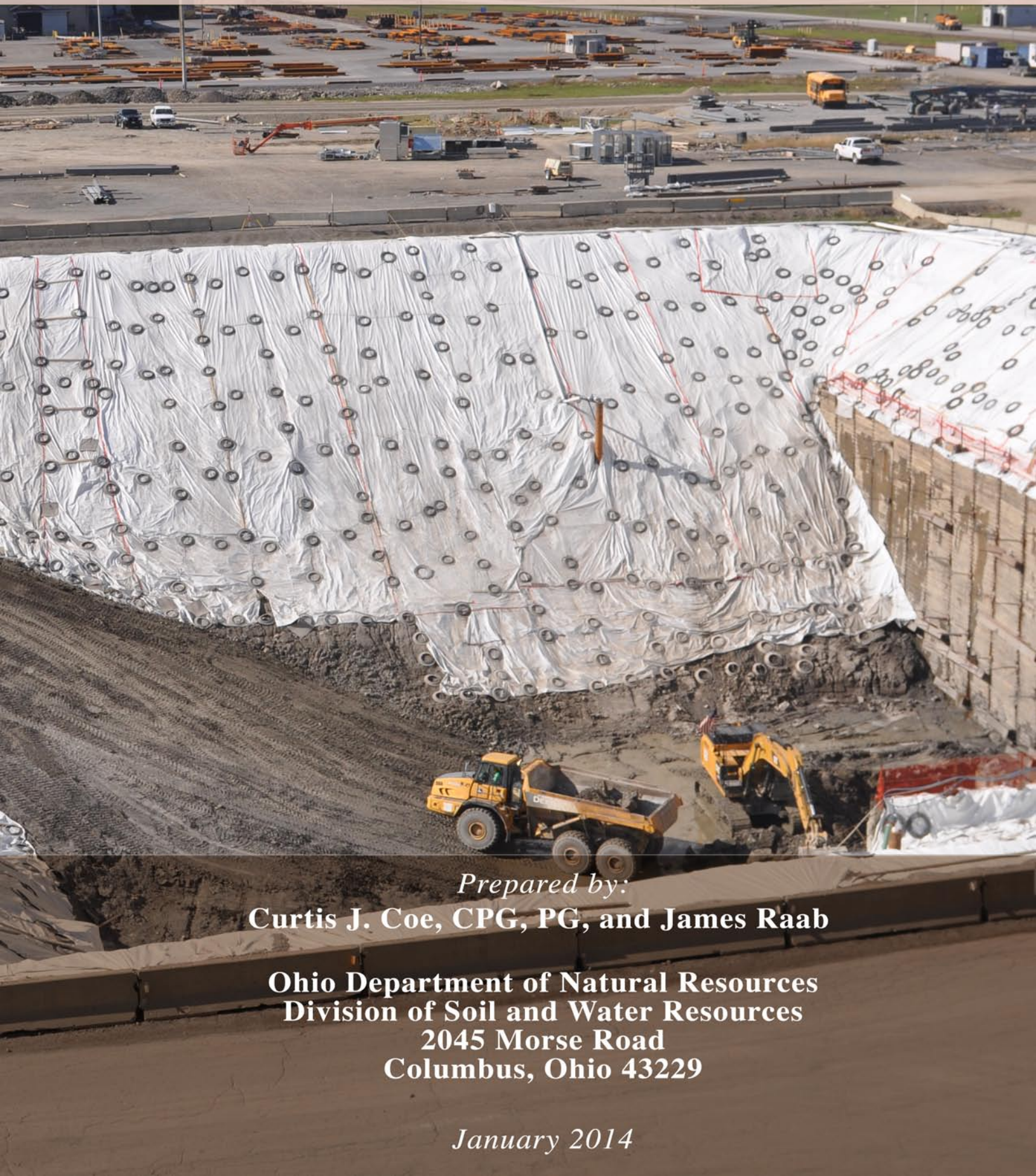
Hydrogeological Investigation of the Timken Faircrest Steel Plant Construction Dewatering Project Stark County, Canton and Perry Townships, Ohio



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January 2014

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ABSTRACT

Timken Corporation (Timken) began upgrading and remodeling of the Timken Faircrest Steel Plant (TFSP) located southwest of Canton, during the summer of 2012. Part of the remodeling involved the installation of a vertical steel pipe caster that would be installed 89 feet below the land surface. Timken had done a geotechnical investigation of the subsurface for the vertical caster foundation engineering design. However, Timken did not include a hydrogeological impact assessment to determine how the construction dewatering would affect the ground water levels in local domestic water supply wells in the surrounding area.

During the excavation of the foundation, the contractor encountered ground water. Timken installed six (6) dewatering wells around the excavation. Shortly after the dewatering operation started in August 2012, local residents complained to the Stark County Health Department (SCHD) that they were having problems with their wells. In response to the request by the SCHD for assistance, the Ohio Department of Natural Resources – Division of Soil and Water Resources (ODNR-DSWR), met with Timken to assess the site hydrogeological characteristics near the dewatering operations. The ODNR-DSWR designed and implemented a long-term monitoring program to determine the extent of the cone of depression created by Timken dewatering operations.

The ground water impact assessment was accomplished during August and September of 2012. It was concluded that the cone of depression had migrated beyond Timken's property boundary. The main area affected was to the south and east of the TFSP. The September 2012 monitoring data was used to define the approximate geographic extent of the impacted area. Timken used the inferred impact area to sort through the complaint list compiled by the SCHD. In total, Timken responded to 77 complaints from local homeowners. Timken's response was as follows:

- Eighteen (18) complaints were outside the inferred impact area.
- Nineteen (19) complaints included residents that wanted to get their name on the complaint list as a precautionary measure, in case problems developed later.
- Six (6) complaints were related to the water pumping and storage system and not caused by the Timken construction dewatering operations.
- Thirty-four (34) wells were replaced because there was legitimate problem that could be traced back to the Timken construction dewatering operations. In this case, Timken contracted with a local well driller to install new wells and pumps to replace the older shallower wells. The old wells were sealed in accordance with SCHD requirements.
- One (1) homeowner was connected to the public water system that was available on the street.

Long-term monitoring data confirmed that ground water levels in the area were impacted by the Timken dewatering operation, but as of September 2013 the ground water levels in the area had returned to normal. At this time, it has been concluded that Timken has taken the precautionary steps necessary to protect the public health and safety. There does not appear to be any long-term impacts to the ground water supplies available from either the glacial or bedrock aquifer systems in the area.

1.0 INTRODUCTION

Timken Corporation (Timken) began upgrading and remodeling of the Timken Faircrest Steel Plant (TFSP) located southwest of Canton Ohio in Stark County, Perry and Canton Townships, during the summer of 2012. According to Timken, part of the remodeling and upgrade for the steel plant involved the installation of a vertical steel pipe caster that would be installed 89 feet below the land surface. At the time, Timken had completed a geotechnical investigation of the subsurface for the vertical caster foundation engineering design. However, the geotechnical investigation did not include a hydrogeological investigation of the surrounding area. During excavation necessary to install the vertical caster foundation, the contractor encountered ground water. The contractor indicated to Timken that it would be necessary to install dewatering wells around the excavation to keep it dry during the vertical caster foundation installation. Shortly after the dewatering operation started in August of 2012, local residents began to complain to the Stark County Health Department (SCHD) that they were having problems with their wells.

In response to the request by the SCHD for assistance, the Ohio Department of Natural Resources – Division of Soil and Water Resources (ODNR-DSWR), met with Timken to assess the site hydrogeological characteristics of the subsurface near the dewatering operations. Upon looking into the matter it was noted that Timken did not conduct a hydrogeological investigation of the area. As a result, no baseline ground water level data was available, so the ODNR-DSWR worked with Timken and the SCHD to establish a ground water monitoring network to determine the extent of the cone of depression. Also, the ODNR-DSWR conducted a hydrogeological investigation to determine the short-term and long-term impacts to the glacial and bedrock aquifer systems.

1.1 SITE LOCATION AND SETTING

Figure 1 is a general site location map that shows the location of the TFSP study area in Stark County, Perry and Canton Townships. Figure 2 shows the extent of the study area; and the approximate limits of the Timken Property, as well as the dewatering site relative to important geographic features in the area.

Topographically, the area is characterized by a gently rolling appearance. Surface elevation across the area ranges from 1140 feet to 1050 feet above mean sea level (amsl), giving the area a topographic relief of approximately 90 feet.

Physiographically, the study area is located in the Glaciated Allegheny Plateaus Province (Brockman, 1998). Surface water drainage follows a typical dendritic drainage pattern. In the study area surface water runoff is directed to Sherrick Run and Nimishillen Creek, which discharges to the Tuscarawas River. All surface runoff eventually drains to the Ohio River.

Land use in the area is dominated by industrial and commercial activity with some urban development. Home development has occurred around the entire TFSP.

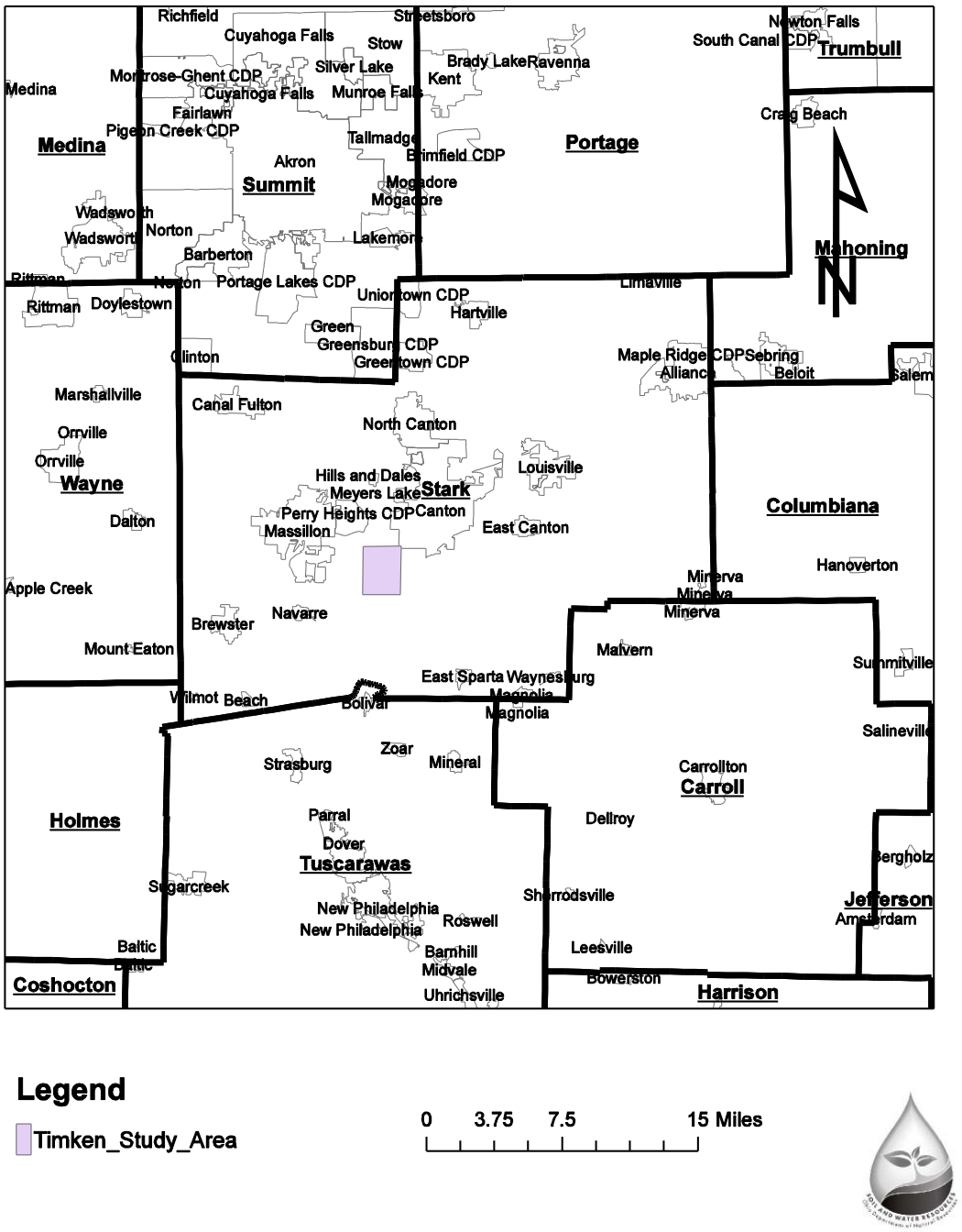
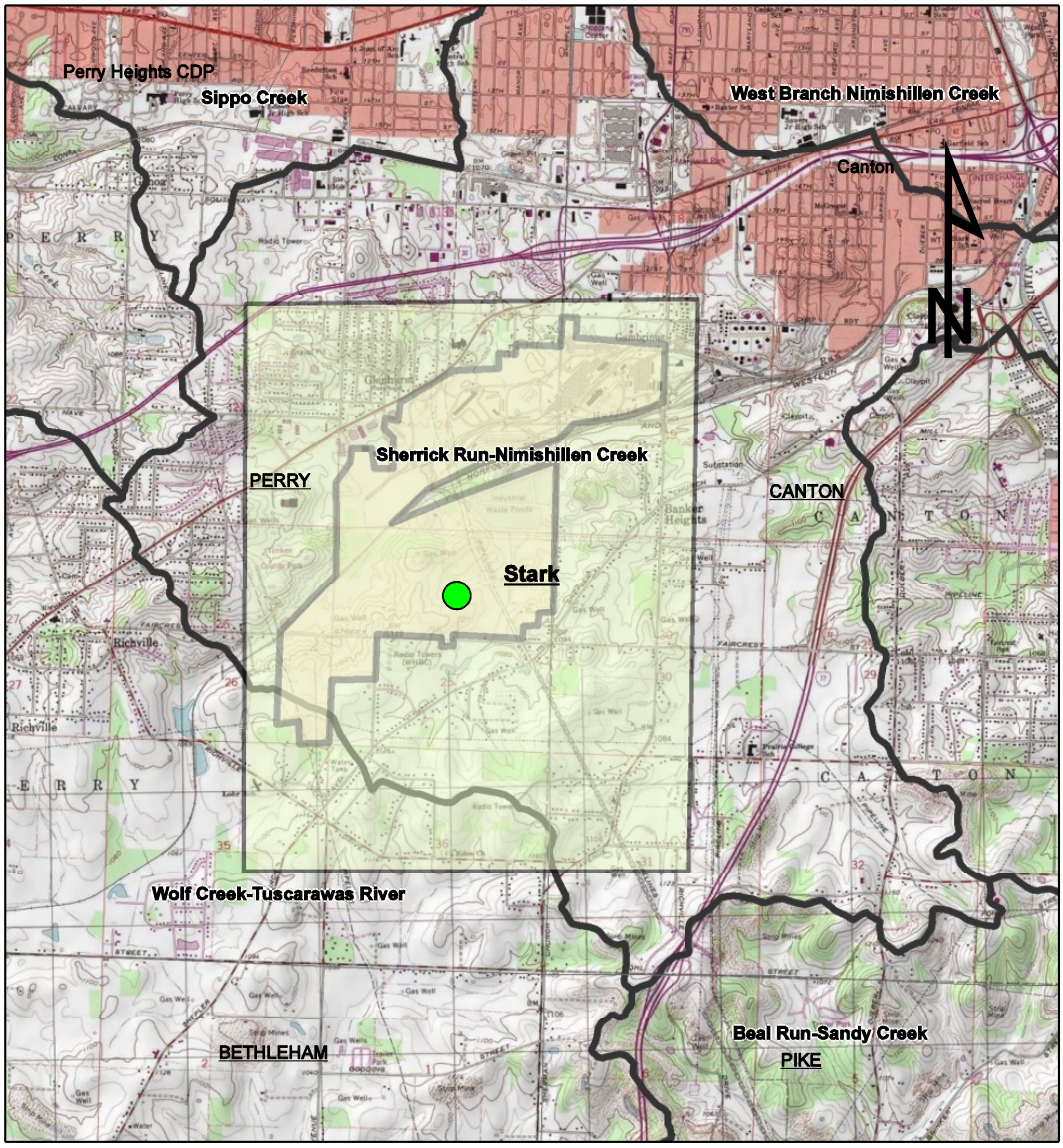


Figure 1. General Site Location Map of the Timken Construction Dewatering Project Study Area



USGS Quadrangle:Canton West and Bolivar

Legend

- Timken_Dewatering_Excavation
- Timken_Approximate_Property_Limits
- Timken_Study_Area
- Subwatershed (12 Digit HUC)

0 2,000 4,000 8,000 Feet

Figure 2. Topographic Map of Stark County, Timken Construction Dewatering Study Area Showing Surface Water Drainage Divides

1.2 PURPOSE AND SCOPE OF WORK

The ODNR-DSWR has the authority to collect data to help resolve conflicts between ground water users by conducting technical investigations and preparing related reports to help all ground water users understand the impacts to the resource.

In areas where ground water withdrawals are exceeding natural recharge, the Division can designate ground water stress areas with special reporting requirements for all ground water users. The Division can hold public meetings or hearings upon request from local governments and boards to help disseminate ground water information in conflict areas.

The purpose of this project was to investigate what impact the Timken construction dewatering had on the ground water levels in nearby domestic water supply wells. The ODNR-DSWR assessed the validity of allegations made by local homeowners that the Timken dewatering wells were exceeding reasonable ground water withdrawal rates from the glacial and bedrock aquifers, resulting in the dewatering of the domestic water supply wells.

The scope of work for the project was as follows:

- Review the previous work regarding the hydrogeology of the glacial and bedrock aquifers in northeastern Ohio, Stark County, Perry and Canton Townships.
- Review the well construction and well completion details for the Timken construction dewatering wells.
- Review the well construction and well completion details for domestic water wells in Stark County, Perry and Canton Townships near the TFSP construction dewatering excavation.
- Implement a field investigation to monitor water levels in the subsurface relative to the TFSP dewatering wells and selected domestic water wells in the study area.
- Analyze the data to determine the impact the Timken dewatering wells had on the ground water levels in the nearby domestic wells.
- Write a report summarizing the data collected along with conclusions and recommendations to assist with the resolution of any ground water conflicts caused by the pumping of the Timken construction dewatering wells.

2.0 PREVIOUS WORK

2.1 HYDROGEOLOGY OF THE STUDY AREA

The bedrock in the area of the TFSP is characterized by the Pennsylvanian-age Pottsville and Allegheny formations. The bedrock is overlain by a variable thickness of unconsolidated glacial sediment. Both the bedrock and the glacial sediments are sources of water to drilled wells in the area (Delong, RM and White, GW, 1963 and Sedam, A 1973, and Walker, Alfred, 1979).

Figure 3 shows an interpretive stratigraphic section for Stark County. The most important bedrock aquifers in the study area are the sandstone units that make up the Pottsville formation. In descending order the sandstone aquifers that make up the Pottsville formation are:

Homewood Sandstone Member

Connoquenessing Sandstone Member

Sharon Sandstone and Conglomerate Member

Each of the sandstone aquifers is separated by a variable thickness of shale, siltstone and coal seams. Many domestic wells in the study area produce water from these transitional units.

Near the TFSP, the primary bedrock aquifer is the Homewood Sandstone (Pa-up) member of the Pottsville Formation. Figure 4 shows the extent of the Homewood Sandstone Member of the Pottsville Formation in the study area. Based on historic drilling data, the Homewood Sandstone is not continuous in the study area. It is absent in the deeper parts of the glacial valley fill. In these areas the bedrock consists of the Mississippian Cuyahoga Formation (Mcg). Ground water yields from the bedrock generally range from 5-25 gallons per minute (gpm).

Under the TFSP the bedrock is overlain by a variable thickness of unconsolidated glacial sediments that consist of silt and clay beds interbedded with sand and gravel outwash channels (White, GW, 1982). Figure 5 shows the aquifer names and the thickness of the glacial sediments over the bedrock. In the Timken dewatering area two (2) aquifers have been named:

- Lisbon Thin Upland Aquifer can vary from less the 25 feet up to 100 feet in thickness
- Sandy Creek Buried Valley Aquifer is generally over 100 feet thick.

Ground water yields from the silt and clay tills are in the range of a few gallons per minute. Ground water yields from the sand and gravel units can be as much as 500 gpm depending on drilling locations (Walker, Alfred 1979, and Williams, Steven 1991).

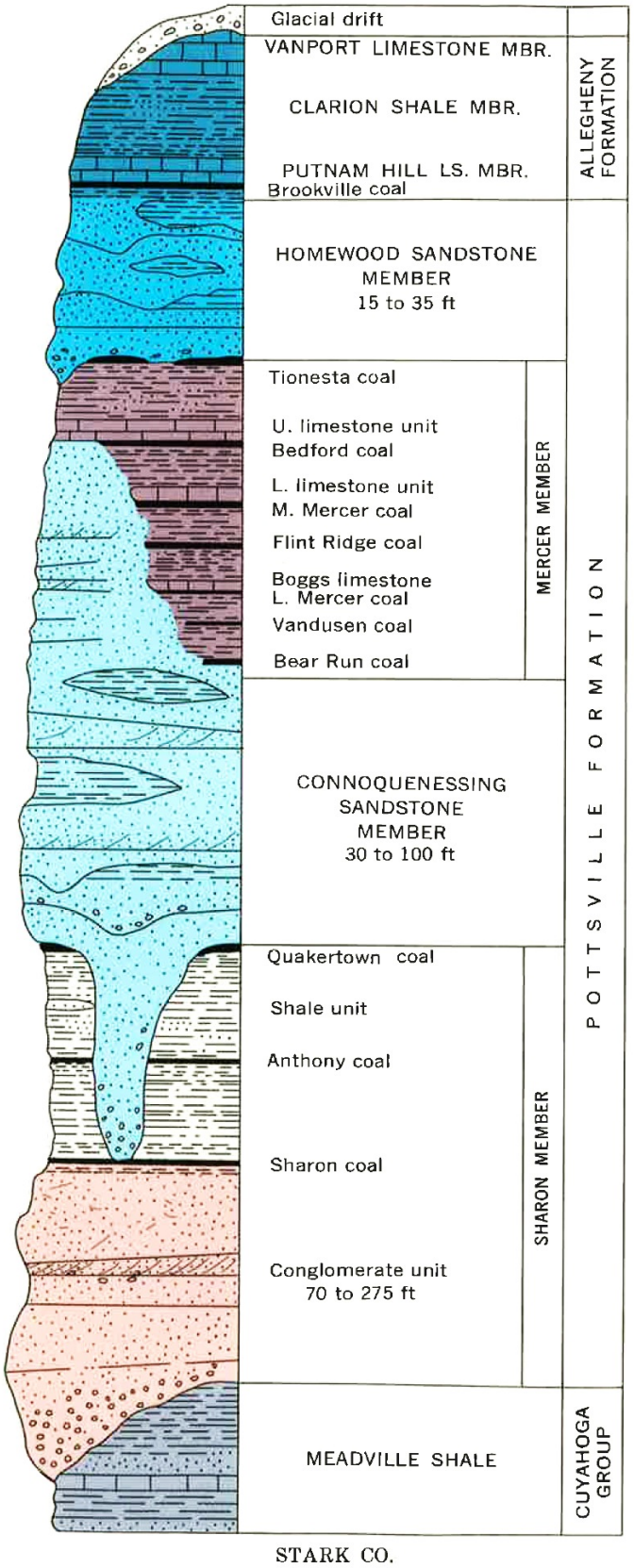


Figure 3. General Interpretive Stratigraphic Section for Stark County (after Sedam, 1973)

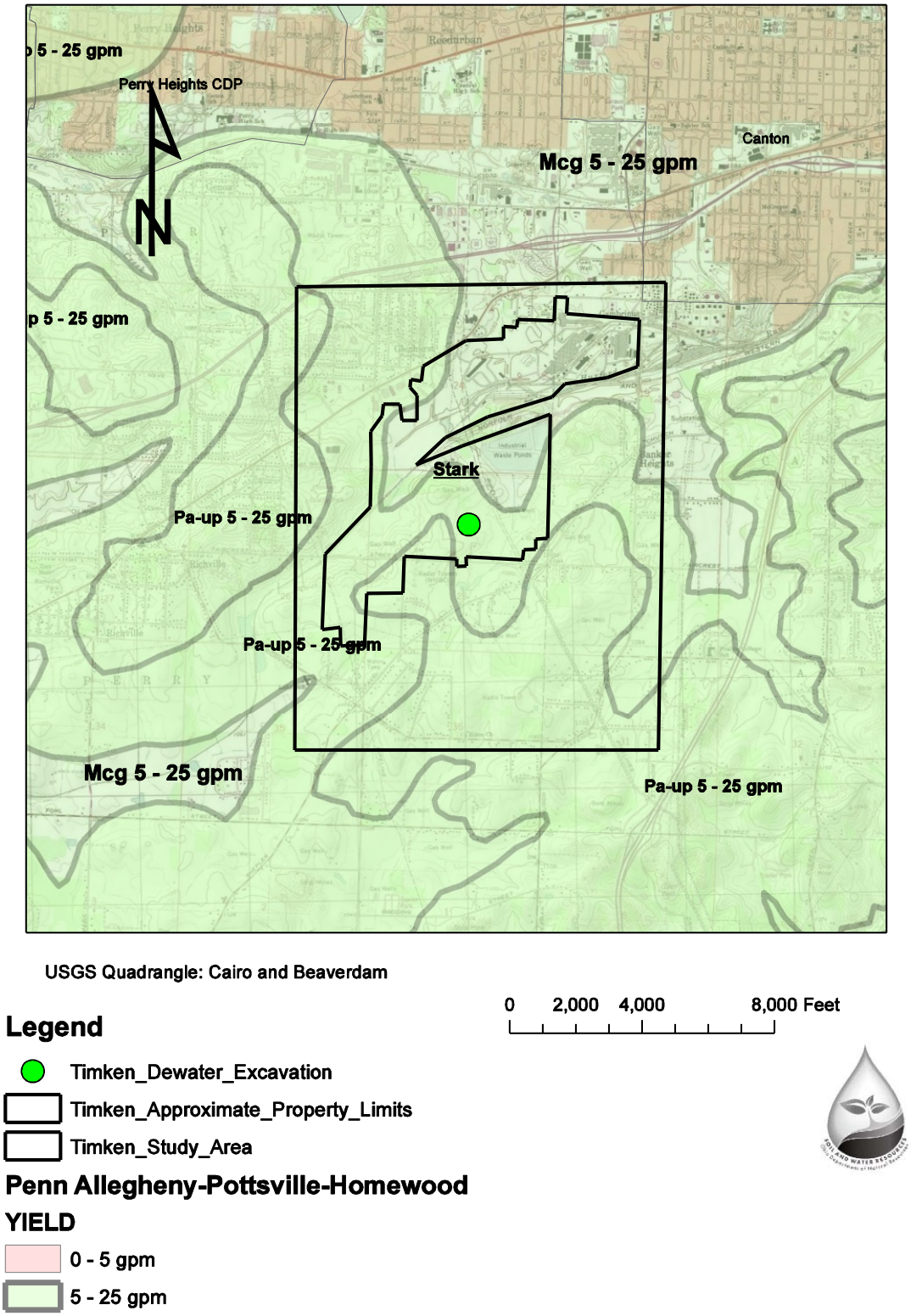


Figure 4. Bedrock Map Showing the Extent of the Homewood Sandstone Member of the Pottsville Formation in the Study Area

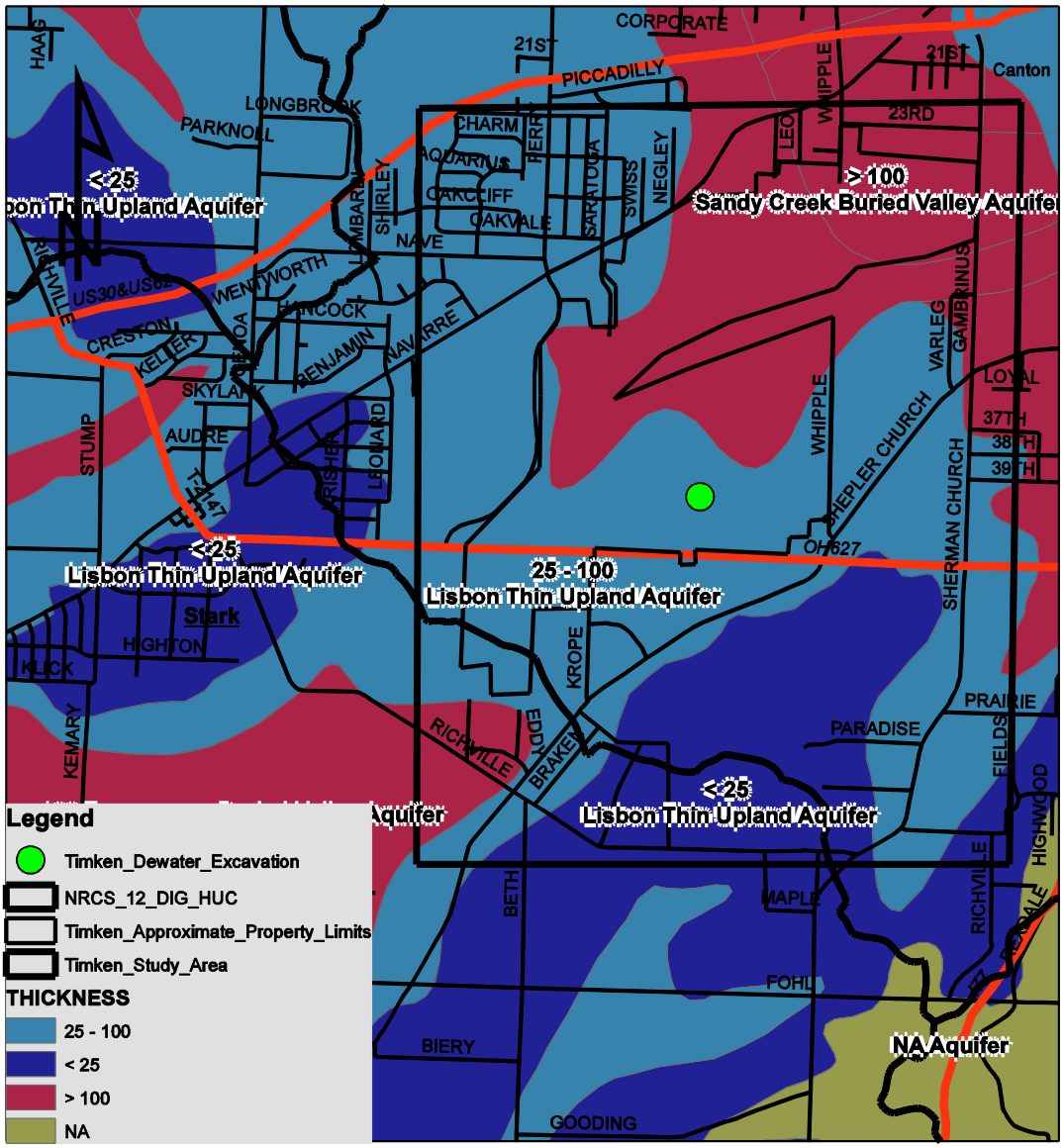


Figure 5. Glacial Aquifer Thickness in the Study Area

2.2 REGIONAL GROUND WATER OCCURRENCE AND MOVEMENT

Figure 6, developed from the ODNR-DSWR well log database, shows the regional ground water gradient in the bedrock. This figure shows the presence of a natural ground water divide in the southern part of the study area. As a result, the natural ground water gradient in the Timken study area is from the southwest toward the northeast. The elevation of the ground water under the TFSP is approximately 1050 feet above mean sea level (Crist and Raab, 2006).

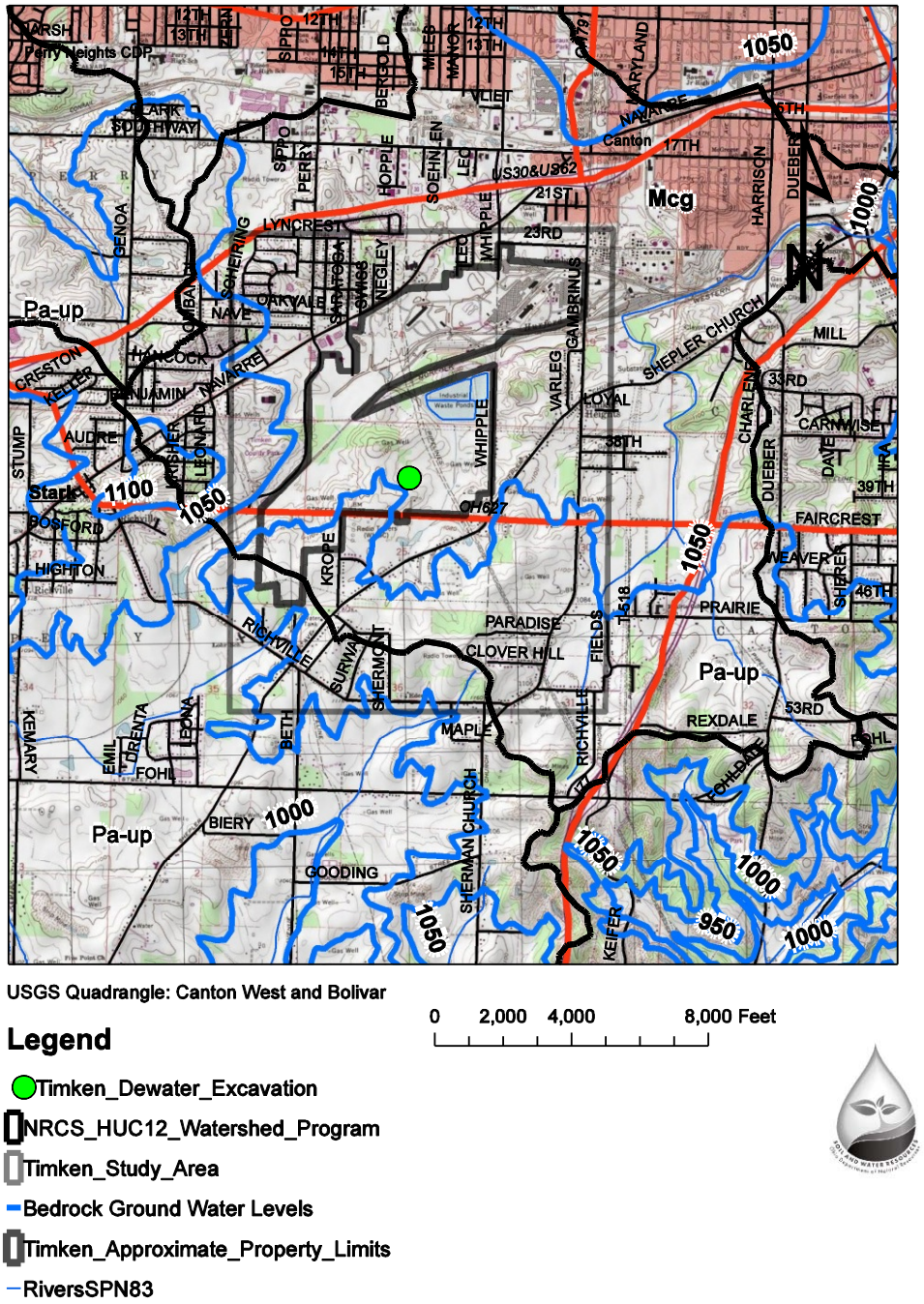


Figure 6. Regional Bedrock Ground Water Flow Gradient in the Study Area

3.0 METHODS OF THE INVESTIGATION

Prior to implementing this project, the ODNR-DSWR reviewed the Ohio Revised Code concerning ground water supply development in Ohio. Standard hydrogeological as well as engineering practices were used to carry out all fieldwork and data analysis (Bair and Lahm, 2006; Driscoll, 1986; Fetter, 2001; Kruseman and deRidder, 1990; Merritt, 1983 Powers; et.al., 2007).

A partial glossary of terms used in the report has been attached for those who are not familiar with the subject matter. The reader can refer to the Encyclopedic Dictionary of Hydrogeology by Poehls and Smith (2009) for further reference.

3.1 TIMKEN VERTICAL CASTER CONSTRUCTION DEWATERING EXCAVATION DETAILS

The first step in the project was to meet with Timken and review the vertical caster excavation construction details. Timken explained the technical aspects of the vertical caster design and how the molten steel from the foundry would be cast into various pipe sections using the vertical caster design

Based on the information provided, the molten steel would be poured into the vertical caster as shown in Figure 7. As shown on the figure, the vertical caster would be constructed partially underground to accommodate the design criteria. The molten steel would be poured into the vertical caster at the top of the caster. Water would be used to cool the steel pipe. The steel pipe would be removed from the caster by a conveyor belt and stored in a holding area. The waste water would be collected at the bottom of the caster excavation. This waste water would be pumped into the vertical caster scale pit. Eventually the waste water would be pumped to a central location for treatment and discharge under the company's OEPA NPDES permit.

At the time that the construction began during July 2012, Timken had not considered the need for continuous dewatering of the vertical caster excavation. However, shortly after the excavation work began, the contractor informed Timken that ground water was accumulating in the excavation. Timken would need to install dewatering wells so that the construction could continue as planned. Timken installed dewatering wells around both the Vertical Caster Excavation and the Scale Pit Excavation.

3.1.1 Vertical Caster Excavation Dewatering Wells

Figure 8 shows the location of the vertical caster and scale pit excavations. The total depth of the vertical caster excavation would be approximately 89 feet below the original land surface of 1081.5 feet amsl. Two (2) cross sections were drawn by the Timken engineers through the excavation to depict the excavation construction details. Cross section A-A' is drawn through the excavation in the north-south direction (Figure 9). Cross section B-B' was drawn in the east-west direction (Figure 10).

Figure 11 shows the well completion details for the six caster excavation dewatering wells with the stratigraphic interpretation. These wells were drilled after the excavation work was initiated. As a result, the elevation for each well on the cross section represents the depth of the excavation at the time the individual well was drilled. The wells were drilled to a depth of between 86 feet to 93 feet. Based on the information:

- depth to ground water was estimated by the ODNR_DSWR to be 1050 feet amsl,
- finished floor elevation was estimated by Timken to be 992 feet amsl,
- And pumping water level was estimated by Timken to be 972 amsl or 20 feet below the finished floor elevation.

Information about the six caster excavation dewatering wells is listed in Table 1. Shown in the table are the ODNR well log number, well sealing report number, well ID, surface elevation, total depth, casing length, static water level, and aquifer type. The Timken dewatering well logs, well sealing reports and ground water monitoring details can be found in Appendix A.

Table 1. Timken Dewatering Wells Construction Details

Well Log Number	Well Sealing Number	Well ID	Surface Elevation	Total Depth Feet	Casing Length Feet	Static WL Feet (log)	Aquifer Type
2039329	302534	TDW1	1057	96	54	5	Sandstone
2039330	302533	TDW2	1057.5	96	44	5	Sandstone
2039331	301986	TDW3	1046.4	86	32	1	Sandstone
2039333	302532	TDW4	1051.8	93	18	8	Limestone
2039335	301987	TDW5	1056.2	93	2	10	Sandstone
2039336	302531	TDW6	1057.6	96	53	3	Sandstone

*Original land surface was 1081 feet above mean sea level

3.1.2 Timken Scale Pit Dewatering Wells

Water is used to cool the molten steel once it is poured into the vertical caster. The waste water is collected at the base of the caster and is pumped to the caster scale pit where the water is stored until it can be pumped to a treatment facility.

Figure 8 shows the location of the eight (8) scale pit dewatering wells around the excavation. These wells were drilled during January 2013. Table 2 summarized the data for these eight wells. These wells were installed to dewater the excavation in the event that it would be necessary to dewater the pit during the construction work. However, the wells were dry at the time of drilling. The ground water levels were below the bottom elevation of the scale pit because of the dewatering that was occurring around the vertical caster excavation. As the construction progressed through time, the vertical caster excavation dewatering wells were plugged. The scale pit dewatering wells were used for ground water level monitoring only. The primary well for measuring ground water levels was TDW-3A. The Timken caster scale pit dewatering well logs, well sealing reports and ground water monitoring details can be found in Appendix B.

Table 2. Timken Scale Pit Dewatering Wells, Stark County, Perry and Canton Townships

Well Log Number	Well Sealing Number	Well ID	Surface Elevation	Total Depth Feet	Casing Length Feet	Static WL Feet (log)	Aquifer Type
2042009	302596	TDW-1A	1074.2	55	40		SHALE
2042016	302592	TDW-2A	1072.8	55	40		SHALE
2042010	302591	TDW-3A	1071.5	57	40	45	SHALE
2042011		TDW-4A	1072.7	55	40	45	SHALE
2042012	302430	TDW-5A	1064.5	55	40		SHALE
2042013	303299	TDW-6A	1066.8	55	40		SHALE
2042014	302400	TDW-7A	1068.7	55	40		SHALE
2042015	302590	TDW-8A	1068.5	45	40		SHALE

3.2 STARK COUNTY HEALTH DEPARTMENT (SCHD) RESPONSE TO HOMEOWNER COMPLAINTS

Shortly after the Timken construction dewatering operation began on August 6, 2012, the SCHD began to receive complaints from local homeowners that ground water levels in there wells were declining. In some cases, homeowners with shallow wells complained that their wells were going dry. As a result, the SCHD began to investigate the validity of the homeowner complaints. The SCHD began to keep records of the complaints and pass them on to Timken and the ODNR-DSWR. The list of complaints can be found in Appendix C.

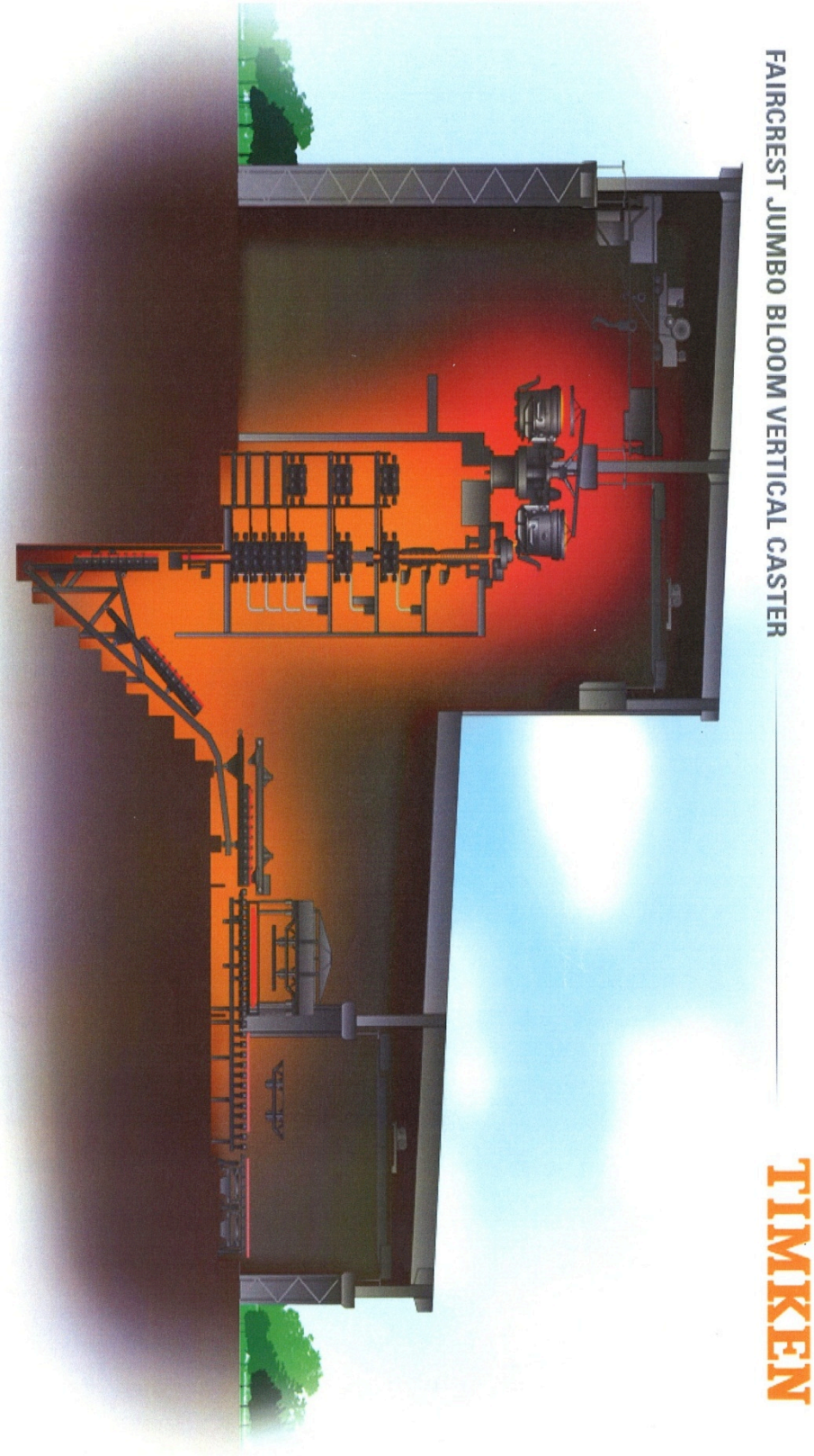


Figure 7. Timken Faircrest Jumbo Vertical Caster Schematic Diagram Design (After Timken, modified by ODNR-DSWR, map not to scale)

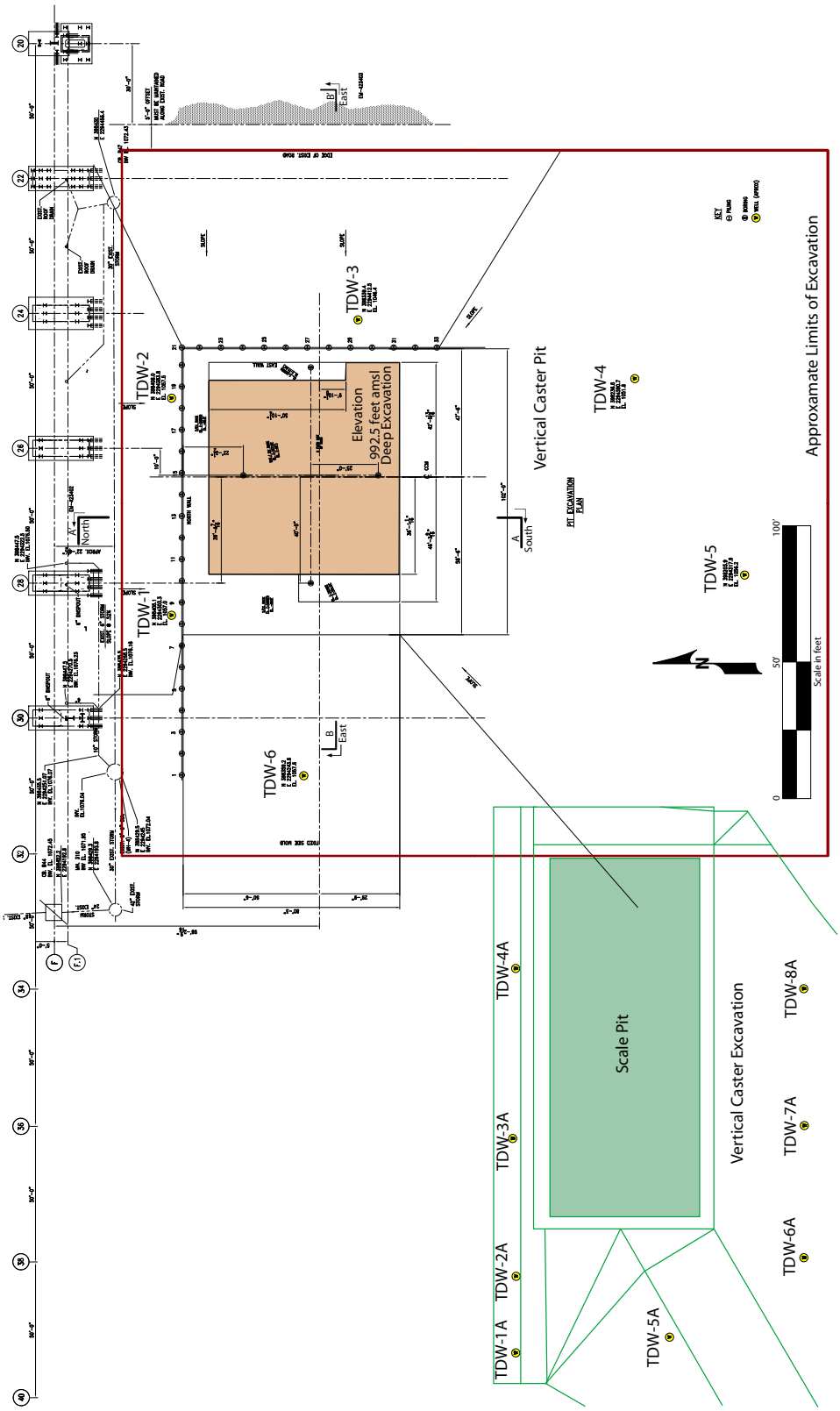


Figure 8. Approximate Extent of the Timken Faircrest Steel Plant (TFSP) Vertical Caster Excavation Construction Dewatering wells (TDW-1 through TDW-6) and Scale Pit Wells (TDW-1A through TDW-8A) After Timken, modified by ODNR-DSWR, map not to scale.

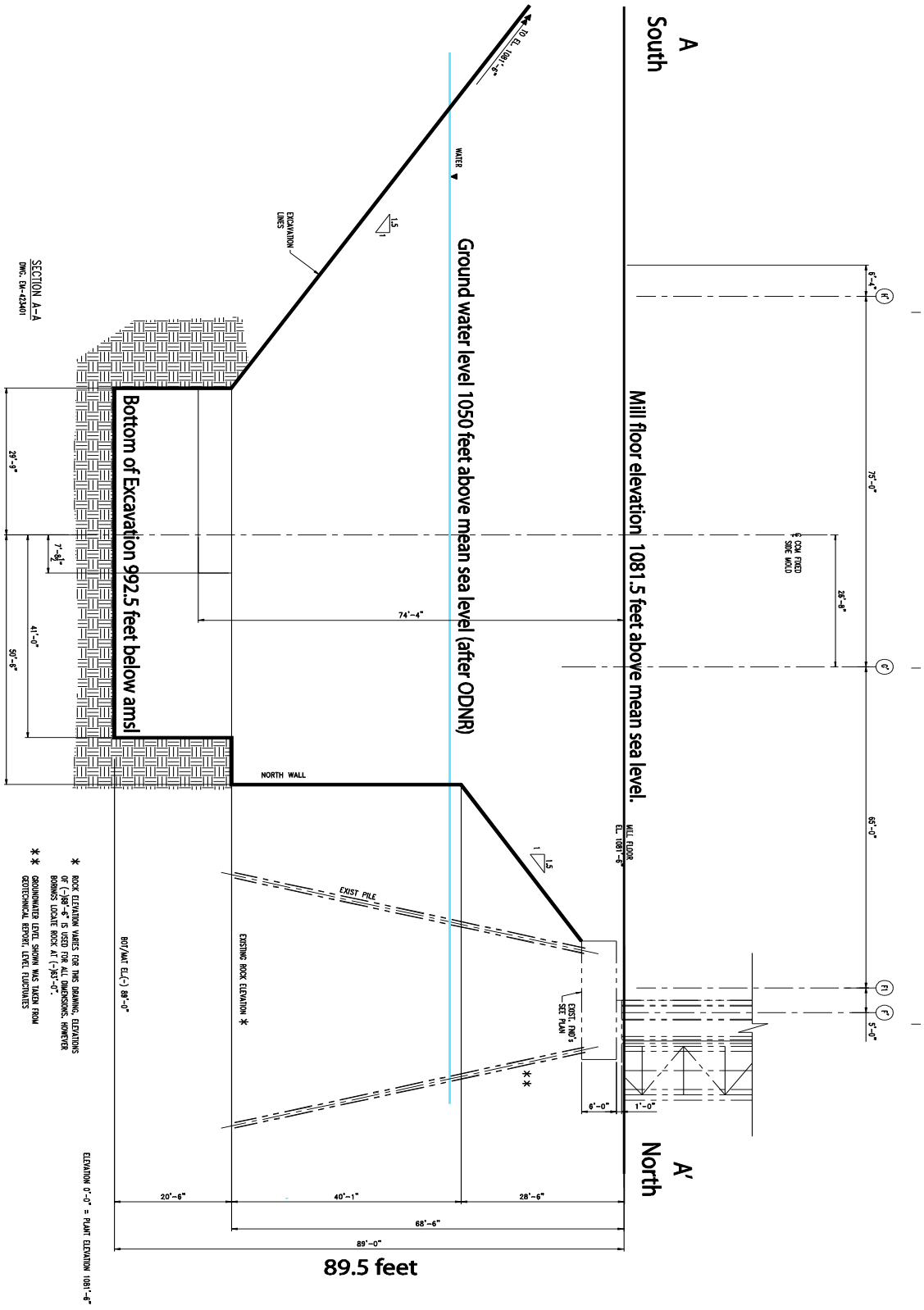


Figure 9. Cross Section A-A' Drawn Through the Timken Construction Dewatering Excavation (After Timken, modified by ODNR-DSWR, figure not to scale)

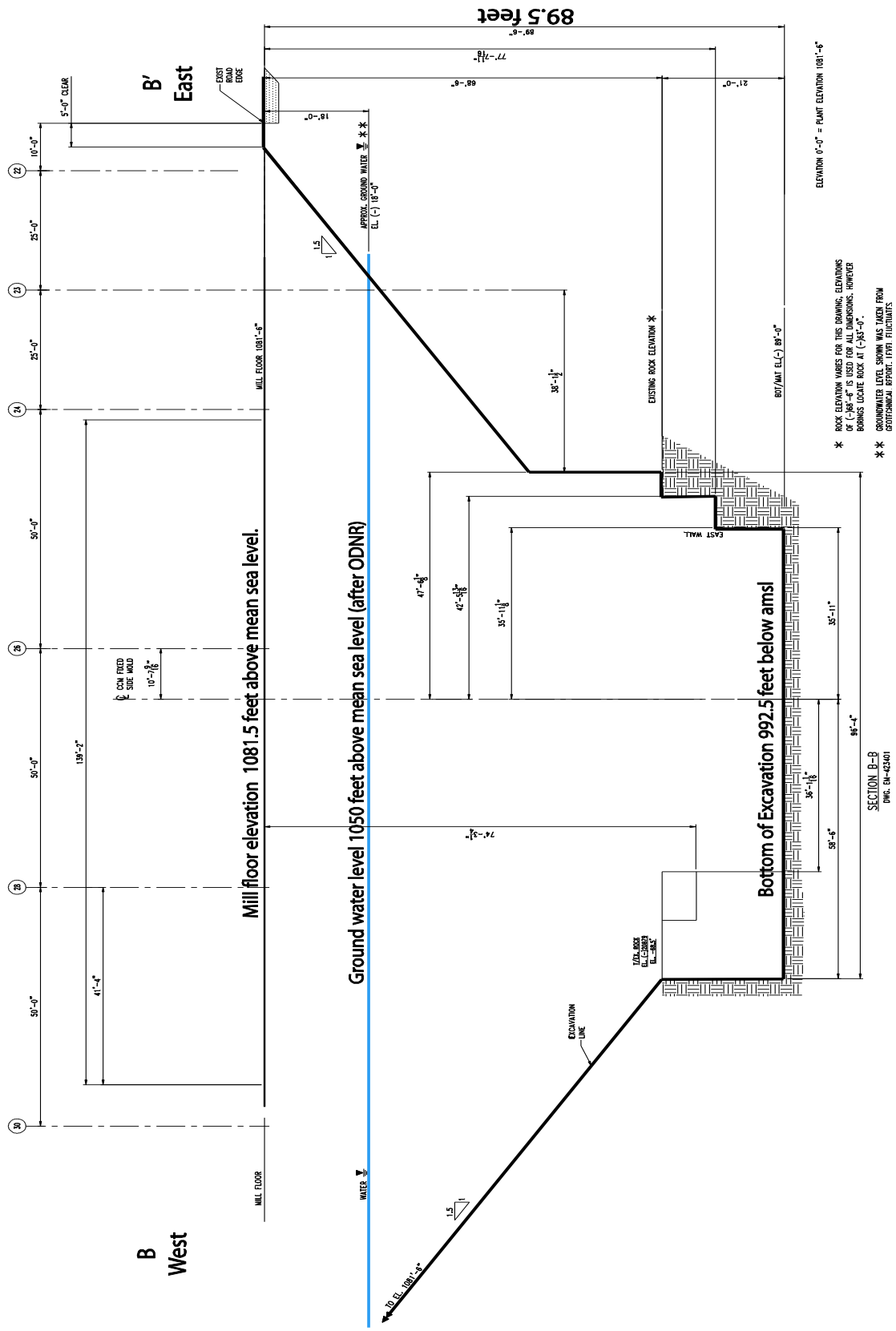


Figure 10. Cross Section B-B'' Drawn West To East Through the Timken Construction Dewatering. Excavation (After Timken, modified by ODNR-DSWR, figure not to scale)

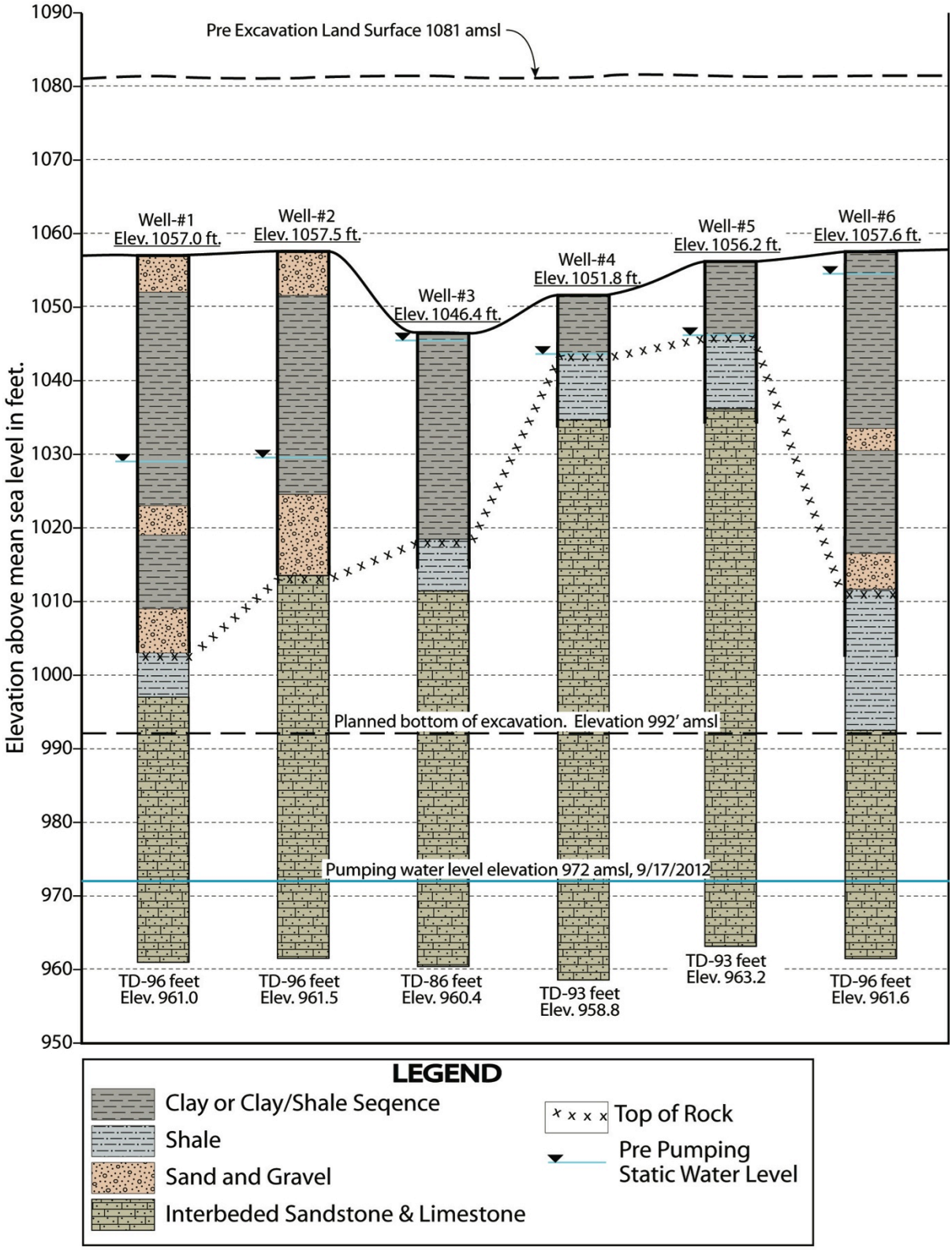


Figure 11. Well Completion Diagrams for Timken Faircrest Construction Dewatering Wells TDW-1 through TDW-6 Showing Stratigraphic Interpretation of Data (after Timken, modified by ODNR-DSWR)

3.3 ODNR WELL LOG DATABASE WEBSITE SEARCH

The next step in the investigation was to define the limits of the study area. This was done based on the geographic location of the TFSP construction dewatering excavation as well as the location of the initial homeowner complaints. The ODNR-DSWR then identified nearby domestic wells that could be used to monitor ground water levels near the dewatering operation.

As part of the investigation, the ODNR-DSWR conducted a search of the water well record database for Stark County, Perry and Canton Townships to identify the number of domestic water wells within the study area (ODNR-DSWR website, 2011). The records show that approximately 3,820 wells have been drilled in Perry Township since the late 1940's. Approximately 3,890 wells have been drilled in Canton Township since the late 1940's. Items identified in the database are the ODNR-DSWR well log number, original owner of the well, well depth, test rate, static water level and aquifer type.

Figure 12 shows the locations of approximately 77 wells with known coordinates located in the vicinity of the study area. Based on county records, the majority of the homeowners are dependent on ground water as a source of supply. Public water supply is very limited in the area. Therefore the number of wells in the area is far greater than the number of wells shown on the map.

All water wells in the database were evaluated to select the most appropriate data points for use in the study. A print-out of the ODNR-DSWR well log database for the wells in the study area is presented in Appendix D.

3.4 DOMESTIC WATER WELLS USED TO MONITOR THE EFFECTS OF PUMPING THE TIMKEN DEWATERING WELLS

Once the study area was defined, the next step was to select observation wells from the available records. The ODNR-DSWR and the SCHD were responsible for setting up the original monitoring well network for the project. To define the cone of depression caused by the Timken construction dewatering, it was necessary to find observation wells 360 degrees around the site so that ground water levels around the TFSP could be measured. The selection process was based on:

- The availability of an ODNR-DSWR well log for the well to be monitored.
- The location of the well relative to the pumping center.
- The homeowner's willingness to allow the well to be used for observation throughout the project duration.
- The accessibility of the well for measurement (i.e. was the well inside or outside the house).

In a few cases, well log records were not available for the location, but the well was located in an area where ground water levels were necessary to define the cone of depression caused by the Timken dewatering operations. In this case the well was included in the data set. Each

homeowner was approached to gain permission to monitor the water level in their well. Several ground water level measuring events were necessary to settle on the final observation well network. Timken had several monitoring wells located at the former waste lagoon ponds that they wanted included in the data set. These wells were completed in both the unconsolidated glacial and bedrock aquifer units.

Well locations for the final monitoring network are shown on Figure 13. Data regarding these water wells is shown in Table 3. Water well records used for this investigation are presented in Appendix E. Timken lagoon monitoring well logs are in Appendix F.

3.5 LONG-TERM GROUND WATER LEVEL MONITORING AND IMPACT ASSESSMENT

The ODNR-DSWR and the SCHD measured the water levels during August and September 2012. Responsibility for measuring the ground water levels in the available wells over time were split up between Timken, SCHD and ODNR-DSWR as follows:

- Timken construction dewatering contractor was responsible for measuring the ground water levels in the dewatering wells and reporting the amount of water discharged on a monthly basis during the construction dewatering operations.
- Timken was responsible for measuring the ground water levels in the pond lagoon monitoring wells.
- SCHD and ODNR-DSWR were responsible for measuring the water level measurements in the surrounding domestic water supply wells.

Upon establishing a ground water monitoring network, regular weekly to biweekly conference calls were set up with Timken, ODNR-DSWR, SCHD, as well as Timken's consultant. The conference calls would continue until ground water levels had completely recovered in the subsurface. At this point, Timken suggested that the ground water dewatering would continue until June of 2013. At that time the pumps would be turned off and the ground water levels recovered. The ODNR-DSWR suggested that the ground water monitoring should continue until the ground water levels under the Timken study area returned to the approximate original elevation of 1050 feet amsl. During each phone call the following items would be discussed:

- New complaints from the public would be discussed.
- Action to be implemented by Timken to resolve the homeowner complaint.
- Trends in the ground water levels near the construction dewatering study area based on the SCHD ground water level monitoring data.

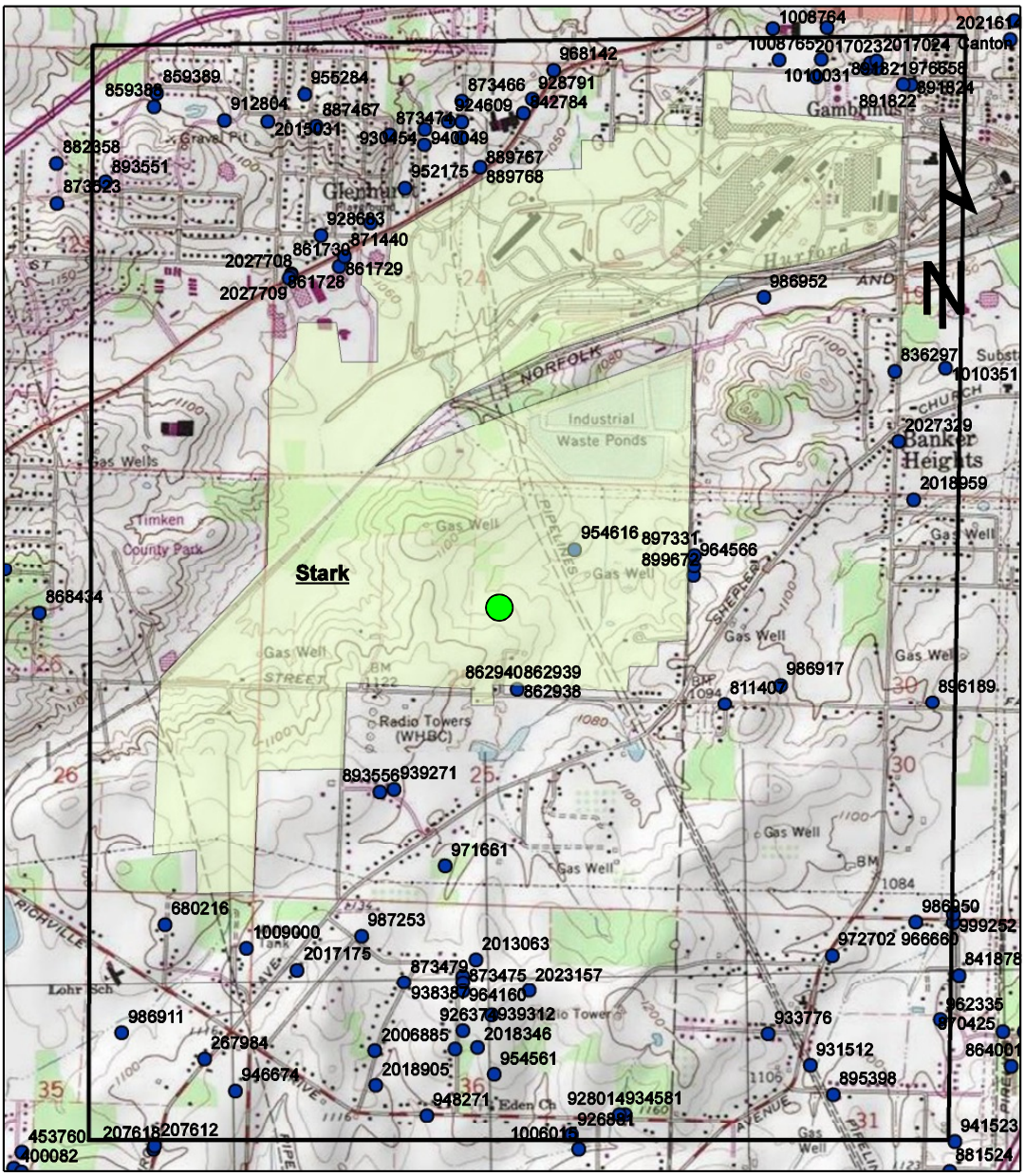
All of the monthly ground water level measurements were obtained by the SCHD and were sent to the ODNR-DSWR so that the data could be tabulated and added to the attribute table. A ground water level map was generated for each month's ground water level measurements

using the Surfer 10 program. The data was imported into ArcGIS 10. Field data showing the water level measurements are presented in Appendix G.

3.6 TIMKEN RESPONSE TO HOMEOWNER COMPLAINTS

In response to the homeowner complaints, Timken initially hired a well driller to evaluate the validity of each complaint. However, the ODNR recommended that Timken hire a consultant that could assist both Timken and the driller with an evaluation of each complaint. Timken hired Sanborn Head to assist with the evaluation of the individual complaints. The impact assessment was done as follows:

- The consultant reviewed the location of the well to determine if the affected well was located inside or outside the cone of depression caused by the Timken dewatering operation.
- If the well was outside the affected area, the homeowner was notified and no action would be taken. However, for a few homeowners that were located just outside the affected area, Timken provided a water tank which was periodically filled until the water levels returned to normal.
- If the well was inside the affected area, Timken would supply the homeowner with water and the consultant would evaluate the well completion details. This involved measuring the depth of the well, ground water level, pump condition and other details if appropriate. The information was used to determine the best course of action to resolve individual homeowner complaints.
- If the well was affected by the dewatering operations Timken would lower the pump to a deeper level. If the pump could not be lowered Timken would drill the homeowner a new well. New wells completed in the study area are attached in Appendix H.
- Upon putting the new well into service, the driller would seal the old water supply well and submit the well sealing report to the SCHD and ODNR-DSWR. The well sealing reports are presented in Appendix I.



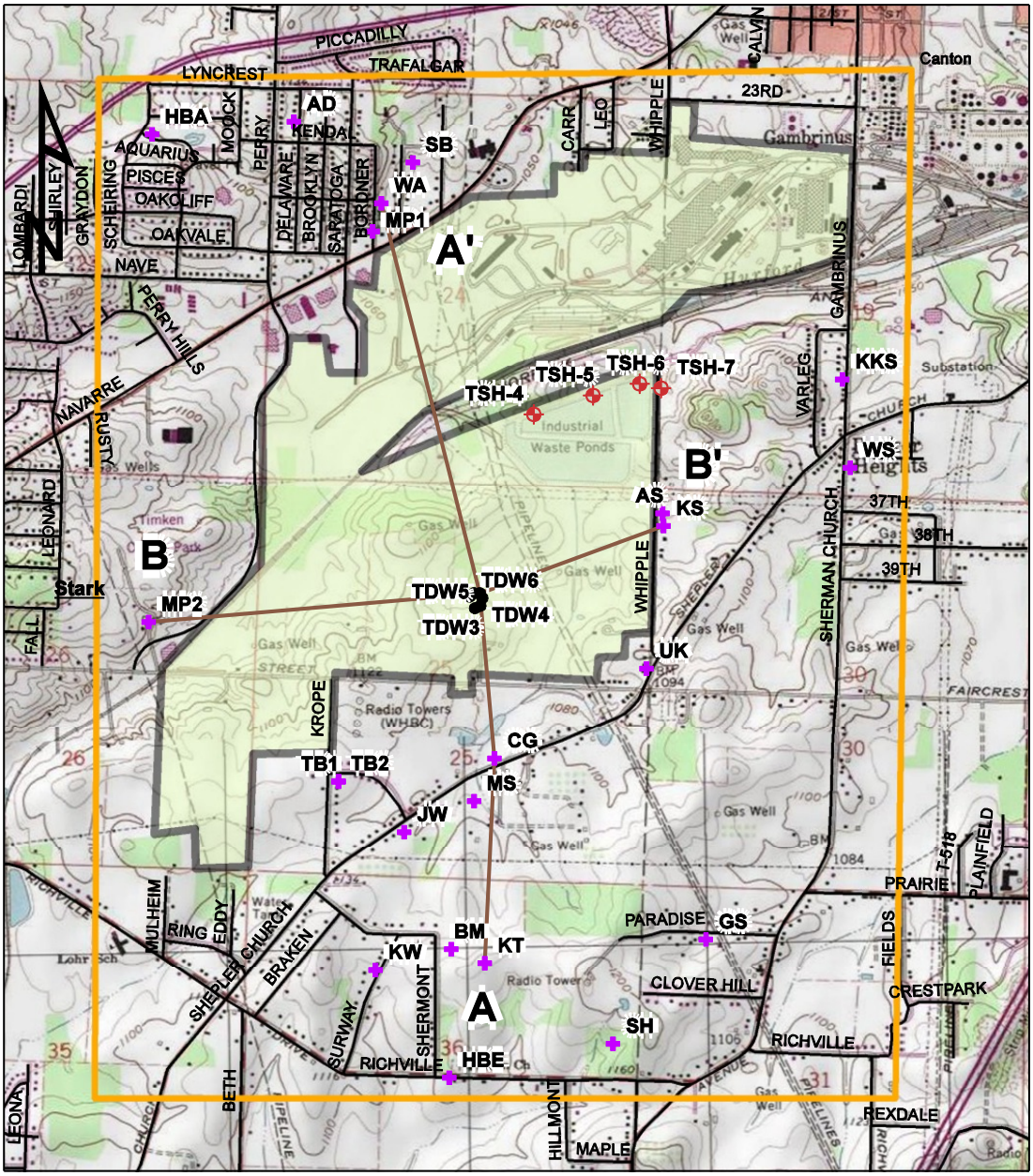
USGS Quadrangle: Canton West and Bolivar

0 1,000 2,000 4,000 Feet

Legend

- Timken_Dewater_Excavation
- Timken_Approximate_Property_Limits
- Timken_Study_Area
- WaterWellLogs_3_15_2011_SPS83

Figure 12. Water Supply Well Locations in the Stark County Study Area



Legend

Well_Type

- Dewatering
- Domestic
- Monitoring
- Timeken_Cross_SectionB_B
- Timken_Cross_SectionA_A
- Timken_Approximate_Property_Limits
- Timken_Study_Area

USGS Quadrangle: Canton West and Bolivar

0 1,000 2,000 4,000 Feet

Figure 13. Location of Domestic Water Supply Wells Used to Monitor Ground Water Levels in the Bedrock Aquifer

Table 3. Water Wells Monitored During the Study.

