25221172.00
(Results are in µg/kg, except where noted otherwise)

Sample	Date	Depth (feet)	PID (ppm)	Lab Notes	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-TMB	1,3,5-TMB	1,2,4- & 1,3,5-TMB Combined	MTBE	Naphthalene	Lead (mg/kg)	Other VOCs
B21	10/18/2021	12.5-15	1167	--	**128** J1	**6,010**	168	**16,200**	20,700	6,760	**27,460**	<66.8	**4,180**	NA	NA
B22	10/18/2021	8-10	0.0	--	<31.8	<31.8	<31.8	<95.3	<31.8	<31.8	<63.6	<31.8	<31.8	NA	NA
	10/18/2021	19-20	173	--	**907**	**34,100**	**32,000**	**138,000**	78,200	27,000	**105,200**	**1,350**	**12,000**	NA	NA
B23	10/18/2021	3-4	0.8	--	**59.5** J1	<32.6	<32.6	<97.9	<32.6	<32.6	<65.2	<32.6	<32.6	NA	NA
	10/18/2021	14-14.5	3.6	--	<27.9	<27.9	<27.9	<83.6	<27.9	<27.9	<55.8	<27.9	<27.9	NA	NA
B24	10/18/2021	3-4	1.3	--	<30.2	<30.2	<30.2	<90.5	<30.2	<30.2	<60.4	<30.2	<30.2	NA	NA
	10/18/2021	19-20	0.0	--	<26.2	<26.2	<26.2	<78.6	<26.2	<26.2	<52.4	<26.2	<26.2	NA	NA
B25	10/18/2021	3-4	43.1	(1)	<284	1,050	568 J1	3,620	5,300	2,860	**8,160**	<284	**5,540**	NA	NA
	10/18/2021	10-12	177	--	<31.0	154	<31.0	403	400	244	644	<31.0	**665**	NA	NA
	10/18/2021	14-15	9.8	--	<27.4	<27.4	<27.4	<82.2	94.8	<27.4	94.8	<27.4	33.4 J1	NA	NA
Trip Blank	10/18/2021	--	--	--	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<50.0	<25.0	<25.0	NA	NA
NR 720 Groundwater Pathway RCLs with a Wisconsin-Default Dilution Factor of 2					5.1	1,570	1,107.2	3,960	(a)		1,378.7	27	658.2	27	
NR 720 Non-Industrial Direct Contact RCLs					1,600	8,020	818,000	260,000	219,000	182,000	NE	63,800	5,520	400	
NR 720 Industrial Direct Contact RCLs					7,070	35,400	818,000	260,000	219,000	182,000	NE	282,000	24,100	800	
CAS No.					71-43-2	100-41-4	108-88-3	1330-20-7	95-63-6	108-67-8	--	1634-04-4	91-20-3	7439-92-1	

Abbreviations:
µg/kg = micrograms per kilogram or parts per billion (ppb)
mg/kg - milligrams per kilogram or parts per million (ppm)
CAS No. = Chemical Abstracts Service Number
-- = Not Applicable
DRO = Diesel Range Organics
GRO = Gasoline Range Organics
PID = Photoionization Detector
ppm = parts per million
MTBE = Methyl-tert-butyl ether
TMB = Trimethylbenzene
RCLs = Residual Contaminant Levels
VOCs = Volatile Organic Compounds
NA = Not Analyzed
ND = Not Detected
NE = No Standard Established

Notes:
Bold+underlined values exceed an NR 720 RCL, as of December 2018.
(a) NR 720 Groundwater Pathway RCLs for 1,2,4 and 1,3,5 Trimethylbenzene Combined = 1,378.7
* All samples except MW1 at 53 feet are unsaturated.

Laboratory Notes/Qualifiers:
J = Compound detected below limit of quantitation.
J1 = Estimated concentration at or above the Limit of Detection (LOD) and below the Limit of Quantitation (LOQ).
(1) - Surrogates a,a,a-Trifluorotoluene (S) = D3: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

Created by:	AJR	Date:	10/27/2021
Last revision by:	BJS	Date:	12/25/2021
Checked by:	BJS	Date:	12/25/2021
Proj Mgr QA/QC:	BJS	Date:	12/25/2021

I:\25221172.00\Deliverables\2022-2 GWM Reprt\Tables\[Table A.2_Soil_Analytical Results_PVOCs1.xlsx]Soil PVOCs

Table A.6 Water Level Elevations
Bob's Citgo, Milton, Wisconsin / SCS Engineers Project #25221172.00

	Depth to Water in feet below top of well casing									
	MW1	MW2	MW3	MW4	MW5	MW6	MW7	MW8	MW9	MW10
Measurement Date										
11/4/2010	**53.15**									
3/3/2011	**53.92**	**51.18**	**54.02**							
9/15/2011	**54.85**	**59.17**	**54.67**	**55.9**	**57.85**	**57.06**				
8/15/2013	**55.92**	**51.3**	**52.68**	**57.45**	**60.77**	**59.14**				
9/11/2013	**55.16**	**48.01**	**52.06**	**57.1**	**60.23**	**58.77**	**60.86**	**64.39**	**59.61**	**61.29**
5/28/2015	**57.51**	**50.25**	**55.51**	**58.95**	**62.76**	**60.84**	**63.54**	**67.17**	**61.91**	**64.56**
6/24/2017	**53.78**	**48.35**	**53.81**	**52.91**	**56.86**	**59.16**	**61.03**	**64.72**	**60.29**	**62.24**
10/23/2017	**54.65**	**46.36**	**51.78**	**56.2**	**58.59**	**57.49**	**59.08**	**62.75**	**58.05**	**59.57**
7/8/2021	**52.46**	**47.61**	**51.73**	**53.75**	**54.83**	**54.43**	**55.50**	**59.09**	**54.16**	**56.48**
10/19/2021	**53.56**	**50.21**	**52.54**							57.89

	Ground Water Elevation in feet above mean sea level (amsl)									
Well Number	**MW1**	**MW2**	**MW3**	**MW4**	**MW5**	**MW6**	**MW7**	**MW8**	**MW9**	**MW10**
Top of Casing Elevation* (feet amsl)	874.49	873.75	874.81	874.59	875.04	874.85	875.26	878.45	874.57	876.37
Screen Length (ft)	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15
Total Depth (ft from top of casing)	62.40	61.90	62.80	63.30	63.70	64.30	69.50	73.60	65.60	69.1
Top of Well Screen Elevation (ft)	827.09	826.85	827.01	826.29	826.34	825.55	820.76	819.85	823.97	822.27
Measurement Date										
11/4/2010	**821.34**									
3/3/2011	**820.57**	**822.78**	**821.03**							
9/15/2011	**819.64**	**814.79**	**820.38**	**818.7**	**817.35**	**817.74**				
8/15/2013	**818.57**	**822.66**	**822.37**	**817.15**	**814.43**	**815.66**				
9/11/2013	**819.33**	**826.12**	**822.99**	**817.5**	**814.97**	**816.03**	**814.4**	**814.06**	**814.96**	**815.39**
5/28/2015	**816.98**	**823.85**	**819.54**	**815.65**	**812.44**	**813.96**	**811.72**	**811.28**	**812.66**	**812.12**
6/24/2017	**820.71**	**825.76**	**821.24**	**821.69**	**818.34**	**815.64**	**814.23**	**813.73**	**814.28**	**814.44**
10/23/2017	**819.84**	**827.62**	**823.27**	**818.4**	**816.61**	**817.31**	**816.18**	**815.7**	**816.52**	**817.11**
7/8/2021	**822.03**	**826.14**	**823.08**	**820.84**	**820.21**	**820.42**	**819.76**	**819.36**	**820.41**	**819.89**
10/19/2021	**820.93**	**823.54**	**822.27**							**818.48**
Bottom of Well Elevation (ft)	812.09	811.85	812.01	811.29	811.34	810.55	805.76	804.85	808.97	807.27

Notes:
*Wells MW1-MW6, & MW19 were resurveyed 7/8/2021. Wells MW2, MW3, MW5 & MW10 casings were cut down 0.2' on 7/8/2021.
Depth to water measurements and groundwater elevations prior to 7/8/2021 are from Seymour Environmental reports.
Red indicates free product present; elevation not corrected for product. Blank indicated well not installed, or water level not measured.

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Last revision by:	BJS	Date:	12/25/2021
Checked by:	BJS	Date:	2/17/2022
Proj Mgr QA/QC:	BJS	Date:	2/17/2022

I:\25221172.00\Deliverables\2022-2 GWM Reprt\Tables\[Table A.6_Water Level Elevation.xlsx]levels

Table A.7. Slug Test Parameters and Test Results
Former Bob's Citgo - Milton, Wisconsin / SCS Engineers Project #25221172.00

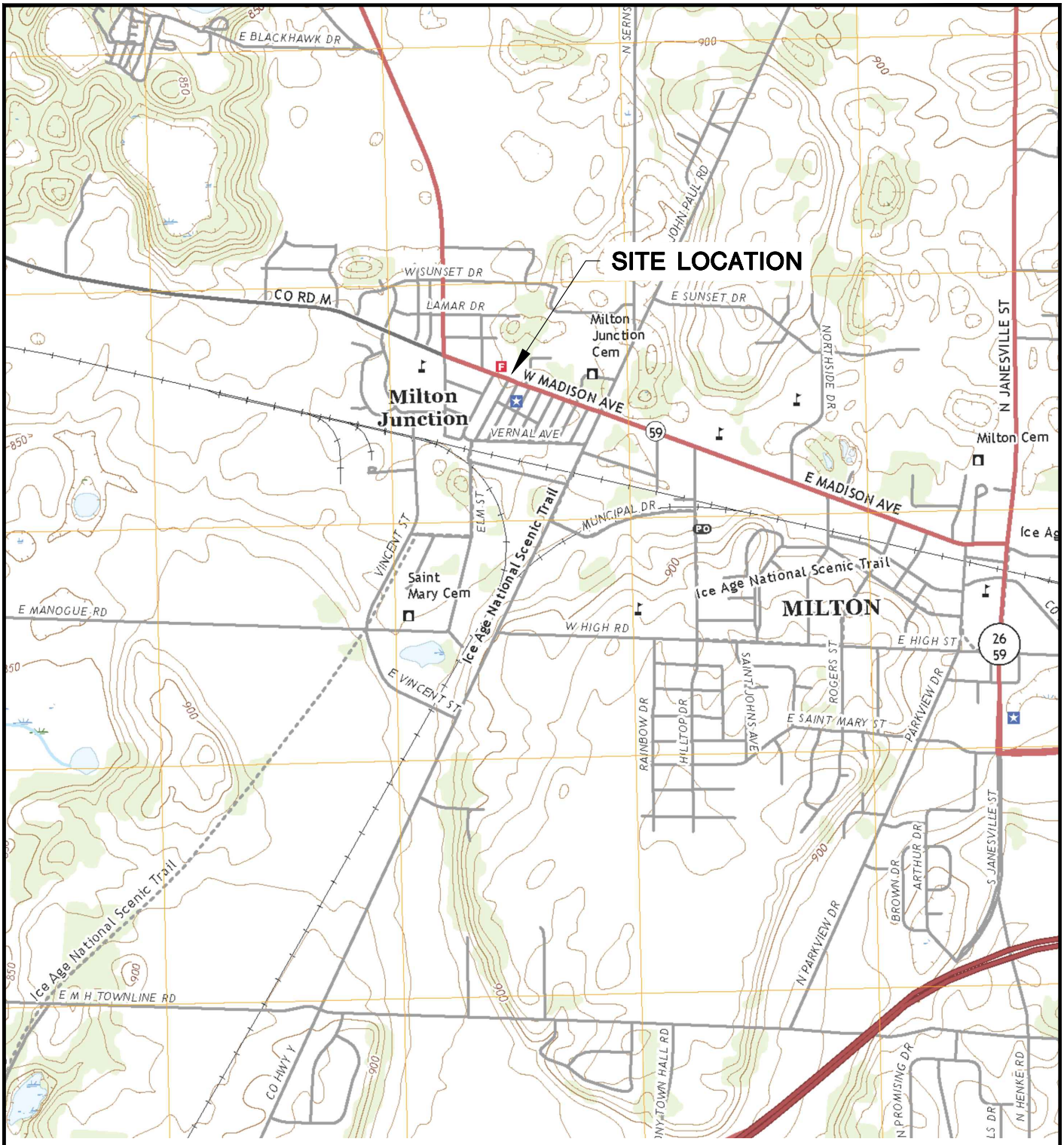
	DTW (static)	H(0)	H	b	d	L	T	r(c)	r(w)	r(sk)	K
	Depth to water from top of casing (ft)	Initial Displacement	static column height	Aquifer saturated thickness	Depth to top of screen (from water or top of confined unit)	Submerged screen length	Transducer depth	Casing Radius (ft)	Well Radius (ft)	(ft)	(cm/sec)
MW1	53.56	1.567	8.84	100	0.00	8.84	7.92	0.0833	0.35	0.35	2.08E-04
MW2	50.21	2.591	11.69	100	0.00	11.69	8.90	0.0833	0.35	0.35	1.69E-04
MW3	52.54	2.282	10.26	100	0.00	10.26	8.96	0.0833	0.35	0.35	5.79E-04
MW10	57.89	1.378	11.21	100	0.00	11.21	9.55	0.0833	0.35	0.35	0.2003

Notes:

DTW Static - Measured prior to testing on 10/19/2021
H(0) - see slug test data. Difference between measurement at initiation of test & static measurement.
saturated thickness - Assumed 100 ft (sandy till & outwash)
Screen length - 15' across the water table. Actual saturated screen interval length used for unconfined aquifer analysis.
Transducer depth - Depth taken from data logger recording ~5 seconds before initiation of test. See data logger files for each test.
Casing radius - 0.09 for Sch. 40 PVC, 0.08 for Sch. 80 PVC (wells >50 ft deep).
Well borehole radius - 0.6875 (assumed to be installed with 8-1/4" auger)

Prepared by: JK: 1/10/2022
Checked by: REL 1/10/2022

Figures



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MILTON QUADRANGLE
WISCONSIN
7.5 MINUTE SERIES (TOPOGRAPHIC)
2018

1000 0 1000 2000
FEET

CLIENT	MR. ROBERT RICHARDSON 507 CAMPUS STREET MILTON, WI 53563	SITE	BOB'S CITGO 602 W. MADISON AVENUE MILTON, WISCONSIN

SITE LOCATION MAP

PROJECT NO.	25221172.00	DRAWN BY:	KP
DRAWN:	08/02/2021	CHECKED BY:	BJS
REVISED:	08/02/2021	APPROVED BY:	BJS 08/03/2021

ENGINEER

SCS ENGINEERS
2830 DAIRY DRIVE MADISON, WI 53718-6751
PHONE: (608) 224-2830

FIGURE
1

I:\25221172.00\Drawings\Site Location.dwg, 8/3/2021 9:15:22 AM

I:\25221172.00\Drawings\Site InvestigationSite.dwg, 2/17/2022 2:42:19 PM

LEGEND

- PROPERTY LINE (APPROXIMATE)
- G — GAS MAIN
- SA — SANITARY SEWER
- ST — STORM SEWER
- UE — UNDERGROUND ELECTRIC
- W — WATER MAIN
- 603 — W. MADISON AVENUE ADDRESS
- SOIL BORING
- GEOPROBE SOIL BORING
- MONITORING WELL
- UNDERGROUND STORAGE TANK (UST)
- APPROXIMATE REMEDIAL EXCAVATION LIMIT
- EXCAVATION SAMPLE
- 2002 EXCAVATION SAMPLE
- UNSATURATED SOIL CONTAMINATION EXCEEDS AN NR 720 GROUNDWATER PATHWAY RCL.
- UNSATURATED SOIL CONTAMINATION EXCEEDS AN NR 720 DIRECT CONTACT RCL (0-4' DEPTH)

UST LEGEND

T1	DIESEL
T2	UNLEADED GAS
T3	UNLEADED GAS
T4	UNLEADED GAS
T5	KEROSENE
T6	KEROSENE
T7	KEROSENE (REMOVED IN 2008)
T8	(REMOVED IN 2008)
T9	(REMOVED IN 2000)

NOTES:

1. MONITORING WELL AND BORING (B-1 THROUGH B-10) FROM BASE MAP PREPARED BY SEYMOUR ENVIRONMENTAL SERVICES, INC., JULY 2015.
2. ALL USTS HAVE BEEN REMOVED.
3. LIMITS OF EXCAVATION FROM SEYMOUR ENVIRONMENTAL SERVICES, INC., FIGURE 1, REMEDIAL EXCAVATION DETAILS, JANUARY 21, 2020.
4. 2001 EXCAVATION EXTENT AND SAMPLE LOCATIONS FROM MORAINE ENVIRONMENTAL, FIGURE 2, JANUARY 8, 2002.
5. LOCATION OF JIM'S TIRE FORMER GARAGE, UST SYSTEM, AND BORINGS IN RIGHT-OF-WAY FROM WDOT PHASE 2 REPORT, NOVEMBER 30, 1992.
6. PROPERTY LINES ARE APPROXIMATE AND WERE OBTAINED FROM THE WISCONSIN STATEWIDE PARCEL MAP INITIATIVE. INFORMATION OBTAINED FROM WISCONSIN'S COUNTIES AND CITIES IN 2020 AND THUS MAY NOT BE THE MOST CURRENT, COMPREHENSIVE DATA AVAILABLE.
7. AERIAL PHOTOGRAPH FROM BING MAPS, AS BROUGHT IN BY AUTOCAD. NO DATE IMAGE PROVIDED.

20 0 20

SCALE: 1" = 20'

SOIL CONTAMINATION

SITE

BOB'S CITGO
602 W. MADISON AVENUE
MILTON, WISCONSIN

CLIENT

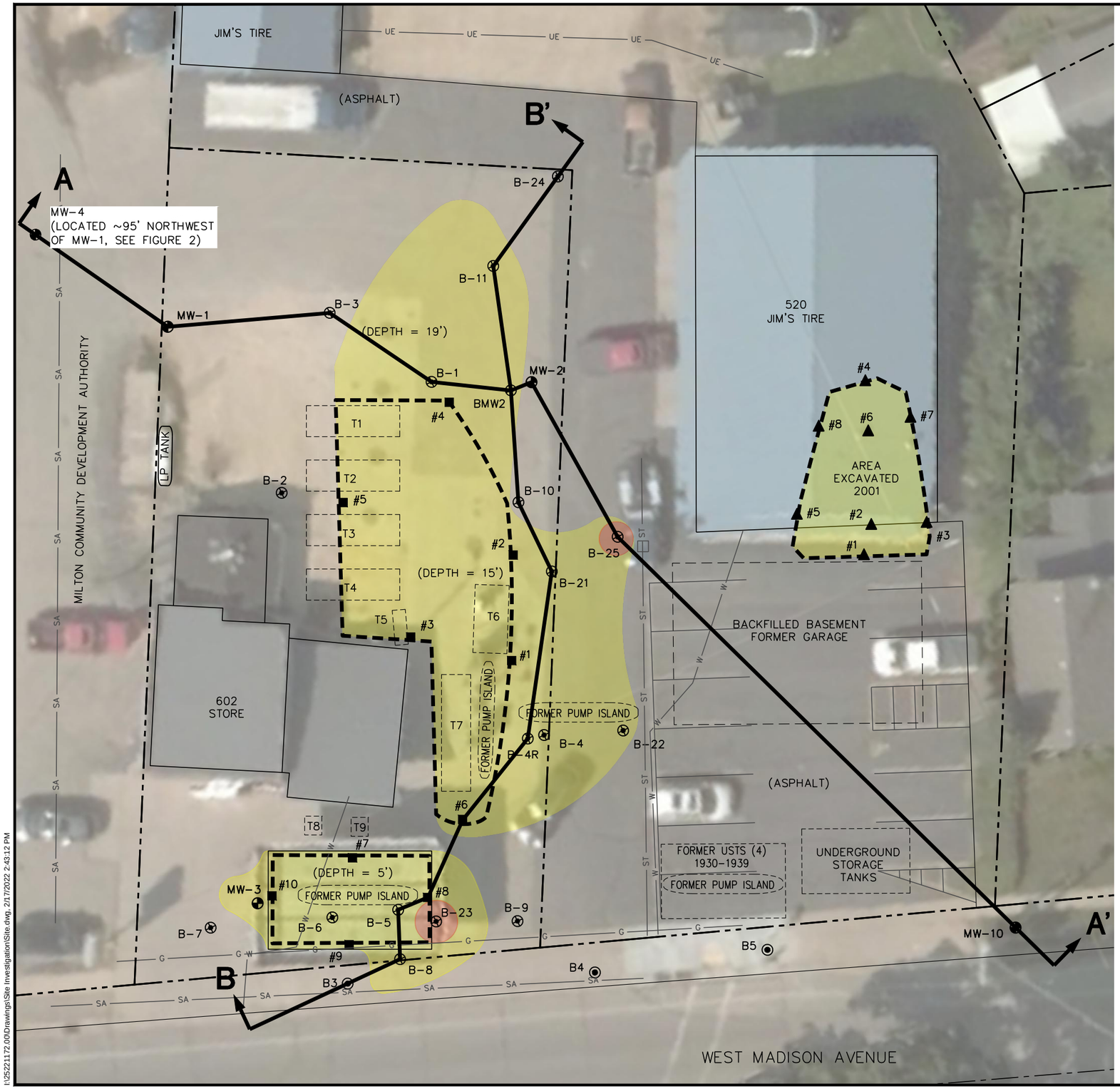
MR. ROBERT RICHARDSON
507 CAMPUS STREET
MILTON, WI 53563

FIGURE B.2.a

ENGINEER

SCS ENGINEERS
2830 DAIRY DRIVE MADISON, WI 53718-6751
PHONE: (608) 224-2830

DRAWN BY:	KP
CHECKED BY:	BJS
APPROVED BY:	BJS 02/17/2022
PROJECT NO.	25221172.00
DRAWN:	10/12/2021
REVISED:	02/17/2022



LEGEND

- PROPERTY LINE (APPROXIMATE)
- G — GAS MAIN
- SA — SANITARY SEWER
- ST — STORM SEWER
- UE — UNDERGROUND ELECTRIC
- W — WATER MAIN
- 603 — W. MADISON AVENUE ADDRESS
- SOIL BORING
- GEOPROBE SOIL BORING
- MONITORING WELL
- UNDERGROUND STORAGE TANK (UST)
- APPROXIMATE REMEDIAL EXCAVATION LIMIT
- EXCAVATION SAMPLE
- 2002 EXCAVATION SAMPLE
- UNSATURATED SOIL CONTAMINATION EXCEEDS AN NR 720 GROUNDWATER PATHWAY RCL.
- UNSATURATED SOIL CONTAMINATION EXCEEDS AN NR 720 DIRECT CONTACT RCL (0-4' DEPTH)

UST LEGEND

T1	DIESEL
T2	UNLEADED GAS
T3	UNLEADED GAS
T4	UNLEADED GAS
T5	KEROSENE
T6	KEROSENE
T7	KEROSENE (REMOVED 2008)
T8	(REMOVED 2008)
T9	(REMOVED 2000)

NOTES:

1. SEE FIGURE B.2.a FOR BASE MAP NOTES.

N

20 0 20

SCALE: 1" = 20'

GEOLOGIC CROSS SECTION LOCATIONS

SITE

BOB'S CITGO
602 W. MADISON AVENUE
MILTON, WISCONSIN

CLIENT

MR. ROBERT RICHARDSON
507 CAMPUS STREET
MILTON, WI 53563

FIGURE B.3.a

SCS ENGINEERS
2830 DAIRY DRIVE MADISON, WI 53718-6751
PHONE: (608) 224-2830

ENGINEER

DRAWN BY:	KP
CHECKED BY:	BJS
APPROVED BY:	BJS 02/17/2022

PROJECT NO.	25221172.00
DRAWN:	12/21/2021
REVISED:	02/17/2022

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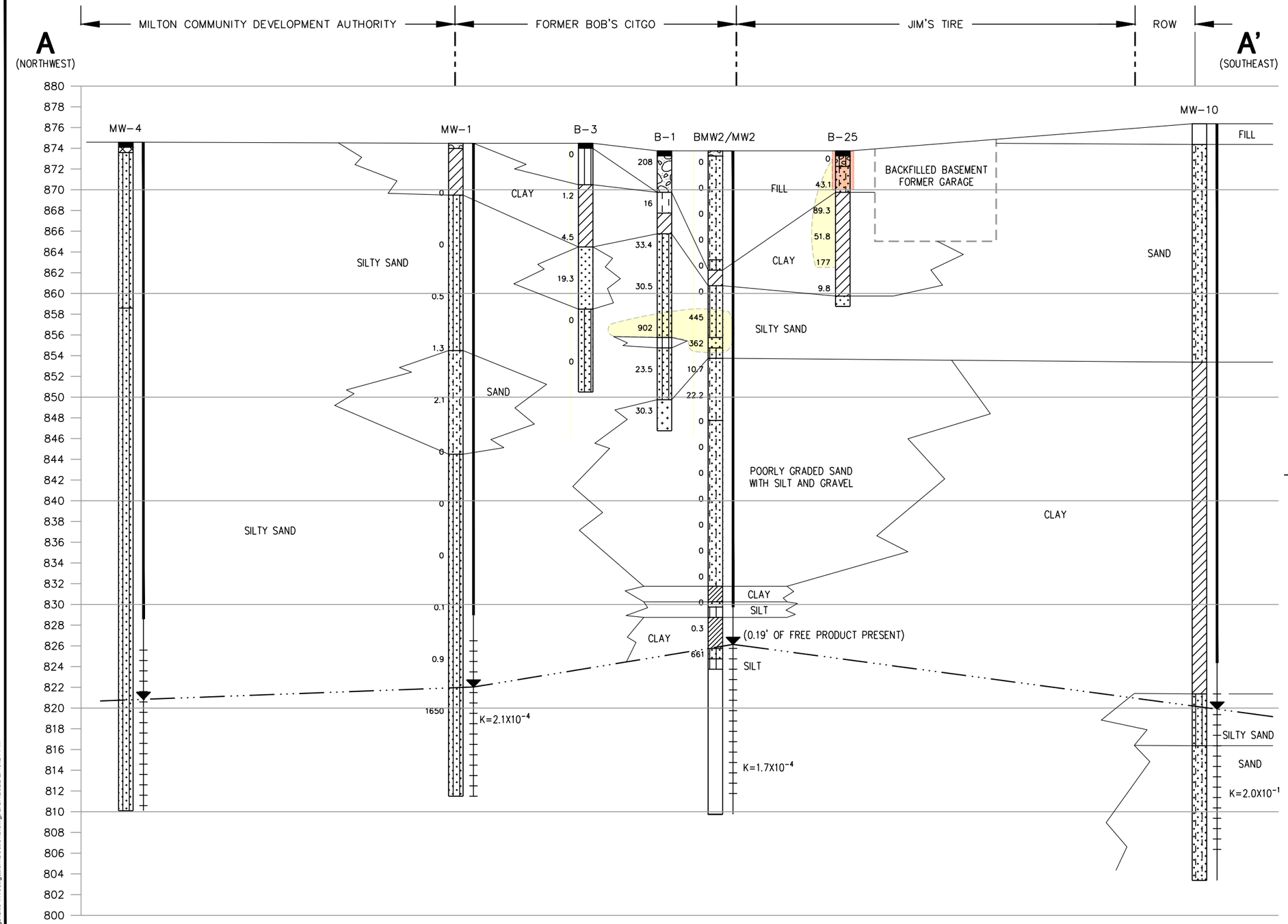
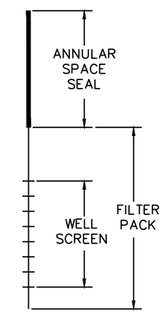


LEGEND

- ASPHALT OR CONCRETE
- NO LOG
- SAND, WELL GRADED, LITTLE OR NO FINES (SW)
- SAND, POORLY GRADED, LITTLE OR NO FINES (SP)
- SILT (ML)
- ORGANIC SILT OR CLAY, LOW PLASTICITY (OL)
- LEAN CLAY (CL)
- FAT CLAY (CH)
- GRAVEL, WELL GRADED, LITTLE OR NO FINES (GW)
- SILTY SAND (SM)
- CLAYEY SAND (SC)
- SILTY GRAVEL (GM)
- SAND, POORLY GRADED WITH SILT (SP-SM)
- WATER TABLE ON 07/08/2021
- 25 FLAME IONIZATION DETECTOR READING
- $K=1.7X10^{-4}$ HYDRAULIC CONDUCTIVITY (CM/SEC)
- UNSATURATED SOIL CONTAMINATION EXCEEDS AN NR 720 GROUNDWATER PATHWAY RCL.
- UNSATURATED SOIL CONTAMINATION EXCEEDS AN NR 720 DIRECT CONTACT RCL (0-4' DEPTH)



WELL DETAIL

0 30

HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 10'
VERTICAL EXAGGERATION = 3X

GEOLOGIC CROSS SECTION A-A'

FIGURE B.3.a.a

SCS ENGINEERS
2830 DAIRY DRIVE MADISON, WI 53718-6751
PHONE: (608) 224-2830

ENGINEER

SITE
BOB'S CITGO
602 W. MADISON AVENUE
MILTON, WISCONSIN

CLIENT
MR. ROBERT RICHARDSON
507 CAMPUS STREET
MILTON, WI 53563

PROJECT NO.	25221172.00
DRAWN:	12/21/2021
REVISED:	02/08/2022
DRAWN BY:	KP
CHECKED BY:	BJS
APPROVED BY:	BJS 02/17/2022

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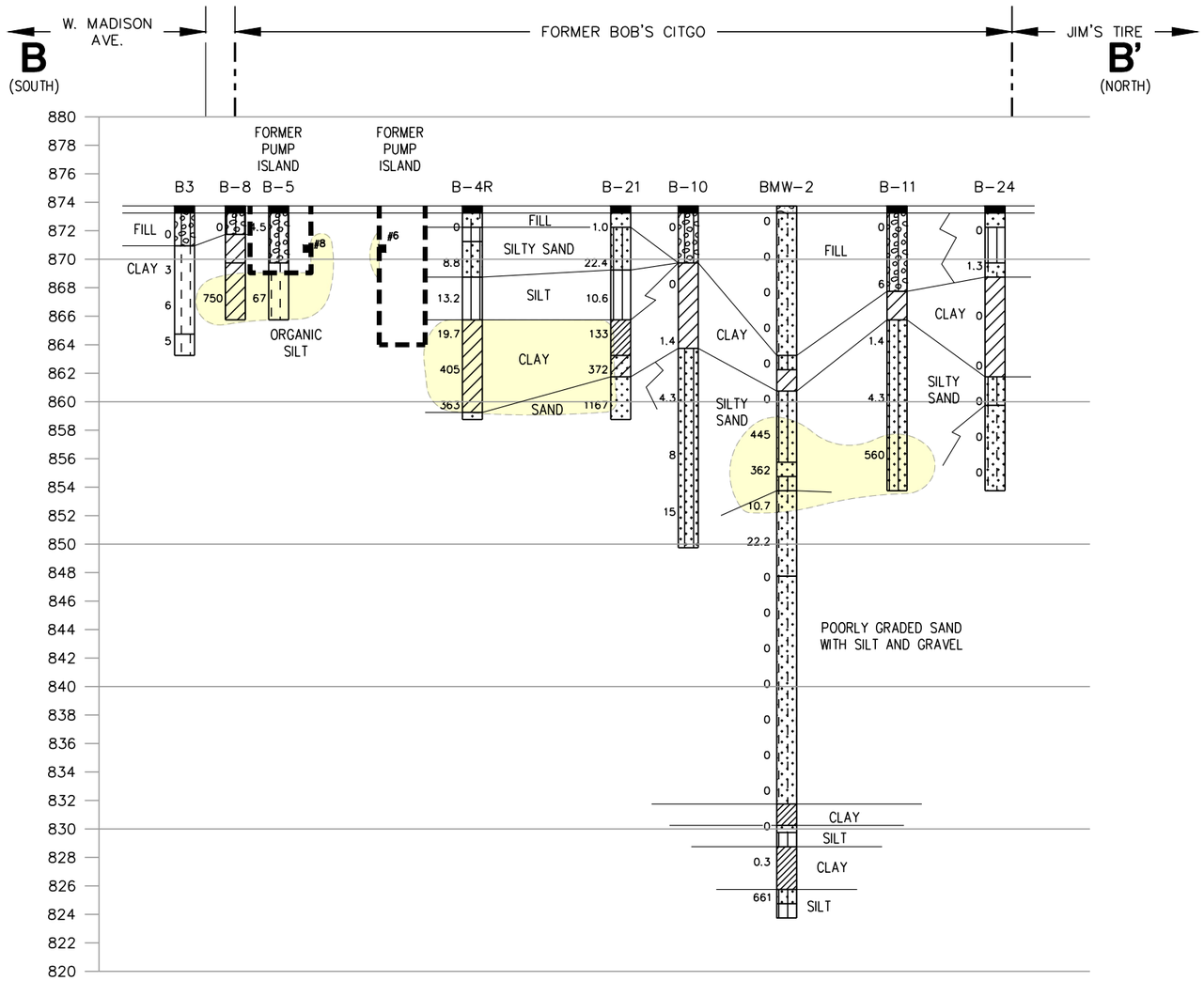
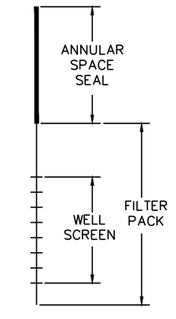


LEGEND

- ASPHALT OR CONCRETE
- SAND, POORLY GRADED, LITTLE OR NO FINES (SP)
- SILT (ML)
- ORGANIC SILT OR CLAY, LOW PLASTICITY (OL)
- LEAN CLAY (CL)
- FAT CLAY (CH)
- GRAVEL, WELL GRADED, LITTLE OR NO FINES (GW)
- SILTY SAND (SM)
- CLAYEY SAND (SC)
- SILTY GRAVEL (GM)
- SAND, POORLY GRADED WITH SILT (SP-SM)
- WATER TABLE ON 07/08/2021
- 25 FLAME IONIZATION DETECTOR READING
- REMEDIAL SOIL EXCAVATION
- UNSATURATED SOIL CONTAMINATION EXCEEDS AN NR 720 GROUNDWATER PATHWAY RCL.