Well Log Number	Well ID	Latitude	Longitude	Surface Elevation	Total Depth Feet	Casing Length Feet	Static WL Feet (log)	Aquifer Type
Wells Completed in the Unconsolidated Glacial Aquifers								
	TSH-5	40.762798	-81.431525	1087.27	49		30.61	Clay
964566	AS	40.758317	-81.428151	1068	60	57	15	Gavel
	TSH-7	40.76303	-81.42814	1068.2	22		3.81	Sand
559730	KKS	40.76328	-81.41916	1087	94	94	50	Sand and Gravel
	TSH-6	40.76321	-81.42921	1081.38	51		21.7	Sand and Gravel
Wells Completed in the Consolidated Bedrock Aquifers								
605207	MP2	40.75445	-81.45367	1101	115	70	65	Limestone
601049	WP	40.74822	-81.43279	1114	48	31	22	Limestone
605215	NW	40.754746	-81.426199	1117	93		45	Limestone
800458	LC	40.75518	-81.41904	1094	77	56	30	Limestone
262417	TB1	40.74835	-81.44436	1131	150	102	52	Sandstone
438679	CG	40.74915	-81.436614	1083	81	77	2	Sandstone
930454	SB	40.77166	-81.44032	1081	120	80	40	Sandstone
955284	AD	40.77324	-81.44617	1130	210	106	80	Sandstone
2027329	WS	40.75996	-81.41884	1086	216	176	55	Sandstone
2038384	KW	40.74123	-81.44263	1132	75	32	24	Sandstone
2039329	TDW1	40.7553815	-81.4375244	1057	96	54	5	Sandstone
2039330	TDW2	40.7553785	-81.4372338	1057.5	96	44	5	Sandstone
2039331	TDW3	40.7551893	-81.4371333	1046.4	86	32	1	Sandstone
2039333	TDW4	40.7549084	-81.4372165	1051.8	93	18	8	Sandstone
2039335	TDW5	40.7548205	-81.4374807	1056.2	93		10	Sandstone
2039336	TDW6	40.7552493	-81.437742	1057.6	96	53	3	Sandstone
231501	TB2	40.74836	-81.44436	1131	46	33	16	Shale
643125	EP	40.758317	-81.428151	1077	53	50	20	Shale
744587	GS	40.74224	-81.42625	1125	115	64	59	Shale
859388	HBA	40.77283	-81.45322	1105	90	64	50	Shale
873475	KT	40.74144	-81.43721	1183	145	73	69	Shale
899672	KS	40.75784	-81.42811	1073	155	132	40	Shale
964160	BM	40.74198	-81.43887	1156	133	49	43	Shale
1006015	SH	40.73835	-81.4309	1140	110	58	50	Shale
2015013	WA	40.77013	-81.44189	1086	58		38	Shale
	TSH-4	40.76211	-81.43446	1092.95	66		40.58	Shale
638362	CH	40.74951	-81.43356	1101	70		30	Shale
729470	HBE	40.73714	-81.43904	1115	58	39	20	Shale
793890	RG	40.747339	-81.432223	1122	92	62	31	Shale
811407	OC	40.75135	-81.4271	1123	105	46	30	Shale
2039116	RH	40.74874	-81.4359	1090	68	61	15	Shale
Wells With Unknow Aquifer Type								
	MP1	40.76907	-81.44235	1082				
	UK	40.75247	-81.42904	1097				
	CC	40.747882	-81.436496	1087				
	MS	40.747558	-81.437661	1087				
	JW	40.74642	-81.44113	1110				

4.0 FIELD INVESTIGATION RESULTS

To evaluate the impact that the Timken dewatering operation was having on subsurface conditions, the ODNR-DSWR reviewed the operational history for the construction dewatering. In addition, the ODNR-DSWR drew cross sections and ground water gradient maps to define the extent of the cone of depression in the subsurface. The ODNR-DSWR worked with the SCHD, Timken, and Sanborn Head to collect the field data to insure that the public complaints were addressed. The important trends in the data are presented for review.

4.1 TIMKEN CONSTRUCTION DEWATERING OPERATIONS HISTORY

Table 4 documents the complaint historical timeline. Based on the historic record, Timken began pumping from the six dewatering wells on August 6, 2012. Within seven days of starting the dewatering operations, the SCHD started to receive complaints from residents in the area. The residents complained that the water levels in their water supply wells had begun to decline. During late August, the ODNR-DSWR began the process of setting up a ground water monitoring network to determine the extent of impact due to Timken's dewatering.

Timken responded to individual complaints by supplying bottled drinking water, replacing pumps and drilling new water supply wells.

Table 4. Timken Dewatering Complaint Response Timeline

▪ **August 6, 2012 – Start of dewatering.**
▪ **August 13, 2012 – First report of residential water shortage.**
▪ **August 14, 2012 – Bottled drinking water supplied to residents.**
▪ **August 16, 2012 – Water tanks and pumps installed and connected to existing plumbing.**
▪ **August 17, 2012 – Start of well monitoring program.**
▪ **August 29, 2012 – First replacement well was drilled for residents.**
▪ **November 2012 – Bottom of Excavation reached.**
▪ **December 17, 2012 – Begin sequence of concrete pours and backfilling.**
▪ **February 8, 2013 – Discontinued use of extraction wells, relied solely on sump pumps.**
▪ **June 6, 2013 – Discontinued dewatering with sump pumps.**
▪ **July 26, 2013 – Concrete foundation completed to ground surface.**

Table 5 documents the history of the Timken dewatering operations. The data was collected by Timken and summarized by Sanborn Head. Shown in the table are the:

- pumping rate in gallons per minute (gpm),
- dewatering elevation in feet above mean sea level (amsl),
- average pumping rate since the prior date,
- pumping volume since the prior date,

From the table, the construction dewatering started on August 6, 2012. Initially, Timken started pumping water from all six dewatering wells. The initial combined total flow rate from all six wells was 400 gpm. The goal was to keep the excavation dry while the vertical caster foundation was being constructed. As a result, the goal was to maintain the ground water level 20 feet below the bottom elevation of the excavation at 992 feet amsl. The initial pumping water level in the dewatering wells was set at 972 feet amsl.

During November 2012, the construction contractor reached the bottom of the excavation at a depth of 89 feet (approximately 992 feet amsl). The contractor began the process of constructing the foundation on which the vertical caster would rest. Events were as follows:

- The pumping rate from the six wells began to decline to approximately 78.2 gpm.
- Timken raised the pump intake from 972 feet amsl to 981.5 feet amsl.
- By January 18, 2013 the pumping rate from the wells was approximately 31 gpm.
- Starting on February 11 the pumping from the wells was discontinued.
- Timken began to pump from the sump installed at the bottom of the vertical caster foundation.
- The water pumped was a combination of storm water and ground water.
- At this time the ground water levels were rising in the subsurface around the newly installed vertical caster foundation.
- On June 6, 2013 the ground water levels in the subsurface had recovered to approximately 1049 feet amsl.

The total volume of water pumped from the exaction was approximately 57,811,392 gallons of water.

Table 5. Timken Dewatering Well Pumping Data and Statistics .

Date	Pumping Rate (gpm)	Dewatering Elevation (ft)	Average Pumping Rate Since Prior Date (gpm)	Volume Pumped Since Prior Date (gal)	Comment
8/6/2012	400.0	972.0			Start Dewatering
8/27/2012	400.0	972.0	400.0	12,096,000	
8/28/2012	280.0	972.0	340.0	489,600	
9/25/2012	280.0	981.5	280.0	11,289,600	Pump intakes raised
10/11/2012	252.0	981.5	266.0	6,128,640	
11/19/2012	78.2	981.5	165.1	9,272,016	
12/21/2012	71.2	981.5	74.7	3,442,176	Inferred steady state
1/18/2013	31.2	981.5	51.2	2,064,384	
2/11/2013	55.0	1016.0	43.1	1,489,536	Pump intakes raised, pumping from sumps only
2/19/2013	89.0	1016.0	72.0	829,440	Flow from sumps is combined storm water and groundwater
3/15/2013	89.0	1016.0	89.0	3,075,840	
4/16/2013	75.0	1033.0	82.0	3,778,560	
5/20/2013	55.0	1033.0	65.0	3,182,400	
6/6/2013	0.0	1049.0	27.5	673,200	Sump elevation raised above water table
Total volume of water pumped				**57,811,392**	

After Timken and Sanborn Head, modified by ODNR-DSWR

4.2 HYDROGEOLOGY OF THE STUDY AREA

Figures 14 and 15 represent regional hydrogeological cross sections drawn through the study area. The locations of the cross sections are shown on Figure 13. Shown on the cross sections are the:

- top of bedrock,
- thickness of the glacial till over the bedrock,
- original depth to water in each well measured when the well was drilled,
- water column in each well,
- water level measured on September 17, 2012,
- dewatered zone resulting from pumping the six dewatering wells (TDW-1 through TDW-6).

From the cross sections, it can be noted that individual water wells across the area are completed in a variety of aquifer types ranging from bedrock to unconsolidated glacial materials. The one well in common with both cross sections is TDW-6. The thickness of the glacial materials can vary from a few feet to over several hundred feet. The depth to water can also vary depending on surface elevation. Wells completed in the bedrock have a casing set into bedrock and an open rock hole completion. Wells completed in the glacial materials are generally set in sand and gravel outwash. These wells are completed with a well screen to hold back the unconsolidated sediment and to allow water to flow freely into the well.

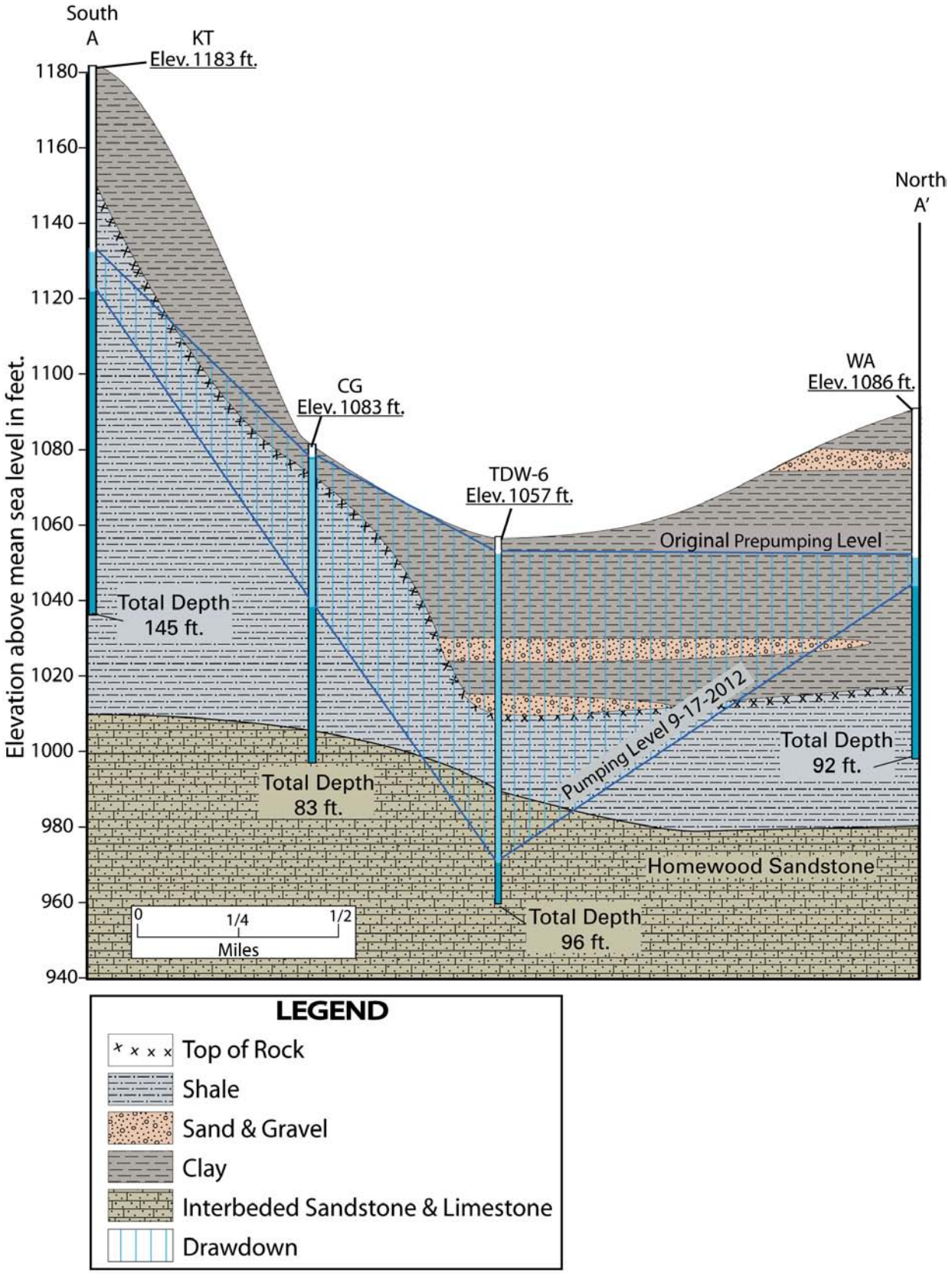


Figure14. Hydrogeological Cross Section A-A' Extended South to North across the study area

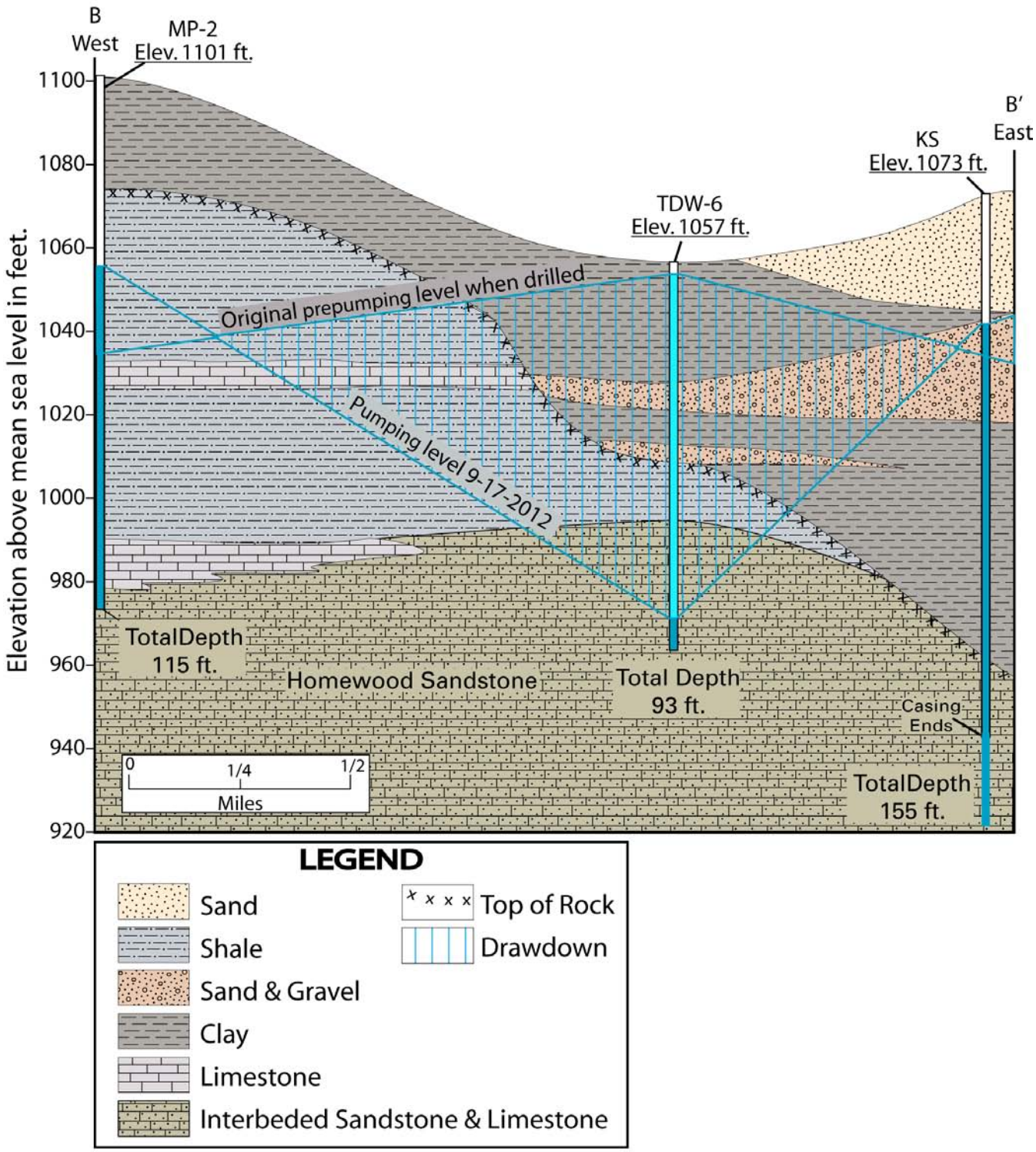


Figure15. Hydrogeological Cross Section B-B' Extended West to East across the study area

4.3 WATER SUPPLY WELL HYDRAULIC CHARACTERISTICS FOR DEWATERING AND DOMESTIC WELLS BASED ON ODNR WELL LOG DATA

In addition to the ground water level measurements, the ODNR-DSWR made an attempt to evaluate the well hydraulics of both the domestic water supply wells and the dewatering wells based on the data supplied by the well driller at the time that each individual well was drilled. This was done by analyzing the data from the driller's log on record with the ODNR-DSWR. The drillers' pumping/bail-down test data was used to calculate the specific capacity of the wells. Specific capacity of the well in terms of gallon per minute per foot of drawdown (gpm/ft.) was estimated. These data were used to determine how much water was flowing into the well for every foot of drawdown based on the pumping rate.

As part of the work, the driller estimated the pumping capacity for the well by conducting a short term pumping/bail-down test on the well. These tests are generally done by pumping, bailing, or blowing air into the well to extract water at a known rate in gallons per minute (gpm). Prior to conducting the test, the driller measured the static water level in the well. Near the end of the test, the driller measured the pumping water level in the well. The driller then determined the total drawdown in the well during pumping. These tests are generally done to estimate a sustainable yield of the well and to determine the depth at which to set the pump.

4.3.1 Timken Dewatering Well Hydraulics

Table 6 shows the well hydraulics for each of the six Timken dewatering wells identified as TDW-1 through TDW-6. The pre-pumping water level was calculated based on the original land surface of 1081 feet amsl. These data indicate the pre-pumping water levels varied from 26 to 52 feet below the land surface. Based on the data that was provided by Timken, wells TDW-3 through TDW-6 were drilled prior to TDW-1 and 2. As a result, the water levels in TDW-1 and 2 were affected by the pumping from TDW-3 through 6.

The pumping rates in the wells varied from 5 gpm in TDW-6 up to 150 gpm in TDW-4 and 5. Drawdown in the wells varied from 83 feet to 57 feet below the land surface. The specific capacity of the wells varied from 0.06 gpm/foot of drawdown in TDW-6 to a high of 2.42 gpm/foot of drawdown in TDW-4.

These data confirm that the hydraulic characteristics of the bedrock near the excavation are highly variable and based on fracture flow patterns. Individual wells that did not encounter a fracture in the bedrock have low specific capacities. Wells that encountered fracture flow in the subsurface had higher specific capacities.

Table 6. Well hydraulics for the Timken Dewatering Wells

Well Log Number	Well ID	Pre-Pumping Static WL Feet Surface Elevation 1081 *	Pumping Water Level Feet	Pumping Rate GPM	Drawdown Feet	Specific Capacity GPM/Foot	Aquifer Type
2039329	TDW1	52	109	10	57	0.18	Sandstone
2039330	TDW2	52	109	10	57	0.18	Sandstone
2039331	TDW3	36	109	75	73	1.03	Sandstone
2039333	TDW4	47	109	150	62	2.42	Sandstone
2039335	TDW5	35	109	150	74	2.03	Sandstone
2039336	TDW6	26	109	5	83	0.06	Sandstone

*Original static water levels calculated from depth to water data on well logs

4.3.2 Domestic Water Well Hydraulics near the Timken Dewatering Operations

Table 7 shows the results of the pumping/bail-down tests done by the well driller for the domestic water wells at the time that the well was drilled. Two types of aquifers are represented: the unconsolidated glacial sand and gravel beds and the bedrock.

Specific capacity of the well in terms of gallon per minute per foot of drawdown (gpm/ft.) was estimated. These data were used to determine how much water was flowing into the well for every foot of drawdown based on the pumping rate.

Trends in the data for the domestic water wells completed in the sand and gravel aquifers are as follows:

- Pumping rates varied from 10 to 30 gpm.
- Pre-pumping water levels varied from 15 to 50 feet below the land surface depending on elevation.
- Drawdown in the well during pumping was generally zero, indicating that these wells could have been pumped at a higher rate.
- Specific capacity of the wells varied from 10 to 30 gpm/foot of drawdown.

Trends in the data for the domestic water wells completed in the bedrock are as follows:

- Pumping rates varied from 6 to 27 gpm.
- Pre-pumping water levels varied from 2 to 80 feet below the land surface depending on elevation.
- Drawdown in the wells during pumping varied from zero to 100 feet.
- Specific capacities of the wells varied from 0.1 to 25 gpm/foot of drawdown.

Table 7. Domestic Well Hydraulics Based on Driller Bail-down Test Data

Well Log Number	Well ID	Total Depth Feet	Casing Length Feet	Static WL Feet (log)	Pumping Water Levels Feet	Pumping Rate GPM	Drawdown Feet	Specific Capacity* GPM/FT	Aquifer Type
Unconsolidated Glacial Sand and Gravel Aquifers									
964566	AS	60	57	15	15	30	0	30	Gavel
559730	KKS	94	94	50	50	10	0	10	Sand and Gravel
Consolidated Bedrock Aquifers									
605207	MP2	115	70	65	83	25	18	1.4	Limestone
605215	NW	93	60	45	73	12	28	0.4	Limestone
601049	WP	48	31	22	22	12	0	12.0	Limestone
800458	LC	77	56	30	47	16	17	0.9	Limestone
955284	AD	210	106	80	180	10	100	0.1	Sandstone
262417	TB1	150	102	52	130	6	78	0.1	Sandstone
438679	CG	81	77	2	14	20	12	1.7	Sandstone
2027329	WS	216	176	55	55	25	0	25.0	Sandstone
2038384	KW	75	32	24	35	27	11	2.5	Sandstone
930454	SB	120	80	40	40	20	0	20.0	Sandstone
729470	HBE	58	39	20	32	16	12	1.3	Shale
2015013	WA	58	72	40	42	20	2	10.0	Shale
859388	HBA	90	64	50	50	20	0	20.0	Shale
811407	OC	105	46	30	70	18	40	0.5	Shale
744587	GS	115	64	59	100	20	41	0.5	Shale
1006015	SH	110	58	50	55	25	5	5.0	Shale
638362	CH	70	53.1	30	35	14	5	2.8	Shale
2039116	RH	68	61	15	40	25	25	1.0	Shale
793890	RG	92	62	31	39	20	8	2.5	Shale
964160	BM	133	49	43	53	18	10	1.8	Shale
873475	KT	145	73	69	84	18	15	1.2	Shale
899672	KS	155	132	40	80	25	40	0.6	Shale
643125	EP	53	50	20	20	10	0	10.0	Shale

*Calculated value from well log data - parameter not provided by driller

4.4 INITIAL GROUND WATER LEVEL IMPACT ASSESSMENT

Figure 13 shows locations of the water supply wells used to monitor ground water levels during the investigation. The field work to set up the monitoring locations for the wells was done during August, 2012. Field measurements were obtained during September 2012 through September

2013. It should be noted that at the time that the project was set up the Timken dewatering operation was already in effect. As a result, background water levels prior to pumping were never measured and not available for reference. As a result, the original water levels in the domestic wells, documented on the well logs at the time they were drilled were used for reference. The original ground water elevation across the study area was taken from the ODNR-DSWR Potentiometric Surface Mapping for the area (Figure 6). The original water level elevation at the Timken dewatering site was estimated to be 1050 feet amsl.

4.4.1 Ground Water Elevation Levels for September 17, 2012

Figure 16 shows the ground water elevation in the monitoring well network as measured on September 17, 2012. The pumping water level in the Timken dewatering wells was 972 feet amsl. At this time Timken was pumping at a rate of approximately 280 gpm. Approximately 24 million gallons of water had been pumped from the subsurface (Table 4).

Based on the mapping, two (2) ground water highs were present in the study area:

- The first ground water high was noted in the southern part of the study area south of Allenwood Road. This ground water high is associated with monitoring wells TB-1, TB-2, KW, BM, and KT. This ground water high is associated with a natural surface and ground water divide defined by the boundary between the Sherrick Run and Wolf Creek basins (Figure 2).

- The second ground water “high” shown on the map is associated with the Timken ground water monitoring wells TSH-4 through TSH-7. These wells are nested wells completed at different elevations in both the glacial materials and the bedrock. The ground water level is higher in the shallower wells completed in the glacial materials. The ground water levels are deeper in the bedrock wells. As a result, these wells reflect the downward movement of the ground water from a high head in the glacial materials to a lower head in the bedrock. In addition these wells demonstrate the interconnection of the two aquifer systems confirming the movement of water from the glacial materials into the bedrock.

Based on the mapping, the majority of the cone of depression resulting from the Timken dewatering operation is confined to the Timken property to the west and north of the pumping center. However, the cone of depression south and east of the Timken dewatering center does extend off-site under Whipple and Shepler Church Roads.

4.4.2 Distance Drawdown Assessment Based on September 17, 2012 Ground Water Level Measurements

To evaluate the impact that the Timken construction dewatering was having on nearby water supply wells, the ODNR-DSWR calculated the drawdown in individual wells by using the original static water levels at the time that the wells were drilled and subtracting the measured water levels in the wells.

Table 8 shows the observation well data used for the distance-drawdown plot. Shown in the table are the distance each observation well was from the Timken dewatering wells, the original static water level, the final water level, and the total drawdown in each well.

Based on the observation well data, the following trends in the data are presented for review:

- Aquifer types for individual wells can vary from bedrock wells completed in sandstone, limestone and shale units to wells completed in the unconsolidated glacial ground moraine or outwash material.
- Individual well depths can vary from 46 feet up to 216 feet below the land surface.
- Casing lengths vary from 32 feet up to 176 feet.
- Original static water levels in the wells at the time the wells were drilled varied from 1 to 2 feet below the land surface up to 65 feet below the land surface depending on surface elevation.

Figure 17 represents a distance drawdown plot developed from the data presented in Table 8. Trends in these data shows:

- Drawdown in the Timken dewatering wells is variable and most likely depends on well completion and fracture pattern in the bedrock.
- Drawdown in the domestic water wells is also variable and also depends on well completion and fracture pattern in the bedrock.
- Based on the linear regression analysis it would appear the zero drawdown for wells in the area would extend approximately 5500 feet from the Timken construction dewatering center.

The most highly affected wells are located along Whipple, Faircrest and Shepler Church Roads located southeast of the construction dewatering operations. In this area, the drawdown can vary from approximately 5.39 feet up to 19.24 feet in individual wells.

Figure 18 shows the actual drawdown in the individual wells relative to the Timken dewatering wells. The area of impact is defined by the zero drawdown contour line. Trends in the data are as follows:

- The majority of the cone of depression is confined to property owned by Timken in the west, north and eastern parts of the Timken property.
- The cone of depression spreads off site to the east under Whipple Road. The drawdown in an individual well could vary from 5 up to 25 feet.
- The cone of depression spreads off site to the south under Faircrest Road and Shepler Church Road. Under Faircrest Road, the drawdown in an individual well could vary from 35 up to 55 feet. Under Shepler Church Road, the drawdown in an individual well could vary from zero up to 35 feet depending on the distance from the dewatering center.

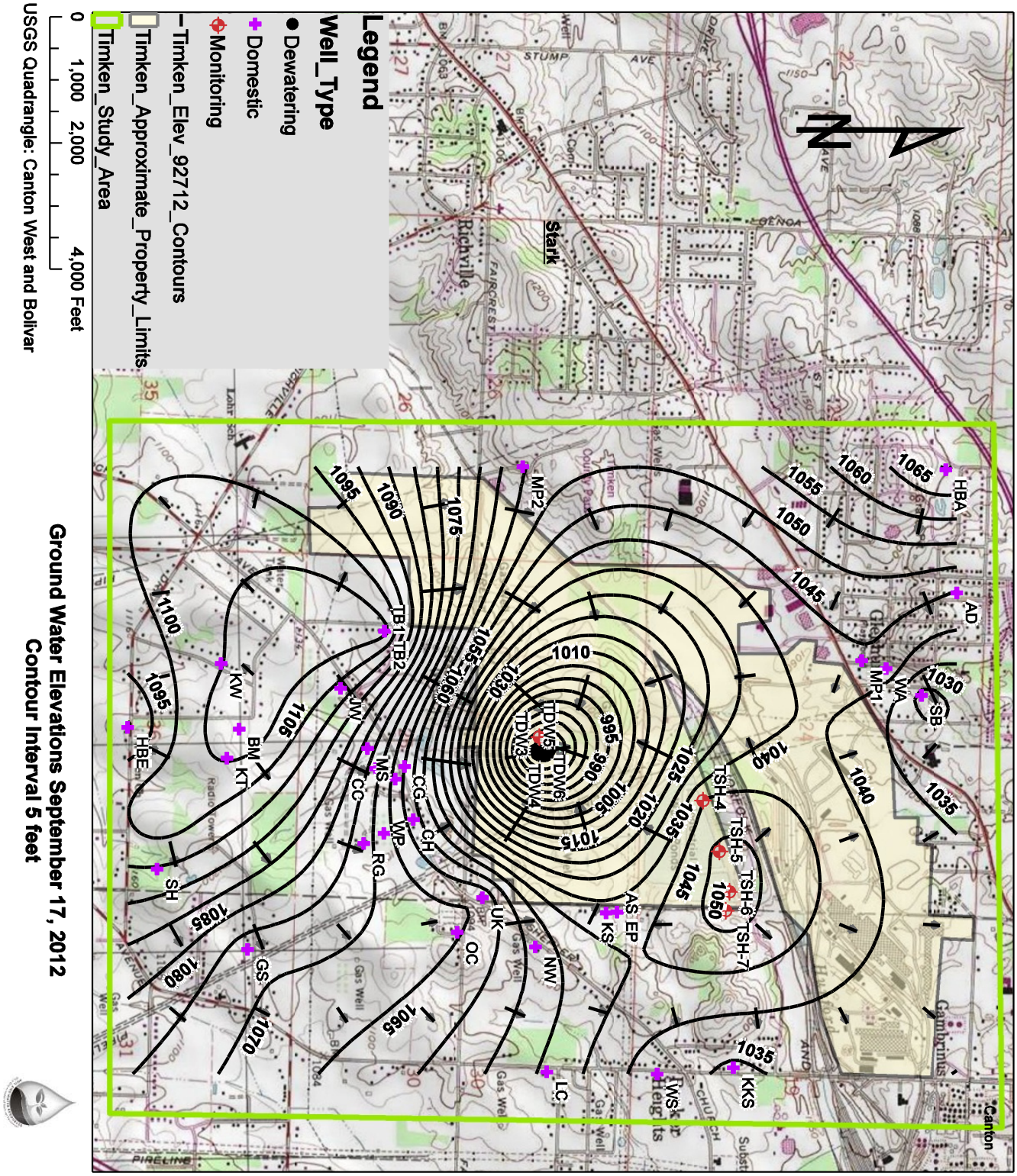


Figure 16. Ground Water Levels for September 17, 2012

Table 8. Timken Dewatering Distance Drawdown Observation Well Data.

Well Log Number	Well ID	Total Depth Feet	Casing Length Feet	Static WL Feet (log)	Surface Elevation	Depth 9/17/12	Distance from Timken DWW Feet	DD Original-91712	Aquifer Type
Unconsolidated Glacial Aquifers									
	TSH-5	49		30.61	1087.27	36	3247.4	-5.39	Clay
964566	AS	60	57	15	1068	26.06	2852.3	-11.06	Gavel
	TSH-7	22		3.81	1068.2	15.5	3844.9	-11.69	Sand
	TSH-6	51		21.7	1081.38	30.33	3742.2	-8.63	Sand and Gravel
559730	KKS	94	94	50	1087	52.78	5899.9	-2.78	Sand and Gravel
Consolidated Bedrock Aquifers									
2039333	TDW4	93	18	8	1051.8	79.8	0	-71.8	Sandstone
2039329	TDW1	96	54	5	1057	85	0	-80	Sandstone
2039330	TDW2	96	44	5	1057.5	85.5	0	-80.5	Sandstone
2039331	TDW3	86	32	1	1046.4	74.4	0	-73.4	Sandstone
2039335	TDW5	93		10	1056.2	84.2	0	-74.2	Sandstone
2039336	TDW6	96	53	3	1057.6	85.6	0	-82.6	Sandstone
438679	CG	81	77	2	1083		2184.4		Sandstone
262417	TB1	150	102	52	1131	85.51	3103.6		Sandstone
2038384	KW	75	32	24	1132	27.25	5255.4	-3.25	Sandstone
2027329	WS	216	176	55	1086	49.35	5512	5.65	Sandstone
930454	SB	120	80	40	1081	52.86	6089.1	-12.86	Sandstone
955284	AD	210	106	80	1130	85.34	7040.5	-5.34	Sandstone
	TSH-4	66		40.58	1092.95	47.67	2628.6	-7.09	Shale
231501	TB2	46	33	16	1131	23.85	3103.6	-7.85	Shale
964160	BM	133	49	43	1156	46.35	4796.1	-3.35	Shale
873475	KT	145	73	69	1183	77.54	4976	-8.54	Shale
744587	GS	115	64	59	1125	53.22	5613	5.78	Shale
2015013	WA	58		38	1086	42.2	5615.9	-4.2	Shale
1006015	SH	110	58	50	1140	35.55	6362.8	14.45	Shale
859388	HBA	90	64	50	1105	34.58	7802.2	15.42	Shale
729470	HBE	58	39	20	1115	25.85	6558.3	-5.85	Shale
605207	MP2	115	70	65	1101	45.76	4423.5	19.24	Limestone

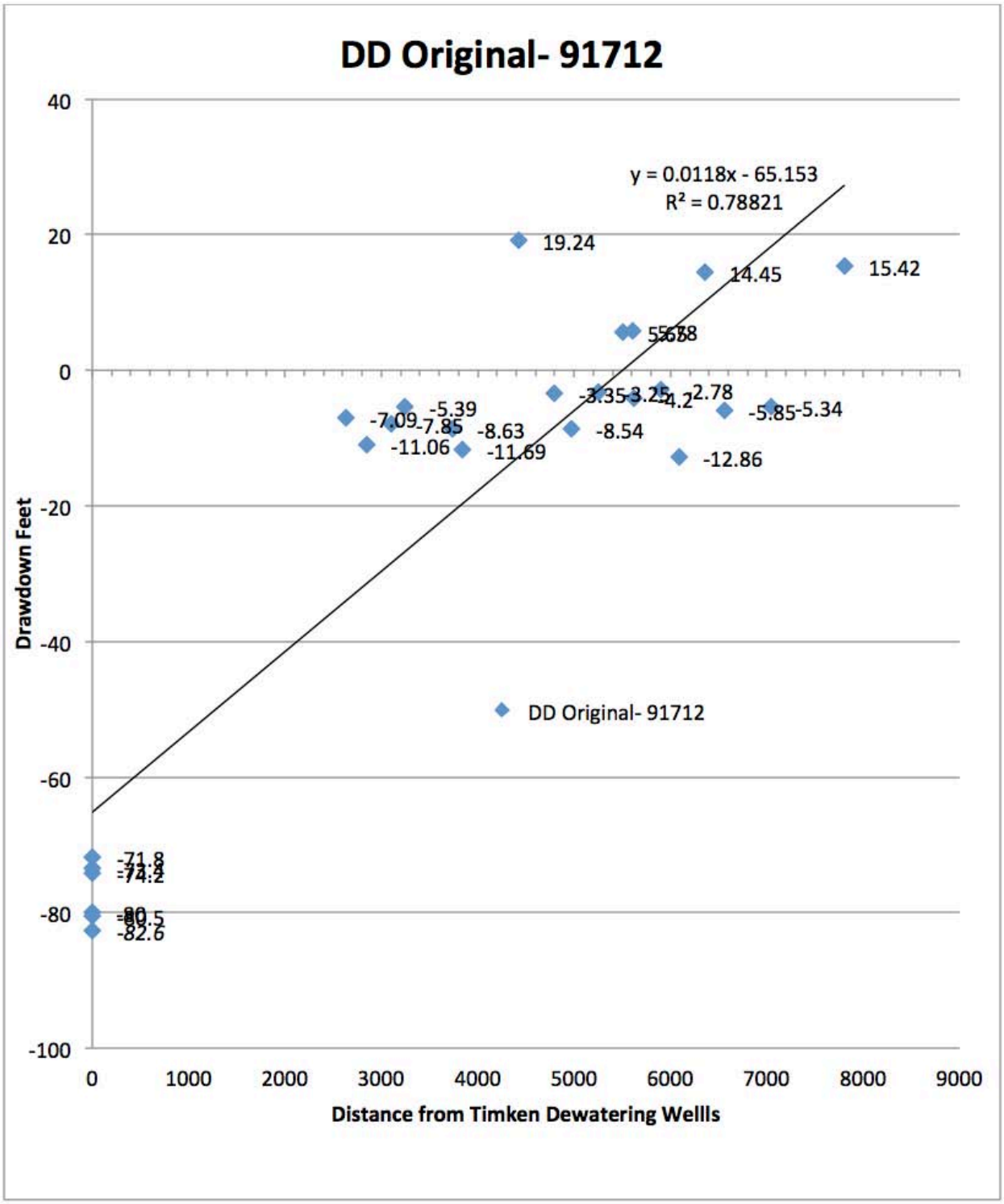


Figure 17. Distance Drawdown Plot for Domestic Water Wells Within Cone of Influence of the Timken Construction Dewatering Study Area

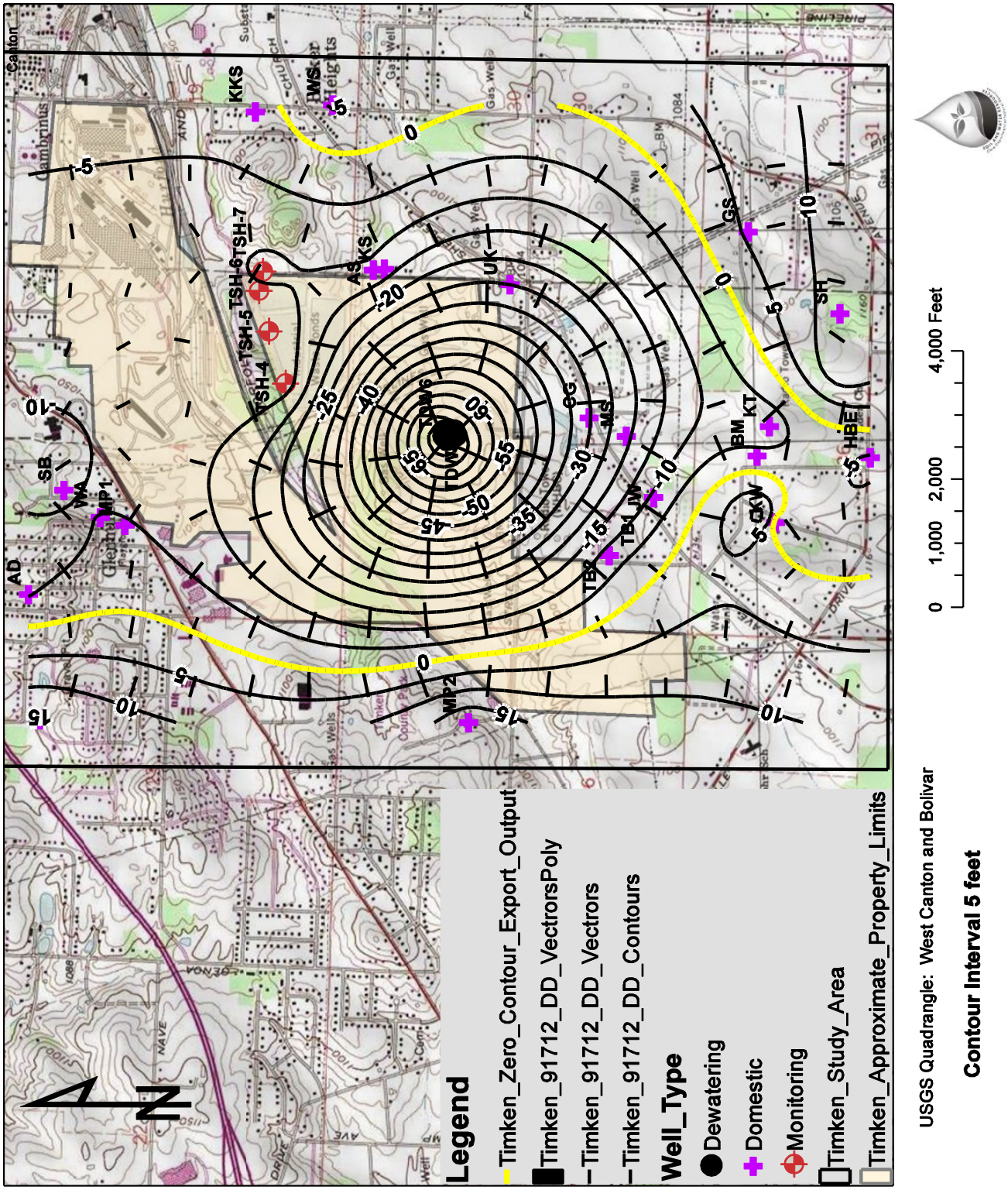


Figure 18. Actual Ground Water Level Drawdown Measured for September 17, 2012

4.5 LONG-TERM GROUND WATER MONITORING PROGRAM

After the initial ground water assessment was complete, the ODNR-DSWR and the SCHD set up a program to measure the continued impact of the construction dewatering on the local domestic water supply wells. The SCHD agreed to assist with monthly ground water level data collection. In addition, the SCHD would continue to interact with the local residents and document any continued complaints. The ODNR-DSWR would continue to map the ground water data. Weekly conference call would be held with Timken, SCHD, and ODNR-DSWR to review the progress of the construction, ground water levels and complaints. It was agreed that the ground water level monitoring would continue until the ground water levels had recovered to normal or near normal. It was estimated that the ground water monitoring would continue through at least September of 2013.

4.5.1 Ground Water Elevation Levels for December 18, 2012

Figure 19 represents a map showing ground water elevations as measured on December 18, 2012. Based on the historic data, Timken set the target depth for the vertical caster excavation at 89.5 feet below the land surface. This target depth was reach during November 2012. The pumping rate from all six dewatering wells had declined to approximately 71.2 gpm. At this time, Timken had decided to raise the pump intakes to approximately 981.5 feet amsl. Timken had pumped approximately 44 million gallons of water from the dewatering wells (Table 4).

The shape of the cone of depression shown on the figure is similar to the cone of depression measured on September 17, 2012. Two (2) ground water highs are present in the study area:

- The first ground water high is located north of the dewatering operation near the intersection of Navarre and Saratoga Roads. The ground water elevation in the area is approximately 1075 feet amsl.
- The second ground water high is located in the southern part of the study area south of Allenwood Road near monitoring wells KW, BM and KT. The ground water elevation in the area is approximately 1105 feet amsl.

At this time, the cone of depression appeared to have stabilized**.**

4.5.2 Ground Water Elevation Levels for March 15, 2013

Figure 20 represents a map showing the ground water elevations as measured on March 15, 2013. Based on the data, the pumping rate from the dewatering wells had continued to decline to approximately 31.2 gpm on January 18, 2013. The pumps had been raised to approximately 1016 feet amsl. Timken had pumped approximately 46 million gallons of water from the subsurface. On February 8, Timken had discontinued use of the extraction wells and was relying solely on the two (2) sump pumps to remove storm water and ground water from the excavation.

Based on the ground water level mapping the ground water levels around the excavation and in the monitoring wells were beginning to rise. The pumping water level had risen from 975 feet to 1025 feet amsl since the December 18, 2012 measurements.

4.5.3 Ground Water Elevation Levels for July 18, 2013

Figure 21 shows the ground water elevation as measured on July 18, 2013. On June 6, Timken had discontinued dewatering with the sump pumps and ground water levels were allowed to continue to rise. In addition, dewatering wells TDW-1 through TDW-6 had been plugged. Well TDW-3A near the scale pit was used for monitoring ground water level recovery near the vertical caster excavation.

Based on the ground water elevation across the area, ground water levels had returned to normal or near normal. The ground water high near the south was still present. The ground water gradient was flowing toward the northeast. The artificial ground water high caused by the pumping near TSH-4 through 7 appeared to no longer be present. Ground water elevations ranged from 1115 near well KW (along Surmay Road) to a low of 1030 near 23rd Street to the north. Near the Timken pumping center, the ground water elevation was mapped at approximately 1060 feet amsl. This level is approximately 35 feet higher than what was measured on March 15, 2013.

4.5.4 Ground Water Elevation Levels for September 19, 2013

Figure 22 shows the ground water elevation as measured on September 19, 2013. These data show a similar trend to the July 18, 2013 data. The ground water gradient is from the southwest toward the northeast. There is some flattening of the ground water elevations. The ground water elevations range from 1105 feet amsl in the south to 1035 feet amsl near 23rd Street. At the Timken dewatering center the ground water elevation was mapped at approximately 1055 feet amsl. These ground water elevations correlate with the historic regional ground water flow as mapped in Figure 6.

4.5.5 Hydrographs for the Domestic Wells Located Inside and Outside the Impacted Area

Figures 23 and 24 are hydrographs drawn using the ground water level data obtained from the 2012 through 2013 measurements. These graphs show the fluctuation in ground water levels with time showing the degree of impact caused by the dewatering and the subsequent recovery of the ground water levels. The pumping water level in the Timken dewatering well TDW-6 is shown on the graph. The depth to water for the last couple months of dewatering was taken from the sump pit elevation. In addition, all of the ground water level data is compared to rainfall data over the same period of time.

Figure 23 represents hydrographs for individual water wells outside the zero drawdown contour line. These data suggest that the ground water levels in individual wells did not fluctuate more than a few feet. The fluctuation in water levels is due to normal seasonal variations and individual well usel. From May to November, the water table typically declines ½ to 1 foot each month. From December to May, the ground water levels typically rise ½ to 1 foot per month.

The water level fluctuations measured in these wells is within the seasonal variation expected for this aquifer.

Figure 24 represents hydrographs for individual water wells inside the zero drawdown contour line. These wells show some impact to the ground water levels depending on well location. It is possible that some of the ground water level fluctuation could be the result of seasonal ground water level changes as well as normal pumping. However, when the total ground water level fluctuation is compared to the pumping in TDW-6, the water level declines appear to coincide with the construction dewatering. Of special note are the water level declines recorded in the wells at 3990 and 4004 Shepler Church Road. The water level in these two wells declined 10-12 feet over the first four months of dewatering. This decline is due to more than the normal seasonal decline and can be attributed to the Timken dewatering. Upon turning the dewatering pumps off and allowing the ground water levels to return to normal, the water levels in the domestic water wells inside the zero drawdown contours returned to their natural static water levels. As of September 19, 2013, all but one well had higher water levels than on August 31, 2012.

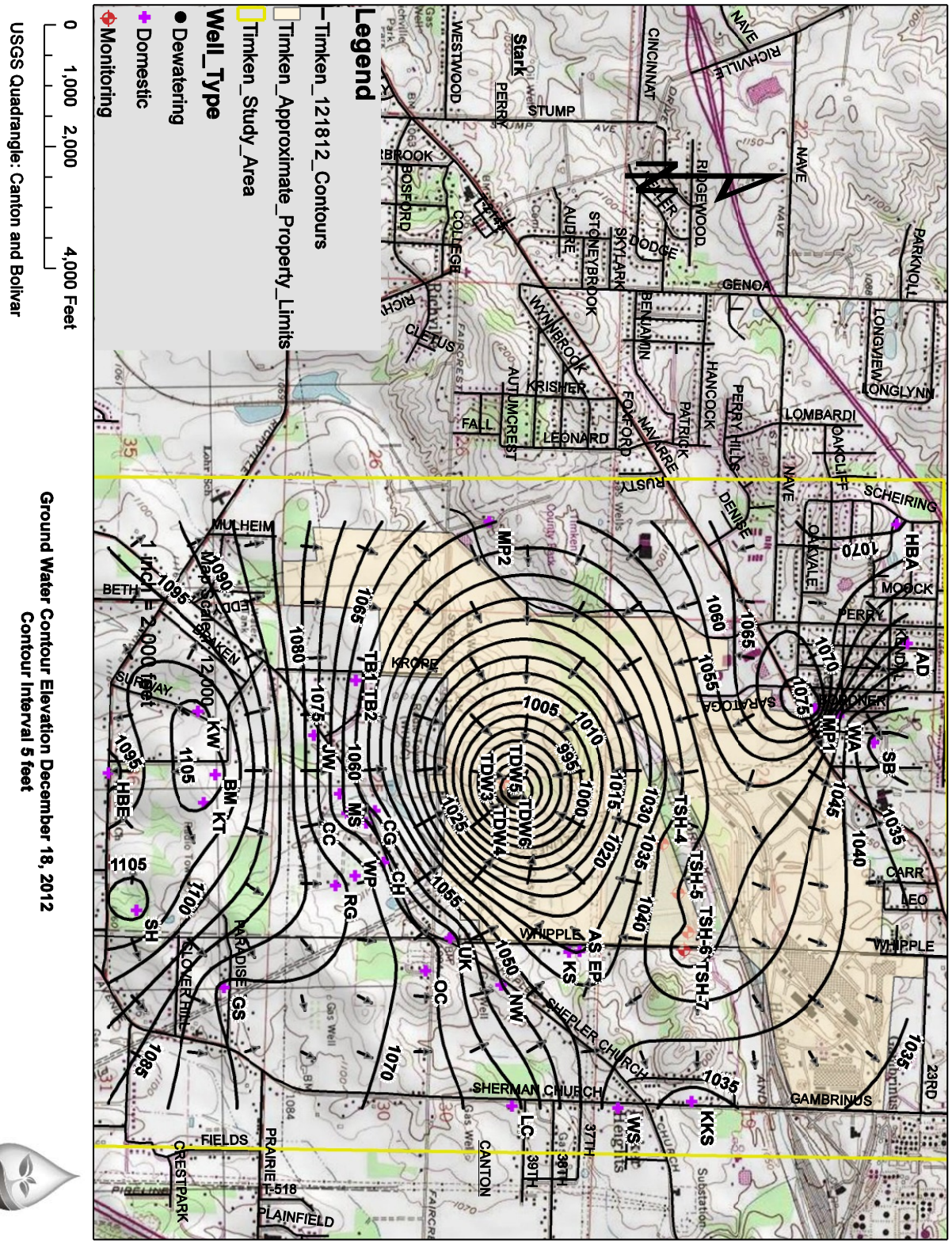


Figure 19. Ground Water Elevations Measured on December 18, 2012

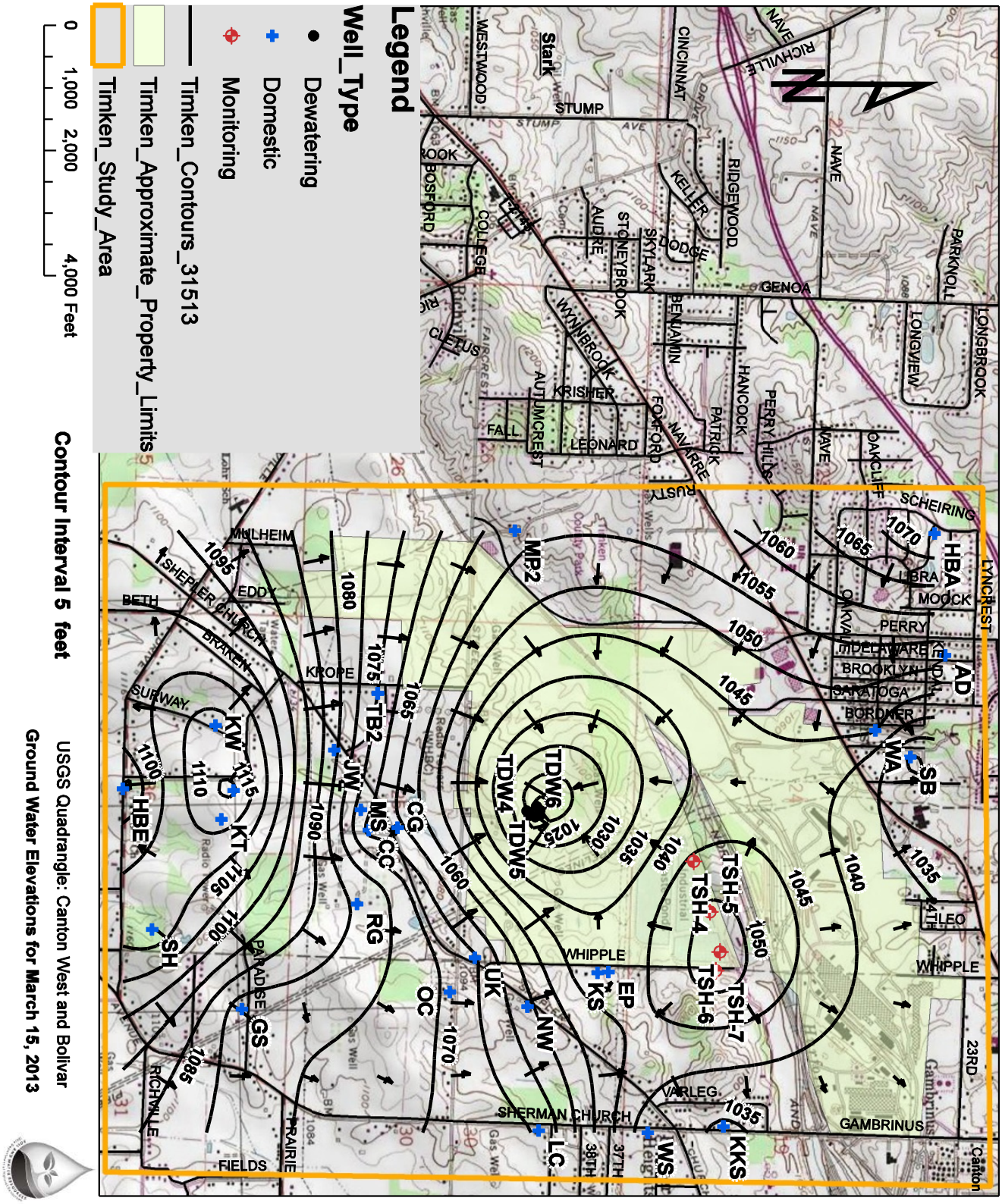


Figure 20. Ground Water Elevations Measured on March 15, 2013

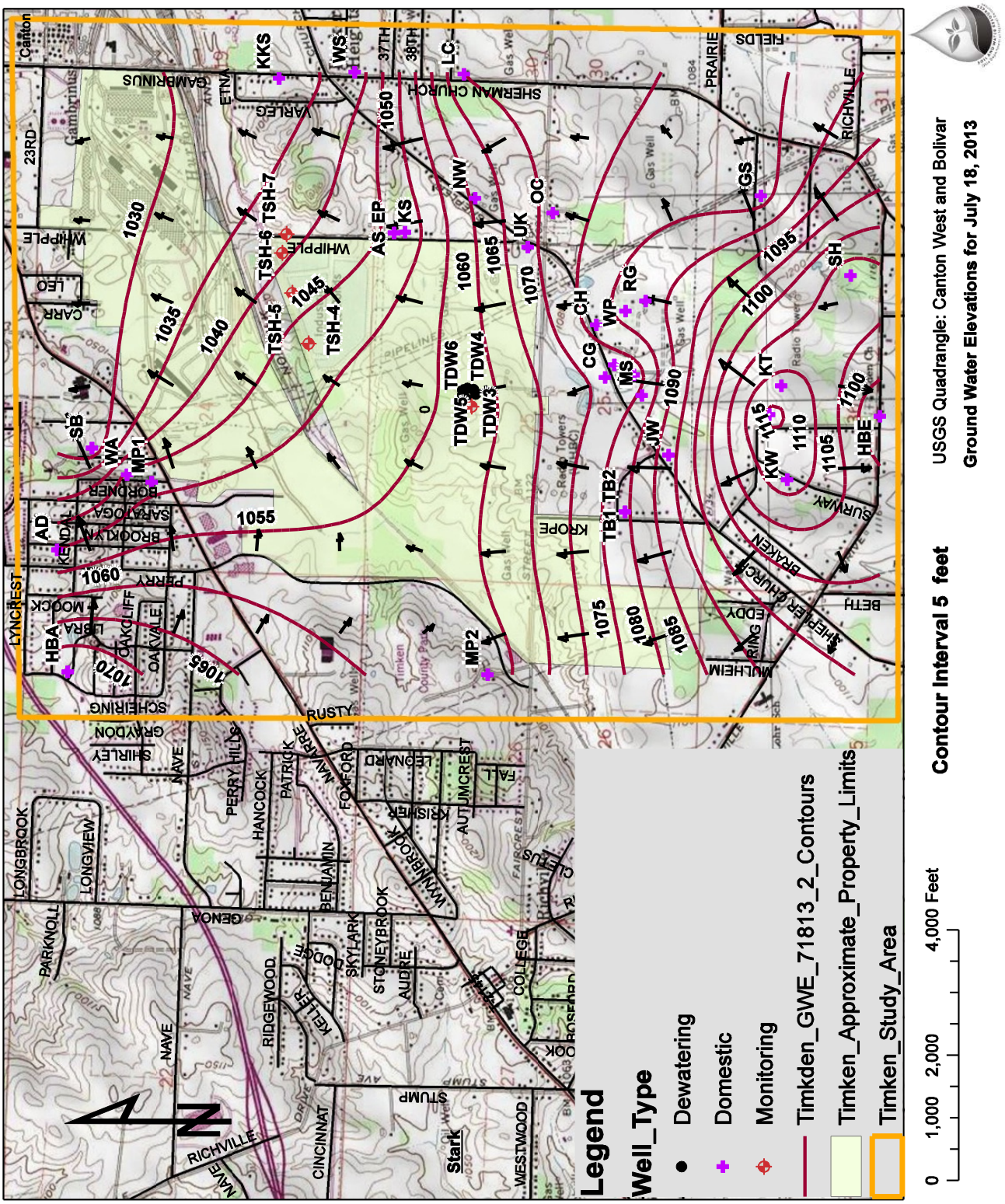


Figure 21 Ground Water Elevations Measured on July 18, 2013

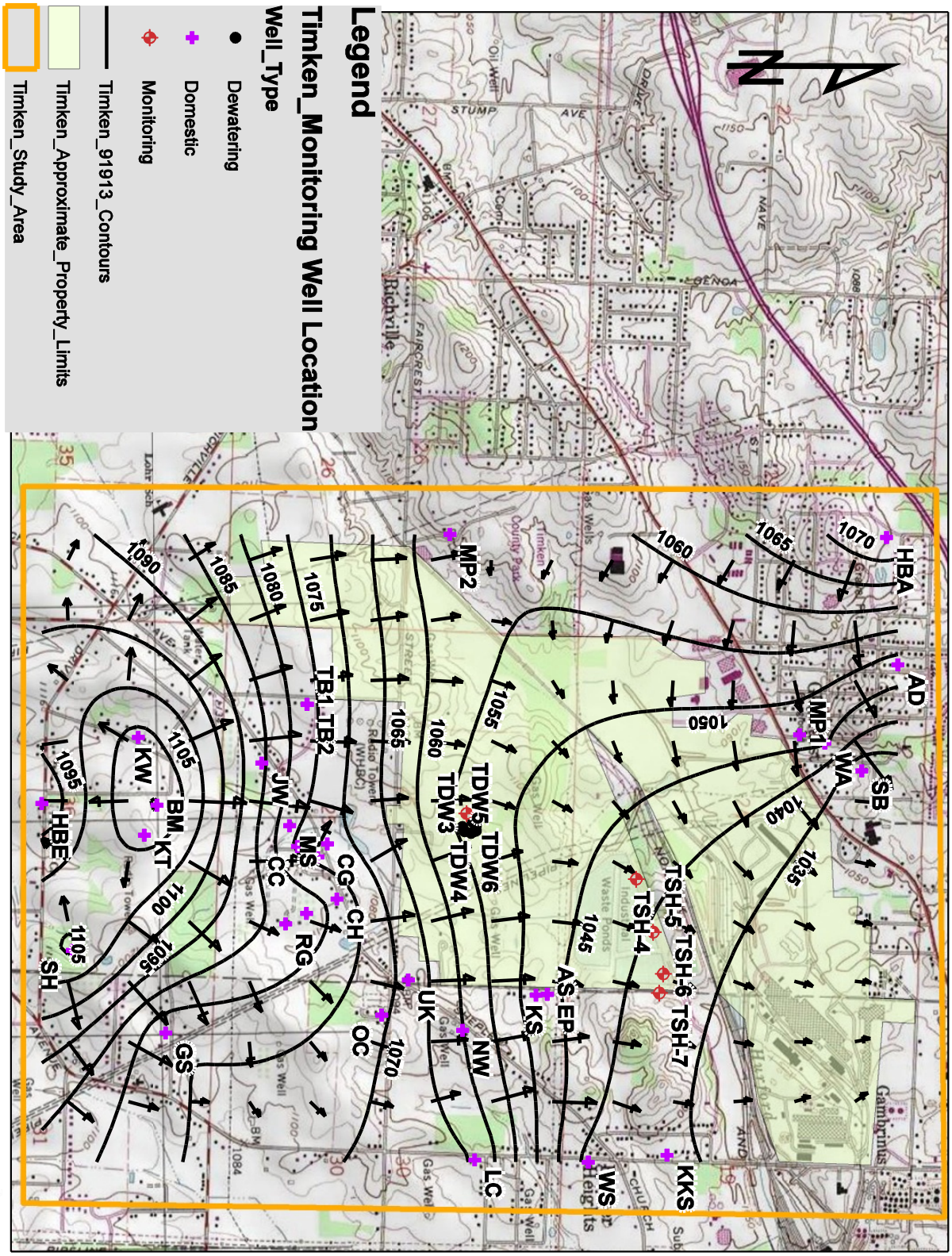


Figure 22. Ground Water Elevations Measured on September 19, 2013

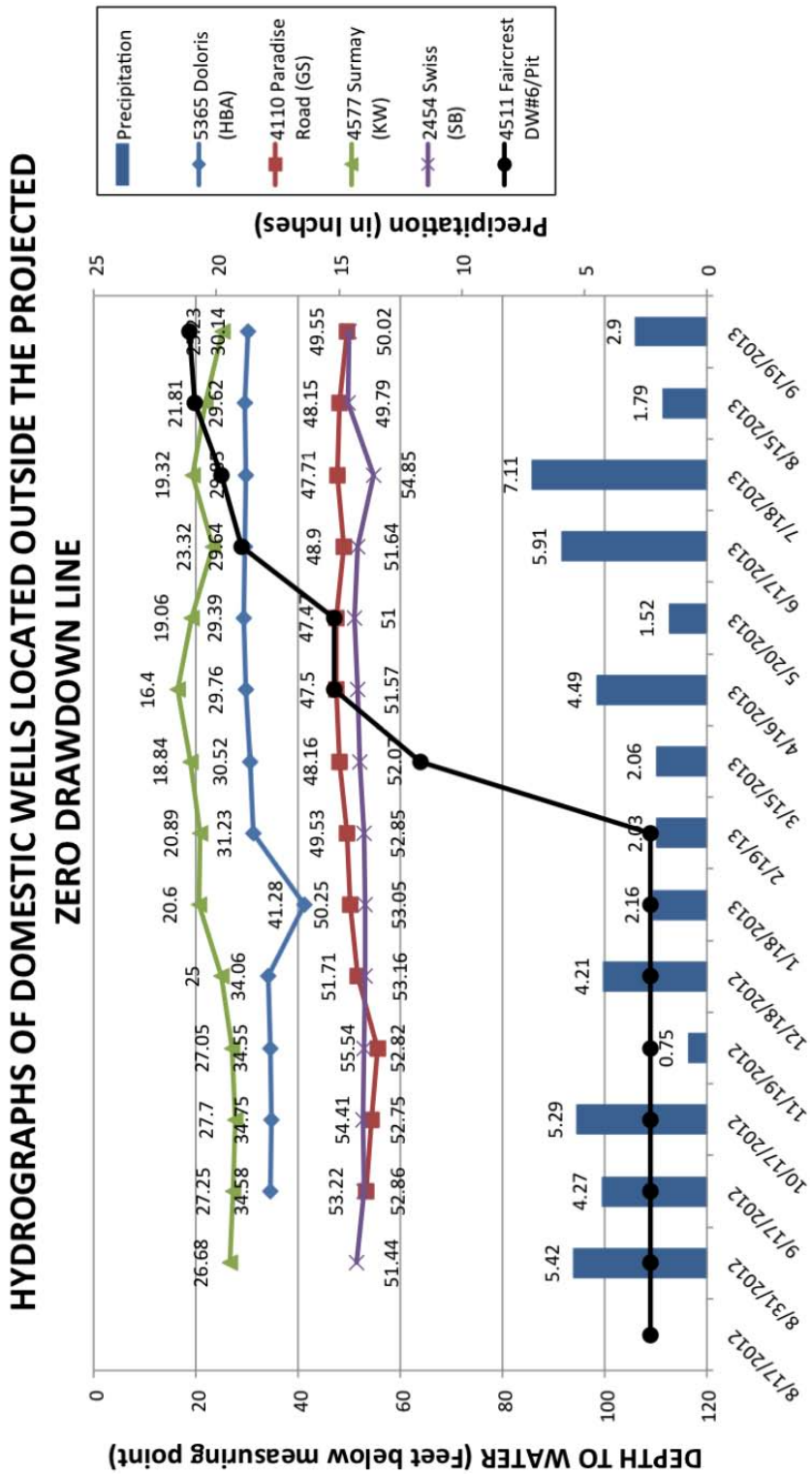


Figure 23. Hydrograph of Water Levels in Domestic Water Wells Outside the Zero Drawdown Contour Line

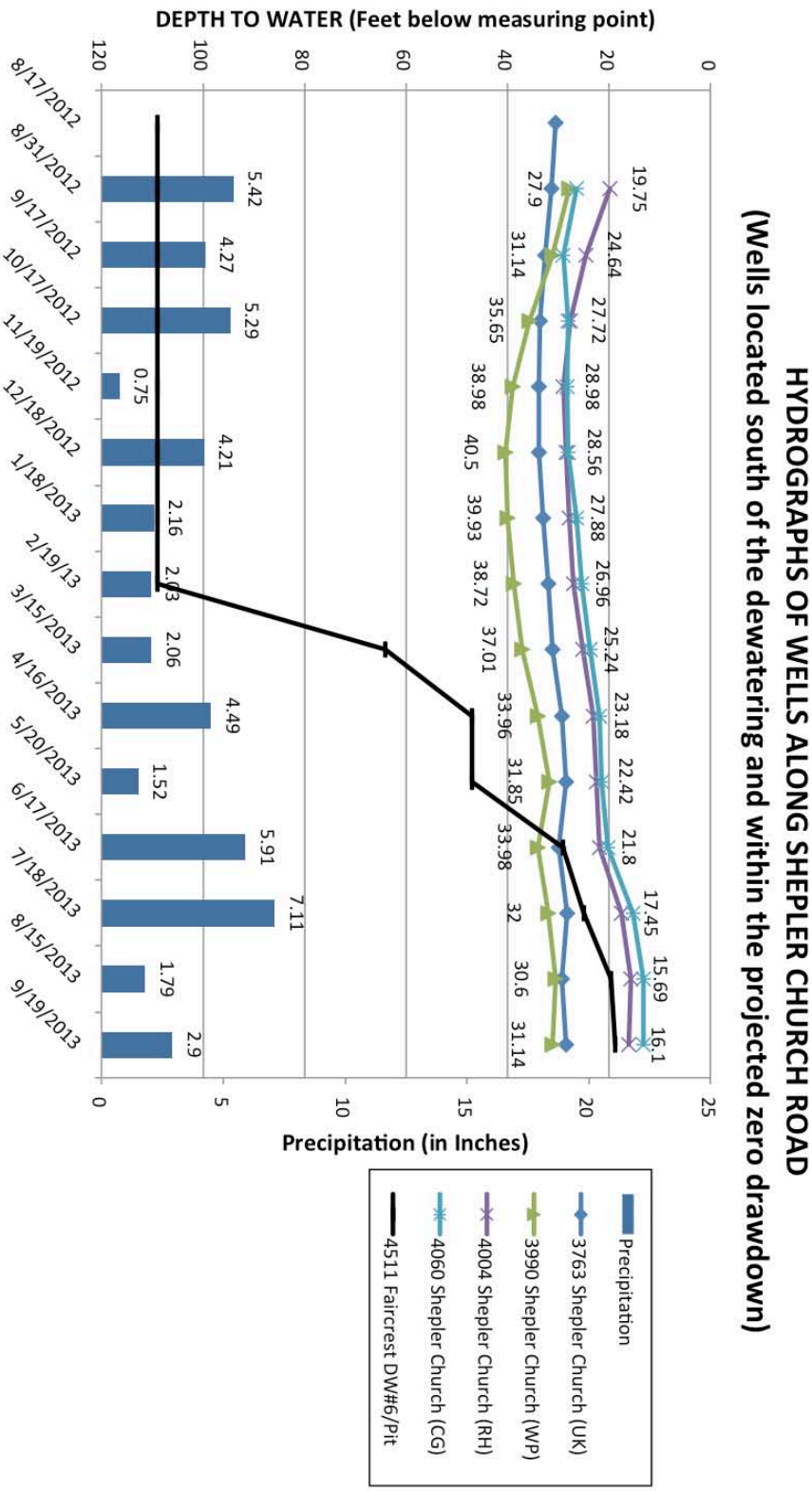


Figure 24. Hydrograph of Water Levels in Domestic Water Well Inside the Zero Drawdown Contour Line.

5.0 FINAL IMPACT ASSESSMENT AND COMPLAINT RESOLUTION

Once the initial ground water impact assessment and the long-term ground water monitoring program was established, the ODNR-DSWR suggested that Timken hire an outside consultant that could sort through the data and assist with the assessment of individual complaints. As a result, Timken retained Sanborn Head (SH) to work with the homeowner, driller and the SCHD to validate the condition of each well and the need to drill a new well as a result of a decline in ground water levels.

5.1 GEOGRAPHIC EXTENT OF THE INFERRED IMPACT AREA

The geographic extent of the impact area was established by using the distance drawdown plot shown on Figure 17. In addition, the drawdown data for September 17, 2012 data set as shown on Figure 18 was also used to define the geographic extent of the impact area. The -10 foot contour was the first contour on the map to show full closure. The closure of the -10 foot contour was based on the two ground water highs defined by the September 17, 2012 data set.

The lack of closure for the -5 and zero drawdown contours in the study area is most likely the result of a lack of data points. In addition, the lack of closure could also be due in part to the periodic pumping of the domestic water wells, thus causing some lowering of the ground water levels in the northern and southern parts of the study area. However, the most conservative option for determining the geographic extent of the cone of depression was to infer closure of the -5 foot and zero drawdown contours in the northern and southern parts of the area. The extent of the inferred geographic impact from the Timken construction dewatering is shown on Figure 25.

5.2 TIMKEN RESPONSE TO COMPLAINTS

Initially SCHD screened complaints before forwarding them to Timken. If a complaint came from a property owner located several miles outside the inferred zone of influence, SCHD told the property owner that the Timken dewatering operations were not the cause of the problems associated with the well. If the complaint was inside the inferred zone of influence, the SCHD forwarded the complaint to Timken for response. Timken's response to complaints was to:

- Provide bottled drinking water and temporary water tanks as soon as logistically practical.
- Retain the services of a well driller and pump installer to assist in the evaluation of complaints.
- Evaluate the condition of each individual water supply well.

To evaluate an individual complaint, the driller would assess the flow rate from the well. If the well ran dry in a relatively short period, Timken provided replacement water. In some instances, it was concluded that there were other problems not associated with the Timken dewatering operations (e.g., bad pressure tank, pipes clogged with iron precipitation, poor water quality, etc.).

If the residence was out of water and located within the inferred zone of influence, Timken paid to replace the well. If the residence was out of water but located just outside the zone of influence, Timken continued to provide temporary water tanks until the monitoring program concluded.

In total, Timken responded to 77 complaints. Table 9 summarizes the status of the complaints. The complainants are split into the following categories:

- **Out of Range (18)** – this category included properties that were outside the inferred zone of influence.

- **No Problem Identified (19)** – this category included residents that wanted to get their name on the complaint list as a precautionary measure, in case problems developed later.
- **Problem Unrelated (6)** – in this category, some systems had problems related to their water system and not due to the Timken construction dewatering operations.
- **Well Replaced (34)** – this category included property owners that had a legitimate problem. In this case, Timken contracted with a local well driller to install new wells and pumps to replace the older wells. The old wells were sealed in accordance with SCDH requirements.
- **Public Water Connection (1)** – Timken paid for connecting one resident within the zone of influence to public water that was available on the street.

Table 9. Complaint Database Summary Report for the Timken Study Area.

Address	Parcel ID	Date Reported	Review Status
Homeowners Out of Range (18)			
4125 Groveland	4303644	20-Aug-12	Out of Range
4555 Surmay	4315505	20-Aug-12	Out of Range
4591 Richville	4302124	20-Aug-12	Out of Range
2347 Delaware	4319161	11-Sep-12	Out of Range
3113 Varley	1300979	11-Sep-12	Out of Range
4754 Allenwood	4300140	11-Sep-12	Out of Range
4730 Allenwood	4315501	18-Sep-12	Out of Range
5340 Charm	4313883	18-Sep-12	Out of Range
4411 Shepler Church	4315819	1-Oct-12	Out of Range
4124 Paradise	1302229	15-Oct-12	Out of Range
4001 Clover Hill	1305421	29-Oct-12	Out of Range
4685 Allenwood	4315339	29-Oct-12	Out of Range
5601 Faircrest	4305047	29-Oct-12	Out of Range
4119 Paradise	1310061	5-Nov-12	Out of Range
4663 Surmay	4315495	4-Jan-13	Out of Range
3203 Gambrinus	1300177	5-Feb-13	Out of Range
4440 Shepler Church	4301222	25-Feb-13	Out of Range
4555 Surmay	4315505	14-May-13	Out of Range
Homeowners No problems Identified (19)			
4070 Kropf	4300469	17-Aug-12	No Problems Identified
3913 Shepler Church	4316420	20-Aug-12	No Problems Identified

4191 Shepler Church	4300802	20-Aug-12	No Problems Identified
4500 Shermont	4318382	20-Aug-12	No Problems Identified
4545 Surmay	4315165	20-Aug-12	No Problems Identified
3990 Shepler Church	4312432	22-Aug-12	No Problems Identified
4020 Faircrest	4316428	23-Aug-12	No Problems Identified
4161 Shepler Church	4308481	27-Aug-12	No Problems Identified
3331 Gambrinus	1309708	30-Aug-12	No Problems Identified
3718 Whipple	1308958	4-Sep-12	No Problems Identified
4020 Shepler Church	4301740	18-Sep-12	No Problems Identified
4422 Shepler Church	4301221	18-Sep-12	No Problems Identified
4144 Shepler Church	4317129	24-Sep-12	No Problems Identified
3963 Shepler Church	4316331	15-Oct-12	No Problems Identified
3831 Shepler Church	4316632	17-Oct-12	No Problems Identified
4681 Hurless	4306817	11-Dec-12	No Problems Identified
4667 Allenwood	4317587	13-Feb-13	No Problems Identified
4111 Shelpler Church	4300980	22-Feb-13	No Problems Identified
4075 Faircrest	4300775	14-May-13	No Problems Identified
Homeowners Problem Unrelated (6)			
3728 Whipple	1309046	20-Aug-12	Problem Unrelated
4060 Shepler Church	4318489	17-Aug-12	Problem Unrelated
3751 Shepler Church	4301730	25-Oct-12	Problem Unrelated
3849 Shepler Church	4302030	25-Jan-13	Problem Unrelated
4641 Allenwood	4315275	25-Feb-13	Problem Unrelated
4232 Shelpler Church	4301147	19-Mar-13	Problem Unrelated
Homeowners Well Replaced (34)			
3920 Shepler Church	4315830	17-Aug-12	Well Replaced
3932 Shepler Church	4315539	17-Aug-12	Well Replaced
4002 Faircrest	1302190	17-Aug-12	Well Replaced
4031 Shepler Church	4315423	17-Aug-12	Well Replaced
4066 Shepler Church	4318488	17-Aug-12	Well Replaced
4080 Shepler Church (rental)	4315533	17-Aug-12	Well Replaced
4180 Shepler Church	4315253	17-Aug-12	Well Replaced
3966 Shepler Church	4300680	20-Aug-12	Well Replaced
4151 Shepler Church	10002913	20-Aug-12	Well Replaced
4160 Shepler Church	4315595	20-Aug-12	Well Replaced
4202 Sherman Church	1301838	20-Aug-12	Well Replaced
4181 Shepler Church	4301467	21-Aug-12	Well Replaced
4110 Shepler Church	4315617	27-Aug-12	Well Replaced
4200 Shepler Church	4300024	27-Aug-12	Well Replaced
4126 Shepler Church	4300852	30-Aug-12	Well Replaced
4210 Shepler Church	4301951	4-Sep-12	Well Replaced
4026 Shepler Church	4300707	5-Sep-12	Well Replaced
4141 Shepler Church Rd.	4300268	7-Sep-12	Well Replaced
3969 Shepler Church	4316268	11-Sep-12	Well Replaced
4130 Kropf	4301592	11-Sep-12	Well Replaced
4215 Shepler Church	4300231	13-Sep-12	Well Replaced
4101 Shepler Church	4301619	18-Sep-12	Well Replaced
4004 Shepler Church Rd.	4319160	26-Sep-12	Well Replaced

3502 Shepler Church	1308980	27-Sep-12	Well Replaced
3476 Shepler Church	1308880	1-Oct-12	Well Replaced
4014 Shepler Church	4315273	4-Oct-12	Well Replaced
4022 Shepler Church	4315597	9-Oct-12	Well Replaced
4077 Shepler Church	4315375	9-Oct-12	Well Replaced
4000 Shepler Church	4312149	16-Oct-12	Well Replaced
3949 Shepler Church	4316278	17-Oct-12	Well Replaced
3810 Whipple Ave	1301827	24-Oct-12	Well Replaced
4024 Shepler Church	4315249	25-Oct-12	Well Replaced
3984 Faircrest	1302006	6-Nov-12	Well Replaced
3820 Whipple	1301992	9-Nov-12	Well Replaced
Homeowner Connected to City Water (1)			
4230 Kropf	4302006	24-Sep-12	City Water

After Timken, SCHD and Sanborn Head

5.3 TIMKEN NEW WELLS DRILLED IN THE STUDY AREA

Upon deciding to drill a new water supply well, Timken contacted a well driller. The well driller would apply to the Stark County Health Department for a permit to drill the new water supply well.

Figure 26 shows the locations of the new wells drilled by Timken. Table 10 shows the data for each individual well drilled by Timken to replace a specific water supply well affected by the dewatering operations. Based on the data provided by Timken, 34 new replacement wells have been drilled in the study. Trends in these data are as follows:

- Aquifer type for these wells vary from sandstone, shale and limestone
- Depth for the new wells range from 146 feet up to 400 feet below the land surface
- Static water levels varied from 21 up to 176 feet below the land surface

Appendix H contains the water well records for the new wells drilled by Timken.

Table 10. New Wells Drilled in the Timken Study Area.

WELL LOG NUMBER (NEW WELL)	WELL LOG NUMBER (OLD WELL)	SEALING REPORT NUMBER (OLD WELL)	HOUSE NO.	STREET NAME	OWNER'S FIRST NAME	OWNER'S LAST NAME	SEALING REPORT DEPTH OLD WELL	TOTAL DEPTH NEW WELL	STATIC WATER LEVEL NEW WELL	AQUIFER TYPE NEW WELL
2040779	*N/A	200122	3984	FAIRCREST		PFIFFNER	50	180	80	SANDSTONE
2039246	N/A	200041	4002	FAIRCREST	JASON	AQUINO	21	150	37	SHALE
2039836	192847	200106	4130	KROPF	ROBERT	MILLER	18	400	160	SANDSTONE
2041121	N/A	200134	4130	KROPF	ROBERT	MILLER	N/A	400	176	SANDSTONE
2040203	N/A	200116	3476	SHEPLER CHURCH		PINKERTON	N/A	240	76	SANDSTONE
2040271	N/A	200117	3502	SHEPLER CHURCH	JOHN	NOLEN	67	300	125	SHALE
2039879	N/A	300332	3920	SHEPLER CHURCH	DAVE	YOUNG	62	150	28	SHALE
2039245	336740	200048	3932	SHEPLER CHURCH		SANKO	30	150	31	SHALE
2041119	N/A	N/A	3949	SHEPLER CHURCH		GOLLIHER		150	40	SHALE
2039597	N/A	200050	3966	SHEPLER CHURCH		MODRANSKI	74	150	23	SHALE
2040205	N/A	201908	3969	SHEPLER CHURCH	RED	CHAMBERS	72	150	35	SANDSTONE
2040652	N/A	200121	4000	SHEPLER CHURCH		PITMAN	14	150	34	SHALE
2039994	2039116	200147	4004	SHEPLER CHURCH	HOBERT	HARMON	N/A	150	34	SANDSTONE
2040347	N/A	200115	4014	SHEPLER CHURCH		HAUGHT	76	220	73	SHALE
2040234	N/A	200120	4022	SHEPLER CHURCH	RICHARD	ESSIK	63	150	37	SANDSTONE
2040697	N/A	200118	4024	SHEPLER CHURCH	JOSEPH	GANG	48	220	84	SHALE
2039516	N/A	200102	4026	SHEPLER CHURCH	ED	JORDAN	N/A	150	31	LIMESTONE
2039334	438679	200043	4031	SHEPLER CHURCH		GILLILAN	75	150	21	SANDSTONE
2039363	N/A	200045	4066	SHEPLER CHURCH	MIKE	SHAPUITE	N/A	150	30	SHALE
2040751	N/A	200148	4077	SHEPLER CHURCH	RHONDA	HAMILTON	68	150	60	SHALE
2039247	N/A	200042	4080	SHEPLER CHURCH	KIRK	CHRISTMAN	47	150	31	SHALE
2041177	2041177	301858	4101	SHEPLER CHURCH		SHAW	320	320	110	SHALE
2041957	2041957	301859	4101	SHEPLER CHURCH		SHAW	320	320	130	SANDSTONE
2041959	2041959	301857	4101	SHEPLER CHURCH		SHAW	150	150	30	SHALE
2042017	N/A	N/A	4101	SHEPLER CHURCH		SHAW		340	140	SANDSTONE
2039436	N/A	200044	4110	SHEPLER CHURCH	JOHANNES	SCHLABACH	31	150	32	SHALE
2041692	493527	200135/ 200144	4126	SHEPLER CHURCH	RICHARD	MARSH	N/A/48	320	150	SANDSTONE
2039596	N/A	200104	4141	SHEPLER CHURCH		BOWMAN	N/A	280	95	SANDSTONE
2041512	N/A	200136	4151	SHEPLER CHURCH		BAKER	180	280	100	SANDSTONE
2039364	N/A	200049	4160	SHEPLER CHURCH	SCOTT	ZOLLARS	65	180	50	SHALE
2039883	N/A	300334	4180	SHEPLER CHURCH	JIM	WOODLOCK	79	146	58	SHALE
2039595	N/A	200101	4181	SHEPLER CHURCH		MCCLEARY	66	280	105	SANDSTONE
2039434	N/A	200046	4200	SHEPLER CHURCH	BRENDA	WILKS		180	50	SHALE
2039572	N/A	200103	4210	SHEPLER CHURCH	JACK	URBAN	68	220	50	SHALE
2039835	252928	200108	4215	SHEPLER CHURCH	KEN	BROWN		280	95	SHALE
2041653	N/A	200138	4202	SHERMAN CHURCH		LAHER	63	150	50	SHALE
2040698	643125	200149	3810	WHIPPLE	DIANA	SCOTT	57	150	30	SANDSTONE
2040781	N/A	N/A	3820	WHIPPLE		HECK		150	35	SANDSTONE
***N/A Not Available for reference**						Max	320	400	176	
						Min	14	146	21	
						Average	84	209	67	

5.4 TIMKEN WELL SEALING REPORTS FOR THE OLD WELLS

Once the new well was installed, the driller applied for a permit from the Stark County Health Department for permission to seal the old well. Table 10 shows the details for those wells that were sealed during this project. As shown on the table, if a well log was available for the well to be plugged it was noted on the table for reference.

Based on the data, the wells that were sealed ranged from 14 feet up to 180 feet deep. At 4101 Shepler Church Road, the driller had trouble finding water. Multiple wells were drilled on their property to find an acceptable water supply. All but the latest well were sealed. Appendix I contains copies of all the well sealing reports.

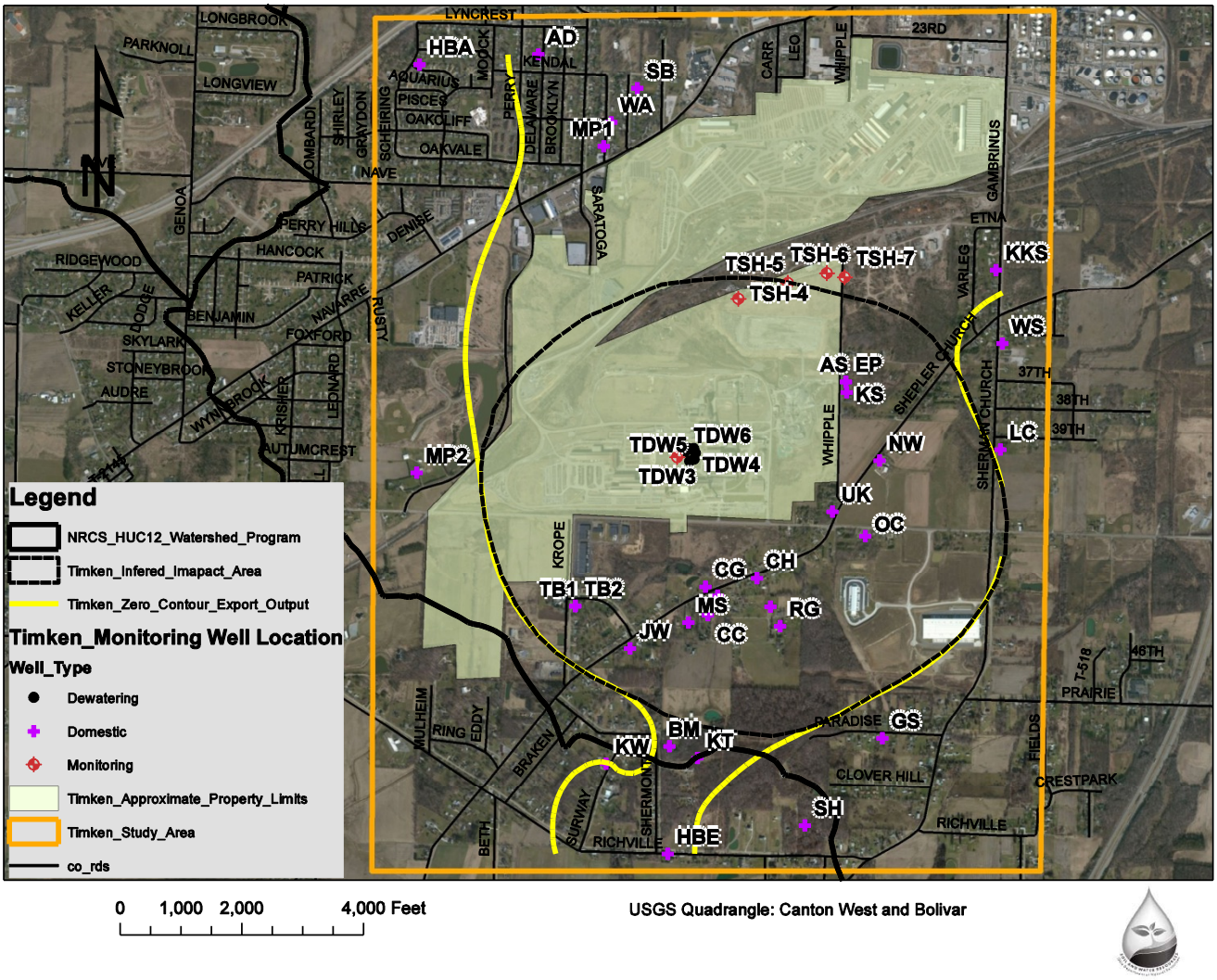


Figure 25. Inferred Cone of Influence as Defined by Sanborn Head Based on the September 17, 2012 Ground Water Monitoring Data after Timken and Sanborn Head, modified by ODNR-DSWR

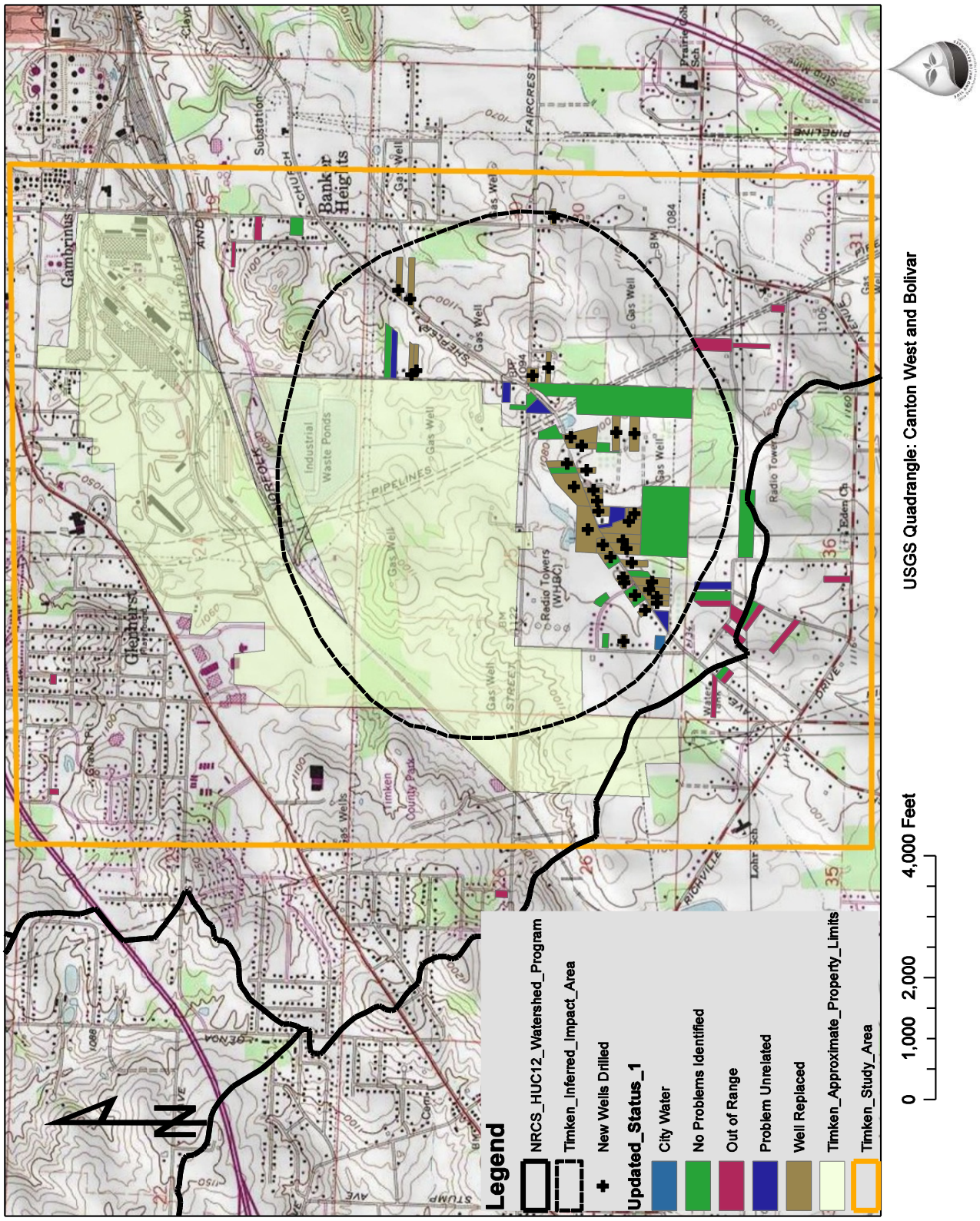


Figure 26. New Wells drilled in the Timken study area After Timken and Sanborn Head, modified by ODNR-DSWR

6.0 CONCLUSIONS

6.1 SITE HYDROGEOLOGY CONCLUSIONS

The bedrock in the area of the TFSP is characterized by the Pennsylvanian-age Pottsville and Allegheny Formations. The bedrock is overlain by a variable thickness of unconsolidated glacial sediment. Both the bedrock and the glacial sediments are sources of water to drilled wells in the area.

The bedrock aquifers in the area are separated by a variable thickness of shale, siltstone and coal seams. Many domestic wells in the study area produce water from these transitional units. Based on historic drilling data, the Homewood Sandstone is the main bedrock aquifer in the study area. However, it is not continuous in the study area. It is absent in the northeastern and southwestern parts of the Timken study area. Ground water yields from the Homewood Sandstone generally produce from 5-25 gpm.

The bedrock is overlain by a variable thickness of unconsolidated glacial sediments that consist of silt and clay beds interbedded by sand and gravel outwash channels. In the Timken construction area, the unconsolidated glacial sediments are approximately 0 to 30 feet in thickness. The unconsolidated sediments thicken toward the north eastern parts of the study area where this thickness can reach of 227 feet. Ground water yields from the sand and gravel units can be as much as 500 gpm.

6.2 CONCLUSION REGARDING THE GEOGRAPHIC EXTENT OF THE IMPACTED AREA

At the time that Timken initiated the construction dewatering, the company had failed to conduct a hydrogeological investigation of the area. As a result, the ODNR-DSWR needed to use the public records to establish baseline conditions present in the subsurface in the study area using existing well log records.

To determine the long term impacts and the geographic extent of the cone of depression created by the construction dewatering, the ODNR-DSWR set a long-term ground water monitoring program to evaluate the ground water levels around the TFSP. The impact assessment for the area was done by comparing the initial static water level in the well at the time it was drilled, to the water levels as measured on September 17, 2012. These data were then used to determine the drawdown in individual wells in the study area. The ODNR-DSWR used the data to define a zero drawdown contour for the study area. The zero drawdown contours were used to define the inferred zone of impact from the pumping associated with the Timken construction dewatering center. It has been concluded that the cone of depression was confined to the Timken property to the north and west of the pumping center. However the cone

of depression migrated off site under property owned by private landowners to the south and east of the Timken dewatering center.

6.3 COMPLAINT RESOLUTION CONCLUSIONS

Once the inferred geographic extent of the cone of depression associated with the Timken dewatering operation was established, Timken set up a decision criterion for resolving individual complaints. In total Timken responded to 77 complaints. The decision tree set up by Timken was as follows:

- Eighteen (18) complaints were outside the inferred impact area.
- Nineteen (19) complaints included residents that wanted to get their name on the complaint list as a precautionary measure, in case problems developed later.
- Six (6) complaints were related to the water pumping and storage system and not caused by the Timken construction dewatering operations.
- Thirty-four (34) wells were replaced because there was legitimate problem that could be traced back to the Timken construction dewatering operations. In this case, Timken contracted with a local well driller to install new wells and pumps to replace the older shallower wells. The old wells were sealed in accordance with SCDH requirements.
- One (1) homeowner was connected to the public water system that was available on the street.

At this time, it has been concluded that Timken has taken the precautionary steps necessary to protect the public health and safety.

6.4 CONCLUSIONS REGARDING GROUND WATER LEVEL RECOVERY

Timken began the construction dewatering during August 2012. At that time, Timken had not done any studies to evaluate the impacts that the construction dewatering would have had on the surrounding water wells. The ODNR-DSWR initiated a field investigation to evaluate the impacts that the dewatering would have on the surrounding domestic water wells.

Based on the historic ground water level mapping for the area, it was determined that the natural ground water gradient in the area was from the southwest toward the northeast. The natural ground water level in the area of the Timken dewatering was approximately 1050 feet amsl.

Long-term monitoring data confirms that ground water levels in the area were impacted by the Timken dewatering operation, but as of September 2013 the ground water levels in the area had returned to normal. There does not appear to be any long-term impacts to the glacial or bedrock aquifer systems.

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8.0 PARTIAL GLOSSARY OF TERMS USED IN THE REPORT

Anisotropic: A material that changes in its physical properties with direction as well as having non-uniform spatial distribution of properties throughout the substance. An anisotropic medium displays directional differences in hydraulic conductivity with direction. A property of a material in which spatial characteristic can change with both the distance and the direction between two locations.

Aquifer: a consolidated or unconsolidated geologic formation or series of formations that have the ability to receive, store or transmit water.

Aquifer (artesian): An aquifer that is bounded above and below by impermeable rock or sediment layers. The water in the aquifer is also under enough pressure that, when the aquifer is tapped by a well, the water rises up the well bore to a level that is above the top of the aquifer. The water may or may not flow onto the land surface.

Bedrock: Solid rock present beneath any soil, sediment or other surface cover. In some locations it may be exposed at Earth's surface.

Contour Line: A line on a map that traces locations where the value of a variable is constant. For example, contour lines of elevation trace points of equal elevation across the map. All points on the "ten foot" contour line are ten feet above sea level.

Discharge: The volume of water in a flowing stream that passes a given location in a unit of time. It is frequently expressed in cubic feet per minute or gallons per minute (gpm). Calculated by the formula Q = A x V where Q is the discharge, A is the cross sectional area of the channel and V is the average velocity of the stream.

Datum: A reference location or elevation which is used as a starting point for subsequent measurements. Sea level is a datum for elevation measurements. Datums can also be arbitrary such as the starting point for stream stage measurements or based upon a physical feature such as the base of a rock unit.

Drawdown: A lowering of the water table around a producing well. The drawdown at any given location will be the vertical change between the original water table and the level of the water table reduced by pumping.

Heterogeneous: A material consisting of dissimilar or diverse ingredients or constituents.

Homogeneous: A material consisting of uniform structure or composition throughout.

Hydraulic Conductivity (K): The ability of a porous material to transmit a fluid. It is usually expressed as gallons/day/foot sqared or feet per day.

Hydrogeology: The study of the interrelationship of geologic material and processes with water that control the distribution and character of water bodies.

Hydrograph: A graph that shows the change of a water-related variable over time. Example: A stream discharge hydrograph shows the change in discharge of a stream over time.

Impermeable Layer: A layer of rock, sediment or soil that does not allow water to pass through. This could be caused by a lack of pore space or pore spaces that are so small that water molecules have difficulty passing through.

Infiltration: The movement of surface water into porous soil.

Isotropic: A material that is uniform in its physical properties with direction as well as having uniform spatial distribution throughout the substance. An isotropic medium displays uniform hydraulic conductivity in all direction. It is a property of a material in which the spatial characteristic of the material do not change between two locations.

Joint: A fracture in rock along which there has been no displacement.

Limestone: A sedimentary rock consisting of at least 50% calcium carbonate (CaCO3) by weight

Porosity: The volume of pore space in a rock, sediment, or soil usually expressed as a percentage of pore space that containing water. This pore space can include openings between grains, fracture openings and caverns.

Recharge: Water added to an aquifer or other water body. An aquifer is recharged by precipitation in an area where the aquifer has a porous connection to the surface.

Recharge Area: The geographic area where water infiltrates into the ground and enters an aquifer.

Sediment: A loose, unconsolidated deposit of weathering debris, chemical precipitates or biological debris that accumulates on Earth's surface

Seepage: The slow movement of water through the pore spaces of a solid material. This term is also applied to a loss of water by infiltration through the bottom of a stream, canal, irrigation ditch, reservoir or other body of water.

Shale: a clastic sedimentary rock that is made up of clay-size (less then 1/256 millimeter in diameter) weathering debris. It typically breaks into thin flat pieces

Specific Capacity: The quantity of water produced in a well per unit foot of drawdown. Specific capacity is commonly expressed as gallons per minute per foot of drawdown (gpm/foot) over a specific time interval.

Storativity (S): A dimensionless quantity also called the storage coefficient. It is the volume of water that an aquifer released from storage or takes into storage per unit surface area of the aquifer per unit change in head

Stratification: A layered structure of sedimentary rocks in which the individual layers can be traced a considerable distance. The layers can be caused by many differences which include materials of different composition, color, grain size or orientation.

Stratigraphic Sequence: The sequence of sedimentary rock layers found in a specific geographic area, arranged in the order of their deposition.

Topographic Map: A map that shows the change in elevation over a geographic area through the use of contour lines. The contour lines trace points of equal elevation across the map. See also: contour line and contour map.

Transmissivity (T): The rate of movement of water at a prevailing viscosity through an aquifer of unit width under a unit hydraulic gradient. It is usually defined a gallons/day/foot or feet squared per day.

Water Table: A level beneath the Earth's surface, below which all pore spaces are filled with water and above which the pore spaces are filled with air. It is the top of the zone of saturation in a subsurface rock, soil or sediment unit.

Unconsolidated: A term used when referring to sediment that has not been lithified into a rock.

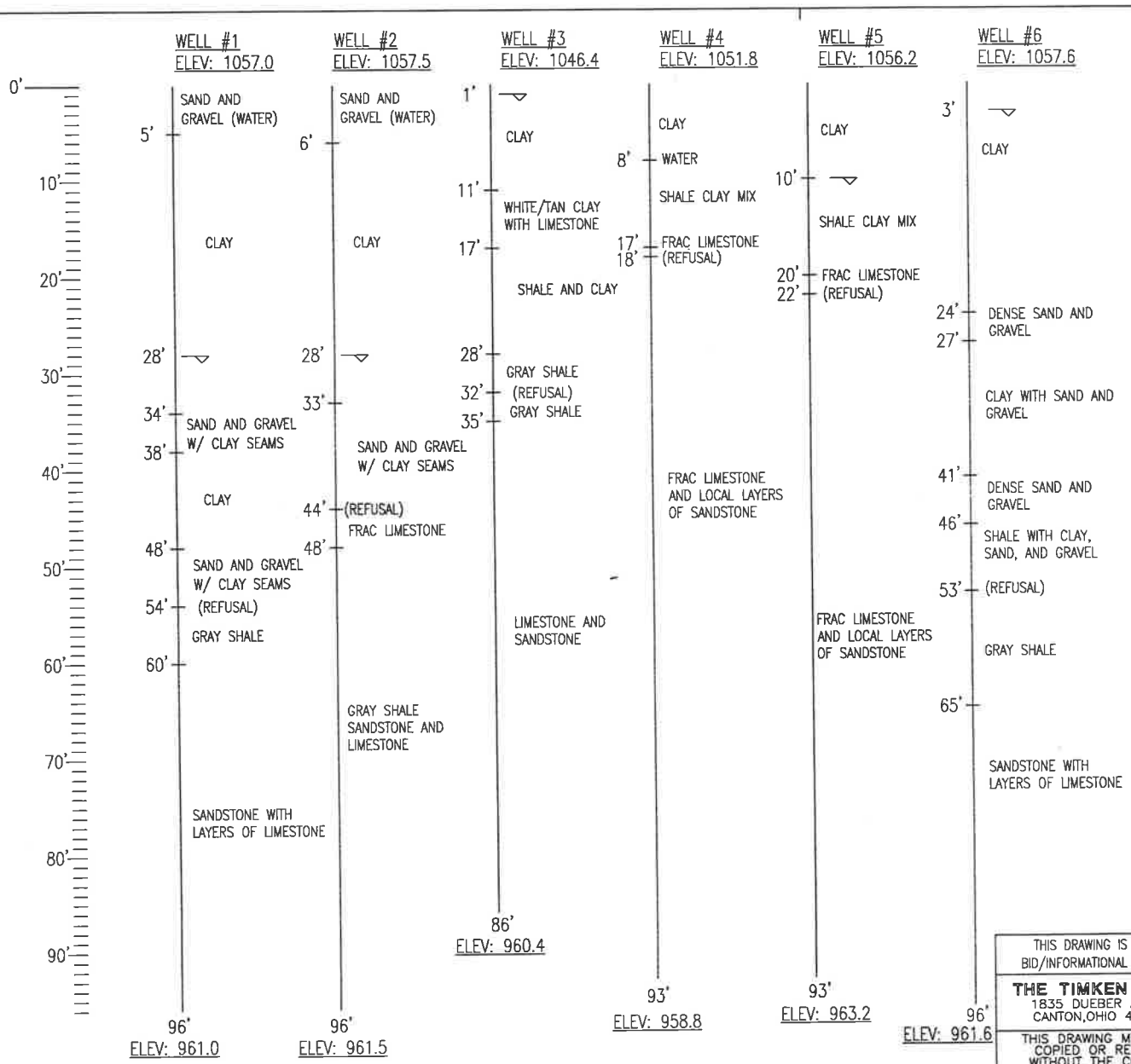
Withdrawal: A removal of water from a surface or ground water source for use.

Yield (Q): The quantity of water that can be produced from an aquifer. It is generally express as gpm.

Zone of Saturation: The zone beneath the water table where all pore spaces are completely filled with water. Water that exists within this zone is known as "ground water".

9.0 Appendix A – Timken Dewatering Well Logs, Well Sealing Reports and Ground Water Level Monitoring Data Set

APPENDIX A				TIMKEN VERTICAL CASTER DEWATERING WELLS					
WELL LOG NUMBER	SEALING REPORT NUMBER	WELL ID	HOUSE NO.	STREET NAME	OWNER'S LAST NAME	HORIZ Y	HORIZ X	TOTAL DEPTH	AQUIFER TYPE
2039329	302534	DW-1	4511	FAIRCREST	TIMKEN STEEL	2294303	398408	96	SANDSTONE & LIMEST
2039330	302533	DW-2	4511	FAIRCREST	TIMKEN STEEL	2294383	398408	96	SANDSTONE/SHALE/LIME
2039331	301986	DW-3	4511	FAIRCREST	TIMKEN STEEL	2294412	398339	86	SANDSTONE & LIMEST
2039333	302532	DW-4	4511	FAIRCREST	TIMKEN STEEL	2294390	398236	93	LIMESTONE
2039335	301987	DW-5	4511	FAIRCREST	TIMKEN STEEL	2294317	398203	93	SANDSTONE & LIMEST
2039336	302531	DW-6	4511	FAIRCREST	TIMKEN STEEL	2294243	398359	96	SANDSTONE & LIMEST



NOTES

1. WELLS #1 AND #2 WERE DRILLED 2 DAYS AFTER PUMPING ON WELLS #4 AND #5

STATIC WATER LEVEL

WELL #1 N 398408.1 E 2294303.3 EL. 1057.0	WELL #4 N 398236.8 E 2294390.7 EL. 1051.8
WELL #2 N 398408.0 E 2294383.8 EL. 1057.5	WELL #5 N 398203.9 E 2294317.9 EL. 1056.2
WELL #3 N 398339.4 E 2294412.5 EL. 1046.4	WELL #6 N 398359.2 E 2294243.6 EL. 1057.6

E T 70

AutoCad Generated Drawing

THIS DRAWING IS PROVIDED FOR BID/INFORMATIONAL PURPOSES ONLY

THE TIMKEN COMPANY
1835 DUEBER AVENUE S.W.
CANTON,OHIO 44706 U.S.A.

THIS DRAWING MUST NOT BE COPIED OR REPRODUCED WITHOUT THE CONSENT OF THE TIMKEN COMPANY

ORIGINAL SCALE 3/32" = 1'

TIMKEN®
REGISTERED TRADEMARK-MARCA REGISTRADA

DRAWN JKF 8/15/2012

FAIRCREST STEEL PLANT
MELTING
VERTICAL CASTER
CIVIL
DEWATERING WELL LOG

DW #1

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number 2039329

Page 1 of 1 for this record.

WELL LOCATION

County STARK Township PERRY

TIMKEN STEEL
Owner/Builder

4511 FAIRCREST RD
Address of Well Location

City CANTON Zip Code +4 44706-0931

Permit No. _____ Section; _____ and or Lot No. _____

Use of Well DEWATERING WELL

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☒ X 398408 +/- 72 ft.

S ☐ Y 2294303 +/- 346 ft.

Latitude, Longitude Coordinates

Latitude: _____ Longitude: _____

Elevation of Well in feet: _____ +/- _____ ft.

Datum Plane: ☒ NAD27 ☐ NAD83 Elevation Source _____

Source of Coordinates: DIGITAL MAP

Well location written description:

Comments on water quality/quantity and well construction:

WELL TEST *

Pre-Pumping Static Level 28 ft. Date _____

Measured from GROUND LEVEL

Pumping test method _____

Test Rate _____ gpm Duration of Test _____ hrs.

Feet of Drawdown _____ ft. Sustainable Yield _____ gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump _____ Capacity _____ gpm

Pump set at _____ ft. Pitless Type _____

Pump installed by _____

I hereby certify the information given is accurate and correct to the best of my knowledge.

Drilling Firm CONTRACT DEWATERING SERVICES, INC.

Address 5820 W RIVERSIDE DR

City, State, Zip SARANAC MI 48881

Signed RICHARD G. NEUMAN Date 8/29/2012
(Filed Electronically)

ODH Registration Number _____

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter 36 inches Depth 54 ft.
Casing Diameter 12 in. Length 54 ft. Thickness 0.219 in.

2 Borehole Diameter 12 inches Depth 96 ft.
Casing Diameter _____ in. Length _____ ft. Thickness _____ in.

Casing Height Above Ground 2 ft.

Type 1: Steel
2: _____

Joints 1: Welded
2: _____

SCREEN

Diameter _____ in. Slot Size _____ in. Screen Length _____ ft.

Type _____ Material _____

Set Between _____ ft. and _____ ft.

GRAVEL PACK (Filter Pack)

Material/Size _____ Vol/Wt. Used _____

Method of Installation _____

Depth: Placed From: _____ ft. To: _____ ft.

GROUT

Material _____ Vol/Wt. Used _____

Method of Installation _____

Depth: Placed From: _____ ft. To: _____ ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
BROWN-GRAY	DENSE	GRAVEL AND SAND	0	5
BROWN	STIFF	CLAY	5	34
BROWN	DENSE	GRAVELSANDCLAY	34	38
BROWN	STIFF	CLAY	38	48
BROWN	DENSE	SANDGRAVELCLAY	48	54
GRAY	HARD	SHALE	54	60
GRAY-WHITE	FRACTURED	SANDSTONE AND LIMEST	60	96
		Water Encountered At	28	28

Aquifer Type (Formation producing the most water.) SANDSTONE & LIMEST

Date of Well Completion 7/30/2012 Total Depth of Well 96 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

DNR 7810.12e

WATER WELL SEALING REPORT e-FORM
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

302534

LOCATION

County STARK Township PERRY Section No. ____ Lot No. ____

Owner TIMKEN STEEL

Address of Well Location 4511 FAIRCREST RD

City CANTON Zip Code 44706-0931

Well Location Description (120 Characters)

Location of Well in either: State Plane N ☒ S ☐ X 398408.00 +/- 72 ft. Y 2294303.00 +/- 346 ft.
OR
Latitude/Longitude Latitude ____ Longitude ____

Elevation of Well ____ +/- ____ ft. Datum Plane: ☒ NAD27 ☐ NAD83

Source of Coordinates: ☐ GPS ☐ Survey ☒ Other DIGITAL MAP
Source of Elevation: ☐ GPS ☐ Survey ☐ Other ____

WELL IDENTIFICATION ODNR Well Log Number 2039329 Project Well ID 1

MEASURED CONSTRUCTION DETAILS

Date of measurements ____
Depth of Well 96 ft. Static Water Level ____ ft.
Borehole Depth 54 ft. Borehole Diameter 36 in.
Casing Diameter 12 in. Casing Length 54 ft. Casing Type Steel

SEALING PROCEDURE

Placement:		Sealing Material	Volume/Weight Used (Units Required)	Placement Method
From 0 ft.	To 91 ft.	Cement	2.6 CY	Pumped w/ tremie pipe
From 91 ft.	To 96 ft.	Gravel	.5 CY	Poured (gravity)
From ____ ft.	To ____ ft.			
From ____ ft.	To ____ ft.			

Condition of Casing ____ Was Casing Removed? ☐ Yes or ☒ No (check one)

If casing **Not Removed**, was it Perforated? ☐ Yes or ☒ No (check one) Perforations: From ____ ft. To ____ ft.

Date Sealing Performed 6/5/2013
Comments/Reason for Sealing

CONTRACTOR

Name BEAVER EXCAVATING ODH Registration # 002972
Address 2000 SW BEAVER PL
City/State/Zip CANTON, OH 44706

e-Signature JOSH SMITH Filed electronically on 6/8/2013
I hereby certify the information given is accurate and correct to the best of my knowledge.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of sealing.
Distribute additional copies to: Customer, Driller and Local Health Department.

DW #2

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number: 2039330

Page 1 of 1 for this record.

WELL LOCATION

County: STARK Township: PERRY

Owner/Builder: TIMKEN STEEL

Address of Well Location: 4511 FAIRCREST RD

City: CANTON Zip Code +4: 44706-0931

Permit No. _____ Section: _____ and/or Lot No. _____

Use of Well: DEWATERING WELL

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☒ X 398408 +/- 44 ft.

S ☐ Y 2294383 +/- 871 ft.

Latitude, Longitude Coordinates

Latitude: _____ Longitude: _____

Elevation of Well in feet: _____ +/- _____ ft.

Datum Plane: ☒ NAD27 ☐ NAD83 Elevation Source _____

Source of Coordinates: DIGITAL MAP

Well location written description:

Comments on water quality/quantity and well construction:

1081
1057
24+28=52

WELL TEST *

Pre-Pumping Static Level 28 ft. Date _____

Measured from GROUND LEVEL

Pumping test method _____

Test Rate _____ gpm Duration of Test _____ hrs.

Feet of Drawdown _____ ft. Sustainable Yield _____ gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump _____ Capacity _____ gpm

Pump set at _____ ft. Pitless Type _____

Pump installed by _____

I hereby certify the information given is accurate and correct to the best of my knowledge.

Drilling Firm: CONTRACT DEWATERING SERVICES, INC.

Address: 5820 W RIVERSIDE DR

City, State, Zip: SARANAC MI 48881

Signed: RICHARD G. NEUMAN Date: 8/29/2012

(Filed Electronically)

ODH Registration Number _____

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter 36 inches Depth 44 ft.
Casing Diameter 12 in. Length 44 ft. Thickness 0.219 in.

2 Borehole Diameter 12 inches Depth 96 ft.
Casing Diameter _____ in. Length _____ ft. Thickness _____ in.

Casing Height Above Ground 2 ft.

Type 1: Steel
Type 2: _____

Joints 1: Welded
Joints 2: _____

SCREEN

Diameter _____ in. Slot Size _____ in. Screen Length _____ ft.

Type _____ Material _____

Set Between _____ ft. and _____ ft.

GRAVEL PACK (Filter Pack)

Material/Size _____ Vol/Wt. Used _____

Method of Installation _____

Depth: Placed From: _____ ft. To: _____ ft.

GROUT

Material _____ Vol/Wt. Used _____

Method of Installation _____

Depth: Placed From: _____ ft. To: _____ ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
BROWN	DENSE	SAND AND GRAVEL	0	6
BROWN	STIFF	CLAY	6	33
BROWN	DENSE	SANDGRAVELCLAY	33	44
GRAY	FRACTURED	LIMESTONE	44	48
GRAY-WHITE	FRACTURED	SANDSTONESHALELIME	48	96
		Water Encountered At	28	28

Aquifer Type (Formation producing the most water.) SANDSTONE/SHALE/LIME

Date of Well Completion 8/1/2012 Total Depth of Well 96 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

DNR 7810.12e

WATER WELL SEALING REPORT e-FORM
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

302533

LOCATION

County STARK Township PERRY Section No. ____ Lot No. ____

Owner TIMKEN STEEL

Address of Well Location 4511 FAIRCREST RD

City CANTON Zip Code 44706-0931

Well Location Description (120 Characters)

Location of Well in either: State Plane N ☒ S ☐ X 398408.00 +/- 44 ft. Y 2294383.00 +/- 871 ft.
OR
Latitude/Longitude Latitude ____ Longitude ____

Elevation of Well ____ +/- ____ ft. Datum Plane: ☒ NAD27 ☐ NAD83

Source of Coordinates: ☐ GPS ☐ Survey ☒ Other DIGITAL MAP
Source of Elevation: ☐ GPS ☐ Survey ☐ Other ____

WELL IDENTIFICATION ODNR Well Log Number 2039330 Project Well ID 2

MEASURED CONSTRUCTION DETAILS

Date of measurements ____
Depth of Well 96 ft. Static Water Level ____ ft.
Borehole Depth 44 ft. Borehole Diameter 36 in.
Casing Diameter 12 in. Casing Length 44 ft. Casing Type Steel

SEALING PROCEDURE

Placement:	Sealing Material	Volume/Weight Used (Units Required)	Placement Method
From 0 ft. To 91 ft.	Cement	2.6 CY	Pumped w/ tremie pipe
From 91 ft. To 96 ft.	Gravel	.5 CY	Poured (gravity)
From ____ ft. To ____ ft.			
From ____ ft. To ____ ft.			

Condition of Casing ____ Was Casing Removed? ☐ Yes or ☒ No (check one)

If casing **Not Removed**, was it Perforated? ☐ Yes or ☒ No (check one) Perforations: From ____ ft. To ____ ft.

Date Sealing Performed 6/5/2013
Comments/Reason for Sealing

CONTRACTOR

Name BEAVER EXCAVATING ODH Registration # 002972
Address 2000 SW BEAVER PL
City/State/Zip CANTON, OH 44706

e-Signature JOSH SMITH Filed electronically on 6/8/2013
I hereby certify the information given is accurate and correct to the best of my knowledge.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of sealing.
Distribute additional copies to: Customer, Driller and Local Health Department.

DW #3

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number: 2039331

Page 1 of 1 for this record.

WELL LOCATION

County: STARK Township: PERRY

Owner/Builder: TIMKEN STEEL

Address of Well Location: 4511 FAIRCREST RD

City: CANTON Zip Code +4: 44706-0931

Permit No. _____ Section: _____ and or Lot No. _____

Use of Well: DEWATERING WELL

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☒ X 398339 +/- 429 ft.

S ☐ Y 2294412 +/- 461 ft.

Latitude, Longitude Coordinates

Latitude: _____ Longitude: _____

Elevation of Well in feet: _____ +/- _____ ft.

Datum Plane: ☒ NAD27 ☐ NAD83 Elevation Source _____

Source of Coordinates: DIGITAL MAP

Well location written description:

Comments on water quality/quantity and well construction:

1081
1046.4 = 34.6 + 1

WELL TEST *

Pre-Pumping Static Level 1 ft. Date _____

Measured from GROUND LEVEL

Pumping test method _____

Test Rate _____ gpm Duration of Test _____ hrs.

Feet of Drawdown _____ ft. Sustainable Yield _____ gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump _____ Capacity _____ gpm

Pump set at _____ ft. Pitless Type _____

Pump installed by _____

I hereby certify the information given is accurate and correct to the best of my knowledge.

Drilling Firm: CONTRACT DEWATERING SERVICES, INC.

Address: 5820 W RIVERSIDE DR

City, State, Zip: SARANAC MI 48881

Signed: RICHARD G. NEUMAN Date: 8/29/2012

(Filed Electronically)

ODH Registration Number _____

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 { Borehole Diameter 36 inches Depth 32 ft.
Casing Diameter 12 in. Length 32 ft. Thickness 0.219 in.

2 { Borehole Diameter 12 inches Depth 86 ft.
Casing Diameter _____ in. Length _____ ft. Thickness _____ in.

Casing Height Above Ground 2 ft.

Type { 1: Steel
2: _____

Joints { 1: Welded
2: _____

SCREEN

Diameter _____ in. Slot Size _____ in. Screen Length _____ ft.

Type _____ Material _____

Set Between _____ ft. and _____ ft.

GRAVEL PACK (Filter Pack)

Material/Size _____ Vol/Wt. Used _____

Method of Installation _____

Depth: Placed From: _____ ft. To: _____ ft.

GROUT

Material _____ Vol/Wt. Used _____

Method of Installation _____

Depth: Placed From: _____ ft. To: _____ ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
BROWN	STIFF	CLAY	0	11
GRAY-TAN	DENSE	LIMESTONE AND CLAY	11	17
BROWN	DENSE	SHALE AND CLAY	17	28
GRAY	HARD	SHALE	28	32
GRAY	HARD	SHALE	32	35
GRAY-TAN	DENSE	SANDSTONE AND LIMEST	35	86
		Water Encountered At	28	28

Aquifer Type (Formation producing the most water.) SANDSTONE & LIMEST

Date of Well Completion 8/2/2012 Total Depth of Well 86 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

DNR 7810.12e

WATER WELL SEALING REPORT e-FORM
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

301986

LOCATION

County STARK Township PERRY Section No. ____ Lot No. ____

Owner TIMKEN STEEL

Address of Well Location 4511 FAIRCREST RD

City CANTON Zip Code 44706-0931

Well Location Description (120 Characters)

Location of Well in either: State Plane N ☒ S ☐ X 398339.00 +/- 429 ft. Y 2294412.00 +/- 461 ft.
OR
Latitude/Longitude Latitude ____ Longitude ____

Elevation of Well ____ +/- ____ ft. Datum Plane: ☒ NAD27 ☐ NAD83

Source of Coordinates: ☐ GPS ☐ Survey ☒ Other DIGITAL MAP
Source of Elevation: ☐ GPS ☐ Survey ☐ Other ____

WELL IDENTIFICATION ODNR Well Log Number 2039331 Project Well ID 3

MEASURED CONSTRUCTION DETAILS

Date of measurements ____
Depth of Well 86 ft. Static Water Level ____ ft.
Borehole Depth 32 ft. Borehole Diameter 36 in.
Casing Diameter 12 in. Casing Length 32 ft. Casing Type Steel

SEALING PROCEDURE

Placement:	Sealing Material	Volume/Weight Used (Units Required)	Placement Method
From 0 ft. To 86 ft.	Cement	3CY	Pumped w/ tremie pipe
From ____ ft. To ____ ft.			
From ____ ft. To ____ ft.			
From ____ ft. To ____ ft.			

Condition of Casing ____ Was Casing Removed? ☐ Yes or ☒ No (check one)

If casing **Not Removed**, was it Perforated? ☐ Yes or ☒ No (check one) Perforations: From ____ ft. To ____ ft.

Date Sealing Performed 4/4/2013
Comments/Reason for Sealing

CONTRACTOR

Name BEAVER EXCAVATING ODH Registration # 002972
Address 2000 SW BEAVER Place PL
City/State/Zip CANTON, OH 44706

e-Signature Josh Smith Filed electronically on 4/15/2013
I hereby certify the information given is accurate and correct to the best of my knowledge.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of sealing.
Distribute additional copies to: Customer, Driller and Local Health Department.

DW #4

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number 2039333

Page 1 of 1 for this record.

WELL LOCATION

County STARK Township PERRY

Owner/Builder: TIMKEN STEEL

Address of Well Location: 4511 FAIRCREST RD

City CANTON Zip Code +4 44706-0931

Permit No. _____ Section; _____ and or Lot No. _____

Use of Well DEWATERING WELL

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☒ X 398236 +/- 777 ft.

S ☐ Y 2294390 +/- 711 ft.

Latitude, Longitude Coordinates

Latitude: _____ Longitude: _____

Elevation of Well in feet: _____ +/- _____ ft.

Datum Plane: ☒ NAD27 ☐ NAD83 Elevation Source _____

Source of Coordinates: DIGITAL MAP

Well location written description:

Comments on water quality/quantity and well construction:

1081
1051.5
29.2 + 18

WELL TEST *

Pre-Pumping Static Level 18 ft. Date _____

Measured from GROUND LEVEL

Pumping test method _____

Test Rate _____ gpm Duration of Test _____ hrs.

Feet of Drawdown _____ ft. Sustainable Yield _____ gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump _____ Capacity _____ gpm

Pump set at _____ ft. Pitless Type _____

Pump installed by _____

I hereby certify the information given is accurate and correct to the best of my knowledge.

Drilling Firm CONTRACT DEWATERING SERVICES, INC.

Address 5820 W RIVERSIDE DR

City, State, Zip SARANAC MI 48881

Signed RICHARD G. NEUMAN Date 8/29/2012

(Filed Electronically)

ODH Registration Number _____

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 { Borehole Diameter 36 inches Depth 18 ft.
Casing Diameter 12 in. Length 18 ft. Thickness 0.219 in.

2 { Borehole Diameter 12 inches Depth 93 ft.
Casing Diameter _____ in. Length _____ ft. Thickness _____ in.

Casing Height Above Ground 2 ft.

Type { 1: Steel
2: _____

Joints { 1: Welded
2: _____

SCREEN

Diameter _____ in. Slot Size _____ in. Screen Length _____ ft.

Type _____ Material _____

Set Between _____ ft. and _____ ft.

GRAVEL PACK (Filter Pack)

Material/Size _____ Vol/Wt. Used _____

Method of Installation _____

Depth: Placed From: _____ ft. To: _____ ft.

GROUT

Material _____ Vol/Wt. Used _____

Method of Installation _____

Depth: Placed From: _____ ft. To: _____ ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
BROWN	STIFF	CLAY	0	8
BROWN-GRAY	DENSE	CLAY AND SHALE	8	17
GRAY	DENSE	LIMESTONE	17	18
GRAY	STIFF	LIMESTONE	18	93
		Water Encountered At	18	18

Aquifer Type (Formation producing the most water.) LIMESTONE

Date of Well Completion 8/4/2012 Total Depth of Well 93 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

DNR 7810.12e

WATER WELL SEALING REPORT e-FORM
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

302532

LOCATION

County STARK Township PERRY Section No. Lot No.

Owner TIMKEN STEEL

Address of Well Location 4511 FAIRCREST RD

City CANTON Zip Code 44706-0931

Well Location Description (120 Characters)

Location of Well in either: State Plane N ☒ S ☐ X 398236.00 +/- 777 ft. Y 2294390.00 +/- 711 ft. OR Latitude/Longitude Latitude Longitude

Elevation of Well ____.__ +/- ____ ft. Datum Plane: ☒ NAD27 ☐ NAD83

Source of Coordinates: ☐ GPS ☐ Survey ☒ Other DIGITAL MAP

Source of Elevation: ☐ GPS ☐ Survey ☐ Other

WELL IDENTIFICATION ODNR Well Log Number 2039333 Project Well ID 4

MEASURED CONSTRUCTION DETAILS

Date of measurements

Depth of Well 93 ft. Static Water Level ft.

Borehole Depth 18 ft. Borehole Diameter 36 in.

Casing Diameter 12 in. Casing Length 18 ft. Casing Type Steel

SEALING PROCEDURE

Placement:	Sealing Material	Volume/Weight Used (Units Required)	Placement Method
From 0 ft. To 5 ft.	Gravel	.5 CY	Poured (gravity)
From 5 ft. To 93 ft.	Cement	2.5 CY	Pumped w/ tremie pipe
From ft. To ft.			
From ft. To ft.			

Condition of Casing Was Casing Removed? ☒ Yes or ☐ No (check one)

If casing **Not Removed**, was it Perforated? ☐ Yes or ☒ No (check one) Perforations: From ft. To ft.

Date Sealing Performed 6/1/2013

Comments/Reason for Sealing

CONTRACTOR

Name BEAVER EXCAVATING ODH Registration # 002972

Address 2000 SW BEAVER PL

City/State/Zip CANTON, OH 44706

e-Signature JOSH SMITH Filed electronically on 6/8/2013

I hereby certify the information given is accurate and correct to the best of my knowledge.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of sealing.
Distribute additional copies to: Customer, Driller and Local Health Department.

DW #5

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number 2039335

Page 1 of 1 for this record.

WELL LOCATION

County STARK Township PERRY

Owner/Builder TIMKEN STEEL

Address of Well Location 4511 FAIRCREST RD

City CANTON Zip Code +4 44706-0931

Permit No. _____ Section; _____ and or Lot No. _____

Use of Well DEWATERING WELL

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☒ X 398203 +/- 855 ft.

S ☐ Y 2294317 +/- 873 ft.

Latitude, Longitude Coordinates

Latitude: _____ Longitude: _____

Elevation of Well in feet: _____ +/- _____ ft.

Datum Plane: ☒ NAD27 ☐ NAD83 Elevation Source _____

Source of Coordinates: DIGITAL MAP

Well location written description:

Comments on water quality/quantity and well construction:

1051
1056.2
24.8 + 10

WELL TEST *

Pre-Pumping Static Level 10 ft. Date _____

Measured from GROUND LEVEL

Pumping test method _____

Test Rate _____ gpm Duration of Test _____ hrs.

Feet of Drawdown _____ ft. Sustainable Yield _____ gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump _____ Capacity _____ gpm

Pump set at _____ ft. Pitless Type _____

Pump installed by _____

I hereby certify the information given is accurate and correct to the best of my knowledge.

Drilling Firm CONTRACT DEWATERING SERVICES, INC.

Address 5820 W RIVERSIDE DR

City, State, Zip SARANAC MI 48881

Signed RICHARD G. NEUMAN Date 8/29/2012

(Filed Electronically)

ODH Registration Number _____

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter 36 inches Depth 22 ft.
Casing Diameter 12 in. Length 22 ft. Thickness 0.219 in.

2 Borehole Diameter 12 inches Depth 93 ft.
Casing Diameter _____ in. Length _____ ft. Thickness _____ in.

Casing Height Above Ground 2 ft.

Type 1: Steel
2: _____

Joints 1: Welded
2: _____

SCREEN

Diameter _____ in. Slot Size _____ in. Screen Length _____ ft.

Type _____ Material _____

Set Between _____ ft. and _____ ft.

GRAVEL PACK (Filter Pack)

Material/Size _____ Vol/Wt. Used _____

Method of Installation _____

Depth: Placed From: _____ ft. To: _____ ft.

GROUT

Material _____ Vol/Wt. Used _____

Method of Installation _____

Depth: Placed From: _____ ft. To: _____ ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
BROWN	STIFF	CLAY	0	10
GRAY-BROWN	DENSE	SHALE AND CLAY	10	20
GRAY	FRACTURED	LIMESTONE	20	22
GRAY-TAN	FRACTURED	SANDSTONE AND LIMEST	22	93
		Water Encountered At	10	10

Aquifer Type (Formation producing the most water.) SANDSTONE & LIMEST

Date of Well Completion 8/6/2012 Total Depth of Well 93 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

DNR 7810.12e

WATER WELL SEALING REPORT e-FORM
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

301987

LOCATION

County STARK Township PERRY Section No. ____ Lot No. ____

Owner TIMKEN STEEL

Address of Well Location 4511 FAIRCREST RD

City CANTON Zip Code 44706-0931

Well Location Description (120 Characters)

Location of Well in either: State Plane N ☒ S ☐ X 398203.00 +/- 855 ft. Y 2294317.00 +/- 873 ft. OR Latitude/Longitude Latitude ____ Longitude ____

Elevation of Well ____ +/- ____ ft. Datum Plane: ☒ NAD27 ☐ NAD83

Source of Coordinates: ☐ GPS ☐ Survey ☒ Other DIGITAL MAP

Source of Elevation: ☐ GPS ☐ Survey ☐ Other ____

WELL IDENTIFICATION ODNR Well Log Number 2039335 Project Well ID 5

MEASURED CONSTRUCTION DETAILS

Date of measurements ____

Depth of Well 93 ft. Static Water Level ____ ft.

Borehole Depth 22 ft. Borehole Diameter 36 in.

Casing Diameter 12 in. Casing Length 2 ft. Casing Type Steel

SEALING PROCEDURE

Placement:	Sealing Material	Volume/Weight Used Units Required	Placement Method
From 0 ft. To 93 ft.	Cement	3CY	Pumped w/ tremie pipe
From ____ ft. To ____ ft.			
From ____ ft. To ____ ft.			
From ____ ft. To ____ ft.			

Condition of Casing ____ Was Casing Removed? ☐ Yes or ☒ No (check one)

If casing **Not Removed**, was it Perforated? ☐ Yes or ☒ No (check one) Perforations: From ____ ft. To ____ ft.

Date Sealing Performed 4/4/2013

Comments/Reason for Sealing

CONTRACTOR

Name BEAVER EXCAVATING ODH Registration # 002972

Address 2000 SW BEAVER Place PL

City/State/Zip CANTON, OH 44706

e-Signature Josh Smith Filed electronically on 4/15/2013

I hereby certify the information given is accurate and correct to the best of my knowledge.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of sealing.
Distribute additional copies to: Customer, Driller and Local Health Department.

DW #6

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number 2039336

Page 1 of 1 for this record.

WELL LOCATION

County STARK Township PERRY

TIMKEN STEEL
Owner/Builder

4511 FAIRCREST RD
Address of Well Location

City CANTON Zip Code +4 44706-0931

Permit No. _____ Section; _____ and or Lot No. _____

Use of Well DEWATERING WELL

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☒ X 398359 +/- 158 ft.

S ☐ Y 2294243 +/- 639 ft.

Latitude, Longitude Coordinates

Latitude: _____ Longitude: _____

Elevation of Well in feet: _____ +/- _____ ft.

Datum Plane: ☒ NAD27 ☐ NAD83 Elevation Source _____

Source of Coordinates: DIGITAL MAP

Well location written description:

Comments on water quality/quantity and well construction:

1081.0
1057.8
23.2 + 3 = 26.2

WELL TEST *

Pre-Pumping Static Level 3 ft. Date _____

Measured from GROUND LEVEL

Pumping test method _____

Test Rate _____ gpm Duration of Test _____ hrs.

Feet of Drawdown _____ ft. Sustainable Yield _____ gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump _____ Capacity _____ gpm

Pump set at _____ ft. Pitless Type _____

Pump installed by _____

I hereby certify the information given is accurate and correct to the best of my knowledge.

Drilling Firm CONTRACT DEWATERING SERVICES, INC.

Address 5820 W RIVERSIDE DR

City, State, Zip SARANAC MI 48881

Signed RICHARD G. NEUMAN Date 8/29/2012
(Filed Electronically)

ODH Registration Number _____

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter 36 inches Depth 53 ft.
Casing Diameter 12 in. Length 53 ft. Thickness 0.219 in.

2 Borehole Diameter 12 inches Depth 96 ft.
Casing Diameter _____ in. Length _____ ft. Thickness _____ in.

Casing Height Above Ground 2 ft.

Type 1: Steel
2: _____

Joints 1: Welded
2: _____

SCREEN

Diameter _____ in. Slot Size _____ in. Screen Length _____ ft.

Type _____ Material _____

Set Between _____ ft. and _____ ft.

GRAVEL PACK (Filter Pack)

Material/Size _____ Vol/Wt. Used _____

Method of Installation _____

Depth: Placed From: _____ ft. To: _____ ft.

GROUT

Material _____ Vol/Wt. Used _____

Method of Installation _____

Depth: Placed From: _____ ft. To: _____ ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
BROWN	STIFF	CLAY	0	24
GRAY-TAN	DENSE	GRAVEL AND SAND	24	27
BROWN	DENSE	CLAYSANDGRAVEL	27	41
GRAY-TAN	DENSE	SAND AND GRAVEL	41	46
GRAY-BROWN	STIFF	SHALE AND CLAY	46	53
GRAY	DENSE	SHALE	53	65
GRAY-TAN	FRACTURED	SANDSTONE AND LIMEST	65	96
		Water Encountered At	3	3

Aquifer Type (Formation producing the most water.) SANDSTONE & LIMEST

Date of Well Completion 8/7/2012 Total Depth of Well 96 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

DNR 7810.12e

WATER WELL SEALING REPORT e-FORM
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

302531

LOCATION

County STARK Township PERRY Section No. ____ Lot No. ____

Owner TIMKEN STEEL

Address of Well Location 4511 FAIRCREST RD

City CANTON Zip Code 44706-0931

Well Location Description (120 Characters)

Location of Well in either: State Plane N ☒ S ☐ X 398359.00 +/- 158 ft. Y 2294243.00 +/- 639 ft.
OR
Latitude/Longitude Latitude ____ Longitude ____

Elevation of Well ____ +/- ____ ft. Datum Plane: ☐ NAD27 ☒ NAD83

Source of Coordinates: ☐ GPS ☐ Survey ☒ Other DIGITAL MAP
Source of Elevation: ☐ GPS ☐ Survey ☐ Other ____

WELL IDENTIFICATION ODNR Well Log Number 2039336 Project Well ID 6

MEASURED CONSTRUCTION DETAILS

Date of measurements ____
Depth of Well 96 ft. Static Water Level ____ ft.
Borehole Depth 53 ft. Borehole Diameter 36 in.
Casing Diameter 12 in. Casing Length 53 ft. Casing Type Steel

SEALING PROCEDURE

Placement:

From	To	Sealing Material	Volume/Weight Used (Units Required)	Placement Method
0 ft.	5 ft.	Gravel	.5 CY	Poured (gravity)
5 ft.	96 ft.	Cement	2.6 CY	Pumped w/ tremie pipe
ft.	ft.			
ft.	ft.			

Condition of Casing ____ Was Casing Removed? ☐ Yes or ☒ No (check one)

If casing **Not Removed**, was it Perforated? ☐ Yes or ☒ No (check one) Perforations: From ____ ft. To ____ ft.

Date Sealing Performed 6/2/2013
Comments/Reason for Sealing

CONTRACTOR

Name BEAVER EXCAVATING ODH Registration # 002972
Address 2000 SW BEAVER PL
City/State/Zip CANTON, OH 44706

e-Signature JOSH SMITH Filed electronically on 6/8/2013
I hereby certify the information given is accurate and correct to the best of my knowledge.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of sealing.
Distribute additional copies to: Customer, Driller and Local Health Department.

Timken Construction Dewatering Well GWL Data

Well Number NAD 27 NADA 83	1 N 398408.1 E 2294303.3 N 398436.808 E 2262839.643 Lat 40.755381488 Long 81.43752438			2 N 398408.0 E 2294383.8 N 398436.708 E 2262920.144 Lat 40.755378521 Long 81.437233830			3 N 398339.4 E 22944412.5 N 398368.108 E 2262948.844 Lat 40.755189278 Long 81.437133259			4 N 398236.8 E 2294390.7 N 398265.507 E 2262927.042 Lat 40.754908402 Long 81.437216463			5 N 398203.9 E 2294317.9 N 398232.606 E 2262854.241 Lat 40.754820535 Long 81.437480671			6 N 398359.2 E 2294243.6 N 398387.907 E 2262779.941 Lat 40.755249267 Long 81.437742015		
Observation Date	Water Depth Elevation (depth)		Flow (GPM)	Water Depth Elevation (depth)		Flow (GPM)	Water Depth Elevation (depth)		Flow (GPM)	Water Depth Elevation (depth)		Flow (GPM)	Water Depth Elevation (depth)		Flow (GPM)	Water Depth Elevation (depth)		Flow (GPM)
	Elev	Depth		Elev	Depth		Elev	Depth		Elev	Depth		Elev	Depth		Elev	Depth	
8/22/2012	972	109	10	972	109	10	972	109	75	972	109	150	972	109	150	972	109	5
8/27/2012	972	109	10	972	109	10	972	109	75	972	109	150	972	109	150	972	109	5
8/28/2012	972	109	25	972	109	25	972	109	30	972	109	60	972	109	60	972	109	80
9/25/2012	972	109	25	972	109	25	981.5	99.5	30	981.5	99.5	60	981.5	99.5	60	972	109	80
10/11/2012	972	109	25	972	109	25	981.5	99.5	2	981.5	99.5	60	981.5	99.5	60	972	109	80
11/19/2012	972	109	8.3	972	109	7.9	981.5	99.5	2	981.5	99.5	15	981.5	99.5	20	972	109	25
12/21/2012	972	109	8.3	972	109	7.9	981.5	99.5	0	981.5	99.5	15	981.5	99.5	20	972	109	20
1/18/2013	972	109	8.3	972	109	7.9	981.5	99.5	0	981.5	99.5	15	981.5	99.5	0	972	109	0
2/19/2013	1003	78	0	1003	78	0	981.5	99.5	0	1003	78	0	981.5	99.5	0	972	109	0
3/15/2013	1017	64	0	1027	54	0	1016	65	0	1025	56	0	1026	55	0	1017	64	0
4/16/2013	1032	49	0	1034	47	0	CLOSED			CLOSED			CLOSED			1034	47	0
5/20/2013	1035	46	0	1034	47	0	CLOSED			CLOSED			CLOSED			1034	47	0
6/17/2013	CLOSED			CLOSED			CLOSED			CLOSED			CLOSED			CLOSED		
7/18/2013	CLOSED			CLOSED			CLOSED			CLOSED			CLOSED			CLOSED		
8/15/2013	CLOSED			CLOSED			CLOSED			CLOSED			CLOSED			CLOSED		
9/19/2013	CLOSED			CLOSED			CLOSED			CLOSED			CLOSED			CLOSED		

Note: We have two sump pumps controlling ground water run in. These pumps sit at about elevation 1016. They are locates at the south hole perimeter. We estimate one is pumping at less than 35 gpm, the other about 54 gpm. These pumps we placed in these sumps at this elvation on 2/11/13.

Note: 3/15/13 Sumps remain at same elevation and pumping at same rates as before, 35 gpm and 54 gpm

Note: 4/16/13 Sumps were raised to elevation 1031 on the east and 1033 on the west ,pumping at same rates as before, 35 gpm and 40 gpm respectively

Note: 5/20/13 Sumps remain at the same elevation as last month but pumping a little less water. The east is pumping at approx. 25 gpm and the west at 30 gpm.

Note: 6/17/13 Sumps raised on 6/7/13 to about 1054 but neither sump pump has run since raising them to this level. Water depth measured at approx. EL. 1049

Note: 7/17/13 Sumps raised on 6/7/13 to about 1054 but neither sump pump has run since raising them to this level. Water depth measured at approx. EL. 1049

Note: 8/15/13 West sump is open, but pump removed. Water depth measured at approx. EL. 1061. The east sump has been filled since 8/10/13.

Note: 8/15/13 West sump is open, but pump removed. Water depth measured at approx. EL. 1061.2 The east sump has been filled since 8/10/13.

10.0 Appendix B -Timken Waste Water Scale Pit Dewatering Wells, Well Sealing Reports and Ground Water Level Monitoring Data Set

APPENDIX B				TIMKEN VERTICAL CASTER SCALE PIT WELLS					
WELL LOG NUMBER	SEALING REPORT NUMBER	WELL ID	HOUSE NO.	STREET NAME	OWNER'S LAST NAME	HORIZ Y	HORIZ X	TOTAL DEPTH	AQUIFER TYPE
2042009	302596	1	4511	FAIRCREST	TIMKEN STEEL	398282.69	2294032.25	55	SHALE
2042010	302591	3	4511	FAIRCREST	TIMKEN STEEL	398283.41	2294110.9	57	SHALE
2042011		4	4511	FAIRCREST	TIMKEN STEEL	398282.38	2294173.19	55	SHALE
2042012	302430	5	4511	FAIRCREST	TIMKEN STEEL	398226.3	2294037.4	55	SHALE
2042013	302399	6	4511	FAIRCREST	TIMKEN STEEL	398176.1	2294065.3	55	SHALE
2042014	302400	7	4511	FAIRCREST	TIMKEN STEEL	398175.8	2294115.02	55	SHALE
2042015	302590	8	4511	FAIRCREST	TIMKEN STEEL	398176.3	2294165.1	45	SHALE
2042016	302592	2	4511	FAIRCREST	TIMKEN STEEL	398282	2294059.94	55	SHALE

1A

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number 2042009

Page 1 of 1 for this record.

WELL LOCATION

County STARK Township PERRY

TIMKEN STEEL
Owner/Builder

4511 FAIRCREST ST
Address of Well Location

City CANTON Zip Code +4 44706+0931

Permit No. _____ Section; _____ and or Lot No. _____

Use of Well DEWATERING WELL

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☒ X 2294032.25 +/- 50 ft

S ☐ Y 398282.69 +/- 50 ft.

Latitude, Longitude Coordinates

Latitude: _____ Longitude: _____

Elevation of Well in feet: 1074.2 +/- _____ ft

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source TERRESTRIAL

Source of Coordinates: TERRESTRIAL SURVEY

Well location written description:

APPROXIMATLY 1,066 FEET NORTH OF FAIRCREST STREET SW

Comments on water quality/quantity and well construction:

WELL TEST *

Pre-Pumping Static Level _____ ft. Date _____

Measured from _____

Pumping test method _____

Test Rate _____ gpm Duration of Test _____ hrs.

Feet of Drawdown _____ ft. Sustainable Yield _____ gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump SUBMERSIBLE Capacity 55 gpm

Pump set at 55 ft. Pitless Type PREASSEMBLED

Pump installed by BEAVER EXCAVATING COMPANY

I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm BEAVER EXCAVATING

Address 2000 BEAVER PL

City, State, Zip CANTON OH 44706

Signed ADAM WINEBRENNER Date 2/25/2013

(Filed Electronically)

ODH Registration Number _____

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter 30 inches Depth 55 ft.
Casing Diameter 12 in. Length 55 ft. Thickness 0.375 in.

2 Borehole Diameter _____ inches Depth _____ ft.
Casing Diameter _____ in. Length _____ ft. Thickness _____ in.

Casing Height Above Ground 3 ft.

Type 1: Steel
2: _____

Joints 1: Welded
2: _____

SCREEN

Diameter 12 in. Slot Size 0.25 in. Screen Length 15 ft.

Type MACHINE SLOTTED Material STAINLESS STEEL

Set Between 55 ft. and 40 ft.

GRAVEL PACK (Filter Pack)

Material/ Size #9 Vol/Wt. Used N/A

Method of Installation Poured (gravity)

Depth: Placed From: 55 ft. To: 0 ft.

GROUT

Material _____ Vol/Wt. Used _____

Method of Installation _____

Depth: Placed From: _____ ft. To: _____ ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
BROWN	SILTY	CLAY	0	30
GRAY	CLAYEY	SILT	30	35
		SAND	35	45
		SHALE	45	55

Aquifer Type (Formation producing the most water.) SHALE

Date of Well Completion 1/28/2013 Total Depth of Well 55 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

1 A

DNR 7810.12e

302593

WATER WELL SEALING REPORT e-FORM
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

LOCATION

County STARK Township PERRY Section No. ____ Lot No. ____

Owner TIMKEN STEEL

Address of Well Location 4511 FAIRCREST ST

City CANTON Zip Code 44706+0931

Well Location Description (120 Characters) APPROXIMATLY 1,066 FEET NORTH OF FAIRCREST STREET SW

Location of Well in either: State Plane N ☒ S ☐ X 2294032.25 +/- 50 ft. Y 3982822.69 +/- 50 ft.
OR
Latitude/Longitude Latitude ____ Longitude ____

Elevation of Well 1074.20 +/- ____ ft. Datum Plane: ☐ NAD27 ☒ NAD83

Source of Coordinates: ☐ GPS ☒ Survey ☐ Other ____
Source of Elevation: ☐ GPS ☒ Survey ☐ Other ____

WELL IDENTIFICATION ODNR Well Log Number 2042009 Project Well ID 1

MEASURED CONSTRUCTION DETAILS

Date of measurements ____
Depth of Well 55 ft. Static Water Level ____ ft.
Borehole Depth 55 ft. Borehole Diameter 30 in.
Casing Diameter 12 in. Casing Length 55 ft. Casing Type Steel

SEALING PROCEDURE

Placement:		Sealing Material	Volume/Weight Used (Units Required)	Placement Method
From 0 ft.	To 50 ft.	Cement	1.5	Pumped w/ tremie pipe
From 50 ft.	To 55 ft.	Gravel	.5CY	Poured (gravity)
From ____ ft.	To ____ ft.			
From ____ ft.	To ____ ft.			

Condition of Casing ____ Was Casing Removed? ☒ Yes or ☐ No (check one)

If casing **Not Removed**, was it Perforated? ☐ Yes or ☒ No (check one) Perforations: From ____ ft. To ____ ft.

Date Sealing Performed 6/9/2013
Comments/Reason for Sealing ____

CONTRACTOR

Name BEAVER EXCAVATING ODH Registration # 002972
Address 2000 SW BEAVER PL
City/State/Zip CANTON, OH 44706

e-Signature JOSH SMITH Filed electronically on 6/14/2013
I hereby certify the information given is accurate and correct to the best of my knowledge.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of sealing.
Distribute additional copies to: Customer, Driller and Local Health Department.

[redacted] - 2A

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number: 2042016

Page 1 of 1 for this record.

WELL LOCATION

County: STARK Township: PERRY

Owner/Builder: TIMKEN STEEL

Address of Well Location: 4511 FAIRCREST ST

City: CANTON Zip Code +4: 44706+0931

Permit No. _____ Section: _____ and/or Lot No. _____

Use of Well: DEWATERING WELL

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☒ X: 2294059.94 +/- 50 ft

S ☐ Y: 398282 +/- 50 ft.

Latitude, Longitude Coordinates

Latitude: _____ Longitude: _____

Elevation of Well in feet: 1072.8 +/- _____ ft

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source: TERRESTRIAL

Source of Coordinates: TERRESTRIAL SURVEY

Well location written description:

Comments on water quality/quantity and well construction:

WELL TEST *

Pre-Pumping Static Level _____ ft. Date _____

Measured from _____

Pumping test method _____

Test Rate _____ gpm Duration of Test _____ hrs.

Feet of Drawdown _____ ft. Sustainable Yield _____ gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump: SUBMERSIBLE Capacity: 55 gpm

Pump set at 55 ft. Pitless Type: PREASSEMBLED

Pump installed by: BEAVER EXCAVATING

I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm: BEAVER EXCAVATING

Address: 2000 SW BEAVER Place PL

City, State, Zip: CANTON OH 44706

Signed: JOSH SMITH (Filed Electronically) Date: 2/25/2013

ODH Registration Number: 002972

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter: 30 inches Depth: 55 ft.
Casing Diameter: 12 in. Length: 55 ft. Thickness: 0.375 in.

2 Borehole Diameter: _____ inches Depth: _____ ft.
Casing Diameter: _____ in. Length: _____ ft. Thickness: _____ in.

Casing Height Above Ground: 3 ft.

Type 1: Steel
Type 2: _____

Joints 1: Welded
Joints 2: _____

SCREEN

Diameter: 12 in. Slot Size: 0.25 in. Screen Length: 15 ft.

Type: MACHINE SLOTTED Material: STAINLESS STEEL

Set Between: 55 ft. and 40 ft.

GRAVEL PACK (Filter Pack)

Material/Size: #9 Vol/Wt. Used: N/a

Method of Installation: Poured (gravity)

Depth: Placed From: 55 ft. To: 0 ft.

GROUT

Material: _____ Vol/Wt. Used: _____

Method of Installation: _____

Depth: Placed From: _____ ft. To: _____ ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
BLACK	SILTY	CLAY	0	30
GRAY	CLAYEY	SILT	30	37
		SAND	37	47
		SHALE	47	55

Aquifer Type (Formation producing the most water.): SHALE

Date of Well Completion: 1/26/2013 Total Depth of Well: 55 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

Sp- 2A

DNR 7810.12e

302592

WATER WELL SEALING REPORT e-FORM
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

LOCATION

County STARK Township PERRY Section No. ____ Lot No. ____

Owner TIMKEN STEEL

Address of Well Location 4511 FAIRCREST ST

City CANTON Zip Code 44706+0931

Well Location Description (120 Characters)

Location of Well in either: State Plane N ☒ S ☐ X 2294059.94 +/- 50 ft. Y 3982821.00 +/- 50 ft.
OR
Latitude/Longitude Latitude ____ Longitude ____

Elevation of Well 1072.80 +/- ____ ft. Datum Plane: ☐ NAD27 ☒ NAD83

Source of Coordinates: ☐ GPS ☒ Survey ☐ Other ____
Source of Elevation: ☐ GPS ☒ Survey ☐ Other ____

WELL IDENTIFICATION ODNR Well Log Number 2042016 Project Well ID 2

MEASURED CONSTRUCTION DETAILS

Date of measurements ____
Depth of Well 55 ft. Static Water Level ____ ft.
Borehole Depth 55 ft. Borehole Diameter 30 in.
Casing Diameter 12 in. Casing Length 55 ft. Casing Type Steel

SEALING PROCEDURE

Placement:		Sealing Material	Volume/Weight Used (Units Required)	Placement Method
From 0 ft.	To 50 ft.	Cement	1.5CY	Pumped w/ tremie pipe
From 50 ft.	To 55 ft.	Gravel	.5CY	Poured (gravity)
From ____ ft.	To ____ ft.			
From ____ ft.	To ____ ft.			

Condition of Casing ____ Was Casing Removed? ☒ Yes or ☐ No (check one)

If casing **Not Removed**, was it Perforated? ☐ Yes or ☒ No (check one) Perforations: From ____ ft. To ____ ft.

Date Sealing Performed 6/9/2013
Comments/Reason for Sealing

CONTRACTOR

Name BEAVER EXCAVATING ODH Registration # 002972
Address 2000 SW BEAVER PL
City/State/Zip CANTON, OH 44706

e-Signature JOSH SMITH Filed electronically on 6/14/2013
I hereby certify the information given is accurate and correct to the best of my knowledge.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of sealing.
Distribute additional copies to: Customer, Driller and Local Health Department.

- 3A

DNR 7802 05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number: 2042010

Page 1 of 1 for this record.

WELL LOCATION

County: STARK Township: PERRY

Owner/Builder: TIMKEN STEEL

Address of Well Location: 4511 FAIRCREST ST

City: CANTON Zip Code +4: 44706+0931

Permit No. _____ Section: _____ and/or Lot No. _____

Use of Well: DEWATERING WELL

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☒ X: 2294110.9 +/- 50 ft

S ☐ Y: 398283.41 +/- 50 ft.