WELL DETAIL

0 30

HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 10'
VERTICAL EXAGGERATION = 3X

GEOLOGIC CROSS SECTION B-B'

FIGURE B.3.a.b

SCS ENGINEERS
2830 DAIRY DRIVE MADISON, WI 53718-6751
PHONE: (608) 224-2830

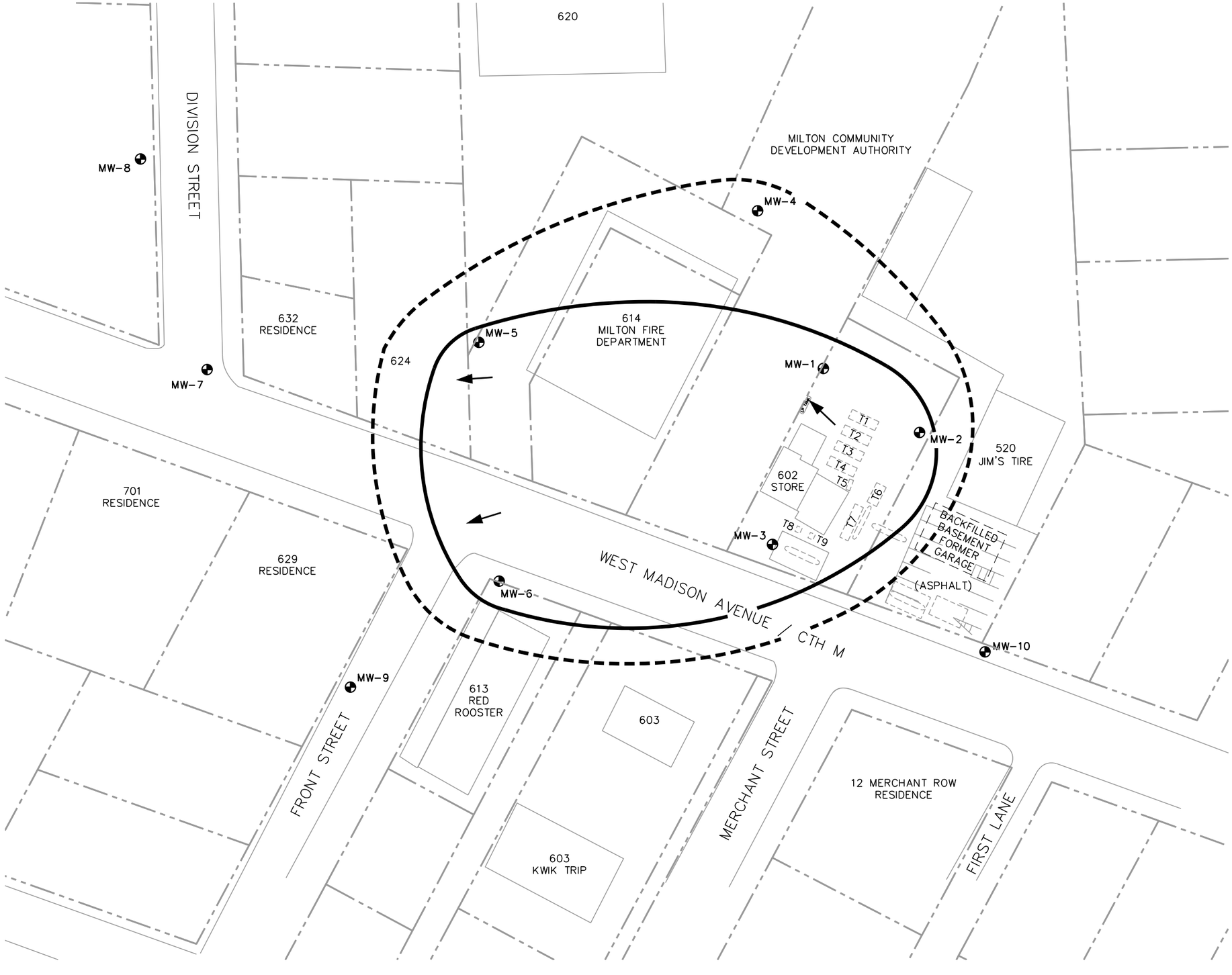
ENGINEER

KP
BJS
BJS 02/17/2022

SITE
BOB'S CITGO
602 W. MADISON AVENUE
MILTON, WISCONSIN

CLIENT
MR. ROBERT RICHARDSON
507 CAMPUS STREET
MILTON, WI 53563

PROJECT NO.	25221172.00
DRAWN:	12/21/2021
REVISED:	02/08/2022
DRAWN BY:	
CHECKED BY:	
APPROVED BY:	



GROUNDWATER ISOCONCENTRATION

FIGURE B.3.b

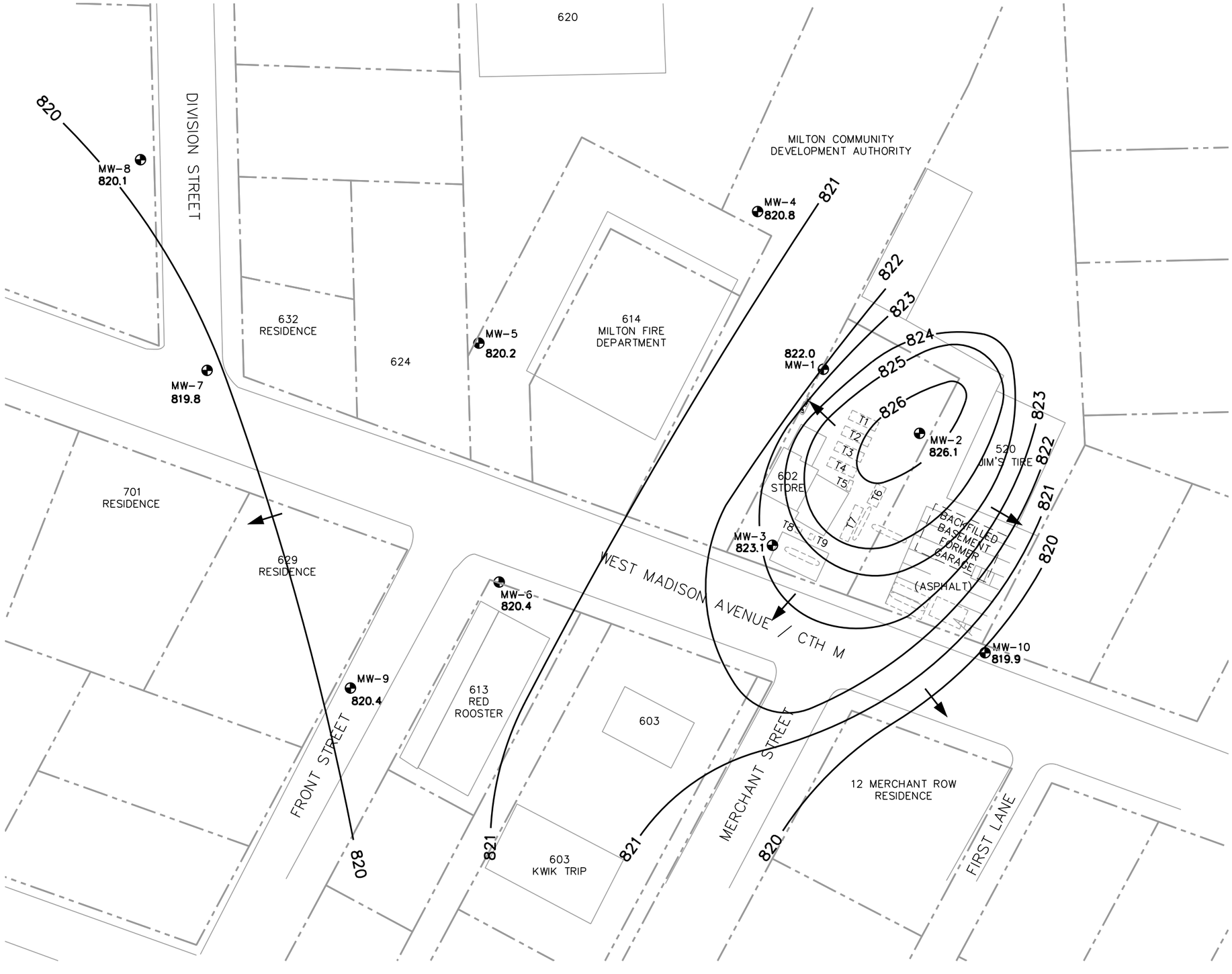
SCS ENGINEERS
2830 DAIRY DRIVE MADISON, WI 53718-6751
PHONE: (608) 224-2830

SITE
BOB'S CITGO
602 W. MADISON AVENUE
MILTON, WISCONSIN

CLIENT
MR. ROBERT RICHARDSON
507 CAMPUS STREET
MILTON, WI 53563

ENGINEER

DRAWN BY:	KP	
CHECKED BY:	BJS	BJS 02/17/2022
APPROVED BY:	BJS	
PROJECT NO.	25221172.00	
DRAWN:	12/28/2021	
REVISED:	02/08/2022	



GROUNDWATER FLOW DIRECTION
07/08/2021

BOB'S CITGO
602 W. MADISON AVENUE
MILTON, WISCONSIN

SITE

MR. ROBERT RICHARDSON
507 CAMPUS STREET
MILTON, WI 53563

CLIENT

FIGURE B.3.c

SCS ENGINEERS
2830 DAIRY DRIVE MADISON, WI 53718-6751
PHONE: (608) 224-2830

ENGINEER

DRAWN BY:	KP
CHECKED BY:	BJS
APPROVED BY:	BJS 02/17/2022
PROJECT NO.	25221172.00
DRAWN:	08/02/2021
REVISED:	02/08/2022

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620

DIVISION STREET

MILTON COMMUNITY DEVELOPMENT AUTHORITY

820

MW-8
820.1

MW-4
820.8

821

632
RESIDENCE

624

MW-5
820.2

614
MILTON FIRE DEPARTMENT

822

822.0
MW-1

823
824
825
826

MW-2
826.1

520
JIM'S TIRE

602
STORE

T1
T2
T3
T4
T5
T6
T7
T8
T9

BACKFILLED BASEMENT FORMER GARAGE

(ASPHALT)

MW-7
819.8

701
RESIDENCE

629
RESIDENCE

MW-3
823.1

WEST MADISON AVENUE / CTH M

MW-6
820.4

MW-10
819.9
(NOT USED IN CONTOUR MAP)

MW-9
820.4

613
RED ROOSTER

603

FRONT STREET

MERCHANT STREET

12 MERCHANT ROW
RESIDENCE

603
KWIK TRIP

FIRST LANE

820

N

LEGEND

	PROPERTY LINE (APPROXIMATE)
603	W. MADISON AVENUE ADDRESS
	MONITORING WELL
T1	UNDERGROUND STORAGE TANK (UST)
823.1	WATER TABLE ELEVATION MEASURED ON 07/08/2021
	WATER TABLE CONTOUR
	APPROXIMATE GROUNDWATER FLOW DIRECTION

UST LEGEND

T1	DIESEL
T2	UNLEADED GAS
T3	UNLEADED GAS
T4	UNLEADED GAS
T5	KEROSENE
T6	KEROSENE
T7	KEROSENE (REMOVED 2008)
T8	(REMOVED 2008)
T9	(REMOVED 2000)

NOTES:

1. SEE FIGURE B.2.a FOR BASE MAP NOTES.

60 0 60

SCALE: 1" = 60'

GROUNDWATER FLOW
07/08/2021

SITE

BOB'S CITGO
602 W. MADISON AVENUE
MILTON, WISCONSIN

CLIENT

MR. ROBERT RICHARDSON
507 CAMPUS STREET
MILTON, WI 53563

FIGURE B.3.c.a

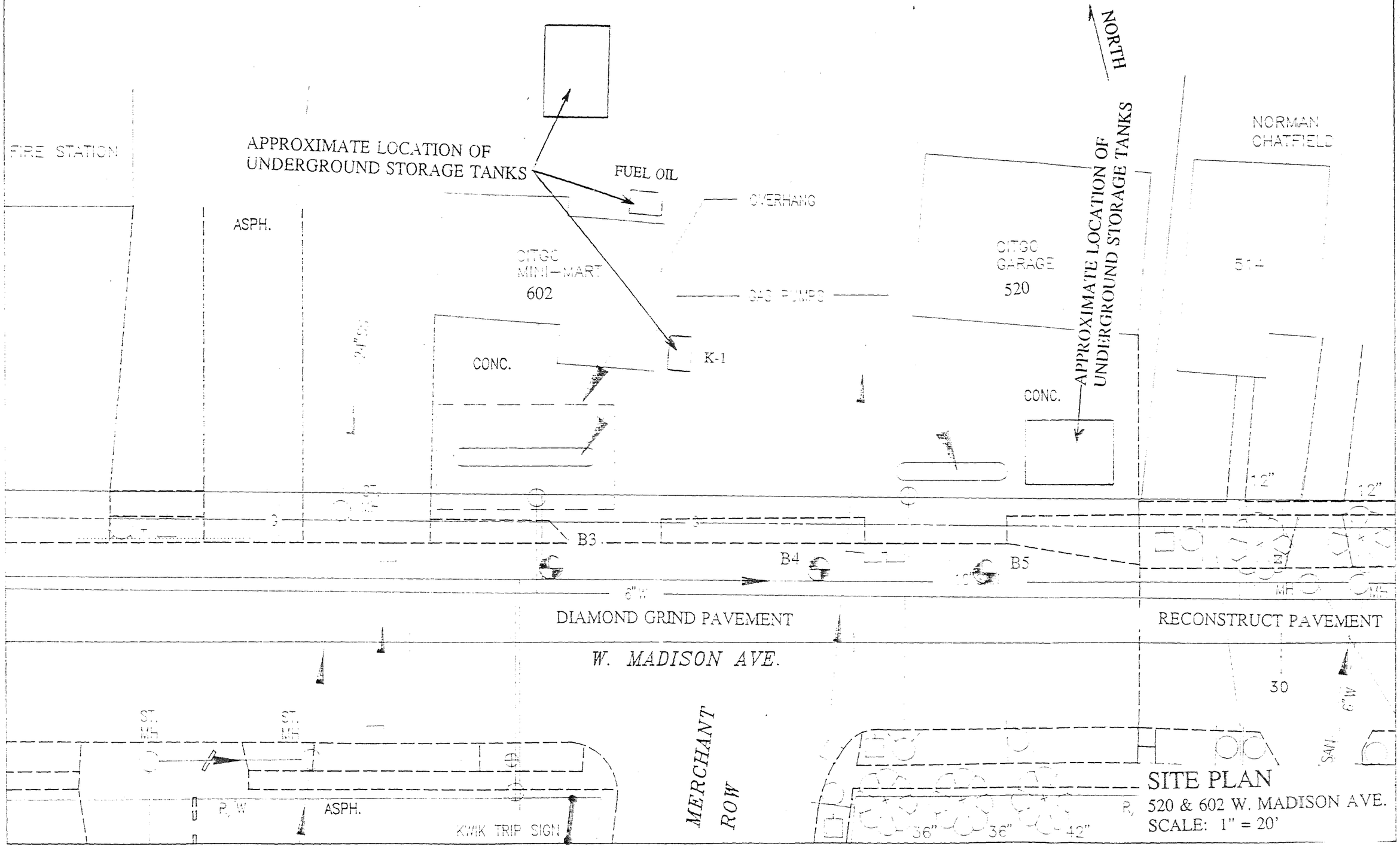
SCS ENGINEERS
2830 DAIRY DRIVE MADISON, WI 53718-6751
PHONE: (608) 224-2830

ENGINEER

DRAWN BY:	KP	
CHECKED BY:	BJS	BJS 02/17/2022
APPROVED BY:	BJS	
PROJECT NO.	25221172.00	
DRAWN:	08/02/2021	
REVISED:	02/14/2022	

Appendix A

Boring Logs & Well Forms


NORTH
APPROXIMATE LOCATION OF UNDERGROUND STORAGE TANKS
FIRE STATION
APPROXIMATE LOCATION OF UNDERGROUND STORAGE TANKS
FUEL OIL
OVERHANG
ASPH.
CITGO MINI-MART
602
GAS PUMPS
CITGO GARAGE
520
NORMAN CHATFIELD
514
K-1
CONC.
CONC.
24" CMP
12"
12"
B3
B4
B5
6" W
DIAMOND GRIND PAVEMENT
RECONSTRUCT PAVEMENT
W. MADISON AVE.
ST. M.H.
ST. M.H.
R/W
ASPH.
KWIK TRIP SIGN
MERCHANT ROW
36"
36"
42"
30
SAN.
SITE PLAN
520 & 602 W. MADISON AVE.
SCALE: 1" = 20'

T. N. & ASSOCIATES, INC. RECORD OF SUBSURFACE EXPLORATION

PROJECT NO.	FIELD REPRESENTATIVE	CREW	BORING
3141-03-01	Dan Reek (TNA)	Scott Tromp (PSI)	B1
CLIENT: WISDOT		METHOD: 4HSA	SHEET: 1 OF 1
PROJECT: Phase II Site Assessment		STA.: 95+60	SURFACE ELEV.:
LOCATION: 610 E. Madison Avenue, Milton, WI		OFFSET: 23' LT	DATE: 9-25-92

DESCRIPTION	DEPTH	SAMPLE	N	Q_p	Q_p	M_c	FID PID	REMARKS
Asphalt/Concrete Surface — 0.5'								
Silty Clay, Brown, Moist	2	1	6				0	GRO, DRO
	4							
— 5.0'		2	13				0	
Sand, Brown, Moist	6							
		3	28				0	GRO
	8							
	10	4	29				0	
— 10.5'								
Boring Terminated	12							

GROUND WATER OBSERVATIONS

While drilling: No Water — Time after drilling:

After Boring Completed: No Water — Depth to water:

Cave-In: — Depth to cave-in:

Backfill Material: Bentonite — Water Notes:

Changes of strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between boring locations. Dashed lines should be interpretted as more approximate than solid lines.

T. N. & ASSOCIATES, INC. RECORD OF SUBSURFACE EXPLORATION

PROJECT NO.	FIELD REPRESENTATIVE	CREW	BORING
3141-03-01	Dan Reek (TNA)	Scott Tromp (PSI)	B2
CLIENT		METHOD	SHEET
WISDOT		4HSA	1 OF 1
PROJECT		STA.	SURFACE ELEV.
Phase II Site Assessment		26+78	
LOCATION 613 W. Madison Avenue Milton, WI		OFFSET 18' RT	DATE 9-25-92

DESCRIPTION	DEPTH	SAMPLE	N	Q_u	Q_p	M_c	FID PID	REMARKS
Concrete Surface								
0.5'								
Gravel Fill								
	2	1	12				0	Pest.
2.5'								
Topsoil								
	4							
5.0'		2	8				0	Pest.
Clay, Brownish Gray (mottled), Moist	6							
6.5'								
Silty Clay, Brown, Moist		3	7				0	
	8							
8.5'								
Sand, Brown, Wet		4	4				0	
	10							
10.5'								
Boring Terminated								
	12							

GROUND WATER OBSERVATIONS

While drilling No Water — Time after drilling

After Boring Completed No Water — Depth to water

Cave-In — Depth to cave-in

Backfill Material Bentonite — Water Notes

Changes of strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between boring locations. Dashed lines should be interpretted as more approximate than solid lines.

T. N. & ASSOCIATES, INC. **RECORD OF SUBSURFACE EXPLORATION**

PROJECT NO.	FIELD REPRESENTATIVE	CREW	BORING
3141-03-01	Dan Reek (TNA)	Scott Tromp (PSI)	B3
CLIENT		**METHOD**	**SHEET**
WISDOT		4HSA	1 OF 1
PROJECT		**STA.**	**SURFACE ELEV.**
Phase II Site Assessment		28+33	
LOCATION		**OFFSET**	**DATE**
620 W. Madison Avenue Milton, WI		16.5' LT	9-25-92

DESCRIPTION	DEPTH	SAMPLE	N	Q_u	Q_p	M_c	FID PID	REMARKS
Concrete Surface — 0.5'								
Gravel Fill								
	2	1	11				0	GRO
— 2.8'								
Organic Topsoil, Black, Moist	4							
		2	6				3	
	6							
	8	3	7				6	GRO, DRO Pesticide
— 9.0'								
Organic Silt, Greenish Brown Moist		4	7				5	
— 10.5'	10							
Boring Terminated								
	12							

GROUND WATER OBSERVATIONS

While drilling No Water — Time after drilling

After Boring Completed No Water — Depth to water

Cave-In — Depth to cave-in

Backfill Material Bentonite — Water Notes

Changes of strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between boring locations. Dashed lines should be interpretted as more approximate than solid lines.

T. N. & ASSOCIATES, INC. RECORD OF SUBSURFACE EXPLORATION

PROJECT NO.	FIELD REPRESENTATIVE	CREW	BORING
3141-03-01	Dan Reek (TNA)	Scott Tromp (PSI)	B4
CLIENT		METHOD	SHEET
WISDOT		4HSA	1 OF 1
PROJECT		STA.	SURFACE ELEV.
Phase II Site Assessment		28+92	
LOCATION 520 W. Madison Avenue Milton, WI		OFFSET 16.0' LF	DATE 9-25-92

DESCRIPTION	DEPTH	SAMPLE	N	Q_u	Q_p	M_c	FID PID	REMARKS
Concrete Surface — 0.5'								
Gravel Fill								
	2	1	22				10	GRO
— 2.5'								
Organic Topsoil, Black Moist								
— 3.5'								
Silty Clay, Brown Moist	4							
		2	7				11	GRO
— 6.0'	6							
Sand, Brown, Moist								
		3	6				0	
— 8.0'	8							
Boring Terminated								
	10							
	12							

GROUND WATER OBSERVATIONS

While drilling No Water — Time after drilling

After Boring Completed No Water — Depth to water

Cave-In — Depth to cave-in

Backfill Material Bentonite — Water Notes

Changes of strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between boring locations. Dashed lines should be interpretted as more approximate than solid lines.

T. N. & ASSOCIATES, INC. **RECORD OF SUBSURFACE EXPLORATION**

PROJECT NO.	FIELD REPRESENTATIVE	CREW	BORING
3141-03-01	Dan Reek (TNA)	Scott Tromp (PSI)	B5
CLIENT		METHOD	SHEET
WISDOT		4HSA	1 OF 1
PROJECT		STA.	SURFACE ELEV.
Phase II Site Assessment		29+29	
LOCATION		OFFSET	DATE
520 W. Madison Avenue Milton, WI		15.8' LF	9-25-92

DESCRIPTION	DEPTH	SAMPLE	N	Q_u	Q_p	M_c	FID PID	REMARKS
Concrete — 0.5'								
Gravel Fill, Brown, Moist								
	2	1	33				0	
	4	2	18				0	GRO
	6							
		3	14				0	
— 8.0'	8							
Boring Terminated								

GROUND WATER OBSERVATIONS

While drilling No Water — Time after drilling

After Boring Completed No Water — Depth to water

Cave-In — Depth to cave-in

Backfill Material Bentonite — Water Notes

Changes of strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between boring locations. Dashed lines should be interpretted as more approximate than solid lines.

SAMPLE IDENTIFICATION

The Unified Soil Classification System is used to identify the soil unless otherwise noted.

SOIL PROPERTY SYMBOLS

N: Standard "N" penetration: Blows per foot of a 140 pound hammer falling 30 inches on a 2 inch O.D. split-spoon.

Qu: Unconfined compressive strength, TSF

Qp: Penetrometer value, unconfined compressive strength, TSF

Mc: Water content, %

LL: Liquid limit, %

PI: Plasticity Index, %

$\overline{\nabla}$: Apparent groundwater level at time noted after completion.

DRILLING AND SAMPLING SYMBOLS

SS: Split-Spoon - 1 3/8" I.D., 2" O.D., except where noted.
ST: Shelby Tube - 3" O.D., except where noted.
AU: Auger Sample
DB: Diamond Bit
CB: Carbide Bit
WS: Washed Sample

RELATIVE DENSITY AND CONSISTENCY CLASSIFICATION

TERM (NON-COHESIVE SOILS)	STANDARD PENETRATION RESISTANCE
Very Loose	0 - 4
Loose	4 - 10
Medium Dense	10 - 30
Dense	30 - 50
Very Dense	Over 50

TERM (COHESIVE SOILS)	Qu - (TSF)
Very Soft	0 - 0.25
Soft	0.25 - 0.50
Firm (Medium)	0.50 - 1.00
Stiff	1.00 - 2.00
Very Stiff	2.00 - 4.00
Hard	4.00 +

PARTICLE SIZE

Boulders	8 in. +	Coarse Sand	5mm-0.6mm	Silt	0.0074mm-0.005mm
Cobbles	8 in.-3 in.	Medium Sand	0.6mm-0.2mm	Clay	-0.005mm
Gravel	3 in.-5mm	Fine Sand	0.2mm-0.074mm		

ENVIRONMENTAL ACRONYMS

FID	Flame Ionization Detector	TPH	Total Petroleum Hydrocarbons
PID	Photon Ionization Detector	GRO	Gasoline Range Organics
VOC	Volatile Organic Compound	DRO	Diesel Range Organics
TOC	Total Organic Carbon	TLC	Temperature, Level, Conductivity

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
Form 4400-122
Page 1 of 1

Facility/Project Name	Seymour Project Number	License/Permit/Monitoring Number
Bob's Citgo – 602 West Madison A venue, Milton, WI		
Boring Drilled by: Soil Essentials (Cory Johnson) Seymour Environmental (Robyn Seymour)		Date Installed: 8/24/05
Boring or Well Number: B-1 — WI Unique Well Number (assigned by DNR)	Borehole Diameter: 2-inch	Water Level — Surface Elevation
___ ¼ of ___ ¼ of Section ___ T ___ N R ___ W	Grid Location (if applicable)	
County: Rock — County Code: 54	Civil Town: Milton	

SAMPLE	RECOVERY	DEPTH (ft)	SOIL/ROCK DESCRIPTION	WELL DIAGRAM	USCS	RQD	Stable OVM (vppm)	Soil Properties: q	W	LL	PL	P200	Blow Count
1	28	Surf	Asphalt Base coarse-sandy gravel		GW		208						
2	32	4 6	Dark gray peaty clay Change to slightly silty clay		OL CL		16						
3	44	8	Gray silty clay Change to brown fine sand		SM		33.4						
4	48	12	Same as above				30.5						
5	46	16 18 19	Stained layer 2-inches thick Underlain by silt layer Change to light brown f-sand		SM ML SM		902	E=14,600 T=6240					
6	42	20	Same as above		SM		23.5						
7	32	24	Change to sand and pea gravel Refusal at 27 ft		SW		30.3 @ 27' — ND						
		28											

Signature: Robyn Seymour

Firm: Seymour Environmental Services, Inc.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
Form 4400-122
Page 1 of 1

Facility/Project Name	Seymour Project Number	License/Permit/Monitoring Number
Bob's Citgo – 602 West Madison A venue, Milton, WI		
Boring Drilled by: Soil Essentials (Cory Johnson) Seymour Environmental (Robyn Seymour)		Date Installed: 8/24/05
Boring or Well Number: B-2 / WI Unique Well Number (assigned by DNR)	Borehole Diameter: 2-inch	Water Level / Surface Elevation
___ ¼ of ___ ¼ of Section ___ T ___ N R ___ W	Grid Location (if applicable)	
County: Rock / County Code: 54	Civil Town: Milton	

SAMPLE	RECOVERY	DEPTH (ft)	SOIL/ROCK DESCRIPTION	WELL DIAGRAM	USCS	RQD	Stable OVM (vppm)	Soil Properties: q	W	LL	PL	P200	Blow Count
1	36	Surf	Asphalt Silty clay Coarse sand		CL ~~SW~~ SP		0.4						
2	42	4	Med brown f-m grained sand (fill?)		SM		4.7						
3	48	8	Same as above		SM ~~SM~~		5.1						
4	48	12 14	Change to silty clay, dense Med brown f-m grained		CL SM		4.9						
5	36	16	Sand (end of fill) V fine brown sand		~~SW~~ SP		3.8						
		20	End of Boring 20 ft										

Signature: Robyn Seymour

Firm: Seymour Environmental Services, Inc.

T. N. & ASSOCIATES, INC. RECORD OF SUBSURFACE EXPLORATION

PROJECT NO.	FIELD REPRESENTATIVE	CREW	BORING
3141-03-01	Dan Reek (TNA)	Scott Tromp (PSI)	B3
CLIENT		METHOD	SHEET
WISDOT		4HSA	1 OF 1
PROJECT		STA.	SURFACE ELEV.
Phase II Site Assessment		28+33	
LOCATION		OFFSET	DATE
620 W. Madison Avenue Milton, WI		16.5' LT	9-25-92

DESCRIPTION	DEPTH	SAMPLE	N	Q_p	Q_u	M_c	FID PID	REMARKS
Concrete Surface — 0.5'								
Gravel Fill (GM)	2	1	11				0	GRO
— 2.8'								
Organic Topsoil, Black, Moist (OL)	4	2	6				3	
	6							
	8	3	7				6	GRO, DRO Pesticide
— 9.0'								
Organic Silt, Greenish Brown Moist (OL) — 10.5'	10	4	7				5	
Boring Terminated	12							

GROUND WATER OBSERVATIONS

While drilling No Water — Time after drilling

After Boring Completed No Water — Depth to water

Cave-In — *Depth to cave-in*

Backfill Material Bentonite — Water Notes

Changes of strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between boring locations. Dashed lines should be interpretted as more approximate than solid lines.