Latitude, Longitude Coordinates

Latitude: _____ Longitude: _____

Elevation of Well in feet: 1071.5 +/- _____ ft

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source: TERRESTRIAL

Source of Coordinates: TERRESTRIAL SURVEY

Well location written description:

Comments on water quality/quantity and well construction:

WELL TEST *

Pre-Pumping Static Level _____ ft. Date _____

Measured from _____

Pumping test method _____

Test Rate _____ gpm Duration of Test _____ hrs.

Feet of Drawdown _____ ft. Sustainable Yield _____ gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump: SUBMERSIBLE Capacity: 40 gpm

Pump set at: 57 ft. Pitless Type: PREASSEMBLED

Pump installed by: BEAVER EXCAVATING COMPANY

I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm: BEAVER EXCAVATING

Address: 2000 BEAVER PL

City, State, Zip: CANTON OH 44706

Signed: ADAM WINEBRENNER Date: 2/25/2013

(Filed Electronically)

ODH Registration Number _____

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter: 30 inches Depth: 57 ft.
Casing Diameter: 12 in. Length: 57 ft. Thickness: 0.375 in.

2 Borehole Diameter: _____ inches Depth: _____ ft.
Casing Diameter: _____ in. Length: _____ ft. Thickness: _____ in.

Casing Height Above Ground: 3 ft.

Type: 1: Steel 2: _____

Joints: 1: Welded 2: _____

SCREEN

Diameter: 12 in. Slot Size: 0.25 in. Screen Length: 15 ft.

Type: MACHINE SLOTTED Material: STAINLESS STEEL

Set Between: 57 ft. and 40 ft.

GRAVEL PACK (Filter Pack)

Material/Size: #9 Vol/Wt. Used: N/a

Method of Installation: Poured (gravity)

Depth: Placed From: 57 ft. To: 0 ft.

GROUT

Material: _____ Vol/Wt. Used: _____

Method of Installation: _____

Depth: Placed From: _____ ft. To: _____ ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
BROWN	SILTY	CLAY	0	30
GRAY	CLAYEY	SILT	30	35
		SAND	35	45
		SHALE	45	57
		Water Encountered At	45	45

Aquifer Type (Formation producing the most water.): SHALE

Date of Well Completion: 1/26/2013 Total Depth of Well: 57 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

SP-3A
302591

DNR 7810.12e

WATER WELL SEALING REPORT e-FORM
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

LOCATION

County STARK Township PERRY Section No. ____ Lot No. ____

Owner TIMKEN STEEL

Address of Well Location 4511 FAIRCREST ST

City CANTON Zip Code 44706+0931

Well Location Description (120 Characters)

Location of Well in either: State Plane N ☒ S ☐ X 2294110.90 +/- 50 ft. Y 398283.41 +/- 50 ft.
OR
Latitude/Longitude Latitude ____ Longitude ____

Elevation of Well 1071.50 +/- ____ ft. Datum Plane: ☐ NAD27 ☒ NAD83

Source of Coordinates: ☐ GPS ☒ Survey ☐ Other ____
Source of Elevation: ☐ GPS ☒ Survey ☐ Other ____

WELL IDENTIFICATION ODNR Well Log Number 2042010 Project Well ID 3

MEASURED CONSTRUCTION DETAILS

Date of measurements ____
Depth of Well 57 ft. Static Water Level ____ ft.
Borehole Depth 57 ft. Borehole Diameter 30 in.
Casing Diameter 12 in. Casing Length 57 ft. Casing Type Steel

SEALING PROCEDURE

Placement:		Sealing Material	Volume/Weight Used (Units Required)	Placement Method
From 0 ft.	To 52 ft.	Cement	1.5CY	Pumped w/ tremie pipe
From 52 ft.	To 57 ft.	Gravel	.5CY	Poured (gravity)
From ____ ft.	To ____ ft.			
From ____ ft.	To ____ ft.			

Condition of Casing ____ Was Casing Removed? ☒ Yes or ☐ No (check one)

If casing **Not Removed**, was it Perforated? ☐ Yes or ☒ No (check one) Perforations: From ____ ft. To ____ ft.

Date Sealing Performed 6/9/2013
Comments/Reason for Sealing

CONTRACTOR

Name BEAVER EXCAVATING ODH Registration # 002972
Address 2000 SW BEAVER PL
City/State/Zip CANTON, OH 44706

e-Signature JOSH SMITH Filed electronically on 6/14/2013
I hereby certify the information given is accurate and correct to the best of my knowledge.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of sealing.
Distribute additional copies to: Customer, Driller and Local Health Department.

SP-4A

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number: 2042011

Page 1 of 1 for this record.

WELL LOCATION

County: STARK Township: PERRY

Owner/Builder: TIMKEN STEEL

Address of Well Location: 4511 FAIRCREST ST

City: CANTON Zip Code +4: 44706+0931

Permit No. ____ Section: ____ and/or Lot No. ____

Use of Well: DEWATERING WELL

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☒ X 2294173.19 +/- 50 ft

S ☐ Y 398282.38 +/- 50 ft

Latitude, Longitude Coordinates

Latitude: ____ Longitude: ____

Elevation of Well in feet: 1072.7 +/- ____ ft

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source: TERRESTRIAL

Source of Coordinates: TERRESTRIAL SURVEY

Well location written description:

Comments on water quality/quantity and well construction:

WELL TEST *

Pre-Pumping Static Level ____ ft. Date ____

Measured from ____

Pumping test method ____

Test Rate ____ gpm Duration of Test ____ hrs.

Feet of Drawdown ____ ft. Sustainable Yield ____ gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump: SUBMERSIBLE Capacity: 55 gpm

Pump set at 55 ft. Pitless Type: PREASSEMBLED

Pump installed by: BEAVER EXCAVATING

I hereby certify the information given is accurate and correct to the best of my knowledge.

Drilling Firm: BEAVER EXCAVATING

Address: 2000 BEAVER PL

City, State, Zip: CANTON OH 44706

Signed: ADAM WINEBRENNER Date: 2/25/2013

(Filed Electronically)

ODH Registration Number ____

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter 30 inches Depth 55 ft.
Casing Diameter 12 in. Length 55 ft. Thickness 0.375 in.

2 Borehole Diameter ____ inches Depth ____ ft.
Casing Diameter ____ in. Length ____ ft. Thickness ____ in.

Casing Height Above Ground 3 ft.

Type 1: Steel
2: ____

Joints 1: Welded
2: ____

SCREEN

Diameter 12 in. Slot Size 0.25 in. Screen Length 15 ft.

Type: MACHINE SLOTTED Material: STAINLESS STEEL

Set Between 55 ft. and 40 ft.

GRAVEL PACK (Filter Pack)

Material/Size #9 Vol/Wt. Used N/A

Method of Installation: Poured (gravity)

Depth: Placed From: 55 ft. To: 0 ft.

GROUT

Material ____ Vol/Wt. Used ____

Method of Installation ____

Depth: Placed From: ____ ft. To: ____ ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
BROWN	SILTY	CLAY	0	30
GRAY	CLAYEY	SILT	30	35
		SAND	35	45
		SHALE	45	55
		Water Encountered At	45	45

Aquifer Type (Formation producing the most water.) SHALE

Date of Well Completion 1/25/2013 Total Depth of Well 55 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

SP- 5A

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number 2042012

Page 1 of 1 for this record.

WELL LOCATION

County STARK Township PERRY

TIMKEN STEEL
Owner/Builder

4511 FAIRCREST ST
Address of Well Location

City CANTON Zip Code +4 44706+0931

Permit No. _____ Section; _____ and or Lot No. _____

Use of Well DEWATERING WELL

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☒ X 2294037.4 +/- 50 ft

S ☐ Y 398226.3 +/- 50 ft.

Latitude, Longitude Coordinates

Latitude: _____ Longitude: _____

Elevation of Well in feet: 1064.5 +/- _____ ft

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source TERRESTRIAL

Source of Coordinates: TERRESTRIAL SURVEY

Well location written description:

Comments on water quality/quantity and well construction:

WELL TEST *

Pre-Pumping Static Level _____ ft. Date _____

Measured from _____

Pumping test method _____

Test Rate _____ gpm Duration of Test _____ hrs.

Feet of Drawdown _____ ft. Sustainable Yield _____ gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump SUBMERSIBLE Capacity 55 gpm

Pump set at 55 ft. Pitless Type PREASSEMBLED

Pump installed by BEAVER EXCAVATING COMPANY

I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm BEAVER EXCAVATING

Address 2000 SW BEAVER Place PL

City, State, Zip CANTON OH 44706

Signed JOSH SMITH Date 2/25/2013

(Filed Electronically)

ODH Registration Number 002972

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter 30 inches Depth 55 ft.
Casing Diameter 12 in. Length 55 ft. Thickness 0.375 in.

2 Borehole Diameter _____ inches Depth _____ ft.
Casing Diameter _____ in. Length _____ ft. Thickness _____ in.

Casing Height Above Ground 3 ft.

Type 1: Steel
2: _____

Joints 1: Welded
2: _____

SCREEN

Diameter 12 in. Slot Size 0.25 in. Screen Length 15 ft.

Type MACHINE SLOTTED Material STAINLESS STEEL

Set Between 55 ft. and 40 ft.

GRAVEL PACK (Filter Pack)

Material/Size #9 Vol/Wt. Used N/a

Method of Installation Poured (gravity)

Depth: Placed From: 55 ft. To: 0 ft.

GROUT

Material _____ Vol/Wt. Used _____

Method of Installation _____

Depth: Placed From: _____ ft. To: _____ ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
BROWN	SILTY	CLAY	0	33
GRAY	CLAYEY	SILT	33	42
		SHALE	42	55

Aquifer Type (Formation producing the most water.) SHALE

Date of Well Completion 1/24/2013 Total Depth of Well 55 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

DNR 7810.12e

WATER WELL SEALING REPORT e-FORM
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

302430
5A

LOCATION

County STARK Township PERRY Section No. Lot No.

Owner TIMKEN STEEL

Address of Well Location 4511 FAIRCREST ST

City CANTON Zip Code 44706+0931

Well Location Description (120 Characters)

Location of Well in either: State Plane N ☒ S ☐ X 2294037.40 +/- 50 ft. Y 398226.30 +/- 50 ft.
OR
Latitude/Longitude Latitude Longitude

Elevation of Well 1064.50 +/- ft. Datum Plane: ☐ NAD27 ☒ NAD83

Source of Coordinates: ☐ GPS ☒ Survey ☐ Other
Source of Elevation: ☐ GPS ☒ Survey ☐ Other

WELL IDENTIFICATION ODNR Well Log Number 2042012 Project Well ID 5

MEASURED CONSTRUCTION DETAILS

Date of measurements
Depth of Well 55 ft. Static Water Level ft.
Borehole Depth 55 ft. Borehole Diameter 30 in.
Casing Diameter 12 in. Casing Length 55 ft. Casing Type Steel

SEALING PROCEDURE

Placement:	Sealing Material	Volume/Weight Used Units Required	Placement Method
From 0 ft. To 55 ft.	Cement	2 CY	Pumped w/ tremie pipe
From ft. To ft.			
From ft. To ft.			
From ft. To ft.			

Condition of Casing Was Casing Removed? ☒ Yes or ☐ No (check one)

If casing **Not Removed**, was it Perforated? ☐ Yes or ☒ No (check one) Perforations: From ft. To ft.

Date Sealing Performed 5/4/2013
Comments/Reason for Sealing

CONTRACTOR

Name BEAVER EXCAVATING ODH Registration # 002972
Address 2000 SW BEAVER PL
City/State/Zip CANTON, OH 44706

e-Signature JOSH SMITH Filed electronically on 5/31/2013
I hereby certify the information given is accurate and correct to the best of my knowledge.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of sealing.
Distribute additional copies to: Customer, Driller and Local Health Department.

SP-6A

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number: 2042013

Page 1 of 1 for this record.

WELL LOCATION

County: STARK Township: PERRY

Owner/Builder: TIMKEN STEEL

Address of Well Location: 4511 FAIRCREST ST

City: CANTON Zip Code +4: 44706+0931

Permit No. ____ Section: ____ and/or Lot No. ____

Use of Well: DEWATERING WELL

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☒ X: 2294065.3 +/- 50 ft.

S ☐ Y: 398176.1 +/- 50 ft.

Latitude, Longitude Coordinates

Latitude: ____ Longitude: ____

Elevation of Well in feet: 1066.8 +/- ____ ft

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source: TERRESTRIAL

Source of Coordinates: TERRESTRIAL SURVEY

Well location written description:

Comments on water quality/quantity and well construction:

WELL TEST *

Pre-Pumping Static Level ____ ft. Date ____

Measured from ____

Pumping test method ____

Test Rate ____ gpm Duration of Test ____ hrs.

Feet of Drawdown ____ ft. Sustainable Yield ____ gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump: SUBMERSIBLE Capacity: 55 gpm

Pump set at 55 ft. Pitless Type: PREASSEMBLED

Pump installed by: BEAVER EXCAVATING

I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm: BEAVER EXCAVATING

Address: 2000 SW BEAVER Place PL

City, State, Zip: CANTON OH 44706

Signed: JOSH SMITH (Filed Electronically) Date: 2/25/2013

ODH Registration Number: 002972

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter: 30 inches Depth: 55 ft.
Casing Diameter: 12 in. Length: 55 ft. Thickness: 0.375 in.

2 Borehole Diameter: ____ inches Depth: ____ ft.
Casing Diameter: ____ in. Length: ____ ft. Thickness: ____ in.

Casing Height Above Ground: 3 ft.

Type 1: Steel
Type 2: ____

Joints 1: Other
Joints 2: ____

SCREEN

Diameter: 12 in. Slot Size: 0.25 in. Screen Length: 15 ft.

Type: MACHINE SLOTTED Material: STAINLESS STEEL

Set Between: 55 ft. and 40 ft.

GRAVEL PACK (Filter Pack)

Material/Size: #9 Vol/Wt. Used: N/A

Method of Installation: Poured (gravity)

Depth: Placed From: 55 ft. To: 0 ft.

GROUT

Material: ____ Vol/Wt. Used: ____

Method of Installation: ____

Depth: Placed From: ____ ft. To: ____ ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
BROWN	SILTY	CLAY	0	33
GRAY	CLAYEY	SILT	33	45
		SHALE	45	55

Aquifer Type (Formation producing the most water): SHALE

Date of Well Completion: 1/24/2013 Total Depth of Well: 55 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

DNR 7810.12e

WATER WELL SEALING REPORT e-FORM
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

302399
6A

LOCATION

County STARK Township PERRY Section No. Lot No.

Owner TIMKEN STEEL

Address of Well Location 4511 FAIRCREST ST

City CANTON Zip Code 44706+0931

Well Location Description (120 Characters)

Location of Well in either: State Plane N ☒ S ☐ X 2294065.30 +/- 50 ft. Y 3981761.10 +/- 50 ft. OR Latitude/Longitude Latitude Longitude

Elevation of Well 1066.80 +/- ft. Datum Plane: ☐ NAD27 ☒ NAD83

Source of Coordinates: ☐ GPS ☒ Survey ☐ Other

Source of Elevation: ☐ GPS ☒ Survey ☐ Other

WELL IDENTIFICATION ODNR Well Log Number 2042013 Project Well ID 6

MEASURED CONSTRUCTION DETAILS

Date of measurements

Depth of Well 55 ft. Static Water Level ft.

Borehole Depth 55 ft. Borehole Diameter 30 in.

Casing Diameter 12 in. Casing Length 55 ft. Casing Type Steel

SEALING PROCEDURE

Placement:

	Sealing Material	Volume/Weight Used Units Required	Placement Method
From 0 ft. To 55 ft.	Cement	2 CY	Pumped w/ tremie pipe
From ft. To ft.			
From ft. To ft.			
From ft. To ft.			

Condition of Casing Was Casing Removed? ☒ Yes or ☐ No (check one)

If casing **Not Removed**, was it Perforated? ☐ Yes or ☒ No (check one) Perforations: From ft. To ft.

Date Sealing Performed 5/4/2013

Comments/Reason for Sealing

CONTRACTOR

Name BEAVER EXCAVATING ODH Registration # 002972

Address 2000 SW BEAVER PL

City/State/Zip CANTON, OH 44706

e-Signature JOSH SMITH Filed electronically on 5/28/2013

I hereby certify the information given is accurate and correct to the best of my knowledge.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of sealing.
Distribute additional copies to: Customer, Driller and Local Health Department.

SP 7A

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number: 2042014

Page 1 of 1 for this record.

WELL LOCATION

County: STARK Township: PERRY

Owner/Builder: TIMKEN STEEL

Address of Well Location: 4511 FAIRCREST ST

City: CANTON Zip Code +4: 44706+0931

Permit No. ____ Section: ____ and/or Lot No. ____

Use of Well: DEWATERING WELL

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☒ X 2294115.02 +/- 50 ft

S ☐ Y 398175.8 +/- 50 ft.

Latitude, Longitude Coordinates

Latitude: ____ Longitude: ____

Elevation of Well in feet: 1068.7 +/- ____ ft

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source: TERRESTRIAL

Source of Coordinates: TERRESTRIAL SURVEY

Well location written description:

Comments on water quality/quantity and well construction:

WELL TEST *

Pre-Pumping Static Level ____ ft. Date ____

Measured from ____

Pumping test method ____

Test Rate ____ gpm Duration of Test ____ hrs.

Feet of Drawdown ____ ft. Sustainable Yield ____ gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump: SUBMERSIBLE Capacity: 55 gpm

Pump set at 55 ft. Pitless Type: PREASSEMBLED

Pump installed by: BEAVER EXCAVATING

I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm: BEAVER EXCAVATING

Address: 2000 SW BEAVER Place PL

City, State, Zip: CANTON OH 44706

Signed: JOSH SMITH (Filed Electronically) Date: 2/25/2013

ODH Registration Number: 002972

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter 30 inches Depth 55 ft.
Casing Diameter 12 in. Length 55 ft. Thickness 0.375 in.

2 Borehole Diameter ____ inches Depth ____ ft.
Casing Diameter ____ in. Length ____ ft. Thickness ____ in.

Casing Height Above Ground 3 ft.

Type: 1. Steel 2. ____

Joints: 1. Welded 2. ____

SCREEN

Diameter 12 in. Slot Size 0.25 in. Screen Length 15 ft.

Type: MACHINE SLOTTED Material: STAINLESS STEEL

Set Between 55 ft. and 40 ft.

GRAVEL PACK (Filter Pack)

Material/Size #9 Vol/Wt. Used N/a

Method of Installation: Poured (gravity)

Depth: Placed From: 55 ft. To: 0 ft.

GROUT

Material ____ Vol/Wt. Used ____

Method of Installation ____

Depth: Placed From: ____ ft. To: ____ ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
BROWN	SILTY	CLAY	0	33
GRAY	CLAYEY	SILT	33	44
		SHALE	44	55

Aquifer Type (Formation producing the most water.): SHALE

Date of Well Completion: 1/24/2013 Total Depth of Well: 55 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

DNR 7810.12e

WATER WELL SEALING REPORT e-FORM
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

302400

7A

LOCATION

County STARK Township PERRY Section No. _____ Lot No. _____

Owner TIMKEN STEEL

Address of Well Location 4511 FAIRCREST ST

City CANTON Zip Code 44706+0931

Well Location Description (120 Characters)

Location of Well in either: State Plane N ☒ S ☐ X 2294111.50 +/- 50 ft. Y 3981775.80 +/- 50 ft.
OR
Latitude/Longitude Latitude _____ Longitude _____

Elevation of Well 1068.70 +/- _____ ft. Datum Plane: ☐ NAD27 ☒ NAD83

Source of Coordinates: ☐ GPS ☒ Survey ☐ Other _____
Source of Elevation: ☐ GPS ☒ Survey ☐ Other _____

WELL IDENTIFICATION ODNR Well Log Number 2042014 Project Well ID 7

MEASURED CONSTRUCTION DETAILS

Date of measurements _____
Depth of Well 55 ft. Static Water Level _____ ft.
Borehole Depth 55 ft. Borehole Diameter 30 in.
Casing Diameter 12 in. Casing Length 55 ft. Casing Type Steel

SEALING PROCEDURE

Placement:	Sealing Material	Volume/Weight Used (Units Required)	Placement Method
From 0 ft. To 55 ft.	Cement	2 CY	Pumped w/ tremie pipe
From ft. To ft.			
From ft. To ft.			
From ft. To ft.			

Condition of Casing _____ Was Casing Removed? ☒ Yes or ☐ No (check one)

If casing **Not Removed**, was it Perforated? ☐ Yes or ☒ No (check one) Perforations: From _____ ft. To _____ ft.

Date Sealing Performed 5/4/2013
Comments/Reason for Sealing

CONTRACTOR

Name BEAVER EXCAVATING ODH Registration # 002972
Address 2000 SW BEAVER PL
City/State/Zip CANTON, OH 44706

e-Signature JOSH SMITH Filed electronically on 5/28/2013
I hereby certify the information given is accurate and correct to the best of my knowledge.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of sealing.
Distribute additional copies to: Customer, Driller and Local Health Department.

SP- 8A

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number 2042015

Page 1 of 1 for this record.

WELL LOCATION

County STARK Township PERRY

TIMKEN STEEL
Owner/Builder

4511 FAIRCREST ST
Address of Well Location

City CANTON Zip Code +4 44706+0931

Permit No. _____ Section; _____ and/or Lot No. _____

Use of Well DEWATERING WELL

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☒ X 2294165.1 +/- 50 ft

S ☐ Y 398176.3 +/- 50 ft.

Latitude, Longitude Coordinates

Latitude: _____ Longitude: _____

Elevation of Well in feet: 1068.5 +/- _____ ft

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source TERRESTRIAL

Source of Coordinates: TERRESTRIAL SURVEY

Well location written description:

Comments on water quality/quantity and well construction:

WELL TEST *

Pre-Pumping Static Level _____ ft. Date _____

Measured from _____

Pumping test method _____

Test Rate _____ gpm Duration of Test _____ hrs.

Feet of Drawdown _____ ft. Sustainable Yield _____ gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump SUBMERSIBLE Capacity 95 gpm

Pump set at 45 ft. Pitless Type PREASSEMBLED

Pump installed by BEAVER EXCAVATING

I hereby certify the information given is accurate and correct to the best of my knowledge.

Drilling Firm BEAVER EXCAVATING

Address 2000 SW BEAVER Place PL

City, State, Zip CANTON OH 44706

Signed JOSH SMITH Date 2/25/2013
(Filed Electronically)

ODH Registration Number 002972

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter 30 inches Depth 45 ft.
Casing Diameter 12 in. Length 45 ft. Thickness 0.375 in.

2 Borehole Diameter _____ inches Depth _____ ft.
Casing Diameter _____ in. Length _____ ft. Thickness _____ in.

Casing Height Above Ground 3 ft.

Type 1: Steel
2: _____

Joints 1: Welded
2: _____

SCREEN

Diameter 12 in. Slot Size 0.25 in. Screen Length 15 ft.

Type MACHINE SLOTTED Material STAINLESS STEEL

Set Between 45 ft. and 30 ft.

GRAVEL PACK (Filter Pack)

Material/Size #9 Vol/Wt. Used N/A

Method of Installation Poured (gravity)

Depth: Placed From: 45 ft. To: 0 ft.

GROUT

Material _____ Vol/Wt. Used _____

Method of Installation _____

Depth: Placed From: _____ ft. To: _____ ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
BROWN	SILTY	CLAY	0	33
GRAY	CLAYEY	SILT	33	43
		SHALE	43	45

Aquifer Type (Formation producing the most water.) SHALE

Date of Well Completion 1/24/2013 Total Depth of Well 45 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

DNR 7810.12e

WATER WELL SEALING REPORT e-FORM
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

302590

LOCATION

County STARK Township PERRY Section No. ____ Lot No. ____

Owner TIMKEN STEEL

Address of Well Location 4511 FAIRCREST ST

City CANTON Zip Code 44706+0931

Well Location Description (120 Characters)

Location of Well in either: State Plane N ☒ S ☐ X 2294165.10 +/- 50 ft. Y 3981765.30 +/- 50 ft.
OR
Latitude/Longitude Latitude ____ Longitude ____

Elevation of Well 1068.50 +/- ____ ft. Datum Plane: ☐ NAD27 ☒ NAD83

Source of Coordinates: ☐ GPS ☒ Survey ☐ Other ____
Source of Elevation: ☐ GPS ☒ Survey ☐ Other ____

WELL IDENTIFICATION ODNR Well Log Number 2042015 Project Well ID 8

MEASURED CONSTRUCTION DETAILS

Date of measurements ____
Depth of Well 45 ft. Static Water Level ____ ft.
Borehole Depth 45 ft. Borehole Diameter 30 in.
Casing Diameter 12 in. Casing Length 45 ft. Casing Type Steel

SEALING PROCEDURE

Placement:

From	To	Sealing Material	Volume/Weight Used (Units Required)	Placement Method
0 ft.	40 ft.	Cement	1.25CY	Pumped w/ tremie pipe
40 ft.	45 ft.	Gravel	.5CY	Poured (gravity)
ft.	ft.			
ft.	ft.			

Condition of Casing ____ Was Casing Removed? ☐ Yes or ☒ No (check one)

If casing **Not Removed**, was it Perforated? ☐ Yes or ☒ No (check one) Perforations: From ____ ft. To ____ ft.

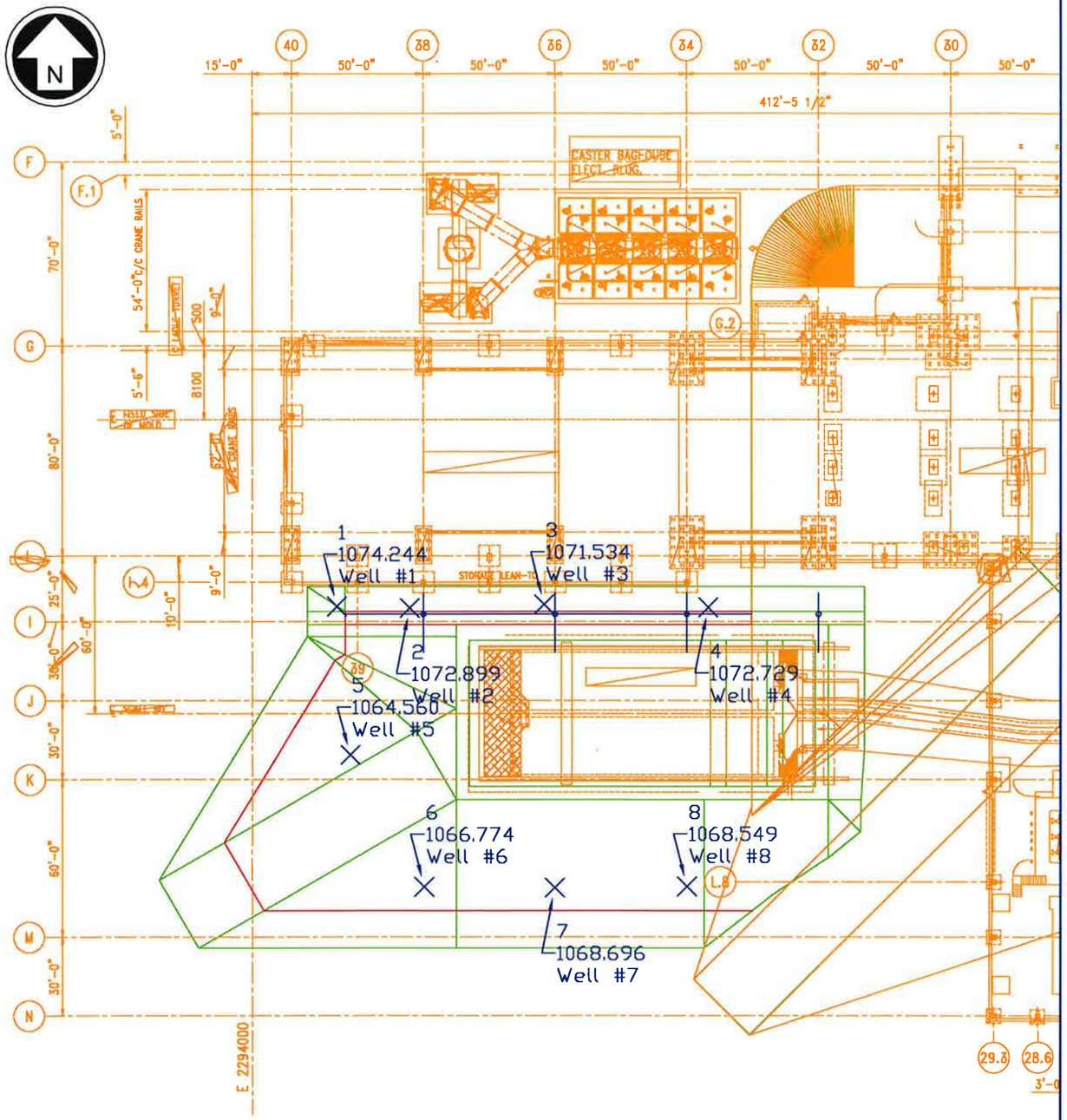
Date Sealing Performed 6/9/2013
Comments/Reason for Sealing

CONTRACTOR

Name BEAVER EXCAVATING ODH Registration # 002972
Address 2000 SW BEAVER PL
City/State/Zip CANTON, OH 44706

e-Signature JOSH SMITH Filed electronically on 6/14/2013
I hereby certify the information given is accurate and correct to the best of my knowledge.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of sealing.
Distribute additional copies to: Customer, Driller and Local Health Department.



Point #	Northing	Easting	Elev.	Desc.
1	398282.694	2294032.252	1074.244	Well #1
2	398282.163	2294059.941	1072.899	Well #2
3	398283.414	2294110.904	1071.534	Well #3
4	398282.381	2294173.185	1072.729	Well #4
5	398226.292	2294037.407	1064.56	Well #5
6	398176.079	2294065.315	1066.774	Well #6
7	398175.788	2294115.023	1068.696	Well #7
8	398176.251	2294165.127	1068.549	Well #8

0 50' 100'

SCALE IN FEET

DATE	REVISIONS

The BEAVER EXCAVATING Co.
2000 BEAVER PLACE AVENUE, S.W.
CANTON OHIO 44706
PHONE (330) 478-2151 FAX (330) 478-2122

TIMKEN - FAIRCREST
VERTICAL CASTER - SCALE PIT
PROJECT NO. 3750

CASTER SCALE PIT
DEWATERING WELLS
AS-BUILT MAP

DATE: 2/21/2013
SCALE: 1"=50'

SHEET 1 OF 1 DRAWING

BEAVER Filename: F:\TakeOff\2012\12813\Agtek\Scale Pit Dewatering Wells\Caster Wells - As-built Info\Caster Scale Pit - Well Locations 2-21-13 - As-Builts.dwg

Timken Construction Dewatering Scale Pit Wells GWL Data

Well Number NAD 27 NADA 83	1 A N 39282.694 E 2294032.252 N 398311.394 E 229568.552 Lat Long			2 A N 398282.163 E 2294059.941 N 398310.863 E 2292596.241 Lat Long			3A N 398283.414 E 2294...110.904 N 398312.114 E 2292647.204 Lat Long			4A N 398282.381 E 2294173.185 N 398311.081 E 2292709.485 Lat Long			5A N 398226.292 E 2294037.407 N 398254.992 E 2292573.707 Lat Long			6A N 398176.079 E 2294065.315 N 398204.779 E 2292601.615 Lat Long			7A N 398175.788 E 2294115.023 N 398204.488 E 2292652.323 Lat Long			8A N 398176.251 E 2294165.127 N 398204.951 E 2292701.427 Lat Long		
Observation Date	Water Depth Elevation (depth)		Flow (GPM)	Water Depth Elevation (depth)		Flow (GPM)	Water Depth Elevation (depth)		Flow (GPM)	Water Depth Elevation (depth)		Flow (GPM)	Water Depth Elevation (depth)		Flow (GPM)	Water Depth Elevation (depth)		Flow (GPM)	Water Depth Elevation (depth)		Flow (GPM)	Water Depth Elevation (depth)		Flow (GPM)
	Elev	Depth		Elev	Depth		Elev	Depth		Elev	Depth		Elev	Depth		Elev	Depth		Elev	Depth		Elev	Depth	
8/22/2012																								
8/27/2012																								
8/28/2012																								
9/25/2012																								
10/11/2012																								
11/19/2012																								
12/21/2012																								
1/18/2013																								
2/19/2013																								
3/15/2013	1025	56	0	1022	59	0	1030	52	0	1024	57	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4/16/2013	1031	50	0	1030	51	0	1042	39	0	1032	49	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
5/20/2013	1031	50	0	1031	50	0	1044	38	0	Closed	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6/17/2013	CLOSED			CLOSED			1053	29	0	Closed	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7/18/2013	CLOSED			CLOSED			1057	25	0	Closed	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
8/15/2013	CLOSED			CLOSED			1062.3	19.7	0	Closed	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9/19/2013	CLOSED			CLOSED			1063.3	18.7	0	Closed	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

We have two sump pumps controlling ground water run in. These pumps sit at about elevation 1016. They are locates at the south hole perimeter. We estimate one is pumping at less than 35 gpm, the other about 54 gpm. These pumps we placed in these sumps at this elvation on 2/11/13.

11.0 Appendix C – Stark County Health Department (SCHD) Complaint Log

NAME	ADDRESS	ISSUE	WELL LOG/DEPTH	STATUS
Jason Aquino	4002 Faircrest	No Water	Buried - Unknown	New Well
Dave Young	3920 Shepler Church	No Water	Unknown	New Well
Jim Woodlock	4180 Shepler Church	No Water	Unknown	New Well
Kirk Christman	4080 Shepler Church (rental)	No Water	Unknown	New Well
Mike Shapuite	4066 Shepler Church	No Water	Unknown	New Well
Tim Sanko	3932 Shepler Church	Low Water	Unknown	New Well
Carl Gilean	4031 Shepler Church	Low Water	Unknown	New Well
Chapanar	4060 Shepler Church	No Water	91'	Homeowner Monitoring - Will call Health Dept. If changes
Terry Barnett	4070 Kropf	Low Pressure - Sediment	150' /46'	Homeowner Monitoring - Will call Health Dept. If changes
Updated by the Stark County Health Department on August 20, 2012				
Donna Modranski	3966 Shepler Church	Low Water -Air in Lines	Unknown	New Well
Scott & Heather Zollars	4160 Shepler Church	Unable to speak with	Unknown	New Well
Dave Laher	4202 Sherman Church	Spitting after extended use	Unknown	New Well
David & Linda Mugrage	4591 Richville	No Water	Unknown	Supplying SandRock Water
~~Becky Mercier~~	~~4500 Shermont~~	~~Low Pressure - Brown~~	~~133'~~	~~Homeowner Monitoring - Will call Health Dept. If changes~~
John Higham	4191 Shepler Church	Low Pressure	76'	Homeowner Monitoring - Will call Health Dept. If changes
~~Michael & Christine Clark~~	~~4125 Groveland~~	~~No Water (outdoor use only)~~	~~152'~~	~~ODNR out of range~~
David Sands	3913 Shepler Church	Low Pressure, Air, Sediment	Unknown	Homeowner Monitoring - Will call Health Dept. If changes
Brian & Leigh Ann Baker	4151 Shepler Church	Low Pressure	Unknown	New Well
Dolly Walker	4555 Surmay	Discolored	Unknown	Supplying SandRock Water
~~Kenneth Wheeler (tenant)~~	~~4545 Surmay~~		~~80'~~	~~Homeowner Monitoring - Will call Health Dept. If changes~~
~~Kevin & Crystal Spencer~~	~~3728 Whipple~~	~~Low Pressure~~	~~155'~~	~~Evaluated 8/22 - Plumbing Problem - OK~~
Updated by the Stark County Health Department on August 21, 2012				
Jason McCleary	4181 Shepler Church	Air in lines - Sediment - Black	Unknown	New Well
Updated by the Stark County Health Department on August 22, 2012				
Bob Stein	3990 Shepler Church	Low Pressure, Air, Sediment	48'	Homeowner Monitoring - Will call Health Dept. If changes
Updated by the Stark County Health Department on August 23, 2012				
~~Elaine Smith~~	~~4020 Faircrest~~	~~Low Pressure~~		~~Homeowner Monitoring - Will call Health Dept. If changes~~
Updated by the Stark County Health Department on August 27, 2012				
Johannes Schlabach	4110 Shepler Church	No water		New Well
Brenda Wilks	4200 Shepler Church	Low Pressure, spitting		New Well
Larry Sauders	4161 Shepler Church	Low Pressure		Homeowner Monitoring - Will call Health Dept. If changes
Updated by the Stark County Health Department on August 30, 2012				
Richard Marsh	4126 Shepler Church	Spitting after extended use		New Well
~~Robert Fisher~~	~~3331 Gambrinus~~	~~Low Pressure, sediment~~		~~Check with ODNR - Maybe out of range~~
Updated by the Stark County Health Department on September 4, 2012				
Jack Urban	4210 Shepler Church	Low Pressure		New Well
Doris Ferguson (owner)	3718 Whipple	Low Pressure		Evaluated, OK
Updated by the Stark County Health Department on September 5, 2012				
Edward Jordan	4026 Shepler Church	Low Pressure, Water stops		New Well
Updated by the Stark County Health Department on September 11, 2012				
Red Chambers	3969 Shepler Church	No Water	Unknown	New Well
Bob Miller	4130 Kropf	No water	34'	New Well
~~Francis McCleary~~	~~4754 Allenwood~~	~~Change in pressure~~	~~188'~~	~~ODNR out of range~~
~~Anthony Deorio~~	~~2347 Delaware~~	~~Change in pressure~~	~~210'~~	~~ODNR out of range~~
Dale McCallister	3113 Varley	No Water	Unknown	Supplying SandRock Water
Updated by the Stark County Health Department on September 13, 2012				
Kenneth Brown	4215 Shepler Church	No water		New Well
Updated by the Stark County Health Department on September 18, 2012				
~~Ruby Laher~~	~~4202 Faircrest~~	~~No water~~		~~Wants reevaluated~~

NAME	ADDRESS	ISSUE	WELL LOG/DEPTH	STATUS
~~Judy Kendle~~	~~4422 Shepler Church~~			~~Wants to be placed on the list~~
Sharon Shaw	4101 Shepler Church	Low pressure/odor		
Kirk Christman	4020 Shepler Church	Little water		
~~Richard Conley~~	~~5340 Charm~~	~~Low pressure~~		
Francis McCleary	4754 Allenwood	Low Pressure - Sediment		Supplying SandRock Water
~~Jeff Flemming~~	~~4730 Allenwood~~	~~Low Pressure - Sediment~~		~~Wants to be evaluated~~
Updated by the Stark County Health Department on September 24, 2012				
Gene Morris	4144 Shepler Church		62' ?	Wants to be on file
~~Bill Nickles~~	~~4230 Kropf~~	~~Low Pressure - killing safety switch~~		Tied to municipal water
Updated by the Stark County Health Department on September 27, 2012				
John Nolan	3502 Shepler Church			New Well
Updated by the Stark County Health Department on October 1, 2012				
Rich Pinkerton	3476 Shepler Church	no water		New Well
~~Michelle Rohrit~~	~~4411 Shepler Church~~			~~ODNR out of range~~
Updated by the Stark County Health Department on October 4, 2012				
Roger Haught	4014 Shepler Church	running out of water - having to prime pump		New Well
Updated by the Stark County Health Department on October 9, 2012				
Richard Essik	4022 Shepler Church	running out of water - starting to sputter		New Well
Rhonda Hamilton	4077 Shepler Church	getting sediment in water		New Well
Updated by the Stark County Health Department on October 15, 2012				
Carl F. Newhouser II	3963 Shepler Church	Running out of water		Well is OK
Luther Stanley	4124 Paradise	Running out of water		Supplying SandRock Water
Updated by the Stark County Health Department on October 16, 2012				
Astkes Pitman	4000 Shepler Church	Running out of water		New Well
Updated by the Stark County Health Department on October 17, 2012				
Tim Snyder	3831 Shepler Church	**out of water**		Well is OK
Chuck Golliher	3949 Shepler Church	Running out of water		New Well
Updated by the Stark County Health Department on October 24, 2012				
Dianna Scott	3810 Whipple Ave	Low water pressure, water stops, dirt in lines		New Well
Updated by the Stark County Health Department on October 25, 2012				
Jake Jones	4024 Shepler Church	**out of water**		New Well
Gene Smith	3751 Shepler Church	Low water pressure, water stops, dirt in lines		High iron, Clogged pipes. Not relatred to static water depths
Updated by the Stark County Health Department on October 29, 2012				
Jason Dolly	4685 Allenwood	**out of water**		Supplying SandRock Water
Charles Gandee	5601 Faircrest	**Low Pressure, Water stops**		Supplying SandRock Water
Debra Stayley (daughter)	4001 Clover Hill (Owner Donna McDougal Mother)	**Water stops after washing**		Supplying SandRock Water
Updated by the Stark County Health Department on November 5, 2012				
Kathy Tawney (daughter)	4119 Paradise (Owner Virgil Tawney)	**Water stops after washing**		Supplying SandRock Water
Updated by the Stark County Health Department on November 6, 2012				
Jeff Phiffner	3984 Faircrest	**Runs out of Water after shower**		New Well
Updated by the Stark County Health Department on November 9, 2012				
Randy Heck	3820 Whipple Avenue, SW	**Tenant runs out of water after 5-10 minutes**		New Well
Updated by the Stark County Health Department on November 26, 2012				
Sharon Shaw	4101 Shepler Church Repeat from 9/18/12	out of water		New Well
Updated by the Stark County Health Department on November 28, 2012				
Chuck Golliher	3949 Shepler Church Repeat from 10/17/12	Low pressure/sediment		Needs further evaluation
Updated by the Stark County Health Department on December 31, 2012				
Brian & Leigh Ann Baker	4151 Shepler Church	Air in lines		Needs further evaluation
Updated by the Stark County Health Department on January 25, 2013				
Richard Marsh	4126 Shepler Church	Running out of water		Needs further evaluation

NAME	ADDRESS	ISSUE	WELL LOG/DEPTH	STATUS
Zack Bowman	4141 Shepler Church			New Well
Hobert Harmen	4004 Shepler Church			New Well

12.0 Appendix- D - ODNR-DSWR Well Records in the Stark County, Perry and Canton Townships within the Timken Construction Dewatering Study Area

Table 1 Nearby Water Well Logs to Timken Stark Property at 4511 Faircrest Road, Canton Ohio, Strak County

WELL_LOG_ NO	NAME	ST_NO	ST_NAME	ST_TYPE	CNTY	TWP	TOTAL_ DEPTH FEET	S_WATER _LEVEL FEET	TEST_ RATE GPM	AQUIFER_TYPE
Wells ompleted in the Unconsolidated Glacial Sedimets										
862940	THE TIMKEN COMPANY	4511	FAIRCREST	AVE	STARK	CANTON	19			SILT
862938	THE TIMKEN COMPANY	4511	FAIRCREST	AVE	STARK	CANTON	21			SILT
2027709	SPEEDWAY SUPERAMERICA	4985	NAVARRE	RD	STARK	PERRY	14	5.8		CLAY
2027708	SPEEDWAY SUPERAMERICA	4985	NAVARRE	RD	STARK	PERRY	14	6.7		CLAY
2002214	GARY AND RODS AUTOBODY	5750	NAVARRE	RD	STARK	PERRY	18	10		CLAY
2002215	GARY AND RODS AUTOBODY	5750	NAVARRE	RD	STARK	PERRY	22	12		CLAY
2002216	GARY AND RODS AUTOBODY	5750	NAVARRE	RD	STARK	PERRY	23	23		CLAY
870953	HALL	5915	LONGVIEW		STARK	PERRY	62	24	15	CLAY & GRAVEL
889769	SUPERIOR DAIRY SUPERIOR DAIRY	4719	NAVARRE	RD	STARK	CANTON	22			CLAY & SAND
862939	THE TIMKEN COMPANY	4511	FAIRCREST	AVE	STARK	CANTON	20			GRAVEL
891824	ASHLAND CHEMICAL	2408	GAMBRIDUS	AVE	STARK	CANTON	53			GRAVEL
891820	ASHLAND CHEMICAL	2408	GAMBRINUS	AVE	STARK	CANTON	53			GRAVEL
891822	ASHLAND CHEMICAL	2408	GAMBRINUS	AVE	STARK	CANTON	56			GRAVEL
891821	ASHLAND CHEMICAL	2408	GAMBRINUS	AVE	STARK	CANTON	58			GRAVEL
964566	ALVETA STOUT	3708	WHIPPLE		STARK	CANTON	60	15	30	GRAVEL
2034762	ATC ASSOCIATES, INC.	4985	NAVARRE	RD	STARK	PERRY	15	0		GRAVEL & LIMESTONE
861724	CAMERON COCA COLA	4922	NAVARRE	RD	STARK	PERRY	25			GRAVEL AND SAND
2023162	SPEEDWAY SUPER AMERICA	4985	NAVARRE	RD	STARK	PERRY	12	0		SAND
2023163	SPEEDWAY SUPER AMERICA	4985	NAVARRE	RD	STARK	PERRY	12	0		SAND
2023164	SPEEDWAY SUPER AMERICA	4985	NAVARRE	RD	STARK	PERRY	13	0		SAND
2026195	SPEEDWAY SUPERAMERICA	4985	NAVARRE	RD	STARK	PERRY	14	0		SAND
2032408	THE TIMKEN COMPANY	2401	GAMBRINUS	AVE	STARK	CANTON	30	0		SAND
2032410	THE TIMKEN COMPANY	2401	GAMBRINUS	AVE	STARK	CANTON	35	0		SAND
2032411	THE TIMKEN COMPANY	2401	GAMBRINUS	AVE	STARK	CANTON	35	0		SAND
2032412	THE TIMKEN COMPANY	2401	GAMBRINUS	AVE	STARK	CANTON	35	0		SAND
2026193	SPEEDWAY SUPERAMERICA	4985	NAVARRE	RD	STARK	PERRY	12	0		SAND AND GRAVEL
2026194	SPEEDWAY SUPERAMERICA	4985	NAVARRE	RD	STARK	PERRY	14	0		SAND AND GRAVEL
2021614	MARATHON PETROLEUM COMPANY	2408	GAMBRINUS	AVE	STARK	CANTON	15	0		SAND AND GRAVEL
861721	CAMERON COCA COLA	4922	NAVARRE	RD	STARK	PERRY	20			SAND AND GRAVEL
861731	CAMERON COCA COLA	4922	NAVARRE	RD	STARK	PERRY	20			SAND AND GRAVEL
861723	CAMERON COCA COLA	4922	NAVARRE	RD	STARK	PERRY	20			SAND AND GRAVEL
861726	CAMERON COCA COLA	4922	NAVARRE	RD	STARK	PERRY	20			SAND AND GRAVEL
861727	CAMERON COCA COLA	4922	NAVARRE	RD	STARK	PERRY	20			SAND AND GRAVEL
861729	CAMERON COCA COLA	4922	NAVARRE	RD	STARK	PERRY	20			SAND AND GRAVEL
861725	CAMERON COCA COLA	4922	NAVARRE	RD	STARK	PERRY	22			SAND AND GRAVEL
861730	CAMERON COCA COLA	4922	NAVARRE	RD	STARK	PERRY	23			SAND AND GRAVEL

Table 1 Nearby Water Well Logs to Timken Stark Property at 4511 Faircrest Road, Canton Ohio, Strak County

WELL_LOG_ NO	NAME	ST_NO	ST_NAME	ST_TYPE	CNTY	TWP	TOTAL_ DEPTH FEET	S_WATER _LEVEL FEET	TEST_ RATE GPM	AQUIFER_TYPE
2017023	ASHLAND OIL	3801	23RD	ST	STARK	CANTON	25	0		SAND AND GRAVEL
2021616	MARATHON PETROLEUM COMPANY	2408	GAMBRINUS	AVE	STARK	CANTON	25	0		SAND AND GRAVEL
2017021	ASHLAND OIL	3801	23RD	ST	STARK	CANTON	27	0		SAND AND GRAVEL
2017022	ASHLAND OIL	3801	23RD	ST	STARK	CANTON	27	0		SAND AND GRAVEL
2017024	ASHLAND OIL	3801	23RD	ST	STARK	CANTON	27	0		SAND AND GRAVEL
2013424	MARATHON PETROLEUM COMPANY		23RD	ST	STARK	CANTON	117	42	100	SAND AND GRAVEL
861720	CAMERON COCA COLA	4922	NAVARRE	RD	STARK	PERRY	19			SILT
2023899	TIER 1 SOURCE INVESTIGATION	4985	NAVARRE	RD	STARK	PERRY	12	6.4		SILT
2023898	TIER 1 SOURCE INVESTIGATION	4985	NAVARRE	RD	STARK	PERRY	12	6.6		SILT
2023900	TIER 1 SOURCE INVESTIGATION	4985	NAVARRE	RD	STARK	PERRY	13	7.5		SILT
2034761	ATC ASSOCIATES INC	4985	NAVARRE	RD	STARK	PERRY	14	0		SILT & CLAY
2034759	ATC ASSOCIATES INC.	4985	NAVARRE	RD	STARK	PERRY	15	0		SILT & CLAY
871440	CAMERON COCA COLA	4922	NAVARRE	RD	STARK	CANTON	27			SILT & CLAY
889768	SUPERIOR DAIRY	4719	NAVARRE	RD	STARK	CANTON	29			SILT & CLAY
861728	CAMERON COCA COLA	4922	NAVARRE	RD	STARK	PERRY	20			SILT/SAND/GRAVEL
897331	LIGHTHOUSE POOLS	3810	WHIPPLE	AVE	STARK	PLAIN	71	10	18	SAND/GRAVEL/CLAY
						Max	117	42	100	
						Min	12	0	15	
						Ave	27	5	41	
Well completed in the Bedrock										
267984	KAISER HOMES	4711	SHEPLER CHURCH	RD	STARK	PERRY	40	9	15	LIMESTONE
841878	DANIEL DEDMON	4800	FIELDS	AVE	STARK	CANTON	50	15	20	LIMESTONE
2015031	SCHALMO BUILDERS	2568	BORDNER	AVE	STARK	PERRY	58	38	15	LIMESTONE
408119	JAMES AGENCY	5060	LEONA	AVE	STARK	PERRY	60	38	20	LIMESTONE
311246	EMIL DRENTA	5020	LEONA	ST	STARK	PERRY	69	45	10	LIMESTONE
369975	EMIL DRENTA BUILDER	5706	DARLETTA	ST	STARK	PERRY	75	30	10	LIMESTONE
401460	LAWRENCE BRUMBAUGH	5809	BOSFORD		STARK	PERRY	95	44	10	LIMESTONE
725714	TERRY/KAREN SPRANKLE	4117	RICHMONT	AVE	STARK	PERRY	102	52	4	LIMESTONE
1005787	TROY SCHAFRATH	4707	SHERMONT	AVE	STARK	PERRY	117	55	20	LIMESTONE
288833	C JOHNSON	5977	RICHVILLE	DR	STARK	PERRY	165	90	10	LIMESTONE
562554	HELEN DUNBAR	4086	MAPLELYNN		STARK	PERRY	169	75	20	LIMESTONE
1009000	RONALD BATES	4400	EDDIE	ST	STARK	PERRY	343	200	20	LIMESTONE
295875	SHERER LUMBER	6070	HIGHTON	ST	STARK	PERRY	105	40		LIMESTONE AND SHALE
971598	KARIN COFFMAN	3125	CRESTPARK		STARK	CANTON	419	200	20	LIMESTONE AND SHALE
810606	OHIO EDISON	1922	GENOA	RD	STARK	PERRY	58	17	15	SANDST & SHALE
870960	PAUL MATTERN	6200	HIGHTON		STARK	PERRY	80	44	25	SANDST & SHALE
986911	MATT LUCKING	4801	SHEPLER CHURCH	RD	STARK	PERRY	100	17	25	SANDST & SHALE

Table 1 Nearby Water Well Logs to Timken Stark Property at 4511 Faircrest Road, Canton Ohio, Strak County

WELL_LOG_NO	NAME	ST_NO	ST_NAME	ST_TYPE	CNTY	TWP	TOTAL_DEPTH FEET	S_WATER_LEVEL FEET	TEST_RATE GPM	AQUIFER_TYPE
940049	SCHALMO BUILDERS	2420	SWISS	AVE	STARK	PERRY	145	40	15	SANDST & SHALE
882358	DOUBLE EAGLE HOMES	2501	SHIRLEY ANN	AVE	STARK	PERRY	161	48	20	SANDST & SHALE
986917	GEORGE BAKER	3826	FAIRCREST		STARK	CANTON	240	55	8	SANDST & SHALE
873523	HELMUT SCHOEN	2637	SHIRLEY ANN	AVE	STARK	PERRY	260	56	15	SANDST & SHALE
864279	ROLIN IRWIN	2666	SARATOGA	AVE	STARK	PERRY	299	54	10	SANDST & SHALE
286509	ROBERT LOTZ	6140	HIGHTON	AVE	STARK	PERRY	60	25	18	SANDSTONE
400082	JOHN CLAPPER	4965	LEONA		STARK	PERRY	85	40	10	SANDSTONE
306928	MAURICE WALLICK	4022	RICHMONT	AVE	STARK	PERRY	386	154	10	SANDSTONE
924609	SCHALMO BLDRS	4636	KENDAL	ST	STARK	PERRY	125	35	15	SANDSTONE
471647	DEAN MOORE	6061	BOSFORD		STARK	PERRY	126	60	12	SANDSTONE
495008	KAISER-KEYSTONE HOME	6216	COLLEGE	ST	STARK	PERRY	130	70	10	SANDSTONE
986952	GRACE RIGGENBACH	3393	SHEPLER CH	AVE	STARK	CANTON	140	67	100	SANDSTONE
924592	SCHALMO BUILDERS	2453	NEGLEY	AVE	STARK	PERRY	145	40	15	SANDSTONE
349497	GERALD MURPHY	6315	HIGHTON	ST	STARK	PERRY	147	80		SANDSTONE
398903	WILLIAM MATTEVI INC.	3838	CLETUS	AVE	STARK	PERRY	155	70		SANDSTONE
924595	SCHALMO BLDRS	4600	KENDAL	ST	STARK	PERRY	160	50	20	SANDSTONE
961783	JACK HARVEY	4736	NAVARRE	RD	STARK	PERRY	170	30	35	SANDSTONE
409399	W MATTIVE	5935	BOSFORD	AVE	STARK	PERRY	174	72	152	SANDSTONE
930454	SCHALMO BUILDERS	2454	SWISS	AVE	STARK	PERRY	120	40	20	SANDSTONE
855234	ERNIE WANNER	3300	GENOA		STARK	PERRY	175	70	15	SANDSTONE
823776	PAUL WESTLAND	5845	BOSFORD		STARK	PERRY	198	120	15	SANDSTONE
297478	H SHANOWER	6236	HIGHTON	ST	STARK	PERRY	200	92	6	SANDSTONE
321430	GLENN MANSFIELD	6211	HIGHTON	ST	STARK	PERRY	210	127	10	SANDSTONE
418173	DON STEINBACH	5845	BOSFORD		STARK	PERRY	214	110		SANDSTONE
2027329	WILLIAM SAMMET	3444	SHERMAN CHURCH		STARK	CANTON	216	55	25	SANDSTONE
931512	SARA POLEN	4305	PARADISE		STARK	CANTON	220	60	7	SANDSTONE
1010350	ONITA SCHAFRATH	5959	NAVARRE	RD	STARK	PERRY	227	80	15	SANDSTONE
868434	DAN HALDER	5549	AUTUMNCREST	ST	STARK	PERRY	235	110	12	SANDSTONE
496210	JOHN MUEHLHEIM	5990	BOSFORD		STARK	PERRY	300	175	10	SANDSTONE
962335	DUTCH HERITAGE HOMES	4915	FIELDS		STARK	CANTON	142	25	12	SANDSTONE
933776	JAMES KREITZER	4044	CLOVERHILL		STARK	CANTON	310	95	10	SANDSTONE
655197	LILLEY DOMER	3900	RICHMONT	AVE	STARK	PERRY	310	240	20	SANDSTONE
662023	LILLEY DOMER	3900	RICHMONT	AVE	STARK	PERRY	310	240	20	SANDSTONE
964579	SHERYL GRESSER	4056	SHEPLER		STARK	PERRY	310	130	12	SANDSTONE
684606	LILLY DOMER	3700	RICHMONT	AVE	STARK	PERRY	320	220	10	SANDSTONE
496211	JOHN MUEHLHEIM	5970	BOSFORD		STARK	PERRY	325	250	10	SANDSTONE
779459	RICK STONER	5990	BOSFORD		STARK	PERRY	325	190	20	SANDSTONE

Table 1 Nearby Water Well Logs to Timken Stark Property at 4511 Faircrest Road, Canton Ohio, Strak County

WELL_LOG_ NO	NAME	ST_NO	ST_NAME	ST_TYPE	CNTY	TWP	TOTAL_ DEPTH FEET	S_WATER _LEVEL FEET	TEST_ RATE GPM	AQUIFER_TYPE
2017175	JOHN STECKMAN	4470	SHEPLER CHURCH	AVE	STARK	PERRY	340	130	12	SANDSTONE
895398	DAVID BISSELL	3800	REXDALE		STARK	CANTON	341	187	12	SANDSTONE
864016	MATT CHIAVAROLI	2926	REXDALE		STARK	CANTON	344	140	5	SANDSTONE
741713	JAMES BARCLAY	4114	RICHMONT	ST	STARK	PERRY	365	118	15	SANDSTONE
406858	ERNEST CASTO	6065	HIGHTON		STARK	PERRY	375	173	10	SANDSTONE
774437	ERNIE BOYD	6140	RICHVILLE	DR	STARK	PERRY	375	200	15	SANDSTONE
741740	CHERYL BERRY	6211	COLLEGE		STARK	PERRY	378	200	15	SANDSTONE
887467	KARL RASHONG	2434	DELAWARE	AVE	STARK	PERRY	380	175	20	SANDSTONE
941523	ADAM HAYNAM	5319	KEIFFER	RD	STARK	CANTON	381	195	12	SANDSTONE
679821	RONALD JONES	6011	RICHVILLE	DR	STARK	PERRY	390	240	15	SANDSTONE
553245	BONNIE JONES	5935	BOSFORD		STARK	PERRY	395	215	25	SANDSTONE
601773	ARNOLD STACEY	6025	RICHVILLE	DR	STARK	PERRY	395	215	30	SANDSTONE
663999	RONALD LAUTENSLEGER	3864	CLETUS		STARK	PERRY	398	198	15	SANDSTONE
870425	GEORGE A BRICKER	3151	CRESTPARK	AVE	STARK	CANTON	400	255	10	SANDSTONE
2013063	EUGENE KIKO	4462	SHERMONT	AVE	STARK	PERRY	400	200	15	SANDSTONE
800477	MYRON PHILLIPS	6076	RICHVILLE	DR	STARK	PERRY	402	216	10	SANDSTONE
553234	ANTHONY RODRIGUEZ	6035	RICHVILLE	DR	STARK	PERRY	405	180	40	SANDSTONE
987253	JEFF MCDONALD	4787	ALLENWOOD		STARK	PERRY	410	285	15	SANDSTONE
380760	A RODRIGUEZ	6035	RICHVILLE	DR	STARK	PERRY	415	225	8	SANDSTONE
881524	ED KLEMENT	3400	REXDALE		STARK	CANTON	420	200	10	SANDSTONE
928683	BIAGGIO CARLONE	4930	OAKVALE	ST	STARK	PERRY	220	40	20	SANDSTONE
2018346	DOUGLAS NOLAN	4648	SHERMONT	AVE	STARK	PERRY	420	230	15	SANDSTONE
406512	EDWIN SCHWEDER	6100	BOSFORD	AVE	STARK	PERRY	423	180	12	SANDSTONE
441101	THOMAS SCHUMAKER	5960	BOSFORD	ST	STARK	PERRY	424	180	25	SANDSTONE
897370	PAUL DAVIS	3671	KRISHER	AVE	STARK	CANTON	320	150	10	SANDSTONE
946674	CODISPOTI CONSTRUCTI	4771	BETH	AVE	STARK	PERRY	360	180	10	SANDSTONE
864315	CHARLIE STEWART	5328	KIEFFER	AVE	STARK	CANTON	398	98	8	SANDSTONE
926374	DOUGLAS NOLAN	4648	SHERMONT	AVE	STARK	PERRY	400	230	8	SANDSTONE
955284	ANTHONY DEURIO	2347	DELAWARE	AVE	STARK	PERRY	210	80	10	SANDSTONE
864326	RANDY BENNETT	5335	KEIFFER	AVE	STARK	CANTON	362	193	10	SANDSTONE
939312	STACY/MICHAEL MARCHENKA	4580	SHERMONT	AVE	STARK	PERRY	392	250	10	SANDSTONE
806246	DAN RADANOVICH	6125	BOSFORD		STARK	PERRY		230	10	SANDSTONE
948271	SCHALMO BUILDERS	4608	RICHVILLE	DR	STARK	PERRY	46	12	20	SHALE
391807	W MATTIVE	5850	BOSFORD	AVE	STARK	PERRY	55	28	15	SHALE
293895	WALMAC CONSTRUCTION	6112	HIGHTON	ST	STARK	PERRY	65	15	10	SHALE
279686	ANGEW & HENNING	6282	NAVARRE	RD	STARK	PERRY	70	35	18	SHALE
262450	W MATTERN	4268	RICHMONT	AVE	STARK	PERRY	70	20	10	SHALE

Table 1 Nearby Water Well Logs to Timken Stark Property at 4511 Faircrest Road, Canton Ohio, Strak County

WELL_LOG_NO	NAME	ST_NO	ST_NAME	ST_TYPE	CNTY	TWP	TOTAL_DEPTH FEET	S_WATER_LEVEL FEET	TEST_RATE GPM	AQUIFER_TYPE
928014	DON MORRIS	4131	RICHVILLE	DR	STARK	PERRY	70	35	8	SHALE
999666	PHANTOM FIRE WORKS	2801	FAIRCREST	RD	STARK	CANTON	75	2	15	SHALE
503089	ALLEN BEALER	6070	HIGHTON		STARK	PERRY	75	45	10	SHALE
863834	TERRY /JOAN BRISTOW	4343	PLAINFIELD	AVE	STARK	CANTON	75	10	30	SHALE
2012749	SCHALMO BUILDERS	5880	LONGVIEW		STARK	PERRY	77	27	15	SHALE
896189	PAUL HANOOD	3405	FAIRCREST	AVE	STARK	CANTON	78	38	15	SHALE
207612	PAUL YOUNG	5020	SHEPLER CHURCH	RD	STARK	PERRY	78	19		SHALE
403389	KAISER-KEYSTONE HOME	5675	DARLETTA		STARK	PERRY	79	30	8	SHALE
403392	KAISER-KEYSTONE HOME	5666	DARLETTA		STARK	PERRY	80	35	8	SHALE
873479	BRIAN MCGOVERN	4545	SURNAY	AVE	STARK	PERRY	80	25	18	SHALE
418923	KAISER-KEYSTONE	5730	DARLETTA		STARK	PERRY	82	35	8	SHALE
403359	KAISER-KEYSTONE HOME	5615	DARLETTA		STARK	PERRY	83	35	10	SHALE
453760	KAISER-KEYSTONE HOME	4910	LEONA		STARK	PERRY	85	45	10	SHALE
952175	ALICE BAKER	2580	SWISS	AVE	STARK	PERRY	85	30	15	SHALE
346938	EMIL DRENTA	5697	DARLETTA		STARK	PERRY	90	30	10	SHALE
346914	EMIL DRENTA	4978	LEONA	ST	STARK	PERRY	90	50	10	SHALE
934581	CURTIS ELLIOTT	4149	RICHVILLE	DR	STARK	PERRY	90	50	10	SHALE
724442	WILLIAM DINGER	5210	DEMAR		STARK	PERRY	93	31	10	SHALE
868412	STEVE MARSINO	5790	CRESTFIELD	ST	STARK	PERRY	95	45	14	SHALE
968142	TOM KOLP	4571	NAVARRE	AVE	STARK	PERRY	95	30	20	SHALE
2018905	RON HOFFNER	4707	RICHVILLE	DR	STARK	PERRY	99	52	10	SHALE
859389	CROCKETT CONST INC	5340	CHARM	ST	STARK	PERRY	100	80	20	SHALE
859388	HOMES BY ASHLEY	5365	DOLORES	ST	STARK	PERRY	100	50	20	SHALE
680216	DAVE KAUTH	4297	MULHEIM		STARK	PERRY	100	25	20	SHALE
403385	KAISER-KEYSTONE	5635	DARLETTA		STARK	PERRY	105	35	8	SHALE
1006015	SCHUMACHER HOMES	4245	RICHVILLE		STARK	PERRY	110	50	25	SHALE
346939	EMIL DRENTA	5725	DARLETTA	ST	STARK	PERRY	115	68	10	SHALE
501770	TOM MILLER	6198	RICHVILLE	DR	STARK	PERRY	115	60	10	SHALE
403384	KAISER-KEYSTONE HOME	5614	DARLETTA	ST	STARK	PERRY	116	35	8	SHALE
912804	JOHN WILLIAMS	2413	MOCK	AVE	STARK	PERRY	120	40	15	SHALE
928791	RON VEGA	4613	NAVARRE	RD	STARK	PERRY	120	45	25	SHALE
986950	JOHN WOLAND	3516	PRAIRIE COLLEGE		STARK	CANTON	120	10	15	SHALE
989472	MARK TRISSEL	2802	REXDALE		STARK	CANTON	120	50	5	SHALE
999252	MATT MORGAN	3407	PRAIRIE COLLEGE	ST	STARK	CANTON	122	2	12	SHALE
710768	EMORY VAUGHN	3880	RICHMONT	AVE	STARK	PERRY	128	47	25	SHALE
873474	SANDY KRAUSE	2455	BORDNER	AVE	STARK	PERRY	130	80	15	SHALE
2006885	JAMES BURRESS	4689	SURMAY		STARK	PERRY	130	25	10	SHALE

Table 1 Nearby Water Well Logs to Timken Stark Property at 4511 Faircrest Road, Canton Ohio, Strak County

WELL_LOG_ NO	NAME	ST_NO	ST_NAME	ST_TYPE	CNTY	TWP	TOTAL_ DEPTH FEET	S_WATER _LEVEL FEET	TEST_ RATE GPM	AQUIFER_TYPE
288832	C JOHNSON	5965	RICHVILLE	DR	STARK	PERRY	135	63	8	SHALE
855233	MARCUS HART	3430	STILLMEADOW		STARK	PERRY	135	35	18	SHALE
938387	GENE KIKO	4462	SHERMONT	AVE	STARK	PERRY	138	40	30	SHALE
873518	DAVE WALZ	6201	RICHVILLE	DR	STARK	PERRY	145	60	15	SHALE
873475	KERRY THOMPSON	4556	SHERMONT	AVE	STARK	PERRY	145	69	18	SHALE
441107	W SMITH	5919	BOSFORD		STARK	PERRY	150	90	6	SHALE
218589	KAISER ADMIRAL HOMES	6215	BOSFORD		STARK	PERRY	150	72	16	SHALE
702134	DOROTHY WHITE	6277	COLLEGE	ST	STARK	PERRY	150	60	15	SHALE
899672	HOMER EUDY	3728	WHIPPLE		STARK	CANTON	155	40	25	SHALE
868428	RICHARD CHARTON	3865	RICHMONT	AVE	STARK	PERRY	160	90	16	SHALE
1010351	JOHN NOLAN	3224	VARELY		STARK	CANTON	160	70	20	SHALE
928788	MIKE LANG	3011	REXDALE		STARK	CANTON	165	95	25	SHALE
670567	RUDY PRESTIER BLDR	5796	BOSFORD	ST	STARK	PERRY	170	50	21	SHALE
336729	PAUL YOUNG	3975	RICHMONT	AVE	STARK	PERRY	173	76	10	SHALE
885005	DOAMA ,ETZ	2801	SHEPLER CHURCH	RD	STARK	CANTON	180	90	15	SHALE
601617	TOM ANDREWS	6182	COLLEGE		STARK	PERRY	185	100	15	SHALE
972702	SC SCHALMO BLDRS	4766	SHERMAN	CT	STARK	CANTON	195	30	15	SHALE
460552	ALBERT ANGELIS	5889	BOSFORD		STARK	PERRY	200	90	5	SHALE
893556	ROBERT MARKS	4766	HURLESS	DR	STARK	PERRY	200	60	8	SHALE
732542	PAUL/BECKIE CUSTER	3860	RICHMONT	AVE	STARK	PERRY	200	75	7	SHALE
866524	EMORY VAUGHN	3880	RICHMONT	AVE	STARK	PERRY	200	90	5	SHALE
870435	MARK VANCE	2719	SHEPLER CHURCH	AVE	STARK	CANTON	200	100	15	SHALE
733680	BRIARWOOD CONST	5894	BOSFORD	RD	STARK	PERRY	205	130	16	SHALE
2018959	DOUG ADAMS DRILLING	3606	SHERMAN CHURCH	RD	STARK	CANTON	222	54	20	SHALE
2030342	LAUREN CATHIS	2829	PRARIE COLLEGE	RD	STARK	CANTON	225			SHALE
369969	PAUL SPRANKLE	4123	RICHMONT	AVE	STARK	PERRY	225	75	10	SHALE
464973	DAVE KAUTH	5959	BOSFORD		STARK	PERRY	240	140	10	SHALE
311224	MICHAEL BARTKO	6251	COLLEGE		STARK	PERRY	250	90	7	SHALE
332753	C JOHNSON	6005	RICHVILLE	DR	STARK	PERRY	250	85	7	SHALE
851032	GRAIG/CAROL ROTH	5747	BIRCHDALE		STARK	PERRY	260	115	20	SHALE
394512	HERMAN SHOEMAN	6090	BOSFORD		STARK	PERRY	266	123	10	SHALE
289042	MIKE LOEW	6110	BOSFORD	ST	STARK	PERRY	274	145	5	SHALE
710307	CARL YARNOVICH	6041	BOSFORD	RD	STARK	PERRY	280	50	15	SHALE
760137	DORA/TERRY ROGERS	6150	COLLEGE	ST	STARK	PERRY	290	150	10	SHALE
868431	JOHN SCHERING	5771	BIRCHDALE	ST	STARK	PERRY	300	70	20	SHALE
939271	CHRIS YOUNG	4715	HURLESS		STARK	PERRY	300	43	3	SHALE
353384	DAVID KAUTH	4154	RICHMONT	AVE	STARK	PERRY	303	84	8	SHALE

Table 1 Nearby Water Well Logs to Timken Stark Property at 4511 Faircrest Road, Canton Ohio, Strak County

WELL_LOG_ NO	NAME	ST_NO	ST_NAME	ST_TYPE	CNTY	TWP	TOTAL_ DEPTH FEET	S_WATER _LEVEL FEET	TEST_ RATE GPM	AQUIFER_TYPE
378133	FREDERICK RIPPERT	5950	RICHVILLE	DR	STARK	PERRY	317	120	10	SHALE
873466	CLARENCE HUNTSMAN	2333	NEGLEY	AVE	STARK	PERRY	330	75	8	SHALE
747473	HERMAN SHUMAN	6080	BOSFORD	ST	STARK	PERRY	338	215	10	SHALE
2023157	JOE MONTGOMERY	4785	HURLESS	DR	STARK	PERRY	340	200	10	SHALE
870951	LOEW	6110	BOSFORD	ST	STARK	PERRY	350	86	12	SHALE
971661	JOE YANNONE	4130	SHEPLER CHURCH		STARK	PERRY	360	165	20	SHALE
954561	LISA GUILLIOMA	4750	SHERMONT	AVE	STARK	PERRY	360	180	15	SHALE
864001	BRUCE BAKER	4949	HIGHWOOD		STARK	CANTON	382	210	7	SHALE
941532	MARK TRISSEL	2802	REXDALE	ST	STARK	CANTON	498	281	15	SHALE
842784	GUS PAXOS	4633	NAVARRE	RD	STARK	PERRY		40	30	SHALE
964160	ANDY BYLER	4500	SHERMONT		STARK	PERRY	133	43	18	SHALE & LIMEST
855235	ISKI	3339	GENOA	RD	STARK	PERRY	180	70	15	SHALE AND SANDSTONE
207618	PAUL YOUNG	5030	SHEPLER CHURCH	RD	STARK	PERRY	69	21	10	SHELLS LIME SAND
408115	VILLA BUILDERS	3851	CLETUS	AVE	STARK	PERRY	154	74	7	COAL
375446	ROY GREENSHILLD	4171	RICHMONT	AVE	STARK	PERRY	205	100	10	SHELLS LIME SAND
893551	BENJAMIN TICHNOLL	5461	OAKCLIFF		STARK	PERRY	75	50	20	SHALE
933866	BART WEIS	5980	LONGBROOK		STARK	PERRY	100			SHALE
811407	OTTERBEIR CHURCH	3916	FAIRCREST		STARK	CANTON	105	30	18	SHALE
836297	JEANNETTE ITALIA	3223	GAMBRINUS		STARK	CANTON	159	70	20	SHALE
						Max	498	285	152	
						Min	40	2	3	
						Ave	206	93	16	

13.0 APPENDIX E DOMESTIC WATER SUPPLY WELL LOGS USED FOR OBSERVATION MONITORING DURING THE PROJECT

DNR 7802.96

TYPE OR USE PEN
SELF TRANSCRIBING
PRESS HARD

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Divison of Water, 1939 Fountain Square Drive
Columbus, Ohio 43224-9971 Voice (614) 265-6739 Fax (614) 447-9503

AS 964566

WELL LOCATION

County Stark Township Canton

Owner/Builder (Circle One or Both) First: Alvetta Last: Stout

Address of Well Location Number: 3708 Street Name: Whipple SW

City Canton Zip Code +4 44706

Permit No. 21576 Section/Lot No. (Circle One or Both)

Location of Well in State Plane coordinates, if available: Use of Well Home

N ☐ X 40 . 45 +/- 51 ft. or m

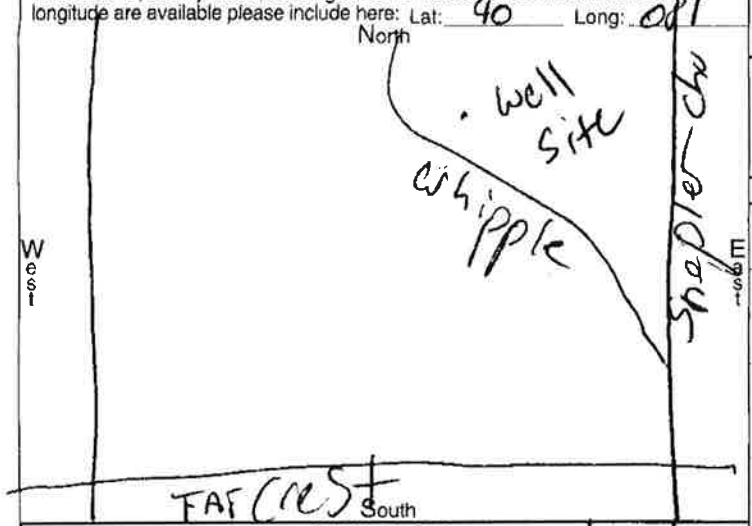
S ☐ Y 081 . 25 +/- 67 ft. or m

Elevation of Well 1134 . 0 +/- 0 ft. or m

Datum Plain: ☐ NAD27 ☐ NAD83 Elevation Source GPS

Source of Coordinates: ☒ GPS ☐ Survey ☐ Other

Sketch a map showing distance well lies from numbered state highways, street intersections, county roads, buildings or other notable landmarks. If latitude and longitude are available please include here: Lat: 40 Long: 081



WELL TEST*

Pre-Pumping Static Level 15 ft. Date 10/22/04

Measured from: ☒ Top of Casing ☐ Ground Level ☐ Other

☒ Air ☐ Bailing ☐ Pumping* ☐ Other

Test Rate 30 gpm Duration of Test 1 hrs.

Feet of Drawdown 0 ft. Sustainable Yield 30 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

Quality Clear

PUMP/PITLESS

Type of pump Sub Capacity 7 gpm

Pump set at 30 ft. Pitless Type Dicton

Pump installed by Behrs Pump

I hereby certify the information given is accurate and correct to the best of my knowledge.