State of Wisconsin
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SOIL BORING LOG INFORMATION
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Facility/Project Name	Seymour Project Number	License/Permit/Monitoring Number
Bob's Citgo – 602 West Madison A venue, Milton, WI		

Boring Drilled by	Date Installed
Soil Essentials (Cory Johnson) Seymour Environmental (Robyn Seymour)	8/24/05

Boring or Well Number / WI Unique Well Number (assigned by DNR)	Borehole Diameter	Water Level / Surface Elevation
B-3	2-inch	

___ ¼ of ___ ¼ of Section ___ T ___ N R ___ W	Grid Location (if applicable)

County	County Code	Civil Town
Rock	54	Milton

SAMPLE	RECOVERY	DEPTH (ft)	SOIL/ROCK DESCRIPTION	WELL DIAGRAM	USCS	RQD	Stable OVM (vppm)	Soil Properties q	W	LL	PL	P200	Blow Count
1	36	Surf	Asphalt Sandy silt		ML		0						
2	42	4	Change to brown slightly Silty clay		CL		1.2						
3	48	8	Same as above		CL		4.5						
		10	Change to brown fine sand		SW								
4	48	12			SP SW		19.3						
5	36	16	Fine sand with silt layers Dk brown silty sand with sand Layers, moist		SM		0	ND					
		20	Same as above		SM		0						
		24	End of boring 24 ft										
		28											

Signature Robyn Seymour

Firm: Seymour Environmental Services, Inc.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

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Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Bob's Citgo SCS#: 25221172		B4R

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Tony Kapugi Kapugi On-Site Environmental Services	10/18/2021	10/18/2021	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet	approx. 880 Feet	2.0 in.

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane N, E S/C/N
SW 1/4 of NE 1/4 of Section 28, T 4 N, R 13 E
Lat ° ' "
Long ° ' "
Local Grid Location Feet ☐ N ☐ S Feet ☐ E ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Rock	54	Milton

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			0	CONCRETE										
S1			1	POORLY GRADED SAND w/ SILT and GRAVEL, very pale brown, dense	SP-SM			0		D				
			2	SANDY SILT, dark grey to dark brown, stiff	ML									
	43		3	SILTY SAND, dark grey to dark brown, dense										
S2			4		SM			8.8		M				
			5											
			6	SILT, dark grey to dark brown, stiff										
S3			7		ML			13.2		M				
	44		8											
			9	LEAN CLAY, grey, stiff										
S4			10					19.7		M				Petroleum odor beginning at 8' bgs.
			11		CL									
S5			12					405		M				
	55		13											
S6			14					363		M				Lab sample 14.5-15' bgs for PVOC +N.
			15	POORLY GRADED SAND, fine, brown, trace gravel	SP									
				EOB @ 15' bgs. Borehole abandoned with bentonite chips and re-topped with concrete.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm		Tel:
	SCS Engineers	Jacob Krause	Fax:

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

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Department of Natural Resources

SOIL BORING LOG INFORMATION
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Facility/Project Name	Seymour Project Number	License/Permit/Monitoring Number
Bob's Citgo – 602 West Madison A venue, Milton, WI		
Boring Drilled by: Soil Essentials (Cory Johnson) Seymour Environmental (Robyn Seymour)		Date Installed: 8/24/05
Boring or Well Number: B-4 — WI Unique Well Number (assigned by DNR)	Borehole Diameter: 2-inch	Water Level — Surface Elevation
___ ¼ of ___ ¼ of Section ___ T ___ N R ___ W	Grid Location (if applicable)	
County: Rock — County Code: 54	Civil Town: Milton	

SAMPLE	RECOVERY	DEPTH (ft)	SOIL/ROCK DESCRIPTION	WELL DIAGRAM	USCS	RQD	Stable OVM (vppm)	Soil Properties: q	W	LL	PL	P200	Blow Count
1	44	Surf	Concrete 7-8-inches thick Peaty black clay		OL		3.2						
2	42	4	No change but hydrocarbon odor		OL		75			B=1720			
		8	End of Boring										

Signature: Robyn Seymour

Firm: Seymour Environmental Services, Inc.

State of Wisconsin
Department of Natural Resources

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Facility/Project Name	Seymour Project Number	License/Permit/Monitoring Number
Bob's Citgo – 602 West Madison A venue, Milton, WI		
Boring Drilled by		Date Installed
Soil Essentials (Cory Johnson) Seymour Environmental (Robyn Seymour)		8/24/05
Boring or Well Number B-5 / WI Unique Well Number (assigned by DNR)	Borehole Diameter 2-inch	Water Level / Surface Elevation
___ ¼ of ___ ¼ of Section ___ T ___ N R ___ W	Grid Location (if applicable)	
County Rock / County Code 54	Civil Town Milton	

SAMPLE	RECOVERY	DEPTH (ft)	SOIL/ROCK DESCRIPTION	WELL DIAGRAM	USCS	RQD	Stable OVM (vppm)	Soil Properties q	W	LL	PL	P200	Blow Count
1	28	Surf	Concrete 3-inches thick Gravel and sand, some garbage		~~GW~~ GM		4.5						
2	42	4	Dark gray peaty clay odor		OL		(67)	B=1190					
		8	End of Boring										

Signature Robyn Seymour

Firm: Seymour Environmental Services, Inc.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
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Facility/Project Name	Seymour Project Number	License/Permit/Monitoring Number
Bob's Citgo – 602 West Madison A venue, Milton, WI		
Boring Drilled by: Soil Essentials (Cory Johnson) Seymour Environmental (Robyn Seymour)		Date Installed: 8/24/05
Boring or Well Number: B-6 — WI Unique Well Number (assigned by DNR)	Borehole Diameter: 2-inch	Water Level — Surface Elevation
___ ¼ of ___ ¼ of Section ___ T ___ N R ___ W	Grid Location (if applicable)	
County: Rock — County Code: 54	Civil Town: Milton	

SAMPLE	RECOVERY	DEPTH (ft)	SOIL/ROCK DESCRIPTION	WELL DIAGRAM	USCS	RQD	Stable OVM (vppm)	Soil Properties: q	W	LL	PL	P200	Blow Count
1	28	Surf	Concrete 3-inches thick Sand Dark gray peaty clay		SW OL		1.2						
2	42	4	Same as above		OL		27		B = 1370				
		8	End of Boring										

Signature: Robyn Seymour

Firm: Seymour Environmental Services, Inc.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
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Facility/Project Name	Seymour Project Number	License/Permit/Monitoring Number
Bob's Citgo – 602 West Madison Avenue, Milton, WI		
Boring Drilled by		**Date Installed**
Soil Essentials (Cory Johnson) Seymour Environmental (Robyn Seymour)		4/6/2011
Boring or Well Number / **WI Unique Well Number (assigned by DNR)**	**Borehole Diameter**	**Water Level** / **Surface Elevation**
B-7	2-inch	dry
___ ¼ of ___ ¼ of Section ___ T ___ N R ___ W	Grid Location (if applicable)	
County Rock / **County Code** 54	**Civil Town** Milton	

SAMPLE	RECOVERY	DEPTH (ft)	SOIL/ROCK DESCRIPTION	WELL DIAGRAM	USCS	RQD	Stable OVM (vppm)	Soil Properties q	W	LL	PL	P200	Blow Count
1	28	Surf	Asphalt Base coarse-sandy gravel		GW		0						
2	36	4	Dark brown peaty clay Change to slightly silty clay		OL CL		6						
3	44	8	Brown silty clay Change to brown fine sand		SM		1.4						
4	48	12	Same as above				4.3						
5	48	16	same as above Staining noted Change to light gray f-sand		SM ML SM		12 26 45						
		20	End of Boring										

Signature Robyn Seymour

Firm: Seymour Environmental Services, Inc.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
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Facility/Project Name	Seymour Project Number	License/Permit/Monitoring Number
Bob's Citgo – 602 West Madison Avenue, Milton, WI		

Boring Drilled by	Date Installed
Soil Essentials (Cory Johnson) Seymour Environmental (Robyn Seymour)	4/6/2011

Boring or Well Number	WI Unique Well Number (assigned by DNR)	Borehole Diameter	Water Level	Surface Elevation
B-8		2-inch	dry	

___ ¼ of ___ ¼ of Section ___ T ___ N R ___ W	Grid Location (if applicable)

County	County Code	Civil Town
Rock	54	Milton

SAMPLE	RECOVERY	DEPTH (ft)	SOIL/ROCK DESCRIPTION	WELL DIAGRAM	USCS	RQD	Stable OVM (vppm)	Soil Properties q	W	LL	PL	P200	Blow Count
1	36	Surf	Asphalt		GM								
		2'	Base coarse-sandy gravel		~~GW~~		0						
			Change to slightly silty clay		CL								
2	48	4	Change to gray slightly silty clay, hydrocarbon odor		CL		750						
		8	End of Boring										

Signature Robyn Seymour

Firm: Seymour Environmental Services, Inc.

State of Wisconsin
Department of Natural Resources

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Facility/Project Name	Seymour Project Number	License/Permit/Monitoring Number
Bob's Citgo – 602 West Madison Avenue, Milton, WI		

Boring Drilled by	Date Installed
Soil Essentials (Cory Johnson) Seymour Environmental (Robyn Seymour)	4/6/2011

Boring or Well Number / WI Unique Well Number (assigned by DNR)	Borehole Diameter	Water Level	Surface Elevation
B-9	2-inch	dry	

___ ¼ of ___ ¼ of Section ___ T ___ N R ___ W	Grid Location (if applicable)

County Rock	County Code 54	Civil Town Milton

SAMPLE	RECOVERY	DEPTH (ft)	SOIL/ROCK DESCRIPTION	WELL DIAGRAM	USCS	RQD	Stable OVM (vppm)	Soil Properties q	W	LL	PL	P200	Blow Count
1	32	Surf	Asphalt										
			Base coarse-sandy gravel		GW		0						
2	36	4	Dark brown stiff clay, sl. silt		CL								
			Change to slightly silty clay		CL		0						
3	44	8	Brown silty clay		CL								
			Change to brown fine sand		SM		1.8						
		12	End of boring										

Signature Robyn Seymour	Firm: Seymour Environmental Services, Inc.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
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Facility/Project Name	Seymour Project Number	License/Permit/Monitoring Number
Bob's Citgo – 602 West Madison Avenue, Milton, WI		

Boring Drilled by	Date Installed
Soil Essentials (Cory Johnson) Seymour Environmental (Robyn Seymour)	4/6/2011

Boring or Well Number / WI Unique Well Number (assigned by DNR)	Borehole Diameter	Water Level / Surface Elevation
B-10	2-inch	

___ ¼ of ___ ¼ of Section ___ T ___ N R ___ W	Grid Location (if applicable)

County	County Code	Civil Town
Rock	54	Milton

SAMPLE	RECOVERY	DEPTH (ft)	SOIL/ROCK DESCRIPTION	WELL DIAGRAM	USCS	RQD	Stable OVM (vppm)	Soil Properties q	W	LL	PL	P200	Blow Count
1	28	Surf	Asphalt										
			Base coarse-sandy gravel (fill)		GM ~~GW~~		0						
2	36	4	Dark brown clay		CL		0						
			Change to slightly silty clay		CL								
3	44	8	Brown silty clay				1.4						
		10'	Change to brown fine sand		SM								
4	48	12	Same as above				4.3						
5	48	16	Same as above		SM		8						
6	40	20	Same as above		SM		15						
		24	End of Boring										

Signature	Firm:
Robyn Seymour	Seymour Environmental Services, Inc.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
Form 4400-122
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Facility/Project Name	Seymour Project Number	License/Permit/Monitoring Number
Bob's Citgo – 602 West Madison Avenue, Milton, WI		

Boring Drilled by	Date Installed
Soil Essentials (Cory Johnson) Seymour Environmental (Robyn Seymour)	4/6/2011

Boring or Well Number	WI Unique Well Number (assigned by DNR)	Borehole Diameter	Water Level	Surface Elevation
B-11		2-inch		

___ ¼ of ___ ¼ of Section ___ T ___ N R ___ W — Grid Location (if applicable)

County	County Code	Civil Town
Rock	54	Milton

SAMPLE	RECOVERY	DEPTH (ft)	SOIL/ROCK DESCRIPTION	WELL DIAGRAM	USCS	RQD	Stable OVM (vppm)	Soil Properties q	W	LL	PL	P200	Blow Count
1	28	Surf	Asphalt Base coarse-sandy gravel		GM ~~GW~~		0						
2	36	4	Dark brown peaty clay 6' Change to slightly silty clay		OL CL		6						
3	44	8	Brown silty clay Change to brown fine sand		SM		1.4						
4	48	12	Same as above				4.3						
5	48	16	Same as above Staining noted Change to gray f-sand, hc		SM SM		560						
		20	End of Boring										

Signature Robyn Seymour — Firm: Seymour Environmental Services, Inc.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
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Page 1 of 2

Facility/Project Name	Seymour Project Number	License/Permit/Monitoring Number
Bob's Citgo – 602 West Madison Avenue, Milton, WI		
Boring Drilled by		Date Installed
Badger State (Dave Cruise) Seymour Environmental (Robyn Seymour)		10/25/2010
Boring or Well Number / WI Unique Well Number (assigned by DNR)	Borehole Diameter	Water Level / Surface Elevation
MW-1 / VU 856	2-inch	
SW ¼ of NE ¼ of Section 28 T 4 N R 13 E	Grid Location (if applicable)	
County Rock / County Code 54	Civil Town Milton	

SAMPLE	RECOVERY	DEPTH (ft)	SOIL/ROCK DESCRIPTION	WELL DIAGRAM	USCS	RQD	Stable OVM (vppm)	Soil Properties q	W	LL	PL	P200	Blow Count
		Surf	Gravel Base coarse-sandy gravel		GW								
1	18		Med. brown silty clay, stiff		CL		0						-, 2 2, 3
		5											
2	14		Med. brown f sand, sl gravel		SM		0						-, 5 7, 7
		10											
3	14		Lt brown vf sand, silt seams		SM		0.5						-, 2 3, 4
		15											
4	18		Same as above, dense				1.3						-, 6 9, 11
		20											
5	12		Brown f-c sand and gravel		SW		2.1						-, 21 22, 23
		25											
6	18		Same as above v.dense sand w gravel		SW		0						-, 23 42, 50
		30											
7	14		Light brown fine sand with slight Silt, trace clay		SM		0						-, 20 30, 47
		40											
8	14		Brown fine sand with trace of gravel dense				0						-, 10 16, 16
		45											
			Same as above				0.1						-, 6, 10, 20

Signature Robyn Seymour

Firm: Seymour Environmental Services, Inc.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
Form 4400-122
Page 2 of 2

Facility/Project Name	Seymour Project Number	License/Permit/Monitoring Number
Bob's Citgo – 602 West Madison Avenue, Milton, WI		
Boring Drilled by: Badger State (Dave Cruise) Seymour Environmental (Robyn Seymour)		Date Installed: 10/25/2010
Boring or Well Number: MW-1 / WI Unique Well Number (assigned by DNR): VU 856	Borehole Diameter: 2-inch	Water Level / Surface Elevation
___ ¼ of ___ ¼ of Section ___ T ___ N R ___ W	Grid Location (if applicable)	
County: Rock / County Code: 54	Civil Town: Milton	

SAMPLE	RECOVERY	DEPTH (ft)	SOIL/ROCK DESCRIPTION	WELL DIAGRAM	USCS	RQD	Stable OVM (vppm)	Soil Properties: q	W	LL	PL	P200	Blow Count
9	18	50	Same as above				0.9						-, 15 20, 21
10	14	55	Hit water at 53 Color change to gray, strong hc odor				1650						-, 10 13, 15
11	14	60											
			End										

Signature: Robyn Seymour

Firm: Seymour Environmental Services, Inc.

State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

MONITORING WELL CONSTRUCTIO

Form 4400-113A Rev. 7-98

Facility/Project Name: JUNCTION STATION	Local Grid Location of Well ☐ N. ☐ S. ft. ☐ E. ☐ W.	Well Name: MW-1
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☐) or Well Location ☐ Lat. ° ' " Long. ° ' " or	Wis. Unique Well No.: VU856 / DNR Well ID No.
Facility ID	St. Plane ft. N, ft. E. S/C/N	Date Well Installed: 10/25/2010 (m m d d y y y y)
Type of Well / Well Code /	Section Location of Waste/Source ¼ of ¼ of Sec, T. N, R. ☐ E ☐ W	Well Installed By: Name (first, last) and Fi: BAKER STATE DRILLIN
Distance from Waste/Source ft. / Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	Gov. Lot Number

A. Protective pipe, top elevation 642.45 ft. MSL

B. Well casing, top elevation 642.11 ft. MSL

C. Land surface elevation _____ ft. MSL

D. Surface seal, bottom _____ ft. MSL or _____ ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☐
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis performed? ☐ Yes ☐ No

14. Drilling method used: Rotary ☐ 50
Hollow Stem Auger ☑ 41
Other ☐

15. Drilling fluid used: Water ☐ 02 Air ☐ 01
Drilling Mud ☐ 03 None ☑ 99

16. Drilling additives used? ☐ Yes ☐ No
Describe _____

17. Source of water (attach analysis, if required):

E. Bentonite seal, top _____ ft. MSL or 1' ft.

F. Fine sand, top _____ ft. MSL or 45.5' ft.

G. Filter pack, top _____ ft. MSL or 46' ft.

H. Screen joint, top _____ ft. MSL or 48' ft.

I. Well bottom _____ ft. MSL or 63' ft.

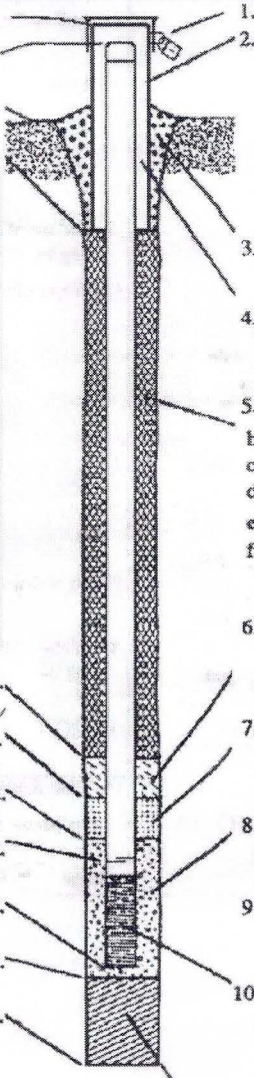
J. Filter pack, bottom _____ ft. MSL or 63' ft.

K. Borehole, bottom _____ ft. MSL or 63' ft.

L. Borehole, diameter _____ in.

M. O.D. well casing _____ in.

N. I.D. well casing _____ in.



1. Cap and lock? ☑ Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: 9 in
b. Length: 1 ft
c. Material: Steel ☑ 0 / Other ☐
d. Additional protection? ☐ Yes ☐ No
If yes, describe: _____

3. Surface seal: Bentonite ☐ 3 / Concrete ☑ 0 / Other ☐

4. Material between well casing and protective pipe: Bentonite ☐ 3 / Other ☐

5. Annular space seal: a. Granular/Chipped Bentonite ☐ 3
b. _____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 3
c. _____ Lbs/gal mud weight . . . . . Bentonite slurry ☐ 3
d. _____ % Bentonite . . . . . Bentonite-cement grout ☐ 5
e. _____ Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 0 / Tremie pumped ☐ 0 / Gravity ☑ 0

6. Bentonite seal: a. Bentonite granules ☐ 3
b. ☐ 1/4 in. ☑ 3/8 in. ☐ 1/2 in. Bentonite chips ☐ 3
c. _____ Other ☐

7. Fine sand material: Manufacturer, product name & mesh si
a. 0210 40-60
b. Volume added _____ ft^3

8. Filter pack material: Manufacturer, product name & mesh si
a. 0210 #5
b. Volume added _____ ft^3

9. Well casing: Flush threaded PVC schedule 40 ☑ 2 / Flush threaded PVC schedule 80 ☐ 2 / Other ☐

10. Screen material: SCH 40 PVC
a. Screen type: Factory cut ☑ 1 / Continuous slot ☐ 0 / Other ☐
b. Manufacturer ATLANTIC FLEX
c. Slot size: 0.010
d. Slotted length: 15'

11. Backfill material (below filter pack): None ☑ 1 / Other ☐

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature | Firm

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to fil these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiab information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should b sent.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
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Facility/Project Name	Seymour Project Number	License/Permit/Monitoring Number
Bob's Citgo – 602 West Madison Avenue, Milton, WI		MW-2
Boring Drilled by		Date Installed
Badger State (Alex Plummer) Seymour Environmental (Robyn Seymour)		02/23/2011
Boring or Well Number / WI Unique Well Number (assigned by DNR)	Borehole Diameter	Water Level / Surface Elevation
MW-2	2-inch	~52
SW ¼ of NE ¼ of Section 28 T 4 N R 13 E	Grid Location (if applicable)	
County Rock	County Code 54	Civil Town Milton

SAMPLE	RECOVERY	DEPTH (ft)	SOIL/ROCK DESCRIPTION	WELL DIAGRAM	USCS	RQD	Stable OVM (vppm)	Soil Properties q	W	LL	PL	P200	Blow Count
		Surf	Asphalt										
			Blind drilled, logged and sampled cuttings										
		10	Gray brown sandy silt with clay		ML								
			Slight hc odor				75						
		20	Light brown sandy silt		ML		0						
		30	Change to light brown silty sand		SM		75						
			Sand with gravel/cobbles		SW		82						
		40											
			Change to light brown silt		ML		12.5						
		50											
			Hit water 52-53 feet										
		60											
			End of boring 64 ft										

Signature Robyn Seymour

Firm: Seymour Environmental Services, Inc.

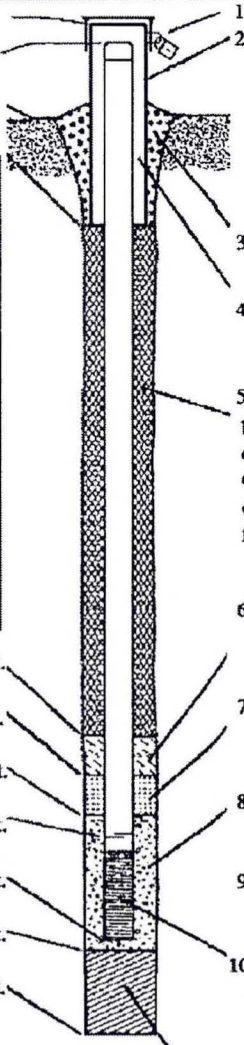
State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐ _____

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name: BOB'S CITGO	Local Grid Location of Well: _____ ft. ☐N ☐S _____ ft. ☐E ☐W	Well Name: MW-2
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☐) or Well Location ☐ Lat. ° ' " Long. ° ' " or	Wis. Unique Well No. / DNR Well ID No.
Facility ID	St. Plane _____ ft. N, _____ ft. E. S/C/N	Date Well Installed: 02/23/2011 (m m d d y y y y)
Type of Well: Well Code ____/____	Section Location of Waste/Source: ____ 1/4 of ____ 1/4 of Sec. ____, T. ____ N, R. ____ ☐E ☐W	Well Installed By: Name (first, last) and Firm: BADGER STATE DRILLING Co. Alex Plummer
Distance from Waste/Source _____ ft. / Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	Gov. Lot Number: _____



A. Protective pipe, top elevation: FLUSH ft. MSL
B. Well casing, top elevation: -2" ft. MSL
C. Land surface elevation: _____ ft. MSL
D. Surface seal, bottom: _____ ft. MSL or _____ ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☐
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis performed? ☐ Yes ☐ No

14. Drilling method used: Rotary ☐ 50 / Hollow Stem Auger ☒ 41 / Other ☐ _____

15. Drilling fluid used: Water ☐ 02 / Air ☐ 01 / Drilling Mud ☐ 03 / None ☒ 99

16. Drilling additives used? ☐ Yes ☐ No

Describe _____

17. Source of water (attach analysis, if required): _____

E. Bentonite seal, top: _____ ft. MSL or 1' ft.
F. Fine sand, top: _____ ft. MSL or 44' ft.
G. Filter pack, top: _____ ft. MSL or 45' ft.
H. Screen joint, top: _____ ft. MSL or 47' ft.
I. Well bottom: _____ ft. MSL or 62' ft.
J. Filter pack, bottom: _____ ft. MSL or 64' ft.
K. Borehole, bottom: _____ ft. MSL or 64' ft.
L. Borehole, diameter: 8 in.
M. O.D. well casing: 2.38 in.
N. I.D. well casing: 2.0 in.

1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 9 in.
b. Length: 1 ft.
c. Material: Steel ☒ 04 / Other ☐ _____
d. Additional protection? ☐ Yes ☐ No
If yes, describe: _____
3. Surface seal: Bentonite ☐ 30 / Concrete ☒ 01 / Other ☐ _____
4. Material between well casing and protective pipe: Bentonite ☐ 30 / Other ☐ _____
5. Annular space seal: a. Granular/Chipped Bentonite ☐ 33
b. _____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 35
c. _____ Lbs/gal mud weight . . . . . Bentonite slurry ☐ 31
d. _____ % Bentonite . . . . . Bentonite-cement grout ☐ 50
e. _____ Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01 / Tremie pumped ☐ 02 / Gravity ☐ 08
6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐1/4 in. ☒3/8 in. ☐1/2 in. Bentonite chips ☒ 32
c. _____ Other ☐ _____
7. Fine sand material: Manufacturer, product name & mesh size
a. OHIO 40-60
b. Volume added _____ ft^3
8. Filter pack material: Manufacturer, product name & mesh size
a. OHIO #5
b. Volume added _____ ft^3
9. Well casing: Flush threaded PVC schedule 40 ☒ 23 / Flush threaded PVC schedule 80 ☐ 24 / Other ☐ _____
10. Screen material: SCH 40 PVC
a. Screen type: Factory cut ☒ 11 / Continuous slot ☐ 01 / Other ☐ _____
b. Manufacturer: MONOFILER
c. Slot size: 0.010 in.
d. Slotted length: _____ ft.
11. Backfill material (below filter pack): None ☒ 14 / Other ☐ _____

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: [signature] Firm: Badger State Drilling, Inc.

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐ _____

Facility/Project Name	County Name	Well Name
Bob's Citgo		MW-2

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number

1. Can this well be purged dry? ☒ Yes ☐ No

2. Well development method

surged with bailer and bailed	☐	41
surged with bailer and pumped	☒	61
surged with block and bailed	☐	42
surged with block and pumped	☐	62
surged with block, bailed and pumped	☐	70
compressed air	☐	20
bailed only	☐	10
pumped only	☐	51
pumped slowly	☐	50
Other _____	☐	

3. Time spent developing well 75 min.

4. Depth of well (from top of well casisng) 62.0 ft.

5. Inside diameter of well 2.0 in.

6. Volume of water in filter pack and well casing ___.__ gal.

7. Volume of water removed from well ___.__ gal.

8. Volume of water added (if any) ___.__ gal.

9. Source of water added _____

10. Analysis performed on water added? ☐ Yes ☒ No
(If yes, attach results)

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 52.0 ft.	22.4 ft.
Date	b. 02/24/2011 (m m d d y y y y)	02/24/2011 (m m d d y y y y)
Time	c. 7:45 ☒ a.m. ☐ p.m.	9:00 ☒ a.m. ☐ p.m.
12. Sediment in well bottom	___.__ inches	___.__ inches
13. Water clarity	Clear ☐ 10 Turbid ☒ 15	Clear ☐ 20 Turbid ☒ 25
(Describe)	Milky Brown	Almost Clear a little cloudy
14. Total suspended solids	_____.__ mg/l	_____.__ mg/l
15. COD	_____.__ mg/l	_____.__ mg/l

Fill in if drilling fluids were used and well is at solid waste facility:

16. Well developed by: Name (first, last) and Firm
First Name: Last Name:
Firm: Badger State Drilling Co.

17. Additional comments on development:

Name and Address of Facility Contact /Owner/Responsible Party
First Name: Last Name:
Facility/Firm:
Street:
City/State/Zip:

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature:
Print Name: Mark Garwick
Firm: BSD

NOTE: See instructions for more information including a list of county codes and well type codes.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
Form 4400-122
Page 2 of 2

Facility/Project Name	Seymour Project Number	License/Permit/Monitoring Number
Bob's Citgo – 602 West Madison Avenue, Milton, WI		MW-3
Boring Drilled by		Date Installed
Badger State (Alex Plummer) Seymour Environmental (Robyn Seymour)		02/23/2011
Boring or Well Number MW-3 / WI Unique Well Number (assigned by DNR)	Borehole Diameter 2-inch	Water Level ~54 / Surface Elevation
___ ¼ of ___ ¼ of Section ___ T ___ N R ___ W	Grid Location (if applicable)	
County Rock / County Code 54	Civil Town Milton	

SAMPLE	RECOVERY	DEPTH (ft)	SOIL/ROCK DESCRIPTION	WELL DIAGRAM	USCS	RQD	Stable OVM (vppm)	Soil Properties q	W	LL	PL	P200	Blow Count
			Concrete										
			Dark gray silty clay										
			Brown sandy clay		CL								2, 3
1	20	5	Black peat		PT		25						5, 5
2	20	10	Blue green silty clay		CL		25						6, 7 7, 7
3	14	15	Brown gray f-m silty sand, hc odor		SM		<2000						5, 6 6, 5
4		20	Dark gray f sand, slight silt		SW		1250						
5		25	Medium brown f sand, dense		SW		25						
			Hit water ~54 Blind drilled to 64										

Signature Robyn Seymour

Firm: Seymour Environmental Services, Inc.

State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐ _____

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name: BOB'S CITGO	Local Grid Location of Well: _____ ft. ☐N. ☐S. _____ ft. ☐E. ☐W.	Well Name: MW-3
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☐) or Well Location ☐ Lat. ° ' " Long. ° ' " or	Wis. Unique Well No. / DNR Well ID No.
Facility ID	St. Plane _____ ft. N, _____ ft. E. S/C/N	Date Well Installed: 02/23/2011 (m m d d y y y y)
Type of Well: Well Code ____/____	Section Location of Waste/Source: ____ 1/4 of ____ 1/4 of Sec. ____, T. ____ N, R. ____ ☐E ☐W	Well Installed By: Name (first, last) and Firm: BADGER STATE DRILLING CO. Alex Plummer
Distance from Waste/Source _____ ft. / Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	Gov. Lot Number: _____

A. Protective pipe, top elevation: EL 952 ft. MSL
B. Well casing, top elevation: -2" ft. MSL
C. Land surface elevation: _____ ft. MSL
D. Surface seal, bottom: _____ ft. MSL or _____ ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☐
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis performed? ☐ Yes ☐ No

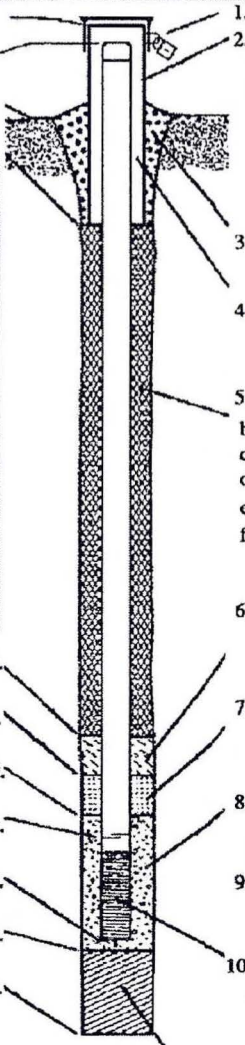
14. Drilling method used: Rotary ☐ 50 / Hollow Stem Auger ☒ 41 / Other ☐ ____

15. Drilling fluid used: Water ☐ 02 / Air ☐ 01 / Drilling Mud ☐ 03 / None ☒ 99

16. Drilling additives used? ☐ Yes ☐ No
Describe _____

17. Source of water (attach analysis, if required):
_____

E. Bentonite seal, top: _____ ft. MSL or 1' ft.
F. Fine sand, top: _____ ft. MSL or 45' ft.
G. Filter pack, top: _____ ft. MSL or 46' ft.
H. Screen joint, top: _____ ft. MSL or 48' ft.
I. Well bottom: _____ ft. MSL or 63' ft.
J. Filter pack, bottom: _____ ft. MSL or 64' ft.
K. Borehole, bottom: _____ ft. MSL or 64' ft.
L. Borehole, diameter: 8" in.
M. O.D. well casing: 2.38 in.
N. I.D. well casing: 2.0 in.



1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 4 in.
b. Length: 1 ft.
c. Material: Steel ☒ 04 / Other ☐ ____
d. Additional protection? ☐ Yes ☐ No
If yes, describe: _____
3. Surface seal: Bentonite ☐ 30 / Concrete ☒ 01 / Other ☐ ____
4. Material between well casing and protective pipe: Bentonite ☐ 30 / Other ☐ ____
5. Annular space seal: a. Granular/Chipped Bentonite ☐ 33
b. _____ Lbs/gal mud weight ... Bentonite-sand slurry ☐ 35
c. _____ Lbs/gal mud weight ..... Bentonite slurry ☐ 31
d. _____ % Bentonite ..... Bentonite-cement grout ☐ 50
e. _____ Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01 / Tremie pumped ☐ 02 / Gravity ☐ 08
6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐1/4 in. ☒3/8 in. ☐1/2 in. Bentonite chips ☒ 32
c. _____ Other ☐ ____
7. Fine sand material: Manufacturer, product name & mesh size
a. OHIO 40-60
b. Volume added _____ ft^3
8. Filter pack material: Manufacturer, product name & mesh size
a. OHIO #5
b. Volume added _____ ft^3
9. Well casing: Flush threaded PVC schedule 40 ☒ 23 / Flush threaded PVC schedule 80 ☐ 24 / Other ☐ ____
10. Screen material: SCH 40 PVC
a. Screen type: Factory cut ☒ 11 / Continuous slot ☐ 01 / Other ☐ ____
b. Manufacturer: MONOFLEX
c. Slot size: 0.010 in.
d. Slotted length: 15 ft.
11. Backfill material (below filter pack): None ☒ 14 / Other ☐ ____

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: [signature] Firm: Badger State Drilling, Inc.

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐ _____

Facility/Project Name	County Name	Well Name
BOB'S CITGO		MW-3

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number
	___	_____	____

1. Can this well be purged dry? ☒ Yes ☐ No

2. Well development method

surged with bailer and bailed	☐	41
surged with bailer and pumped	☒	61
surged with block and bailed	☐	42
surged with block and pumped	☐	62
surged with block, bailed and pumped	☐	70
compressed air	☐	20
bailed only	☐	10
pumped only	☐	51
pumped slowly	☐	50
Other _____	☐	

3. Time spent developing well 45 min.

4. Depth of well (from top of well casisng) 602.5 ft.

5. Inside diameter of well 2.0 in.

6. Volume of water in filter pack and well casing ____.__ gal.

7. Volume of water removed from well ____.__ gal.

8. Volume of water added (if any) ____.__ gal.

9. Source of water added _____

10. Analysis performed on water added? ☐ Yes ☒ No
(If yes, attach results)

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 545 ft.	DRY ft.
Date	b. 02/24/2011 (m m d d y y y y)	02/24/2011 (m m d d y y y y)
Time	c. 9:15 ☒ a.m. ☐ p.m.	10:00 ☒ a.m. ☐ p.m.
12. Sediment in well bottom	___.__ inches	___.__ inches
13. Water clarity	Clear ☐ 10 Turbid ☒ 15	Clear ☐ 20 Turbid ☒ 25
(Describe)	MILKY BROWN	ALMOST CLEAR LITTLE CLOUDY

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids	____.__ mg/l	____.__ mg/l
15. COD	____.__ mg/l	____.__ mg/l

16. Well developed by: Name (first, last) and Firm
First Name: Last Name:
Firm: BADGER STATE DRILLING CO.

17. Additional comments on development:

Name and Address of Facility Contact /Owner/Responsible Party
First Name: Last Name:
Facility/Firm:
Street:
City/State/Zip:

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature:
Print Name: Mark Garwick
Firm: BSD

NOTE: See instructions for more information including a list of county codes and well type codes.

BADGER STATE DRILLING CO., INC.

STOUGHTON, WISCONSIN

FOR Boss Citco

LOCATION Milton WI

FIELD BORING LOG

Sheet 1 Of 2

Job No. 5656

Boring No. MW-4

ELEV.

GROUND WATER

While drilling 56'
Before casing removal
After casing removal 56'
Time after drilling
Depth to water
Depth to cave-in

Start 9-6-2011
Unit D-120
Chief KD, RM

Sample No.	Moisture	Blows on Sampler 0/6	Blows on Sampler 6/12	Sample Recovery	Total Blows	VISUAL FIELD CLASSIFICATION AND REMARKS	Unconfined Strength	Boulders	Blows on Casing Size	Blows on Probe Size	Drilling Method
						Casing/Probe 2" Weight 140lb Drop 30"					
						8" Hsa			4¼	2	HSA
						4" Asphalt 8" Base					↓
						Brn fine sand t: silt					
						Brn fine sand with fine gravel t: silt					
						COB 64'6					
						Well set 64'					
						15' Screen					
						8 bags SAND 47'					
						1 F SAND 46'					
						15 Chips 2'					
						64'6					
						Well # VV1661					
						Flush Mount					

State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name: Bob's Citco	Local Grid Location of Well: _____ ft. ☐N. ☐S. _____ ft. ☐E. ☐W.	Well Name: MW-4
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☐) or Well Location ☐ Lat. ° ' " Long. ° ' " or	Wis. Unique Well No.: VY661 / DNR Well ID No.:
Facility ID	St. Plane _____ ft. N, _____ ft. E. S/C/N	Date Well Installed: 09/06/2011 (m m d d y y y y)
Type of Well: Well Code ____/____	Section Location of Waste/Source: ____ 1/4 of ____ 1/4 of Sec. ____, T. ____ N, R. ____ ☐E ☐W	Well Installed By: Name (first, last) and Firm: Bob McCumber / BSD
Distance from Waste/Source: _____ ft. / Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	Gov. Lot Number:

A. Protective pipe, top elevation: Flush ft. MSL
B. Well casing, top elevation: -2 ft. MSL
C. Land surface elevation: _____ ft. MSL
D. Surface seal, bottom: _____ ft. MSL or _____ ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☐
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis performed? ☐ Yes ☐ No

14. Drilling method used: Rotary ☐ 50 / Hollow Stem Auger ☒ 41 / Other ☐ ____

15. Drilling fluid used: Water ☐ 02 / Air ☐ 01 / Drilling Mud ☐ 03 / None ☒ 99

16. Drilling additives used? ☐ Yes ☐ No
Describe _____

17. Source of water (attach analysis, if required):
_____

E. Bentonite seal, top: _____ ft. MSL or -2 ft.
F. Fine sand, top: _____ ft. MSL or -46 ft.
G. Filter pack, top: _____ ft. MSL or -47 ft.
H. Screen joint, top: _____ ft. MSL or -49 ft.
I. Well bottom: _____ ft. MSL or -64 ft.
J. Filter pack, bottom: _____ ft. MSL or -64.6 ft.
K. Borehole, bottom: _____ ft. MSL or -64.6 ft.
L. Borehole, diameter: 8 in.
M. O.D. well casing: 2.3 in.
N. I.D. well casing: 2 in.

1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 9.6 in.
b. Length: 1.0 ft.
c. Material: Steel ☒ 04 / Other ☐ ____
d. Additional protection? ☐ Yes ☐ No
If yes, describe: _____
3. Surface seal: Bentonite ☐ 30 / Concrete ☒ 01 / Other ☐ ____
4. Material between well casing and protective pipe: Bentonite ☐ 30 / Other ☒ Sand
5. Annular space seal: a. Granular/Chipped Bentonite ☒ 33
b. _____ Lbs/gal mud weight ... Bentonite-sand slurry ☐ 35
c. _____ Lbs/gal mud weight ..... Bentonite slurry ☐ 31
d. _____ % Bentonite ..... Bentonite-cement grout ☐ 50
e. _____ Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01 / Tremie pumped ☐ 02 / Gravity ☒ 08
6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐1/4 in. ☒3/8 in. ☐1/2 in. Bentonite chips ☒ 32
c. _____ Other ☐ ____
7. Fine sand material: Manufacturer, product name & mesh size
a. 40-60 Ohio
b. Volume added _____ ft^3
8. Filter pack material: Manufacturer, product name & mesh size
a. 1.0-2.0 Ohio
b. Volume added _____ ft^3
9. Well casing: Flush threaded PVC schedule 40 ☒ 23 / Flush threaded PVC schedule 80 ☐ 24 / Other ☐ ____
10. Screen material: Sch 40 PVC
a. Screen type: Factory cut ☒ 11 / Continuous slot ☐ 01 / Other ☐ ____
b. Manufacturer: Monoflex
c. Slot size: 0.010 in.
d. Slotted length: 15 ft.
11. Backfill material (below filter pack): None ☒ 14 / Other ☐ ____

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: [signature] Firm: Badger State Drilling, Inc.

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☑ Other ☐ _____

Facility/Project Name	County Name	Well Name
BSS Clo	Rock	MW-4
Facility License, Permit or Monitoring Number	**County Code**	**Wis. Unique Well Number**	**DNR Well ID Number**
	___	_____	___

1. Can this well be purged dry? ☑ Yes ☐ No

2. Well development method

surged with bailer and bailed	☐	41
surged with bailer and pumped	☐	61
surged with block and bailed	☐	42
surged with block and pumped	☐	62
surged with block, bailed and pumped	☑	70
compressed air	☐	20
bailed only	☐	10
pumped only	☐	51
pumped slowly	☐	50
Other _____	☐	

3. Time spent developing well 30 min.

4. Depth of well (from top of well casisng) 69.0 ft.

5. Inside diameter of well 2.0 in.

6. Volume of water in filter pack and well casing ___.__ gal.

7. Volume of water removed from well 15. gal.

8. Volume of water added (if any) ___.__ gal.

9. Source of water added _____

10. Analysis performed on water added? (If yes, attach results) ☐ Yes ☐ No

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 56.00 ft.	58.5 ft.
Date	b. 09/08/2011 (m m d d y y y y)	09/08/2021 (m m d d y y y y)
Time	c. 6:30 ☑ a.m. ☐ p.m.	7:00 ☑ a.m. ☐ p.m.
12. Sediment in well bottom	0. inches	0. inches
13. Water clarity	Clear ☐ 10 Turbid ☑ ~~15~~ (Describe)	Clear ☐ 20 Turbid ☑ ~~25~~ (Describe)

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids	___.__ mg/l	___.__ mg/l
15. COD	___.__ mg/l	___.__ mg/l

16. Well developed by: Name (first, last) and Firm
First Name: R W Robert Last Name: McCumber
Firm: BSD

17. Additional comments on development:

Name and Address of Facility Contact /Owner/Responsible Party
First Name: _____ Last Name: _____
Facility/Firm: _____
Street: _____
City/State/Zip: _____

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: [signature]
Print Name: Mark Gacwick
Firm: Badger State Drilling, Inc.

NOTE: See instructions for more information including a list of county codes and well type codes.

BADGER STATE DRILLING CO., INC.

STOUGHTON, WISCONSIN

FOR Boss Citco

LOCATION Milton WI ELEV.

FIELD BORING LOG

Sheet 1 Of 2

Job No. @ 5650

Boring No. MW-5

GROUND WATER

While drilling 58' Time after drilling

Before casing removal Depth to water

After casing removal Depth to cave-in

Start 9-6-11

Unit D-120

Chief KD, RM

Casing/Probe 2"

Weight 140lb

Drop 30"

Sample No.	Moisture	Blows on Sampler 0/6	Blows on Sampler 6/12	Sample Recovery	Total Blows	VISUAL FIELD CLASSIFICATION AND REMARKS	Unconfined Strength	Boulders	Blows on Casing Size	Blows on Probe Size	Drilling Method
						Blind Drill			4¼	2	HSA
						4" Asphalt 8" Base Course					
						DK brn silty clay tr fine sand					
						Brn fine sand tr silt					
						Brn fine sand with fine to med gravel tr silt					
						EOB 65'					
						Well set 64½					
						15' Screen					
						7 Sand 47½					
						1 F Sand 46½					
						42 Chips 4½					
						Flush					

65

State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐ Remediation/Redevelopment ☒ Other ☐ ________

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name: Bob's Citco	Local Grid Location of Well ________ ft. ☐N. ☐S. ________ ft. ☐E. ☐W.	Well Name: MW-5
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☐) or Well Location ☐ Lat. ___° ___' ___" Long. ___° ___' ___" or	Wis. Unique Well No.: VY662 / DNR Well ID No.
Facility ID	St. Plane ________ ft. N, ________ ft. E. S/C/N	Date Well Installed: 09/07/2011 (m m d d y y y y)
Type of Well / Well Code ___/___	Section Location of Waste/Source ___1/4 of ___1/4 of Sec. ___, T. ___ N, R. ___ ☐E ☐W	Well Installed By: Name (first, last) and Firm: Boss McCumber / BSD
Distance from Waste/Source ________ ft. / Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source: u ☐ Upgradient, s ☐ Sidegradient, d ☐ Downgradient, n ☐ Not Known / Gov. Lot Number	

A. Protective pipe, top elevation ______ Flush ft. MSL

B. Well casing, top elevation ______ 2 ft. MSL

C. Land surface elevation ______ ft. MSL

D. Surface seal, bottom ______ ft. MSL or 45 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☐
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis performed? ☐ Yes ☐ No

14. Drilling method used: Rotary ☐ 5 0; Hollow Stem Auger ☐ 4 1; Other ☐ ________

15. Drilling fluid used: Water ☐ 0 2; Air ☐ 0 1; Drilling Mud ☐ 0 3; None ☐ 9 9

16. Drilling additives used? ☐ Yes ☐ No

Describe ________

17. Source of water (attach analysis, if required): ________

E. Bentonite seal, top ______ ft. MSL or 0.0 ft.

F. Fine sand, top ______ ft. MSL or 45 ft.

G. Filter pack, top ______ ft. MSL or 47 ft.

H. Screen joint, top ______ ft. MSL or 49.5 ft.

I. Well bottom ______ ft. MSL or 64.5 ft.

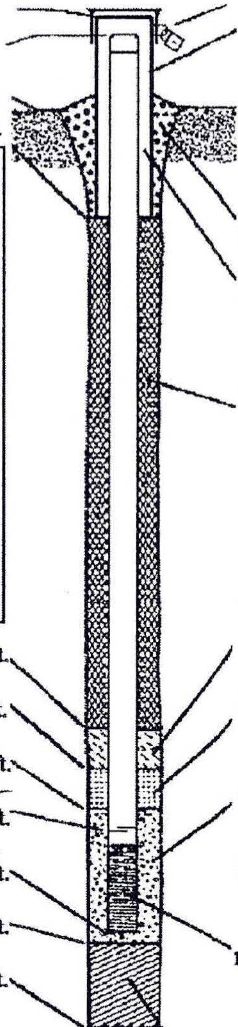
J. Filter pack, bottom ______ ft. MSL or 65 ft.

K. Borehole, bottom ______ ft. MSL or 65 ft.

L. Borehole, diameter 8 in.

M. O.D. well casing 2 in.

N. I.D. well casing 2 in.



1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
   a. Inside diameter: 9 in.
   b. Length: 1 ft.
   c. Material: Steel ☒ 0 4; Other ☐
   d. Additional protection? ☐ Yes ☐ No; If yes, describe: ________
3. Surface seal: Bentonite ☐ 3 0; Concrete ☒ 0 1; Other ☐
4. Material between well casing and protective pipe: Bentonite ☒ 3 0; Other ☐
5. Annular space seal: a. Granular/Chipped Bentonite ☒ 3 3
   b. ____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 3 5
   c. ____ Lbs/gal mud weight . . . . . Bentonite slurry ☐ 3 1
   d. ____ % Bentonite . . . . . . Bentonite-cement grout ☐ 5 0
   e. ____ Ft^3 volume added for any of the above
   f. How installed: Tremie ☐ 0 1; Tremie pumped ☐ 0 2; Gravity ☒ 0 8
6. Bentonite seal: a. Bentonite granules ☐ 3 3
   b. ☐1/4 in. ☒3/8 in. ☐1/2 in. Bentonite chips ☒ 3 2
   c. ________ Other ☐
7. Fine sand material: Manufacturer, product name & mesh size
   a. OHIO #4000
   b. Volume added .7 ft^3
8. Filter pack material: Manufacturer, product name & mesh size
   a. OHIO #5
   b. Volume added 4.7 ft^3
9. Well casing: Flush threaded PVC schedule 40 ☒ 2 3; Flush threaded PVC schedule 80 ☐ 2 4; Other ☐
10. Screen material: Sch 40 PVC
    a. Screen type: Factory cut ☒ 1 1; Continuous slot ☐ 0 1; Other ☐
    b. Manufacturer Monoflex
    c. Slot size: 0.010 in.
    d. Slotted length: 15 ft.
11. Backfill material (below filter pack): None ☒ 1 4; Other ☐

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: [signature] | Firm: Badger State Drilling Inc

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

Facility/Project Name	County Name	Well Name
Boss Celco	Rock	MW-5

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number
	__	_____	___

1. Can this well be purged dry? ☒ Yes ☐ No

2. Well development method

surged with bailer and bailed	☐ 41
surged with bailer and pumped	☐ 61
surged with block and bailed	☐ 42
surged with block and pumped	☐ 62
surged with block, bailed and pumped	☒ 70
compressed air	☐ 20
bailed only	☐ 10
pumped only	☐ 51
pumped slowly	☐ 50
Other _____	☐ ___

3. Time spent developing well 30 min.

4. Depth of well (from top of well casisng) 64.5 ft.

5. Inside diameter of well 2.0 in.

6. Volume of water in filter pack and well casing ____.__ gal.

7. Volume of water removed from well 10.__ gal.

8. Volume of water added (if any) ____.__ gal.

9. Source of water added _____

10. Analysis performed on water added? ☐ Yes ☐ No (If yes, attach results)

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 58.5 ft.	59.__ ft.
Date	b. 09/08/2011 (m m d d y y y y)	09/08/2011 (m m d d y y y y)
Time	c. 7:30 ☒ a.m. ☐ p.m.	8:00 ☒ a.m. ☐ p.m.
12. Sediment in well bottom	8.__ inches	0.__ inches
13. Water clarity	Clear ☐ 10 Turbid ☒ ~~15~~ (Describe)	Clear ☐ 20 Turbid ☒ 25 (Describe)

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids	____.__ mg/l	____.__ mg/l
15. COD	____.__ mg/l	____.__ mg/l

16. Well developed by: Name (first, last) and Firm
First Name: RM Robert Last Name: McCumber
Firm: BSD

17. Additional comments on development:

Name and Address of Facility Contact/Owner/Responsible Party
First Name: _____ Last Name: _____
Facility/Firm: _____
Street: _____
City/State/Zip: _____

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: Mark Garwick
Print Name: Mark Garwick
Firm: Badger State Drilling, Inc.

NOTE: See instructions for more information including a list of county codes and well type codes.

BADGER STATE DRILLING CO., INC.

STOUGHTON, WISCONSIN

FIELD BORING LOG

Sheet 1 Of 1

FOR Bobs Citco

Job No. 5656

LOCATION Milton WI ELEV.

Boring No. MW-6

GROUND WATER

While drilling — Time after drilling

Before casing removal — Depth to water

After casing removal — Depth to cave-in

Start 9-7-2011

Unit D-120

Chief KD RM

Casing/Probe 2"

Weight 140#

Drop 30"

Sample No.	Moisture	Blows on Sampler 0/6	Blows on Sampler 6/12	Sample Recovery	Total Blows	VISUAL FIELD CLASSIFICATION AND REMARKS	Unconfined Strength	Boulders	Blows on Casing Size	Blows on Probe Size	Drilling Method
						BLIND DRILL			4¼	2	HSA
						↓ Drk Br. Clay some Silt Little F Sand					
						→ Br. F-M Sand, Little Silt					
						√Coarse F-C					
						↑ EOB 65' Set well 64.5'					
						E.O.B. 65'					
						WELL @ 64.5' VY663					
						15' SCREEN					
						7 FILTER 47.5'					
						1 FINE 46.5'					
						24 CHIPS					
						FLUSH MOUNT					
						VY663					

65'

State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

MONITORING WELL CONSTRUCTION
Form 4400-113A Rev. 7-98

Facility/Project Name: B&S Citco	Local Grid Location of Well: _____ ft. ☐N. ☐S. _____ ft. ☐E. ☐W.	Well Name: MW-6
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☐) or Well Location ☐ Lat. ° ' " Long. ° ' " or	Wis. Unique Well No.: VY663 / DNR Well ID No.: _____
Facility ID: _____	St. Plane _____ ft. N, _____ ft. E. S/C/N	Date Well Installed: 09/07/2011 (m m d d y y y y)
Type of Well: Well Code ____/____	Section Location of Waste/Source: ____1/4 of ____ 1/4 of Sec. ____, T. ____ N, R. ____ ☐E ☐W	Well Installed By: Name (first, last) and Firm: Bob McComber BSD
Distance from Waste/Source: _____ ft. / Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	Gov. Lot Number: _____

A. Protective pipe, top elevation 764.4 ft. MSL
B. Well casing, top elevation 763.11 ft. MSL
C. Land surface elevation _____ ft. MSL
D. Surface seal, bottom _____ ft. MSL or 4.5 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☐
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis performed? ☐ Yes ☐ No

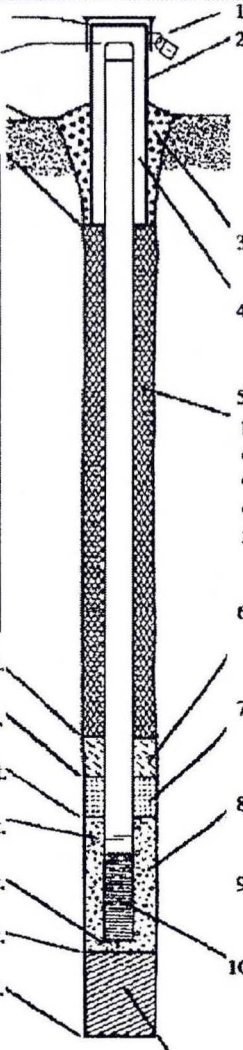
14. Drilling method used: Rotary ☐ 50 / Hollow Stem Auger ☐ 41 / Other ☐ _____

15. Drilling fluid used: Water ☐ 02 / Air ☐ 01 / Drilling Mud ☐ 03 / None ☐ 99

16. Drilling additives used? ☐ Yes ☐ No
Describe _____

17. Source of water (attach analysis, if required):
_____

E. Bentonite seal, top _____ ft. MSL or 2 ft.
F. Fine sand, top _____ ft. MSL or 45 ft.
G. Filter pack, top _____ ft. MSL or 47 ft.
H. Screen joint, top _____ ft. MSL or 49.5 ft.
I. Well bottom _____ ft. MSL or 64.5 ft.
J. Filter pack, bottom _____ ft. MSL or 65 ft.
K. Borehole, bottom _____ ft. MSL or 65' ft.
L. Borehole, diameter 8.0 in.
M. O.D. well casing 2.0 in.
N. I.D. well casing 2.0 in.



1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 2.0 in.
b. Length: 4.0 ft.
c. Material: Steel ☐ 04 / Other ☐ _____
d. Additional protection? ☐ Yes ☐ No
If yes, describe: _____
3. Surface seal: Bentonite ☐ 30 / Concrete ☒ 01 / Other ☐ _____
4. Material between well casing and protective pipe: Bentonite ☐ 30 / Other ☐ _____
5. Annular space seal: a. Granular/Chipped Bentonite ☒ 33
b. _____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 35
c. _____ Lbs/gal mud weight . . . . . Bentonite slurry ☐ 31
d. _____ % Bentonite . . . . . Bentonite-cement grout ☐ 50
e. _____ Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01 / Tremie pumped ☐ 02 / Gravity ☒ 08
6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐1/4 in. ☐3/8 in. ☐1/2 in. Bentonite chips ☒ 32
c. _____ Other ☐ _____
7. Fine sand material: Manufacturer, product name & mesh size
a. OHIO #5000
b. Volume added 1 ft^3
8. Filter pack material: Manufacturer, product name & mesh size
a. OHIO #3
b. Volume added _____ ft^3
9. Well casing: Flush threaded PVC schedule 40 ☒ 23 / Flush threaded PVC schedule 80 ☐ 24 / Other ☐ _____
10. Screen material: Sch 40 PVC
a. Screen type: Factory cut ☐ 11 / Continuous slot ☒ 01 / Other ☐ _____
b. Manufacturer Monoflex
c. Slot size: 0.01 in.
d. Slotted length: 15 ft.
11. Backfill material (below filter pack): None ☐ 14 / Other ☐ _____

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: _____ Firm: Badger State Drilling, Inc.

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐ _____

Facility/Project Name	County Name	Well Name
Bods Citco	Rock	MW-6

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number
	__	_____	___

1. Can this well be purged dry? ☒ Yes ☐ No

2. Well development method

surged with bailer and bailed	☐ 41
surged with bailer and pumped	☐ 61
surged with block and bailed	☐ 42
surged with block and pumped	☐ 62
surged with block, bailed and pumped	☒ 70
compressed air	☐ 20
bailed only	☐ 10
pumped only	☐ 51
pumped slowly	☐ 50
Other _____	☐ ___

3. Time spent developing well 30 min.

4. Depth of well (from top of well casisng) 64.5 ft.

5. Inside diameter of well 2.0 in.

6. Volume of water in filter pack and well casing ____.__ gal.

7. Volume of water removed from well 10.6 gal.

8. Volume of water added (if any) ____.__ gal.

9. Source of water added _____

10. Analysis performed on water added? (If yes, attach results) ☐ Yes ☐ No

	Before Development	After Development
11. Depth to Water (from top of well casing) a.	59.__ ft.	59.__ ft.
Date b. (m m d d y y y y)	09,08,2011	09,08,2011
Time c.	7:__ ☒ a.m. ☐ p.m.	7:3__ ☒ a.m. ☐ p.m.
12. Sediment in well bottom	4.__ inches	0.__ inches
13. Water clarity	Clear ☐ 10 Turbid ~~☐ 15~~ (Describe)	Clear ☐ 20 Turbid ~~☐ 25~~ ☒ (Describe)

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids	____.__ mg/l	____.__ mg/l
15. COD	____.__ mg/l	____.__ mg/l

16. Well developed by: Name (first, last) and Firm
First Name: RM Last Name: McCumber
Firm: B5D

17. Additional comments on development:

Name and Address of Facility Contact /Owner/Responsible Party
First Name: _____ Last Name: _____
Facility/Firm: _____
Street: _____
City/State/Zip: _____

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: Mark Garwick
Print Name: Mark Garwick
Firm: Badger State Drilling, Inc.

NOTE: See instructions for more information including a list of county codes and well type codes.

APPENDIX B

LABORATORY REPORTS

BADGER STATE DRILLING CO., INC.

STOUGHTON, WISCONSIN

FIELD BORING LOG

Sheet 1 Of 1

FOR Boos Citco

LOCATION Milton WI ELEV.

Job No. 5656

Boring No. MW-1

GROUND WATER

While drilling 56'
Before casing removal
After casing removal 56'
Time after drilling
Depth to water
Depth to cave-in

Start 9-6-2011
Unit D-120
Chief KD, RM

Sample No.	Moisture	Blows on Sampler 0/6	Blows on Sampler 6/12	Sample Recovery	Total Blows	VISUAL FIELD CLASSIFICATION AND REMARKS	Unconfined Strength	Boulders	Blows on Casing Size	Blows on Probe Size	Drilling Method
						Casing/Probe 2" Weight 140lb Drop 30"			4¼	2	HSA
						Blind Drill					
						4" Asphalt 8" Base					
						Brn fine sand t- silt					
						Brn fine sand with fine gravel t- silt					
						EOB 64'6					
						Well set 64'					
						15' Screen					
						8 bags SAND 47'					
						1 F SAND 46'					
						15 Chips 2'					
						64'6					

Well # VY661

Flush Mount

State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name: Bob's Citco	Local Grid Location of Well ☐ N. ☐ S. _____ ft. ☐ E. ☐ W. _____ ft.	Well Name: MW-4
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☐) or Well Location ☐ Lat. ° ' " Long. ° ' " or	Wis. Unique Well No.: VY661 / DNR Well ID No.: ____
Facility ID: ____	St. Plane _____ ft. N, _____ ft. E. S/C/N	Date Well Installed: 09 06 2011 (m m d d y y y y)
Type of Well: Well Code ____ / ____	Section Location of Waste/Source: ____ 1/4 of ____ 1/4 of Sec. ____, T. ____ N, R. ____ ☐ E ☐ W	Well Installed By: Name (first, last) and Firm: Bob McCumber / BSD
Distance from Waste/Source _____ ft. / Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	Gov. Lot Number: ____

A. Protective pipe, top elevation: Flush ft. MSL
B. Well casing, top elevation: 2 ft. MSL
C. Land surface elevation: _____ ft. MSL
D. Surface seal, bottom: _____ ft. MSL or _____ ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☐
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis performed? ☐ Yes ☐ No

14. Drilling method used: Rotary ☐ 50 / Hollow Stem Auger ☒ 41 / Other ☐ _____

15. Drilling fluid used: Water ☐ 02 / Air ☐ 01 / Drilling Mud ☐ 03 / None ☒ 99

16. Drilling additives used? ☐ Yes ☐ No
Describe _____

17. Source of water (attach analysis, if required): _____

E. Bentonite seal, top: _____ ft. MSL or 2 ft.
F. Fine sand, top: _____ ft. MSL or 46 ft.
G. Filter pack, top: _____ ft. MSL or 47 ft.
H. Screen joint, top: _____ ft. MSL or 49 ft.
I. Well bottom: _____ ft. MSL or 64 ft.
J. Filter pack, bottom: _____ ft. MSL or 64.6 ft.
K. Borehole, bottom: _____ ft. MSL or 64.6 ft.
L. Borehole, diameter: 8 in.
M. O.D. well casing: 2.3 in.
N. I.D. well casing: 2 in.

1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 9 ¢ in.
b. Length: 1 0 ft.
c. Material: Steel ☒ 04 / Other ☐ _____
d. Additional protection? ☐ Yes ☐ No
If yes, describe: _____
3. Surface seal: Bentonite ☐ 30 / Concrete ☒ 01 / Other ☐ _____
4. Material between well casing and protective pipe: Bentonite ☐ 30 / Other ☒ Sand
5. Annular space seal: a. Granular/Chipped Bentonite ☒ 33
b. _____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 35
c. _____ Lbs/gal mud weight . . . . . Bentonite slurry ☐ 31
d. _____ % Bentonite . . . . . Bentonite-cement grout ☐ 50
e. _____ Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01 / Tremie pumped ☐ 02 / Gravity ☒ 08
6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☒ 32
c. _____ Other ☐ _____
7. Fine sand material: Manufacturer, product name & mesh size
a. 40-60 Ohio
b. Volume added _____ ft^3
8. Filter pack material: Manufacturer, product name & mesh size
a. 1.0-2.0 Ohio
b. Volume added _____ ft^3
9. Well casing: Flush threaded PVC schedule 40 ☒ 23 / Flush threaded PVC schedule 80 ☐ 24 / Other ☐ _____
10. Screen material: Sch 40 PVC
a. Screen type: Factory cut ☒ 11 / Continuous slot ☐ 01 / Other ☐ _____
b. Manufacturer Monoflex
c. Slot size: 0.010 in.
d. Slotted length: 15 ft.
11. Backfill material (below filter pack): None ☒ 14 / Other ☐ _____

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: [signature] Firm: Badger State Drilling, Inc.

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

Facility/Project Name	County Name	Well Name
BSS Clto	Rock	MW-4
Facility License, Permit or Monitoring Number	**County Code**	**Wis. Unique Well Number**	**DNR Well ID Number**
	___	_ _ _ _ _ _	___

1. Can this well be purged dry? ☒ Yes ☐ No

2. Well development method

surged with bailer and bailed	☐ 41
surged with bailer and pumped	☐ 61
surged with block and bailed	☐ 42
surged with block and pumped	☐ 62
surged with block, bailed and pumped	☒ 70
compressed air	☐ 20
bailed only	☐ 10
pumped only	☐ 51
pumped slowly	☐ 50
Other _____	☐

3. Time spent developing well 30 min.

4. Depth of well (from top of well casisng) 69.0 ft.

5. Inside diameter of well 2.0 in.

6. Volume of water in filter pack and well casing _ _ _ . _ gal.

7. Volume of water removed from well 15 gal.

8. Volume of water added (if any) _ _ _ . _ gal.

9. Source of water added _____

10. Analysis performed on water added? (If yes, attach results) ☐ Yes ☐ No

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 56.00 ft.	58.5 ft.
Date	b. 09/08/2021 (m m d d y y y y)	09/08/2021
Time	c. 6:30 ☒ a.m. ☐ p.m.	7:00 ☒ a.m. ☐ p.m.
12. Sediment in well bottom	0. inches	0. inches
13. Water clarity	Clear ☐ 10 Turbid ☒ 15 (Describe)	Clear ☐ 20 Turbid ☒ 25 (Describe)

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids	_ _ _ _ . _ mg/l	_ _ _ _ . _ mg/l
15. COD	_ _ _ _ . _ mg/l	_ _ _ _ . _ mg/l

16. Well developed by: Name (first, last) and Firm
First Name: R W Robert Last Name: McCumber
Firm: BSD

17. Additional comments on development:

Name and Address of Facility Contact /Owner/Responsible Party
First Name: _____ Last Name: _____
Facility/Firm: _____
Street: _____
City/State/Zip: _____

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: [signature]
Print Name: Mark Gacwick
Firm: Badger State Drilling, Inc.