Drilling Firm A.W. Smith Well Drill

Address 6613 Manchester Rd

City, State, Zip Clinton OH

Signed [signature] Date 10/22/04

ODH Registration Number 2077

CONSTRUCTION DETAILS

☒ Rotary ☐ Cable ☐ Augered ☐ Driven ☐ Other

BOREHOLE/CASING (measured from ground surface)

1 ☐ Borehole Diameter 8 inches Depth 60 ft.

Casing Diameter 5 in. Length 57 ft. Thickness SDR21 in.

2 ☐ Borehole Diameter inches Depth ft.

Casing Diameter in. Length ft. Thickness in.

Casing Height Above Ground ft.

Type: 1 ☐ 2 ☐ Steel; 1 ☐ 2 ☐ Galv.; 1 ☒ 2 ☐ PVC; 1 ☐ 2 ☐ Other Certalock

Joints: 1 ☐ 2 ☐ Threaded; 1 ☐ 2 ☐ Welded; 1 ☐ 2 ☐ Solvent; 1 ☐ 2 ☐ Other

SCREEN

Diameter 5 Slot Size 40 Screen Length 3 ft.

Type Wire wrapped Material S/S

Set Between 57 ft. and 60 ft.

GRAVEL PACK (Filter Pack)

Material/Size #12 Volume/Weight Used 300 LB

Method of Installation Washed in

Depth: Placed FROM 55 ft. TO 60 ft.

GROUT

Material Bensal Volume/Weight Used 200 LB

Method of Installation pumped from tube

Depth: Placed FROM 0 ft. TO 55 ft.

DRILLING LOG*

INDICATE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Show color, texture, hardness, and formation: sandstone, shale, limestone, gravel, clay, sand, etc.	From	To
Yellow clay	0	30
Sandy clay	30	50
Gravel	50	60

*(If more space is needed to complete drilling log, use next consecutively numbered form.)

Date of Well Completion 10/22/04 Total Depth of Well 60 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.

ORIGINAL COPY TO - ODNR, DIVISION OF WATER, 1939 FOUNTAIN SQ. DRIVE, COLS., OHIO 43224-9971

Blue - Customer's copy Pink - Driller's copy Green - Local Health Dept. copy

County Permit No.

NO CARBON PAPER NECESSARY – SELF-TRANSCRIBING

WELL LOG AND DRILLING REPORT

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
Fountain Square
Columbus, Ohio 43224

KRS
559730

ORIGINAL

COUNTY Stark TOWNSHIP Canton SECTION OF TOWNSHIP

OWNER Karon-Keystone Homes ADDRESS 6629 Manard Rd Canton O

LOCATION OF PROPERTY 3223 Gantrams

CONSTRUCTION DETAILS

Casing diameter 4 Length of casing 94

Type of screen Stainless Steel Length of screen 30

Type of pump

Capacity of pump

Depth of pump setting

Date of completion 7-18-79

BAILING OR PUMPING TEST
(specify one by circling)

Test rate 10 gpm Duration of test 2 hrs

Drawdown 0 ft Date

Static level (depth to water) 50 ft

Quality (clear, cloudy, taste, odor)

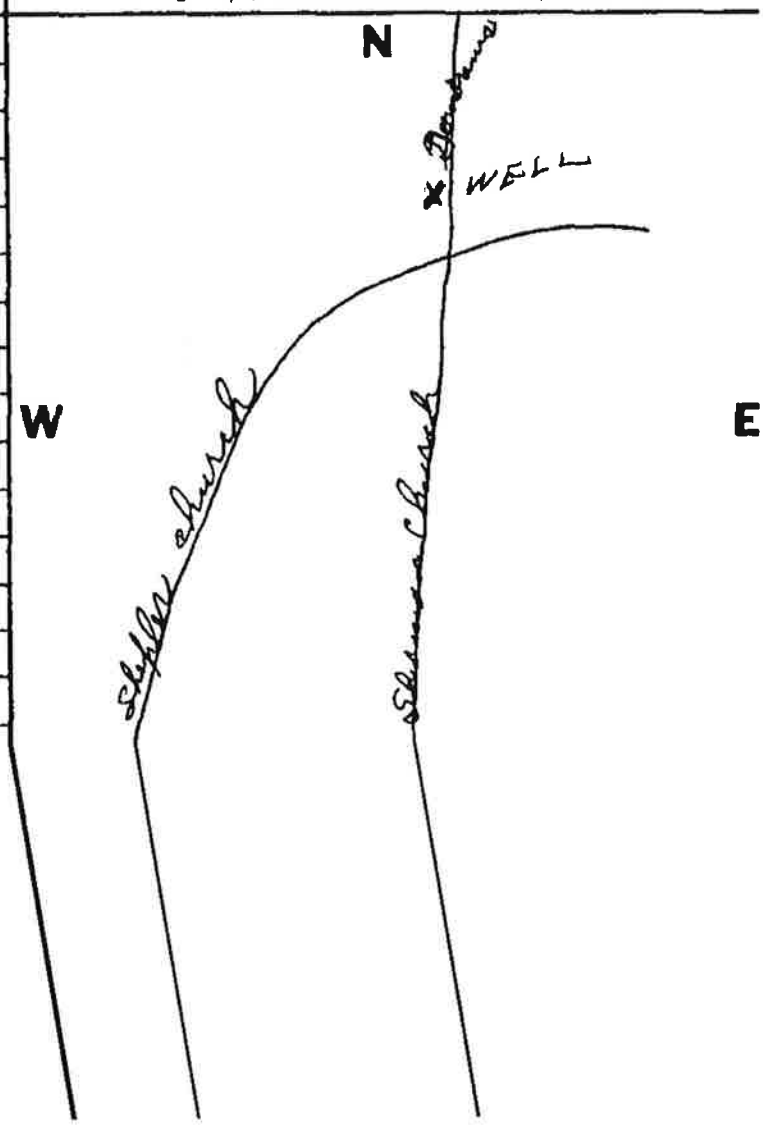
Pump installed by

WELL LOG*

Formations: sandstone, shale, limestone, gravel, clay	From	To
Clay with gravel	0 ft	15 ft
Sand & Gravel	15	80
Sand	80	86
Sand & Gravel	86	94

SKETCH SHOWING LOCATION

Locate in reference to numbered state highways, street intersections, county roads, etc.



WELL LOG AND DRILLING REPORT

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
Fountain Square
Columbus, Ohio 43224

NO CARBON PAPER NECESSARY– SELF-TRANSCRIBING

MP2
605207

COUNTY Stark TOWNSHIP Perry SECTION OF TOWNSHIP

OWNER Marke Petros ADDRESS 5259 Faircrest Canton, Ohio

LOCATION OF PROPERTY Same address

CONSTRUCTION DETAILS

Casing diameter 5" Length of casing 70 ft

Type of screen — Length of screen —

Type of pump Submersible

Capacity of pump 10 GPM

Depth of pump setting 95 ft

Date of completion 10-1-83

BAILING OR PUMPING TEST
(specify one by circling)

Test rate 25 gpm Duration of test 4 hrs

Drawdown 18 ft Date 9-28-83

Static level (depth to water) 65 ft ft

Quality (clear, cloudy, taste, odor) Clear

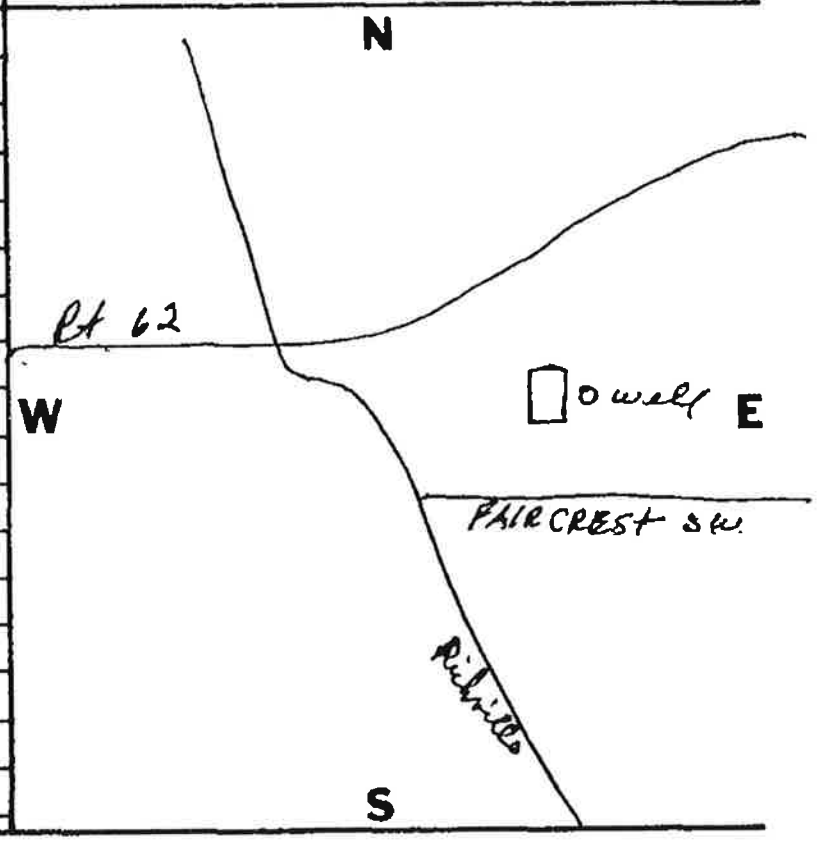
Pump installed by

WELL LOG*

Formations: sandstone, shale, limestone, gravel, clay	From	To
Drill	0 ft	12 ft
Yellow Clay	12	25
Lime + Shale	25	28
Broken shale	28	65
Limestone	65	73
Shale	73	105
Limestone	105	115

SKETCH SHOWING LOCATION

Locate in reference to numbered state highways, street intersections, county roads, etc.



DRILLING FIRM Canton Well + Pump Co DATE 10-10-83

WELL LOG AND DRILLING REPORT

WP

601049

NO CARBON PAPER NECESSARY– SELF-TRANSCRIBING

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
Fountain Square
Columbus, Ohio 43224

COUNTY Stark TOWNSHIP Perry SECTION OF TOWNSHIP 25

OWNER William O. Pyles Jr. ADDRESS 3990 Shepler Churchhaven Canton, O

LOCATION OF PROPERTY Same

CONSTRUCTION DETAILS

Casing diameter 8" Length of casing 31

Type of screen _____ Length of screen _____

Type of pump _____

Capacity of pump _____

Depth of pump setting _____

Date of completion Oct 29, 1985

BAILING OR PUMPING TEST
(specify one by circling)

Test rate 12 gpm Duration of test 50 min

Drawdown NONE ft Date Oct 29, 1985

Static level (depth to water) 22 ft. ft

Quality (clear, cloudy, taste, odor) CLOUDY

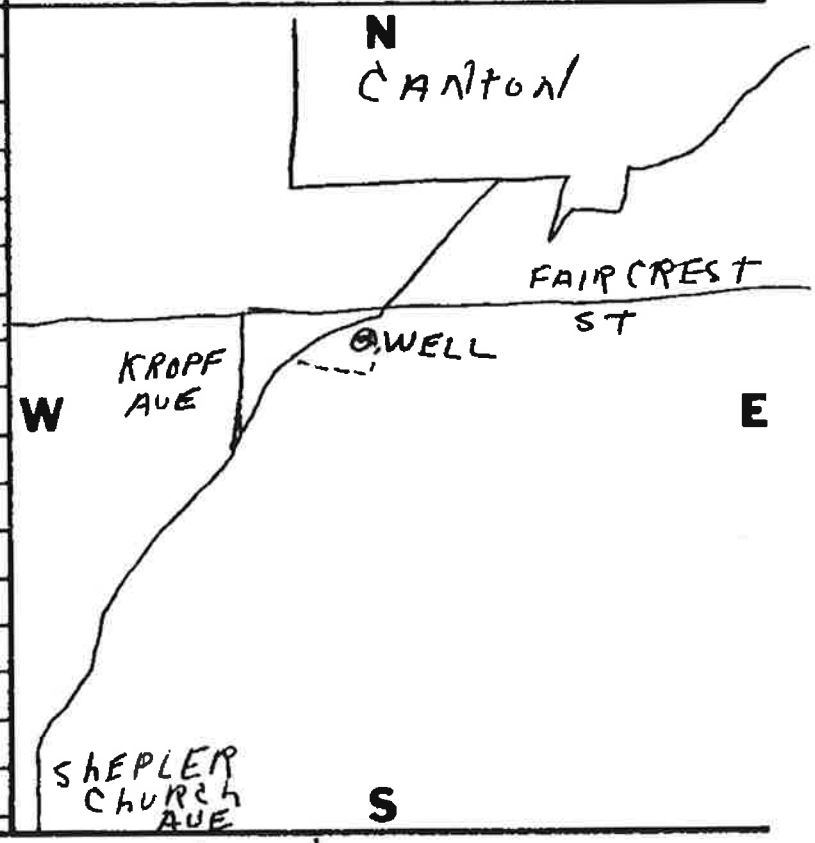
Pump installed by _____

WELL LOG*

Formations: sandstone, shale, limestone, gravel, clay	From	To
CLAY + GRAVEL	0 ft	32 ft
SHALE	32	46
LIMESTONE	46	48

SKETCH SHOWING LOCATION

Locate in reference to numbered state highways, street intersections, county roads, etc.



DRILLING FIRM Don Shetler Water Well Drilling DATE Nov. 4, 1985

ADDRESS 8044 Fohl St. S.W. Navarre SIGNED Don Shetler

*If additional space is needed to complete well log, use next consecutive numbered form.

ORIGINAL COPY - ODNR, DIVISION OF WATER, FOUNTAIN SQ., COLS., OHIO 43224

WELL LOG AND DRILLING REPORT

NW

605215

NO CARBON PAPER NECESSARY– SELF-TRANSCRIBING

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
Fountain Square
Columbus, Ohio 43224

COUNTY Stark TOWNSHIP Canton SECTION OF TOWNSHIP

OWNER Norman Weaver ADDRESS 3616 Shepler Church, Canton O.

LOCATION OF PROPERTY Same address

CONSTRUCTION DETAILS

Casing diameter 5" Length of casing 60 ft

Type of screen — Length of screen —

Type of pump

Capacity of pump

Depth of pump setting

Date of completion

BAILING OR PUMPING TEST
(specify one by circling)

Test rate 12-15 gpm Duration of test 4 hrs

Drawdown 28 ft Date 6-15-84

Static level (depth to water) 45 ft ft

Quality (clear, cloudy, taste, odor) clear

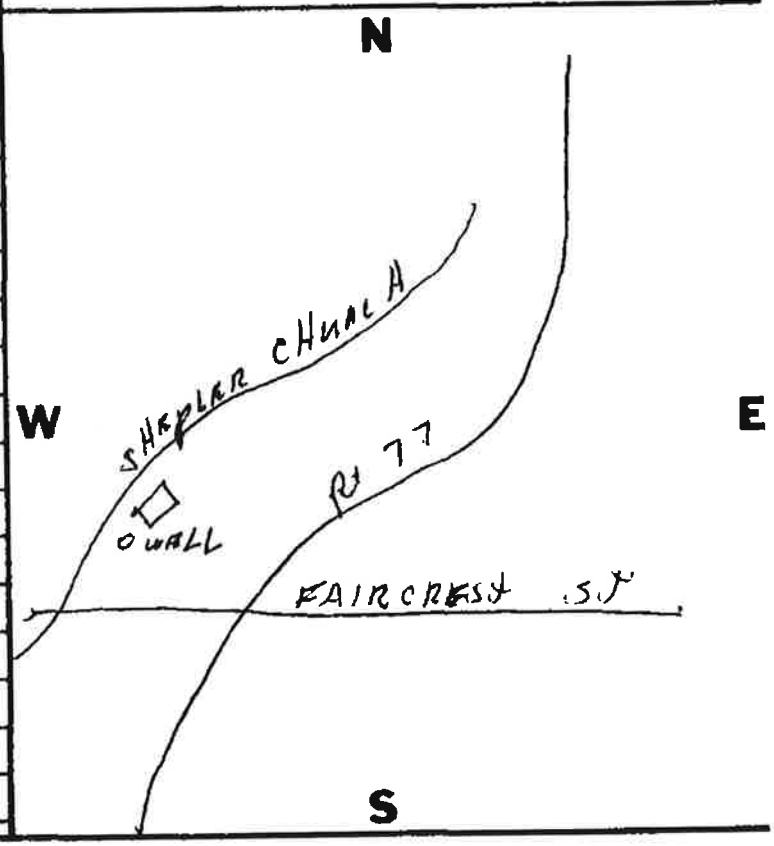
Pump installed by Owner

WELL LOG*

Formations: sandstone, shale, limestone, gravel, clay	From	To
Yellow Clay	0 ft	17 ft
Blue Clay	17	52
Sand + Gravel	52	58
Shale	58	73
Limestone	73	80
Dark Shale	80	87
Limestone	87	93

SKETCH SHOWING LOCATION

Locate in reference to numbered state highways, street intersections, county roads, etc.



DRILLING FIRM Coventry Wells Pump Sv DATE 7-7-84

ADDRESS 1280 Lockwood Rd Barberton, OH SIGNED John H Madwell

*If additional space is needed to complete well log, use next consecutive numbered form.

ORIGINAL COPY - ODNR, DIVISION OF WATER, FOUNTAIN SQ., COLS., OHIO 43224

LC
800458

DNR 7802.94
TYPE OR USE PEN
SELF TRANSCRIBING
PRESS HARD

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Divison of Water, 1939 Fountain Square Drive
Columbus, Ohio 43224 Phone (614) 265-6739

JB
Permit Number 1973

COUNTY Stark TOWNSHIP Canton SECTION/LOT No. 30 (Circle One)

OWNER/BUILDER (Circle One or Both) Lauren Cathis (First, Last) PROPERTY ADDRESS (Address of well location) 3922 Sherman Church SW Canton (Number, Street, City)

LOCATION OF PROPERTY Rt 77 to Faircrest Exit West to Sherman Church then North (Zip Code + 4)

CONSTRUCTION DETAILS

CASING *(Length below grade) Borehole Diameter 8" in.

[1] Diameter 5 in. Length* 56 ft. Wall Thickness .250 in.

[2] Diameter in. Length* 31 ft. Wall Thickness .277 in.

Type: [x] Steel [1] Galv. [1] PVC [1] [2] [x] [2] [2] Other

Joints: [x] Threaded [1] Welded [1] Solvent [1] [x] [2] [2] Other

Liner: Length Type Wall Thickness in.

SCREEN

Type (wire wrapped, louvered, etc.) Material

Length ft. Diameter in.

Set between ft. and ft. Slot

GROUT

Material Bentonite Volume used 2 bags

Method of installation dry driven

Depth: placed from 30 ft. to gl ft.

GRAVEL PACK (Filter Pack)

Material Volume used

Method of installation

Depth: placed from ft. to ft.

Pitless Device [x] Adapter ☐ Preassembled unit

Use of Well domestic

☐ Rotary [x] Cable ☐ Augered ☐ Driven ☐ Dug ☐ Other

Date of Completion 10/25/94

WELL LOG*

INDICATE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Show color, texture, hardness, and formation: sandstone, shale, limestone, gravel, clay, sand, etc.

	From	To
drift	0	12
shale	12	29
limestone	29	33
shale	33	74
coal	74	75
limestone	75	77

*(If additional space is needed to complete well log, use next consecutively numbered form.)

WELL TEST

[x] Bailing ☐ Pumping* ☐ Other

Test rate 16 gpm Duration of test 1 hrs.

Drawdown 17 ft.

Measured from: [x] top of casing ☐ ground level ☐ Other

Static Level (depth to water) 30 ft. Date:

Quality (clear, cloudy, taste, odor) clear

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

PUMP

Type of pump Capacity gpm

Pump set at ft.

Pump installed by Hoehn Plmb

WELL LOCATION

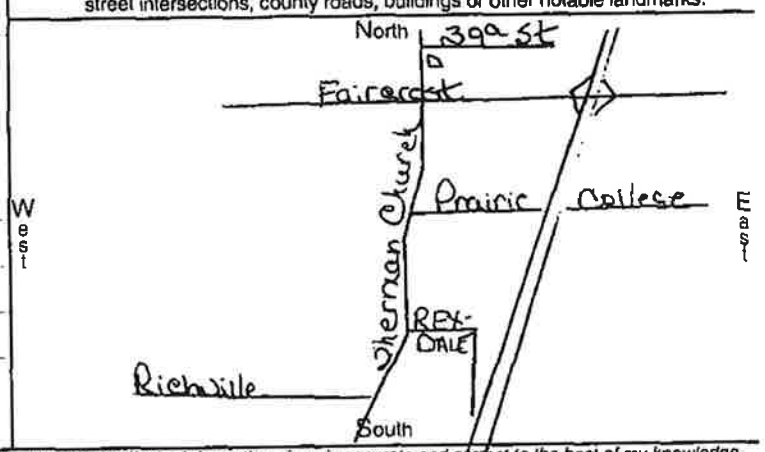
Location of well in State Plane coordinates, if available:

Zone x y

Elevation of well ft./m. Datum plain: ☐ NAD27 ☐ NAD83

Source of coordinates: ☐ GPS ☐ Survey ☐ Other

Sketch a map showing distance well lies from numbered state highways, street intersections, county roads, buildings or other notable landmarks.



I hereby certify the information given is accurate and correct to the best of my knowledge.

Drilling Firm Adams & Sons

Signed Debbie Adams

Address 1174 Mt. Pleasant NW

Date 10/26/94

City, State, Zip N.Canton, OH 44720

ODH Registration Number 395

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.

ORIGINAL COPY TO - ODNR, DIVISION OF WATER, 1939 FOUNTAIN SQ. DRIVE, COLS., OHIO 43224

Blue - Customer's copy Pink - Driller's copy Green - Local Health Dept copy

5637

ORIGINAL

WELL LOG AND DRILLING REPORT

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus, Ohio

PLEASE USE PENCIL OR TYPEWRITER. DO NOT USE INK.

TB-1

No. 262417

County STARK Township PERRY Section of Township 25

Owner E.C. DILLON Address 4070 KROPF RD S.W. CANTON

Location of property 4070 KROPF HURLES ALLOT.

CONSTRUCTION DETAILS

Casing diameter 6&4 Length of casing 4-102'6"

Type of screen Length of screen

Type of pump

Capacity of pump

Depth of pump setting

Date of completion 12/28/62

BAILING OR PUMPING TEST

Pumping rate 6 G.P.M. Duration of test 1 hrs.

Drawdown 78 ft. Date 12/28/62

Developed capacity

Static level—depth to water 52 ft.

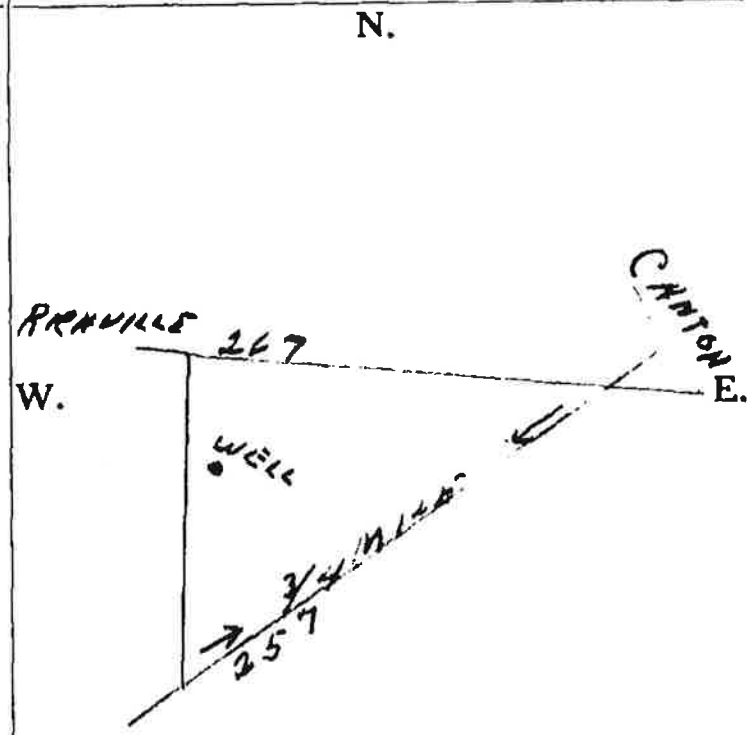
Pump installed by

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
CLAY & SHALE	0 Feet	46 Ft.
LIMESTONE	46	48
SHALE	48	72
SANDSTONE W	72	76
SHALE	76	110
SANDSTONE	110	112
SHALE	112	130
SANDSTONE	130	132
SHALE	132	138
SANDSTONE	138	142
SHALE	142	150

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



NO CARBON PAPER NECESSARY— SELF-TRANSCRIBING

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
65 S. Front St., Rm. 815 Phone (614) 469-2646
Columbus, Ohio 43215

CG [redacted]
438679

County Stark Township Perry Section of Township

Owner Carl Gillilan Address 3966 Shepler Ch Rd

Location of property 4031 Shepler Church SW

CONSTRUCTION DETAILS

Casing diameter 6 1/2 Length of casing 77

Type of screen Length of screen

Type of pump

Capacity of pump

Depth of pump setting

Date of completion

BAILING OR PUMPING TEST
(Specify one by circling)

Test Rate 20 G.P.M. Duration of test 1 hrs

Drawdown 12 ft. Date 9-3-72

Static level-depth to water 2' ft.

Quality (clear, cloudy, taste, odor) Clear

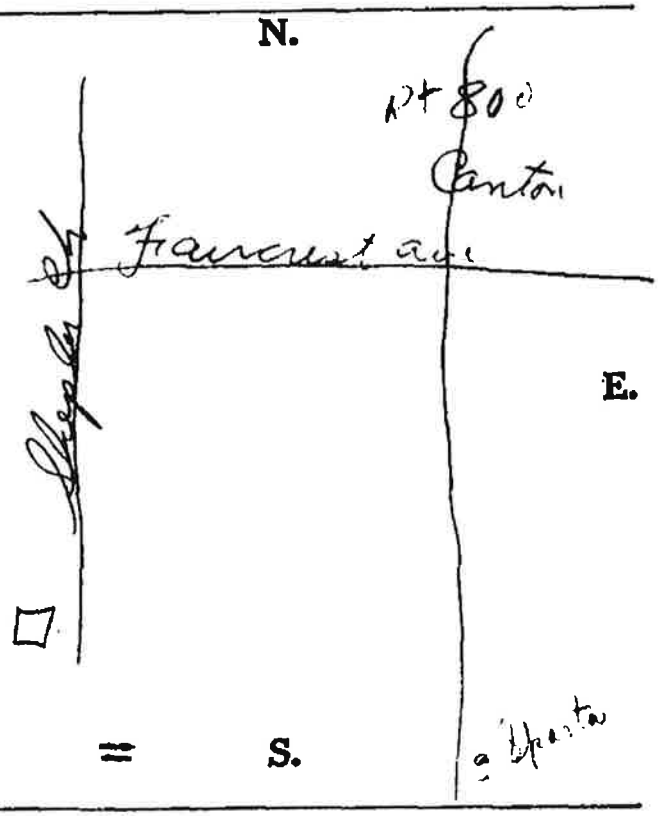
Pump installed by

WELL LOG*

Formations Sandstone, shale, limestone, gravel and clay	From	To
Soft Shale	0 Feet	72 Ft.
Greyshale	72	78
Sandrock	78	81

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



Drilling Firm J J Skolnik Date 9-14-72

Address Wadsworth Signed J Sk

*If additional space is needed to complete well log, use next consecutive numbered form.

DNR 7802.96

TYPE OR USE PEN
SELF TRANSCRIBING
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WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Divison of Water, 1939 Fountain Square Drive
Columbus, Ohio 43224-9971 Voice (614) 265-6739 Fax (614) 447-9503

well #2 SB

930454

WELL LOCATION

County Stark Township Perry

Owner/Builder (Circle One or Both) First Schaline Last Builders

Address of Well Location Number 2415 Street Name Swiss Ave.

City Canton OH Zip Code +4 44706

Permit No. 7463 Section/Lot No. (Circle One or Both)

Location of Well in State Plane coordinates, if available: Use of Well Domestic

N | | X . +/- ft. or m

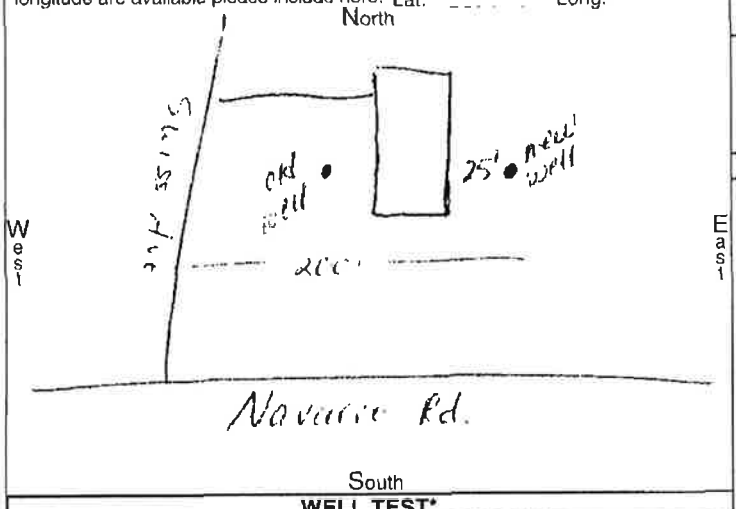
S | | Y . +/- ft. or m

Elevation of Well . +/- ft. or m

Datum Plain: [ ] NAD27 [ ] NAD83 Elevation Source

Source of Coordinates: [ ] GPS [ ] Survey [ ] Other

Sketch a map showing distance well lies from numbered state highways, street intersections, county roads, buildings or other notable landmarks. If latitude and longitude are available please include here: Lat: Long:



WELL TEST*

Pre-Pumping Static Level 40 ft. Date 4-26-01

Measured from: Top of Casing [X] Ground Level [ ] Other

[X] Air [ ] Bailing [ ] Pumping* [ ] Other

Test Rate 20 gpm Duration of Test 1 hrs.

Feet of Drawdown ft. Sustainable Yield 20 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? [ ] Yes [X] No Flowing Well? [ ] Yes [X] No

Quality clear, no odor

PUMP/PITLESS

Type of pump Submersible Capacity 12 gpm

Pump set at 100 ft. Pitless Type Dickens

Pump installed by Keen Well & Pump

I hereby certify the information given is accurate and correct to the best of my knowledge.

Drilling Firm Keen Well & Pump

Address 2079 Clinton Rd

City, State, Zip Mt Vernon OH 43050

Signed Richard Hunger Date 5-1-01

ODH Registration Number 2626

CONSTRUCTION DETAILS

[X] Rotary [ ] Cable [ ] Augered [ ] Driven [ ] Other

BOREHOLE/CASING (measured from ground surface)

1 Borehole Diameter 7 7/8 inches Depth 78 ft.

Casing Diameter 5 in. Length 80 ft. Thickness 1/4 in.

2 Borehole Diameter 4 3/4 inches Depth 120 ft.

Casing Diameter in. Length 27 ft. Thickness in.

Casing Height Above Ground ft.

Type 1 [ ] 2 [ ] Steel 1 [ ] 2 [ ] Galv 1 [ ] 2 [X] PVC 1 [ ] 2 [ ] Other

Joints 1 [ ] 2 [ ] Threaded 1 [ ] 2 [ ] Welded 1 [X] 2 [ ] Solvent 1 [ ] 2 [ ] Other

SCREEN

Diameter N/A Slot Size Screen Length ft.

Type Material

Set Between ft. and ft.

GRAVEL PACK (Filter Pack)

Material/Size Volume/Weight Used

Method of Installation N/A

Depth: Placed FROM ft. TO ft.

GROUT

Material Bentonite Volume/Weight Used 225 lbs

Method of Installation tremie pipe

Depth: Placed FROM 0 ft. TO 77.5 ft.

DRILLING LOG*

INDICATE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Show color, texture, hardness, and formation: sandstone, shale, limestone, gravel, clay, sand, etc.	From	To
Brown clay, gravel, sand	0	18
Firm grey shale & clay	18	30
Hard black flint	30	35
Firm shale & sandstone	35	74
White & light grey sandstone	74	120

*(If more space is needed to complete drilling log, use next consecutively numbered form.)

Date of Well Completion 4-26-01 Total Depth of Well 120 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.

ORIGINAL COPY TO - ODNR, DIVISION OF WATER, 1939 FOUNTAIN SQ. DRIVE, COLS., OHIO 43224-9971

Blue - Customer's copy Pink - Driller's copy Green - Local Health Dept. copy

DNR 7802.96

TYPE OR USE PEN
SELF TRANSCRIBING
PRESS HARD

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Divison of Water, 1939 Fountain Square Drive
Columbus, Ohio 43224-9971 Voice (614) 265-6739 Fax (614) 447-9503

AD 955284

WELL LOCATION

County STARK Township PERRY

Owner/Builder (Circle One or Both) ANTHONY (First) DEURIO SR. (Last)

Address of Well Location 2347 (Number) DELAWARE AVE S.W. (Street Name)

City CANTON Zip Code +4 44706

Permit No. 20972 Section/Lot No. (Circle One or Both)

Location of Well in State Plane coordinates, if available: Use of Well S. F.O.

N ☐ X 40°.46 +/- 390 ft. or m

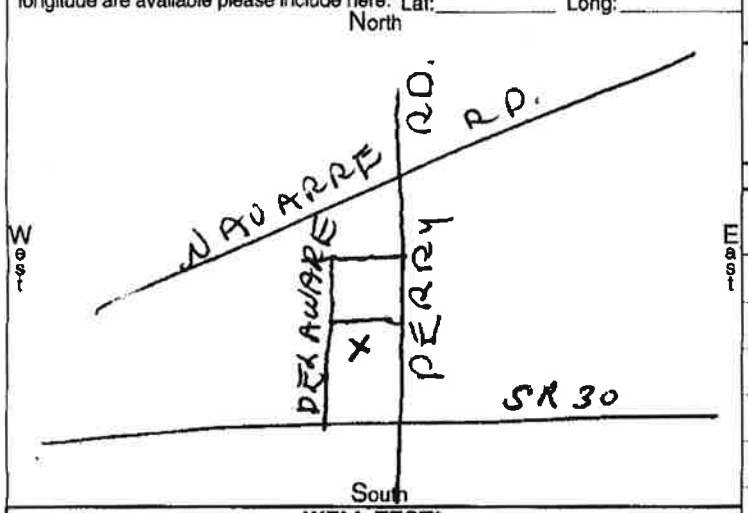
S ☐ Y 081.26 +/- 764 ft. or m

Elevation of Well . +/- 1120 ft. or m

Datum Plain: ☐ NAD27 ☐ NAD83 Elevation Source

Source of Coordinates: ☒ GPS ☐ Survey ☐ Other

Sketch a map showing distance well lies from numbered state highways, street intersections, county roads, buildings or other notable landmarks. If latitude and longitude are available please include here: Lat: Long:



WELL TEST*

Pre-Pumping Static Level 80 ft. Date 08-23-03

Measured from: ☐ Top of Casing ☒ Ground Level ☐ Other

☐ Air ☐ Bailing ☐ Pumping* ☒ Other BLOWING

Test Rate 10 gpm Duration of Test 1/2 hrs.

Feet of Drawdown 100 ft. Sustainable Yield 10 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☐ No Flowing Well? ☐ Yes ☒ No

Quality 14 G.H. 7.5 PH. IRON

PUMP/PITLESS

Type of pump SUB Capacity 10 gpm

Pump set at 186 ft. Pitless Type SIMMONS BRASS

Pump installed by GRIFFITH DRILLING CO.

I hereby certify the information given is accurate and correct to the best of my knowledge.

Drilling Firm GRIFFITH DRILLING CO.

Address 1899 ZUTAVERN CHRDNW.

City, State, Zip BOLIVAR OHIO 44612

Signed Warren L. Griffith Date 09-03-03

ODH Registration Number 02082

CONSTRUCTION DETAILS

☒ Rotary ☐ Cable ☐ Augered ☐ Driven ☐ Other

BOREHOLE/CASING (measured from ground surface)

1☐ Borehole Diameter 8 inches, Depth 104 ft.

Casing Diameter 5 in. Length 106 ft. Thickness SCH 21 in.

2☐ Borehole Diameter 5 inches Depth 106 ft.

Casing Diameter in. Length ft. Thickness in.

Casing Height Above Ground 2 ft.

Type 1☐ 2☐ Steel 1☐ 2☐ Galv. 1☒ 2☐ PVC 1☐ 2☐ Other

Joints 1☐ 2☐ Threaded 1☐ 2☐ Welded 1☒ 2☐ Solvent 1☐ 2☐ Other

SCREEN

Diameter Slot Size Screen Length ft.

Type Material

Set Between ft. and ft.

GRAVEL PACK (Filter Pack)

Material/Size Volume/Weight Used

Method of Installation

Depth: Placed FROM ft. TO ft.

GROUT

Material BENSEAL Volume/Weight Used 200 LBS.

Method of Installation PUMPED

Depth: Placed FROM 104 ft. TO 0 ft.

DRILLING LOG*

INDICATE DEPTH(S) AT WHICH WATER IS ENCOUNTERED. Show color, texture, hardness, and formation: sandstone, shale, limestone, gravel, clay, sand, etc.	From	To
MUD	0	15
CLAY	15	25
SOF. SHALE	25	26
LIMESTONE	26	29
COAL	29	31
CLAY	31	41
SOF. SHALE	41	54
LIMESTONE (W)	54	55
SOF. SHALE	55	86
LIMESTONE	86	91
COAL	91	93
CLAY	93	101
SOF. SHALE (W)	101	190
SANDROCK (W)	190	210

*(If more space is needed to complete drilling log, use next consecutively numbered form.)

Date of Well Completion 08-23-03 Total Depth of Well 210 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.

ORIGINAL COPY TO - ODNR, DIVISION OF WATER, 1939 FOUNTAIN SQ. DRIVE, COLS., OHIO 43224-9971

Blue - Customer's copy Pink - Driller's copy Green - Local Health Dept. copy

WS

DNR 7802 05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number 2027329

Page 1 of 1 for this record.

WELL LOCATION

County STARK Township CANTON

WILLIAM SAMMET
Owner/Builder

3444 SHERMAN CHURCH
Address of Well Location

City CANTON Zip Code +4 44706

Permit No. 3409/39999 Section; _____ and or Lot No. _____

Use of Well DOMESTIC

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X _____ +/- _____ ft

S ☐ Y _____ +/- _____ ft

Latitude, Longitude Coordinates

Latitude: 40.760722 Longitude: -81.418861

Elevation of Well in feet: 1019 +/- 3 ft.

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source GPS

Source of Coordinates: GEOCODE

Well location written description:

Comments on water quality/quantity and well construction:

WELL TEST *

Pre-Pumping Static Level 55 ft. Date 5/30/2010

Measured from GROUND LEVEL

Pumping test method AIR

Test Rate 25 gpm Duration of Test 1 hrs.

Feet of Drawdown 0 ft. Sustainable Yield 25 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump SUBMERSIBLE Capacity 7 gpm

Pump set at 160 ft. Pitless Type BAKER

Pump installed by BEHRS PUMP

I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm A. W. SMITH WELL DRILLING

Address 7711 S 7th RD

City, State, Zip CLINTON OH 44216

Signed A. W. SMITH Date 6/2/2010
(Filed Electronically)

ODH Registration Number 2077

CONSTRUCTION DETAILS

Drilling Method: MUD ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter 8.5 inches Depth 176 ft.
Casing Diameter 5 in. Length 176 ft. Thickness 0.265 in.

2 Borehole Diameter _____ inches Depth _____ ft.
Casing Diameter _____ in. Length _____ ft. Thickness _____ in.

Casing Height Above Ground _____ ft.

Type 1. PVC
2. _____

Joints 1. O-ring
2. _____

SCREEN

Diameter _____ in. Slot Size _____ in. Screen Length _____ ft.

Type _____ Material _____

Set Between _____ ft. and _____ ft.

GRAVEL PACK (Filter Pack)

Material/Size _____ Vol/Wt. Used _____

Method of Installation _____

Depth: Placed From: _____ ft. To: _____ ft.

GROUT

Material Bentonite/polymer slurry Vol/Wt. Used 400

Method of Installation Pumped w/Tremie pipe

Depth: Placed From: 0 ft. To: 176 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
BROWN	COARSE/GRAVELLY	GRAVELSANDCLAY	0	135
GRAY	CREAMY	SHALE	135	175
GRAY	CLEAN	SANDSTONE	175	216
		Water Encountered At	176	216

Aquifer Type (Formation producing the most water) SANDSTONE

Date of Well Completion 5/30/2010 Total Depth of Well 216 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

KW

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number
2038384

Page 1 of 1 for this record.

WELL LOCATION

County STARK Township PERRY

KENNETH WHEELER
Owner/Builder

4577 SURMAY AVE
Address of Well Location

City CANTON Zip Code +4 44706

Permit No. 23834 Section: _____ and or Lot No. _____

Use of Well DOMESTIC

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X _____ +/- _____ ft.

S ☐ Y _____ +/- _____ ft

Latitude, Longitude Coordinates

Latitude: 40.741333 Longitude: -81.442517

Elevation of Well in feet: 1182 +/- 24 ft.

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source GPS

Source of Coordinates: GPS

Well location written description:

Comments on water quality/quantity and well construction:
SET 65 FT 4" PVC LINER WITH BOTTOM 20' PERFORATED

WELL TEST *

Pre-Pumping Static Level 24 ft. Date 7/3/2012

Measured from TOP OF CASING

Pumping test method BAILING

Test Rate 27 gpm Duration of Test 0.5 hrs.

Feet of Drawdown 11 ft. Sustainable Yield 25 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump SUBMERSIBLE Capacity 10 gpm

Pump set at 45 ft. Pitless Type BOLT THRU

Pump installed by GREG ROGERS ENTERPRISES

I hereby certify the information given is accurate and correct to the best of my knowledge.

Drilling Firm GREG ROGERS ENTERPRISES

Address 820 Stafford

City, State, Zip MINERVA OH 44657

Signed GREGORY A ROGERS Date 7/10/2012
(Filed Electronically)

ODH Registration Number 02835

CONSTRUCTION DETAILS

Drilling Method: CABLE TOOL

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter 4.95 inches Depth 75 ft.
Casing Diameter 5.5 in. Length 32 ft. Thickness 0.258 in.

2 Borehole Diameter _____ inches Depth _____ ft.
Casing Diameter _____ in. Length _____ ft. Thickness _____ in.

Casing Height Above Ground 1.4 ft.

Type 1: Steel
2: _____

Joints 1: Threaded
2: _____

SCREEN

Diameter _____ in. Slot Size _____ in. Screen Length _____ ft.

Type _____ Material _____

Set Between _____ ft. and _____ ft.

GRAVEL PACK (Filter Pack)

Material/Size _____ Vol/Wt. Used _____

Method of Installation _____

Depth: Placed From: _____ ft. To: _____ ft.

GROUT

Material Bentonite dry granular Vol/Wt. Used 130 lbs

Method of Installation Dry Driven

Depth: Placed From: 32 ft. To: 0 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
		SOIL	0	4
BROWN		CLAY	4	21
BROWN		SHALE	21	24
GRAY		SHALE	24	38
DARK GRAY	SANDY	SHALE	38	43
		LIMESTONE	43	46
DARK GRAY		SANDSTONE	46	64
DARK GRAY		SHALE	64	75
		Water Encountered At	52	58

Aquifer Type (Formation producing the most water.) SANDSTONE

Date of Well Completion 7/3/2012 Total Depth of Well 75 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

ORIGINAL

WELL LOG AND DRILLING REPORT

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus, Ohio

PLEASE USE PENCIL OR TYPEWRITER. DO NOT USE INK.

TB-2

No. 231501

County Stark Township Perry Section of Township S. E.

Owner Guy V. Hurlcast Address 1616 7th Avenue N.W. Canton, Ohio

Location of property 4070 Kropf Road S.W. Canton, Ohio

CONSTRUCTION DETAILS

Casing diameter 4" Length of casing 33'

Type of screen ..... Length of screen .....

Type of pump .....

Capacity of pump .....

Depth of pump setting .....

Date of completion .....

BAILING OR PUMPING TEST

Pumping rate ..... G.P.M. Duration of test ..... hrs.

Drawdown 12 ft. Date .....

Developed capacity .....

Static level—depth to water 16 ft.

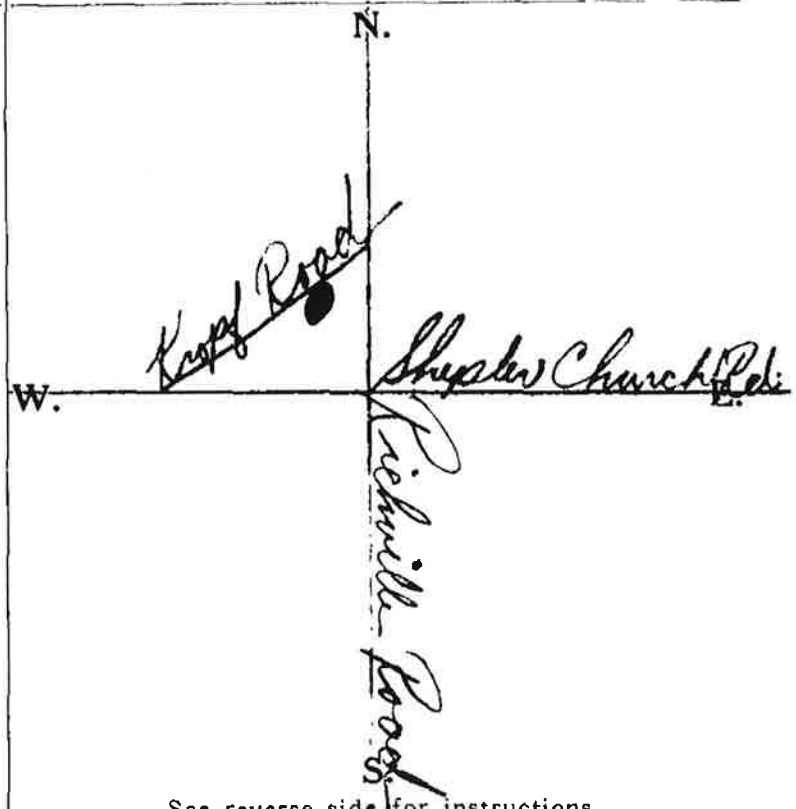
Pump installed by .....

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
Brown Clay	0 Feet	20 Ft.
Gray Clay	20'	33'
Gray Shale	33'	46'

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm George Stoffel Date 4-25-59

Address 1710 40th St. N.W. Canton 9, Ohio Signed George Stoffel

WELL LOG AND DRILLING REPORT

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
Fountain Square
Columbus, Ohio 43224

NO CARBON PAPER NECESSARY– SELF-TRANSCRIBING

Permit #16737

9.a.

EP

643125

COUNTY Stark TOWNSHIP Canton SECTION OF TOWNSHIP 30

OWNER Elmer Parks ADDRESS 3810 Whipple Ave. SW,Canton,O 44706

LOCATION OF PROPERTY Same

CONSTRUCTION DETAILS

Casing diameter 5" Length of casing 50'

Type of screen _____ Length of screen _____

Type of pump Sub

Capacity of pump 580 G.P.H.

Depth of pump setting 30'

Date of completion Same

BAILING OR PUMPING TEST
(specify one by circling)

Test rate 10 gpm Duration of test 2 hrs

Drawdown none ft Date 10/29/83

Static level (depth to water) 20 ft

Quality (clear, cloudy, taste, odor) clear

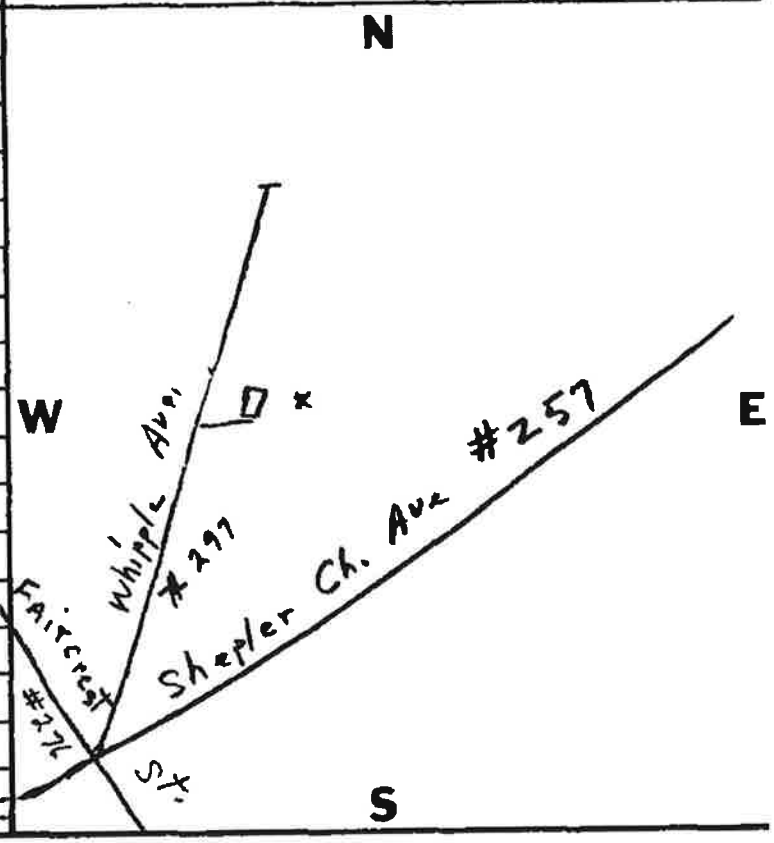
Pump installed by Same

WELL LOG*

Formations: sandstone, shale, limestone, gravel, clay	From	To
drift	0 ft	7 ft
sand, & gravel	7	17
sand	17	29
~~XXX~~ clay	29	47
dark shale	47	53

SKETCH SHOWING LOCATION

Locate in reference to numbered state highways, street intersections, county roads, etc.



DRILLING FIRM Adams & Sons Well Drilling Inc. DATE 10/31/83

ADDRESS 4310 38th St.NW,Canton,O 44718 SIGNED John Adams

*If additional space is needed to complete well log, use next consecutive numbered form.

ORIGINAL COPY - ODNR, DIVISION OF WATER, FOUNTAIN SQ., COLS., OHIO 43224

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources, Divison of Water
1939 Fountain Square Drive, Columbus, Ohio 43224 Phone (614) 265-6739

744587 GS

TYPE OR USE PEN
SELF TRANSCRIBING
PRESS HARD

Permit Number _____

COUNTY Stark TOWNSHIP Canton SECTION/LOT (CIRCLE ONE) No. 31

OWNER/BUILDER (CIRCLE ONE OR BOTH) Grant Stockburger PROPERTY ADDRESS 4110 Paradise (ADDRESS OF WELL LOCATION A)

LOCATION OF PROPERTY Rt 77 to 101 Faircrest Exit W to Sherman Ch. S to Paradise

CONSTRUCTION DETAILS

CASING Borehole Diameter _____ in.

[1] Diameter 5 in. Length 64 ft. Wall Thickness .231 in.

[2] Diameter _____ in. Length _____ ft. Wall Thickness _____ in.

Type: [1] [2] Steel [1] [2] Galv. [1] [2] PVC [1] [2] Other _____

Joints: [1] [2] Threaded [1] [2] Welded [1] [2] Solvent [1] [2] Other _____

Liner: Length _____ Type _____ Wall Thickness _____ in.

SCREEN

Type (wire wrapped, louvered, etc.) _____ Material _____

Length _____ ft. Diameter _____ in.

Set between _____ ft. and _____ ft. Slot _____

GROUT

Material _____ Volume used _____

Method of installation _____

Depth: placed from _____ ft. to _____ ft.

GRAVEL PACK (Filter Pack)

Material _____ Volume used _____

Method of installation _____

Depth: placed from _____ ft. to _____ ft.

Pitless Device [1] Adapter [2] Preassembled unit

Use of Well single family dwelling

[1] Rotary [2] Cable [1] Augered [2] Driven [1] Dug [2] Other _____

Date of Completion 3/9/92

WELL LOG*

INDICATE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Show color, texture, hardness, and formation: sandstone, shale, limestone, gravel, clay, sand, etc.

	From	To
brown mud	0	23
grey mud	23	48
brown clay	48	51
grey shale	51	58
sandshale	58	98
limestone	98	103
sandy shale	103	115

*If additional space is needed to complete well log, use next consecutively numbered form.

WELL TEST

[1] Bailing [2] Pumping* [2] Other _____

Test rate 20 gpm Duration of test 1 hrs.

Drawdown 41 ft.

Measured from: [1] top of casing [2] ground level [2] Other _____

Static Level (depth to water) 59 ft. Date: 3/9/92

Quality (clear, cloudy, taste, odor) Clear

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

PUMP

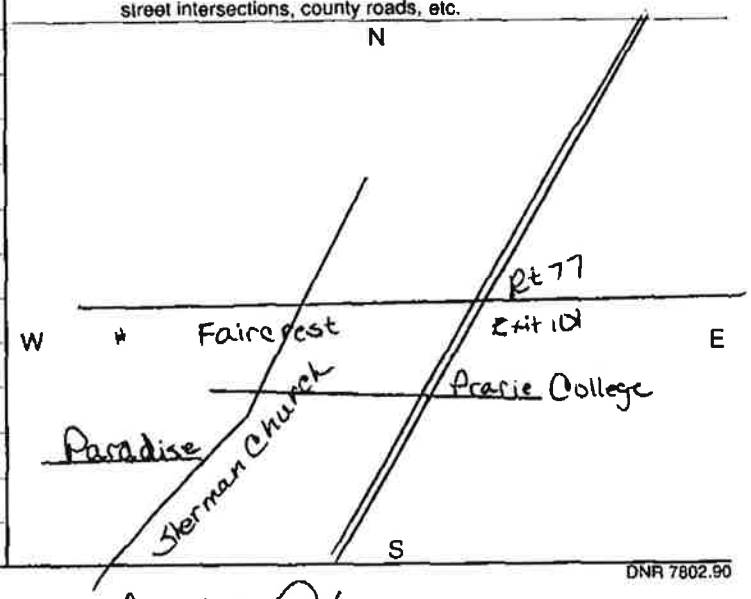
Type of pump Sub Capacity 10 gpm

Pump set at 84' ft.

Pump installed by Adams & Sons

SKETCH SHOWING WELL LOCATION

Show distances well lies from numbered state highways, street intersections, county roads, etc.



DNR 7802.90

Drilling Firm Adams & Sons Signed Debbie Adams

Address 1174 Mt. Pleasant NW Date 3/10/92

City, State, Zip N. Canton, O 44720 ODH Registration Number 395

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.

ORIGINAL COPY TO - ODNR, DIVISION OF WATER, 1939 FOUNTAIN SQ. DRIVE, COLS., OHIO 43224

Blue - Customer's copy Pink - Driller's copy Green - Local Health Dept. copy

DNR 7802.96

TYPE OR USE PEN
SELF TRANSCRIBING
PRESS HARD

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Divison of Water, 1939 Fountain Square Drive
Columbus, Ohio 43224-9971 Voice (614) 265-6739 Fax (614) 447-9503

HBA

859388

WELL LOCATION

County Stark Township Perry

Owner/Builder (Circle One or Both) Homes By Ashley (First / Last)

Address of Well Location 5365 (Number) Dolores st SW (Street Name)

City Canton Ohio Zip Code +4

Permit No. 7310 Section/Lot No. (Circle One or Both) 23

Location of Well in State Plane coordinates, if available: Use of Well Residential

N ☐ X _____ +/- _____ ft. or m

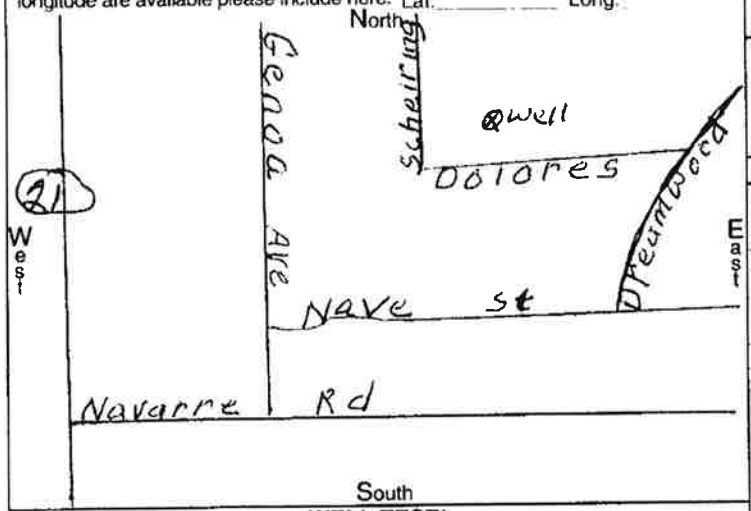
S ☐ Y _____ +/- _____ ft. or m

Elevation of Well _____ +/- _____ ft. or m

Datum Plain: ☐ NAD27 ☐ NAD83 Elevation Source _____

Source of Coordinates: ☐ GPS ☐ Survey ☐ Other _____

Sketch a map showing distance well lies from numbered state highways, street intersections, county roads, buildings or other notable landmarks. If latitude and longitude are available please include here: Lat: _____ Long: _____



WELL TEST*

Pre-Pumping Static Level 50 ft. Date 11/24/97

Measured from: ☐ Top of Casing ☒ Ground Level ☐ Other _____

☐ Air ☒ Bailing ☐ Pumping* ☐ Other _____

Test Rate 20 gpm Duration of Test 2 hrs.

Feet of Drawdown 0 ft. Sustainable Yield 20 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

Quality Clear

PUMP/PITLESS

Type of pump Submersible Capacity 12 gpm

Pump set at 60 ft. Pitless Type Williams

Pump installed by Bennett Drilling

I hereby certify the information given is accurate and correct to the best of my knowledge.

Drilling Firm Bennett Drilling

Address 509 Mohican St. NE

City, State, Zip Brewster Ohio 44613

Signed Carolyn Bennett Date 11/24/97

ODH Registration Number 1221

CONSTRUCTION DETAILS

☐ Rotary ☒ Cable ☐ Augered ☐ Driven ☐ Other _____

BOREHOLE/CASING (measured from ground surface)

1 ☐ Borehole Diameter _____ inches Depth _____ ft.

Casing Diameter 5 in. Length 64 ft. Thickness _____ in.

2 ☐ Borehole Diameter _____ inches Depth _____ ft.

Casing Diameter _____ in. Length _____ ft. Thickness _____ in.

Casing Height Above Ground 1 ft.

Type: 1 ☒ 2 ☐ Steel; 1 ☐ 2 ☐ Galv.; 1 ☐ 2 ☐ PVC; 1 ☐ 2 ☐ Other _____

Joints: 1 ☒ 2 ☐ Threaded; 1 ☐ 2 ☐ Welded; 1 ☐ 2 ☐ Solvent; 1 ☐ 2 ☐ Other _____

SCREEN Na

Diameter _____ Slot Size _____ Screen Length _____ ft.

Type _____ Material _____

Set Between _____ ft. and _____ ft.

GRAVEL PACK (Filter Pack)

Material/Size _____ Volume/Weight Used _____

Method of Installation _____

Depth: Placed FROM _____ ft. TO _____ ft.

GROUT

Material Bensealal Volume/Weight Used 50 lbs

Method of Installation Cable Tool

Depth: Placed FROM 0 ft. TO Surface ft.

DRILLING LOG*

INDICATE DEPTH(S) AT WHICH WATER IS ENCOUNTERED. Show color, texture, hardness, and formation: sandstone, shale, limestone, gravel, clay, sand, etc.	From	To
Clay and gravel	0	40
Soft Shale	40	50
broke lime	50	54
Soft Shale	54	63
Shale	63	100
Water encountered	80	90

*(If more space is needed to complete drilling log, use next consecutively numbered form.)

Date of Well Completion 11/24/97 Total Depth of Well 100 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.

ORIGINAL COPY TO - ODNR, DIVISION OF WATER, 1939 FOUNTAIN SQ. DRIVE, COLS., OHIO 43224-9971

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TYPE OR PRINT
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PRESS HARD

Divison of Water, 1939 Fountain Square Drive
Columbus, Ohio 43224-9971 Voice (614) 265-6739 Fax (614) 447-9503

KT 873475

WELL LOCATION

County: Stark Township: Perry

Owner/Builder (Circle One or Both): Kerry (First) Thompson (Last)

Address of Well Location: 4556 (Number) Shermont Ave SW (Street Name)

City: Canton Zip Code +4: 44709

Permit No.: 212384 Section/Lot No. (Circle One or Both):

Location of Well in State Plane coordinates, if available: Use of Well: Residential

N ☐ X _____ . _____ +/- _____ ft. or m

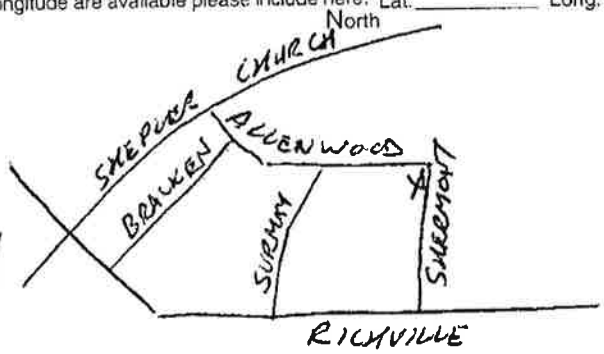
S ☐ Y _____ . _____ +/- _____ ft. or m

Elevation of Well _____ . _____ +/- _____ ft. or m

Datum Plain: ☐ NAD27 ☐ NAD83 Elevation Source _____

Source of Coordinates: ☐ GPS ☐ Survey ☐ Other _____

Sketch a map showing distance well lies from numbered state highways, street intersections, county roads, buildings or other notable landmarks. If latitude and longitude are available please include here: Lat: _____ Long: _____



WELL TEST*

Pre-Pumping Static Level: 69 ft. Date: 05/18/98

Measured from: ☒ Top of Casing ☐ Ground Level ☐ Other _____

☐ Air ☒ Bailing ☐ Pumping* ☐ Other _____

Test Rate: 18 gpm Duration of Test: 1/2 hrs.

Feet of Drawdown: 15 ft. Sustainable Yield: 18 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

Quality: Cloudy

PUMP/PITLESS

Type of pump: Submersible Capacity: 10 gpm

Pump set at: 120 ft. Pitless Type: Adapter

Pump installed by: Donamarc Water Systems

I hereby certify the information given is accurate and correct to the best of my knowledge.

Drilling Firm: Donamarc Water Systems Co.

Address: 3691 Massillon Rd.

City, State, Zip: Uniontown, OH 44685

Signed: [signature] Date: 5/23/98

ODH Registration Number: 17000

CONSTRUCTION DETAILS

☐ Rotary ☒ Cable ☐ Augered ☐ Driven ☐ Other _____

BOREHOLE/CASING (measured from ground surface)

1 ☒ Borehole Diameter 6-3/8 inches Depth 80 ft.

Casing Diameter 7 in. Length 54 ft. Thickness .275 in.

2 ☒ Borehole Diameter 4-7/8 inches Depth 65 ft.

Casing Diameter _____ in. Length 73 ft. Thickness .275 in.

Casing Height Above Ground 1 ft.

Type: 1 ☒ 2 ☒ Steel; 1 ☐ 2 ☐ Galv.; 1 ☐ 2 ☐ PVC; 1 ☐ 2 ☐ Other _____

Joints: 1 ☒ 2 ☒ Threaded; 1 ☐ 2 ☐ Welded; 1 ☐ 2 ☐ Solvent; 1 ☐ 2 ☐ Other _____

SCREEN

Diameter _____ Slot Size _____ Screen Length _____ ft.

Type _____ Material _____

Set Between _____ ft. and _____ ft.

GRAVEL PACK (Filter Pack)

Material/Size _____ Volume/Weight Used _____

Method of Installation _____

Depth: Placed FROM _____ ft. TO _____ ft.

GROUT

Material: Benseal Volume/Weight Used: 100

Method of Installation: Dry Poured

Depth: Placed FROM 0 ft. TO 54 ft.

DRILLING LOG*

INDICATE DEPTH(S) AT WHICH WATER IS ENCOUNTERED. Show color, texture, hardness, and formation: sandstone, shale, limestone, gravel, clay, sand, etc.	From	To
Drift	0	15
Sand, Clay, & Gravel	15	28
Clay	28	37
Soft Shale	37	45
Shale	45	53
Gummy Shale	53	60
Soft Shale	60	80
Grey Shale	80	125
Sandy Shale	125	135
Grey Shale	135	145

*(If more space is needed to complete drilling log, use next consecutively numbered form.)

Date of Well Completion: 05/18/98 Total Depth of Well: 145 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.

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DNR 7802.96

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SELF TRANSCRIBING
PRESS HARD

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Divison of Water, 1939 Fountain Square Drive
Columbus, Ohio 43224-9971 Voice (614) 265-6739 Fax (614) 447-9503

KS 899672

WELL LOCATION

County Stark Township Canton

Owner/Builder (Circle One or Both) Herman Eudy (First / Last)

Address of Well Location 3728 W Tipple S.W. (Number / Street Name)

City Canton Ohio Zip Code +4 44706

Permit No 9169 Section/Lot No. (Circle One or Both) 19

Location of Well in State Plane coordinates, if available: Use of Well

N X N 40 45.477 ft or m

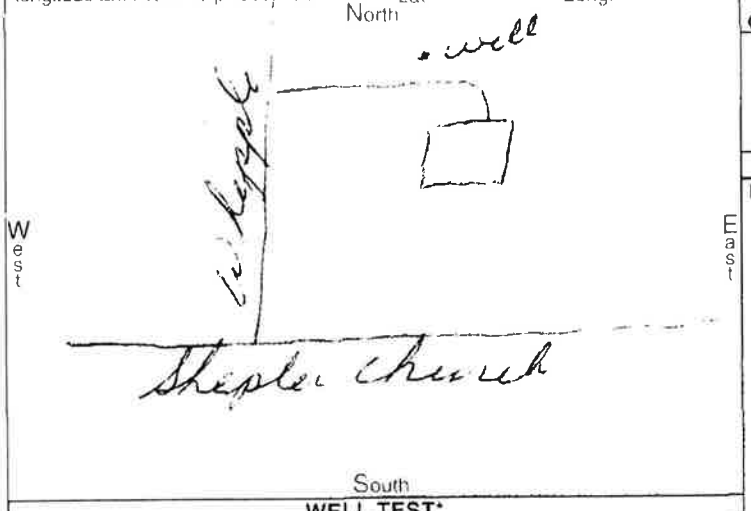
S Y W 0810 25.682 ft or m

Elevation of Well ft or m

Datum Plain NAD27 NAD83 Elevation Source

Source of Coordinates [X] GPS Survey [ ] Other

Sketch a map showing distance well lies from numbered state highways, street intersections, county roads, buildings or other notable landmarks. If latitude and longitude are available please include here: Lat Long:



WELL TEST*

Pre-Pumping Static Level 40 ft Date 5/19/2000

Measured from: Top of Casing X Ground Level Other

[ ] Air [X] Bailing Pumping* Other

Test Rate 25 gpm Duration of Test 2 hrs.

Feet of Drawdown 40 ft Sustainable Yield 25 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? Yes No Flowing Well? Yes [ ] No

Quality Clear

PUMP/PITLESS

Type of pump 1/2 H P Sub Capacity 10 gpm

Pump set at 140 ft. Pitless Type Bailey

Pump installed by William Well Drilling

I hereby certify the information given is accurate and correct to the best of my knowledge.

Drilling Firm William Well Drilling

Address 4377 Sovally Rd NE

City, State, Zip Louisville Ohio

Signed Donald William Date 5/22/2000

ODH Registration Number 97

CONSTRUCTION DETAILS

[ ] Rotary [X] Cable [ ] Augered [ ] Driven [ ] Other

BOREHOLE/CASING (measured from ground surface)

1 X Borehole Diameter 5 inches Depth 155 ft.

Casing Diameter 5 in. Length 132 ft. Thickness .244 in.

2 Borehole Diameter inches Depth ft.

Casing Diameter in. Length ft. Thickness in.

Casing Height Above Ground ft.

Type 1 X Steel 2 | 1 | Galv. 2 | 1 | PVC 2 | 1 | Other 2 |

Joints 1 X Threaded 2 | 1 | Welded 2 | 1 | Solvent 2 | 1 | Other 2 |

SCREEN

Diameter Slot Size NO Screen Length ft.

Type Material

Set Between ft. and ft.

GRAVEL PACK (Filter Pack)

Material/Size Volume/Weight Used

Method of Installation NO

Depth: Placed FROM ft. TO ft.

GROUT

Material Bentonite Volume/Weight Used 100 lbs

Method of Installation dry chips

Depth: Placed FROM 30 ft. TO surface ft.

DRILLING LOG*

INDICATE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Show color, texture, hardness, and formation: sandstone, shale, limestone, gravel, clay, sand, etc.	From	To
sand	0	25
sand & gravel	25	60
clay	60	120
soft shale	120	130
shale water	130	155

(If more space is needed to complete drilling log, use next consecutively numbered form.)

Date of Well Completion 5/20/2000 Total Depth of Well 155 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.

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DNR 7802.96

TYPE OR USE PEN
SELF TRANSCRIBING
PRESS HARD

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Divison of Water, 1939 Fountain Square Drive
Columbus, Ohio 43224-9971 Voice (614) 265-6739 Fax (614) 447-9503

BM 964160

WELL LOCATION

County Stark Township Perry

Owner/Builder (Circle One or Both) Andy Byler Custom Homes (First / Last)

Address of Well Location 4500 (Number) Shermont SW (Street Name)

City Canton Zip Code +4 44706

Permit No. 20873 Section/Lot No. (Circle One or Both) 36

Location of Well in State Plane coordinates, if available: Use of Well domestic

N ☐ X _____ . _____ +/- 500 ft. or (m)

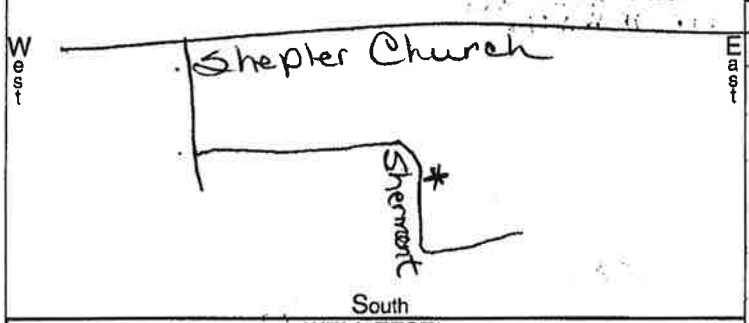
S ☐ Y _____ . _____ +/- 500 ft. or (m)

Elevation of Well 1000 . 00 +/- 500 ft. or (m)

Datum Plain: ☒ NAD27 ☐ NAD83 Elevation Source _____

Source of Coordinates: ☒ GPS ☐ Survey ☐ Other _____

Sketch a map showing distance well lies from numbered state highways, street intersections, county roads, buildings or other notable landmarks. If latitude and longitude are available please include here: Lat: 40 Long: 081



WELL TEST*

Pre-Pumping Static Level 43 ft. Date 7-14-03

Measured from: ☐ Top of Casing ☒ Ground Level ☐ Other _____

☐ Air ☒ Bailing ☐ Pumping* ☐ Other _____

Test Rate 18 gpm Duration of Test 1 hrs.

Feet of Drawdown 10 ft. Sustainable Yield 18 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

Quality _____

PUMP/PITLESS

Type of pump _____ Capacity _____ gpm

Pump set at _____ ft. Pitless Type _____

Pump Installed by Other

I hereby certify the information given is accurate and correct to the best of my knowledge.

Drilling Firm Adams & Sons Well Delg Inc

Address 1174 Mt Pleasant NW

City, State, Zip N Canton OH 44720

Signed Doug Adams Date 7-15-03

ODH Registration Number 395

CONSTRUCTION DETAILS

☐ Rotary ☒ Cable ☐ Augered ☐ Driven ☐ Other _____

BOREHOLE/CASING (measured from ground surface)

1☐ Borehole Diameter 5 inches Depth 133 ft.

Casing Diameter 5 in. Length 49 ft. Thickness .250 in.

2☐ Borehole Diameter _____ inches Depth _____ ft.

Casing Diameter _____ in. Length _____ ft. Thickness _____ in.

Casing Height Above Ground 1 ft.

Type 1 ☒ Steel 2 ☐ | 1 ☐ Galv. 2 ☐ | 1 ☐ PVC 2 ☐ | 1 ☐ 2 ☐ Other _____

Joints 1 ☒ Threaded 2 ☐ | 1 ☐ Welded 2 ☐ | 1 ☐ Solvent 2 ☐ | 1 ☐ 2 ☐ Other _____

SCREEN

Diameter _____ Slot Size _____ Screen Length _____ ft.

Type _____ Material _____

Set Between _____ ft. and _____ ft.

GRAVEL PACK (Filter Pack)

Material/Size _____ Volume/Weight Used _____

Method of Installation _____

Depth: Placed FROM _____ ft. TO _____ ft.

GROUT

Material Benseal Volume/Weight Used _____

Method of Installation Drydriven

Depth: Placed FROM 49 ft. TO 81 ft.

DRILLING LOG*

INDICATE DEPTH(S) AT WHICH WATER IS ENCOUNTERED. Show color, texture, hardness, and formation: sandstone, shale, limestone, gravel, clay, sand, etc.	From	To
Sand	0	26
Shale	26	73
limestone	73	77
Shale	77	133
H2O @ 77'		

*(If more space is needed to complete drilling log, use next consecutively numbered form.)

Date of Well Completion 7-14-03 Total Depth of Well 133 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.

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Blue - Customer's copy Pink - Driller's copy Green - Local Health Dept. copy

ONR 7802.05

TYPE OR USE PEN
SELF TRANSCRIBING
PRESS HARD

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road
Columbus, Ohio 43229-6605 Voice (614) 265-6740 Fax (614) 265-6767

SH 1006015

WELL LOCATION

County Stark Township Bay

Owner/Builder (Circle One or Both) Schmacher Homes
First Last

Address of Well Location 4245 Richville
Number Street Name

City Dover Zip Code +4

Permit No 207553 Section/Lot No. (Circle One or Both)

Location of Well in State Plane coordinates, if available: Use of Well Domestic

N X 40 . 734 +/- or m

S Y 81 . 434 +/- or m

Elevation of Well 1103 . or m

Datum Plane: NAD27 NAD83 Elevation Source GPS

Source of Coordinates: GPS Survey Other

Sketch a map showing distance well lies from numbered state highways, street intersections, county roads, buildings or other notable landmarks. If latitude and longitude are available please include here: Lat. Long.

WELL TEST*

Pre-Pumping Static Level 50 ft. Date 10/4/07

Measured from Top of Casing Ground Level Other

Bailing Pumping Other

Test Rate 25 gpm Duration of Test 1 hrs.

Feet of Drawdown 5 ft. Sustainable Yield 25 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? Yes No Flowing Well? Yes No

Quality Clear

PUMP/PITLESS

Type of pump Jet Capacity 10 gpm

Pump set at 100 ft. Pitless Type Mann

Pump installed by Patriot Inc.

I hereby verify the information given is accurate and correct to the best of my knowledge.

Drilling Firm Patriot Well Drilling

Address 101 05 Daniel Rd

City, State, Zip Fulton, OH 44217

Signed Date 11/20/07

ODH Registration Number 02266

CONSTRUCTION DETAILS

Rotary Cable Augered Driven Other

BOREHOLE/CASING (measured from ground surface)

1 Borehole Diameter 7 inches Depth 110 ft.

Casing Diameter 4 in. Length 58 ft. Thickness .250 in.

2 Borehole Diameter inches Depth ft.

Casing Diameter in. Length: ft. Thickness in.

Casing Height Above Ground 21 ft.

Type 1 Steel 2 Galv. 1 PVC 2 Other

Joints 1 Threaded 2 Welded 1 Solvent 2 Other

SCREEN

Diameter Slot Size Screen Length ft.

Type Material

Set Between ft. and ft.

GRAVEL PACK (Filter Pack)

Material/Size Volume/Weight Used

Method of Installation

Depth: Placed FROM ft. TO ft.

GROUT

Material Bentonite Volume/Weight Used 1 bag

Method of Installation Dry Driven

Depth: Placed FROM 58 ft. TO 0 ft.