NOTE: See instructions for more information including a list of county codes and well type codes.

BADGER STATE DRILLING CO., INC.

STOUGHTON, WISCONSIN

FIELD BORING LOG

Sheet 1 Of 2

Job No. @ 5650

Boring No. MW-5

FOR Bob's Citco

LOCATION Milton WI ELEV.

GROUND WATER

While drilling 58' Time after drilling

Before casing removal Depth to water

After casing removal Depth to cave-in

Start 4-6-11

Unit D-20

Chief KD, BM

Casing/Probe 2"

Weight 140#

Drop 30"

Sample No.	Moisture	Blows on Sampler 0/6	Blows on Sampler 6/12	Sample Recovery	Total Blows	VISUAL FIELD CLASSIFICATION AND REMARKS	Unconfined Strength	Boulders	Blows on Casing Size	Blows on Probe Size	Drilling Method
						Blind Drill					
						4" Asphalt 8" Base course			4¼	2	1¼ 4
						DK brn silty clay tr fine sand					
						Brn fine sand tr silt					
						Brn fine sand with fine to med gravel tr silt					
						EOB 65'					
						Well set 64'6					
						15' Screen					
						7 Sand 47'6					
						1 F Sand 46'6					
						22 Chips 2' 44'6					
						Flush					

5 10 15 20 25 30 35 40 45 50 65

State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

MONITORING WELL CONSTRUCTION
Form 4400-113A Rev. 7-98

Facility/Project Name: Boss Citco	Local Grid Location of Well: _____ ft. ☐N. ☐S. _____ ft. ☐E. ☐W.	Well Name: MW-5
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☐) or Well Location ☐ Lat. ° ' " Long. ° ' " or	Wis. Unique Well No.: VV662 / DNR Well ID No.: ____
Facility ID: _____	St. Plane _____ ft. N, _____ ft. E. S/C/N	Date Well Installed: 09/07/2011 (m m d d y y y y)
Type of Well: Well Code ____/____	Section Location of Waste/Source: ____ 1/4 of ____ 1/4 of Sec. ____ T. ____ N. R. ____ ☐E. ☐W.	Well Installed By: Name (first, last) and Firm: Bob McCumber / BSD
Distance from Waste/Source: _____ ft. / Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known / Gov. Lot Number: _____	

A. Protective pipe, top elevation _____ ft. MSL
B. Well casing, top elevation _____ ft. MSL
C. Land surface elevation _____ ft. MSL
D. Surface seal, bottom _____ ft. MSL or 45 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ OW ☐ SW ☐ SP ☐
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis performed? ☐ Yes ☐ No

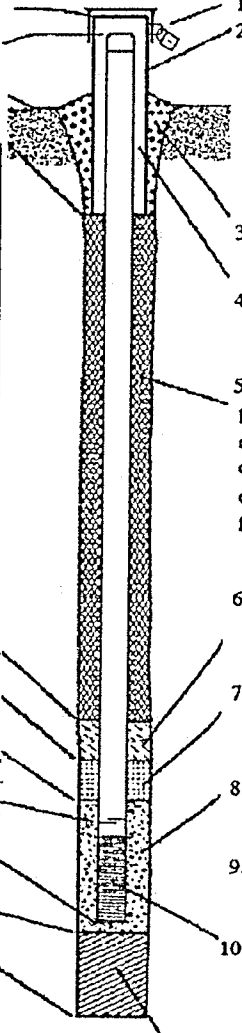
14. Drilling method used: Rotary ☐ 50 / Hollow Stem Auger ☐ 41 / Other ☐ _____

15. Drilling fluid used: Water ☐ 02 / Air ☐ 01 / Drilling Mud ☐ 03 / None ☐ 99

16. Drilling additives used? ☐ Yes ☐ No
Describe _____

17. Source of water (attach analysis, if required): _____

E. Bentonite seal, top _____ ft. MSL or 40 ft.
F. Fine sand, top _____ ft. MSL or 45 ft.
G. Filter pack, top _____ ft. MSL or 47 ft.
H. Screen joint, top _____ ft. MSL or 59.5 ft.
I. Well bottom _____ ft. MSL or 64.5 ft.
J. Filter pack, bottom _____ ft. MSL or 65 ft.
K. Borehole, bottom _____ ft. MSL or 65 ft.
L. Borehole, diameter 8 in.
M. O.D. well casing 2 in.
N. I.D. well casing 2 in.



1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 9 in.
b. Length: 6 ft.
c. Material: Steel ☐ 04 / Other ☐ _____
d. Additional protection? ☐ Yes ☐ No
If yes, describe: _____
3. Surface seal: Bentonite ☐ 30 / Concrete ☒ 01 / Other ☐ _____
4. Material between well casing and protective pipe: Bentonite ☒ 30 / Other ☐ _____
5. Annular space seal: a. Granular/Chipped Bentonite ☒ 33
b. _____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 35
c. _____ Lbs/gal mud weight . . . . . Bentonite slurry ☐ 31
d. _____ % Bentonite . . . . . Bentonite-cement grout ☐ 50
e. _____ Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01 / Tremie pumped ☐ 02 / Gravity ☒ 08
6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☒ 32
c. _____ Other ☐ _____
7. Fine sand material: Manufacturer, product name & mesh size
a. OHIO #4000
b. Volume added 3.7 ft^3
8. Filter pack material: Manufacturer, product name & mesh size
a. OHIO #5
b. Volume added 4.2 ft^3
9. Well casing: Flush threaded PVC schedule 40 ☒ 23 / Flush threaded PVC schedule 80 ☐ 24 / Other ☐ _____
10. Screen material: Sch 40 PVC
a. Screen type: Factory cut ☒ 11 / Continuous slot ☐ 01 / Other ☐ _____
b. Manufacturer Monoflex
c. Slot size: 0.010 in.
d. Slotted length: 5 ft.
11. Backfill material (below filter pack): None ☒ 14 / Other ☐ _____

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: [signature] Firm: Badger State Drilling, Inc

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

Facility/Project Name	County Name	Well Name
Bob's Citgo	Rock	MW-5
Facility License, Permit or Monitoring Number	**County Code**	**Wis. Unique Well Number**	**DNR Well ID Number**
	___	_____	____

1. Can this well be purged dry? ☒ Yes ☐ No

2. Well development method

surged with bailer and bailed	☐ 41
surged with bailer and pumped	☐ 61
surged with block and bailed	☐ 42
surged with block and pumped	☐ 62
surged with block, bailed and pumped	☒ 70
compressed air	☐ 20
bailed only	☐ 10
pumped only	☐ 51
pumped slowly	☐ 50
Other _____	☐

3. Time spent developing well 30 min.

4. Depth of well (from top of well casisng) 64.5 ft.

5. Inside diameter of well 2.0 in.

6. Volume of water in filter pack and well casing ____.__ gal.

7. Volume of water removed from well 10.__ gal.

8. Volume of water added (if any) ____.__ gal.

9. Source of water added _____

10. Analysis performed on water added? (If yes, attach results) ☐ Yes ☐ No

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 58.5 ft.	59.__ ft.
Date	b. 09,08,2011 (m m d d y y y y)	09,08,2011 (m m d d y y y y)
Time	c. 7:30 ☒ a.m. ☐ p.m.	8:00 ☒ a.m. ☐ p.m.
12. Sediment in well bottom	8.__ inches	0.__ inches
13. Water clarity	Clear ☐ 10 Turbid ☒ ~~15~~ (Describe)	Clear ☐ 20 Turbid ☒ 25 (Describe)

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids	____.__ mg/l	____.__ mg/l
15. COD	____.__ mg/l	____.__ mg/l

16. Well developed by: Name (first, last) and Firm
First Name: RM Robert Last Name: McCumber
Firm: BSD

17. Additional comments on development:

Name and Address of Facility Contact/Owner/Responsible Party
First Name: _____ Last Name: _____
Facility/Firm: _____
Street: _____
City/State/Zip: _____

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: [signature]
Print Name: Mark Garwick
Firm: Badger State Drilling, Inc.

NOTE: See instructions for more information including a list of county codes and well type codes.

BADGER STATE DRILLING CO., INC.

STOUGHTON, WISCONSIN

FOR Bobs Citco

LOCATION Milton WI

FIELD BORING LOG

Sheet 1 Of 1

Job No. 5656

Boring No. MW-6

ELEV.

GROUND WATER

While drilling — Time after drilling

Before casing removal — Depth to water

After casing removal — Depth to cave-in

Start 9-7-2011

Unit D-120

Chief KD RM

Sample No.	Moisture	Blows on Sampler 0/6	Blows on Sampler 6/12	Sample Recovery	Total Blows	VISUAL FIELD CLASSIFICATION AND REMARKS	Unconfined Strength	Boulders	Blows on Casing Size	Blows on Probe Size	Drilling Method
						Casing/Probe 2" Weight 140# Drop 30"					
						BLIND DRILL			4¼	4	HSA
						↓ Dark Br. Clay Some Silt Little F-Sand					
						→ Br. F-M Sand, Little Silt					
						√ Gravel F-C					
						↑ EOB 65' Set well 64.5'					
						E.O.B. 65'					
						WELL @ 64.5' VY663					
						15' SCREEN					
						7 FILTER 47.5'					
						1 FINE 46.5'					
						24 CHIPS 1'					
						FLUSH MOUNT					
						VY663					

65'

State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name: Bob's Citco	Local Grid Location of Well ____ ft. ☐N. ☐S. ____ ft. ☐E. ☐W.	Well Name: MW-6
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☐) or Well Location ☐ Lat. ° ' " Long. ° ' " or	Wis. Unique Well No.: VY663 / DNR Well ID No.:
Facility ID	St. Plane ____ ft. N, ____ ft. E. S/C/N	Date Well Installed: 09/07/2011 (m m d d y y y y)
Type of Well: Well Code 1	Section Location of Waste/Source: ____ 1/4 of ____ 1/4 of Sec. ____, T. ____ N, R. ____ ☐E ☐W	Well Installed By: Name (first, last) and Firm: Bob McCumber BSD
Distance from Waste/Source ____ ft. / Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	Gov. Lot Number:

A. Protective pipe, top elevation 1005.49 ft. MSL
B. Well casing, top elevation 1002.11 ft. MSL
C. Land surface elevation _____ ft. MSL
D. Surface seal, bottom _____ ft. MSL or 4.5 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☐
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis performed? ☐ Yes ☐ No

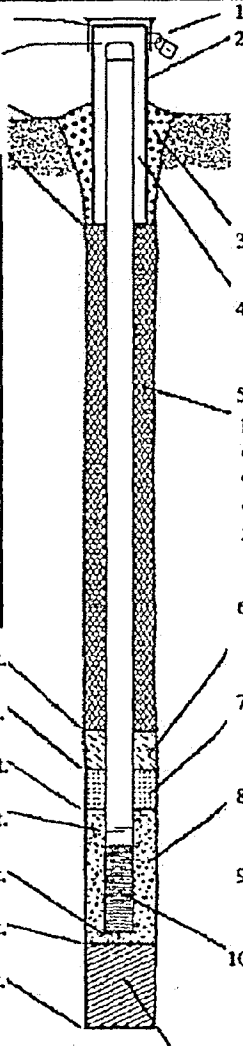
14. Drilling method used: Rotary ☐ 50 / Hollow Stem Auger ☐ 41 / Other ☐ _____

15. Drilling fluid used: Water ☐ 02 / Air ☐ 01 / Drilling Mud ☐ 03 / None ☐ 99

16. Drilling additives used? ☐ Yes ☐ No
Describe _____

17. Source of water (attach analysis, if required):
_____

E. Bentonite seal, top _____ ft. MSL or 2 ft.
F. Fine sand, top _____ ft. MSL or 4.5 ft.
G. Filter pack, top _____ ft. MSL or 4.7 ft.
H. Screen joint, top _____ ft. MSL or 49.5 ft.
I. Well bottom _____ ft. MSL or 64.5 ft.
J. Filter pack, bottom _____ ft. MSL or 65 ft.
K. Borehole, bottom _____ ft. MSL or 65.1 ft.
L. Borehole, diameter 8.0 in.
M. O.D. well casing 2.0 in.
N. I.D. well casing 2.0 in.



1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 2.0 in.
b. Length: 4 ft.
c. Material: Steel ☒ 04 / Other ☐ _____
d. Additional protection? ☐ Yes ☐ No
If yes, describe: _____
3. Surface seal: Bentonite ☐ 30 / Concrete ☒ 01 / Other ☐ _____
4. Material between well casing and protective pipe: Bentonite ☐ 30 / Other ☐ _____
5. Annular space seal: a. Granular/Chipped Bentonite ☒ 33
b. _____ Lbs/gal mud weight... Bentonite-sand slurry ☐ 35
c. _____ Lbs/gal mud weight..... Bentonite slurry ☐ 31
d. _____ % Bentonite ..... Bentonite-cement grout ☐ 50
e. _____ Ft³ volume added for any of the above
f. How installed: Tremie ☐ 01 / Tremie pumped ☐ 02 / Gravity ☒ 08
6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐1/4 in. ☐3/8 in. ☐1/2 in. Bentonite chips ☒ 32
c. _____ Other ☐ _____
7. Fine sand material: Manufacturer, product name & mesh size
a. OTTO #5000
b. Volume added 1.5 ft³
8. Filter pack material: Manufacturer, product name & mesh size
a. OTTO #5
b. Volume added _____ ft³
9. Well casing: Flush threaded PVC schedule 40 ☒ 23 / Flush threaded PVC schedule 80 ☐ 24 / Other ☐ _____
10. Screen material: Sch 40 PVC
a. Screen type: Factory cut ☐ 11 / Continuous slot ☐ 01 / Other ☐ _____
b. Manufacturer Monoflex
c. Slot size: 0.010 in.
d. Slotted length: 15 ft.
11. Backfill material (below filter pack): None ☒ 14 / Other ☐ _____

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature _____ Firm Badger State Drilling, Inc.

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐ _____

Facility/Project Name	County Name	Well Name
Bob's Citco	Rock	MW-6
Facility License, Permit or Monitoring Number	**County Code**	**Wis. Unique Well Number**	**DNR Well ID Number**
	__	_____	___

1. Can this well be purged dry? ☒ Yes ☐ No

2. Well development method

surged with bailer and bailed	☐ 41
surged with bailer and pumped	☐ 61
surged with block and bailed	☐ 42
surged with block and pumped	☐ 62
surged with block, bailed and pumped	☒ 70
compressed air	☐ 20
bailed only	☐ 10
pumped only	☐ 51
pumped slowly	☐ 50
Other _____	☐

3. Time spent developing well 30 min.

4. Depth of well (from top of well casisng) 64.5 ft.

5. Inside diameter of well 2.0 in.

6. Volume of water in filter pack and well casing ____.__ gal.

7. Volume of water removed from well 106 gal.

8. Volume of water added (if any) ____.__ gal.

9. Source of water added _____

10. Analysis performed on water added? ☐ Yes ☐ No
(If yes, attach results)

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 59.__ ft.	59.__ ft.
Date	b. 09,08,2011 (m m d d y y y y)	07,08,2016 (m m d d y y y y)
Time	c. 7:__ ☒ a.m. ☐ p.m.	7:3__ ☒ a.m. ☐ p.m.
12. Sediment in well bottom	4.__ inches	0.__ inches
13. Water clarity	Clear ☐ 10 Turbid ~~☒ 15~~ (Describe)	Clear ☐ 20 Turbid ~~☒ 25~~ (Describe)

Fill in if drilling fluids ~~were used and well is at solid waste facility~~:

14. Total suspended solids	____.__ mg/l	____.__ mg/l
15. COD	____.__ mg/l	____.__ mg/l

16. Well developed by: Name (first, last) and Firm
First Name: RM Last Name: McCumber
Firm: BSD

17. Additional comments on development:

Name and Address of Facility Contact/Owner/Responsible Party
First Name: _____ Last Name: _____
Facility/Firm: _____
Street: _____
City/State/Zip: _____

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: Mark Garwick
Print Name: Mark Garwick
Firm: Badger State Drilling, Inc.

NOTE: See instructions for more information including a list of county codes and well type codes.

BADGER STATE DRILLING CO., INC.

STOUGHTON, WISCONSIN

FIELD BORING LOG

Sheet 1 Of 1

FOR SEYMOUR BOB'S CITGO

Job No. 6086

LOCATION MILTON, WI ELEV.

Boring No. MW-7

GROUND WATER

While drilling _____ Time after drilling _____ _____

Before casing removal _____ Depth to water _____ _____

After casing removal _____ Depth to cave-in _____ _____

Start 8-20-2013

Unit D-120

Chief K.D.-J.U/M.G.

Sample No.	Moisture	Blows on Sampler 0/6	Blows on Sampler 6/12	Sample Recovery	Total Blows	VISUAL FIELD CLASSIFICATION AND REMARKS	Unconfined Strength	Boulders	Blows on Casing Size	Blows on Probe Size	Drilling Method
						10" CONCRETE					
						BLIND DRILL 4 1/4 HSA					
						↓					
						BR. F-M SILTY SAND					
						↓					
						60'-73' GR. SILTY CLAY					
						E.O.B. 73'					
						SCREEN 71'-56'					
						RISER 54'-FLUSH					
						(8) FILTER 73'-54'					
						(2) FINE 54'-52'					
						(25) CHIPS 52'-1'					
						(1) CONCRETE					
						(1) FLUSH MOUNT					

State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐ _____

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name: BOB'S CITGO MILTON, WI	Local Grid Location of Well: _____ ft. ☐N. ☐S. _____ ft. ☐E. ☐W.	Well Name: MW-7
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☐) or Well Location ☐ Lat. ° ' " Long. ° ' " or	Wis. Unique Well No. / DNR Well ID No.
Facility ID	St. Plane _____ ft. N, _____ ft. E. S/C/N	Date Well Installed: 08/20/2013 (m m d d y y y y)
Type of Well / Well Code _____ / _____	Section Location of Waste/Source: _____ 1/4 of _____ 1/4 of Sec. _____, T. _____ N, R. _____ ☐E ☐W	Well Installed By: Name (first, last) and Firm: BADGER STATE DRILLING CO.
Distance from Waste/Source _____ ft. / Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	Gov. Lot Number: _____

A. Protective pipe, top elevation: FLUSH ft. MSL

B. Well casing, top elevation: -3" ft. MSL

C. Land surface elevation: _____ ft. MSL

D. Surface seal, bottom: _____ ft. MSL or _____ ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☐
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis performed? ☐ Yes ☐ No

14. Drilling method used: Rotary ☐ 50 / Hollow Stem Auger ☑ 41 / Other ☐ _____

15. Drilling fluid used: Water ☐ 02 / Air ☐ 01 / Drilling Mud ☐ 03 / None ☑ 99

16. Drilling additives used? ☐ Yes ☑ No

Describe _____

17. Source of water (attach analysis, if required):

_____

E. Bentonite seal, top: _____ ft. MSL or 1' ft.

F. Fine sand, top: _____ ft. MSL or 52' ft.

G. Filter pack, top: _____ ft. MSL or 54' ft.

H. Screen joint, top: _____ ft. MSL or 56' ft.

I. Well bottom: _____ ft. MSL or 71' ft.

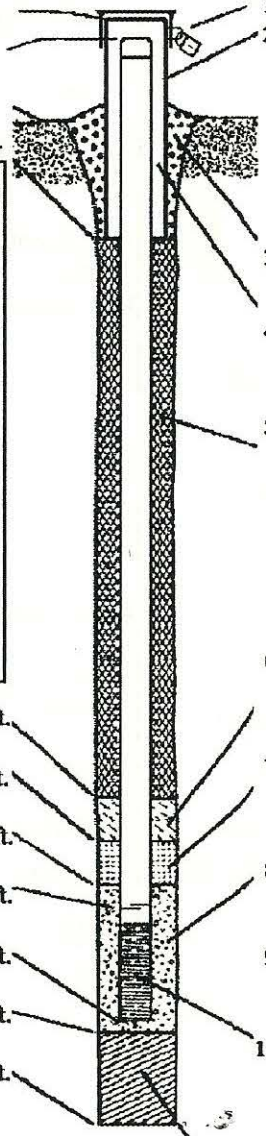
J. Filter pack, bottom: _____ ft. MSL or 73' ft.

K. Borehole, bottom: _____ ft. MSL or 73' ft.

L. Borehole, diameter: 8.0 in.

M. O.D. well casing: 2.38 in.

N. I.D. well casing: 2.0 in.



1. Cap and lock? ☑ Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: 9 in.
b. Length: 1 ft.
c. Material: Steel ☑ 04 / Other ☐ _____
d. Additional protection? ☐ Yes ☐ No
If yes, describe: _____

3. Surface seal: Bentonite ☐ 30 / Concrete ☑ 01 / Other ☐ _____

4. Material between well casing and protective pipe: Bentonite ☐ 30 / Other ☐ _____

5. Annular space seal: a. Granular/Chipped Bentonite ☒ 33
b. _____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 35
c. _____ Lbs/gal mud weight . . . . . Bentonite slurry ☐ 31
d. _____ % Bentonite . . . . . Bentonite-cement grout ☐ 50
e. 15.4 Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01 / Tremie pumped ☐ 02 / Gravity ☑ 08

6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐1/4 in. ☑3/8 in. ☐1/2 in. Bentonite chips ☐ 32
c. _____ Other ☐ _____

7. Fine sand material: Manufacturer, product name & mesh size
a. RED FLINT #15
b. Volume added 1.6 ft^3

8. Filter pack material: Manufacturer, product name & mesh size
a. OTTAWA #5
b. Volume added 5.74 ft^3

9. Well casing: Flush threaded PVC schedule 40 ☑ 23 / Flush threaded PVC schedule 80 ☐ 24 / Other ☐ _____

10. Screen material: SCH 40 PVC
a. Screen type: Factory cut ☑ 11 / Continuous slot ☐ 01 / Other ☐ _____
b. Manufacturer MONOFLEX
c. Slot size: 0.010 in.
d. Slotted length: 15 ft.

11. Backfill material (below filter pack): None ☑ 14 / Other ☐ _____

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: Mark Darwin | Firm: Badger State Drilling, Inc.

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

BADGER STATE DRILLING CO., INC.

STOUGHTON, WISCONSIN

FIELD BORING LOG

Sheet 1 Of 2

FOR Bobs Citgo — Seymour

LOCATION Milton, wi — ELEV.

Job No. 6086

Boring No. MW-B

GROUND WATER

While drilling ____ Time after drilling ____

Before casing removal ____ Depth to water ____

After casing removal ____ Depth to cave-in ____

Start 8-21-13

Unit Diedrich

Chief K.P

Sample No.	Moisture	Blows on Sampler 0/6	Blows on Sampler 6/12	Sample Recovery	Total Blows	VISUAL FIELD CLASSIFICATION AND REMARKS	Casing/Probe / Weight / Drop	Unconfined Strength	Boulders	Blows on Casing Size	Blows on Probe Size	Drilling Method
						10" Topsoil						HA
						Br F. med dense Sand						
						Br F. Dense Sand w/ Cobbles & gravel						
						Br F. med dense Sand						

5 10 15 20 25 30 35 40 45 50

BADGER STATE DRILLING CO., INC.

STOUGHTON, WISCONSIN

FIELD BORING LOG

Sheet 2 Of 2

Job No. 60860

FOR Bobs Citgo

LOCATION Milton, WI

ELEV.

Boring No. MW-9

GROUND WATER				
While drilling	74.0	Time after drilling	1 hr	1.5
Before casing removal		Depth to water	66.0	64.0
After casing removal		Depth to cave-in		

Start 8-21-13

Unit D120

Chief LP

Sample No.	Moisture	Blows on Sampler 0/6	Blows on Sampler 6/12	Sample Recovery	Total Blows	Depth	VISUAL FIELD CLASSIFICATION AND REMARKS	Casing/Probe / Weight / Drop	Unconfined Strength	Boulders	Blows on Casing Size	Blows on Probe Size	Drilling Method
						0	con't						HA
						25	E.O.B 74.5 Set well @ 74.0 15' Screen (7) Filter 57.0 (1) Fine 56.0 (23) Chips 1.5 Flush Concrete LTC						
						50							

Seymour 60866

State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐ ________

MONITORING WELL CONSTRUCTION
Form 4400-113A Rev. 7-98

Facility/Project Name: Bobs Citgo

Local Grid Location of Well: ______ ft. ☐ N. ☐ S. ______ ft. ☐ E. ☐ W.

Well Name: MW-8

Facility License, Permit or Monitoring No.: Mr Hoil, WI

Local Grid Origin ☐ (estimated: ☐) or Well Location ☐
Lat. ___ ° ___ ' ___ " Long. ___ ° ___ ' ___ " or

Wis. Unique Well No. ______ DNR Well ID No. ______

Facility ID ________

St. Plane ______ ft. N, ______ ft. E. S/C/N

Date Well Installed: 8/21/13 (m m d d y y y y)

Type of Well
Well Code ___/___

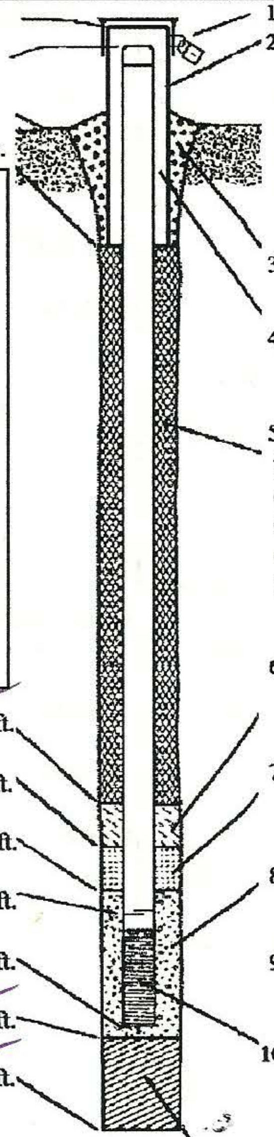
Section Location of Waste/Source: ___1/4 of ___1/4 of Sec. ___, T. ___ N, R. ___ ☐ E ☐ W

Well Installed By: Name (first, last) and Firm: R. Plummer, Badger

Distance from Waste/Source ______ ft.
Enf. Stds. Apply ☐

Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known

Gov. Lot Number ______



A. Protective pipe, top elevation: Flush ft. MSL

B. Well casing, top elevation: ______ ft. MSL

C. Land surface elevation: ______ ft. MSL

D. Surface seal, bottom ______ ft. MSL or ____ ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☐
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis performed? ☐ Yes ☐ No

14. Drilling method used: Rotary ☐ 5 0; Hollow Stem Auger ☒ 4 1; Other ☐ ________

15. Drilling fluid used: Water ☐ 0 2; Air ☐ 0 1; Drilling Mud ☐ 0 3; None ☐ 9 9

16. Drilling additives used? ☐ Yes ☐ No

Describe ________

17. Source of water (attach analysis, if required): ________

E. Bentonite seal, top ______ ft. MSL or 1.5 ft.

F. Fine sand, top ______ ft. MSL or 56 ft.

G. Filter pack, top ______ ft. MSL or 57 ft.

H. Screen joint, top ______ ft. MSL or 59 ft.

I. Well bottom ______ ft. MSL or 74.0 ft.

J. Filter pack, bottom ______ ft. MSL or 74.5 ft.

K. Borehole, bottom ______ ft. MSL or 74.5 ft.

L. Borehole, diameter 8 in.

M. O.D. well casing 2.38 in.

N. I.D. well casing 2.0 in.

1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: 9 in.
b. Length: 1 ft.
c. Material: Steel ☒ 0 4; Other ☐
d. Additional protection? ☐ Yes ☐ No
If yes, describe: ________

3. Surface seal: Bentonite ☐ 3 0; Concrete ☒ 0 1; Other ☐

4. Material between well casing and protective pipe: Bentonite ☐ 3 0; Other ☐

5. Annular space seal: a. Granular/Chipped Bentonite ☒ 3 3
b. ____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 3 5
c. ____ Lbs/gal mud weight . . . . . Bentonite slurry ☐ 3 1
d. ____ % Bentonite . . . . . . Bentonite-cement grout ☐ 5 0
e. 16.47 Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 0 1; Tremie pumped ☐ 0 2; Gravity ☒ 0 8

6. Bentonite seal: a. Bentonite granules ☐ 3 3
b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☐ 3 2
c. ________ Other ☐

7. Fine sand material: Manufacturer, product name & mesh size
a. Red Flint 15
b. Volume added .6 ft^3

8. Filter pack material: Manufacturer, product name & mesh size
a. OHIO #5
b. Volume added 5.3 ft^3

9. Well casing: Flush threaded PVC schedule 40 ☒ 2 3; Flush threaded PVC schedule 80 ☐ 2 4; Other ☐

10. Screen material: Sch 40 PVC
a. Screen type: Factory cut ☒ 1 1; Continuous slot ☐ 0 1; Other ☐
b. Manufacturer Monoflex
c. Slot size: 0.010 in.
d. Slotted length: 15 ft.

11. Backfill material (below filter pack): None ☒ 1 4; Other ☐

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: [signature] Firm: Badger State Drilling, Inc.

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

BADGER STATE DRILLING CO., INC.

STOUGHTON, WISCONSIN

FIELD BORING LOG

Sheet ______ Of ______

FOR Citego Seymour

LOCATION Milton ELEV. ______

Job No. 6086

Boring No. MW-9

GROUND WATER				
While drilling	66'	Time after drilling		
Before casing removal		Depth to water		
After casing removal		Depth to cave-in		

Start 8-22-13

Unit D120

Chief RP - JF

Sample No.	Moisture	Blows on Sampler 0/6	Blows on Sampler 6/12	Sample Recovery	Total Blows	VISUAL FIELD CLASSIFICATION AND REMARKS	Casing/Probe ___ Weight ___ Drop ___	Unconfined Strength	Boulders	Blows on Casing Size	Blows on Probe Size	Drilling Method
						4" Asphalt						
						Blind w/ 4 1/4 0-70'						HSA SS
						Br F. med dense Dense Sand w/ S-m gravel						
						Cobble layers 23-30'						
						E.O.B 70' Set well (9)						
						69.5 15' Screen						
						8 Filter 52'						
						1 Fine 51'						
						24 Chips 1.0						
						Flush to Concrete						

Seymour 6088

State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐ _____

MONITORING WELL CONSTRUCTION
Form 4400-113A Rev. 7-98

Facility/Project Name: Seifert	Local Grid Location of Well: _____ ft. ☐N. ☐S. _____ ft. ☐E. ☐W.	Well Name: Mw-4
Facility License, Permit or Monitoring No.: Mitchell	Local Grid Origin ☐ (estimated: ☐) or Well Location ☐ Lat. ° ' " Long. ° ' " or	Wis. Unique Well No.: _____ DNR Well ID No.: _____
Facility ID: _____	St. Plane _____ ft. N, _____ ft. E. S/C/N	Date Well Installed: 8/22/13 (m m d d y y y y)
Type of Well: Well Code ____/____	Section Location of Waste/Source: ____ 1/4 of ____ 1/4 of Sec, ____, T. ____ N, R. ____ ☐E ☐W	Well Installed By: Name (first, last) and Firm: K Plumer, Badger
Distance from Waste/Source: _____ ft.	Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known
		Gov. Lot Number: _____

A. Protective pipe, top elevation: Flush ft. MSL
B. Well casing, top elevation: _____ ft. MSL
C. Land surface elevation: _____ ft. MSL
D. Surface seal, bottom: _____ ft. MSL or _____ ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☐
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis performed? ☐ Yes ☐ No

14. Drilling method used: Rotary ☐ 50 / Hollow Stem Auger ☒ 41 / Other ☐ _____

15. Drilling fluid used: Water ☐ 02 Air ☐ 01 / Drilling Mud ☐ 03 None ☒ 99

16. Drilling additives used? ☐ Yes ☐ No
Describe _____

17. Source of water (attach analysis, if required):
_____

E. Bentonite seal, top: _____ ft. MSL or 15 ft.
F. Fine sand, top: _____ ft. MSL or 51.0 ft.
G. Filter pack, top: _____ ft. MSL or 52.0 ft.
H. Screen joint, top: _____ ft. MSL or 54.5 ft.
I. Well bottom: _____ ft. MSL or 69.5 ft.
J. Filter pack, bottom: _____ ft. MSL or 70 ft.
K. Borehole, bottom: _____ ft. MSL or 70 ft.
L. Borehole, diameter: 8 in.
M. O.D. well casing: 2.38 in.
N. I.D. well casing: 2.0 in.

1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 9 in.
b. Length: 1 ft.
c. Material: Steel ☐ 04 / Other ☐ _____
d. Additional protection? ☐ Yes ☐ No
If yes, describe: _____
3. Surface seal: Bentonite ☐ 30 / Concrete ☒ 01 / Other ☐ _____
4. Material between well casing and protective pipe: Bentonite ☐ 30 / Other ☐ _____
5. Annular space seal: a. Granular/Chipped Bentonite ☒ 33
b. _____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 35
c. _____ Lbs/gal mud weight . . . . . Bentonite slurry ☐ 31
d. _____ % Bentonite . . . . . Bentonite-cement grout ☐ 50
e. 14.96 Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01 / Tremie pumped ☐ 02 / Gravity ☒ 08
6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐1/4 in. ☐3/8 in. ☐1/2 in. Bentonite chips ☐ 32
c. _____ Other ☐ _____
7. Fine sand material: Manufacturer, product name & mesh size
a. O'Kee Flint #15
b. Volume added .3 ft^3
8. Filter pack material: Manufacturer, product name & mesh size
a. OHIO #5
b. Volume added 5.49 ft^3
9. Well casing: Flush threaded PVC schedule 40 ☒ 23 / Flush threaded PVC schedule 80 ☐ 24 / Other ☐ _____
10. Screen material: Sch 40 PVC
a. Screen type: Factory cut ☒ 11 / Continuous slot ☐ 01 / Other ☐ _____
b. Manufacturer Monoflex
c. Slot size: .010 in.
d. Slotted length: 15 ft.
11. Backfill material (below filter pack): None ☒ 14 / Other ☐ _____

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: Mark Plumer | Firm: Badger State Drilling, Inc

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

BADGER STATE DRILLING CO., INC.

STOUGHTON, WISCONSIN

FIELD BORING LOG

Sheet _____ Of _____

FOR Citgo Seymour

LOCATION Milton, WI ELEV. _____

Job No. 60866

Boring No. MW-10

GROUND WATER

While drilling 701 Time after drilling _____

Before casing removal _____ Depth to water _____

After casing removal _____ Depth to cave-in _____

Start 8-23-13

Unit _____

Chief FD

Sample No.	Moisture	Blows on Sampler 0/6	Blows on Sampler 6/12	Sample Recovery	Total Blows	VISUAL FIELD CLASSIFICATION AND REMARKS	Unconfined Strength	Boulders	Blows on Casing Size 4¼	Blows on Probe Size	Drilling Method
						4" TS 2' Fill					HSA
						Blind w/ 4¼ Split tower					
						Br F. med dense Sand					
						23' Br silty Sandy Clay					
						55' Br F. Dense Sand w/ Sm-med gravel (Fill)					
						60' Br F. med/course Sand					
						E.O.B 73' set well @ 701 15' screen 6 Filter 53' Flush 1 Fine 52' 16 Chips 1.5 Lite					

5 10 15 20 25 30 35 40 45 50

Seymour Google

State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐ Remediation/Redevelopment ☐ Other ☐ ____________

MONITORING WELL CONSTRUCTION
Form 4400-113A Rev. 7-98

Facility/Project Name: Citgo

Local Grid Location of Well: ________ ft. ☐ N. ☐ S. ________ ft. ☐ E. ☐ W.

Well Name: MW-10

Facility License, Permit or Monitoring No.: Milton, WI

Local Grid Origin ☐ (estimated: ☐) or Well Location ☐
Lat. ___ ° ___ ' ___ " Long. ___ ° ___ ' ___ " or
St. Plane ________ ft. N, ________ ft. E. S/C/N

Wis. Unique Well No. ________ DNR Well ID No. ________

Facility ID: ________

Date Well Installed: 092313 (m m d d y y y y)

Section Location of Waste/Source: ___ 1/4 of ___ 1/4 of Sec. ___, T. ___ N, R. ___ ☐ E ☐ W

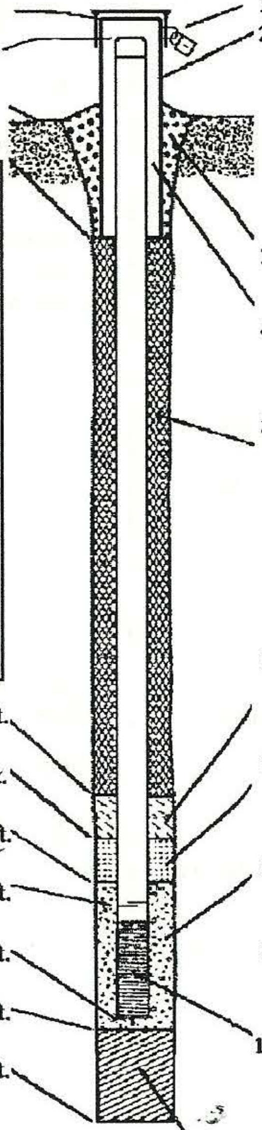
Type of Well
Well Code ___ / ___

Well Installed By: Name (first, last) and Firm: Al Puerst, Badger

Distance from Waste/Source ________ ft.
Enf. Stds. Apply ☐

Location of Well Relative to Waste/Source:
u ☐ Upgradient s ☐ Sidegradient
d ☐ Downgradient n ☐ Not Known

Gov. Lot Number ________



A. Protective pipe, top elevation: Flush ft. MSL
B. Well casing, top elevation: _______ ft. MSL
C. Land surface elevation: _______ ft. MSL
D. Surface seal, bottom _______ ft. MSL or _____ ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☐
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis performed? ☐ Yes ☐ No

14. Drilling method used: Rotary ☐ 5 0
Hollow Stem Auger ☒ 4 1
Other ☐ ________

15. Drilling fluid used: Water ☐ 0 2 Air ☐ 0 1
Drilling Mud ☐ 0 3 None ☐ 9 9

16. Drilling additives used? ☐ Yes ☐ No
Describe ________

17. Source of water (attach analysis, if required): ________

E. Bentonite seal, top _______ ft. MSL or 15 ft.
F. Fine sand, top _______ ft. MSL or 52 ft.
G. Filter pack, top _______ ft. MSL or 53 ft.
H. Screen joint, top _______ ft. MSL or 55 ft.
I. Well bottom _______ ft. MSL or 70 ft.
J. Filter pack, bottom _______ ft. MSL or 73 ft.
K. Borehole, bottom _______ ft. MSL or 73 ft.
L. Borehole, diameter: 8 in.
M. O.D. well casing: 2.38 in.
N. I.D. well casing: 2.0 in.

1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 9 in.
b. Length: 1 ft.
c. Material: Steel ☒ 0 4 Other ☐
d. Additional protection? ☐ Yes ☐ No
If yes, describe: ________

3. Surface seal: Bentonite ☐ 3 0 Concrete ☒ 0 1 Other ☐

4. Material between well casing and protective pipe: Bentonite ☐ 3 0 Other ☐

5. Annular space seal: a. Granular/Chipped Bentonite ☒ 3 3
b. ____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 3 5
c. ____ Lbs/gal mud weight . . . . . Bentonite slurry ☐ 3 1
d. ____ % Bentonite . . . . . . Bentonite-cement grout ☐ 5 0
e. 15.26 Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 0 1 Tremie pumped ☐ 0 2 Gravity ☒ 0 8

6. Bentonite seal: a. Bentonite granules ☐ 3 3
b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☐ 3 2
c. ________ Other ☐

7. Fine sand material: Manufacturer, product name & mesh size
a. Red Flint #15
b. Volume added .3 ft^3

8. Filter pack material: Manufacturer, product name & mesh size
a. OHIO #5
b. Volume added 6.04 ft^3

9. Well casing: Flush threaded PVC schedule 40 ☒ 2 3
Flush threaded PVC schedule 80 ☐ 2 4
Other ☐

10. Screen material: Sch 40 PVC
a. Screen type: Factory cut ☒ 1 1 Continuous slot ☐ 0 1 Other ☐
b. Manufacturer: Monoflex
c. Slot size: 0.010 in.
d. Slotted length: 15 ft.

11. Backfill material (below filter pack): None ☒ 1 4 Other ☐

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: [signature] Firm: Badger State Drilling, Inc

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT
Form 4400-113B Rev. 4-90

Route to: Solid Waste ☐ Haz. Waste ☐ Wastewater ☐
Env. Response & Repair ☐ Underground Tanks ☐ Other ☐ _____

Facility/Project Name	County Name	Well Name
Bob's CITGO	Rock	MW-7
Facility License, Permit, or Monitoring Number	**County Code**	**Wis. Unique Well Number**	**DNR Well Number**
_____	54	_____	_____

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method
- surged with bailer and bailed ☒ 41
- surged with bailer and pumped ☐ 61
- surged with block and bailed ☐ 42
- surged with block and pumped ☐ 62
- surged with block, bailed and pumped ☐ 70
- compressed air ☐ 20
- bailed only ☐ 10
- pumped only ☐ 51
- pumped slowly ☐ 50
- Other _____ ☐ ___

3. Time spent developing well 600 min.

4. Depth of well (from top of well casing) 70.20 ft.

5. Inside diameter of well ___.___ in.

6. Volume of water in filter pack and well casing ____.__ gal.

7. Volume of water removed from well 55.0 gal.

8. Volume of water added (if any) ____.__ gal.

9. Source of water added _____

10. Analysis performed on water added? (If yes, attach results) ☐ Yes ☐ No

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 60.95 ft.	60.10 ft.
Date	b. 08/30/13 (m m d d y y)	08/30/13 (m m d d y y)
Time	c. 10:30 ☐ a.m. ☐ p.m.	11:30 ☐ a.m. ☐ p.m.
12. Sediment in well bottom	___.__ inches	___.__ inches
13. Water clarity	Clear ☐ 10 Turbid ☐ 15 (Describe)	Clear ☐ 20 Turbid ☐ 25 (Describe)
Fill in if drilling fluids were used and well is at solid waste facility:		
14. Total suspended solids	____.__ mg/l	____.__ mg/l
15. COD	____.__ mg/l	____.__ mg/l

16. Additional comments on development:

Well developed by: Person's Name and Firm

Name: Robyn Seymour

Firm: Seymour Env

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: Robyn Seymour

Print Initials: RAS

Firm: SEYMOUR ENVIRONMENTAL SERVICES, Inc.

NOTE: Shaded areas are for DNR use only. See instructions for more information including a list of county codes.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT
Form 4400-113B Rev. 4-90

Route to: Solid Waste ☐ Haz. Waste ☐ Wastewater ☐
Env. Response & Repair ☐ Underground Tanks ☐ Other ☐ _____

Facility/Project Name	County Name	Well Name
Bob's CITGO	Rock	MW-8

Facility License, Permit, or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well Number
_____	54	_____	_____

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method

surged with bailer and bailed	☒ 41
surged with bailer and pumped	☐ 61
surged with block and bailed	☐ 42
surged with block and pumped	☐ 62
surged with block, bailed and pumped	☐ 70
compressed air	☐ 20
bailed only	☐ 10
pumped only	☐ 51
pumped slowly	☐ 50
Other _____	☐

3. Time spent developing well 60 min.

4. Depth of well (from top of well casing) 13.80 ft.

5. Inside diameter of well 2.00 in.

6. Volume of water in filter pack and well casing _____.__ gal.

7. Volume of water removed from well 55.0 gal.

8. Volume of water added (if any) _____.__ gal.

9. Source of water added _____

10. Analysis performed on water added? (If yes, attach results) ☐ Yes ☐ No

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 6449 ft.	6390 ft.
Date	b. 08/30/13 m m d d y y	08/30/13 m m d d y y
Time	c. 09:05 ☐ a.m. ☐ p.m.	10:05 ☐ a.m. ☐ p.m.
12. Sediment in well bottom	1.5 inches	0.5 inches
13. Water clarity	Clear ☐ 10 Turbid ☒ 15 (Describe)	Clear ☒ 20 Turbid ☐ 25 (Describe)

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids	_____.__ mg/l	_____.__ mg/l
15. COD	_____.__ mg/l	_____.__ mg/l

16. Additional comments on development:

Well developed by: Person's Name and Firm

Name: Robyn Seymour / MKS

Firm: Seymour ENV

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: Robyn Seymour

Print Initials: RAS

Firm: SEYMOUR ENVIRONMENTAL SERVICES, Inc.

NOTE: Shaded areas are for DNR use only. See instructions for more information including a list of county codes.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT
Form 4400-113B Rev. 4-90

Route to: Solid Waste ☐ Haz. Waste ☐ Wastewater ☐
Env. Response & Repair ☐ Underground Tanks ☐ Other ☐ _____

Facility/Project Name	County Name	Well Name
Bob's CITGO	Rock	MW-9

Facility License, Permit, or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well Number
_____	54	_____	_____

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method

surged with bailer and bailed	☒	41
surged with bailer and pumped	☒	61
surged with block and bailed	☐	42
surged with block and pumped	☐	62
surged with block, bailed and pumped	☐	70
compressed air	☐	20
bailed only	☐	10
pumped only	☐	51
pumped slowly	☐	50
Other _____	☐	

3. Time spent developing well 600 min.

4. Depth of well (from top of well casing) 67.6 ft.

5. Inside diameter of well 2.00 in.

6. Volume of water in filter pack and well casing _____.__ gal.

7. Volume of water removed from well 55.0 gal.

8. Volume of water added (if any) _____.__ gal.

9. Source of water added _____

10. Analysis performed on water added? ☐ Yes ☐ No
(If yes, attach results)

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 59.64 ft.	58.1 ft.
Date	b. 08/30/13 (m m d d y y)	08/30/13 (m m d d y y)
Time	c. 08:30 ☒ a.m. ☐ p.m.	09:30 ☒ a.m. ☐ p.m.
12. Sediment in well bottom	1.0 inches	0.0 inches
13. Water clarity	Clear ☒ 10 Turbid ☐ 15 (Describe)	Clear ☒ 20 Turbid ☐ 25 (Describe)

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids	_____.__ mg/l	_____.__ mg/l
15. COD	_____.__ mg/l	_____.__ mg/l

16. Additional comments on development:

Too deep for pump, had to bail

Well developed by: Person's Name and Firm

Name: Robyn Seymour

Firm: Seymour Env

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: Robyn Seymour

Print Initials: RAS

Firm: SEYMOUR ENVIRONMENTAL SERVICES, Inc.

NOTE: Shaded areas are for DNR use only. See instructions for more information including a list of county codes.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT
Form 4400-113B Rev. 4-90

Route to: Solid Waste ☐ Haz. Waste ☐ Wastewater ☐
Env. Response & Repair ☐ Underground Tanks ☐ Other ☐ _____

Facility/Project Name	County Name	Well Name
Bob's CITGO	Rock	MW-10

Facility License, Permit, or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well Number
_____	54	_____	____

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method

surged with bailer and bailed	☒ 41
surged with bailer and pumped	☐ 61
surged with block and bailed	☐ 42
surged with block and pumped	☐ 62
surged with block, bailed and pumped	☐ 70
compressed air	☐ 20
bailed only	☐ 10
pumped only	☐ 51
pumped slowly	☐ 50
Other _____	☐

3. Time spent developing well 60 min.

4. Depth of well (from top of well casing) 69.4 ft.

5. Inside diameter of well 2.00 in.

6. Volume of water in filter pack and well casing ____.__ gal.

7. Volume of water removed from well 55.0 gal.

8. Volume of water added (if any) ____.__ gal.

9. Source of water added _____

10. Analysis performed on water added? (If yes, attach results) ☐ Yes ☐ No

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 61.30 ft.	60.80 ft.
Date	b. __/__/__ m m d d y y	__/__/__ m m d d y y
Time	c. 11:45 ☐ a.m. ☐ p.m.	12:45 ☐ a.m. ☐ p.m.
12. Sediment in well bottom	2.0 inches	0.5 inches
13. Water clarity	Clear ☐ 10 Turbid ☒ 15 (Describe)	Clear ☒ 20 Turbid ☐ 25 (Describe)

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids	____.__ mg/l	____.__ mg/l
15. COD	____.__ mg/l	____.__ mg/l

16. Additional comments on development:

Well developed by: Person's Name and Firm

Name: Robyn Seymour

Firm: Seymour Env

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: Robyn Seymour

Print Initials: RAS

Firm: SEYMOUR ENVIRONMENTAL SERVICES, Inc.

NOTE: Shaded areas are for DNR use only. See instructions for more information including a list of county codes.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Bob's Citgo SCS#: 25221172		B21

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Tony Kapugi Kapugi On-Site Environmental Services	10/18/2021	10/18/2021	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet	approx. 880 Feet	2.0 in.

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane N, E S/C/N
SW 1/4 of NE 1/4 of Section 28, T 4 N, R 13 E
Lat ° ' "
Long ° ' "
Local Grid Location Feet ☐ N ☐ S Feet ☐ E ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Rock	54	Milton

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			0	ASPHALT										
S1			1	POORLY GRADED SAND w/ GRAVEL, light yellowish brown, dense (fill)	SP			1.0		D				
	49		2	SILTY SAND, dark brown, dense, trace gravel										
			3		SM									
S2			4					22.4		M				
			5	SILT, dark brown, stiff										
S3			6		ML			10.6		M				Petroleum odor.
			7											
	41		8											
S4			9	LEAN TO FAT CLAY, grey, soft	CL/CH			133		M				Petroleum odor.
			10											
S5			11	CLAYEY SAND, brownish grey, dense	SC			372		M				Petroleum odor.
			12	POORLY GRADED SAND, medium, brown, dense										
	34		13		SP									Petroleum odor
S6			14					1167		M				Petroleum odor. Lab Sample 12.5-15' bgs for PVOC+N.
			15	EOB @ 15' bgs. Borehole abandoned with bentonite chips and re-topped with concrete.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm		Tel:
	SCS Engineers	Jacob Krause	Fax:

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Bob's Citgo SCS#: 25221172		B22

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Tony Kapugi Kapugi On-Site Environmental Services	10/18/2021	10/18/2021	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet	approx. 880 Feet	2.0 in.

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane N, E S/C/N
SW 1/4 of NE 1/4 of Section 28, T 4 N, R 13 E
Lat ° ' "
Long ° ' "
Local Grid Location Feet ☐ N ☐ S Feet ☐ E ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Rock	54	Milton

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			0	ASPHALT										
S1	23		2	POORLY GRADED SAND w/ SILT and GRAVEL, light yellowish brown, dense (fill)	SP-SM			0		D				
				LEAN CLAY, dark brown, medium stiff										
S2			4					0		M				
S3	29		6	color changing gradually to greyish brown	CL			0		M				
S4			8					0		M				Lab Sample 8-10' bgs for PVOC+N.
S5	42		10	color change to brown, trace sand				0		M				
			12	CLAYEY SAND, brown, dense	SC									
S6			14	POORLY GRADED SAND w/ SILT, dark brown to dark grey, dense	SP-SM			24.5		M				Petroleum odor.
S7	39		16					60.8		M				Petroleum odor.
S8			18	CLAYEY SAND, dark brown, medium dense	SC			173		W				Petroleum odor. Lab Sample 19-10' bgs for PVOC+N.
			20	POORLY GRADED SAND w/ SILT, dark grey, dense	SP-SM									
				EOB @ 20' bgs. Borehole abandoned with bentonite chips and re-topped with concrete.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Firm SCS Engineers Tel: Fax:

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Bob's Citgo SCS#: 25221172		B23

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Tony Kapugi Kapugi On-Site Environmental Services	10/18/2021	10/18/2021	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet	approx. 880 Feet	2.0 in.

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane N, E S/C/N
SW 1/4 of NE 1/4 of Section 28, T 4 N, R 13 E
Lat ° ' "
Long ° ' "
Local Grid Location
Feet ☐ N ☐ S Feet ☐ E ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Rock	54	Milton

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			0	ASPHALT										
			1	POORLY GRADED SAND w/ GRAVEL, brown, dense (fill)	SP									
S1			2	SILTY SAND, dark brown, dense, trace clay, trace gravel				0.1		M				
	19		3		SM									
S2			4					0.8		M				Lab sample 3-4' bgs for PVOC+N.
			5	LEAN CLAY, brown, stiff, trace fine sand										
S3			6					0		M				
	41		7											
			8		CL									
S4			9	becoming softer				0.5		M				
			10											
			11	POORLY GRADED SAND, brown with some black staining, dense										
S5			12					0.4		M				Petroleum odor.
	36		13		SP									
S6			14					3.6		M				Petroleum odor. Lab Sample 14-14.5' bgs for PVOC+N.
			15	EOB @ 15' bgs. Borehole abandoned with bentonite chips and re-topped with concrete.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm		Tel:
Jacob Krause	SCS Engineers	Jacob Krause	Fax:

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Bob's Citgo SCS#: 25221172		B24

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Tony Kapugi Kapugi On-Site Environmental Services	10/18/2021	10/18/2021	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet	approx. 880 Feet	2.0 in.

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane N, E S/C/N
SW 1/4 of NE 1/4 of Section 28, T 4 N, R 13 E
Lat ° ' "
Long ° ' "
Local Grid Location Feet ☐ N ☐ S Feet ☐ E ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Rock	54	Milton

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			0	ASPHALT										
S1				POORLY GRADED SAND w/ GRAVEL, very pale brown, dense (fill)	SP			0		D				
	26		2	SILT, dark brown to black, stiff, trace sand and clay	ML									
S2			4	POORLY GRADED SAND w/ SILT, brown, dense	SP-SM			1.3		M				Lab sample 3-4' bgs for PVOC+N
			6	LEAN CLAY, brown, medium stiff, trace fine sand										
S3	13		8		CL			0		M				Poor recovery due to gravel grain stuck liner
			10											
S4			12					0		M				
	34			SILTY SAND, dark brown, dense, trace clay	SM									
S5			14	POORLY GRADED SAND w/ SILT, fine, brown, dense				0		M				
				change to light brown, medium dense										
S6			16		SP-SM			0		M				
	42		18											
S7								0		M				Lab Sample 19-20' bgs for PVOC+N
			20	EOB @ 20' bgs. Borehole abandoned with bentonite chips and re-topped with concrete.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm		Tel:
	SCS Engineers	Jacob Krause	Fax:

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Bob's Citgo SCS#: 25221172		B25

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Tony Kapugi Kapugi On-Site Environmental Services	10/18/2021	10/18/2021	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet	approx. 880 Feet	2.0 in.

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane N, E S/C/N
SW 1/4 of NE 1/4 of Section 28, T 4 N, R 13 E
Lat ° ' "
Long ° ' "
Local Grid Location
Feet ☐ N ☐ S Feet ☐ E ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Rock	54	Milton

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			0	ASPHALT										
S1	21		1	SILTY GRAVEL w/ SAND, brown, dense (fill)	GM			0		M				
			2	POORLY GRADED SAND w/ SILT and GRAVEL, fine, brown, dense	SP-SM									
			3											
S2			4	LEAN CLAY, dark brown, medium stiff, trace sand				43.1		M				Petroleum odor beginning at 3.5' bgs. Lab sample 3-4' bgs for PVOC+N.
			5											
S3			6					89.3		M				Petroleum odor.
	23		7											
			8											
S4			9		CL			51.8		M				Petroleum odor.
			10											
S5			11					177		M				Petroleum odor. Lab Sample 10-12' bgs for PVOC+N.
	34		12											
			13											
S6			14					9.8		M				Lab sample 14-15' bgs for PVOC+N.
			15	POORLY GRADED SAND, fine to medium, dark brown, dense	SP									
				EOB @ 15' bgs. Borehole abandoned with bentonite chips and re-topped with concrete.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm		Tel:
Jacob Krause	SCS Engineers	Jacob Krause	Fax:

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Bob's Citgo SCS#: 25221172		B4R

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Tony Kapugi Kapugi On-Site Environmental Services	10/18/2021	10/18/2021	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet	approx. 880 Feet	2.0 in.

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane N, E S/C/N
SW 1/4 of NE 1/4 of Section 28, T 4 N, R 13 E
Lat ° ' "
Long ° ' "
Local Grid Location Feet ☐ N ☐ S Feet ☐ E ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Rock	54	Milton

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			0	CONCRETE										
S1			1	POORLY GRADED SAND w/ SILT and GRAVEL, very pale brown, dense	SP-SM			0		D				
			2	SANDY SILT, dark grey to dark brown, stiff	ML									
	43		3	SILTY SAND, dark grey to dark brown, dense										
S2			4		SM			8.8		M				
			5											
			6	SILT, dark grey to dark brown, stiff										
S3			7		ML			13.2		M				
	44		8											
			9	LEAN CLAY, grey, stiff										
S4			10					19.7		M				Petroleum odor beginning at 8' bgs.
			11		CL									
S5			12					405		M				
	55		13											
S6			14					363		M				Lab sample 14.5-15' bgs for PVOC +N.
			15	POORLY GRADED SAND, fine, brown, trace gravel	SP									
				EOB @ 15' bgs. Borehole abandoned with bentonite chips and re-topped with concrete.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm		Tel:
	SCS Engineers	Jacob Krause	Fax:

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Bob's Citgo SCS#: 25221172		BMW2

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Tony Kapugi Kapugi On-Site Environmental Services	10/18/2021	10/18/2021	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet	approx. 880 Feet	2.0 in.

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane N, E S/C/N
SW 1/4 of NE 1/4 of Section 28, T 4 N, R 13 E
Lat ° ' "
Long ° ' "
Local Grid Location Feet ☐ N ☐ S Feet ☐ E ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Rock	54	Milton

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			0	SILTY GRAVEL, grey, loose (fill)	GM									
S1	33		2	POORLY GRADED SAND w/ SILT, fine, very pale brown, medium dense (fill - suspected remedial excavation backfill)				0		D				
S2			4					0		M				
S3	29		6		SP-SM			0		M				
S4			8					0		M				
S5	22		10	SILTY SAND, brown, dense, trace gravel	SM			0		M				
S6			12	LEAN CLAY, brown, medium stiff, trace sand	CL			0		M				
S7	32		14	SILTY SAND, dark brown, dense, trace clay	SM			445		M				Petroleum odor.
S8			16	POORLY GRADED SAND, fine to medium, brown with some black staining, dense	SP			362		M/W				Petroleum odor.
S9	36		18	SILTY SAND, fine, very pale brown, dense	SM			10.7		M				
			20	POORLY GRADED SAND w/ SILT, fine, very pale brown	SP-SM									
			22											
			24											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm		Tel:
Jacob Krause	SCS Engineers	Jacob Krause	Fax:

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number BMW2 Use only as an attachment to Form 4400-122.

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
S10			26		SP-SM			22.2		M				
S11	35		28	POORLY GRADED SAND w/ SILT and GRAVEL, very pale brown, dense				0		M				
S12			30					0		D				
S13	39		32					0		D				
S14			34		SP-SM			0		D				
S15	40		36	very dense				0		D				
S16			38					0		D				
S17	56		40					0		M				
S18			42	LEAN TO FAT CLAY, pale brown, medium stiff, trace fine sand	CL/CH									
			44	POORLY GRADED SAND, medium, brown	SP			0		W/M				
				SILT, pale brown, medium stiff, trace fine sand, trace clay	ML									
S19	59		46	LEAN TO FAT CLAY, brown, medium stiff, trace sand	CL/CH			0.3		W/M				
S20			48	SILTY SAND, dark grey, dense	SM			661		W/M				Strong petroleum odor.
				SILT w/ SAND, greyish brown, stiff, trace clay	ML									
			50	EOB @ 50' bgs. Borehole abandoned with bentonite chips and re-topped with nearby gravel.										