DRILLING LOG*

INDICATE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Show color, texture, hardness, and formation: sandstone, shale, limestone, gravel, clay, sand, etc.	From	To
Brown Clay	0	10
Brown clay + gravel	10	50
Blue clay	50	50
White	50	110

(If more space is needed to complete drilling log, use next consecutively numbered form.)

Date of Well Completion 10/4/07 Total Depth of Well 110 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.

ORIGINAL COPY TO - ODNR, DIVISION OF WATER, 2045 MORSE ROAD, COLS., OHIO 43229-6605

Blue - Customer's copy Pink - Driller's copy Green - Local Health Dept. copy

DNR 7802 05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

WA

Well Log Number 2015013

Page 1 of 1 for this record.

WELL LOCATION

County WAYNE Township MILTON

WALTER AMSTUTZ
Owner/Builder

9724 BENNER RD
Address of Well Location

City RITTMAN Zip Code +4 44270

Permit No. 2008066 Section: 26 and/or Lot No.

Use of Well DOMESTIC

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X _____ +/- _____ ft.

S ☐ Y _____ +/- _____ ft.

Latitude, Longitude Coordinates

Latitude: 40.91817 Longitude: 81.78497

Elevation of Well in feet: 1031 +/- _____ ft.

Datum Plane: ☐ NAD27 ☐ NAD83 Elevation Source GPS

Source of Coordinates: GPS

Well location written description:
1/10 MI. N. OF AKRON RD., W. SIDE OF BENNER RD.

Comments on water quality/quantity and well construction:

WELL TEST *

Pre-Pumping Static Level 40 ft. Date 1/25/2008

Measured from GROUND LEVEL

Pumping test method BAILING

Test Rate 20 gpm Duration of Test 0.5 hrs.

Feet of Drawdown 2 ft. Sustainable Yield 20 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump _____ Capacity _____ gpm

Pump set at _____ ft. Pitless Type _____

Pump installed by DOMER WATER SUPPLY, INC.

I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm FRONTZ DRILLING, INC.

Address 2031 MILLERSBURG RD

City, State, Zip WOOSTER OH 44691

Signed Brad Kitchen Date 2/5/2008
(Filed Electronically)

ODH Registration Number 0120

CONSTRUCTION DETAILS

Drilling Method: CABLE TOOL

BOREHOLE/CASING (Measured from ground surface)

1 { Borehole Diameter 5 inches Depth 92 ft.
Casing Diameter 5 in. Length 72 ft. Thickness 0.25 in.

2 { Borehole Diameter _____ inches Depth _____ ft.
Casing Diameter _____ in. Length _____ ft. Thickness _____ in.

Casing Height Above Ground 1 ft.

Type { 1 Steel
2 _____

Joints { 1 Threaded
2 _____

SCREEN

Diameter _____ in. Slot Size _____ in. Screen Length _____ ft.

Type _____ Material _____

Set Between _____ ft. and _____ ft.

GRAVEL PACK (Filter Pack)

Material/Size _____ Vol/Wt. Used _____

Method of Installation _____

Depth: Placed From: _____ ft. To: _____ ft.

GROUT

Material Bentonite dry granular Vol/Wt. Used 100 lbs

Method of Installation Dry Driven

Depth: Placed From: 71 ft. To: 0 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
BROWN		CLAY	0	9
BROWN	SILTY	SAND	9	14
GRAY		CLAY	14	61
GRAY		CLAY & GRAVEL	61	67
GRAY	SANDY	SHALE	67	89
BROWN	SANDY	SHALE	89	92

Aquifer Type (Formation producing the most water.) SHALE

Date of Well Completion 1/25/2008 Total Depth of Well 92 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

WELL LOG AND DRILLING REPORT

CH

638362

NO CARBON PAPER NECESSARY– SELF-TRANSCRIBING

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
Fountain Square
Columbus, Ohio 43224

COUNTY Stark TOWNSHIP Perry SECTION OF TOWNSHIP

OWNER Charles Harland ADDRESS 3950 Shepler Church Rd. Canton, Ohio

LOCATION OF PROPERTY 3950 Shepler Church Rd., Canton, Ohio

CONSTRUCTION DETAILS

Casing diameter 5" Length of casing 53' 2"

Type of screen None Length of screen

Type of pump

Capacity of pump

Depth of pump setting

Date of completion

BAILING OR PUMPING TEST
(specify one by circling)

Test rate 14 gpm Duration of test 1 hrs

Drawdown 5' ft Date Sept. 20, 1983

Static level (depth to water) 30 ft

Quality (clear, cloudy, taste, odor) Clear 18 Grain Hard 7.4 PH 3 PPM

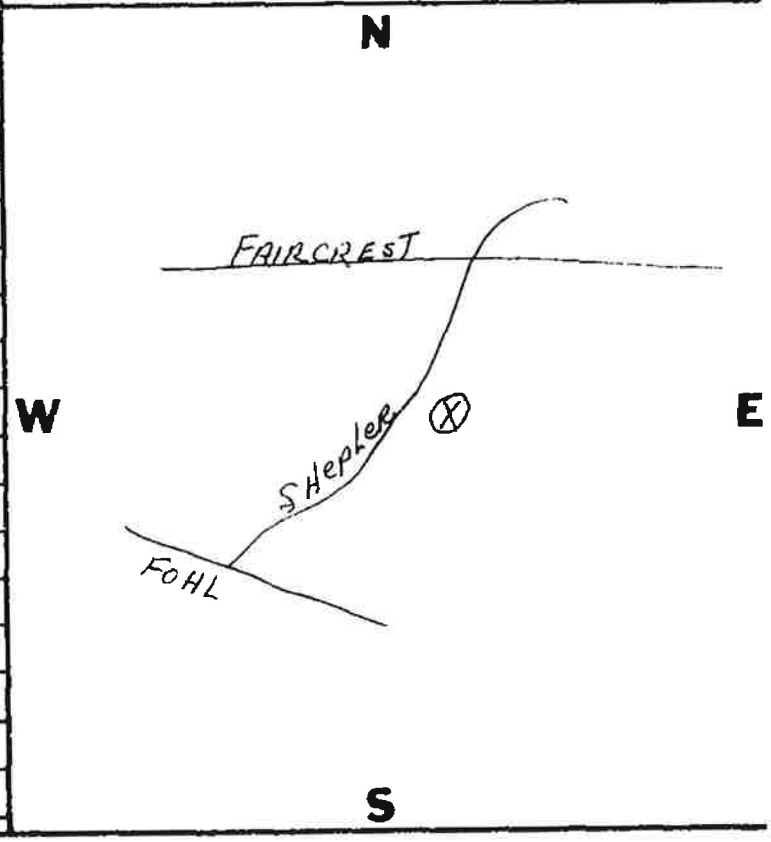
Pump installed by

WELL LOG*

Formations: sandstone, shale, limestone, gravel, clay	From	To
Mud & Wash	0 ft	12 ft
Mud, Cement, Sand & Gravel	12	25
Gray Sandy Shale	25	34'6"
Limestone	34'6"	36'6"
Coal	36'6"	37
Clay	37	42
Light Gray Shale	42	50
Gray Shale	50	70

SKETCH SHOWING LOCATION

Locate in reference to numbered state highways, street intersections, county roads, etc.



DRILLING FIRM Stockert Drilling Company DATE September 28, 1983

ADDRESS 1425 N. Wooster AVe., Strasburg, Ohio SIGNED Doris E. Kreid, Sec

*If additional space is needed to complete well log, use next consecutive numbered form.

ORIGINAL COPY - ODNR, DIVISION OF WATER, FOUNTAIN SQ., COLS., OHIO 43224

HBE
729470

WELL LOG AND DRILLING REPORT

JB

Ohio Department of Natural Resources, Divison of Water
1939 Fountain Square Drive, Columbus, Ohio 43224 Phone (614) 265-6739

TYPE OR USE PEN
SELF TRANSCRIBING
PRESS HARD

Permit Number 107017

COUNTY Stark TOWNSHIP Perry SECTION/LOT No. 36 (CIRCLE ONE)

OWNER/BUILDER (CIRCLE ONE OR BOTH) Homes by Eddie PROPERTY ADDRESS 4500 Richville Dr. (ADDRESS OF WELL LOCATION A)

LOCATION OF PROPERTY #627 Richville Dr after Shepler Church near Sussway

CONSTRUCTION DETAILS

CASING Borehole Diameter ____ in.

[1] Diameter 7 in. Length 39 ft. Wall Thickness .244 in.

[2] Diameter ____ in. Length ____ ft. Wall Thickness ____ in.

Type: [1][2] Steel [1][2] Galv. [1][2] PVC [1][2] Other ____

Joints: [1][2] Threaded [1][2] Welded [1][2] Solvent [1][2] Other ____

Liner: Length ____ Type ____ Wall Thickness ____ in.

SCREEN

Type (wire wrapped, louvered, etc.) ____ Material ____

Length ____ ft. Diameter ____ in.

Set between ____ ft. and ____ ft. Slot ____

GROUT

Material ____ Volume used ____

Method of installation ____

Depth: placed from ____ ft. to ____ ft.

GRAVEL PACK (Filter Pack)

Material ____ Volume used ____

Method of installation ____

Depth: placed from ____ ft. to ____ ft.

Pitless Device [X] Adapter [ ] Preassembled unit

Use of Well single family dwelling

[ ] Rotary [X] Cable [ ] Augered [ ] Driven [ ] Dug [ ] Other ____

Date of Completion 4/30/91

WELL LOG*

INDICATE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Show color, texture, hardness, and formation: sandstone, shale, limestone, gravel, clay, sand, etc.

	From	To
clay	0	38
limestone	38	40
shale	40	43
coal	43	45
shale	45	50
gray shale	50	58

*If additional space is needed to complete well log, use next consecutively numbered form.

WELL TEST

[X] Bailing [ ] Pumping* [ ] Other ____

Test rate 16 gpm Duration of test 1 hrs.

Drawdown 12 ft.

Measured from: [ ] top of casing [X] ground level [ ] Other ____

Static Level (depth to water) 20 ft. Date: 4/30/91

Quality (clear, cloudy, taste, odor) clear

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

PUMP

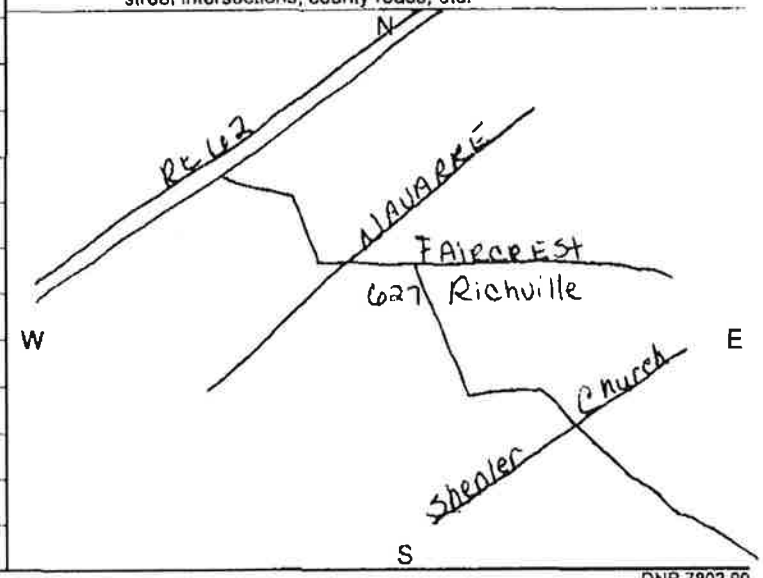
Type of pump ____ Capacity ____ gpm

Pump set at ____ ft.

Pump installed by ____

SKETCH SHOWING WELL LOCATION

Show distances well lies from numbered state highways, street intersections, county roads, etc.



DNR 7802.90

Drilling Firm Adams & Sons Signed Debbie Adams

Address 1174 Mt. Pleasant NW Date 5/3/91

City, State, Zip N Canton OH 44720 ODH Registration Number 395

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.

ORIGINAL COPY TO - ODNR, DIVISION OF WATER, 1939 FOUNTAIN SQ. DRIVE, COLS., OHIO 43224

Blue - Customer's copy Pink - Driller's copy Green - Local Health Dept. copy

RG
793890

DNR 7802.93
TYPE OR USE PEN
SELF TRANSCRIBING
PRESS HARD

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources, Divison of Water JB
1939 Fountain Square Drive, Columbus, Ohio 43224 Phone (614) 265-6739

Permit Number Non domestic

COUNTY Stark TOWNSHIP Perry SECTION/LOT (CIRCLE ONE) No. 35

OWNER/BUILDER (CIRCLE ONE OR BOTH) Robert Gang PROPERTY ADDRESS 4012 Shepler Church SW (ADDRESS OF WELL LOCATION A)

LOCATION OF PROPERTY S on Shepler Church approx 1 mile south of Faircrest

CONSTRUCTION DETAILS

CASING Borehole Diameter 8 in.

[1] Diameter 5 in. Length 62 ft. Wall Thickness .250 in.

[2] Diameter in. Length ft. Wall Thickness in.

Type: [X] Steel [1] Galv. [1] PVC [1] [2] [2] [2] Other

Joints: [X] Threaded [1] Welded [1] Solvent [1] [2] [2] Other

Liner: Length Type Wall Thickness in.

SCREEN

Type (wire wrapped, louvered, etc.) Material

Length ft. Diameter in.

Set between ft. and ft. Slot

GROUT

Material Bentonite Volume used 2 bags

Method of Installation dry driven

Depth: placed from 31 ft. to gl ft.

GRAVEL PACK (Filter Pack)

Material Volume used

Method of installation

Depth: placed from ft. to ft.

Pitless Device [X] Adapter [ ] Preassembled unit

Use of Well ~~single family dwelling~~ garage use

[ ] Rotary [X] Cable [ ] Augered [ ] Driven [ ] Dug [ ] Other

Date of Completion 6/28/94

WELL LOG*

INDICATE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Show color, texture, hardness, and formation: sandstone, shale, limestone, gravel, clay, sand, etc.	From	To
clay	0	31
shale	31	54
limestone	54	57
coal	57	59
shale	59	92

*If additional space is needed to complete well log, use next consecutively numbered form.

WELL TEST

[X] Bailing [ ] Pumping* [ ] Other

Test rate 20 gpm Duration of test 1 hrs.

Drawdown 8 ft.

Measured from: [X] top of casing [ ] ground level [ ] Other

Static Level (depth to water) 31 ft. Date: 6/28

Quality (clear, cloudy, taste, odor) clear

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

PUMP

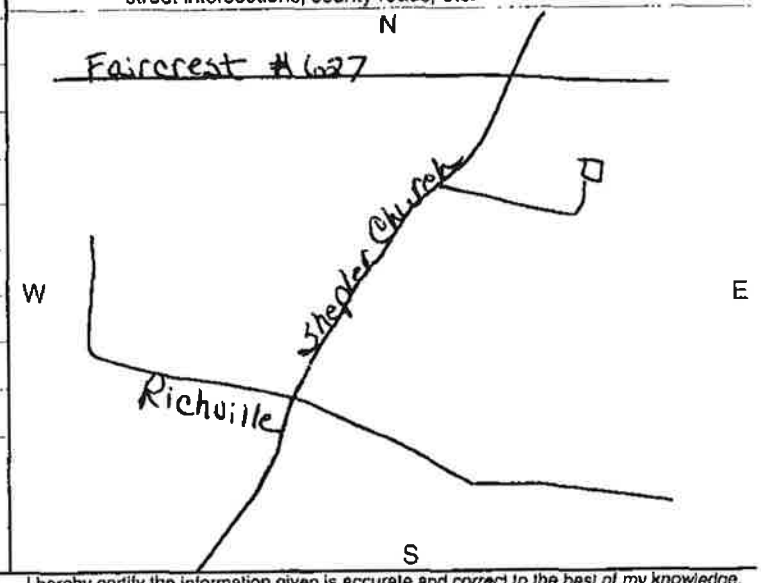
Type of pump Sub Capacity 10 gpm

Pump set at 50' ft.

Pump installed by Adams

SKETCH SHOWING WELL LOCATION

Show distances well lies from numbered state highways, street intersections, county roads, etc.



I hereby certify the information given is accurate and correct to the best of my knowledge.

Drilling Firm Adams & Sons

Signed Debbie Adams

Address 1174 Mt. Pleasant NW 5637

Date 6/30/94

City, State, Zip N.Canton, OH 44720

ODH Registration Number 395

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.

ORIGINAL COPY TO - ODNR, DIVISION OF WATER, 1939 FOUNTAIN SQ. DRIVE, COLS., OHIO 43224

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DNR 7802.94
TYPE OR USE PEN
SELF TRANSCRIBING
PRESS HARD

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Divison of Water, 1939 Fountain Square Drive
Columbus, Ohio 43224 Phone (614) 265-6739

OC
811407

Permit Number 9648

COUNTY Stark TOWNSHIP ~~Bethlehem~~ Canton SECTION/LOT No. 25 (Circle One)

OWNER/BUILDER (Circle One or Both) First Otterbein Last Church PROPERTY ADDRESS (Address of well location) Number 3916 Street Faircrest SW City Canton Zip Code + 4 44706

LOCATION OF PROPERTY Corner of Faircrest & Shepler Church

CONSTRUCTION DETAILS

CASING *(Length below grade) Borehole Diameter 5 in.

|1| Diameter 5 in. Length* 46 ft. Wall Thickness .250 in.

|2| Diameter in. Length* ft. Wall Thickness in.

Type: [X] Steel |2| [1] Galv. |2| [1] PVC |2| [1] |2| Other

Joints: [X] Threaded |2| [1] Welded |2| [1] Solvent |2| [1] |2| Other

Liner: Length Type Wall Thickness in.

SCREEN

Type (wire wrapped, louvered, etc.) Material

Length ft. Diameter in.

Set between ft. and ft. Slot

GROUT

Material Bentonite Volume used 150#s

Method of installation dry poured

Depth: placed from 46 ft. to 81 ft.

GRAVEL PACK (Filter Pack)

Material Volume used

Method of installation

Depth: placed from ft. to ft.

Pitless Device [X] Adapter [ ] Preassembled unit

Use of Well domestic

[ ] Rotary [X] Cable [ ] Augered [ ] Driven [ ] Dug [ ] Other

Date of Completion 2-28-01

WELL LOG*

INDICATE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Show color, texture, hardness, and formation: sandstone, shale, limestone, gravel, clay, sand, etc.	From	To
drift	0	6
clay	6	28
shale	28	59
limestone	59	62
shale	62	105

WELL TEST

[X] Bailing [ ] Pumping* [ ] Other

Test rate 18 gpm Duration of test 1 hrs.

Drawdown 40 ft.

Measured from: [ ] top of casing [X] ground level [ ] Other

Static Level (depth to water) 30 ft. Date: 2-28-01

Quality (clear, cloudy, taste, odor)

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

PUMP

Type of pump Capacity gpm

Pump set at ft.

Pump installed by other

WELL LOCATION

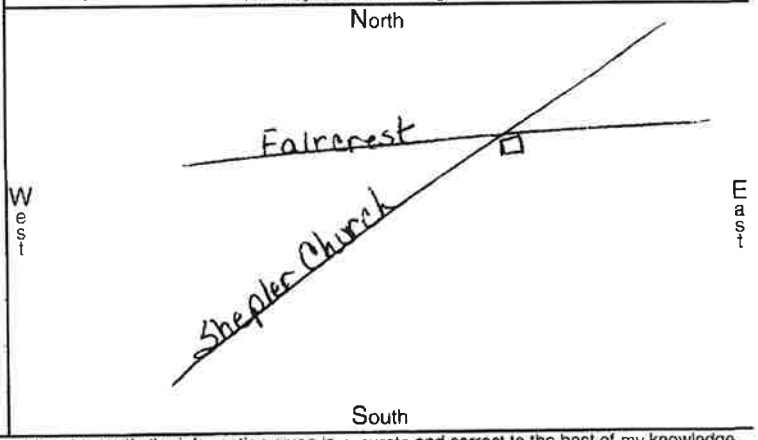
Location of well in State Plane coordinates, if available:

Zone x 40.45.221 y 81.24.09.3

Elevation of well 1000 (ft.) m. Datum plain: [ ] NAD27 [X] NAD83

Source of coordinates: [X] GPS [ ] Survey [ ] Other

Sketch a map showing distance well lies from numbered state highways, street intersections, county roads, buildings or other notable landmarks.



*(If additional space is needed to complete well log, use next consecutively numbered form.)

I hereby certify the information given is accurate and correct to the best of my knowledge.

Drilling Firm Adams & Sons Signed Doug Adams

Address 1174 Mt Pleasant NW Date 2-28-01

City, State, Zip N. Canton OH 44720 ODH Registration Number 345

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.

ORIGINAL COPY TO - ODNR, DIVISION OF WATER, 1939 FOUNTAIN SQ. DRIVE, COLS., OHIO 43224

Blue - Customer's copy Pink - Driller's copy Green - Local Health Dept. copy

R H

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number 2039116

Page 1 of 1 for this record.

WELL LOCATION

County STARK Township PERRY

HOBERT HARMON
Owner/Builder

4004 SHEPLER CHURCH AVE
Address of Well Location

City CANTON Zip Code +4 44706

Permit No. N/A Section; _____ and or Lot No. _____

Use of Well AGRIC/IRRIG

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X _____ +/- _____ ft.

S ☐ Y _____ +/- _____ ft.

Latitude, Longitude Coordinates

Latitude: 40.748833 Longitude: -81.435833

Elevation of Well in feet: 1130 +/- _____ ft.

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source GPS

Source of Coordinates: GPS

Well location written description:

Comments on water quality/quantity and well construction:

WELL TEST *

Pre-Pumping Static Level 15 ft. Date 8/15/2012

Measured from GROUND LEVEL

Pumping test method AIR

Test Rate 25 gpm Duration of Test 1 hrs.

Feet of Drawdown 25 ft. Sustainable Yield 25 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump _____ Capacity _____ gpm

Pump set at _____ ft. Pitless Type _____

Pump installed by _____

I hereby certify the information given is accurate and correct to the best of my knowledge.

Drilling Firm DAVIDSON WELL DRILLING

Address 3160 BEECHWOOD

City, State, Zip ALLIANCE OH 44601

Signed JOHN L. DAVIDSON Date 8/17/2012
(Filed Electronically)

ODH Registration Number 506

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter 7.875 inches Depth 60 ft.
Casing Diameter 5 in. Length 61 ft. Thickness 0.265 in.

2 Borehole Diameter 5 inches Depth 68 ft.
Casing Diameter _____ in. Length _____ ft. Thickness _____ in.

Casing Height Above Ground 1 ft.

Type 1: PVC
2: _____

Joints 1: Solvent
2: _____

SCREEN

Diameter _____ in. Slot Size _____ in. Screen Length _____ ft.

Type _____ Material _____

Set Between _____ ft. and _____ ft.

GRAVEL PACK (Filter Pack)

Material/Size _____ Vol/Wt. Used _____

Method of Installation _____

Depth: Placed From: _____ ft. To: _____ ft.

GROUT

Material Bentonite/polymer slurry Vol/Wt. Used 78 Gallons

Method of Installation Pumped w/Tremie pipe

Depth: Placed From: 60 ft. To: 0 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
		SOIL	0	1
BROWN		CLAY	1	17
GRAY		CLAY & GRAVEL	17	36
		GRAVEL	36	42
GRAY		CLAY	42	53
BLUE	SOFT	SHALE	53	59
GRAY	HARD	SHALE	59	68
		Water Encountered At	65	67

Aquifer Type (Formation producing the most water.) SHALE

Date of Well Completion 8/15/2012 Total Depth of Well 68 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

14.0 Appendix F Timken Lagoon Monitoring Well Logs and Water Level Data

Sanborn, Head & Associates, Inc.

Log of Monitoring Well SH-4

PROJECT NO.: *1103*

PROJECT: *Timken Pickle Liquor Lagoons*

DATE STARTED: *8/16/96* DATE FINISHED: *8/21/96*

LOCATION: *Canton, Ohio*

SURFACE ELEVATION: *1089.53'/PVC – 1092.53'/MSL*

DRILLING METHOD: *Mobil B-61 Drill Rig w/4 1/4" HSA*

DRILLING COMPANY: *Elite Environmental Drilling, Inc.*

FOREMAN: *Mike O'Brien*

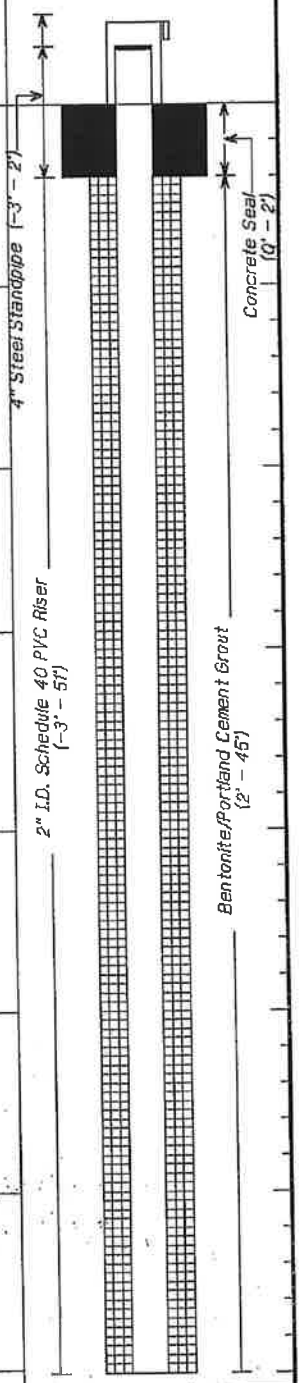
LOGGED BY: *P. P. Gallagher* CHECKED BY: *P. M. Sanborn*

GROUNDWATER READINGS

DATE	TIME	DEPTH	CASING	STAB. TIME
8/16/96	1155	dry	40	2 min.
8/16/96	1400	40.4	45	5 min.
8/16/96	1440	dry	49	15 min.
8/16/96	1500	dry	48	15 min.

DEPTH feet	SAMPLE NO. Depth (ft.)	BLOWS/6"	PEN/REC (in.)	PID (ppm) VALUES	PID (ppm) PROFILE 0–100	GRAPHIC LOG	STRATUM DESCRIPTION	GEOLOGIC DESCRIPTION
	S-1 0-2'	9-17 25-17	24/19	2			FILL	S-1: Dense, brown fine to coarse SAND and SILT. Dry. Change at 1.8' to gray fine to coarse SAND. Dry. Fill.
5	S-2 5-7'	4-8 8-9	24/20	ND			SILT	S-2: Medium dense, brown SILT, some fine to coarse Sand. Dry.
10	S-3 10-12'	17-18 24-31	24/13	ND			SAND	S-3: Dense, brown fine to coarse SAND, little Silt, trace fine Gravel. Moist.
15	S-4 4.5-16.5'	12-11 12-11	24/10	ND				S-4: Medium dense, brown fine to coarse SAND, little Silt. Dry.
20	S-5 20-22'	13-12 11-14	24/14	ND				S-5: Medium dense, brown fine to coarse SAND, little Silt, trace fine Gravel. Dry. 2" seam of brown fine SAND, little Silt. Moist.
25	S-6 25-27'	4-10 15-25	24/12	ND				S-6: Medium dense, brown fine to coarse SAND, little fine to coarse Gravel, trace Silt. Dry.
30	S-7 30-32'	10-15 20-20	24/16	ND				S-7: Dense, brown fine to coarse SAND, trace Gravel, trace Silt. Dry.
35								

WELL DIAGRAM



Sanborn, Head & Associates, Inc.

Log of Monitoring Well SH-4

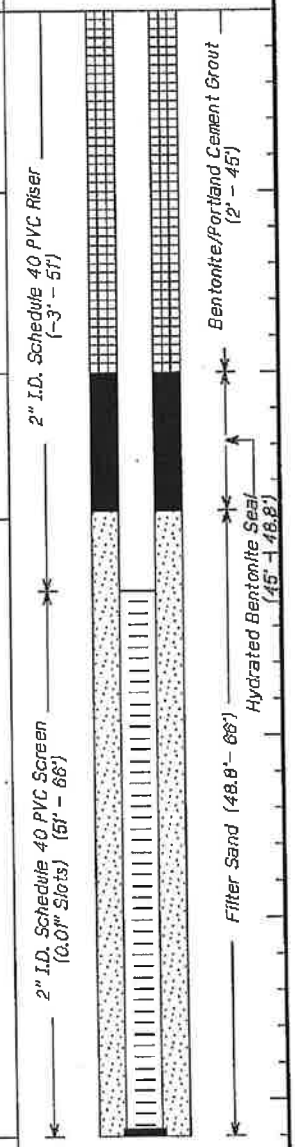
PROJECT NO.: *1103*

PROJECT: *Timken Pickle Liquor Lagoons*

DATE STARTED: *8/16/96* DATE FINISHED: *8/21/96*

DEPTH feet	SAMPLE NO. Depth (ft.)	BLOWS/6"	PEN/REC (in.)	PID (ppm) VALUES	PID (ppm) PROFILE 0 – 100	GRAPHIC LOG	STRATUM DESCRIPTION	GEOLOGIC DESCRIPTION
	S-8 35-37'	8-9 15-11	24/14	ND			SAND	S-8: Medium dense, brown fine SAND, trace Silt. Dry. Change at 36.5' .d-36.5 Change at 36.5' to brown fine to coarse SAND, trace Silt, trace black Organic Material. Dry.
40	S-9 40-42'	10-8 8-9	24/12	ND				S-9: Medium dense, brown fine to coarse SAND, little fine Gravel, trace Silt. Dry. Wet at 41.5'.
45	S-10 45-47'	19-19 24-13	24/4	ND			SAND AND GRAVEL	S-10: Dense, brown fine to coarse SAND and fine to coarse GRAVEL (Shale fragments), little Silt. Wet.
								At 48', drilling behavior indicated stratum change.
50	S-11 49-51	23-33 33-37	24/8	ND			WEATHERED SHALE	S-11: Gray slightly weathered, very soft SHALE. Wet.
55							SHALE	
60							COAL	Auger cuttings indicate coal was encountered at approximately 61 to 62 feet.
65							SHALE	
								Bottom of Boring at 66'.
70								
75								

WELL DIAGRAM



Sanborn, Head & Associates, Inc.	Log of Monitoring Well SH-4	
	PROJECT NO.: *1103*	
PROJECT: *Timken Pickle Liquor Lagoons*	DATE STARTED: *8/16/96*	DATE FINISHED: *8/21/96*

DEPTH feet	SAMPLE NO. Depth (ft.)	BLOWS/8"	PEN/REC (in.)	PID (ppm) VALUES	PID (ppm) PROFILE 0 100	GRAPHIC LOG	STRATUM DESCRIPTION	GEOLOGIC DESCRIPTION	WELL DIAGRAM
80								**NOTES:** 1) Initially, boring was advanced to auger refusal (i.e., 54 feet). The boring was then advanced to 63 feet with a 4-1/8" O.D. Tri-cone roller bit using compressed air. The boring was completed to 66 feet with the 4-1/8" O.D, Tri-cone roller bit using potable water as the drilling fluid. 2) Soil samples were screened for volatile organic compounds (VOCs) using a Photovac Model MP-1000 Microtip Photoionization Detector (PID) with a 10.6 eV lamp calibrated to an isobutylene standard. Typical detection limit is 1 ppm. "ND" is not detected. 3) Soil cuttings and drilling mud were contained in a 55-gallon drum.	
85									
90									
95									
100									
105									
110									
115									

Sanborn, Head & Associates, Inc.

Log of Monitoring Well SH-5

PROJECT NO.: *1103*

PROJECT: *Timken Pickle Liquor Lagoons*

DATE STARTED: *8/23/96* | DATE FINISHED: *8/23/96*

LOCATION: *Canton, Ohio*

SURFACE ELEVATION: *1084.00'/PVC - 1087.27'/MSL*

DRILLING METHOD: *Mobil B-61 Drill Rig w/4 1/4" HSA*

DRILLING COMPANY: *Elite Environmental Drilling, Inc.*

FOREMAN: *Tracy Teter*

LOGGED BY: *P. P. Gallagher* | CHECKED BY: *P. M. Sanborn*

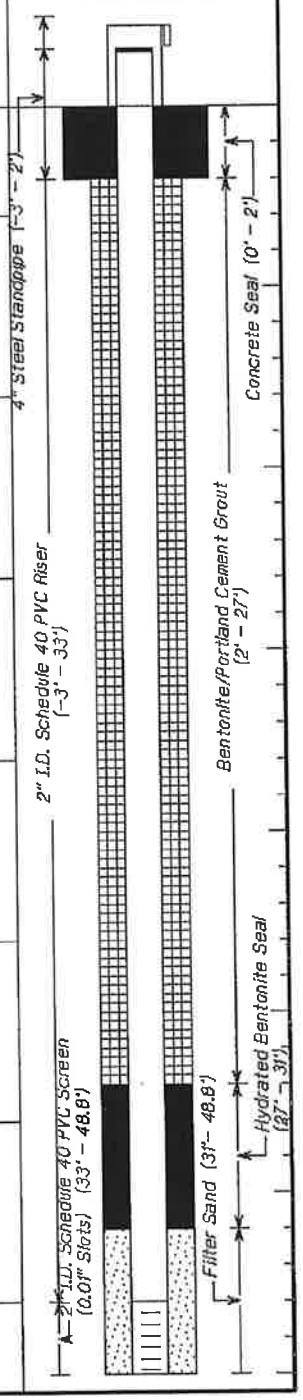
GROUNDWATER READINGS

DATE	TIME	DEPTH	CASING	STAB. TIME
8/23/96	0940	dry	18	5 min.
8/23/96	1000	22.5'	23	0 min.
8/23/96	1040	32	33	10 min.
8/23/96	1300	38	48	1 hr.

DEPTH feet	SAMPLE NO. Depth (ft.)	BLOWS/6"	PEN/REC (in.)	PID (ppm) VALUES	STRATUM DESCRIPTION	GEOLOGIC DESCRIPTION
					CLAYEY SILT	Surface: Grass.
5	S-1 3-5'	4-7 8-7	24/14	ND		S-1: Stiff, dark brown Clayey SILT, little fine to coarse Sand. Dry.
10	S-2 8-10'	3-4 4-4	24/6	ND	SILT & CLAY	S-2: Stiff, brown SILT & CLAY, little fine to coarse Sand. Moist.
15	S-3 13-15'	1/12" 1-1	24/24	21	SLUDGE	S-3: Very soft, red and black SLUDGE. Moist.
20	S-4 18-20'	28-21 17-14	24/18	ND	SILT	S-4: Dense, brown and gray SILT, little fine to medium Sand. Moist. 2" seam of brown fine to coarse GRAVEL. Wet.
25	S-5 23-25'	6-6 8-6	24/15	ND		S-5: Stiff, brown Clayey SILT, some fine to coarse Sand, trace fine Gravel. Moist.
30	S-6 28-30'	8-10 10-14	24/17	ND	CLAYEY SILT	S-6: Very stiff, brown Clayey SILT, little fine Gravel, trace fine to coarse Sand. Moist.
35	S-7 33-35'	7-15 17-20	24/20	ND		S-7: Hard, gray Clayey SILT, trace fine to coarse Sand, trace fine Gravel. Moist.

PID (ppm) PROFILE: 0 – 100

WELL DIAGRAM



Sanborn, Head & Associates, Inc.

Log of Monitoring Well SH-5

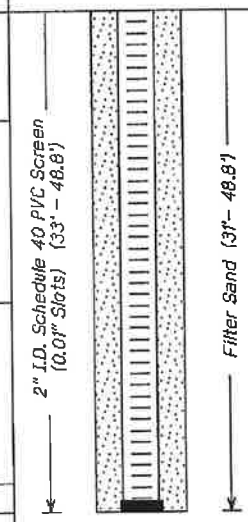
PROJECT NO.: *1103*

PROJECT: *Timken Pickle Liquor Lagoons*

DATE STARTED: *8/23/96* DATE FINISHED: *8/23/96*

DEPTH feet	SAMPLE NO. Depth (ft.)	BLOWS/6"	PEN/REC (in.)	PID (ppm) VALUES	PID (ppm) PROFILE 0–100	GRAPHIC LOG	STRATUM DESCRIPTION	GEOLOGIC DESCRIPTION
40	S-8 38-40'	16-24 28-5	24/18	4			CLAYEY SILT	S-8: Hard, brown Clayey SILT, some fine to coarse Sand, trace fine Gravel. Moist.
45	S-9 43-45'	10-23 27-31	24/18	ND			WEATHERED SHALE	S-9: Very dense, brown SILT. Moist, with wet 2" seam. Completely weathered SHALE.
	S-10 48-48.8	28-50/3"	9/9	ND				S-10: Hard, gray weathered SHALE. Moist.
								Bottom of Boring at 48.8'.
50								
55								
60								
65								
70								
75								

WELL DIAGRAM



NOTES:

1) Soil samples were screened for volatile organic compounds (VOCs) using a Photovac Model MP-1000 Microtip Photoionization Detector (PID) with a 10.6 eV lamp calibrated to an isobutylene standard. Typical detection limit is 1 ppm. "ND" is not detected.

2) Soil cuttings were contained in a 55-gallon drum.

Sanborn, Head & Associates, Inc.

Log of Monitoring Well SH-6

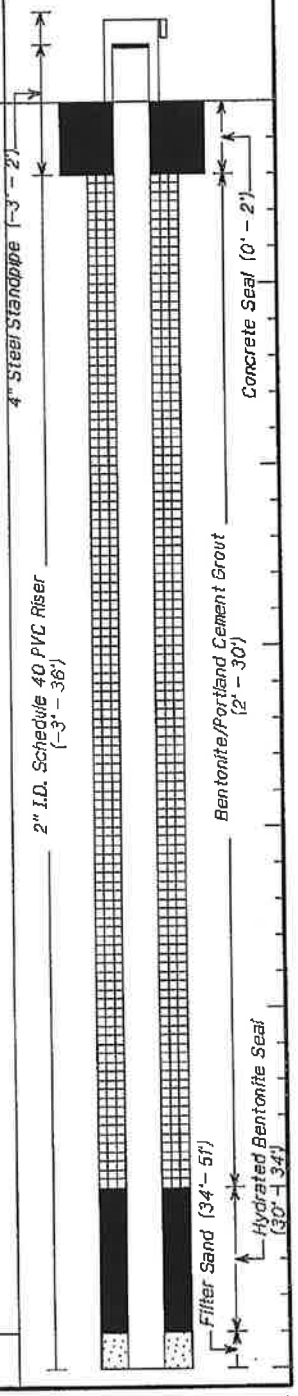
PROJECT: *Timken Pickle Liquor Lagoons*	PROJECT NO.: *1103*
LOCATION: *Canton, Ohio*	DATE STARTED: *8/22/96* — DATE FINISHED: *8/22/96*
DRILLING METHOD: *Mobil B-61 Drill Rig w/4 1/4" HSA*	SURFACE ELEVATION: *1078.13'/PVC – 1081.33'/MSL*
DRILLING COMPANY: *Elite Environmental Drilling, Inc.*	
FOREMAN: *Tracy Teter*	
LOGGED BY: *P. P. Gallagher* — CHECKED BY: *P. M. Sanborn*	

GROUNDWATER READINGS

DATE	TIME	DEPTH	CASING	STAB. TIME
8/22/96	1000	28.2	49	10 min.

DEPTH feet	SAMPLE NO. Depth (ft.)	BLOWS/6"	PEN/REC (in.)	PID (ppm) VALUES	PID (ppm) PROFILE 0–100	GRAPHIC LOG	STRATUM DESCRIPTION	GEOLOGIC DESCRIPTION
							SAND	
5							SILT	
10							SLUDGE	
15							SAND	
20							SILT	
25							SAND	
30							SILT	
35	S-1 34-36'	7-9 15-17	24/9	ND				S-1: Medium dense, brown SILT, some fine Sand, trace fine Gravel. Moist.

WELL DIAGRAM



Sanborn, Head & Associates, Inc.

Log of Monitoring Well SH-6

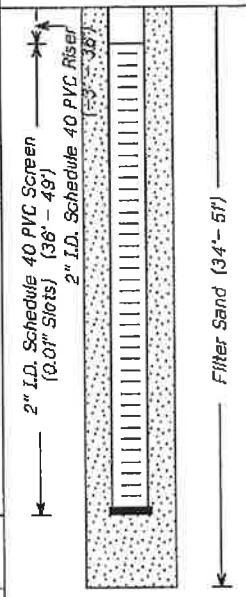
PROJECT NO.: *1103*

PROJECT: *Timken Pickle Liquor Lagoons*

DATE STARTED: *8/22/96* DATE FINISHED: *8/22/96*

DEPTH feet	SAMPLE NO. Depth (ft.)	BLOWS/6"	PEN/REC (in.)	PID (ppm) VALUES	PID (ppm) PROFILE 0 100	GRAPHIC LOG	STRATUM DESCRIPTION	GEOLOGIC DESCRIPTION
							SAND AND SILT	
							SAND	
40							SILT & CLAY	
45							SAND AND GRAVEL	
50	S-2 49-51'	4-4 7-13	24/10	ND				S-2: Medium dense, brown fine to medium SAND, little Silt, trace fine Gravel. Wet.
								Bottom of Boring at 51'.
55								
60								
65								
70								
75								

WELL DIAGRAM



NOTES:

1) Soil samples were screened for volatile organic compounds (VOCs) using a Photovac Model MP-1000 Microtip Photoionization Detector (PID) with a 10.6 eV lamp calibrated to an Isobutylene standard. Typical detection limit is 1 ppm. "ND" is not detected.

2) Soil cuttings were contained in a 55-gallon drum.

3) Stratum descriptions are taken from soil boring SH-6A, which was located about 10 feet east of monitoring well SH-6. Due to the proximity of these two borings, these stratum descriptions are considered to be generally representative of location SH-6 soils.

Sanborn, Head & Associates, Inc.

Log of Monitoring Well SH-7

PROJECT NO.: *1103*

PROJECT: *Timken Pickle Liquor Lagoons*

DATE STARTED: *8/26/96* | DATE FINISHED: *8/27/96*

LOCATION: *Canton, Ohio*

SURFACE ELEVATION: *1065.07'/PVC – 1068.2'/MSL*

DRILLING METHOD: *Mobil B-61 Drill Rig w/4 1/4" HSA*

DRILLING COMPANY: *Elite Environmental Drilling, Inc.*

FOREMAN: *Tracy Teter*

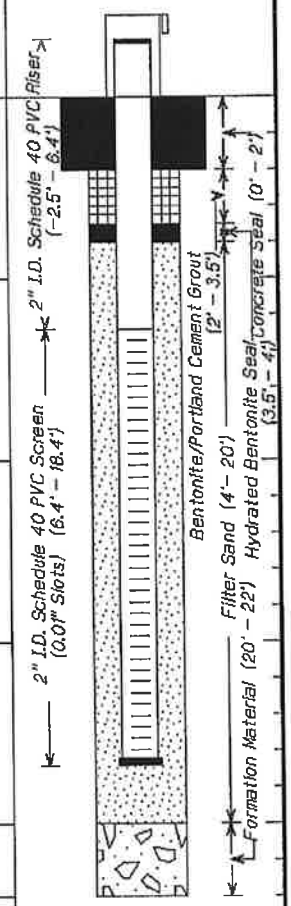
LOGGED BY: *P. P. Gallagher* | CHECKED BY: *P. M. Sanborn*

GROUNDWATER READINGS

DATE	TIME	DEPTH	CASING	STAB. TIME
8/26/96	1720	9.5	15	5 min.
8/26/96	1740	8.5	20	10 min.
8/27/96	0810	8.1	20	12 hr.
8/27/96	0945	10.25	well	1 hr.

DEPTH feet	SAMPLE NO. Depth (ft.)	BLOWS/6"	PEN/REC (in.)	PID (ppm) VALUES	PID (ppm) PROFILE 0–100	GRAPHIC LOG	STRATUM DESCRIPTION	GEOLOGIC DESCRIPTION
	S-1 0-2'	5-8 8-5	24/18	ND			SAND	S-1: Medium dense, brown, fine to coarse SAND, some Silt, trace fine Gravel. Dry.
5	S-2 5-7'	8-5 5-4	24/8	ND			SILT	S-2: Loose, brown and black SILT, little fine to coarse Sand. Dry.
10	S-3 10-12'	2-7 7-8	24/14	4			SAND	S-3: Medium dense, brown fine to coarse SAND, little Silt, trace fine Gravel. Moist. 2" seam of brown SILT, little fine Sand. Moist.
15	S-4 15-17'	5-7 22-10	24/14	ND				S-4: Medium dense, brown and black fine to coarse SAND, little fine Gravel, little Silt. Wet.
20	S-5 20-22'	5-11 11-10	24/18	ND				S-5: Medium dense, brown fine to coarse SAND, little fine Gravel, trace Silt. Wet.
25								Bottom of Boring at 22'.
30								
35								

WELL DIAGRAM



NOTES:

1) Soil samples were screened for volatile organic compounds (VOCs) using a Photovac Model MP-1000 Microtip Photoionization Detector (PID) with a 10.6 eV lamp calibrated to an isobutylene standard. Typical detection limit is 1 ppm. "ND" is not detected.

2) Soil cuttings were contained in a 55-gallon drum.

TABLE 1
Groundwater Elevation Summary - 2007 to 2012
Timken Former Pickle Liquor Lagoons
Canton, Ohio

ID	Reference Elevation	Ground Surface Elevation	Average Groundwater Elevation	5/3/07	6/3/09	5/18/11	8/22/2012	8/31/2012 Measured by SCHD	10/1/2012 Measured by Timken	10/2/2012 Measured by Timken	10/17/2012 Measured by Timken	11/19/2012 Measured by Timken	12/20/2012 Measured by Timken	1/18/2013 Measured by Timken	2/19/2013 Measured by Timken	3/15/2013 Measured by Timken	4/16/2013 Measured by Timken	5/20/2013 Measured by Timken	6/17/2013 Measured by Timken	7/18/2013 Measured by Timken	8/21/2013 Measured by Timken	9/19/2013 Measured by Timken
SH-1	1064.26	1061.31	1059.33	1060.65	1059.39	1060.85	1057.48			1057.51	1057.26	1059.26	1060.26	1059.51	1059.76	1059.76	1060.26	1059.51	1060.26	1060.93	1060.76	1060.26
SH-2	1084.10	1080.50	1056.02	1061.16	1058.39	1062.18	1054.45			1054.10	1052.60	1053.10	N/A	1053.60	1054.60	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SH-3	1078.75	1075.75	1053.26	1054.91	1053.89	1055.67	1052.70		1052.25		1052.25	1052.42	1052.75	1052.75	1052.75	1053.00	1053.75	1053.25	1052.75	1053.45	1053.25	1052.75
SH-4	1092.95	1089.53	1047.30	1052.37	1049.43	1054.15	1046.64	1046.42	1045.28		1044.95	1044.70	1046.45	1045.45	1045.70	1045.95	1047.45	1047.70	1046.95	1047.95	1048.20	1047.45
SH-5	1087.27	1084.00	1052.11	1056.66	1053.26	1058.50	1051.42	1051.12	1051.27		1050.52	1049.77	1050.27	1050.52	1050.94	1051.27	1051.94	1051.77	1051.77	1052.77	1052.97	1052.52
SH-6	1081.38	1078.13	1053.02	1059.68	1054.78	1061.55	1053.37	1052.85	1051.05		1050.38	1050.05	1050.08	1050.63	1050.88	1051.38	1052.63	1053.38	1052.63	1054.63	1054.38	N/A
SH-7	1068.20	1065.07	1055.31	1064.39	1056.41	1064.01	1055.21	1053.6	1052.7		1052.45	1052.20	1052.70	1052.70	1052.70	1053.45	1056.45	1055.20	1054.70	1056.70	1056.45	1055.70

Notes:

1. Ground surface elevations and groundwater elevations are shown in feet above mean sea level.

2. Accurate Technologies surveyed the ground surface and reference elevations in June 2009.

3. Sanborn, Head & Associates, Inc. personnel measured the groundwater elevations using a Slope®, Heron® or similar water level meter.

TABLE 1
Groundwater Elevation Summary - 2007 to 2012
Timken Former Pickle Liquor Lagoons
Canton, Ohio

ID	8/31/2012	9/17/2012	10/17/2012	11/19/2012	12/20/2012	1/18/2013	2/19/2013	3/15/2013	4/16/2013	5/20/2013	6/17/2013	7/18/2013	8/18/2013	9/18/2013
SH-1		6.75	7	5	4	4.75	4.5	4.5	4	4.75	4	3.33	3.5	4
SH-2		30	31.5	31		30.5	29.5							
SH-3		26.5	26.5	26.33	26	26	26	25.75	25	25.5	26	25.3	25.5	26
SH-4	46.53	47.67	48	48.25	46.5	47.5	47.25	47	45.5	45.25	46	45	44.75	45.5
SH-5	36.15	36	36.75	37.5	37	36.75	36.33	36	35.33	35.5	35.5	34.5	34.3	34.75
SH-6	28.53	30.33	31	31.33	31.3	30.75	30.5	30	28.75	28	28.75	26.75	27	
SH-7	14.6	15.5	15.75	16	15.5	15.5	15.5	14.75	11.75	13	13.5	11.5	11.75	12.5

15.0 APPENDIX G Timken Construction Dewatering Ground Water Level Measurements made during the study

Well Log Number	House Number	Stree Name	Well ID	Original Owners Name	Current Owners Name	Well_Type	Distance from Timken DWW Feet	Total well Depth Feet	Casing Length Feet	Original Static WL Feet (log)	Aquifer Type	Surface Elevation	Latitude	Longitude
2015013	2568	Bordner	WA	Walter Amsturz	Walter Amsturz	Domestic	5615.9	58		38	Shale	1086	40.77013	-81.44189
	2633	Bordner	MP1	May Phillips	May Phillips	Domestic	5353.2					1082	40.76907	-81.44235
955284	2347	Delaware	AD	Anthony Durio	Anthony Durio	Domestic	7040.5	210	106	80	Sandstone	1130	40.77324	-81.44617
859388	5365	Doloris	HBA	Homes by Ashley		Domestic	7802.2	90	64	50	Shale	1105	40.77283	-81.45322
811407	3916	Faircrest	OC	Otterbein Church	Otterbein Church	Domestic	3018	105	46	30	Shale	1123	40.75135	-81.4271
605207	5259	Faircrest	MP2	Mark Petos	Mark Petos	Domestic	4423.5	115	70	65	Limestone	1101	40.75445	-81.45367
2039329	4511	Faircrest DW#1	TDW1	Timken	Timken	Dewatering	0	96	54	5	Sandstone	1057	40.7553815	-81.437524
2039330	4511	Faircrest DW#2	TDW2	Timken	Timken	Dewatering	0	96	44	5	Sandstone	1057.5	40.7553785	-81.437234
2039331	4511	Faircrest DW#3	TDW3	Timken	Timken	Dewatering	0	86	32	1	Sandstone	1046.4	40.7551893	-81.437133
2039333	4511	Faircrest DW#4	TDW4	Timken	Timken	Dewatering	0	93	18	8	Sandstone	1051.8	40.7549084	-81.437216
2039335	4511	Faircrest DW#5	TDW5	Timken	Timken	Dewatering	0	93		10	Sandstone	1056.2	40.7548205	-81.437481
2039336	4511	Faircrest DW#6	TDW6	Timken	Timken	Dewatering	0	96	53	3	Sandstone	1057.6	40.7552493	-81.437742
2042010	4511	Faircrest TSC#3A	TSC3A	Timken	Timken	Monitoring		57	42	45	Shale	1071.5	40.755012	-81.438204
	4511	Faircrest SH-4	TSH-4	Timken	Timken	Monitoring	2628.6	66		40.58	Shale	1092.95	40.76211	-81.43446
	4511	Faircrest SH-5	TSH-5	Timken	Timken	Monitoring	3247.4	49		30.61	Clay	1087.27	40.762798	-81.431525
	4511	Faircrest SH-6	TSH-6	Timken	Timken	Monitoring	3742.2	51		21.7	Sand and Gravel	1081.38	40.76321	-81.42921
	4511	Faircrest SH-7	TSH-7	Timken	Timken	Monitoring	3844.9	22		3.81	Sand	1068.2	40.76303	-81.42814
559730	3223	Gambrinus	KKS	Keystone Homes		Domestic	5899.9	94	94	50	Sand and Gravel	1087	40.76328	-81.41916
262417	4070	Kropf	TB1	EC Dillon	Terry Barnett	Domestic	3103.6	150	102	52	Sandstone	1131	40.74835	-81.44436
231501	4070	Kropf (well not in use	TB2	GV Hurst	Terry Barnett	Domestic	3103.6	46	33	16	Shale	1131	40.74836	-81.44436
744587	4110	Paradise Road	GS	G Stockburger		Domestic	5613	115	64	59	Shale	1125	40.74224	-81.42625
1006015	4245	Richville	SH	Schumacher Homes		Domestic	6362.8	110	58	50	Shale	1140	40.73835	-81.4309
729470	4500	Richville	HBE	Homes by Edie		Domestic	6558.3	58	39	20	Shale	1115	40.73714	-81.43904
605215	3616	Shepler Church	NW	Norman Weaver		Domestic	2993	93	60	45	Limestone	1117	40.754746	-81.426199
	3763	Shepler Church	UK			Domestic	2542.6					1097	40.75247	-81.42904
638362	3950	Shepler Church	CH	Chareles Harland		Domestic	2115	70	53.1	30	Shale	1101	40.74951	-81.43356
601049	3990	Shepler Church	WP	William Pyler		Domestic	2690	48	31	22	Limestone	1114	40.74822	-81.43279
2039116	4004	Shepler Church	RH	Robert Harman	Robert Harman	Domestic	2270	68	61	15	Shale	1090	40.74874	-81.4359
793890	4012	Shepler Church	RG	Robert Gang		Domestic		92	62	31	Shale	1122	40.747339	-81.432223
438679	4031	Shepler Church	CG	Carl Gillian	Carl Gillian	Domestic	2184.4	81	77	2	Sandstone	1083	40.74915	-81.436614
	4060	Shepler Church	CC		Chapener	Domestic	2531					1087	40.747882	-81.436496
	4066	Shepler Church	MS		Mike Shapuite	Domestic	2749.8					1087	40.747558	-81.437661
	4180	Shepler Church	JW		Jim Woodlock	Domestic	2749.8					1110	40.74642	-81.44113
2027329	3444	Sherman Church	WS	William Sammet		Domestic	5512	216	176	55	Sandstone	1086	40.75996	-81.41884
800458	3922	Sherman Church	LC	Lauren Cathis		Domestic	4985	77	56	30	Limestone	1094	40.75518	-81.41904
964160	4500	Shermont	BM	AB Custom Homes	Becky Mercer	Domestic	4796.1	133	49	43	Shale	1156	40.74198	-81.43887
873475	4556	Shermont	KT	Kerry Thompson		Domestic	4976	145	73	69	Shale	1183	40.74144	-81.43721
2038384	4577	Surmay	KW	Kenneth Wheeler	Kenneth Wheeler	Domestic	5255.4	75	32	24	Sandstone	1132	40.74123	-81.44263
930454	2454	Swiss	SB	Schalmo Builders		Domestic	6089.1	120	80	40	Sandstone	1081	40.77166	-81.44032
964566	3708	Whipple	AS	A Stout		Domestic	2852.3	60	57	15	Gavel	1068	40.758317	-81.428151
899672	3728	Whipple	KS	Homer Eudy	Kevin Spencer	Domestic	2796.1	155	132	40	Shale	1073	40.75784	-81.42811
643125	3810	Whipple	EP	Elmer Parks		Domestic		53	50	20	Shale	1077	40.758317	-81.428151

Well Log Number	House Number	Stree Name	Well ID	Horizontal X	Horizontal Y	Water Depth 8/17/12	GWE 8/17	DD-Oringinal	Water Depth 8/31/12	GWE8/31	DD817831	DD Original831	Water Depth 9/17/12	DD Original-91712	GWE9/17
2015013	2568	Bordner	WA	2261646.680676	1010763.932204	41.89	1044.11	-3.89	41.96	1044.04	-0.07	-3.96	42.2	-4.2	1043.8
	2633	Bordner	MP1	2261523.769070	1010376.182364	37.44	1044.56		37.5	1044.5	-0.06		37.85		1044.15
955284	2347	Delaware	AD	2260447.745047	1011883.330402				85.93	1044.07		-5.93	85.34	-5.34	1044.66
859388	5365	Doloris	HBA	2258496.468430	1011711.211115								34.58	15.42	1070.42
811407	3916	Faircrest	OC	2265825.334903	1003969.027926				28	1095			29.75		
605207	5259	Faircrest	MP2	2258449.418871	1005012.233068	45.63	1055.37	19.37	45.71	1055.29	-0.08	19.29	45.76	19.24	1055.24
2039329	4511	Faircrest DW#1	TDW1	2262919.346831	1005403.901863	85	972	-80	85	972	0	-80	85	-80	972
2039330	4511	Faircrest DW#2	TDW2	2262999.869255	1005403.768196	85.5	972	-80.5	85.5	972	0	-80.5	85.5	-80.5	972
2039331	4511	Faircrest DW#3	TDW3	2263028.548611	1005335.137987	74.4	972	-73.4	74.4	972	0	-73.4	74.4	-73.4	972
2039333	4511	Faircrest DW#4	TDW4	2263006.697877	1005232.518257	79.8	972	-71.8	79.8	972	0	-71.8	79.8	-71.8	972
2039335	4511	Faircrest DW#5	TDW5	2262933.863653	1005199.638813	84.2	972	-74.2	84.2	972	0	-74.2	84.2	-74.2	972
2039336	4511	Faircrest DW#6	TDW6	2262859.608261	1005355.012334	85.6	972	-82.6	85.6	972	0	-82.6	85.6	-82.6	972
2042010	4511	Faircrest TSC#3A	TSC3A	2262732.611361	1005267.048958										
	4511	Faircrest SH-4	TSH-4	2263739.535053	1007865.713472				46.53	1046.42		-5.95	47.67	-7.09	1045.28
	4511	Faircrest SH-5	TSH-5	2264549.759527	1008126.024118				36.15	1051.12		-5.54	36	-5.39	1051.27
	4511	Faircrest SH-6	TSH-6	2265189.382180	1008283.751429				28.53	1052.85		-6.83	30.33	-8.63	1051.05
	4511	Faircrest SH-7	TSH-7	2265486.617367	1008221.678453				14.6	1053.6		-10.79	15.5	-11.69	1052.7
559730	3223	Gambrinus	KKS	2267973.550510	1008342.434749	52.46							52.78	-2.78	1034.22
262417	4070	Kropf	TB1	2261055.190917	1002819.485704	82.46	1048.54	-30.46	85.45	1045.55	-2.99		85.51		
231501	4070	Kropf (well not in use)	TB2	2261055.148316	1002823.129591	27.56	1103.44	-11.56	23.17	1107.83	4.39	-7.17	23.85	-7.85	1107.15
744587	4110	Paradise Road	GS	2266100.353929	1000652.257724								53.22	5.78	1071.78
1006015	4245	Richville	SH	2264828.404248	999219.502816								35.55	14.45	1104.45
729470	4500	Richville	HBE	2262577.480016	998751.984409								25.85	-5.85	1089.15
605215	3616	Shepler Church	NW	2266060.294692	1005209.460431										
	3763	Shepler Church	UK	2265282.900794	1004370.761217	30.51	1066.49		31.42	1065.58	-0.91		32.62		1064.38
638362	3950	Shepler Church	CH	2264043.122240	1003277.345930										
601049	3990	Shepler Church	WP	2264262.058644	1002809.806180				27.9	1086.1		-5.9	31.14		
2039116	4004	Shepler Church	RH	2263397.973354	1002989.116445				19.75	1070.25		-4.75	24.64		
793890	4012	Shepler Church	RG	2264422.983623	1002490.638002										
438679	4031	Shepler Church	CG	2263198.349570	1003136.184689	18.9	1064.1	-16.9		1083	0				
	4060	Shepler Church	CC	2263236.491726	1002674.525378				26.5	1060.5			28.98		
	4066	Shepler Church	MS	2262915.030865	1002552.663056	12.32	1074.68	-12.32		1087	0				
	4180	Shepler Church	JW	2261958.544425	1002126.697068	54.87	1055.13	-54.87	56.1	1053.9	-1.23				
2027329	3444	Sherman Church	WS	2268076.695868	1007133.720227	49.2							49.35	5.65	1036.65
800458	3922	Sherman Church	LC	2268042.132812	1005391.275040				30.92	1063.08			31.56		
964160	4500	Shermont	BM	2262603.872391	1000516.168977				45.7	1110.3		-2.7	46.35	-3.35	1109.65
873475	4556	Shermont	KT	2263066.254496	1000324.810952				76.71	1106.29		-7.71	77.54	-8.54	1105.46
2038384	4577	Surmay	KW	2261564.994996	1000230.653831				26.68	1105.32		-2.68	27.25	-3.25	1104.75
930454	2454	Swiss	SB	2262075.082193	1011326.554792				51.44	1029.56		-11.44	52.86	-12.86	1028.14
964566	3708	Whipple	AS	2265503.956095	1006504.269414		1068	15	24.98	1043.02	0	-9.98	26.06	-11.06	1041.94
899672	3728	Whipple	KS	2265517.379828	1006330.590229	30.51	1042.49	9.49	30.44	1042.56	0.07	9.56	31.41		
643125	3810	Whipple	EP	2265503.956095	1006504.269414		1077	20	24.98	1052.02	0	-4.98	26.06	-6.06	1050.94

Well Log Number	House Number	Stree Name	Well ID	DD831-917	Water Depth 10/17/12	GWE 10/17/12	DD917-1017	DD917-1017 Adjusted 0.33 ft	Original-10/17/12	Water Depth 11/19/12	GWE 11/19/12	DD1017-1119	Water Depth 12/18/12	GWE 12/18/12	DD1119-1218	Water Depth 1/18/13	GWE 1/18/13
2015013	2568	Bordner	WA	-0.24	42.3		-0.1	0.23	-4.3	42.16	1043.84	0.14	41.99	1044.01	0.17	42.95	1043.05
	2633	Bordner	MP1	-0.35	44.25		-6.4	-6.07									
955284	2347	Delaware	AD	0.59	83.49	1046.51	1.85	2.18	-3.49	81.22	1048.78	2.27	81.46	1048.54	-0.24	82.74	1047.26
859388	5365	Doloris	HBA		34.75	1070.25	-0.17	0.16	15.25	34.55	1070.45	0.2	34.06	1070.94	0.49	41.28	1063.72
811407	3916	Faircrest	OC	-1.75						34.65	1088.35					30.97	
605207	5259	Faircrest	MP2	-0.05	45.84		-0.08	0.25	19.16	45.91	1055.09	-0.07	45.65	1055.35	0.26	44.69	1056.31
2039329	4511	Faircrest DW#1	TDW1	0	85	972	0		-80	85	972	0	85	972	0	85	972
2039330	4511	Faircrest DW#2	TDW2	0	85.5	972	0		-80.5	85.5	972	0	85.5	972	0	85.5	972
2039331	4511	Faircrest DW#3	TDW3	0	64.9	981.5	0		-63.9	64.9	981.5	0	64.9	981.5	0	64.9	981.5
2039333	4511	Faircrest DW#4	TDW4	0	70.3	981.5	0		-62.3	70.3	981.5	0	70.3	981.5	0	70.3	981.5
2039335	4511	Faircrest DW#5	TDW5	0	74.7	981.5	0		-64.7	74.7	981.5	0	74.7	981.5	0	74.7	981.5
2039336	4511	Faircrest DW#6	TDW6	0	85.6	972	0		-82.6	85.6	972	0	85.6	972	0	85.6	972
2042010	4511	Faircrest TSC#3A	TSC3A														
	4511	Faircrest SH-4	TSH-4	-1.14	48	1044.95	-0.33	0	-7.42	48.25	1044.7	-0.25	46.5	1046.45	1.75	47.5	1045.45
	4511	Faircrest SH-5	TSH-5	0.15	36.75	1050.52	-0.75	-0.42	-6.14	37.5	1049.77	-0.75	37	1050.27	0.5	36.75	1050.52
	4511	Faircrest SH-6	TSH-6	-1.8	31	1050.38	-0.67	-0.34	-9.3	31.33	1050.05	-0.33	31.3	1050.08	0.03	30.75	1050.63
	4511	Faircrest SH-7	TSH-7	-0.9	15.75	1052.45	-0.25	0.08	-11.94	16	1052.2	-0.25	15.5	1052.7	0.5	15.5	1052.7
559730	3223	Gambrinus	KKS		53.05	1033.95	-0.27	0.06	-3.05	53.17	1033.83	-0.12	53.28	1033.72	-0.11	53.25	1033.75
262417	4070	Kropf	TB1	-0.06													
231501	4070	Kropf (well not in use	TB2	-0.68													
744587	4110	Paradise Road	GS		54.41	1070.59	-1.19	-0.86	4.59	55.54	1069.46	-1.13	51.71	1073.29	3.83	50.25	1074.75
1006015	4245	Richville	SH		35.83	1104.17	-0.28	0.05	14.17	34.72	1105.28	1.11	32.91	1107.09	1.81	31.18	1108.82
729470	4500	Richville	HBE		25.97	1089.03	-0.12	0.21	-5.97	25.2	1089.8	0.77	23.23	1091.77	1.97	20.61	1094.39
605215	3616	Shepler Church	NW		56.3	1060.7			-11.3	62.7	1054.3	-6.4	66.7	1050.3	-4	59.49	1057.51
	3763	Shepler Church	UK	-1.2	33.55	1063.45	-0.93	-0.6		33.85	1063.15	-0.3	33.9	1063.1	-0.05	33.03	1063.97
638362	3950	Shepler Church	CH		33.51	1067.49				35.4	1065.6	-1.89	36.54	1064.46	-1.14	34.64	1066.36
601049	3990	Shepler Church	WP	-3.24	35.65	1078.35				38.98	1075.02	-3.33	40.5	1073.5	-1.52	39.93	1074.07
2039116	4004	Shepler Church	RH	-4.89	27.72	1062.28				28.98	1061.02	-1.26	28.56	1061.44	0.42	27.88	1062.12
793890	4012	Shepler Church	RG		43.26	1078.74			-12.26								
438679	4031	Shepler Church	CG	0													
	4060	Shepler Church	CC	-2.48	28.12	1058.88				28.3	1058.7	-0.18	28.12	1058.88	0.18	26.3	1060.7
	4066	Shepler Church	MS	0													
	4180	Shepler Church	JW														
2027329	3444	Sherman Church	WS		49.7	1036.3	-0.35	-0.02	5.3	49.82	1036.18	-0.12	49.65	1036.35	0.17	49.78	1036.22
800458	3922	Sherman Church	LC	-0.64						31.76	1062.24		31.55	1062.45	0.21	30.51	1063.49
964160	4500	Shermont	BM	-0.65	47.44	1108.56	-1.09	-0.76	-4.44	47.4	1108.6	0.04	48.18	1107.82	-0.78	46.78	1109.22
873475	4556	Shermont	KT	-0.83	78.52	1104.48	-0.98	-0.65	-9.52	78.41	1104.59	0.11	77.15	1105.85	1.26	73.25	1109.75
2038384	4577	Surmay	KW	-0.57	27.7	1104.3	-0.45	-0.12	-3.7	27.05	1104.95	0.65	25	1107	2.05	20.6	1111.4
930454	2454	Swiss	SB	-1.42	52.75	1028.25	0.11	0.44	-12.75	52.82	1028.18	-0.07	53.16	1027.84	-0.34	53.05	1027.95
964566	3708	Whipple	AS	-1.08	16.75	1051.25	9.31										
899672	3728	Whipple	KS	-0.97	32.28	1040.72	-0.87	-0.54	7.72	33.67	1039.33	-1.39	34.45	1038.55	-0.78	31.95	1041.05
643125	3810	Whipple	EP	-1.08	16.75	1060.25			3.25								

Well Log Number	House Number	Stree Name	Well ID	DD1218-0118	Water Depth 2/19/13	GWE 2/19/13	DD118-21913	Water Depth 3/15/13	GWE 3/15/13	DD21913-31513	Water Depth 4/16/13	GWE 4/16/13	DD31513-41613	Water Depth 5/20/2013	GWE 5/20/13	DD41613-52013	Water Depth 6/17/2013
2015013	2568	Bordner	WA	-0.96	40.66	1045.34	2.29	40.31	1045.69	0.35	39.39	1046.61	0.92	39.15	1046.85	0.24	41.12
	2633	Bordner	MP1														
955284	2347	Delaware	AD	-1.28				87.5			80.48	1049.52	7.02	97.7	1032.3	-17.22	
859388	5365	Doloris	HBA	-7.22	31.23	1073.77	10.05	30.52	1074.48	0.71	29.76	1075.24	0.76	29.39	1075.61	0.37	29.64
811407	3916	Faircrest	OC														
605207	5259	Faircrest	MP2	0.96	44.51	1056.49	0.18	44.16	1056.84	0.35	43.75	1057.25	0.41	44.15		-0.4	45.5
2039329	4511	Faircrest DW#1	TDW1	0	54	1003	31	40	1017	14	25	1032	15	22	1035	3	
2039330	4511	Faircrest DW#2	TDW2	0	54.5	1003	31	30.5	1027	24	23.5	1034	7	23.5	1034	0	
2039331	4511	Faircrest DW#3	TDW3	0	64.9	981.5	0	30.4	1016	34.5							
2039333	4511	Faircrest DW#4	TDW4	0	48.8	1003	21.5	26.8	1025	22							
2039335	4511	Faircrest DW#5	TDW5	0	74.7	981.5	0	30.2	1026	44.5							
2039336	4511	Faircrest DW#6	TDW6	0	85.6	972	0	40.6	1017	45	23.6	1034	17	23.6	1034	0	
2042010	4511	Faircrest TSC#3A	TSC3A														29
	4511	Faircrest SH-4	TSH-4	-1	47.25	1045.7	0.25	47	1045.95	0.25	45.5	1047.45	1.5	45.25	1047.7	0.25	46
	4511	Faircrest SH-5	TSH-5	0.25	36.33	1050.94	0.42	36	1051.27	0.33	35.33	1051.94	0.67	35.5	1051.77	-0.17	35.5
	4511	Faircrest SH-6	TSH-6	0.55	30.5	1050.88	0.25	30	1051.38	0.5	28.75	1052.63	1.25	28	1053.38	0.75	28.75
	4511	Faircrest SH-7	TSH-7	0	15.5	1052.7	0	14.75	1053.45	0.75	11.75	1056.45	3	13	1055.2	-1.25	13.5
559730	3223	Gambrinus	KKS	0.03	53.06	1033.94	0.19	52.54	1034.46	0.52	52.08	1034.92	0.46	52.72	1034.28	-0.64	52.27
262417	4070	Kropf	TB1														
231501	4070	Kropf (well not in use)	TB2														
744587	4110	Paradise Road	GS	1.46	49.53	1075.47	0.72	48.16	1076.84	1.37	47.5	1077.5	0.66	47.47	1077.53	0.03	48.9
1006015	4245	Richville	SH	1.73	31.91	1108.09	-0.73	31	1109	0.91	29.07	1110.93	1.93	32.16	1107.84	-3.09	32.89
729470	4500	Richville	HBE	2.62	21.8	1093.2	-1.19	20.53	1094.47	1.27	16.1	1098.9	4.43	22.31	1092.69	-6.21	23.8
605215	3616	Shepler Church	NW	7.21									0				
	3763	Shepler Church	UK	0.87	31.87	1065.13	1.16	31.2	1065.8	0.67	29.3	1067.7	1.9	28.4	1068.6	0.9	29.9
638362	3950	Shepler Church	CH	1.9	33.47	1067.53	1.17	31.62	1069.38	1.85	29.15	1071.85	2.47	28	1073	1.15	27.66
601049	3990	Shepler Church	WP	0.57	38.72	1075.28	1.21	37.01	1076.99	1.71	33.96	1080.04	3.05	31.85	1082.15	2.11	33.98
2039116	4004	Shepler Church	RH	0.68	26.96	1063.04	0.92	25.24	1064.76	1.72	23.18	1066.82	2.06	22.42	1067.58	0.76	21.8
793890	4012	Shepler Church	RG														
438679	4031	Shepler Church	CG														
	4060	Shepler Church	CC	1.82	25.45	1061.55	0.85	23.73	1063.27	1.72	21.95	1065.05	1.78	21.4	1065.6	0.55	20.15
	4066	Shepler Church	MS														
	4180	Shepler Church	JW														
2027329	3444	Sherman Church	WS	-0.13	49.29	1036.71	0.49	49.25	1036.75	0.04	48.5	1037.5	0.75	48.51	1037.49	-0.01	48.45
800458	3922	Sherman Church	LC	1.04	29.86	1064.14	0.65	29.31	1064.69	0.55	27.51	1066.49	1.8	27.31	1066.69	0.2	28.21
964160	4500	Shermont	BM	1.4	41.56	1114.44	5.22	39.85	1116.15	1.71	37.45	1118.55	2.4	38.2	1117.8	-0.75	42.41
873475	4556	Shermont	KT	3.9	72.38	1110.62	0.87	70.67	1112.33	1.71	68.21	1114.79	2.46	69.06	1113.94	-0.85	73.3
2038384	4577	Surmay	KW	4.4	20.89	1111.11	-0.29	18.84	1113.16	2.05	16.4	1115.6	2.44	19.06	1112.94	-2.66	23.32
930454	2454	Swiss	SB	0.11	52.85	1028.15	0.2	52.07	1028.93	0.78	51.57	1029.43	0.5	51	1030	0.57	51.64
964566	3708	Whipple	AS														
899672	3728	Whipple	KS	2.5	32.14	1040.86	-0.19	32.39	1040.61	-0.25	30.18	1042.82	2.21	30.01	1042.99	0.17	28.9
643125	3810	Whipple	EP														

Well Log Number	House Number	Stree Name	Well ID	GWE 6/17/2013	DD52013-61713	Water Depth 7/18/13	GWE 7/18/2013	DD61713-71813	Water Depth 8/15/13	GWE 8/15/13	DD71813-81513	Water Depth 9/19/13	GWE 9/19/13
2015013	2568	Bordner	WA	1044.88	-1.97	39.49	1046.51	1.63	39.75	1046.25	-0.26	40.26	1045.74
	2633	Bordner	MP1										
955284	2347	Delaware	AD			79.9	1050.1					82.22	1047.78
859388	5365	Doloris	HBA	1075.36	-0.25	29.85	1075.15	-0.21	29.62	1075.38	0.23	30.14	1074.86
811407	3916	Faircrest	OC										
605207	5259	Faircrest	MP2	1055.5	-1.35	44.22	1056.78	1.28	44.5	1056.5	-0.28	45.07	1055.93
2039329	4511	Faircrest DW#1	TDW1										
2039330	4511	Faircrest DW#2	TDW2										
2039331	4511	Faircrest DW#3	TDW3										
2039333	4511	Faircrest DW#4	TDW4										
2039335	4511	Faircrest DW#5	TDW5										
2039336	4511	Faircrest DW#6	TDW6										
2042010	4511	Faircrest TSC#3A	TSC3A	1053		25	1057	4	19.7	1051.8	5.3	18.7	1052.8
	4511	Faircrest SH-4	TSH-4	1046.95	-0.75	45	1047.95	1					
	4511	Faircrest SH-5	TSH-5		0	34.5		1					
	4511	Faircrest SH-6	TSH-6		-0.75	26.75		2					
	4511	Faircrest SH-7	TSH-7		-0.5	11.5		2					
559730	3223	Gambrinus	KKS		0.45	51.12		1.15	50.88	1036.12	0.24	50.97	1036.03
262417	4070	Kropf	TB1										
231501	4070	Kropf (well not in use)	TB2										
744587	4110	Paradise Road	GS	1076.1	-1.43	47.71	1077.29	1.19	48.15	1076.85	-0.44	49.55	1075.45
1006015	4245	Richville	SH	1107.11	-0.73	31.44	1108.56	1.45	33	1107	-1.56	33.94	1106.06
729470	4500	Richville	HBE	1091.2	-1.49	20.65	1094.35	3.15	23.66	1091.34	-3.01	24.95	1090.05
605215	3616	Shepler Church	NW										
	3763	Shepler Church	UK	1044.88	-1.5	28.3	1068.7	1.6	29.33	1067.67	-1.03	28.49	1068.51
638362	3950	Shepler Church	CH	1044.88	0.34	23.75	1077.25	3.91	21.98	1079.02	1.77	22.49	1078.51
601049	3990	Shepler Church	WP	1044.88	-2.13	32	1082	1.98	30.6	1083.4	1.4	31.14	1082.86
2039116	4004	Shepler Church	RH	1044.88	0.62	17.45	1072.55	4.35	15.69	1074.31	1.76	16.1	1073.9
793890	4012	Shepler Church	RG										
438679	4031	Shepler Church	CG										
	4060	Shepler Church	CC	1066.85	1.25	15.5	1071.5	4.65	13.3	1073.7	2.2	13.31	1073.69
	4066	Shepler Church	MS										
	4180	Shepler Church	JW										
2027329	3444	Sherman Church	WS	1037.55	0.06	49.4	1036.6	-0.95	47.7	1038.3	1.7	47.67	1038.33
800458	3922	Sherman Church	LC	1065.79	-0.9	23.72	1070.28	4.49	28.31	1065.69	-4.59	29.18	1064.82
964160	4500	Shermont	BM	1113.59	-4.21	39.55	1116.45	2.86	42.22	1113.78	-2.67	45.26	1110.74
873475	4556	Shermont	KT	1109.7	-4.24	70.5	1112.5	2.8	73.11	1109.89	-2.61	76.25	1106.75
2038384	4577	Surmay	KW	1108.68	-4.26	19.32	1112.68	4	21.81	1110.19	-2.49	25.23	1106.77
930454	2454	Swiss	SB	1029.36	-0.64	54.85	1026.15	-3.21	49.79	1031.21	5.06	50.02	1030.98
964566	3708	Whipple	AS										
899672	3728	Whipple	KS	1044.1	1.11	26.15	1046.85	2.75	27.61	1045.39	-1.46	25.53	1047.47
643125	3810	Whipple	EP										

TABLE 2
Summary of Groundwater Elevations
Hydrogeologic Assessment and Summary Report
Faircrest Vertical Caster Construction Dewatering Project
The Timken Company, Canton, Ohio

Well ID	Street Address	Reference Elevation	August 17, 2012		August 31, 2012		September 17, 2012		October 17, 2012		November 19, 2012		December 18, 2012		January 18, 2013		February 19, 2013		March 15, 2013	
			Depths and Elevations in feet																	
			Depth to Water	Water Elevation	Depth to Water	Water Elevation	Depth to Water	Water Elevation	Depth to Water	Water Elevation	Depth to Water	Water Elevation	Depth to Water	Water Elevation	Depth to Water	Water Elevation	Depth to Water	Water Elevation	Depth to Water	Water Elevation
WS	3444 Sherman Church	1086	49.20	1036.80	N/A		49.35	1036.65	49.70	1036.30	49.82	1036.18	49.65	1036.35	49.78	1036.22	49.29	1036.71	49.25	1036.75
KKS	3223 Gambrinus	1087	52.46	1034.54	N/A		52.78	1034.22	53.05	1033.95	53.17	1033.83	53.28	1033.72	53.25	1033.75	53.06	1033.94	52.94	1034.06
UK	3763 Shepler Church	1097	30.51	1066.49	31.42	1065.58	32.62	1064.38	33.55	1063.45	33.85	1063.15	33.90	1063.10	33.03	1063.97	31.87	1065.13	31.20	1065.80
KS	3728 Whipple	1073	30.51	1042.49	30.44	1042.56	31.41	1041.59	32.28	1040.72	33.67	1039.33	33.45	1039.55	31.95	1041.05	32.14	1040.86	32.39	1040.61
LC	3922 Sherman Church	1094	N/A		30.92	1063.08	31.56	1062.44	N/A		31.76	1062.24	31.55	1062.45	30.51	1063.49	29.86	1064.14	29.31	1064.69
SH	4245 Richville	1140	N/A		N/A		35.55	1104.45	35.83	1104.17	34.72	1105.28	32.91	1107.09	31.18	1108.82	31.91	1108.09	31.00	1109.00
GS	4110 Paradise Road	1125	N/A		N/A		53.22	1071.78	54.41	1070.59	55.54	1069.46	51.71	1073.29	50.25	1074.75	49.35	1075.65	48.16	1076.84
HBE	4500 Richville	1115	N/A		N/A		25.85	1089.15	25.97	1089.03	25.20	1089.80	23.23	1091.77	20.61	1094.39	21.80	1093.20	20.53	1094.47
KT	4556 Shermont	1183	N/A		76.71	1106.29	77.54	1105.46	78.52	1104.48	78.41	1104.59	77.15	1105.85	73.25	1109.75	72.38	1110.62	70.67	1112.33
BM	4500 Shermont	1156	N/A		45.70	1110.30	46.35	1109.65	47.44	1108.56	47.40	1108.60	48.18	1107.82	46.78	1109.22	41.56	1114.44	39.85	1116.15
KW	4577 Surmay	1132	N/A		26.68	1105.32	27.25	1104.75	27.70	1104.30	27.05	1104.95	25.00	1107.00	20.60	1111.40	20.89	1111.11	18.84	1113.16
WA	2568 Bordner	1086	41.89	1044.11	41.96	1044.04	42.20	1043.80	42.30	1043.70	42.16	1043.84	41.99	1044.01	42.95	1043.05	40.66	1045.34	40.31	1045.69
AD	2347 Delaware	1130	N/A		85.93	1044.07	85.34	1044.66	83.49	1046.51	81.22	1048.78	81.46	1048.54	82.74	1047.26	N/A	1130.00	87.50	1042.50
HBA	5365 Doloris	1105	N/A		N/A		34.58	1070.42	34.75	1070.25	34.55	1070.45	34.06	1070.94	41.28	1063.72	31.23	1073.77	30.52	1074.48
SB	2454 Swiss	1081	N/A		51.44	1029.56	52.86	1028.14	52.75	1028.25	52.82	1028.18	53.16	1027.84	53.05	1027.95	52.85	1028.15	52.07	1028.93
CH	3950 Shepler Church	1101	N/A		N/A		N/A		33.51	1067.49	35.40	1065.60	36.54	1064.46	34.64	1066.36	33.47	1067.53	31.62	1069.38
WP	3990 Shepler Church	1114	N/A		27.90	1086.10	31.14	1082.86	35.65	1078.35	38.98	1075.02	40.50	1073.50	39.93	1074.07	38.72	1075.28	37.01	1076.99
RH	4004 Shepler Church	1090	N/A		19.75	1070.25	24.64	1065.36	27.72	1062.28	28.98	1061.02	28.56	1061.44	27.88	1062.12	26.96	1063.04	25.24	1064.76
CC	4060 Shepler Church	1087	N/A		26.50	1060.50	28.98	1058.02	28.12	1058.88	28.30	1058.70	28.12	1058.88	26.30	1060.70	25.45	1061.55	23.73	1063.27
MP2	5259 Faircrest	1101	45.63	1055.37	45.71	1055.29	45.76	1055.24	45.84	1055.16	45.91	1055.09	45.65	1055.35	44.69	1056.31	44.51	1056.49	44.16	1056.84
SH-4	4511 Faircrest	1093	N/A		46.53	1046.42	N/A		48.00	1044.95	48.25	1044.70	46.50	1046.45	47.50	1045.45	47.25	1045.70	47.00	1045.95

Well ID	Street Address	Reference Elevation	April 16, 2013		May 20, 2013		June 17, 2013		July 18, 2013		August 15, 2013		September 19, 2013	
			Depths and Elevations in feet											
			Depth to Water	Water Elevation	Depth to Water	Water Elevation	Depth to Water	Water Elevation	Depth to Water	Water Elevation	Depth to Water	Water Elevation	Depth to Water	Water Elevation
WS	3444 Sherman Church	1086	48.50	1037.50	48.51	1037.49	48.45	1037.55	49.40	1036.60	47.70	1038.30	47.67	1038.33
KKS	3223 Gambrinus	1087	52.08	1034.92	52.72	1034.28	52.27	1034.73	51.12	1035.88	50.88	1036.12	50.97	1036.03
UK	3763 Shepler Church	1097	29.30	1067.70	28.40	1068.60	29.90	1067.10	28.30	1068.70	29.33	1067.67	28.49	1068.51
KS	3728 Whipple	1073	30.18	1042.82	30.01	1042.99	28.90	1044.10	26.15	1046.85	27.61	1045.39	25.53	1047.47
LC	3922 Sherman Church	1094	27.51	1066.49	27.31	1066.69	28.21	1065.79	23.72	1070.28	28.13	1065.87	29.18	1064.82
SH	4245 Richville	1140	29.07	1110.93	32.16	1107.84	32.89	1107.11	31.44	1108.56	33.00	1107.00	33.94	1106.06
GS	4110 Paradise Road	1125	47.50	1077.50	47.47	1077.53	48.90	1076.10	47.71	1077.29	48.15	1076.85	49.55	1075.45
HBE	4500 Richville	1115	16.10	1098.90	22.31	1092.69	23.80	1091.20	20.65	1094.35	23.66	1091.34	24.95	1090.05
KT	4556 Shermont	1183	68.21	1114.79	69.06	1113.94	73.30	1109.70	70.50	1112.50	73.11	1109.89	76.25	1106.75
BM	4500 Shermont	1156	37.45	1118.55	38.20	1117.80	42.41	1113.59	39.55	1116.45	42.22	1113.78	45.26	1110.74
KW	4577 Surmay	1132	16.40	1115.60	19.06	1112.94	23.32	1108.68	19.32	1112.68	21.81	1110.19	25.23	1106.77
WA	2568 Bordner	1086	39.39	1046.61	39.15	1046.85	41.12	1044.88	39.49	1046.51	39.57	1046.43	40.26	1045.74
AD	2347 Delaware	1130	80.48	1049.52	97.70	1032.30	N/A		79.90	1050.10	N/A		82.22	1047.78
HBA	5365 Doloris	1105	29.76	1075.24	29.39	1075.61	29.64	1075.36	29.85	1075.15	29.62	1075.38	30.14	1074.86
SB	2454 Swiss	1081	51.57	1029.43	51.00	1030.00	51.64	1029.36	54.85	1026.15	49.79	1031.21	50.02	1030.98
CH	3950 Shepler Church	1101	29.15	1071.85	28.00	1073.00	27.66	1073.34	23.75	1077.25	21.98	1079.02	22.49	1078.51
WP	3990 Shepler Church	1114	33.96	1080.04	31.85	1082.15	33.98	1080.02	32.00	1082.00	30.60	1083.40	31.14	1082.86
RH	4004 Shepler Church	1090	23.18	1066.82	22.42	1067.58	21.80	1068.20	17.45	1072.55	15.69	1074.31	16.10	1073.90
CC	4060 Shepler Church	1087	21.95	1065.05	21.40	1065.60	20.15	1066.85	15.30	1071.70	13.30	1073.70	13.31	1073.69
MP2	5259 Faircrest	1101	43.75	1057.25	44.15	1056.85	45.50	1055.50	44.22	1056.78	44.50	1056.50	45.07	1055.93
SH-4	4511 Faircrest	1093	45.50	1047.45	45.25	1047.70	46.00	1046.95	45.00	1047.95	44.75	1048.20	45.50	1047.45

Notes:

1. Ground surface elevations were obtained from a data table (Timken Attribute Table.pdf) provided to Timken by Ohio Department Natural Resources on October 25, 2012.