State of Wis., Dept. of Natural Resources SCS No. 25221172
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

B21

☐ **Verification Only of Fill and Seal**

Route to DNR Bureau:
☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment
☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Rock		

Latitude / Longitude (see instructions) ____ N ____ W
Format Code: ☐ DD ☐ DDM
Method Code: ☐ GPS008 ☐ SCR002 ☐ OTH001

¼ / ¼	¼	Section	Township	Range
SW	NE	28	04 N	13 ☒ E ☐ W

or Gov't Lot #

Well Street Address: 602 W. Madison Ave

Well City, Village or Town	Well ZIP Code
Milton	53563

Subdivision Name	Lot #

Reason for Removal from Service: Temporary - Investigative only
WI Unique Well # of Replacement Well:

2. Facility / Owner Information

Facility Name: Bob's Citgo (Former)
Facility ID (FID or PWS): 154074250
License/Permit/Monitoring #:
Original Well Owner:
Present Well Owner: Robert Richardson
Mailing Address of Present Owner: 507 Campus St., Apt. 7

City of Present Owner	State	ZIP Code
Milton	WI	53563

3. Filled & Sealed Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 10/18/2021
If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): Direct Push (Geoprobe)

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total ~~Well~~ Depth From Ground Surface (ft.)	Casing Diameter (in.)
Boring 15'	

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2.25"	

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Liner(s) perforated?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

OJK

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain):

Sealing Materials
☐ Neat Cement Grout ☒ Concrete
☐ Sand-Cement (Concrete) Grout ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
3/8" Bentonite Chips 0.5	~~Surface~~	15	0.4 ft³	Dry
Concrete	Surface	0.5		

6. Comments

B21

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
SCS Engineers		10/18/2021

Street or Route	Telephone Number
2830 Dairy Drive	(608) 221-2830

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Madison	WI	53718		10/18/2021

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources SCS No. 25221172
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

B22

☐ **Verification Only of Fill and Seal**

Route to DNR Bureau:
☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment
☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Rock		

Latitude / Longitude (see instructions) ____ N ____ W | Format Code: ☐ DD ☐ DDM | Method Code: ☐ GPS008 ☐ SCR002 ☐ OTH001

¼ / ¼	¼	Section	Township	Range
SW	NE	28	04 N	13 ☒ E ☐ W

or Gov't Lot #

Well Street Address: 602 W. Madison Ave

Well City, Village or Town	Well ZIP Code
Milton	53563

Subdivision Name	Lot #

Reason for Removal from Service	WI Unique Well # of Replacement Well
Temporary - Investigative only	

2. Facility / Owner Information

Facility Name: Bob's Citgo (Former)

Facility ID (FID or PWS): 154074250

License/Permit/Monitoring #:

Original Well Owner:

Present Well Owner: Robert Richardson

Mailing Address of Present Owner: 507 Campus St., Apt. 7

City of Present Owner	State	ZIP Code
Milton	WI	53563

3. Filled & Sealed Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well ☒ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 10/18/2021

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): Direct Push (Geoprobe)

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
Boring ~~15~~ Bk 20'	

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2.25"	

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Liner(s) perforated?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain):

Sealing Materials
☐ Neat Cement Grout ☒ Concrete
☐ Sand-Cement (Concrete) Grout ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole

From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Surface	0-5		
Concrete 3/8" Bentonite Chips	0.5	20	0.6 ft³ dry

6. Comments

B22

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
SCS Engineers		10/18/2021

Street or Route	Telephone Number
2830 Dairy Drive	(608) 224-2830

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Madison	WI	53718		10/18/2021

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources SCS No. 25221172
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

B23

☐ **Verification Only of Fill and Seal**

Route to DNR Bureau:
☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment
☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Rock		

Latitude / Longitude (see instructions) ____ N ____ W | Format Code ☐ DD ☐ DDM | Method Code ☐ GPS008 ☐ SCR002 ☐ OTH001

¼ ¼	¼	Section	Township	Range	or Gov't Lot #
SW	NE	28	04 N	13 ☒ E ☐ W	

Well Street Address: 602 W. Madison Ave

Well City, Village or Town	Well ZIP Code
Milton	53563

Subdivision Name	Lot #

Reason for Removal from Service: Temporary - Investigative only

WI Unique Well # of Replacement Well: ____

2. Facility / Owner Information

Facility Name: Bob's Citgo (Former)

Facility ID (FID or PWS): 154074250

License/Permit/Monitoring #:

Original Well Owner:

Present Well Owner: Robert Richardson

Mailing Address of Present Owner: 507 Campus St., Apt. 7

City of Present Owner	State	ZIP Code
Milton	WI	53563

3. Filled & Sealed Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 10/18/2021

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): Direct Push (Geoprobe)

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
Boring 15'	

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2.25"	

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Liner(s) perforated?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain):

Sealing Materials
☐ Neat Cement Grout ☒ Concrete
☐ Sand-Cement (Concrete) Grout ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole

From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Surface	0.5		
Concrete			
0.5	15	0.4 ft³	dry
3/8" Bentonite Chips			

6. Comments

B23

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
SCS Engineers		10/18/2021

Street or Route	Telephone Number
2830 Dairy Drive	(608) 224-2830

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Madison	WI	53718		10/18/2021

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources SCS No. 25221172
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

B24

☐ **Verification Only of Fill and Seal**

Route to DNR Bureau:
☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment
☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Rock		

Latitude / Longitude (see instructions) ____ N ____ W | Format Code: ☐ DD ☐ DDM | Method Code: ☐ GPS008 ☐ SCR002 ☐ OTH001

¼ ¼	¼	Section	Township	Range
SW	NE	28	04 N	13 ☒ E ☐ W

or Gov't Lot #

Well Street Address: 602 W. Madison Ave

Well City, Village or Town	Well ZIP Code
Milton	53563

Subdivision Name	Lot #

Temporary – Investigative only
Reason for Removal from Service: 53K

WI Unique Well # of Replacement Well: ____

2. Facility / Owner Information

Facility Name: Bob's Citgo (Former)

Facility ID (FID or PWS): 154074250

License/Permit/Monitoring #:

Original Well Owner:

Present Well Owner: Robert Richardson

Mailing Address of Present Owner: 507 Campus St., Apt. 7

City of Present Owner	State	ZIP Code
Milton	WI	53563

3. Filled & Sealed Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 10/18/2021

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): Direct Push (Geoprobe)

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
Boring 20'	

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2.25	

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Liner(s) perforated?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain):

Sealing Materials
☐ Neat Cement Grout ☒ Concrete
☐ Sand-Cement (Concrete) Grout ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole

From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Surface	0.5		
0.5	20	0.6 ft³	dry

3/8" Bentonite Chips Concrete

6. Comments

B24

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
SCS Engineers		10/18/2021

Street or Route	Telephone Number
2830 Daing Dr.	(608) 224-2830

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Madison	WI	53718		10/18/2021

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources SCS No. 25221172
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

B25

☐ **Verification Only of Fill and Seal**

Route to DNR Bureau:
☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment
☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Rock		

Latitude / Longitude (see instructions) ____ N ____ W | Format Code: ☐ DD ☐ DDM | Method Code: ☐ GPS008 ☐ SCR002 ☐ OTH001

¼/¼ SW	¼ NE	Section	Township	Range
or Gov't Lot #		28	04 N	☒ E ☐ W

Well Street Address: 602 W. Madison Ave

Well City, Village or Town	Well ZIP Code
Milton	53563

Subdivision Name	Lot #

Reason for Removal from Service: Temporary - Investigative only

WI Unique Well # of Replacement Well: ____

2. Facility / Owner Information

Facility Name: Bob's Citgo (Former)

Facility ID (FID or PWS): 154074250

License/Permit/Monitoring #:

Original Well Owner:

Present Well Owner: Robert Richardson

Mailing Address of Present Owner: 507 Campus St., Apt. 7

City of Present Owner	State	ZIP Code
Milton	WI	53563

3. Filled & Sealed Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 10/18/2021

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): Direct Push (Geoprobe)

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
Boring 15'	

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2.25"	

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Liner(s) perforated?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain):

Sealing Materials
☐ Neat Cement Grout ☒ Concrete
☐ Sand-Cement (Concrete) Grout ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole

Material	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Concrete	Surface	0.5	5th	
3/8" Bentonite Chips	0.5	15	0.4 ft³	dry

6. Comments

B25

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
SCS Engineers		10/18/2021

Street or Route	Telephone Number
2830 Dairy Drive	( )

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Madison	WI	53718		10/18/2021

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources SCS No. 25221172
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

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B4R

☐ **Verification Only of Fill and Seal**

Route to DNR Bureau:
☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment
☐ Waste Management ☐ Other: _____

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Rock	_ _ _ _ _	

Latitude / Longitude (see instructions) _____ N _____ W | Format Code: ☐ DD ☐ DDM | Method Code: ☐ GPS008 ☐ SCR002 ☐ OTH001

¼ / ¼ SW	¼ NE	Section	Township	Range
or Gov't Lot #		28	04 N	13 ☒ E ☐ W

Well Street Address: 602 W. Madison Ave

Well City, Village or Town	Well ZIP Code
Milton	53563

Subdivision Name	Lot #

Reason for Removal from Service: Temporary – Investigative Only | WI Unique Well # of Replacement Well: _ _ _ _ _

2. Facility / Owner Information

Facility Name: Bob's Citgo (Former)
Facility ID (FID or PWS): 154074250
License/Permit/Monitoring #:
Original Well Owner:
Present Well Owner: Robert Richardson
Mailing Address of Present Owner: 507 Campus St., Apt. 7

City of Present Owner	State	ZIP Code
Milton	WI	53563

3. Filled & Sealed Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well ☒ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 10/18/2021
If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug ☒ Other (specify): Direct Push (Geoprobe)

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
Boring 15'	

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2.25	

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Liner(s) perforated?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain): _____

Sealing Materials
☐ Neat Cement Grout ☒ Concrete
☐ Sand-Cement (Concrete) Grout ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole

From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Surface	0.5		
Concrete 3/8" Bentonite Chips	0.5	15	0.41 ft³	dry

6. Comments

B4R

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
SCS Engineers		10/19/2021

Street or Route	Telephone Number
2830 Dairy Drive	(608) 224-2830

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Madison	WI	53718		10/18/2021

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources SCS No. 25221172
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

BMW2

☐ **Verification Only of Fill and Seal**

Route to DNR Bureau:
☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment
☐ Waste Management ☐ Other: _____

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Rock	_ _ _ _ _	

Latitude / Longitude (see instructions) _____ N _____ W
Format Code: ☐ DD ☐ DDM
Method Code: ☐ GPS008 ☐ SCR002 ☐ OTH001

¼ / ¼ SW	¼ NE	Section	Township	Range
or Gov't Lot #		28	04 N	☒ E ☐ W 13

Well Street Address: 602 W. Madison Ave

Well City, Village or Town	Well ZIP Code
Milton	53563

Subdivision Name	Lot #

Reason for Removal from Service: Temporary - Investigation only
WI Unique Well # of Replacement Well: _ _ _ _ _

2. Facility / Owner Information

Facility Name: Bob's Citgo (Former)
Facility ID (FID or PWS): 154074250
License/Permit/Monitoring #:
Original Well Owner:
Present Well Owner: Robert Richardson
Mailing Address of Present Owner: 507 Campus St., Apt. 7

City of Present Owner	State	ZIP Code
Milton	WI	53563

3. Filled & Sealed Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 10/18/2021
If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): Direct Push (Geoprobe)

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total ~~Well~~ Depth From Ground Surface (ft.)	Casing Diameter (in.)
boring 50'	

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2.25"	

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Liner(s) perforated?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain): _____

Sealing Materials
☐ Neat Cement Grout ☐ Concrete
☐ Sand-Cement (Concrete) Grout ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
3/8" Bentonite Chips	Surface	50	1.5 ft³	dry

6. Comments

BMW2

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
SCS Engineers		10/18/2021

Street or Route	Telephone Number
2830 Dairy Drive	(608) 224-2830

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Madison	WI	53718		10/18/2021

DNR Use Only

Date Received	Noted By

Comments:

Appendix B

Soil Analytical Report

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

October 26, 2021

Betty Socha
SCS ENGINEERS
2830 Dairy Drive
Madison, WI 53718

RE: Project: 25221172 BOB'S CITGO
Pace Project No.: 40235468

Dear Betty Socha:

Enclosed are the analytical results for sample(s) received by the laboratory on October 20, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Green Bay

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Dan Milewsky
dan.milewsky@pacelabs.com
(920)469-2436
Project Manager

Enclosures

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: 25221172 BOB'S CITGO
Pace Project No.: 40235468

Pace Analytical Services Green Bay
1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150
Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: 25221172 BOB'S CITGO
Pace Project No.: 40235468

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40235468001	**B21 (12.5-15)**	Solid	10/18/21 10:25	10/20/21 07:40
40235468002	**B4R (14.5-15)**	Solid	10/18/21 10:55	10/20/21 07:40
40235468003	**B23 (3-4)**	Solid	10/18/21 11:45	10/20/21 07:40
40235468004	**B23 (14-14.5)**	Solid	10/18/21 11:55	10/20/21 07:40
40235468005	**B24 (3-4)**	Solid	10/18/21 12:35	10/20/21 07:40
40235468006	**B24 (19-20)**	Solid	10/18/21 12:40	10/20/21 07:40
40235468007	**B25 (3-4)**	Solid	10/18/21 15:20	10/20/21 07:40
40235468008	**B25 (10-12)**	Solid	10/18/21 15:25	10/20/21 07:40
40235468009	**B25 (14-15)**	Solid	10/18/21 15:30	10/20/21 07:40
40235468010	**B22 (8-10)**	Solid	10/18/21 16:10	10/20/21 07:40
40235468011	**B22 (19-20)**	Solid	10/18/21 16:15	10/20/21 07:40
40235468012	**TRIP BLANK**	Solid	10/18/21 00:00	10/20/21 07:40

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE ANALYTE COUNT

Project: 25221172 BOB'S CITGO
Pace Project No.: 40235468

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40235468001	**B21 (12.5-15)**	WI MOD GRO	ALD	9	PASI-G
		ASTM D2974-87	AH	1	PASI-G
40235468002	**B4R (14.5-15)**	WI MOD GRO	ALD	9	PASI-G
		ASTM D2974-87	AH	1	PASI-G
40235468003	**B23 (3-4)**	WI MOD GRO	ALD	9	PASI-G
		ASTM D2974-87	AH	1	PASI-G
40235468004	**B23 (14-14.5)**	WI MOD GRO	ALD	9	PASI-G
		ASTM D2974-87	AH	1	PASI-G
40235468005	**B24 (3-4)**	WI MOD GRO	ALD	9	PASI-G
		ASTM D2974-87	AH	1	PASI-G
40235468006	**B24 (19-20)**	WI MOD GRO	ALD	9	PASI-G
		ASTM D2974-87	AH	1	PASI-G
40235468007	**B25 (3-4)**	WI MOD GRO	ALD	9	PASI-G
		ASTM D2974-87	AH	1	PASI-G
40235468008	**B25 (10-12)**	WI MOD GRO	ALD	9	PASI-G
		ASTM D2974-87	AH	1	PASI-G
40235468009	**B25 (14-15)**	WI MOD GRO	ALD	9	PASI-G
		ASTM D2974-87	AH	1	PASI-G
40235468010	**B22 (8-10)**	WI MOD GRO	ALD	9	PASI-G
		ASTM D2974-87	AH	1	PASI-G
40235468011	**B22 (19-20)**	WI MOD GRO	ALD	9	PASI-G
		ASTM D2974-87	AH	1	PASI-G
40235468012	**TRIP BLANK**	WI MOD GRO	ALD	9	PASI-G

PASI-G = Pace Analytical Services - Green Bay

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SUMMARY OF DETECTION

Project: 25221172 BOB'S CITGO
Pace Project No.: 40235468

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40235468001	**B21 (12.5-15)**					
WI MOD GRO	Benzene	128J	ug/kg	134	10/22/21 00:06	
WI MOD GRO	Ethylbenzene	6010	ug/kg	134	10/22/21 00:06	
WI MOD GRO	Naphthalene	4180	ug/kg	134	10/22/21 00:06	
WI MOD GRO	Toluene	168	ug/kg	134	10/22/21 00:06	
WI MOD GRO	1,2,4-Trimethylbenzene	20700	ug/kg	134	10/22/21 00:06	
WI MOD GRO	1,3,5-Trimethylbenzene	6760	ug/kg	134	10/22/21 00:06	
WI MOD GRO	Xylene (Total)	16200	ug/kg	401	10/22/21 00:06	
ASTM D2974-87	Percent Moisture	6.5	%	0.10	10/20/21 11:54	
40235468002	**B4R (14.5-15)**					
WI MOD GRO	Benzene	193	ug/kg	57.0	10/21/21 11:38	
WI MOD GRO	Ethylbenzene	619	ug/kg	57.0	10/21/21 11:38	
WI MOD GRO	Naphthalene	384	ug/kg	57.0	10/21/21 11:38	
WI MOD GRO	1,2,4-Trimethylbenzene	1120	ug/kg	57.0	10/21/21 11:38	
WI MOD GRO	1,3,5-Trimethylbenzene	340	ug/kg	57.0	10/21/21 11:38	
WI MOD GRO	Xylene (Total)	1860	ug/kg	171	10/21/21 11:38	
ASTM D2974-87	Percent Moisture	12.3	%	0.10	10/20/21 11:54	
40235468003	**B23 (3-4)**					
WI MOD GRO	Benzene	59.5J	ug/kg	65.3	10/21/21 23:14	
ASTM D2974-87	Percent Moisture	16.8	%	0.10	10/20/21 11:54	
40235468004	**B23 (14-14.5)**					
ASTM D2974-87	Percent Moisture	10.3	%	0.10	10/20/21 11:54	
40235468005	**B24 (3-4)**					
ASTM D2974-87	Percent Moisture	10.8	%	0.10	10/20/21 11:54	
40235468006	**B24 (19-20)**					
ASTM D2974-87	Percent Moisture	4.6	%	0.10	10/20/21 11:54	
40235468007	**B25 (3-4)**					
WI MOD GRO	Ethylbenzene	1050	ug/kg	568	10/21/21 23:40	
WI MOD GRO	Naphthalene	5540	ug/kg	568	10/21/21 23:40	
WI MOD GRO	Toluene	568J	ug/kg	568	10/21/21 23:40	
WI MOD GRO	1,2,4-Trimethylbenzene	5300	ug/kg	568	10/21/21 23:40	
WI MOD GRO	1,3,5-Trimethylbenzene	2860	ug/kg	568	10/21/21 23:40	
WI MOD GRO	Xylene (Total)	3620	ug/kg	1710	10/21/21 23:40	
ASTM D2974-87	Percent Moisture	5.4	%	0.10	10/20/21 11:54	
40235468008	**B25 (10-12)**					
WI MOD GRO	Ethylbenzene	154	ug/kg	62.0	10/21/21 14:13	
WI MOD GRO	Naphthalene	665	ug/kg	62.0	10/21/21 14:13	
WI MOD GRO	1,2,4-Trimethylbenzene	400	ug/kg	62.0	10/21/21 14:13	
WI MOD GRO	1,3,5-Trimethylbenzene	244	ug/kg	62.0	10/21/21 14:13	
WI MOD GRO	Xylene (Total)	403	ug/kg	186	10/21/21 14:13	
ASTM D2974-87	Percent Moisture	19.4	%	0.10	10/20/21 11:54	
40235468009	**B25 (14-15)**					
WI MOD GRO	Naphthalene	33.4J	ug/kg	54.8	10/21/21 13:47	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SUMMARY OF DETECTION

Project: 25221172 BOB'S CITGO
Pace Project No.: 40235468

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40235468009	**B25 (14-15)**					
WI MOD GRO	1,2,4-Trimethylbenzene	94.8	ug/kg	54.8	10/21/21 13:47	
ASTM D2974-87	Percent Moisture	8.7	%	0.10	10/20/21 11:54	
40235468010	**B22 (8-10)**					
ASTM D2974-87	Percent Moisture	21.3	%	0.10	10/20/21 11:54	
40235468011	**B22 (19-20)**					
WI MOD GRO	Benzene	907	ug/kg	487	10/21/21 15:04	
WI MOD GRO	Ethylbenzene	34100	ug/kg	487	10/21/21 15:04	
WI MOD GRO	Methyl-tert-butyl ether	1350	ug/kg	487	10/21/21 15:04	
WI MOD GRO	Naphthalene	12000	ug/kg	487	10/21/21 15:04	
WI MOD GRO	Toluene	32000	ug/kg	487	10/21/21 15:04	
WI MOD GRO	1,2,4-Trimethylbenzene	78200	ug/kg	487	10/21/21 15:04	
WI MOD GRO	1,3,5-Trimethylbenzene	27000	ug/kg	487	10/21/21 15:04	
WI MOD GRO	Xylene (Total)	138000	ug/kg	1460	10/21/21 15:04	
ASTM D2974-87	Percent Moisture	17.8	%	0.10	10/20/21 11:54	

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 25221172 BOB'S CITGO
Pace Project No.: 40235468

Sample: B21 (12.5-15) **Lab ID: 40235468001** Collected: 10/18/21 10:25 Received: 10/20/21 07:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
	Pace Analytical Services - Green Bay								
Benzene	**128J**	ug/kg	134	66.8	2.5	10/21/21 08:30	10/22/21 00:06	71-43-2	
Ethylbenzene	**6010**	ug/kg	134	66.8	2.5	10/21/21 08:30	10/22/21 00:06	100-41-4	
Methyl-tert-butyl ether	**<66.8**	ug/kg	134	66.8	2.5	10/21/21 08:30	10/22/21 00:06	1634-04-4	
Naphthalene	**4180**	ug/kg	134	66.8	2.5	10/21/21 08:30	10/22/21 00:06	91-20-3	
Toluene	**168**	ug/kg	134	66.8	2.5	10/21/21 08:30	10/22/21 00:06	108-88-3	
1,2,4-Trimethylbenzene	**20700**	ug/kg	134	66.8	2.5	10/21/21 08:30	10/22/21 00:06	95-63-6	
1,3,5-Trimethylbenzene	**6760**	ug/kg	134	66.8	2.5	10/21/21 08:30	10/22/21 00:06	108-67-8	
Xylene (Total)	**16200**	ug/kg	401	201	2.5	10/21/21 08:30	10/22/21 00:06	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	117	%	80-120		2.5	10/21/21 08:30	10/22/21 00:06	98-08-8	
Percent Moisture	Analytical Method: ASTM D2974-87								
	Pace Analytical Services - Green Bay								
Percent Moisture	**6.5**	%	0.10	0.10	1		10/20/21 11:54		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 25221172 BOB'S CITGO
Pace Project No.: 40235468

Sample: B4R (14.5-15) **Lab ID: 40235468002** Collected: 10/18/21 10:55 Received: 10/20/21 07:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
	Pace Analytical Services - Green Bay								
Benzene	**193**	ug/kg	57.0	28.5	1	10/21/21 08:30	10/21/21 11:38	71-43-2	
Ethylbenzene	**619**	ug/kg	57.0	28.5	1	10/21/21 08:30	10/21/21 11:38	100-41-4	
Methyl-tert-butyl ether	**<28.5**	ug/kg	57.0	28.5	1	10/21/21 08:30	10/21/21 11:38	1634-04-4	
Naphthalene	**384**	ug/kg	57.0	28.5	1	10/21/21 08:30	10/21/21 11:38	91-20-3	
Toluene	**<28.5**	ug/kg	57.0	28.5	1	10/21/21 08:30	10/21/21 11:38	108-88-3	
1,2,4-Trimethylbenzene	**1120**	ug/kg	57.0	28.5	1	10/21/21 08:30	10/21/21 11:38	95-63-6	
1,3,5-Trimethylbenzene	**340**	ug/kg	57.0	28.5	1	10/21/21 08:30	10/21/21 11:38	108-67-8	
Xylene (Total)	**1860**	ug/kg	171	85.5	1	10/21/21 08:30	10/21/21 11:38	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	106	%	80-120		1	10/21/21 08:30	10/21/21 11:38	98-08-8	
Percent Moisture	Analytical Method: ASTM D2974-87								
	Pace Analytical Services - Green Bay								
Percent Moisture	**12.3**	%	0.10	0.10	1		10/20/21 11:54		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 25221172 BOB'S CITGO
Pace Project No.: 40235468

Sample: B23 (3-4) **Lab ID: 40235468003** Collected: 10/18/21 11:45 Received: 10/20/21 07:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
	Pace Analytical Services - Green Bay								
Benzene	**59.5J**	ug/kg	65.3	32.6	1	10/21/21 08:30	10/21/21 23:14	71-43-2	
Ethylbenzene	**<32.6**	ug/kg	65.3	32.6	1	10/21/21 08:30	10/21/21 23:14	100-41-4	
Methyl-tert-butyl ether	**<32.6**	ug/kg	65.3	32.6	1	10/21/21 08:30	10/21/21 23:14	1634-04-4	
Naphthalene	**<32.6**	ug/kg	65.3	32.6	1	10/21/21 08:30	10/21/21 23:14	91-20-3	
Toluene	**<32.6**	ug/kg	65.3	32.6	1	10/21/21 08:30	10/21/21 23:14	108-88-3	
1,2,4-Trimethylbenzene	**<32.6**	ug/kg	65.3	32.6	1	10/21/21 08:30	10/21/21 23:14	95-63-6	
1,3,5-Trimethylbenzene	**<32.6**	ug/kg	65.3	32.6	1	10/21/21 08:30	10/21/21 23:14	108-67-8	
Xylene (Total)	**<97.9**	ug/kg	196	97.9	1	10/21/21 08:30	10/21/21 23:14	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	103	%	80-120		1	10/21/21 08:30	10/21/21 23:14	98-08-8	
Percent Moisture	Analytical Method: ASTM D2974-87								
	Pace Analytical Services - Green Bay								
Percent Moisture	**16.8**	%	0.10	0.10	1		10/20/21 11:54		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 25221172 BOB'S CITGO
Pace Project No.: 40235468

Sample: B23 (14-14.5) **Lab ID: 40235468004** Collected: 10/18/21 11:55 Received: 10/20/21 07:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
	Pace Analytical Services - Green Bay								
Benzene	**<27.9**	ug/kg	55.7	27.9	1	10/21/21 08:30	10/21/21 12:30	71-43-2	
Ethylbenzene	**<27.9**	ug/kg	55.7	27.9	1	10/21/21 08:30	10/21/21 12:30	100-41-4	
Methyl-tert-butyl ether	**<27.9**	ug/kg	55.7	27.9	1	10/21/21 08:30	10/21/21 12:30	1634-04-4	
Naphthalene	**<27.9**	ug/kg	55.7	27.9	1	10/21/21 08:30	10/21/21 12:30	91-20-3	
Toluene	**<27.9**	ug/kg	55.7	27.9	1	10/21/21 08:30	10/21/21 12:30	108-88-3	
1,2,4-Trimethylbenzene	**<27.9**	ug/kg	55.7	27.9	1	10/21/21 08:30	10/21/21 12:30	95-63-6	
1,3,5-Trimethylbenzene	**<27.9**	ug/kg	55.7	27.9	1	10/21/21 08:30	10/21/21 12:30	108-67-8	
Xylene (Total)	**<83.6**	ug/kg	167	83.6	1	10/21/21 08:30	10/21/21 12:30	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	104	%	80-120		1	10/21/21 08:30	10/21/21 12:30	98-08-8	
Percent Moisture	Analytical Method: ASTM D2974-87								
	Pace Analytical Services - Green Bay								
Percent Moisture	**10.3**	%	0.10	0.10	1		10/20/21 11:54		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 25221172 BOB'S CITGO
Pace Project No.: 40235468

Sample: B24 (3-4) **Lab ID: 40235468005** Collected: 10/18/21 12:35 Received: 10/20/21 07:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
	Pace Analytical Services - Green Bay								
Benzene	**<30.2**	ug/kg	60.3	30.2	1	10/21/21 08:30	10/21/21 12:55	71-43-2	
Ethylbenzene	**<30.2**	ug/kg	60.3	30.2	1	10/21/21 08:30	10/21/21 12:55	100-41-4	
Methyl-tert-butyl ether	**<30.2**	ug/kg	60.3	30.2	1	10/21/21 08:30	10/21/21 12:55	1634-04-4	
Naphthalene	**<30.2**	ug/kg	60.3	30.2	1	10/21/21 08:30	10/21/21 12:55	91-20-3	
Toluene	**<30.2**	ug/kg	60.3	30.2	1	10/21/21 08:30	10/21/21 12:55	108-88-3	
1,2,4-Trimethylbenzene	**<30.2**	ug/kg	60.3	30.2	1	10/21/21 08:30	10/21/21 12:55	95-63-6	
1,3,5-Trimethylbenzene	**<30.2**	ug/kg	60.3	30.2	1	10/21/21 08:30	10/21/21 12:55	108-67-8	
Xylene (Total)	**<90.5**	ug/kg	181	90.5	1	10/21/21 08:30	10/21/21 12:55	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	103	%	80-120		1	10/21/21 08:30	10/21/21 12:55	98-08-8	
Percent Moisture	Analytical Method: ASTM D2974-87								
	Pace Analytical Services - Green Bay								
Percent Moisture	**10.8**	%	0.10	0.10	1		10/20/21 11:54		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 25221172 BOB'S CITGO
Pace Project No.: 40235468

Sample: B24 (19-20) **Lab ID: 40235468006** Collected: 10/18/21 12:40 Received: 10/20/21 07:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
	Pace Analytical Services - Green Bay								
Benzene	**<26.2**	ug/kg	52.4	26.2	1	10/21/21 08:30	10/21/21 13:21	71-43-2	
Ethylbenzene	**<26.2**	ug/kg	52.4	26.2	1	10/21/21 08:30	10/21/21 13:21	100-41-4	
Methyl-tert-butyl ether	**<26.2**	ug/kg	52.4	26.2	1	10/21/21 08:30	10/21/21 13:21	1634-04-4	
Naphthalene	**<26.2**	ug/kg	52.4	26.2	1	10/21/21 08:30	10/21/21 13:21	91-20-3	
Toluene	**<26.2**	ug/kg	52.4	26.2	1	10/21/21 08:30	10/21/21 13:21	108-88-3	
1,2,4-Trimethylbenzene	**<26.2**	ug/kg	52.4	26.2	1	10/21/21 08:30	10/21/21 13:21	95-63-6	
1,3,5-Trimethylbenzene	**<26.2**	ug/kg	52.4	26.2	1	10/21/21 08:30	10/21/21 13:21	108-67-8	
Xylene (Total)	**<78.6**	ug/kg	157	78.6	1	10/21/21 08:30	10/21/21 13:21	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	103	%	80-120		1	10/21/21 08:30	10/21/21 13:21	98-08-8	
Percent Moisture	Analytical Method: ASTM D2974-87								
	Pace Analytical Services - Green Bay								
Percent Moisture	**4.6**	%	0.10	0.10	1		10/20/21 11:54		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 25221172 BOB'S CITGO
Pace Project No.: 40235468

Sample: B25 (3-4) **Lab ID: 40235468007** Collected: 10/18/21 15:20 Received: 10/20/21 07:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
	Pace Analytical Services - Green Bay								
Benzene	**<284**	ug/kg	568	284	10	10/21/21 08:30	10/21/21 23:40	71-43-2	
Ethylbenzene	**1050**	ug/kg	568	284	10	10/21/21 08:30	10/21/21 23:40	100-41-4	
Methyl-tert-butyl ether	**<284**	ug/kg	568	284	10	10/21/21 08:30	10/21/21 23:40	1634-04-4	
Naphthalene	**5540**	ug/kg	568	284	10	10/21/21 08:30	10/21/21 23:40	91-20-3	
Toluene	**568J**	ug/kg	568	284	10	10/21/21 08:30	10/21/21 23:40	108-88-3	
1,2,4-Trimethylbenzene	**5300**	ug/kg	568	284	10	10/21/21 08:30	10/21/21 23:40	95-63-6	
1,3,5-Trimethylbenzene	**2860**	ug/kg	568	284	10	10/21/21 08:30	10/21/21 23:40	108-67-8	
Xylene (Total)	**3620**	ug/kg	1710	853	10	10/21/21 08:30	10/21/21 23:40	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	102	%	80-120		10	10/21/21 08:30	10/21/21 23:40	98-08-8	D3
Percent Moisture	Analytical Method: ASTM D2974-87								
	Pace Analytical Services - Green Bay								
Percent Moisture	**5.4**	%	0.10	0.10	1		10/20/21 11:54		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 25221172 BOB'S CITGO
Pace Project No.: 40235468

Sample: B25 (10-12) **Lab ID: 40235468008** Collected: 10/18/21 15:25 Received: 10/20/21 07:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
	Pace Analytical Services - Green Bay								
Benzene	**<31.0**	ug/kg	62.0	31.0	1	10/21/21 08:30	10/21/21 14:13	71-43-2	
Ethylbenzene	**154**	ug/kg	62.0	31.0	1	10/21/21 08:30	10/21/21 14:13	100-41-4	
Methyl-tert-butyl ether	**<31.0**	ug/kg	62.0	31.0	1	10/21/21 08:30	10/21/21 14:13	1634-04-4	
Naphthalene	**665**	ug/kg	62.0	31.0	1	10/21/21 08:30	10/21/21 14:13	91-20-3	
Toluene	**<31.0**	ug/kg	62.0	31.0	1	10/21/21 08:30	10/21/21 14:13	108-88-3	
1,2,4-Trimethylbenzene	**400**	ug/kg	62.0	31.0	1	10/21/21 08:30	10/21/21 14:13	95-63-6	
1,3,5-Trimethylbenzene	**244**	ug/kg	62.0	31.0	1	10/21/21 08:30	10/21/21 14:13	108-67-8	
Xylene (Total)	**403**	ug/kg	186	93.1	1	10/21/21 08:30	10/21/21 14:13	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	112	%	80-120		1	10/21/21 08:30	10/21/21 14:13	98-08-8	
Percent Moisture	Analytical Method: ASTM D2974-87								
	Pace Analytical Services - Green Bay								
Percent Moisture	**19.4**	%	0.10	0.10	1		10/20/21 11:54		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 25221172 BOB'S CITGO
Pace Project No.: 40235468

Sample: B25 (14-15) **Lab ID: 40235468009** Collected: 10/18/21 15:30 Received: 10/20/21 07:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
	Pace Analytical Services - Green Bay								
Benzene	**<27.4**	ug/kg	54.8	27.4	1	10/21/21 08:30	10/21/21 13:47	71-43-2	
Ethylbenzene	**<27.4**	ug/kg	54.8	27.4	1	10/21/21 08:30	10/21/21 13:47	100-41-4	
Methyl-tert-butyl ether	**<27.4**	ug/kg	54.8	27.4	1	10/21/21 08:30	10/21/21 13:47	1634-04-4	
Naphthalene	**33.4J**	ug/kg	54.8	27.4	1	10/21/21 08:30	10/21/21 13:47	91-20-3	
Toluene	**<27.4**	ug/kg	54.8	27.4	1	10/21/21 08:30	10/21/21 13:47	108-88-3	
1,2,4-Trimethylbenzene	**94.8**	ug/kg	54.8	27.4	1	10/21/21 08:30	10/21/21 13:47	95-63-6	
1,3,5-Trimethylbenzene	**<27.4**	ug/kg	54.8	27.4	1	10/21/21 08:30	10/21/21 13:47	108-67-8	
Xylene (Total)	**<82.2**	ug/kg	164	82.2	1	10/21/21 08:30	10/21/21 13:47	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	102	%	80-120		1	10/21/21 08:30	10/21/21 13:47	98-08-8	
Percent Moisture	Analytical Method: ASTM D2974-87								
	Pace Analytical Services - Green Bay								
Percent Moisture	**8.7**	%	0.10	0.10	1		10/20/21 11:54		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 25221172 BOB'S CITGO
Pace Project No.: 40235468

Sample: B22 (8-10) **Lab ID: 40235468010** Collected: 10/18/21 16:10 Received: 10/20/21 07:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
	Pace Analytical Services - Green Bay								
Benzene	**<31.8**	ug/kg	63.6	31.8	1	10/21/21 08:30	10/21/21 18:05	71-43-2	
Ethylbenzene	**<31.8**	ug/kg	63.6	31.8	1	10/21/21 08:30	10/21/21 18:05	100-41-4	
Methyl-tert-butyl ether	**<31.8**	ug/kg	63.6	31.8	1	10/21/21 08:30	10/21/21 18:05	1634-04-4	
Naphthalene	**<31.8**	ug/kg	63.6	31.8	1	10/21/21 08:30	10/21/21 18:05	91-20-3	
Toluene	**<31.8**	ug/kg	63.6	31.8	1	10/21/21 08:30	10/21/21 18:05	108-88-3	
1,2,4-Trimethylbenzene	**<31.8**	ug/kg	63.6	31.8	1	10/21/21 08:30	10/21/21 18:05	95-63-6	
1,3,5-Trimethylbenzene	**<31.8**	ug/kg	63.6	31.8	1	10/21/21 08:30	10/21/21 18:05	108-67-8	
Xylene (Total)	**<95.3**	ug/kg	191	95.3	1	10/21/21 08:30	10/21/21 18:05	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	104	%	80-120		1	10/21/21 08:30	10/21/21 18:05	98-08-8	
Percent Moisture	Analytical Method: ASTM D2974-87								
	Pace Analytical Services - Green Bay								
Percent Moisture	**21.3**	%	0.10	0.10	1		10/20/21 11:54		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 25221172 BOB'S CITGO
Pace Project No.: 40235468

Sample: B22 (19-20) **Lab ID: 40235468011** Collected: 10/18/21 16:15 Received: 10/20/21 07:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
	Pace Analytical Services - Green Bay								
Benzene	**907**	ug/kg	487	243	8	10/21/21 08:30	10/21/21 15:04	71-43-2	
Ethylbenzene	**34100**	ug/kg	487	243	8	10/21/21 08:30	10/21/21 15:04	100-41-4	
Methyl-tert-butyl ether	**1350**	ug/kg	487	243	8	10/21/21 08:30	10/21/21 15:04	1634-04-4	
Naphthalene	**12000**	ug/kg	487	243	8	10/21/21 08:30	10/21/21 15:04	91-20-3	
Toluene	**32000**	ug/kg	487	243	8	10/21/21 08:30	10/21/21 15:04	108-88-3	
1,2,4-Trimethylbenzene	**78200**	ug/kg	487	243	8	10/21/21 08:30	10/21/21 15:04	95-63-6	
1,3,5-Trimethylbenzene	**27000**	ug/kg	487	243	8	10/21/21 08:30	10/21/21 15:04	108-67-8	
Xylene (Total)	**138000**	ug/kg	1460	730	8	10/21/21 08:30	10/21/21 15:04	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	104	%	80-120		8	10/21/21 08:30	10/21/21 15:04	98-08-8	
Percent Moisture	Analytical Method: ASTM D2974-87								
	Pace Analytical Services - Green Bay								
Percent Moisture	**17.8**	%	0.10	0.10	1		10/20/21 11:54		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 25221172 BOB'S CITGO
Pace Project No.: 40235468

Sample: TRIP BLANK **Lab ID: 40235468012** Collected: 10/18/21 00:00 Received: 10/20/21 07:40 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext. Pace Analytical Services - Green Bay								
Benzene	**<25.0**	ug/kg	50.0	25.0	1	10/21/21 08:30	10/21/21 21:57	71-43-2	
Ethylbenzene	**<25.0**	ug/kg	50.0	25.0	1	10/21/21 08:30	10/21/21 21:57	100-41-4	
Methyl-tert-butyl ether	**<25.0**	ug/kg	50.0	25.0	1	10/21/21 08:30	10/21/21 21:57	1634-04-4	
Naphthalene	**<25.0**	ug/kg	50.0	25.0	1	10/21/21 08:30	10/21/21 21:57	91-20-3	
Toluene	**<25.0**	ug/kg	50.0	25.0	1	10/21/21 08:30	10/21/21 21:57	108-88-3	
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	50.0	25.0	1	10/21/21 08:30	10/21/21 21:57	95-63-6	
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	50.0	25.0	1	10/21/21 08:30	10/21/21 21:57	108-67-8	
Xylene (Total)	**<75.0**	ug/kg	150	75.0	1	10/21/21 08:30	10/21/21 21:57	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	103	%	80-120		1	10/21/21 08:30	10/21/21 21:57	98-08-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25221172 BOB'S CITGO
Pace Project No.: 40235468

QC Batch: 399218 | Analysis Method: WI MOD GRO
QC Batch Method: TPH GRO/PVOC WI ext. | Analysis Description: WIGRO Solid GCV
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40235468001, 40235468002, 40235468003, 40235468004, 40235468005, 40235468006, 40235468007, 40235468008, 40235468009, 40235468010, 40235468011, 40235468012

METHOD BLANK: 2304960 Matrix: Solid
Associated Lab Samples: 40235468001, 40235468002, 40235468003, 40235468004, 40235468005, 40235468006, 40235468007, 40235468008, 40235468009, 40235468010, 40235468011, 40235468012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	<25.0	50.0	10/21/21 09:51	
1,3,5-Trimethylbenzene	ug/kg	<25.0	50.0	10/21/21 09:51	
Benzene	ug/kg	<25.0	50.0	10/21/21 09:51	
Ethylbenzene	ug/kg	<25.0	50.0	10/21/21 09:51	
Methyl-tert-butyl ether	ug/kg	<25.0	50.0	10/21/21 09:51	
Naphthalene	ug/kg	<25.0	50.0	10/21/21 09:51	
Toluene	ug/kg	<25.0	50.0	10/21/21 09:51	
Xylene (Total)	ug/kg	<75.0	150	10/21/21 09:51	
a,a,a-Trifluorotoluene (S)	%	102	80-120	10/21/21 09:51	

LABORATORY CONTROL SAMPLE & LCSD: 2304961 2304962

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	1000	1080	1130	108	113	80-120	5	20	
1,3,5-Trimethylbenzene	ug/kg	1000	1070	1130	107	113	80-120	5	20	
Benzene	ug/kg	1000	1080	1100	108	110	80-120	2	20	
Ethylbenzene	ug/kg	1000	1100	1180	110	118	80-120	7	20	
Methyl-tert-butyl ether	ug/kg	1000	927	936	93	94	80-120	1	20	
Naphthalene	ug/kg	1000	959	995	96	99	80-120	4	20	
Toluene	ug/kg	1000	1060	1090	106	109	80-120	3	20	
Xylene (Total)	ug/kg	3000	3240	3450	108	115	80-120	6	20	
a,a,a-Trifluorotoluene (S)	%				103	102	80-120			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25221172 BOB'S CITGO
Pace Project No.: 40235468

QC Batch: 399120
QC Batch Method: ASTM D2974-87
Analysis Method: ASTM D2974-87
Analysis Description: Dry Weight/Percent Moisture
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40235468001, 40235468002, 40235468003, 40235468004, 40235468005, 40235468006, 40235468007, 40235468008, 40235468009, 40235468010, 40235468011

SAMPLE DUPLICATE: 2304518

Parameter	Units	40235468006 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	4.6	4.8	4	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALIFIERS

Project: 25221172 BOB'S CITGO
Pace Project No.: 40235468

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 25221172 BOB'S CITGO
Pace Project No.: 40235468

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40235468001	**B21 (12.5-15)**	TPH GRO/PVOC WI ext.	399218	WI MOD GRO	399240
40235468002	**B4R (14.5-15)**	TPH GRO/PVOC WI ext.	399218	WI MOD GRO	399240
40235468003	**B23 (3-4)**	TPH GRO/PVOC WI ext.	399218	WI MOD GRO	399240
40235468004	**B23 (14-14.5)**	TPH GRO/PVOC WI ext.	399218	WI MOD GRO	399240
40235468005	**B24 (3-4)**	TPH GRO/PVOC WI ext.	399218	WI MOD GRO	399240
40235468006	**B24 (19-20)**	TPH GRO/PVOC WI ext.	399218	WI MOD GRO	399240
40235468007	**B25 (3-4)**	TPH GRO/PVOC WI ext.	399218	WI MOD GRO	399240
40235468008	**B25 (10-12)**	TPH GRO/PVOC WI ext.	399218	WI MOD GRO	399240
40235468009	**B25 (14-15)**	TPH GRO/PVOC WI ext.	399218	WI MOD GRO	399240
40235468010	**B22 (8-10)**	TPH GRO/PVOC WI ext.	399218	WI MOD GRO	399240
40235468011	**B22 (19-20)**	TPH GRO/PVOC WI ext.	399218	WI MOD GRO	399240
40235468012	**TRIP BLANK**	TPH GRO/PVOC WI ext.	399218	WI MOD GRO	399240
40235468001	**B21 (12.5-15)**	ASTM D2974-87	399120		
40235468002	**B4R (14.5-15)**	ASTM D2974-87	399120		
40235468003	**B23 (3-4)**	ASTM D2974-87	399120		
40235468004	**B23 (14-14.5)**	ASTM D2974-87	399120		
40235468005	**B24 (3-4)**	ASTM D2974-87	399120		
40235468006	**B24 (19-20)**	ASTM D2974-87	399120		
40235468007	**B25 (3-4)**	ASTM D2974-87	399120		
40235468008	**B25 (10-12)**	ASTM D2974-87	399120		
40235468009	**B25 (14-15)**	ASTM D2974-87	399120		
40235468010	**B22 (8-10)**	ASTM D2974-87	399120		
40235468011	**B22 (19-20)**	ASTM D2974-87	399120		

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

40235468

Pace Analytical®
www.pacelabs.com

CHAIN OF CUSTODY

(Please Print Clearly)	
Company Name:	SCS Engineers
Branch/Location:	Madison, WI
Project Contact:	Betty Socha
Phone:	(608) 212 - 6664
Project Number:	25221172
Project Name:	Bob's Citgo
Project State:	WI
Sampled By (Print):	Jacob Krause
Sampled By (Sign):	
PO #:	Regulatory Program:

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air, W = Water, B = Biota, DW = Drinking Water, C = Charcoal, GW = Ground Water, O = Oil, SW = Surface Water, S = Soil, WW = Waste Water, SI = Sludge, WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested: PVOCs + Naphthalene & Moisture	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
001	B21 (12.5 - 15)	10-18-21	10:25	S		N/F	X			
002	B4R (14.5 - 15)		10:55				X			
003	B23 (3 - 4)		11:45				X			
004	B23 (14 - 14.5)		11:55				X			
005	B24 (3 - 4)		12:35				X			
006	B24 (19 - 20)		12:40				X			
007	B25 (3 - 4)		15:20				X			
008	B25 (10 - 12)		15:25				X			
009	B25 (14 - 15)		15:30				X			
010	B22 (8 - 10)		16:10				X			
011	B22 (19 - 20)	↓	16:15	↓			X			
012	TRIP BLANK						X	*One trip blank provided submitted w/each VOC vial		

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):
Email #1:
Email #2:
Telephone:
Fax:

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
Jacob Krause	10.19.21 11AM		
CS Logistics	10/20/21 0740		10/20/21 0740

PACE Project No.: 40235468
Receipt Temp = 0 °C
Sample Receipt pH OK / Adjusted
Cooler Custody Seal: Present / Not Present, Intact / Not Intact

Version 6.0, 06/14/06
C019a(27Jun2006)
ORIGINAL

Sample Preservation Receipt Form

Pace Analytical Services, LLC
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Client Name: SCS Project # 40235468

All containers needing preservation have been checked and noted below: □Yes □No □N/A Initial when completed: Date/ Time:

Lab Lot# of pH paper: Lab Std #ID of preservation (if pH adjusted):

	Glass								Plastic					Vials						Jars				General							
Pace Lab #	AG1U	BG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP3U	BP3B	BP3N	BP3S	VG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	JG9U	WGFU	WPFU	SP5T	ZPLC	GN	VOA Vials (>6mm) *	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
001																																	2.5 / 5 / 10
002																																	2.5 / 5 / 10
003																																	2.5 / 5 / 10
004																																	2.5 / 5 / 10
005																																	2.5 / 5 / 10
006																																	2.5 / 5 / 10
007																																	2.5 / 5 / 10
008																																	2.5 / 5 / 10
009																																	2.5 / 5 / 10
010																																	2.5 / 5 / 10
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014																																	2.5 / 5 / 10
015																																	2.5 / 5 / 10
016																																	2.5 / 5 / 10
017																																	2.5 / 5 / 10
018																																	2.5 / 5 / 10
019																																	2.5 / 5 / 10
020																																	2.5 / 5 / 10

Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other:_____ Headspace in VOA Vials (>6mm) : □Yes □No □N/A ***If yes look in headspace column**

AG1U	1 liter amber glass
BG1U	1 liter clear glass
AG1H	1 liter amber glass HCL
AG4S	125 mL amber glass H2SO4
AG4U	120 mL amber glass unpres
AG5U	100 mL amber glass unpres
AG2S	500 mL amber glass H2SO4
BG3U	250 mL clear glass unpres

BP1U	1 liter plastic unpres
BP3U	250 mL plastic unpres
BP3B	250 mL plastic NaOH
BP3N	250 mL plastic HNO3
BP3S	250 mL plastic H2SO4

VG9A	40 mL clear ascorbic
DG9T	40 mL amber Na Thio
VG9U	40 mL clear vial unpres
VG9H	40 mL clear vial HCL
VG9M	40 mL clear vial MeOH
VG9D	40 mL clear vial DI

JGFU	4 oz amber jar unpres
JG9U	9 oz amber jar unpres
WGFU	4 oz clear jar unpres
WPFU	4 oz plastic jar unpres
SP5T	120 mL plastic Na Thiosulfate
ZPLC	ziploc bag
GN	

Pace Analytical® 1241 Bellevue Street, Green Bay, WI 54302	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: 26Mar2020
	Document No.: **ENV-FRM-GBAY-0014-Rev.00**	Author: Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Project #:

WO# : 40235468

40235468

Client Name: SCS

Courier: ☑ CS Logistics ☐ Fed Ex ☐ Speedee ☐ UPS ☐ Waltco
☐ Client ☐ Pace Other:

Tracking #:

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other

Thermometer Used SR - 110 **Type of Ice:** (Wet) Blue Dry None ☑ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 0 /Corr: 0

Person examining contents:
Date: 10/20/21 /Initials: QM

Temp Blank Present: ☐ yes ☑ no **Biological Tissue is Frozen:** ☐ yes ☐ no

Labeled By Initials: AJ

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C if shipped on Dry Ice.

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☐Yes ☑No ☐N/A	2. mail invoice, PO# QM 10/20/21
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes ☑No	6.
Rush Turn Around Time Requested:	☐Yes ☑No	7.
Sufficient Volume: For Analysis: ☑Yes ☐No MS/MSD: ☐Yes ☑No ☐N/A		8.
Correct Containers Used:	☑Yes ☐No	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
-Pace IR Containers Used:	☐Yes ☐No ☑N/A	
Containers Intact:	☑Yes ☐No	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: S		
Trip Blank Present:	☑Yes ☐No ☐N/A	13.
Trip Blank Custody Seals Present	☑Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased): B100501VB		

Client Notification/ Resolution: If checked, see attached form for additional comments ☐

Person Contacted: Date/Time:

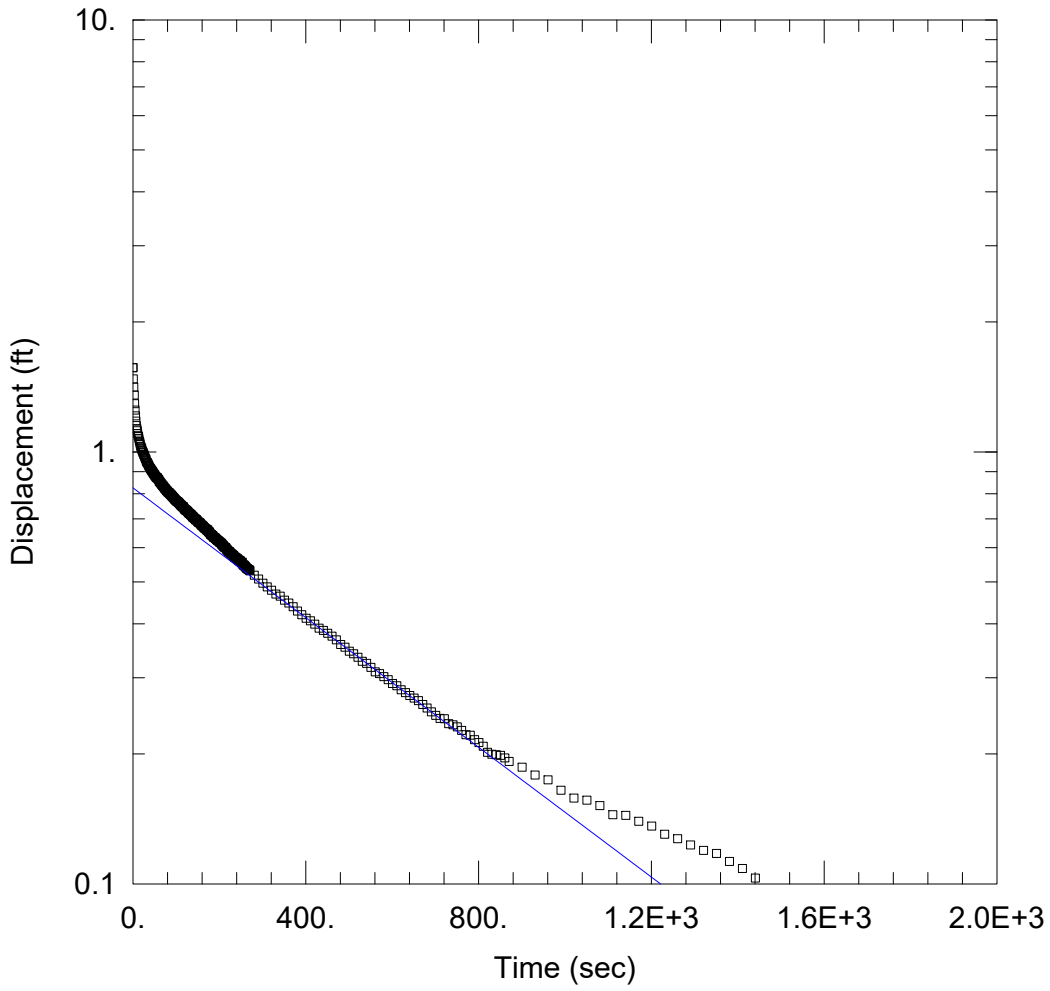
Comments/ Resolution:

PM Review is documented electronically in LIMs. By releasing the project, the PM acknowledges they have reviewed the sample logi

Page 2 of 2

Appendix C

Slug Test Results



WELL TEST ANALYSIS

Data Set: I:\25221172.00\Data and Calculations\Slug Test Data\BobsCitgoMW1.aqt
Date: 12/08/21 Time: 12:20:20

PROJECT INFORMATION

Company: SCS Engineers
Client: Former Bob's Citgo
Project: 25221172.00
Location: Milton, WI
Test Well: MW1
Test Date: 10/19/2021

AQUIFER DATA

Saturated Thickness: 100. ft Anisotropy Ratio (Kz/Kr): 1.

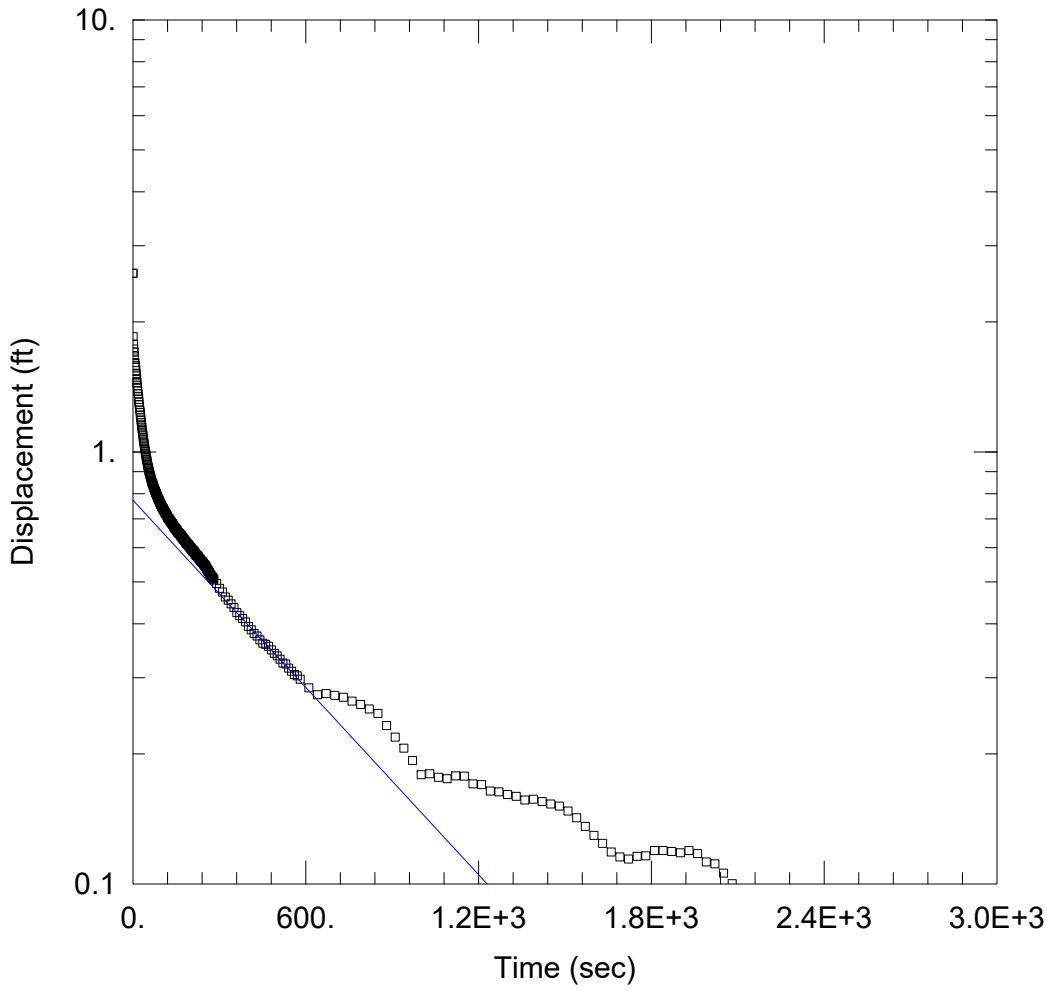
WELL DATA (MW1)

Initial Displacement: 1.567 ft
Total Well Penetration Depth: 8.84 ft
Casing Radius: 0.08333 ft
Static Water Column Height: 8.84 ft
Screen Length: 8.84 ft
Well Radius: 0.35 ft
Gravel Pack Porosity: 0.25

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.000208 cm/sec y0 = 0.8255 ft



WELL TEST ANALYSIS

Data Set: I:\25221172.00\Data and Calculations\Slug Test Data\BobsCitgoMW2.aqt
Date: 12/08/21 Time: 12:36:45

PROJECT INFORMATION

Company: SCS Engineers
Client: Former Bob's Citgo
Project: 25221172.00
Location: Milton, WI
Test Well: MW2
Test Date: 10/19/2021

AQUIFER DATA

Saturated Thickness: 100. ft Anisotropy Ratio (Kz/Kr): 1.

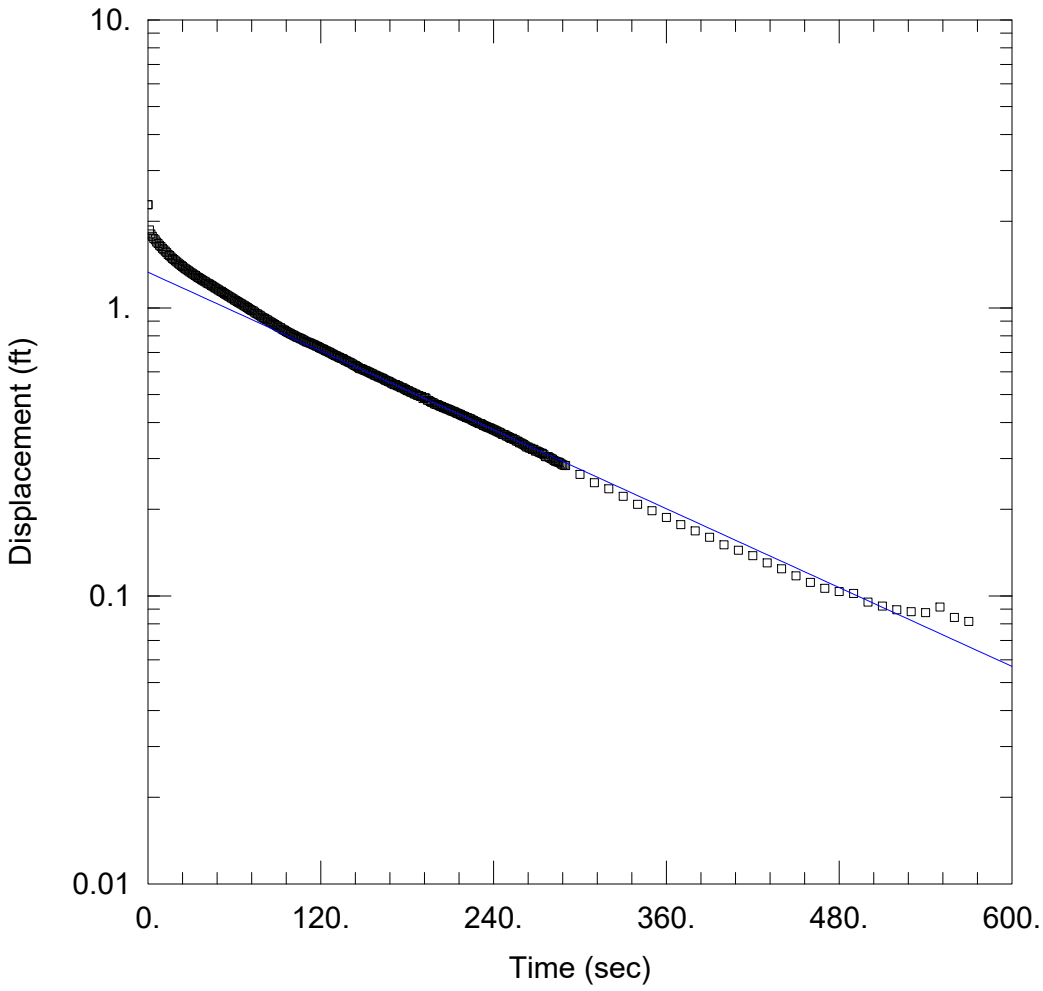
WELL DATA (MW2)

Initial Displacement: 2.591 ft
Total Well Penetration Depth: 11.69 ft
Casing Radius: 0.08333 ft
Static Water Column Height: 11.69 ft
Screen Length: 11.69 ft
Well Radius: 0.35 ft
Gravel Pack Porosity: 0.25

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.0001694 cm/sec y0 = 0.7726 ft



WELL TEST ANALYSIS

Data Set: I:\25221172.00\Data and Calculations\Slug Test Data\BobsCitgoMW3.aqt
Date: 12/08/21 Time: 12:24:27

PROJECT INFORMATION

Company: SCS Engineers
Client: Former Bob's Citgo
Project: 25221172.00
Location: Milton, WI
Test Well: MW3
Test Date: 10/19/2021

AQUIFER DATA

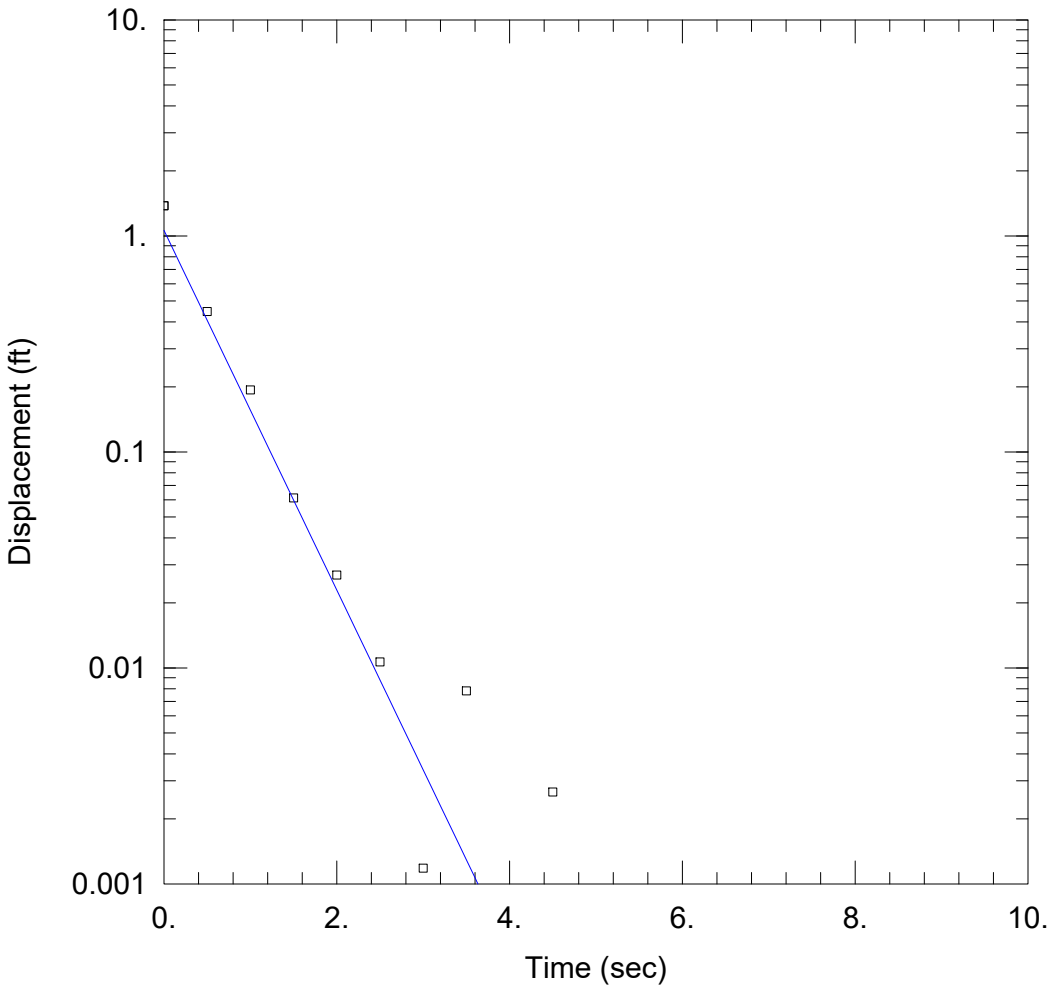
Saturated Thickness: 100. ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW3)

Initial Displacement: 2.282 ft
Total Well Penetration Depth: 10.26 ft
Casing Radius: 0.08333 ft
Static Water Column Height: 10.26 ft
Screen Length: 10.26 ft
Well Radius: 0.35 ft
Gravel Pack Porosity: 0.25

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.0005791 cm/sec
y0 = 1.33 ft



WELL TEST ANALYSIS

Data Set: I:\25221172.00\Data and Calculations\Slug Test Data\BobsCitgoMW10.aqt
Date: 12/08/21 Time: 12:14:04

PROJECT INFORMATION

Company: SCS Engineers
Client: Former Bob's Citgo
Project: 25221172.00
Location: Milton, WI
Test Well: MW10
Test Date: 10/19/2021

AQUIFER DATA

Saturated Thickness: 100. ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW10)

Initial Displacement: 1.378 ft
Total Well Penetration Depth: 11.21 ft
Casing Radius: 0.08333 ft
Static Water Column Height: 11.21 ft
Screen Length: 11.21 ft
Well Radius: 0.35 ft
Gravel Pack Porosity: 0.25

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.2003 cm/sec
y0 = 1.061 ft