2. Depth to water measurements for monitoring wells were recorded by Stark County Health Department and Timken.

3. Water elevations are estimated based on the recorded depth to water information and the approximate ground surface elevation.

4. "N/A" indicates no reading was obtained on the date indicated.
"Ground" indicates approximate surface elevation adjacent to the well.

5. Wells included in this table have been monitored on a regular basis during the period August 2012 to September 2013 and are considered routine monitoring wells for the purpose of this assessment. Information for wells monitored by SCHD on a limited number of events during this period is not included in this table.

16.0 APPENDIX H - New Wells Drilled by Timken

APPENDIX H			NEW WELLS DRILLED BY TIMKEN								
			(AND SEALING REPORT NUMBER FOR OLD WELL)								
								NEW WELL INFORMATION			
WELL LOG NUMBER (NEW WELL)	SEALING REPORT NUMBER (OLD WELL)	HOUSE NO.	STREET NAME	OWNER'S FIRST NAME	OWNER'S LAST NAME	LATITUDE	LONGITUDE	TOTAL DEPTH	CASE LENGTH	STATIC WATER LEVEL	AQUIFER TYPE
2040779	200122	3984	FAIRCREST		PFIFFNER	40.7505	-81.428428	180	80	80	SANDSTONE & SHALE
2039246	200041	4002	FAIRCREST	JASON	AQUINO	40.75154	-81.428428	150	47	37	SHALE
2039836	200106	4130	KROPF	ROBERT	MILLER	40.74757	-81.444216	400	60	160	SANDSTONE
2041121		4130	KROPF	ROBERT	MILLER	40.74757	-81.444216	400	302	176	SANDSTONE
2040203	200116	3476	SHEPLER CHURCH		PINKERTON	40.75748	-81.434833	240	80	76	SANDSTONE
2040271	200117	3502	SHEPLER CHURCH	JOHN	NOLEN	40.75694	-81.434833	300	120	125	SHALE
2039879	300332	3920	SHEPLER CHURCH	DAVE	YOUNG	40.74985	-81.432117	150	96	28	SHALE
2039245	200048	3932	SHEPLER CHURCH		SANKO	40.74936	-81.432629	150	80	31	SHALE & LIMESTONE
2041119		3949	SHEPLER CHURCH		GOLLIHER	40.75031	-81.433702	150	60	40	SHALE
2039597	200050	3966	SHEPLER CHURCH		MODRANSKI	40.74915	-81.434097	150	42	23	SHALE
2040205	201908	3969	SHEPLER CHURCH	RED	CHAMBERS	40.74974	-81.434586	150	83.1	35	SANDSTONE
2040652	200121	4000	SHEPLER CHURCH		PITMAN	40.74267	-81.434333	150	52	34	SHALE
2039994	200147	4004	SHEPLER CHURCH	HOBERT	HARMON	40.7425	-81.434833	150	88	34	SANDSTONE & SHALE
2040347	200115	4014	SHEPLER CHURCH		HAUGHT	40.74133	-81.426	220	80	73	SHALE
2040234	200120	4022	SHEPLER CHURCH	RICHARD	ESSIK	40.74233	-81.435167	150	87	37	SANDSTONE
2040697	200118	4024	SHEPLER CHURCH	JOSEPH	GANG	40.74183	-81.426	220	80	84	SHALE
2039516	200102	4026	SHEPLER CHURCH	ED	JORDAN	40.74936	-81.432629	150	98	31	LIMESTONE
2039334	200043	4031	SHEPLER CHURCH		GILLILAN	40.74913	-81.437577	150	50	21	SANDSTONE
2039363	200045	4066	SHEPLER CHURCH	MIKE	SHAPUITE	40.74727	-81.437125	150	78	30	SHALE
2040751	200148	4077	SHEPLER CHURCH	RHONDA	HAMILTON	40.74926	-81.435221	150	90	60	SHALE
2039247	200042	4080	SHEPLER CHURCH	KIRK	CHRISTMAN	40.74935	-81.434882	150	75	31	SHALE
2041177	301858	4101	SHEPLER CHURCH		SHAW	40.74823	-81.439313	320	100	110	SHALE
2041957	301859	4101	SHEPLER CHURCH		SHAW	40.74823	-81.439313	320	140	130	SANDSTONE
2041959	301857	4101	SHEPLER CHURCH		SHAW	40.74823	-81.439313	150	80	30	SHALE
2042017		4101	SHEPLER CHURCH		SHAW	40.74823	-81.439313	340	300	140	SANDSTONE
2039436	200044	4110	SHEPLER CHURCH	JOHANNES	SCHLABACH	40.7474	-81.43875	150	8	32	SHALE
2041692	200135/ 200144	4126	SHEPLER CHURCH	RICHARD	MARSH	40.75218	-81.428969	320	71	150	SANDSTONE
2039596	200104	4141	SHEPLER CHURCH		BOWMAN	40.74755	-81.440459	280	81	95	SANDSTONE
2041512	200136	4151	SHEPLER CHURCH		BAKER	40.74786	-81.440968	280	80	100	SANDSTONE
2039364	200049	4160	SHEPLER CHURCH	SCOTT/HEAT	ZOLLARS	40.74626	-81.440721	180	80	50	SHALE
2039883	300334	4180	SHEPLER CHURCH	JIM	WOODLOCK	40.74625	-81.440833	146	86	58	SHALE
2039595	200101	4181	SHEPLER CHURCH		MCCLEARY	40.74703	-81.441514	280	80	105	SANDSTONE
2039434	200046	4200	SHEPLER CHURCH	BRENDA	WILKS	40.74605	-81.441616	180	80	50	SHALE
2039572	200103	4210	SHEPLER CHURCH	JACK	URBAN	40.74605	-81.441976	220	80	50	SHALE
2039835	200108	4215	SHEPLER CHURCH	KEN	BROWN	40.74659	-81.442421	280	80	95	SHALE
2041653	200138	4202	SHERMAN CHURCH		LAHER	40.75051	-81.419052	150	100	50	SHALE
2040698	200149	3810	WHIPPLE	DIANA	SCOTT	40.75417	-81.423667	150	80	30	SANDSTONE
2040781		3820	WHIPPLE		HECK	40.7505	-81.428428	150	60	35	SANDSTONE
City Water	200134	4230	KROPF	BILL	NICKLES	40.746	-81.444771				

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number: 2040779

Page 1 of 1 for this record.

WELL LOCATION

County: STARK Township: PERRY

Owner/Builder: ADAMS & SONS - PFIFFNER

Address of Well Location: 3984 FAIRCREST RD

City: CANTON Zip Code +4: 44708

Permit No.: EMERGENCY Section: ____ and/or Lot No. ____

Use of Well: DOMESTIC

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X ____ +/- ____ ft.

S ☐ Y ____ +/- ____ ft.

Latitude, Longitude Coordinates

Latitude: 40.7505 Longitude: -81.428428

Elevation of Well in feet: 1157 +/- ____ ft.

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source: GPS

Source of Coordinates: GPS

Well location written description:

Comments on water quality/quantity and well construction:
CLEAR

WELL TEST *

Pre-Pumping Static Level: 80 ft. Date: 11/20/2012

Measured from: GROUND LEVEL

Pumping test method: AIR

Test Rate: 12 gpm Duration of Test: 1 hrs.

Feet of Drawdown: 100 ft. Sustainable Yield: 10 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump: ____ Capacity: ____ gpm

Pump set at ____ ft. Pitless Type: ____

Pump installed by: OTHER

I hereby certify the information given is accurate and correct to the best of my knowledge.

Drilling Firm: JAMISON WELL DRILLING, INC.

Address: 258 CENTRAL AVE

City, State, Zip: MANSFIELD OH 44905

Signed: CYNTHIA GOLDEN (Filed Electronically) Date: 11/21/2012

ODH Registration Number: 0391

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter: 8 inches Depth: 76 ft.
Casing Diameter: 5 in. Length: 80 ft. Thickness: 0.265 in.

2 Borehole Diameter: 4.75 inches Depth: 180 ft.
Casing Diameter: ____ in. Length: ____ ft. Thickness: ____ in.

Casing Height Above Ground: 2 ft.

Type 1: PVC
Type 2: ____

Joints 1: Solvent
Joints 2: ____

SCREEN

Diameter: ____ in. Slot Size: ____ in. Screen Length: ____ ft.

Type: ____ Material: ____

Set Between: ____ ft. and ____ ft.

GRAVEL PACK (Filter Pack)

Material/Size: ____ Vol/Wt. Used: ____

Method of Installation: ____

Depth: Placed From: ____ ft. To: ____ ft.

GROUT

Material: Bentonite slurry Vol/Wt. Used: 176/400#

Method of Installation: Pumped w/Tremie pipe

Depth: Placed From: 78 ft. To: 0 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
		SOIL	0	5
BROWN		CLAY	5	8
		CLAY & GRAVEL	8	10
BROWN		CLAY	10	24
GRAY		SHALE	24	63
		LIMESTONE	63	65
		COAL	65	68
GRAY	SANDY	SHALE	68	117
		LIMESTONE	117	120
		COAL	120	123
GRAY		SHALE	123	137
GRAY		SANDSTONE AND SHALE	137	180

Aquifer Type (Formation producing the most water.): SANDST & SHALE

Date of Well Completion: 11/20/2012 Total Depth of Well: 180 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number: 2039246

Page 1 of 1 for this record.

WELL LOCATION

County: STARK Township: PERRY

Owner/Builder: ADAMS & SONS - AQUINO

Address of Well Location: 4002 FAIRCREST AVE

City: CANTON Zip Code +4: 44708

Permit No.: EMERGENCY Section: ____ and/or Lot No. ____

Use of Well: DOMESTIC

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X ____ +/- ____ ft.

S ☐ Y ____ +/- ____ ft.

Latitude, Longitude Coordinates

Latitude: 40.751535 Longitude: -81.428428

Elevation of Well in feet: 1053 +/- ____ ft

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source: GPS

Source of Coordinates: GPS

Well location written description:

Comments on water quality/quantity and well construction:
CLEAR

WELL TEST *

Pre-Pumping Static Level: 37 ft. Date: 8/23/2012

Measured from: GROUND LEVEL

Pumping test method: AIR

Test Rate: 15 gpm Duration of Test: 1 hrs.

Feet of Drawdown: 8 ft. Sustainable Yield: 15 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump: ____ Capacity: ____ gpm

Pump set at ____ ft. Pitless Type: ____

Pump installed by: OTHER

I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm: JAMISON WELL DRILLING, INC.

Address: 258 CENTRAL AVE

City, State, Zip: MANSFIELD OH 44905

Signed: CYNTHIA GOLDEN (Filed Electronically) Date: 8/24/2012

ODH Registration Number: 0391

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter: 8 inches Depth: 95 ft.
Casing Diameter: 5 in. Length: 47 ft. Thickness: 0.265 in.

2 Borehole Diameter: 4.75 inches Depth: 150 ft.
Casing Diameter: ____ in. Length: ____ ft. Thickness: ____ in.

Casing Height Above Ground: 2 ft.

Type 1: PVC
Type 2: ____

Joints 1: Solvent
Joints 2: ____

SCREEN

Diameter: ____ in. Slot Size: ____ in. Screen Length: ____ ft.

Type: ____ Material: ____

Set Between: ____ ft. and ____ ft.

GRAVEL PACK (Filter Pack)

Material/Size: ____ Vol/Wt. Used: ____

Method of Installation: ____

Depth: Placed From: ____ ft. To: ____ ft.

GROUT

Material: Bentonite slurry Vol/Wt. Used: 110/250#

Method of Installation: Pumped w/Tremie pipe

Depth: Placed From: 45 ft. To: 0 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
		SOIL	0	5
BROWN		CLAY & GRAVEL	5	12
GRAY		CLAY	12	31
GRAY		SHALE	31	46
LT. GRAY		SANDSTONE	46	58
		SHALE	58	81
		COAL	81	83
GRAY		SHALE	83	150

Aquifer Type (Formation producing the most water.): SHALE

Date of Well Completion: 8/23/2012 Total Depth of Well: 150 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number 2039836

Page 1 of 1 for this record.

WELL LOCATION

County STARK Township PERRY

Owner/Builder: ADAMS & SONS - ROBERT MILLER

Address of Well Location: 4130 KROPF ST

City CANTON Zip Code +4 44708

Permit No. EMERGENCY Section; _____ and/or Lot No. _____

Use of Well DOMESTIC

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X _____ +/- _____ ft.

S ☐ Y _____ +/- _____ ft.

Latitude, Longitude Coordinates

Latitude: 40.747571 Longitude: -81.444216

Elevation of Well in feet: 1051 +/- _____ ft

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source GPS

Source of Coordinates: MAP-OTHERS

Well location written description:

Comments on water quality/quantity and well construction:

CLEAR

WELL TEST *

Pre-Pumping Static Level 160 ft. Date 9/24/2012

Measured from GROUND LEVEL

Pumping test method AIR

Test Rate 20 gpm Duration of Test 1 hrs.

Feet of Drawdown 50 ft. Sustainable Yield 20 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump _____ Capacity _____ gpm

Pump set at _____ ft. Pitless Type _____

Pump installed by OTHER

I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm JAMISON WELL DRILLING, INC.

Address 258 CENTRAL AVE

City, State, Zip MANSFIELD OH 44905

Signed CYNTHIA GOLDEN Date 9/26/2012

(Filed Electronically)

ODH Registration Number 0391

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter 8 inches Depth 58 ft.
Casing Diameter 5 in. Length 60 ft. Thickness 0.265 in.

2 Borehole Diameter 4.75 inches Depth 400 ft.
Casing Diameter _____ in. Length _____ ft. Thickness _____ in.

Casing Height Above Ground 1 ft.

Type 1: PVC
2: _____

Joints 1: Solvent
2: _____

SCREEN

Diameter _____ in. Slot Size _____ in. Screen Length _____ ft.

Type _____ Material _____

Set Between _____ ft. and _____ ft.

GRAVEL PACK (Filter Pack)

Material/Size _____ Vol/Wt. Used _____

Method of Installation _____

Depth: Placed From: _____ ft. To: _____ ft.

GROUT

Material Bentonite slurry Vol/Wt. Used 198/450#

Method of Installation Pumped w/Tremie pipe

Depth: Placed From: 58 ft. To: 0 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
		SOIL	0	5
BROWN		CLAY	5	20
GRAY		SHALE	20	41
		LIMESTONE	41	43
		COAL	43	45
GRAY		SHALE	45	105
		LIMESTONE	105	107
		COAL	107	109
GRAY		SHALE	109	127
		LIMESTONE	127	130
GRAY		SHALE	130	230
		COAL	230	231
GRAY		SHALE	231	300
LT. GRAY		SANDSTONE	300	400

Aquifer Type (Formation producing the most water.) SANDSTONE

Date of Well Completion 9/24/2012 Total Depth of Well 400 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number: 2041121

Page 1 of 1 for this record.

WELL LOCATION

County: STARK Township: PERRY

Owner/Builder: ADAMS & SONS - ROBERT MILLER

Address of Well Location: 4130 KROPF ST

City: CANTON Zip Code +4: 44708

Permit No.: EMERGENCY Section: ____ and/or Lot No. ____

Use of Well: DOMESTIC

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X ____ +/- ____ ft.

S ☐ Y ____ +/- ____ ft.

Latitude, Longitude Coordinates

Latitude: 40.747571 Longitude: -81.444216

Elevation of Well in feet: 1051 +/- ____ ft.

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source: GPS

Source of Coordinates: MAP-OTHERS

Well location written description:

Comments on water quality/quantity and well construction:

CLEAR
INSTALLED MORE CASING TO PREVIOUS WELL LOG #2039836

WELL TEST *

Pre-Pumping Static Level: 176 ft. Date: 12/12/2012

Measured from: GROUND LEVEL

Pumping test method: AIR

Test Rate: 20 gpm Duration of Test: 1 hrs.

Feet of Drawdown: 45 ft. Sustainable Yield: 20 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump: ____ Capacity: ____ gpm

Pump set at: ____ ft. Pitless Type: ____

Pump installed by: OTHER

I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm: JAMISON WELL DRILLING, INC.

Address: 258 CENTRAL AVE

City, State, Zip: MANSFIELD OH 44905

Signed: CYNTHIA GOLDEN (Filed Electronically) Date: 12/13/2012

ODH Registration Number: 0391

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 { Borehole Diameter: 8 inches Depth: 300 ft.
Casing Diameter: 5 in. Length: 302 ft. Thickness: 0.265 in.

2 { Borehole Diameter: 4.5 inches Depth: 400 ft.
Casing Diameter: ____ in. Length: ____ ft. Thickness: ____ in.

Casing Height Above Ground: 2 ft.

Type { 1: PVC 2: ____

Joints { 1: Solvent 2: ____

SCREEN

Diameter: ____ in. Slot Size: ____ in. Screen Length: ____ ft.

Type: ____ Material: ____

Set Between: ____ ft. and ____ ft.

GRAVEL PACK (Filter Pack)

Material/Size: ____ Vol/Wt. Used: ____

Method of Installation: ____

Depth: Placed From: ____ ft. To: ____ ft.

GROUT

Material: Bentonite slurry Vol/Wt. Used: 550/1250#

Method of Installation: Pumped w/Tremie pipe

Depth: Placed From: 300 ft. To: 0 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
		SOIL	0	5
BROWN		CLAY	5	20
GRAY		SHALE	20	41
		LIMESTONE	41	43
		COAL	43	45
GRAY		SHALE	45	105
		LIMESTONE	105	107
		COAL	107	109
GRAY		SHALE	109	127
		LIMESTONE	127	130
GRAY		SHALE	130	230
		COAL	230	231
GRAY		SHALE	231	300
LT. GRAY		SANDSTONE	300	400

Aquifer Type (Formation producing the most water.): SANDSTONE

Date of Well Completion: 12/12/2012 Total Depth of Well: 400 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

PN

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number 2040203

Page 1 of 1 for this record.

WELL LOCATION

County STARK Township PERRY

Owner/Builder: ADAMS & SONS - PINKERTON

Address of Well Location: 3476 SHEPLER CHURCH RD

City CANTON Zip Code +4 44708

Permit No. EMERGENCY Section; _____ and or Lot No. _____

Use of Well DOMESTIC

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X _____ +/- _____ ft.

S ☐ Y _____ +/- _____ ft.

Latitude, Longitude Coordinates

Latitude: 40.757478 Longitude: -81.434833

Elevation of Well in feet: _____ +/- _____ ft.

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source _____

Source of Coordinates: GPS

Well location written description:

Comments on water quality/quantity and well construction:

CLEAR

WELL TEST *

Pre-Pumping Static Level 76 ft. Date 10/12/2012

Measured from GROUND LEVEL

Pumping test method AIR

Test Rate 20 gpm Duration of Test 1 hrs.

Feet of Drawdown 100 ft. Sustainable Yield 20 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump _____ Capacity _____ gpm

Pump set at _____ ft. Pitless Type _____

Pump installed by OTHER

I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm JAMISON WELL DRILLING, INC.

Address 258 CENTRAL AVE

City, State, Zip MANSFIELD OH 44905

Signed CYNTHIA GOLDEN Date 10/16/2012

(Filed Electronically)

ODH Registration Number 0391

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter 8 inches Depth 78 ft.
Casing Diameter 5 in. Length 80 ft. Thickness 0.265 in.

2 Borehole Diameter 4.75 inches Depth 240 ft.
Casing Diameter _____ in. Length _____ ft. Thickness _____ in.

Casing Height Above Ground 2 ft.

Type 1: PVC
Type 2: _____

Joints 1: Solvent
Joints 2: _____

SCREEN

Diameter _____ in. Slot Size _____ in. Screen Length _____ ft.

Type _____ Material _____

Set Between _____ ft. and _____ ft.

GRAVEL PACK (Filter Pack)

Material/Size _____ Vol/Wt. Used _____

Method of Installation _____

Depth: Placed From: _____ ft. To: _____ ft.

GROUT

Material Bentonite slurry Vol/Wt. Used 176/400#

Method of Installation Pumped w/Tremie pipe

Depth: Placed From: 78 ft. To: 0 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
		SOIL	0	5
		GRAVEL AND CLAY	5	15
		LIMESTONE	15	18
		COAL	18	21
		CLAY	21	24
		SHALE	24	36
GRAY		SANDSTONE	36	45
GRAY		SHALE	45	58
		COAL	58	61
		CLAY	61	65
GRAY		SANDSTONE	65	70
GRAY		SHALE	70	105
GRAY		SANDSTONE	105	110
		COAL	110	112
GRAY		SANDSTONE	112	240

Aquifer Type (Formation producing the most water.) SANDSTONE

Date of Well Completion 10/12/2012 Total Depth of Well 240 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

JN

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number 2040271

Page 1 of 1 for this record.

WELL LOCATION

County STARK Township PERRY

Owner/Builder: ADAMS & SONS - NOLEN

Address of Well Location: 3502 SHEPLER CHURCH RD

City CANTON Zip Code +4 44708

Permit No. EMERGENCY Section; _____ and/or Lot No. _____

Use of Well DOMESTIC

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X _____ +/- _____ ft.

S ☐ Y _____ +/- _____ ft.

Latitude, Longitude Coordinates

Latitude: 40.756939 Longitude: -81.434833

Elevation of Well in feet: _____ +/- _____ ft.

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source _____

Source of Coordinates: GPS

Well location written description:

Comments on water quality/quantity and well construction:

CLEAR

WELL TEST *

Pre-Pumping Static Level 125 ft. Date 10/18/2012

Measured from GROUND LEVEL

Pumping test method AIR

Test Rate 10 gpm Duration of Test 1 hrs.

Feet of Drawdown 125 ft. Sustainable Yield 10 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump _____ Capacity _____ gpm

Pump set at _____ ft. Pitless Type _____

Pump installed by OTHER

I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm JAMISON WELL DRILLING, INC.

Address 258 CENTRAL AVE

City, State, Zip MANSFIELD OH 44905

Signed CYNTHIA GOLDEN Date 10/19/2012

(Filed Electronically)

ODH Registration Number 0391

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter 8 inches Depth 118 ft.
Casing Diameter 5 in. Length 120 ft. Thickness 0.265 in.

2 Borehole Diameter 4.875 inches Depth 300 ft.
Casing Diameter _____ in. Length _____ ft. Thickness _____ in.

Casing Height Above Ground 2 ft.

Type 1 PVC
Type 2 _____

Joints 1 Solvent
Joints 2 _____

SCREEN

Diameter _____ in. Slot Size _____ in. Screen Length _____ ft.

Type _____ Material _____

Set Between _____ ft. and _____ ft.

GRAVEL PACK (Filter Pack)

Material/Size _____ Vol/Wt. Used _____

Method of Installation _____

Depth: Placed From: _____ ft. To: _____ ft.

GROUT

Material Bentonite slurry Vol/Wt. Used 264/600#

Method of Installation Pumped w/Tremie pipe

Depth: Placed From: 118 ft. To: 0 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
		SOIL	0	5
		SANDGRAVELCLAY	5	20
	BROKEN	LIMESTONE	20	25
GRAY		SHALE	25	31
GRAY		SANDSTONE	31	45
GRAY		SHALE	45	62
		COAL	62	65
GRAY	SANDY	SHALE	65	80
		LIMESTONE	80	83
		COAL	83	85
GRAY	SANDY	SHALE	85	190
LT. GRAY		SANDSTONE	190	213
GRAY	SANDY	SHALE	213	300

Aquifer Type (Formation producing the most water.) SHALE

Date of Well Completion 10/18/2012 Total Depth of Well 300 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

DY

DNR 7802 05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number 2039879

Page 1 of 1 for this record.

WELL LOCATION

County STARK Township PERRY

DAVE YOUNG
Owner/Builder

3920 SHEPLER CHURCH AVE
Address of Well Location

City CANTON Zip Code +4 44706

Permit No. 23884 Section; _____ and or Lot No. _____

Use of Well DOMESTIC

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X _____ +/- _____ ft

S ☐ Y _____ +/- _____ ft

Latitude, Longitude Coordinates

Latitude: 40.74985 Longitude: -81.432117

Elevation of Well in feet: 1157 +/- 21 ft.

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source GPS

Source of Coordinates: GPS

Well location written description:

Comments on water quality/quantity and well construction:

WELL TEST *

Pre-Pumping Static Level 28 ft. Date 8/27/2012

Measured from TOP OF CASING

Pumping test method BAILING

Test Rate 18 gpm Duration of Test 0.5 hrs.

Feet of Drawdown 11 ft. Sustainable Yield 30 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump SUBMERSIBLE Capacity 10 gpm

Pump set at 120 ft. Pitless Type BOLT THRU

Pump installed by GREG ROGERS ENTERPRISES

I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm GREG ROGERS ENTERPRISES

Address 820 Stafford

City, State, Zip MINERVA OH 44657

Signed GREGORY A ROGERS Date 9/28/2012
(Filed Electronically)

ODH Registration Number 02835

CONSTRUCTION DETAILS

Drilling Method: CABLE TOOL

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter 4.95 inches Depth 150 ft.
Casing Diameter 5.5 in. Length 96 ft. Thickness 0.258 in.

2 Borehole Diameter _____ inches Depth _____ ft.
Casing Diameter _____ in. Length _____ ft. Thickness _____ in.

Casing Height Above Ground 1.3 ft.

Type 1 Steel
2

Joints 1 Threaded
2

SCREEN

Diameter _____ in. Slot Size _____ in. Screen Length _____ ft.

Type _____ Material _____

Set Between _____ ft. and _____ ft.

GRAVEL PACK (Filter Pack)

Material/Size _____ Vol/Wt. Used _____

Method of Installation _____

Depth: Placed From: _____ ft. To: _____ ft.

GROUT

Material Bentonite dry granular Vol/Wt. Used 400 lbs

Method of Installation Dry Driven

Depth: Placed From: 95 ft. To: 0 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
BROWN		SAND	0	17
BROWN-GRAY		CLAY	17	52
GRAY	MUDDY	SHALE AND CLAY	52	77
GRAY		SHALE	77	95
		LIMESTONE	95	98
DARK GRAY	SANDY	SHALE	98	124
		LIMESTONE	124	127
DARK GRAY	SANDY	SHALE	127	150
		Water Encountered At	129	134

Aquifer Type (Formation producing the most water) SHALE

Date of Well Completion 8/27/2012 Total Depth of Well 150 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

50

DNR 7802 05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number: 2039245

Page 1 of 1 for this record.

WELL LOCATION

County: STARK Township: PERRY

Owner/Builder: ADAMS & SONS - SANKO

Address of Well Location: 3932 SHEPLER CHURCH RD

City: CANTON Zip Code +4: 44708

Permit No.: EMERGENCY Section: ____ and/or Lot No. ____

Use of Well: DOMESTIC

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X ____ +/- ____ ft.

S ☐ Y ____ +/- ____ ft.

Latitude, Longitude Coordinates

Latitude: 40.749357 Longitude: -81.432629

Elevation of Well in feet: 1056 +/- ____ ft.

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source: GPS

Source of Coordinates: MAP-OTHERS

Well location written description:

Comments on water quality/quantity and well construction:

CLEAR

WELL TEST *

Pre-Pumping Static Level: 31 ft. Date: 8/23/2012

Measured from: GROUND LEVEL

Pumping test method: AIR

Test Rate: 15 gpm Duration of Test: 1 hrs.

Feet of Drawdown: 34 ft. Sustainable Yield: 10 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump: ____ Capacity: ____ gpm

Pump set at ____ ft. Pitless Type: ____

Pump installed by: ____

I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm: JAMISON WELL DRILLING, INC.

Address: 258 CENTRAL AVE

City, State, Zip: MANSFIELD OH 44905

Signed: CYNTHIA GOLDEN (Filed Electronically) Date: 8/24/2012

ODH Registration Number: 0391

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter: 8 inches Depth: 88 ft.
Casing Diameter: 5 in. Length: 80 ft. Thickness: 0.265 in.

2 Borehole Diameter: 7.75 inches Depth: 150 ft.
Casing Diameter: ____ in. Length: ____ ft. Thickness: ____ in.

Casing Height Above Ground: 2 ft.

Type: 1. PVC 2. ____

Joints: 1. Solvent 2. ____

SCREEN

Diameter: ____ in. Slot Size: ____ in. Screen Length: ____ ft.

Type: ____ Material: ____

Set Between: ____ ft. and ____ ft.

GRAVEL PACK (Filter Pack)

Material/Size: ____ Vol/Wt. Used: ____

Method of Installation: ____

Depth: Placed From: ____ ft. To: ____ ft.

GROUT

Material: Bentonite slurry Vol/Wt. Used: 132/300#

Method of Installation: Pumped w/Tremie pipe

Depth: Placed From: 88 ft. To: 0 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
		SOIL	0	5
BROWN		CLAY	5	12
GRAY		CLAY & GRAVEL	12	46
GRAY		SHALE	46	93
		LIMESTONE	93	95
GRAY		SHALE AND LIMESTONE	95	150

Aquifer Type (Formation producing the most water): SHALE & LIMESTONE

Date of Well Completion: 8/23/2012 Total Depth of Well: 150 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number: 2041119

Page 1 of 1 for this record.

WELL LOCATION

County: STARK Township: PERRY

Owner/Builder: ADAMS & SONS - GOLLIHER

Address of Well Location: 3949 SHEPLER CHURCH RD

City: CANTON Zip Code +4: 44708

Permit No.: EMERGENCY Section: ____ and/or Lot No. ____

Use of Well: DOMESTIC

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X ____ +/- ____ ft.

S ☐ Y ____ +/- ____ ft.

Latitude, Longitude Coordinates

Latitude: 40.750313 Longitude: -81.433702

Elevation of Well in feet: ____ +/- ____ ft

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source: ____

Source of Coordinates: GPS

Well location written description:

Comments on water quality/quantity and well construction:
CLEAR

WELL TEST *

Pre-Pumping Static Level: 40 ft. Date: 12/12/2012

Measured from: GROUND LEVEL

Pumping test method: AIR

Test Rate: 20 gpm Duration of Test: 1 hrs.

Feet of Drawdown: 50 ft. Sustainable Yield: 20 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump: ____ Capacity: ____ gpm

Pump set at ____ ft. Pitless Type: ____

Pump installed by: OTHER

I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm: JAMISON WELL DRILLING, INC.

Address: 258 CENTRAL AVE

City, State, Zip: MANSFIELD OH 44905

Signed: CYNTHIA GOLDEN (Filed Electronically) Date: 12/13/2012

ODH Registration Number: 0391

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter: 8 inches Depth: 58 ft.
Casing Diameter: 5 in. Length: 60 ft. Thickness: 0.265 in.

2 Borehole Diameter: 4.75 inches Depth: 150 ft.
Casing Diameter: ____ in. Length: ____ ft. Thickness: ____ in.

Casing Height Above Ground: 2 ft.

Type: 1: PVC 2: ____

Joints: 1: Solvent 2: ____

SCREEN

Diameter: ____ in. Slot Size: ____ in. Screen Length: ____ ft.

Type: ____ Material: ____

Set Between: ____ ft. and ____ ft.

GRAVEL PACK (Filter Pack)

Material/Size: ____ Vol/Wt. Used: ____

Method of Installation: ____

Depth: Placed From: ____ ft. To: ____ ft.

GROUT

Material: Bentonite slurry Vol/Wt. Used: 220/500#

Method of Installation: Pumped w/Tremie pipe

Depth: Placed From: 50 ft. To: 0 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
		SOIL	0	12
BROWN		CLAY & GRAVEL	12	40
GRAY		SHALE	40	50
		LIMESTONE	50	52
GRAY		SHALE	52	87
		LIMESTONE	87	90
GRAY	SANDY	SHALE	90	150

Aquifer Type (Formation producing the most water.): SHALE

Date of Well Completion: 12/12/2012 Total Depth of Well: 150 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

MI

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number 2039597

Page 1 of 1 for this record.

WELL LOCATION

County STARK Township PERRY

Owner/Builder: ADAMS & SONS - MODRANSKI

Address of Well Location: 3966 SHEPLER CHURCH RD

City CANTON Zip Code +4

Permit No. EMERGENCY Section; and/or Lot No.

Use of Well DOMESTIC

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X +/- ft.

S ☐ Y +/- ft.

Latitude, Longitude Coordinates

Latitude: 40.749152 Longitude: -81.434097

Elevation of Well in feet: +/- ft.

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source

Source of Coordinates: GPS

Well location written description:

Comments on water quality/quantity and well construction:

WELL TEST *

Pre-Pumping Static Level 23 ft. Date 7/11/2012

Measured from GROUND LEVEL

Pumping test method AIR

Test Rate 20 gpm Duration of Test 1 hrs.

Feet of Drawdown 17 ft. Sustainable Yield 20 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump Capacity gpm

Pump set at ft. Pitless Type

Pump installed by OTHER

I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm JAMISON WELL DRILLING, INC.

Address 258 CENTRAL AVE

City, State, Zip MANSFIELD OH 44905

Signed CYNTHIA GOLDEN Date 9/12/2012

(Filed Electronically)

ODH Registration Number 0391

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter 8 inches Depth 40 ft.
Casing Diameter 5 in. Length 42 ft. Thickness 0.265 in.

2 Borehole Diameter 4.75 inches Depth 150 ft.
Casing Diameter in. Length ft. Thickness in.

Casing Height Above Ground 2 ft.

Type 1: PVC
2:

Joints 1 Solvent
2:

SCREEN

Diameter in. Slot Size in. Screen Length ft.

Type Material

Set Between ft. and ft.

GRAVEL PACK (Filter Pack)

Material/Size Vol/Wt. Used

Method of Installation

Depth: Placed From: ft. To: ft.

GROUT

Material Bentonite slurry Vol/Wt. Used 154/350#

Method of Installation Pumped w/Tremie pipe

Depth: Placed From: 40 ft. To: 0 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
		SOIL	0	5
BROWN		CLAY	5	11
GRAY		CLAY	11	17
GRAY		SHALE	17	37
		LIMESTONE	37	39
GRAY		SHALE	39	80
		LIMESTONE	80	82
GRAY		SHALE	82	150

Aquifer Type (Formation producing the most water) SHALE

Date of Well Completion 9/11/2012 Total Depth of Well 150 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

RC

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number: 2040205

Page 1 of 1 for this record.

WELL LOCATION

County: STARK Township: PERRY

Owner/Builder: RED CHAMBERS

Address of Well Location: 3969 SHEPLER CHURCH AVE

City: CANTON Zip Code +4: 44706

Permit No.: 23923 Section: ____ and/or Lot No. ____

Use of Well: DOMESTIC

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X ____ +/- ____ ft.

S ☐ Y ____ +/- ____ ft.

Latitude, Longitude Coordinates

Latitude: 40.749739 Longitude: -81.434586

Elevation of Well in feet: 1095 +/- ____ ft.

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source: MAP-OTHERS

Source of Coordinates: MAP-OTHERS

Well location written description:

Comments on water quality/quantity and well construction:

WELL TEST *

Pre-Pumping Static Level: 35 ft. Date: 10/12/2012

Measured from: GROUND LEVEL

Pumping test method: BAILING

Test Rate: 30 gpm Duration of Test: 2 hrs.

Feet of Drawdown: 10 ft. Sustainable Yield: 30 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump: ____ Capacity: ____ gpm

Pump set at ____ ft. Pitless Type: ____

Pump installed by: ____

I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm: CARROLL'S WELL DRILLING

Address: 10730 NE MARLBORO AVE

City, State, Zip: ALLIANCE OH 44601

Signed: CATHY CARROLL (Filed Electronically) Date: 10/16/2012

ODH Registration Number: 1795

CONSTRUCTION DETAILS

Drilling Method: CABLE TOOL

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter: 5 inches Depth: 150 ft.
Casing Diameter: 5.62 in. Length: 83.1 ft. Thickness: 0.258 in.

2 Borehole Diameter: ____ inches Depth: ____ ft.
Casing Diameter: ____ in. Length: ____ ft. Thickness: ____ in.

Casing Height Above Ground: 1.2 ft.

Type: 1 Steel; 2 ____

Joints: 1 Threaded; 2 ____

SCREEN

Diameter: ____ in. Slot Size: ____ in. Screen Length: ____ ft.

Type: ____ Material: ____

Set Between: ____ ft. and ____ ft.

GRAVEL PACK (Filter Pack)

Material/Size: ____ Vol/Wt. Used: ____

Method of Installation: ____

Depth: Placed From: ____ ft. To: ____ ft.

GROUT

Material: Bentonite dry granular Vol/Wt. Used: 75 lb

Method of Installation: Poured (gravity)

Depth: Placed From: 0 ft. To: 83.1 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
BROWN	SANDY	CLAY	0	15
GRAY		CLAY & GRAVEL	15	39
LT. GRAY	SOFT	SHALE	39	70
GRAY		SHALE	70	80
		LIMESTONE	80	85
GRAY		SHALE	85	105
		LIMESTONE	105	108
GRAY		SHALE	108	140
GRAY		SANDSTONE	140	150
		Water Encountered At	105	108
			140	150

Aquifer Type (Formation producing the most water): SANDSTONE

Date of Well Completion: 10/12/2012 Total Depth of Well: 150 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number: 2040652

Page 1 of 1 for this record.

WELL LOCATION

County: STARK Township: PERRY

Owner/Builder: ADAMS & SONS - PITMAN

Address of Well Location: 4000 SHEPLER CHURCH RD

City: CANTON Zip Code +4: 44708

Permit No.: EMERGENCY Section: ____ and/or Lot No. ____

Use of Well: DOMESTIC

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X ____ +/- ____ ft.

S ☐ Y ____ +/- ____ ft.

Latitude, Longitude Coordinates

Latitude: 40.742667 Longitude: -81.434333

Elevation of Well in feet: 1159 +/- ____ ft.

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source: GPS

Source of Coordinates: GPS

Well location written description:

Comments on water quality/quantity and well construction:
CLEAR

WELL TEST *

Pre-Pumping Static Level: 34 ft. Date: 11/9/2012

Measured from: GROUND LEVEL

Pumping test method: AIR

Test Rate: 20 gpm Duration of Test: 1 hrs.

Feet of Drawdown: 20 ft. Sustainable Yield: 20 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump: ____ Capacity: ____ gpm

Pump set at ____ ft. Pitless Type: ____

Pump installed by: OTHER

I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm: JAMISON WELL DRILLING, INC.

Address: 258 CENTRAL AVE

City, State, Zip: MANSFIELD OH 44905

Signed: CYNTHIA GOLDEN Date: 11/12/2012

(Filed Electronically)

ODH Registration Number: 0391

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter: 8 inches Depth: 50 ft.
Casing Diameter: 5 in. Length: 52 ft. Thickness: 0.265 in.

2 Borehole Diameter: ____ inches Depth: ____ ft.
Casing Diameter: ____ in. Length: ____ ft. Thickness: ____ in.

Casing Height Above Ground: 2 ft.

Type: 1: PVC 2: ____

Joints: 1: Solvent 2: ____

SCREEN

Diameter: ____ in. Slot Size: ____ in. Screen Length: ____ ft.

Type: ____ Material: ____

Set Between: ____ ft. and ____ ft.

GRAVEL PACK (Filter Pack)

Material/Size: ____ Vol/Wt. Used: ____

Method of Installation: ____

Depth: Placed From: ____ ft. To: ____ ft.

GROUT

Material: Bentonite slurry Vol/Wt. Used: 132/300#

Method of Installation: Pumped w/Tremie pipe

Depth: Placed From: 50 ft. To: 0 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
		SOIL	0	5
BROWN		CLAY & GRAVEL	5	13
GRAY		CLAY & GRAVEL	13	16
GRAY		SHALE	16	26
		LIMESTONE	26	29
		COAL AND CLAY	29	31
GRAY		CLAY	31	48
WHITE		SANDSTONE	48	57
GRAY		SHALE	57	90
		LIMESTONE	90	92
		COAL	92	93.5
GRAY		SHALE	93.5	118
		SANDSTONE	118	134
	SANDY	SHALE	134	150

Aquifer Type (Formation producing the most water): SHALE

Date of Well Completion: 11/9/2012 Total Depth of Well: 150 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

HH-2

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number 2039994

Page 1 of 1 for this record.

WELL LOCATION

County STARK Township PERRY

ADAMS & SONS
Owner/Builder

4004 SHEPLER CHURCH RD
Address of Well Location

City CANTON Zip Code +4 44708

Permit No. EMERGENCY Section; _____ and or Lot No. _____

Use of Well DOMESTIC

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X _____ +/- _____ ft.

S ☐ Y _____ +/- _____ ft.

Latitude, Longitude Coordinates

Latitude: 40.7425 Longitude: -81.434833

Elevation of Well in feet: 1102 +/- _____ ft.

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source GPS

Source of Coordinates: GPS

Well location written description:

Comments on water quality/quantity and well construction:

CLEAR

WELL TEST *

Pre-Pumping Static Level 34 ft. Date 10/3/2012

Measured from GROUND LEVEL

Pumping test method AIR

Test Rate 20 gpm Duration of Test 1 hrs.

Feet of Drawdown 10 ft. Sustainable Yield 20 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump _____ Capacity _____ gpm

Pump set at _____ ft. Pitless Type _____

Pump installed by OTHER

I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm JAMISON WELL DRILLING, INC.

Address 258 CENTRAL AVE

City, State, Zip MANSFIELD OH 44905

Signed CYNTHIA GOLDEN Date 10/4/2012

(Filed Electronically)

ODH Registration Number 0391

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 { Borehole Diameter 8 inches Depth 86 ft.
Casing Diameter 5 in. Length 88 ft. Thickness 0.265 in.

2 { Borehole Diameter _____ inches Depth _____ ft.
Casing Diameter _____ in. Length _____ ft. Thickness _____ in.

Casing Height Above Ground 2 ft.

Type { 1: PVC
2: _____

Joints { 1: Solvent
2: _____

SCREEN

Diameter _____ in. Slot Size _____ in. Screen Length _____ ft.

Type _____ Material _____

Set Between _____ ft. and _____ ft.

GRAVEL PACK (Filter Pack)

Material/Size _____ Vol/Wt. Used _____

Method of Installation _____

Depth: Placed From: _____ ft. To: _____ ft.

GROUT

Material Bentonite slurry Vol/Wt. Used 176/400#

Method of Installation Pumped w/Tremie pipe

Depth: Placed From: 82 ft. To: 0 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
		SOIL	0	5
BROWN		CLAY	5	17
GRAY		CLAY & GRAVEL	17	36
		GRAVEL	36	42
GRAY		CLAY	42	53
BLUE	SOFT	SHALE	53	59
GRAY	HARD	SHALE	59	76
		LIMESTONE	76	78
		COAL	78	82
GRAY		SHALE	82	110
		LIMESTONE	110	112
GRAY		SHALE	112	120
GRAY		SANDSTONE AND SHALE	120	150

Aquifer Type (Formation producing the most water) SANDST & SHALE

Date of Well Completion 10/3/2012 Total Depth of Well 150 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

HH-1

DNR 7802 05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number 2039116

Page 1 of 1 for this record.

WELL LOCATION

County STARK Township PERRY

HOBERT HARMON
Owner/Builder

4004 SHEPLER CHURCH AVE
Address of Well Location

City CANTON Zip Code +4 44706

Permit No. N/A Section; _____ and or Lot No. _____

Use of Well AGRIC/IRRIG

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X _____ +/- _____ ft

S ☐ Y _____ +/- _____ ft

Latitude, Longitude Coordinates

Latitude: 40.748833 Longitude: -81.435833

Elevation of Well in feet: 1130 +/- _____ ft.

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source GPS

Source of Coordinates: GPS

Well location written description:

Comments on water quality/quantity and well construction:

WELL TEST *

Pre-Pumping Static Level 15 ft. Date 8/15/2012

Measured from GROUND LEVEL

Pumping test method AIR

Test Rate 25 gpm Duration of Test 1 hrs.

Feet of Drawdown 25 ft. Sustainable Yield 25 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump _____ Capacity _____ gpm

Pump set at _____ ft. Pitless Type _____

Pump installed by _____

I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm DAVIDSON WELL DRILLING

Address 3160 BEECHWOOD

City, State, Zip ALLIANCE OH 44601

Signed JOHN L. DAVIDSON Date 8/17/2012
(Filed Electronically)

ODH Registration Number 506

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter 7.875 inches Depth 60 ft.
Casing Diameter 5 in. Length 61 ft. Thickness 0.265 in.

2 Borehole Diameter 5 inches Depth 68 ft.
Casing Diameter _____ in. Length _____ ft. Thickness _____ in.

Casing Height Above Ground 1 ft.

Type 1: PVC
2: _____

Joints 1: Solvent
2: _____

SCREEN

Diameter _____ in. Slot Size _____ in. Screen Length _____ ft.

Type _____ Material _____

Set Between _____ ft. and _____ ft.

GRAVEL PACK (Filter Pack)

Material/Size _____ Vol/Wt. Used _____

Method of Installation _____

Depth: Placed From: _____ ft. To: _____ ft.

GROUT

Material Bentonite/polymer slurry Vol/Wt. Used 78 Gallons

Method of Installation Pumped w/Tremie pipe

Depth: Placed From: 60 ft. To: 0 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
		SOIL	0	1
BROWN		CLAY	1	17
GRAY		CLAY & GRAVEL	17	36
		GRAVEL	36	42
GRAY		CLAY	42	53
BLUE	SOFT	SHALE	53	59
GRAY	HARD	SHALE	59	68
		Water Encountered At	65	67

Aquifer Type (Formation producing the most water) SHALE

Date of Well Completion 8/15/2012 Total Depth of Well 68 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

ASH

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number 2040347

Page 1 of 1 for this record.

WELL LOCATION

County STARK Township PERRY

Owner/Builder: ADAMS & SONS - HAUGHT

Address of Well Location: 4014 SHEPLER CHURCH RD

City CANTON Zip Code +4

Permit No. EMERGENCY Section; _____ and or Lot No. _____

Use of Well DOMESTIC

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X _____ +/- _____ ft

S ☐ Y _____ +/- _____ ft

Latitude, Longitude Coordinates

Latitude 40.741333 Longitude -81.426

Elevation of Well in feet: 1144 +/- _____ ft

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source GPS

Source of Coordinates: GPS

Well location written description:

Comments on water quality/quantity and well construction:

CLEAR

WELL TEST *

Pre-Pumping Static Level 73 ft. Date 10/16/2012

Measured from GROUND LEVEL

Pumping test method AIR

Test Rate 15 gpm Duration of Test 1 hrs.

Feet of Drawdown 22 ft. Sustainable Yield 15 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump _____ Capacity _____ gpm

Pump set at _____ ft. Pitless Type _____

Pump installed by OTHER

I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm JAMISON WELL DRILLING, INC.

Address 258 CENTRAL AVE

City, State, Zip MANSFIELD OH 44905

Signed CYNTHIA GOLDEN Date 10/23/2012

(Filed Electronically)

ODH Registration Number 0391

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter 8 inches Depth 78 ft.
Casing Diameter 5 in. Length 80 ft. Thickness 0.265 in.

2 Borehole Diameter 4.875 inches Depth 220 ft.
Casing Diameter _____ in. Length _____ ft. Thickness _____ in.

Casing Height Above Ground 2 ft.

Type 1: PVC
2: _____

Joints 1: Solvent
2: _____

SCREEN

Diameter _____ in. Slot Size _____ in. Screen Length _____ ft.

Type _____ Material _____

Set Between _____ ft. and _____ ft.

GRAVEL PACK (Filter Pack)

Material/Size _____ Vol/Wt. Used _____

Method of Installation _____

Depth: Placed From: _____ ft. To: _____ ft.

GROUT

Material Bentonite slurry Vol/Wt. Used 220/500#

Method of Installation Pumped w/Tremie pipe

Depth: Placed From: 78 ft. To: 0 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
		SOIL	0	5
BROWN		CLAY	5	12
GRAY		CLAY & GRAVEL	12	35
GRAY		SHALE	35	68
		LIMESTONE	68	70
		COAL	70	73
GRAY	SANDY	SHALE	73	130
		LIMESTONE	130	132
		COAL	132	134
GRAY	SANDY	SHALE	134	156
		LIMESTONE	156	159
GRAY		SHALE	159	183
LT. GRAY		SANDSTONE	183	205
GRAY	SANDY	SHALE	205	220

Aquifer Type (Formation producing the most water.) SHALE

Date of Well Completion 10/16/2012 Total Depth of Well 220 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

AS

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number 2040234

Page 1 of 1 for this record.

WELL LOCATION

County STARK Township PERRY

ADAMS & SONS
Owner/Builder

4022 SHEPLER CHURCH RD
Address of Well Location

City CANTON Zip Code +4 44708

Permit No. EMERGENCY Section; _____ and or Lot No. _____

Use of Well DOMESTIC

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X _____ +/- _____ ft

S ☐ Y _____ +/- _____ ft

Latitude, Longitude Coordinates

Latitude: 40.742333 Longitude: -81.435167

Elevation of Well in feet: 1101 +/- _____ ft.

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source GPS

Source of Coordinates: GPS

Well location written description:

Comments on water quality/quantity and well construction:

CLEAR

WELL TEST *

Pre-Pumping Static Level 37 ft. Date 10/17/2012

Measured from GROUND LEVEL

Pumping test method AIR

Test Rate 30 gpm Duration of Test 1 hrs.

Feet of Drawdown 23 ft. Sustainable Yield 30 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump _____ Capacity _____ gpm

Pump set at _____ ft. Pitless Type _____

Pump installed by OTHER

I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm JAMISON WELL DRILLING, INC.

Address 258 CENTRAL AVE

City, State, Zip MANSFIELD OH 44905

Signed CYNTHIA GOLDEN Date 10/18/2012

(Filed Electronically)

ODH Registration Number 0391

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter 8 inches Depth 85 ft.
Casing Diameter 5 in. Length 87 ft. Thickness 0.265 in.

2 Borehole Diameter 4.875 inches Depth 65 ft.
Casing Diameter _____ in. Length _____ ft. Thickness _____ in.

Casing Height Above Ground 2 ft.

Type 1: PVC
2: _____

Joints 1: Solvent
2: _____

SCREEN

Diameter _____ in. Slot Size _____ in. Screen Length _____ ft.

Type _____ Material _____

Set Between _____ ft. and _____ ft.

GRAVEL PACK (Filter Pack)

Material/Size _____ Vol/Wt. Used _____

Method of Installation _____

Depth: Placed From: _____ ft. To: _____ ft.

GROUT

Material Bentonite slurry Vol/Wt. Used 220/500#

Method of Installation Pumped w/Tremie pipe

Depth: Placed From: 85 ft. To: 0 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
		SOIL	0	5
BROWN		CLAY & GRAVEL	5	20
GRAY		CLAY & GRAVEL	20	34
GRAY		CLAY	34	55
		SHALE	55	75
		LIMESTONE	75	77
		COAL	77	79
GRAY		SHALE	79	109
		LIMESTONE	109	111
GRAY		SHALE	111	122
LT. GRAY		SANDSTONE AND SHALE	122	129
DARK GRAY		SANDSTONE	129	150

Aquifer Type (Formation producing the most water.) SANDSTONE

Date of Well Completion 10/17/2012 Total Depth of Well 150 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

JA

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number 2039516

Page 1 of 1 for this record.

WELL LOCATION

County STARK Township PERRY

Owner/Builder: ADAMS & SONS - JORDAN

Address of Well Location: 4026 SHEPLER CHURCH RD

City CANTON Zip Code +4 44708

Permit No. EMERGENCY Section: ____ and/or Lot No. ____

Use of Well DOMESTIC

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X ____ +/- ____ ft.

S ☐ Y ____ +/- ____ ft.

Latitude, Longitude Coordinates

Latitude: 40.749359 Longitude: -81.432629

Elevation of Well in feet: 1200 +/- ____ ft.

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source GPS

Source of Coordinates: GPS

Well location written description:

Comments on water quality/quantity and well construction:

CLEAR

WELL TEST *

Pre-Pumping Static Level 31 ft. Date 9/6/2012

Measured from GROUND LEVEL

Pumping test method AIR

Test Rate 30 gpm Duration of Test 1 hrs.

Feet of Drawdown 19 ft. Sustainable Yield 30 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump ____ Capacity ____ gpm

Pump set at ____ ft. Pitless Type ____

Pump installed by OTHER

I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm JAMISON WELL DRILLING, INC.

Address 258 CENTRAL AVE

City, State, Zip MANSFIELD OH 44905

Signed CYNTHIA GOLDEN Date 9/10/2012

(Filed Electronically)

ODH Registration Number 0391

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter 7.875 inches Depth 96 ft.
Casing Diameter 5 in. Length 98 ft. Thickness 0.265 in.

2 Borehole Diameter 4.75 inches Depth 150 ft.
Casing Diameter ____ in. Length ____ ft. Thickness ____ in.

Casing Height Above Ground 2 ft.

Type 1: PVC
2: ____

Joints 1 Solvent
2 ____

SCREEN

Diameter ____ in. Slot Size ____ in. Screen Length ____ ft.

Type ____ Material ____

Set Between ____ ft. and ____ ft.

GRAVEL PACK (Filter Pack)

Material/Size ____ Vol/Wt. Used ____

Method of Installation ____

Depth: Placed From: ____ ft. To: ____ ft.

GROUT

Material Bentonite slurry Vol/Wt. Used 176/400#

Method of Installation Pumped w/Tremie pipe

Depth: Placed From: 76 ft. To: 0 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
		SOIL	0	3
BROWN		CLAYSANDGRAVEL	3	15
GRAY		CLAYSANDGRAVEL	15	58
GRAY		SHALE	58	69
	BROKEN	LIMESTONE	69	74
GRAY	SANDY	SHALE	74	118
		COAL	118	120
GRAY	SANDY	SHALE	120	148
GRAY		LIMESTONE	148	150

Aquifer Type (Formation producing the most water.) LIMESTONE

Date of Well Completion 9/6/2012 Total Depth of Well 150 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

GN

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number 2039334

Page 1 of 1 for this record.

WELL LOCATION

County STARK Township PERRY

Owner/Builder: ADAMS & SONS - SILLILAN

Address of Well Location: 4031 SHEPLER CHURCH RD

City CANTON Zip Code +4 44706

Permit No. EMERGENCY Section: ____ and/or Lot No. ____

Use of Well DOMESTIC

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X ____ +/- ____ ft.

S ☐ Y ____ +/- ____ ft.

Latitude, Longitude Coordinates

Latitude: 40.74913 Longitude: -81.437577

Elevation of Well in feet: 1095 +/- ____ ft.

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source GPS

Source of Coordinates: MAP-OTHERS

Well location written description:

Comments on water quality/quantity and well construction:

WELL TEST *

Pre-Pumping Static Level 21 ft. Date 8/21/2012

Measured from GROUND LEVEL

Pumping test method AIR

Test Rate 30 gpm Duration of Test 1 hrs.

Feet of Drawdown 17 ft. Sustainable Yield 30 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump ____ Capacity ____ gpm

Pump set at ____ ft. Pitless Type ____

Pump installed by OTHER

I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm JAMISON WELL DRILLING, INC.

Address 258 CENTRAL AVE

City, State, Zip MANSFIELD OH 44905

Signed CYNTHIA GOLDEN Date 8/29/2012

(Filed Electronically)

ODH Registration Number 0391

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter 8 inches Depth 88 ft.
Casing Diameter 5 in. Length 50 ft. Thickness 0.265 in.

2 Borehole Diameter 4.75 inches Depth 150 ft.
Casing Diameter ____ in. Length ____ ft. Thickness ____ in.

Casing Height Above Ground 2 ft.

Type 1: PVC
2: ____

Joints 1: Solvent
2: ____

SCREEN

Diameter ____ in. Slot Size ____ in. Screen Length ____ ft.

Type ____ Material ____

Set Between ____ ft. and ____ ft.

GRAVEL PACK (Filter Pack)

Material/Size ____ Vol/Wt. Used ____

Method of Installation ____

Depth: Placed From: ____ ft. To: ____ ft.

GROUT

Material Bentonite slurry Vol/Wt. Used 154/350#

Method of Installation Pumped w/Tremie pipe

Depth: Placed From: 88 ft. To: 0 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
		SOIL	0	3
		CONCRETE	3	5
BROWN		CLAY	5	12
DARK		CLAY & GRAVEL	12	29
GRAY		CLAY	29	50
GRAY		SHALE	50	86
GRAY		SANDSTONE	86	94
GRAY		SHALE	94	106
DARK		SHALE	106	108
LT. GRAY		SHALE	108	126
DARK GRAY		SANDSTONE	126	150

Aquifer Type (Formation producing the most water) SANDSTONE

Date of Well Completion 8/21/2012 Total Depth of Well 150 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number: 2040697

Page 1 of 1 for this record.

WELL LOCATION

County: STARK Township: PERRY

Owner/Builder: ADAMS & SONS

Address of Well Location: 4024 SHEPLER CHURCH RD

City: CANTON Zip Code +4: 44708

Permit No.: 23949 Section: ____ and/or Lot No. ____

Use of Well: DOMESTIC

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X ____ +/- ____ ft.

S ☐ Y ____ +/- ____ ft.

Latitude, Longitude Coordinates

Latitude: 40.741833 Longitude: -81.426

Elevation of Well in feet: 1094 +/- ____ ft

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source: GPS

Source of Coordinates: GPS

Well location written description:

Comments on water quality/quantity and well construction:
CLEAR

WELL TEST *

Pre-Pumping Static Level: 84 ft. Date: 11/12/2012

Measured from: GROUND LEVEL

Pumping test method: AIR

Test Rate: 15 gpm Duration of Test: 1 hrs.

Feet of Drawdown: 30 ft. Sustainable Yield: 12 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump: ____ Capacity: ____ gpm

Pump set at ____ ft. Pitless Type: ____

Pump installed by: OTHER

I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm: JAMISON WELL DRILLING, INC.

Address: 258 CENTRAL AVE

City, State, Zip: MANSFIELD OH 44905

Signed: CYNTHIA GOLDEN Date: 11/14/2012

(Filed Electronically)

ODH Registration Number: 0391

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter: 8 inches Depth: 88 ft.
Casing Diameter: 5 in. Length: 80 ft. Thickness: 0.265 in.

2 Borehole Diameter: 4.75 inches Depth: 220 ft.
Casing Diameter: ____ in. Length: ____ ft. Thickness: ____ in.

Casing Height Above Ground: 2 ft.

Type: 1: PVC 2: ____

Joints: 1: Solvent 2: ____

SCREEN

Diameter: ____ in. Slot Size: ____ in. Screen Length: ____ ft.

Type: ____ Material: ____

Set Between: ____ ft. and ____ ft.

GRAVEL PACK (Filter Pack)

Material/Size: ____ Vol/Wt. Used: ____

Method of Installation: ____

Depth: Placed From: ____ ft. To: ____ ft.

GROUT

Material: Bentonite slurry Vol/Wt. Used: 220/500#

Method of Installation: Pumped w/Tremie pipe

Depth: Placed From: 78 ft. To: 0 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
		SOIL	0	5
BROWN		CLAY	5	12
GRAY		CLAY & GRAVEL	12	35
GRAY		SHALE	35	68
		LIMESTONE	68	70
		COAL	70	73
GRAY	SANDY	SHALE	73	130
		LIMESTONE	130	132
		COAL	132	134
GRAY	SANDY	SHALE	134	156
		LIMESTONE	156	159
GRAY		SHALE	159	183
LT. GRAY		SANDSTONE	183	205
GRAY	SANDY	SHALE	205	220

Aquifer Type (Formation producing the most water.): SHALE

Date of Well Completion: 11/12/2012 Total Depth of Well: 220 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

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DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number 2039363

Page 1 of 1 for this record.

WELL LOCATION

County STARK Township PERRY

Owner/Builder: ADAMS & SONS

Address of Well Location: 4066 SHEPLER CHURCH RD

City CANTON Zip Code +4 44706

Permit No. EMERGENCY Section: _____ and or Lot No. _____

Use of Well DOMESTIC

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X _____ +/- _____ ft

S ☐ Y _____ +/- _____ ft

Latitude, Longitude Coordinates

Latitude: 40.74727 Longitude: -81.437125

Elevation of Well in feet: 1033 +/- _____ ft.

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source GPS

Source of Coordinates: GPS

Well location written description:

Comments on water quality/quantity and well construction:
CLEAR

WELL TEST *

Pre-Pumping Static Level 30 ft. Date 8/27/2012

Measured from GROUND LEVEL

Pumping test method AIR

Test Rate 15 gpm Duration of Test 1 hrs.

Feet of Drawdown 15 ft. Sustainable Yield 15 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump _____ Capacity _____ gpm

Pump set at _____ ft. Pitless Type _____

Pump installed by OTHER

I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm JAMISON WELL DRILLING, INC.

Address 258 CENTRAL AVE

City, State, Zip MANSFIELD OH 44905

Signed CYNTHIA GOLDEN Date 8/30/2012
(Filed Electronically)

ODH Registration Number 0391

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 { Borehole Diameter 8 inches Depth 76 ft.
Casing Diameter 5 in. Length 78 ft. Thickness 0.265 in.

2 { Borehole Diameter 4.75 inches Depth 150 ft.
Casing Diameter _____ in. Length _____ ft. Thickness _____ in.

Casing Height Above Ground 2 ft.

Type { 1: PVC
2: _____

Joints { 1: Solvent
2: _____

SCREEN

Diameter _____ in. Slot Size _____ in. Screen Length _____ ft.

Type _____ Material _____

Set Between _____ ft. and _____ ft.

GRAVEL PACK (Filter Pack)

Material/Size _____ Vol/Wt. Used _____

Method of Installation _____

Depth: Placed From: _____ ft. To: _____ ft.

GROUT

Material Bentonite slurry Vol/Wt. Used 198/450#

Method of Installation Pumped w/Tremie pipe

Depth: Placed From: 76 ft. To: 0 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
		SOIL	0	5
BROWN		CLAY	5	15
GRAY		CLAY & GRAVEL	15	50
GRAY	SOFT	SHALE	50	68
DARK GRAY	HARD	SHALE	68	74
		SANDSTONE	74	80
		SHALE	80	103
		COAL	103	104
		SHALE	104	120
		SANDSTONE	120	125
		SHALE	125	150

Aquifer Type (Formation producing the most water.) SHALE

Date of Well Completion 8/27/2012 Total Depth of Well 150 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number: 2020751

Page 1 of 1 for this record.

WELL LOCATION

County: BELMONT Township: WARREN

Owner/Builder: TACOMA GARAGE

Address of Well Location: 62201 BAILEY RD

City: BARNESVILLE Zip Code +4: 43713

Permit No. _____ Section: _____ and/or Lot No. _____

Use of Well: MONITOR

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X _____ +/- _____ ft.

S ☐ Y _____ +/- _____ ft.

Latitude, Longitude Coordinates

Latitude: 39.996633 Longitude: -81.1462

Elevation of Well in feet: _____ +/- _____ ft

Datum Plane: ☐ NAD27 ☐ NAD83 Elevation Source _____

Source of Coordinates: GPS

Well location written description:

MW-17 IS 73' WEST AND 65' SOUTH OF THE SW CORNER OF THE BUILDING.

Comments on water quality/quantity and well construction:

MW-17 IS A 2" MONITORING. WATER DURING DRILLING WAS AT 30'.

WELL TEST *

Pre-Pumping Static Level 30 ft. Date 10/16/2008

Measured from GROUND LEVEL

Pumping test method _____

Test Rate _____ gpm Duration of Test _____ hrs.

Feet of Drawdown _____ ft. Sustainable Yield _____ gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump _____ Capacity _____ gpm

Pump set at _____ ft. Pitless Type _____

Pump installed by _____

I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm: BJAAM ENVIRONMENTAL, INC.

Address: 472 ELM RIDGE AVE

City, State, Zip: CANAL FULTON OH 44614

Signed: JIM BREEN II (Filed Electronically) Date: 1/9/2009

ODH Registration Number _____

CONSTRUCTION DETAILS

Drilling Method: AUGER

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter 8.25 inches Depth 32 ft.
Casing Diameter 2 in. Length 5 ft. Thickness 0.154 in.

2 Borehole Diameter _____ inches Depth _____ ft.
Casing Diameter _____ in. Length _____ ft. Thickness _____ in.

Casing Height Above Ground 0 ft.

Type 1: PVC
2: _____

Joints 1: Threaded
2: _____

SCREEN

Diameter 2 in. Slot Size 0.01 in. Screen Length 27 ft.

Type MACHINE SLOTTED Material PVC

Set Between 5 ft. and 32 ft.

GRAVEL PACK (Filter Pack)

Material/Size 1020 Sand Vol/Wt. Used 350 lbs.

Method of Installation Poured (gravity)

Depth: Placed From: 3 ft. To: 32 ft.

GROUT

Material Bentonite pellets/chunks Vol/Wt. Used 50 lbs.

Method of Installation Poured (gravity)

Depth: Placed From: 0.5 ft. To: 3 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
BROWN		SOIL	0	0.5
BROWN-GRAY	LOOSE	SAND	0	2
BROWN-GRAY	STIFF	SILT	2	10
BROWN-GRAY		CLAY	10	14
BROWN-GRAY		SHALE	14	32
		Water Encountered At	30	32

Aquifer Type (Formation producing the most water.) SHALE

Date of Well Completion 10/16/2008 Total Depth of Well 32 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

CN

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number 2039247

Page 1 of 1 for this record.

WELL LOCATION

County STARK Township PERRY

Owner/Builder: ADAMS & SONS - CHRISTMAN

Address of Well Location: 4080 SHEPLER CHURCH RD

City CANTON Zip Code +4 44706

Permit No. EMERGENCY Section: ____ and/or Lot No. ____

Use of Well DOMESTIC

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X ____ +/- ____ ft

S ☐ Y ____ +/- ____ ft

Latitude, Longitude Coordinates

Latitude: 40.749353 Longitude: -81.434882

Elevation of Well in feet: 1202 +/- ____ ft.

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source GPS

Source of Coordinates: GPS

Well location written description:

Comments on water quality/quantity and well construction:

WELL TEST *

Pre-Pumping Static Level 31 ft. Date 8/22/2012

Measured from GROUND LEVEL

Pumping test method AIR

Test Rate 20 gpm Duration of Test 1 hrs.

Feet of Drawdown 20 ft. Sustainable Yield 20 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump ____ Capacity ____ gpm

Pump set at ____ ft. Pitless Type ____

Pump installed by OTHER

I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm JAMISON WELL DRILLING, INC.

Address 258 CENTRAL AVE

City, State, Zip MANSFIELD OH 44905

Signed CYNTHIA GOLDEN Date 8/24/2012

(Filed Electronically)

ODH Registration Number 0391

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter 8 inches Depth 73 ft.
Casing Diameter 5 in. Length 75 ft. Thickness 0.265 in.

2 Borehole Diameter 4.75 inches Depth 150 ft.
Casing Diameter ____ in. Length ____ ft. Thickness ____ in.

Casing Height Above Ground 2 ft.

Type 1 PVC
Type 2 ____

Joints 1 Solvent
Joints 2 ____

SCREEN

Diameter ____ in. Slot Size ____ in. Screen Length ____ ft.

Type ____ Material ____

Set Between ____ ft. and ____ ft.

GRAVEL PACK (Filter Pack)

Material/Size ____ Vol/Wt. Used ____

Method of Installation ____

Depth: Placed From: ____ ft. To: ____ ft.

GROUT

Material Bentonite slurry Vol/Wt. Used 242/550#

Method of Installation Pumped w/Tremie pipe

Depth: Placed From: 73 ft. To: 0 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
		SOIL	0	5
BROWN		CLAY	5	15
GRAY		CLAY & GRAVEL	15	50
GRAY	SOFT	SHALE	50	68
DARK GRAY	HARD	SHALE	68	74
		SANDSTONE	74	80
		SHALE	80	103
		COAL	103	104
		SHALE	104	120
		SANDSTONE	120	125
		SHALE	125	150

Aquifer Type (Formation producing the most water) SHALE

Date of Well Completion 8/22/2012 Total Depth of Well 150 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number: 2041177

Page 1 of 1 for this record.

WELL LOCATION

County: STARK Township: PERRY

Owner/Builder: ADAMS & SONS - SHAW

Address of Well Location: 4101 SHEPLER CHURCH RD

City: CANTON Zip Code +4: 44708

Permit No.: EMERGENCY Section: ____ and/or Lot No. ____

Use of Well: DOMESTIC

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X ____ +/- ____ ft.

S ☐ Y ____ +/- ____ ft.

Latitude, Longitude Coordinates

Latitude: 40.748227 Longitude: -81.439313

Elevation of Well in feet: 1190 +/- ____ ft.

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source: GPS

Source of Coordinates: GPS

Well location written description:

Comments on water quality/quantity and well construction:
CLEAR

WELL TEST *

Pre-Pumping Static Level: 110 ft. Date: 12/17/2012

Measured from: GROUND LEVEL

Pumping test method: AIR

Test Rate: 10 gpm Duration of Test: 2 hrs.

Feet of Drawdown: 30 ft. Sustainable Yield: 10 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump: ____ Capacity: ____ gpm

Pump set at ____ ft. Pitless Type: ____

Pump installed by: OTHER

I hereby certify the information given is accurate and correct to the best of my knowledge.

Drilling Firm: JAMISON WELL DRILLING, INC.

Address: 258 CENTRAL AVE

City, State, Zip: MANSFIELD OH 44905

Signed: CYNTHIA GOLDEN Date: 12/18/2012

(Filed Electronically)

ODH Registration Number: 0391

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter: 7.875 inches Depth: 98 ft.
Casing Diameter: 5 in. Length: 100 ft. Thickness: 0.265 in.

2 Borehole Diameter: 4.75 inches Depth: 320 ft.
Casing Diameter: ____ in. Length: ____ ft. Thickness: ____ in.

Casing Height Above Ground: 2 ft.

Type 1: PVC
Type 2: ____

Joints 1: Solvent
Joints 2: ____

SCREEN

Diameter: ____ in. Slot Size: ____ in. Screen Length: ____ ft.

Type: ____ Material: ____

Set Between: ____ ft. and ____ ft.

GRAVEL PACK (Filter Pack)

Material/Size: ____ Vol/Wt. Used: ____

Method of Installation: ____

Depth: Placed From: ____ ft. To: ____ ft.

GROUT

Material: Bentonite slurry Vol/Wt. Used: 220/500#

Method of Installation: Pumped w/Tremie pipe

Depth: Placed From: 98 ft. To: 0 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
		SOIL	0	3
BROWN	SANDY	CLAY	3	10
GRAY		CLAYSANDGRAVEL	10	39
GRAY		CLAY & GRAVEL	39	61
GRAY	SANDY	CLAY	61	70
GRAY		COAL AND CLAY	70	71
GRAY	SANDY	CLAY	71	77
GRAY	SANDY	SHALE	77	93
GRAY	HARD	SHALE	93	133
GRAY	HARD	SANDSTONE	133	135
GRAY	SANDY	SHALE	135	137
DARK GRAY	SANDY	SHALE	137	205
GRAY	SANDY	SHALE	205	320

Aquifer Type (Formation producing the most water.): SHALE

Date of Well Completion: 12/17/2012 Total Depth of Well: 320 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number: 2041957

Page 1 of 1 for this record.

WELL LOCATION

County: STARK Township: PERRY

Owner/Builder: ADAMS & SONS - SHAW

Address of Well Location: 4101 SHEPLER CHURCH RD

City: CANTON Zip Code +4: 44708

Permit No.: 23969 Section: ____ and/or Lot No. ____

Use of Well: DOMESTIC

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X ____ +/- ____ ft.

S ☐ Y ____ +/- ____ ft.

Latitude, Longitude Coordinates

Latitude: 40.748227 Longitude: -81.439313

Elevation of Well in feet: ____ +/- ____ ft

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source ____

Source of Coordinates: GPS

Well location written description:

Comments on water quality/quantity and well construction:
#3

WELL TEST *

Pre-Pumping Static Level: 130 ft. Date: 2/13/2013

Measured from: GROUND LEVEL

Pumping test method: AIR

Test Rate: 12 gpm Duration of Test: 1 hrs.

Feet of Drawdown: 55 ft. Sustainable Yield: 12 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump: ____ Capacity: ____ gpm

Pump set at: ____ ft. Pitless Type: ____

Pump installed by: OTHER

I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm: JAMISON WELL DRILLING, INC.

Address: 258 CENTRAL AVE

City, State, Zip: MANSFIELD OH 44905

Signed: CYNTHIA GOLDEN Date: 2/21/2013

(Filed Electronically)

ODH Registration Number: 0391

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter: 5 inches Depth: 138 ft.
Casing Diameter: 5 in. Length: 140 ft. Thickness: 0.265 in.

2 Borehole Diameter: 4.75 inches Depth: 320 ft.
Casing Diameter: ____ in. Length: ____ ft. Thickness: ____ in.

Casing Height Above Ground: 2 ft.

Type: 1: PVC 2: ____

Joints: 1: Solvent 2: ____

SCREEN

Diameter: ____ in. Slot Size: ____ in. Screen Length: ____ ft.

Type: ____ Material: ____

Set Between: ____ ft. and ____ ft.

GRAVEL PACK (Filter Pack)

Material/Size: ____ Vol/Wt. Used: ____

Method of Installation: ____

Depth: Placed From: ____ ft. To: ____ ft.

GROUT

Material: Bentonite slurry Vol/Wt. Used: 308/700#

Method of Installation: Pumped w/Tremie pipe

Depth: Placed From: 138 ft. To: 0 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
		SOIL	0	5
BROWN		CLAY	5	13
GRAY		CLAY & GRAVEL	13	60
GRAY		SHALE	60	70
		LIMESTONE	70	72
		COAL	72	74
		FIRECLAY	74	76
GRAY	SANDY	SHALE	76	150
		COAL	150	152
GRAY		SHALE	152	280
GRAY		SANDSTONE	280	320

Aquifer Type (Formation producing the most water.): SANDSTONE

Date of Well Completion: 2/13/2013 Total Depth of Well: 320 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number: 2041959

Page 1 of 1 for this record.

WELL LOCATION

County: STARK Township: PERRY

Owner/Builder: ADAMS & SONS - SHAW

Address of Well Location: 4101 SHEPLER CHURCH RD

City: CANTON Zip Code +4: 44708

Permit No.: 23969 Section: ____ and/or Lot No. ____

Use of Well: DOMESTIC

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X ____ +/- ____ ft.

S ☐ Y ____ +/- ____ ft.

Latitude, Longitude Coordinates

Latitude: 40.748227 Longitude: -81.439313

Elevation of Well in feet: ____ +/- ____ ft

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source ____

Source of Coordinates: GPS

Well location written description:

Comments on water quality/quantity and well construction:
#1 CLEAR

WELL TEST *

Pre-Pumping Static Level: 30 ft. Date: 12/13/2012

Measured from: GROUND LEVEL

Pumping test method: AIR

Test Rate: 20 gpm Duration of Test: 1 hrs.

Feet of Drawdown: 45 ft. Sustainable Yield: 20 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump ____ Capacity ____ gpm

Pump set at ____ ft. Pitless Type ____

Pump installed by: OTHER

I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm: JAMISON WELL DRILLING, INC.

Address: 258 CENTRAL AVE

City, State, Zip: MANSFIELD OH 44905

Signed: CYNTHIA GOLDEN Date: 2/21/2013

(Filed Electronically)

ODH Registration Number: 0391

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter: 8 inches Depth: 78 ft.
Casing Diameter: 5 in. Length: 80 ft. Thickness: 0.265 in.

2 Borehole Diameter: 4.75 inches Depth: 150 ft.
Casing Diameter: ____ in. Length: ____ ft. Thickness: ____ in.

Casing Height Above Ground: 2 ft.

Type: 1: PVC 2: ____

Joints: 1: Solvent 2: ____

SCREEN

Diameter ____ in. Slot Size ____ in. Screen Length ____ ft.

Type ____ Material ____

Set Between ____ ft. and ____ ft.

GRAVEL PACK (Filter Pack)

Material/Size ____ Vol/Wt. Used ____

Method of Installation ____

Depth: Placed From: ____ ft. To: ____ ft.

GROUT

Material: Bentonite slurry Vol/Wt. Used: 264/600#

Method of Installation: Pumped w/Tremie pipe

Depth: Placed From: 78 ft. To: 0 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
		SOIL	0	5
BROWN		CLAY	5	13
GRAY		CLAY & GRAVEL	13	60
GRAY		SHALE	60	70
		LIMESTONE	70	72
		COAL	72	74
		FIRECLAY	74	76
GRAY	SANDY	SHALE	76	150

Aquifer Type (Formation producing the most water.): SHALE

Date of Well Completion: 12/13/2012 Total Depth of Well: 150 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number: 2042017

Page 1 of 1 for this record.

WELL LOCATION

County: STARK Township: PERRY

Owner/Builder: ADAMS & SONS - SHAW

Address of Well Location: 4101 SHEPLER CHURCH RD

City: CANTON Zip Code +4: 44708

Permit No.: 23969 Section: ____ and/or Lot No. ____

Use of Well: DOMESTIC

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X ____ +/- ____ ft.

S ☐ Y ____ +/- ____ ft.

Latitude, Longitude Coordinates

Latitude: 40.748227 Longitude: -81.439313

Elevation of Well in feet: ____ +/- ____ ft

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source ____

Source of Coordinates: GPS

Well location written description:

Comments on water quality/quantity and well construction:

WELL TEST *

Pre-Pumping Static Level: 140 ft. Date: 2/13/2013

Measured from: GROUND LEVEL

Pumping test method: AIR

Test Rate: 20 gpm Duration of Test: 1 hrs.

Feet of Drawdown: 80 ft. Sustainable Yield: 20 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump: ____ Capacity: ____ gpm

Pump set at ____ ft. Pitless Type: ____

Pump installed by: OTHER

I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm: JAMISON WELL DRILLING, INC.

Address: 258 CENTRAL AVE

City, State, Zip: MANSFIELD OH 44905

Signed: CYNTHIA GOLDEN Date: 2/25/2013

(Filed Electronically)

ODH Registration Number: 0391

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter: 8 inches Depth: 298 ft.
Casing Diameter: 5 in. Length: 300 ft. Thickness: 0.265 in.

2 Borehole Diameter: 4.75 inches Depth: 340 ft.
Casing Diameter: ____ in. Length: ____ ft. Thickness: ____ in.

Casing Height Above Ground: 2 ft.

Type 1: PVC
Type 2: ____

Joints 1: Solvent
Joints 2: ____

SCREEN

Diameter: ____ in. Slot Size: ____ in. Screen Length: ____ ft.

Type: ____ Material: ____

Set Between: ____ ft. and ____ ft.

GRAVEL PACK (Filter Pack)

Material/Size: ____ Vol/Wt. Used: ____

Method of Installation: ____

Depth: Placed From: ____ ft. To: ____ ft.

GROUT

Material: Bentonite slurry Vol/Wt. Used: 660/1500#

Method of Installation: Pumped w/Tremie pipe

Depth: Placed From: 300 ft. To: 0 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
		SOIL	0	5
BROWN		CLAY	5	13
GRAY		CLAY & GRAVEL	13	60
GRAY		SHALE	60	70
		LIMESTONE	70	72
		COAL	72	74
		FIRECLAY	74	76
GRAY	SANDY	SHALE	76	150
		COAL	150	152
GRAY		SHALE	152	280
LT. GRAY		SANDSTONE	280	340

Aquifer Type (Formation producing the most water.): SANDSTONE

Date of Well Completion: 2/13/2013 Total Depth of Well: 340 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

JS

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number 2039436

Page 1 of 1 for this record.

WELL LOCATION

County STARK Township PERRY

ADAMS & SONS
Owner/Builder

4110 SHEPLER CHURCH RD
Address of Well Location

City CANTON Zip Code +4

Permit No. EMERGENCY Section: ____ and/or Lot No. ____

Use of Well DOMESTIC

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X ____ +/- ____ ft.

S ☐ Y ____ +/- ____ ft.

Latitude, Longitude Coordinates

Latitude: 40.747397 Longitude: -81.43875

Elevation of Well in feet: 1144 +/- ____ ft.

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source GPS

Source of Coordinates: GPS

Well location written description:

Comments on water quality/quantity and well construction:

CLEAR

WELL TEST *

Pre-Pumping Static Level 32 ft. Date 8/28/2012

Measured from GROUND LEVEL

Pumping test method AIR

Test Rate 15 gpm Duration of Test 1 hrs.

Feet of Drawdown 20 ft. Sustainable Yield 15 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump ____ Capacity ____ gpm

Pump set at ____ ft. Pitless Type ____

Pump installed by OTHER

I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm JAMISON WELL DRILLING, INC.

Address 258 CENTRAL AVE

City, State, Zip MANSFIELD OH 44905

Signed CYNTHIA GOLDEN Date 9/4/2012

(Filed Electronically)

ODH Registration Number 0391

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter 8 inches Depth 78 ft.
Casing Diameter 5 in. Length 8 ft. Thickness 0.265 in.

2 Borehole Diameter 4.75 inches Depth 150 ft.
Casing Diameter ____ in. Length ____ ft. Thickness ____ in.

Casing Height Above Ground 2 ft.

Type 1 PVC
2 ____

Joints 1 Solvent
2 ____

SCREEN

Diameter ____ in. Slot Size ____ in. Screen Length ____ ft.

Type ____ Material ____

Set Between ____ ft. and ____ ft.

GRAVEL PACK (Filter Pack)

Material/Size ____ Vol/Wt. Used ____

Method of Installation ____

Depth: Placed From: ____ ft. To: ____ ft.

GROUT

Material Bentonite slurry Vol/Wt. Used 174/400#

Method of Installation Pumped w/Tremie pipe

Depth: Placed From: 78 ft. To: 0 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
		SOIL	0	5
BROWN		CLAY & GRAVEL	5	15
GRAY		CLAY	15	43
GRAY		SHALE	43	73
		LIMESTONE	73	75
		COAL	75	76
GRAY		SHALE	76	107
		LIMESTONE	107	108
GRAY		SHALE	108	117
		COAL	117	119
GRAY	SANDY	SHALE	119	150

Aquifer Type (Formation producing the most water) SHALE

Date of Well Completion 8/28/2012 Total Depth of Well 150 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number: 2041692

Page 1 of 1 for this record.

WELL LOCATION

County: STARK Township: PERRY

Owner/Builder: ADAMS - RICHARD MARSH

Address of Well Location: 4126 SHEPLER CHURCH RD

City: CANTON Zip Code +4: 44708

Permit No.: EMERGENCY Section: ____ and/or Lot No. ____

Use of Well: DOMESTIC

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X ____ +/- ____ ft.

S ☐ Y ____ +/- ____ ft.

Latitude, Longitude Coordinates

Latitude: 40.752178 Longitude: -81.428969

Elevation of Well in feet: 1061 +/- ____ ft.

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source: GPS

Source of Coordinates: GPS

Well location written description:

Comments on water quality/quantity and well construction:

WELL TEST *

Pre-Pumping Static Level: 150 ft. Date: 1/31/2013

Measured from: GROUND LEVEL

Pumping test method: AIR

Test Rate: 12 gpm Duration of Test: 1 hrs.

Feet of Drawdown: 120 ft. Sustainable Yield: 10 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump: ____ Capacity: ____ gpm

Pump set at ____ ft. Pitless Type: ____

Pump installed by: OTHER

I hereby certify the information given is accurate and correct to the best of my knowledge.

Drilling Firm: JAMISON WELL DRILLING, INC.

Address: 258 CENTRAL AVE

City, State, Zip: MANSFIELD OH 44905

Signed: CYNTHIA GOLDEN Date: 2/1/2013

(Filed Electronically)

ODH Registration Number: 0391

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter: 10 inches Depth: 69 ft.
Casing Diameter: 8 in. Length: 71 ft. Thickness: 0.41 in.

2 Borehole Diameter: 8 inches Depth: 178 ft.
Casing Diameter: 5 in. Length: 180 ft. Thickness: 0.265 in.

Casing Height Above Ground: 2 ft.

Type: 1: PVC 2: PVC

Joints: 1: Solvent 2: Solvent

SCREEN

Diameter ____ in. Slot Size ____ in. Screen Length ____ ft.

Type ____ Material ____

Set Between ____ ft. and ____ ft.

GRAVEL PACK (Filter Pack)

Material/Size ____ Vol/Wt. Used ____

Method of Installation ____

Depth: Placed From: ____ ft. To: ____ ft.

GROUT

Material: Bentonite slurry Vol/Wt. Used: 264/650#

Method of Installation: Pumped w/Tremie pipe

Depth: Placed From: 178 ft. To: 0 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
GRAY		CLAY	0	16
GRAY		CLAY & GRAVEL	16	22
GRAY		CLAY	22	33
GRAY		CLAY & GRAVEL	33	41
GRAY		CLAY	41	46
GRAY		CLAY & GRAVEL	46	50
GRAY		CLAY	50	81
		SAND AND GRAVEL	81	89
GRAY		CLAY & GRAVEL	89	92
GRAY	HARD	SHALE	92	98
GRAY	HARD	SANDSTONE	98	119
GRAY		SHALE	119	140
GRAY	HARD	SANDSTONE	140	146
GRAY		SHALE	146	149
		FIRECLAY	149	152
GRAY		SHALE	152	230
GRAY		SANDSTONE	230	240
GRAY		SHALE	240	263
WHITE		SANDSTONE	263	320

Aquifer Type (Formation producing the most water.): SANDSTONE

Date of Well Completion: 1/31/2013 Total Depth of Well: 320 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

BN

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number 2039596

Page 1 of 1 for this record.

WELL LOCATION

County STARK Township PERRY

ADAMS & SONS - BOWMAN
Owner/Builder

4141 SHEPLER CHURCH RD
Address of Well Location

City CANTON Zip Code +4

Permit No. EMERGENCY Section; _____ and or Lot No. _____

Use of Well DOMESTIC

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X _____ +/- _____ ft.

S ☐ Y _____ +/- _____ ft.

Latitude, Longitude Coordinates

Latitude: 40.747553 Longitude: -81.440459

Elevation of Well in feet: 1094 +/- _____ ft

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source GPS

Source of Coordinates: GPS

Well location written description:

Comments on water quality/quantity and well construction:

CLEAR

WELL TEST *

Pre-Pumping Static Level 95 ft. Date 9/11/2012

Measured from GROUND LEVEL

Pumping test method AIR

Test Rate 10 gpm Duration of Test 1 hrs.

Feet of Drawdown 45 ft. Sustainable Yield 10 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump _____ Capacity _____ gpm

Pump set at _____ ft. Pitless Type _____

Pump installed by OTHER

I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm JAMISON WELL DRILLING, INC.

Address 258 CENTRAL AVE

City, State, Zip MANSFIELD OH 44905

Signed CYNTHIA GOLDEN Date 9/12/2012

(Filed Electronically)

ODH Registration Number 0391

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter 8 inches Depth 79 ft.
Casing Diameter 5 in. Length 81 ft. Thickness 0.265 in.

2 Borehole Diameter 4.75 inches Depth 280 ft.
Casing Diameter _____ in. Length _____ ft. Thickness _____ in.

Casing Height Above Ground 2 ft.

Type 1: PVC
2: _____

Joints 1: Solvent
2: _____

SCREEN

Diameter _____ in. Slot Size _____ in. Screen Length _____ ft.

Type _____ Material _____

Set Between _____ ft. and _____ ft.

GRAVEL PACK (Filter Pack)

Material/Size _____ Vol/Wt. Used _____

Method of Installation _____

Depth: Placed From: _____ ft. To: _____ ft.

GROUT

Material Bentonite slurry Vol/Wt. Used 154/350#

Method of Installation Pumped w/Tremie pipe

Depth: Placed From: 79 ft. To: 0 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
		SOIL	0	5
BROWN		CLAY	5	15
GRAY		CLAY & GRAVEL	15	54
GRAY		SHALE	54	75
		LIMESTONE	75	80
GRAY		SHALE	80	109
		LIMESTONE	109	111
GRAY		SHALE	111	130
		LIMESTONE	130	130.5
GRAY		SHALE	130.5	150
		LIMESTONE	150	150.5
GRAY		SHALE	150.5	241
GRAY		SANDSTONE	241	280

Aquifer Type (Formation producing the most water) SANDSTONE

Date of Well Completion 9/11/2012 Total Depth of Well 280 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number: 2041512

Page 1 of 1 for this record.

WELL LOCATION

County: STARK Township: PERRY

Owner/Builder: ADAMS & SONS - BAKER

Address of Well Location: 4151 SHEPLER CHURCH RD

City: CANTON Zip Code +4: 44708

Permit No.: 23987 Section: ____ and/or Lot No. ____

Use of Well: DOMESTIC

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X ____ +/- ____ ft.

S ☐ Y ____ +/- ____ ft.

Latitude, Longitude Coordinates

Latitude: 40.747862 Longitude: -81.440968

Elevation of Well in feet: ____ +/- ____ ft.

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source: ____

Source of Coordinates: MAP-OTHERS

Well location written description:

Comments on water quality/quantity and well construction:
CLEAR

WELL TEST *

Pre-Pumping Static Level: 100 ft. Date: 1/4/2013

Measured from: GROUND LEVEL

Pumping test method: AIR

Test Rate: 15 gpm Duration of Test: 1 hrs.

Feet of Drawdown: 45 ft. Sustainable Yield: 15 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump: ____ Capacity: ____ gpm

Pump set at: ____ ft. Pitless Type: ____

Pump installed by: OTHER

I hereby certify the information given is accurate and correct to the best of my knowledge.

Drilling Firm: JAMISON WELL DRILLING, INC.

Address: 258 CENTRAL AVE

City, State, Zip: MANSFIELD OH 44905

Signed: CYNTHIA GOLDEN (Filed Electronically) Date: 1/17/2013

ODH Registration Number: 0391

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter: 8 inches Depth: 78 ft.
Casing Diameter: 5 in. Length: 80 ft. Thickness: 0.265 in.

2 Borehole Diameter: 4.75 inches Depth: 280 ft.
Casing Diameter: ____ in. Length: ____ ft. Thickness: ____ in.

Casing Height Above Ground: 1 ft.

Type: 1: PVC 2: ____

Joints: 1: Solvent 2: ____

SCREEN

Diameter: ____ in. Slot Size: ____ in. Screen Length: ____ ft.

Type: ____ Material: ____

Set Between: ____ ft. and ____ ft.

GRAVEL PACK (Filter Pack)

Material/Size: ____ Vol/Wt. Used: ____

Method of Installation: ____

Depth: Placed From: ____ ft. To: ____ ft.

GROUT

Material: Bentonite slurry Vol/Wt. Used: 154/350#

Method of Installation: Pumped w/Tremie pipe

Depth: Placed From: 78 ft. To: 0 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
		SOIL	0	5
BROWN		CLAY	5	15
GRAY		CLAY & GRAVEL	15	55
GRAY		SHALE	55	74
		LIMESTONE	74	80
GRAY		SHALE	80	108
		LIMESTONE	108	110
GRAY		SHALE	110	130
		LIMESTONE	130	131
GRAY		SHALE	131	150
		LIMESTONE	150	151
GRAY		SHALE	151	241
GRAY		SANDSTONE	241	280

Aquifer Type (Formation producing the most water.): SANDSTONE

Date of Well Completion: 1/4/2013 Total Depth of Well: 280 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

S7

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number 2039364

Page 1 of 1 for this record.

WELL LOCATION

County STARK Township PERRY

ADAMS & SONS
Owner/Builder

4160 SHEPLER CHURCH RD
Address of Well Location

City CANTON Zip Code +4 44706

Permit No. EMERGENCY Section; _____ and or Lot No. _____

Use of Well DOMESTIC

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X _____ +/- _____ ft.

S ☐ Y _____ +/- _____ ft.

Latitude, Longitude Coordinates

Latitude: 40.746257 Longitude: -81.440721

Elevation of Well in feet: 1128 +/- _____ ft.

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source GPS

Source of Coordinates: GPS

Well location written description:

Comments on water quality/quantity and well construction:

CLEAR

WELL TEST *

Pre-Pumping Static Level 50 ft. Date 8/28/2012

Measured from GROUND LEVEL

Pumping test method AIR

Test Rate 15 gpm Duration of Test 1 hrs.

Feet of Drawdown 30 ft. Sustainable Yield 12 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump _____ Capacity _____ gpm

Pump set at _____ ft. Pitless Type _____

Pump installed by OTHER

I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm JAMISON WELL DRILLING, INC.

Address 258 CENTRAL AVE

City, State, Zip MANSFIELD OH 44905

Signed CYNTHIA GOLDEN Date 8/30/2012

(Filed Electronically)

ODH Registration Number 0391

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter 8 inches Depth 78 ft.
Casing Diameter 5 in. Length 80 ft. Thickness 0.265 in.

2 Borehole Diameter 4.75 inches Depth 180 ft.
Casing Diameter _____ in. Length _____ ft. Thickness _____ in.

Casing Height Above Ground 2 ft.

Type 1: PVC
2: _____

Joints 1: Solvent
2: _____

SCREEN

Diameter _____ in. Slot Size _____ in. Screen Length _____ ft.

Type _____ Material _____

Set Between _____ ft. and _____ ft.

GRAVEL PACK (Filter Pack)

Material/Size _____ Vol/Wt. Used _____

Method of Installation _____

Depth: Placed From: _____ ft. To: _____ ft.

GROUT

Material Bentonite slurry Vol/Wt. Used 176/400#

Method of Installation Pumped w/Tremie pipe

Depth: Placed From: 78 ft. To: 0 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
		SOIL	0	5
BROWN		CLAY & GRAVEL	5	12
GRAY		CLAY	12	60
GRAY		SHALE	60	78
		LIMESTONE	78	80
GRAY		SHALE	80	95
		COAL	95	96
GRAY		SHALE W/ SS STREAKS	96	120
		LIMESTONE	120	122
		COAL	122	125
GRAY		SHALE W/ SS STREAKS	125	180

Aquifer Type (Formation producing the most water) SHALE

Date of Well Completion 8/28/2012 Total Depth of Well 180 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

JW

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number 2039883

Page 1 of 1 for this record.

WELL LOCATION

County STARK Township PERRY

JIM WOODLOCK
Owner/Builder

4180 SHEPLER CHURCH AVE
Address of Well Location

City CANTON Zip Code +4 44706

Permit No. 23883 Section; _____ and or Lot No. _____

Use of Well DOMESTIC

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X _____ +/- _____ ft.

S ☐ Y _____ +/- _____ ft.

Latitude, Longitude Coordinates

Latitude: 40.74625 Longitude: -81.440833

Elevation of Well in feet: 1076 +/- 22 ft.

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source GPS

Source of Coordinates: GPS

Well location written description:

Comments on water quality/quantity and well construction:

WELL TEST *

Pre-Pumping Static Level 58 ft. Date 9/2/2012

Measured from TOP OF CASING

Pumping test method BAILING

Test Rate 16 gpm Duration of Test 0.5 hrs.

Feet of Drawdown 34 ft. Sustainable Yield 15 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump SUBMERSIBLE Capacity 10 gpm

Pump set at 120 ft. Pitless Type BOLT THROUGH

Pump installed by GREG ROGERS ENTERPRISES

I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm GREG ROGERS ENTERPRISES

Address 820 Stafford

City, State, Zip MINERVA OH 44657

Signed GREGORY A ROGERS Date 9/28/2012
(Filed Electronically)

ODH Registration Number 02835

CONSTRUCTION DETAILS

Drilling Method: CABLE TOOL

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter 4.95 inches Depth 146 ft.
Casing Diameter 5.5 in. Length 86 ft. Thickness 0.258 in.

2 Borehole Diameter _____ inches Depth _____ ft.
Casing Diameter _____ in. Length _____ ft. Thickness _____ in.

Casing Height Above Ground 1 ft.

Type 1: Steel
2: _____

Joints 1: Threaded
2: _____

SCREEN

Diameter _____ in. Slot Size _____ in. Screen Length _____ ft.

Type _____ Material _____

Set Between _____ ft. and _____ ft.

GRAVEL PACK (Filter Pack)

Material/Size _____ Vol/Wt. Used _____

Method of Installation _____

Depth: Placed From: _____ ft. To: _____ ft.

GROUT

Material Bentonite dry granular Vol/Wt. Used 360 Lbs

Method of Installation Dry Driven

Depth: Placed From: 85 ft. To: 0 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
BROWN	MUDDY	CLAY & GRAVEL	0	27
GRAY	MUDDY	GRAVEL AND SAND	27	58
GRAY		SANDGRAVELCLAY	58	83
GRAY		CLAY	83	85
DARK GRAY		LIMESTONE	85	88
DARK GRAY	SANDY	SHALE	88	122
DARK GRAY	MUDDY	SHALE	122	146
		Water Encountered At	118	127

Aquifer Type (Formation producing the most water.) SHALE

Date of Well Completion 9/2/2012 Total Depth of Well 146 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

MY

DNR 7802 05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number 2039595

Page 1 of 1 for this record.

WELL LOCATION

County STARK Township PERRY

Owner/Builder: ADAMS & SONS - MCCLEARY

Address of Well Location: 4181 SHEPLER CHURCH RD

City CANTON Zip Code +4

Permit No. EMERGENCY Section; and/or Lot No.

Use of Well DOMESTIC

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X +/- ft

S ☐ Y +/- ft

Latitude, Longitude Coordinates

Latitude: 40.747034 Longitude: -81.441514

Elevation of Well in feet: 1190 +/- ft.

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source GPS

Source of Coordinates. GPS

Well location written description:

Comments on water quality/quantity and well construction:

CLEAR

WELL TEST *

Pre-Pumping Static Level 105 ft. Date 9/7/2012

Measured from GROUND LEVEL

Pumping test method AIR

Test Rate 12 gpm Duration of Test 1 hrs.

Feet of Drawdown 20 ft. Sustainable Yield 12 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump Capacity gpm

Pump set at ft. Pitless Type

Pump installed by OTHER

I hereby certify the information given is accurate and correct to the best of my knowledge.

Drilling Firm JAMISON WELL DRILLING, INC.

Address 258 CENTRAL AVE

City, State, Zip MANSFIELD OH 44905

Signed CYNTHIA GOLDEN Date 9/12/2012

(Filed Electronically)

ODH Registration Number 0391

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter 7.875 inches Depth 78 ft.
Casing Diameter 5 in. Length 80 ft. Thickness 0.265 in.

2 Borehole Diameter 4.75 inches Depth 280 ft.
Casing Diameter in. Length ft. Thickness in.

Casing Height Above Ground 2 ft.

Type 1: PVC 2:

Joints 1: Solvent 2:

SCREEN

Diameter in. Slot Size in. Screen Length ft.

Type Material

Set Between ft. and ft.

GRAVEL PACK (Filter Pack)

Material/Size Vol/Wt. Used

Method of Installation

Depth: Placed From: ft. To: ft.

GROUT

Material Bentonite slurry Vol/Wt. Used 220/500#

Method of Installation Pumped w/Tremie pipe

Depth: Placed From: 78 ft. To: 0 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
		SOIL	0	3
BROWN	SANDY	CLAY	3	16
GRAY		CLAYSANDGRAVEL	16	51
		COAL	51	52
GRAY	SANDY	SHALE	52	93
GRAY		LIMESTONE	93	100
		COAL	100	102
GRAY	SANDY	SHALE	102	115
GRAY		LIMESTONE	115	118
GRAY	SANDY	SHALE	118	201
GRAY		SANDSTONE	201	280

Aquifer Type (Formation producing the most water) SANDSTONE

Date of Well Completion 9/7/2012 Total Depth of Well 280 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

BW

DNR 7802 05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number 2039434

Page 1 of 1 for this record.

WELL LOCATION

County STARK Township PERRY

ADAMS & SONS
Owner/Builder

4200 SHEPLER CHURCH RD
Address of Well Location

City CANTON Zip Code +4

Permit No. EMERGENCY Section; and or Lot No.

Use of Well DOMESTIC

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X +/- ft.

S ☐ Y +/- ft.

Latitude, Longitude Coordinates

Latitude: 40.746051 Longitude: -81.441616

Elevation of Well in feet: 1144 +/- ft.

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source GPS

Source of Coordinates: GPS

Well location written description:

Comments on water quality/quantity and well construction:

20 HARDNESS
3 IRON
7.0 PH

WELL TEST *

Pre-Pumping Static Level 50 ft. Date 8/29/2012

Measured from GROUND LEVEL

Pumping test method AIR

Test Rate 15 gpm Duration of Test 1 hrs.

Feet of Drawdown 50 ft. Sustainable Yield 12 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump Capacity gpm

Pump set at ft. Pitless Type

Pump installed by OTHER

I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm JAMISON WELL DRILLING, INC.

Address 258 CENTRAL AVE

City, State, Zip MANSFIELD OH 44905

Signed CYNTHIA GOLDEN Date 9/4/2012

(Filed Electronically)

ODH Registration Number 0391

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter 8 inches Depth 78 ft.
Casing Diameter 5 in. Length 80 ft. Thickness 0.265 in.

2 Borehole Diameter 4.75 inches Depth 180 ft.
Casing Diameter in. Length ft. Thickness in.

Casing Height Above Ground 1 ft.

Type 1: PVC
2:

Joints 1: Solvent
2:

SCREEN

Diameter in. Slot Size in. Screen Length ft.

Type Material

Set Between ft. and ft.

GRAVEL PACK (Filter Pack)

Material/Size Vol/Wt. Used

Method of Installation

Depth: Placed From: ft. To: ft.

GROUT

Material Bentonite slurry Vol/Wt. Used 174/400#

Method of Installation Pumped w/Tremie pipe

Depth: Placed From: 78 ft. To: 0 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
		SOIL	0	5
BROWN-GRAY		CLAY & GRAVEL	5	60
GRAY		SHALE	60	90
		LIMESTONE	90	93
		COAL	93	95
GRAY		SHALE	95	117
		LIMESTONE	117	118
		COAL	118	119
GRAY	SANDY	SHALE	119	180

Aquifer Type (Formation producing the most water.) SHALE

Date of Well Completion 8/29/2012 Total Depth of Well 180 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

UN

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number 2039572

Page 1 of 1 for this record.

WELL LOCATION

County STARK Township PERRY

ADAMS & SONS - URBAN
Owner/Builder

4210 SHEPLER CHURCH RD
Address of Well Location

City CANTON Zip Code +4

Permit No. EMERGENCY Section; _____ and or Lot No. _____

Use of Well DOMESTIC

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X _____ +/- _____ ft.

S ☐ Y _____ +/- _____ ft.

Latitude, Longitude Coordinates

Latitude: 40.74605 Longitude: -81.441976

Elevation of Well in feet: 1190 +/- _____ ft.

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source GPS

Source of Coordinates: GPS

Well location written description:

Comments on water quality/quantity and well construction:

WELL TEST *

Pre-Pumping Static Level 50 ft. Date 9/6/2012

Measured from GROUND LEVEL

Pumping test method AIR

Test Rate 10 gpm Duration of Test 1 hrs.

Feet of Drawdown 45 ft. Sustainable Yield 10 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump _____ Capacity _____ gpm

Pump set at _____ ft. Pitless Type _____

Pump installed by OTHER

I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm JAMISON WELL DRILLING, INC.

Address 258 CENTRAL AVE

City, State, Zip MANSFIELD OH 44905

Signed CYNTHIA GOLDEN Date 9/11/2012

(Filed Electronically)

ODH Registration Number 0391

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 { Borehole Diameter 7.875 inches Depth 78 ft.
Casing Diameter 5 in. Length 80 ft. Thickness 0.265 in.

2 { Borehole Diameter 4.75 inches Depth 220 ft.
Casing Diameter _____ in. Length _____ ft. Thickness _____ in.

Casing Height Above Ground 2 ft.

Type { 1 PVC
2 _____

Joints { 1 Solvent
2 _____

SCREEN

Diameter _____ in. Slot Size _____ in. Screen Length _____ ft.

Type _____ Material _____

Set Between _____ ft. and _____ ft.

GRAVEL PACK (Filter Pack)

Material/Size _____ Vol/Wt. Used _____

Method of Installation _____

Depth: Placed From: _____ ft. To: _____ ft.

GROUT

Material Bentonite slurry Vol/Wt. Used 220/500#

Method of Installation Pumped w/Tremie pipe

Depth: Placed From: 78 ft. To: 0 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
		SOIL	0	3
BROWN	SANDY	CLAY	3	25
GRAY		CLAYSANDGRAVEL	25	38
GRAY	SANDY	CLAY	38	46
GRAY		CLAYSANDGRAVEL	46	58
GRAY	SANDY	SHALE	58	99
DARK GRAY		LIMESTONE	99	103
GRAY		SHALE	103	109
DARK GRAY		SANDSTONE	109	111
GRAY	SANDY	SHALE	111	125
DARK GRAY		LIMESTONE	125	130
GRAY	SANDY	SHALE	130	215
DARK GRAY		SHALE	215	220

Aquifer Type (Formation producing the most water) SHALE

Date of Well Completion 9/6/2012 Total Depth of Well 220 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

KB

Well Log Number 2039835

DNR 7802 05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Page 1 of 1 for this record.

WELL LOCATION

County STARK Township PERRY

Owner/Builder: ADAMS & SONS - KEN BROWN

Address of Well Location: 4215 SHEPLER CHURCH RD

City CANTON Zip Code +4 44708

Permit No. EMERGENCY Section: _____ and/or Lot No. _____

Use of Well DOMESTIC

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X _____ +/- _____ ft

S ☐ Y _____ +/- _____ ft

Latitude, Longitude Coordinates

Latitude: 40.74659 Longitude: -81.442421

Elevation of Well in feet: _____ +/- _____ ft.

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source _____

Source of Coordinates: GPS

Well location written description:

Comments on water quality/quantity and well construction:

CLEAR

WELL TEST *

Pre-Pumping Static Level 95 ft. Date 9/24/2012

Measured from GROUND LEVEL

Pumping test method AIR

Test Rate 10 gpm Duration of Test 1 hrs.

Feet of Drawdown 50 ft. Sustainable Yield 10 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump _____ Capacity _____ gpm

Pump set at _____ ft. Pitless Type _____

Pump installed by OTHER

I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm JAMISON WELL DRILLING, INC.

Address 258 CENTRAL AVE

City, State, Zip MANSFIELD OH 44905

Signed CYNTHIA GOLDEN Date 9/26/2012

(Filed Electronically)

ODH Registration Number 0391

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter 8 inches Depth 78 ft.
Casing Diameter 5 in. Length 80 ft. Thickness 0.265 in.

2 Borehole Diameter 4.75 inches Depth 280 ft.
Casing Diameter _____ in. Length _____ ft. Thickness _____ in.

Casing Height Above Ground 1 ft.

Type 1 PVC
Type 2 _____

Joints 1 Solvent
Joints 2 _____

SCREEN

Diameter _____ in. Slot Size _____ in. Screen Length _____ ft.

Type _____ Material _____

Set Between _____ ft. and _____ ft.

GRAVEL PACK (Filter Pack)

Material/Size _____ Vol/Wt. Used _____

Method of Installation _____

Depth: Placed From: _____ ft. To: _____ ft.

GROUT

Material Bentonite slurry Vol/Wt. Used 198/450#

Method of Installation Pumped w/Tremie pipe

Depth: Placed From: 78 ft. To: 0 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
BROWN		CLAY	0	10
		SAND AND GRAVEL	10	15
		CLAY	15	54
GRAY		SHALE	54	85
		LIMESTONE	85	89
GRAY		SANDSTONE	89	96
GRAY		SHALE	96	110
		LIMESTONE	110	112
	SANDY	SHALE	112	148
GRAY		SHALE	148	280

Aquifer Type (Formation producing the most water.) SHALE

Date of Well Completion 9/24/2012 Total Depth of Well 280 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number: 2041653

Page 1 of 1 for this record.

WELL LOCATION

County: STARK Township: CANTON

Owner/Builder: ADAMS & SONS - LAHER

Address of Well Location: 4202 SHERMAN CHURCH RD

City: CANTON Zip Code +4: 44708

Permit No.: EMERGENCY Section: ____ and/or Lot No. ____

Use of Well: DOMESTIC

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X ____ +/- ____ ft.

S ☐ Y ____ +/- ____ ft.

Latitude, Longitude Coordinates

Latitude: 40.750514 Longitude: -81.419052

Elevation of Well in feet: ____ +/- ____ ft

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source ____

Source of Coordinates: GPS

Well location written description:

Comments on water quality/quantity and well construction:

WELL TEST *

Pre-Pumping Static Level: 50 ft. Date: 1/25/2013

Measured from: GROUND LEVEL

Pumping test method: AIR

Test Rate: 20 gpm Duration of Test: 1 hrs.

Feet of Drawdown: 30 ft. Sustainable Yield: 20 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump: ____ Capacity: ____ gpm

Pump set at: ____ ft. Pitless Type: ____

Pump installed by: OTHER

I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm: JAMISON WELL DRILLING, INC.

Address: 258 CENTRAL AVE

City, State, Zip: MANSFIELD OH 44905

Signed: CYNTHIA GOLDEN (Filed Electronically) Date: 1/30/2013

ODH Registration Number: 0391

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter: 8 inches Depth: 90 ft.
Casing Diameter: 5 in. Length: 100 ft. Thickness: 0.265 in.

2 Borehole Diameter: 4.75 inches Depth: 150 ft.
Casing Diameter: ____ in. Length: ____ ft. Thickness: ____ in.

Casing Height Above Ground: 2 ft.

Type: 1: PVC 2: ____

Joints: 1: Solvent 2: ____

SCREEN

Diameter: ____ in. Slot Size: ____ in. Screen Length: ____ ft.

Type: ____ Material: ____

Set Between: ____ ft. and ____ ft.

GRAVEL PACK (Filter Pack)

Material/Size: ____ Vol/Wt. Used: ____

Method of Installation: ____

Depth: Placed From: ____ ft. To: ____ ft.

GROUT

Material: Bentonite slurry Vol/Wt. Used: 198/450#

Method of Installation: Pumped w/Tremie pipe

Depth: Placed From: 98 ft. To: 0 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
		SOIL	0	5
BROWN		CLAY	5	13
GRAY		SHALE	13	37
		LIMESTONE	37	41
		COAL	41	43
		CLAY	43	45
GRAY		SHALE	45	52
GRAY	SANDY	SHALE	52	91
		LIMESTONE	91	92
		COAL	92	94
GRAY		SANDSTONE	94	143
GRAY		SHALE	143	150

Aquifer Type (Formation producing the most water.): SHALE

Date of Well Completion: 1/25/2013 Total Depth of Well: 150 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number: 2040698

Page 1 of 1 for this record.

WELL LOCATION

County: STARK Township: CANTON

Owner/Builder: ADAMS & SONS - DIANA SCOTT

Address of Well Location: 3810 SW WHIPPLE AVE

City: CANTON Zip Code +4: 44708

Permit No.: 23953 Section: ____ and/or Lot No. ____

Use of Well: DOMESTIC

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X ____ +/- ____ ft.

S ☐ Y ____ +/- ____ ft.

Latitude, Longitude Coordinates

Latitude: 40.754167 Longitude: -81.423667

Elevation of Well in feet: 1078 +/- ____ ft.

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source: GPS

Source of Coordinates: GPS

Well location written description:

Comments on water quality/quantity and well construction:

CLEAR

WELL TEST *

Pre-Pumping Static Level: 30 ft. Date: 11/12/2012

Measured from: GROUND LEVEL

Pumping test method: AIR

Test Rate: 20 gpm Duration of Test: 1 hrs.

Feet of Drawdown: 15 ft. Sustainable Yield: 20 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump: ____ Capacity: ____ gpm

Pump set at ____ ft. Pitless Type: ____

Pump installed by: OTHER

I hereby certify the information given is accurate and correct to the best of my knowledge.

Drilling Firm: JAMISON WELL DRILLING, INC.

Address: 258 CENTRAL AVE

City, State, Zip: MANSFIELD OH 44905

Signed: CYNTHIA GOLDEN Date: 11/14/2012

(Filed Electronically)

ODH Registration Number: 0391

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 { Borehole Diameter: 8 inches Depth: 78 ft.
  { Casing Diameter: 5 in. Length: 80 ft. Thickness: 0.265 in.

2 { Borehole Diameter: 4.75 inches Depth: 150 ft.
  { Casing Diameter: ____ in. Length: ____ ft. Thickness: ____ in.

Casing Height Above Ground: 2 ft.

Type { 1: PVC
     { 2: ____

Joints { 1: Solvent
       { 2: ____

SCREEN

Diameter: ____ in. Slot Size: ____ in. Screen Length: ____ ft.

Type: ____ Material: ____

Set Between: ____ ft. and ____ ft.

GRAVEL PACK (Filter Pack)

Material/Size: ____ Vol/Wt. Used: ____

Method of Installation: ____

Depth: Placed From: ____ ft. To: ____ ft.

GROUT

Material: Bentonite slurry Vol/Wt. Used: 132/300#

Method of Installation: Pumped w/Tremie pipe

Depth: Placed From: 78 ft. To: 0 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
		SOIL	0	5
BROWN	SANDY	CLAY	5	14
GRAY		CLAY & GRAVEL	14	38
		SANDGRAVELCLAY	38	47
		LIMESTONE	47	50
		COAL AND CLAY	50	54
GRAY		SHALE	54	100
		LIMESTONE	100	104
GRAY		SHALE	104	124
DARK GRAY		SANDSTONE	124	150

Aquifer Type (Formation producing the most water.): SANDSTONE

Date of Well Completion: 11/12/2012 Total Depth of Well: 150 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number: 2040781

Page 1 of 1 for this record.

WELL LOCATION

County: STARK Township: PERRY

Owner/Builder: ADAMS & SONS - HECK

Address of Well Location: 3820 WHIPPLE AVE

City: CANTON Zip Code +4: 44708

Permit No.: EMERGENCY Section: ____ and/or Lot No. ____

Use of Well: DOMESTIC

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X ____ +/- ____ ft.

S ☐ Y ____ +/- ____ ft.

Latitude, Longitude Coordinates

Latitude: 40.7505 Longitude: -81.428428

Elevation of Well in feet: ____ +/- ____ ft.

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source ____

Source of Coordinates: GPS

Well location written description:

Comments on water quality/quantity and well construction:
CLEAR

WELL TEST *

Pre-Pumping Static Level: 35 ft. Date: 11/20/2012

Measured from: GROUND LEVEL

Pumping test method: AIR

Test Rate: 20 gpm Duration of Test: 1 hrs.

Feet of Drawdown: 5 ft. Sustainable Yield: 20 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump: ____ Capacity: ____ gpm

Pump set at ____ ft. Pitless Type: ____

Pump installed by: OTHER

I hereby certify the information given is accurate and correct to the best of my knowledge.

Drilling Firm: JAMISON WELL DRILLING, INC.

Address: 258 CENTRAL AVE

City, State, Zip: MANSFIELD OH 44905

Signed: CYNTHIA GOLDEN Date: 11/21/2012

(Filed Electronically)

ODH Registration Number: 0391

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter: 8 inches Depth: 58 ft.
Casing Diameter: 5 in. Length: 60 ft. Thickness: 0.265 in.

2 Borehole Diameter: 4.75 inches Depth: 150 ft.
Casing Diameter: ____ in. Length: ____ ft. Thickness: ____ in.

Casing Height Above Ground: 2 ft.

Type: 1: PVC 2: ____

Joints: 1: Solvent 2: ____

SCREEN

Diameter: ____ in. Slot Size: ____ in. Screen Length: ____ ft.

Type: ____ Material: ____

Set Between: ____ ft. and ____ ft.

GRAVEL PACK (Filter Pack)

Material/Size: ____ Vol/Wt. Used: ____

Method of Installation: ____

Depth: Placed From: ____ ft. To: ____ ft.

GROUT

Material: Bentonite slurry Vol/Wt. Used: 616/140#

Method of Installation: Pumped w/Tremie pipe

Depth: Placed From: 58 ft. To: 0 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
		SOIL	0	5
BROWN		CLAY	5	14
GRAY		CLAY & GRAVEL	14	43
GRAY		SHALE	43	53
		LIMESTONE	53	57
GRAY		SHALE	57	109
		COAL	109	111
GRAY	SANDY	SHALE	111	130
DARK GRAY		SANDSTONE	130	150

Aquifer Type (Formation producing the most water.): SANDSTONE

Date of Well Completion: 11/20/2012 Total Depth of Well: 150 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

17.0 APPENDIX I – WELL SEALING REPORTS FOR WELLS REPLACE D BY TIMKEN

DNR 7810.10

WATER WELL SEALING REPORT
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

0200122

LOCATION

County Stark Township Perry Circle One or Both Section/Lot Number

Owner/Builder Jeffrey Pfiffner
Circle One or Both

Address of Well Location 3984 (Number) Faircrest (Street Name)

City Canton Zip Code 44706

Property Location Description ____ miles (n, e, s, w) of ____ (nearest intersection)
on the ____ (n, e, s, w) side of ____ (road name)

Location of Well in either: State Plane N ☐ S ☐ X 1401781.0 +/- ____ ft. or m Y 1813715 6.9 +/- ____ ft. or m
OR
Latitude/Longitude {Check ONE ☐ In Decimal Degrees ☐ Degrees Minutes ☐ Degrees Min. Sec.
Latitude ____ Longitude ____}

Elevation of Well ____ +/- ____ ft. or m Datum Plain: ☐ NAD27 ☐ NAD83

Source of Coordinates: ☒ GPS ☐ Survey ☐ Other ____

ORIGINAL WELL ODNR Well Log Number Unknown Copy attached? Yes or No (circle one)

MEASURED CONSTRUCTION DETAILS Date of measurements ____

Depth of Well 50 Ft Static Water Level 36 Ft
Size of Casing 4 in Length of casing Unknown
Well Condition Poor

SEALING PROCEDURE
Method of Placement Gravity

Placement:	From	To	Sealing Material	Volume
	Bottom	Top	Bentonite	350 lbs

Was Casing Removed? Yes or No (circle one)

Condition of Casing ____
Perforations: From ____ To ____
From ____ To ____

Date Sealing Performed 11-29-12
Reason(s) for Sealing New Well

CONTRACTOR
Name Adams - Sons Pump Service ODH Registration # 2554
Address 2665 Easton St
City/State/Zip North Canton Ohio 44721

Signature ____
I hereby certify the information given is accurate and correct to the best of my knowledge.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
ORIGINAL COPY TO - ODNR, DIVISION OF SOIL AND WATER RESOURCES,
2045 MORSE ROAD BLDG. B, COLS., OHIO 43229-6693
Blue - Customer's copy Pink - Driller's copy Green - Local Health Dept. copy

DNR 7810.10

WATER WELL SEALING REPORT
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

0200041

LOCATION

County Stark Township Canton Circle One or Both Section/Lot Number

Owner/Builder Jason Agnino
Circle One or Both

Address of Well Location 4002 (Number) Faircrest (Street Name)

City Canton Zip Code 44706

Property Location Description miles n, e, s, w of nearest intersection

on the n, e, s, w side of road name

Location of Well in either: State Plane N ☐ S X 40751750 +/- ft. or m Y 81442891 +/- ft. or m
OR
Latitude/Longitude Check ONE ☐ In Decimal Degrees ☐ Degrees Minutes ☐ Degrees Min. Sec.
Latitude Longitude

Elevation of Well +/- ft. or m Datum Plain: ☐ NAD27 ☐ NAD83

Source of Coordinates: ☑ GPS ☐ Survey ☐ Other

ORIGINAL WELL ODNR Well Log Number Copy attached? Yes or No (circle one)

MEASURED CONSTRUCTION DETAILS

Date of measurements 8-24-2012

Depth of Well 21 ft
Size of Casing 3 in
Well Condition Poor

Static Water Level 11 ft
Length of casing Unknown

SEALING PROCEDURE

Method of Placement Gravity

Sealing Material Bentonite Volume 150 lbs

Placement: From Bottom To Top Bentonite
From To
From To

Was Casing Removed? Yes or No (circle one)

Condition of Casing Poor
Perforations: From 21 To 0
From To

Date Sealing Performed 8-24-2012
Reason(s) for Sealing New Well

CONTRACTOR

Name Adams and Sons Pump Service ODH Registration # 2554
Address 2665 Easton St
City/State/Zip North Canton Ohio 44721

Signature

I hereby certify the information given is accurate and correct to the best of my knowledge.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
ORIGINAL COPY TO - ODNR, DIVISION OF SOIL AND WATER RESOURCES,
2045 MORSE ROAD BLDG. B, COLS., OHIO 43229-6693
Blue - Customer's copy Pink - Driller's copy Green - Local Health Dept. copy

DNR 7810.10

WATER WELL SEALING REPORT
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

0200106

LOCATION

County Stark Township Canton Circle One or Both Section/Lot Number

Owner/Builder Miller Robert
Circle One or Both

Address of Well Location 4130 (Number) Kropf Ave (Street Name)

City Canton Zip Code 44706

Property Location Description miles n, e, s, w of nearest intersection on the n, e, s, w side of road name

Location of Well in either: State Plane N S X 40 79 781.0 +/- ft. or m Y 81 37 156.9 +/- ft. or m
OR Latitude/Longitude (Check ONE Latitude) In Decimal Degrees Degrees Minutes Degrees Min. Sec. Longitude

Elevation of Well +/- ft. or m Datum Plain: NAD27 NAD83

Source of Coordinates: X GPS Survey Other

ORIGINAL WELL ODNR Well Log Number 192847 Copy attached? Yes or No (circle one)

MEASURED CONSTRUCTION DETAILS Date of measurements

Depth of Well 18 Ft
Size of Casing 4 in
Well Condition Poor

Static Water Level 11 Ft
Length of casing UnKnown

SEALING PROCEDURE
Method of Placement Gravity

Sealing Material Bentonite Volume 150 pds

Placement: From Bottom To Top
From To
From To

Was Casing Removed? Yes or No (circle one)

Condition of Casing Poor
Perforations: From To
From To

Date Sealing Performed 9-28-12
Reason(s) for Sealing New Well

CONTRACTOR
Name Adams and Sons Pump Service ODH Registration # 2554
Address 2665 Easton St
City/State/Zip North Canton Ohio 44721

Signature
I hereby certify the information given is accurate and correct to the best of my knowledge.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
ORIGINAL COPY TO - ODNR, DIVISION OF SOIL AND WATER RESOURCES.

WELL LOG AND DRILLING REPORT

ORIGINAL

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1500 Dublin Road
Columbus, Ohio

No. 192847

County Stark Township Perry Section of Township S.E.

Owner Guy V. Hurless Address 1616 Marrow ave. N.W. Canton, Ohio

Location of property 4130 Kropf Road S.W. Canton, Ohio

CONSTRUCTION DETAILS

Casing diameter 4" Length of casing 22' 6"

Type of screen Length of screen

Type of pump

Capacity of pump

Depth of pump setting

Date of completion

BAILING OR PUMPING TEST

Pumping rate G.P.M. Duration of test hrs.

Drawdown 6 ft. Date

Developed capacity

Static level—depth to water 1' ft.

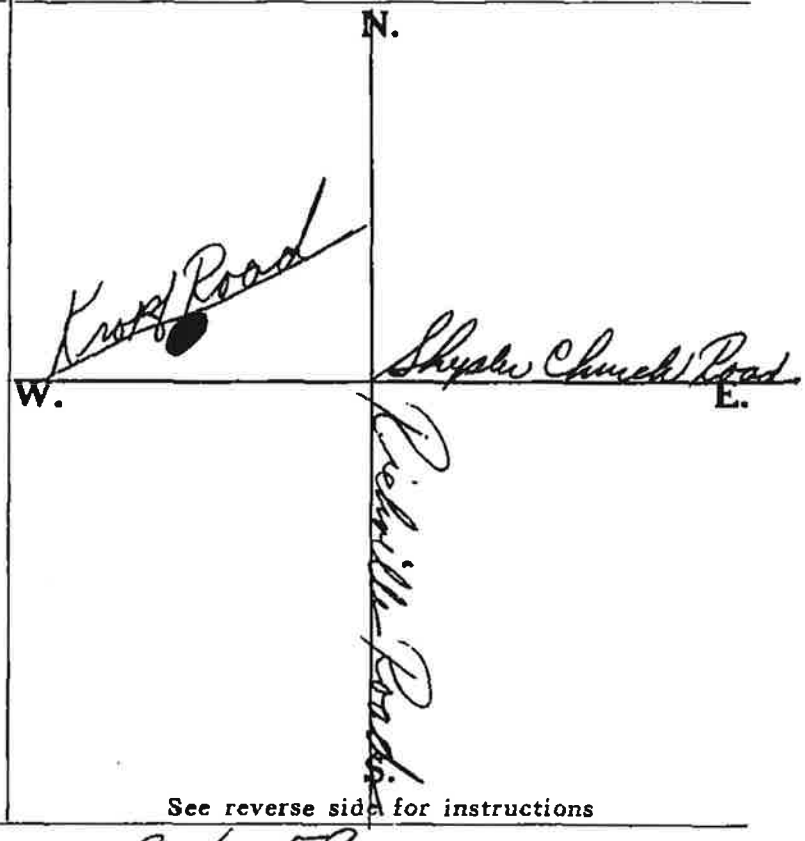
Pump installed by

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
Brown Clay + Sand	0 Feet	22' Ft.
Gray Shale	22'	34'

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm George Stoffel Date 2-6-59

Address 1710 40th St. N.W. Canton 9, Ohio Signed George Stoffel

DNR 7810.10

WATER WELL SEALING REPORT
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

0200134

LOCATION

County Stark Township Canton Circle One or Both Section/Lot Number

Owner/Builder Bill Nickles
Circle One or Both

Address of Well Location 4230 (Number) Kropf Ave (Street Name)

City Canton Zip Code 44706

Property Location Description miles (n, e, s, w) of (nearest intersection)

on the (n, e, s, w) side of (road name)

Location of Well in either: State Plane N ☐ S ☐ X 4074599.8 +/- ft. or m Y 814447.1 +/- ft. or m
OR
Latitude/Longitude {Check ONE ☐ In Decimal Degrees ☐ Degrees Minutes ☐ Degrees Min. Sec.
Latitude Longitude}

Elevation of Well +/- ft. or m Datum Plain: ☐ NAD27 ☐ NAD83

Source of Coordinates: ☒ GPS ☐ Survey ☐ Other

ORIGINAL WELL ODNR Well Log Number Copy attached? Yes or No (circle one)

MEASURED CONSTRUCTION DETAILS Date of measurements 2-12-13

Depth of Well Unknown Static Water Level Unknown
Size of Casing 4 in Length of casing Unknown
Well Condition Poor

SEALING PROCEDURE
Method of Placement Gravity

Placement:	From	To	Sealing Material	Volume
	Bottom	Top	Bentonite	250 lb

Was Casing Removed? Yes or No (circle one)

Condition of Casing Poor
Perforations: From To
From To

Date Sealing Performed 2-12-13
Reason(s) for Sealing Pump Stuck in Well

CONTRACTOR
Name Adams and Sons Pump ODH Registration # 2554
Address 2665 Easton St
City/State/Zip North Canton Ohio 44721

Signature
I hereby certify the information given is accurate and correct to the best of my knowledge.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
ORIGINAL COPY TO - ODNR, DIVISION OF SOIL AND WATER RESOURCES,
2045 MORSE ROAD BLDG. B, COLS., OHIO 43229-6693
Blue - Customer's copy Pink - Driller's copy Green - Local Health Dept. copy

DNR 7810 10

WATER WELL SEALING REPORT
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

0200116

LOCATION

County Stark Township Perry
Circle One or Both
Owner/Builder Richard Pinkerton Section/Lot Number
Address of Well Location 3476 Number Shepler Church Street Name
City Canton Zip Code 44706
Property Location Description miles n, e, s, w of nearest intersection
on the n, e, s, w side of road name

Location of Well in either: State Plane N S X 4075763.1 +/- ft. or m Y 81423514.3 +/- ft. or m
OR Check ONE In Decimal Degrees Degrees Minutes | Degrees Min. Sec.
Latitude/Longitude Latitude Longitude

Elevation of Well | | . | | +/- ft. or m Datum Plain: NAD27 | NAD83

Source of Coordinates: ✓ GPS | | Survey | | Other

ORIGINAL WELL ODNR Well Log Number None Copy attached? Yes or No (circle one)

MEASURED CONSTRUCTION DETAILS

Date of measurements

Depth of Well Unknown Static Water Level Unknown
Size of Casing 4 in Length of casing
Well Condition Poor

SEALING PROCEDURE

Method of Placement Gravity Bentonite Sealing Material Volume 150 lbs

Placement: From Bottom To Top
From To
From To

Was Casing Removed? Yes or No (circle one)

Condition of Casing
Perforations: From To
From To

Date Sealing Performed 11-15-12
Reason(s) for Sealing New Well

CONTRACTOR

Name Adams' - Sons Pump Service Inc ODH Registration # 2554
Address 2665 Easton St
City/State/Zip North Canton Ohio 44721

Signature
I hereby certify the information given is accurate and correct to the best of my knowledge.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
ORIGINAL COPY TO - ODNR, DIVISION OF SOIL AND WATER RESOURCES,
2045 MORSE ROAD BLDG. B, COLS., OHIO 43229-6693
Blue - Customer's copy Pink - Driller's copy Green - Local Health Dept. copy

DNR 7810.10

WATER WELL SEALING REPORT
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

0200117

LOCATION

County Stark Township Perry Circle One or Both Section/Lot Number

Owner/Builder John Nolan
Circle One or Both

Address of Well Location 3502 Number Shepler Church Street Name

City Canton Zip Code 44706

Property Location Description miles n, e, s, w of nearest intersection

on the n, e, s, w side of road name

Location of Well in either: State Plane N/S X 40.75726.0 +/- ft. or m Y 81.42394.3 +/- ft. or m
OR Latitude/Longitude Check ONE ☐ In Decimal Degrees | Degrees Minutes | Degrees Min. Sec.
Latitude Longitude

Elevation of Well +/- ft. or m Datum Plain: NAD27 ☐ NAD83

Source of Coordinates: X GPS Survey Other

ORIGINAL WELL ODNR Well Log Number None Copy attached? Yes or No (circle one)

MEASURED CONSTRUCTION DETAILS Date of measurements

Depth of Well 67 Ft Static Water Level 42 Ft
Size of Casing 4 in Length of casing Unknown
Well Condition Poor

SEALING PROCEDURE
Method of Placement Gravity Bentonite Sealing Material Volume

Placement: From Bottom To Top
From To
From To

Was Casing Removed? Yes or No (circle one)

Condition of Casing
Perforations: From To
From To

Date Sealing Performed 11-2-12
Reason(s) for Sealing New Well

CONTRACTOR
Name Adams & Sons Pump Service Inc ODH Registration # 2554
Address 2665 Easton St
City/State/Zip North Canton Ohio 44721

Signature
I hereby certify the information given is accurate and correct to the best of my knowledge.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
ORIGINAL COPY TO - ODNR, DIVISION OF SOIL AND WATER RESOURCES,
2045 MORSE ROAD BLDG. B, COLS., OHIO 43229-6693
Blue - Customer's copy Pink - Driller's copy Green - Local Health Dept. copy

DNR 7810.12e

WATER WELL SEALING REPORT e-FORM
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

300332

LOCATION

County STARK Township PERRY Section No. ____ Lot No. ____

Owner DAVE YOUNG

Address of Well Location 3920 SHEPLER CHURCH AVE SW

City CANTON Zip Code 44706

Well Location Description (120 Characters)

Location of Well in either: State Plane N ☐ S ☐ X ____ +/- ____ ft. Y ____ +/- ____ ft.
OR
Latitude/Longitude Latitude 40.749733 Longitude -81.431883

Elevation of Well 1153.00 +/- ____ ft. Datum Plane: ☐ NAD27 ☒ NAD83

Source of Coordinates: ☒ GPS ☐ Survey ☐ Other ____
Source of Elevation: ☒ GPS ☐ Survey ☐ Other ____

WELL IDENTIFICATION ODNR Well Log Number ____ Project Well ID ____

MEASURED CONSTRUCTION DETAILS

Date of measurements 8/27/2012
Depth of Well 62 ft. Static Water Level 51 ft.
Borehole Depth 62 ft. Borehole Diameter 4 in.
Casing Diameter 4 in. Casing Length ____ ft. Casing Type Steel

SEALING PROCEDURE

Placement:

	Sealing Material	Volume/Weight Used (Units Required)	Placement Method
From 0 ft. To 62 ft.	Bentonite pellets/chunks	440 LBS	Poured (gravity)
From ____ ft. To ____ ft.			
From ____ ft. To ____ ft.			
From ____ ft. To ____ ft.			

Condition of Casing ____ Was Casing Removed? ☐ Yes or ☒ No (check one)

If casing **Not Removed**, was it Perforated? ☐ Yes or ☒ No (check one) Perforations: From ____ ft. To ____ ft.

Date Sealing Performed 8/27/2012
Comments/Reason for Sealing QUIT PRODUCING ADEQUATE AMOUNT OF WATER

CONTRACTOR

Name GREG ROGERS ENTERPRISES ODH Registration # 02835
Address 820 Stafford
City/State/Zip MINERVA, OH 44657

e-Signature GREGORY A ROGERS Filed electronically on 9/28/2012
I hereby certify the information given is accurate and correct to the best of my knowledge.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of sealing.
Distribute additional copies to: Customer, Driller and Local Health Department.

DNR 7810.10

WATER WELL SEALING REPORT
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

0200048

LOCATION

County Stark Township Canton Circle One or Both Section/Lot Number

Owner/Builder Tim - Kelly Sanko
Circle One or Both

Address of Well Location 3932 Number Shepler Church Street Name

City Canton Zip Code 44706

Property Location Description miles n, e, s, w of nearest intersection

on the n, e, s, w side of road name

Location of Well in either: State Plane N ☐ S ☐ X 40749714.9 +/- ft. or m Y 81433348.3 +/- ft. or m
OR Latitude/Longitude Check ONE Latitude In Decimal Degrees Degrees Minutes Degrees Min. Sec. Longitude

Elevation of Well +/- ft. or m Datum Plain: NAD27 ☐ NAD83

Source of Coordinates: X GPS ☐ Survey ☐ Other

Copy attached? Yes or No (circle one)

ORIGINAL WELL ODNR Well Log Number 336740

MEASURED CONSTRUCTION DETAILS Date of measurements

Depth of Well 30 ft
Size of Casing 4 in
Well Condition Poor

Static Water Level 10 ft
Length of casing UNKNOW

SEALING PROCEDURE

Method of Placement Gravity

Sealing Material Bentonite

Volume 250 pds

Placement: From Bottom To Top
From To
From To

Was Casing Removed? Yes or No (circle one)

Condition of Casing Poor

Perforations: From To
From To

Date Sealing Performed 8-30-2012

Reason(s) for Sealing New well

CONTRACTOR

Name Adams - Sons Pump Service ODH Registration # 2554

Address 2665 Castor St

City/State/Zip North Canton Ohio 44721

Signature

I hereby certify the information given is accurate and correct to the best of my knowledge.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
ORIGINAL COPY TO - ODNR, DIVISION OF SOIL AND WATER RESOURCES.
2045 MORSE ROAD BLDG. B, COLS., OHIO 43229-6693
Blue - Customer's copy Pink - Driller's copy Green - Local Health Dept. copy

68

WELL LOG AND DRILLING REPORT

ORIGINAL

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus, Ohio 43212

PLEASE USE PENCIL OR TYPEWRITER
DO NOT USE INK.

№ 336740

County Stark Township Perry Section of Township 25

Owner D. G. Young Address 3932 Shepler Ave. S.W. Canton

Location of property 3932 Shepler Ave.

CONSTRUCTION DETAILS

Casing diameter 4" Length of casing 35'
Type of screen Slotted Length of screen 18"
Type of pump
Capacity of pump
Depth of pump setting
Date of completion 7/25/66

BAILING OR PUMPING TEST

Pumping Rate 12 G.P.M. Duration of test 1 hrs.
Drawdown 6 ft. Date 7/25/66
Static level-depth to water 14 ft.
Quality (clear, cloudy, taste, odor) Clear

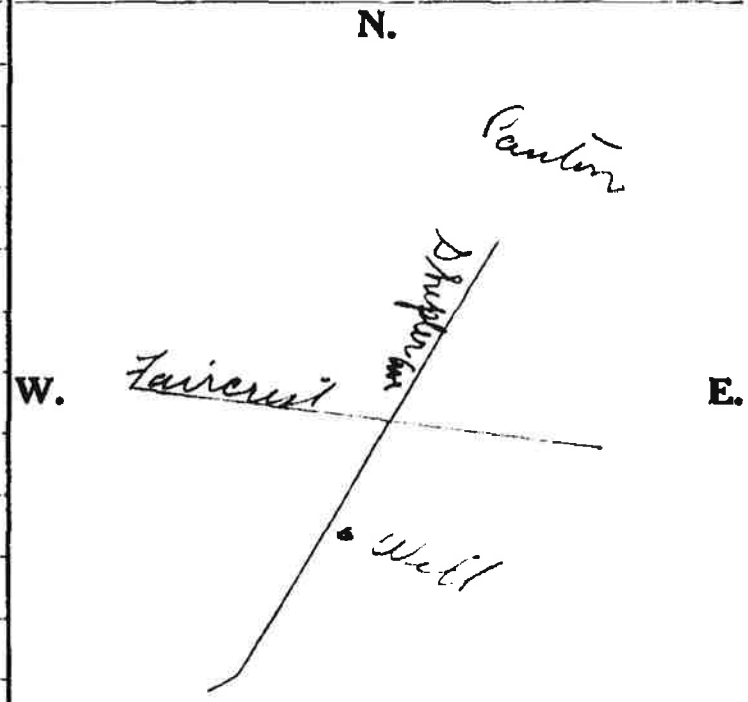
Pump installed by Plumber

WELL LOG*

Formations Sandstone, shale, limestone, gravel and clay	From	To
Clay	0 Feet	8 Ft.
sand & Clay	8	20
gravel & sand	20	24
sand & Clay	24	34

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Johnston Date 7/25/66
Address 4400 Shepler Ave Canton. Signed D. G. Johnston

LOCATED 68

*If additional space is needed to complete well log, use next consecutive numbered form.

DNR 7810.10

WATER WELL SEALING REPORT
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

0200050

LOCATION

County Stark Township Canton Circle One or Both Section/Lot Number

Owner/Builder Donnie Modranski
Circle One or Both

Address of Well Location 3966 Number Shepler Church Street Name

City Canton Zip Code 44706

Property Location Description miles n, e, s, w of nearest intersection

on the n, e, s, w side of road name

Location of Well in either: State Plane N/S X 4017448.8 +/- ft. or m Y 8143443.2 +/- ft. or m
OR
Latitude/Longitude Check ONE | In Decimal Degrees | Degrees Minutes | Degrees Min. Sec.
Latitude Longitude

Elevation of Well +/- ft. or m Datum Plain: NAD27 NAD83

Source of Coordinates: GPS Survey Other

ORIGINAL WELL ODNR Well Log Number Copy attached? Yes or No (circle one)

MEASURED CONSTRUCTION DETAILS Date of measurements

Depth of Well 74 ft Static Water Level 20 ft
Size of Casing 4 in Length of casing unknown
Well Condition Poor

SEALING PROCEDURE
Method of Placement Gravity

Placement: From Bottom To Top Sealing Material Bentonite Volume 300 gals
From To
From To

Was Casing Removed? Yes or No (circle one)

Condition of Casing Poor
Perforations: From To
From To

Date Sealing Performed 9-14-12
Reason(s) for Sealing New well

CONTRACTOR
Name Adams Sons Pump Service Inc ODH Registration # 2554
Address 2665 Easton St
City/State/Zip North Canton Ohio 44721

Signature
I hereby certify the information given is accurate and correct to the best of my knowledge.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
ORIGINAL COPY TO - ODNR, DIVISION OF SOIL AND WATER RESOURCES,
2045 MORSE ROAD BLDG. B, COLS., OHIO 43229-6693
Blue - Customer's copy Pink - Driller's copy Green - Local Health Dept. copy

DNR 7810.10

WATER WELL SEALING REPORT
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

0201908

LOCATION

County STARK Township PERRY Circle One or Both Section/Lot Number

Owner/Builder Circle One or Both RBD COMPANY

Address of Well Location 3969 Number sheplon church Street Name

City NAV Zip Code 44706

Property Location Description 1/4 miles n, e, s, w of FAIRCREST nearest intersection

on the n, e, s, w side of sheplon church road name

Location of Well in either: State Plane OR Latitude/Longitude

N S X +/- ft. or m Y +/- ft. or m

Check ONE ☐ In Decimal Degrees Degrees Minutes Degrees Min. Sec.

Latitude Longitude

Elevation of Well +/- ft. or m Datum Plain: NAD27 NAD83

Source of Coordinates: GPS Survey ☐ Other

ORIGINAL WELL ODNR Well Log Number 80366 Copy attached? (circle one) Yes or No

MEASURED CONSTRUCTION DETAILS Date of measurements

Depth of Well 72'
Size of Casing 4"
Well Condition Good

Static Water Level 22'
Length of casing 60'

SEALING PROCEDURE
Method of Placement

				Sealing Material	Volume
Placement:	From	0	To 72'	BENTONITE	430 #
	From		To		
	From		To		

Was Casing Removed? Yes or No (circle one)

Condition of Casing Good

Perforations: From To
From To

Date Sealing Performed 10/16/12
Reason(s) for Sealing NEW WELL

CONTRACTOR
Name Doug Adams ODH Registration # 395
Address 1092 mt PLEASANT ST NW.
City/State/Zip N.CANTON OH 44720

Signature [signature]
I hereby certify the information given is accurate and correct to the best of my knowledge.

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WELL LOG AND DRILLING REPORT

ORIGINAL

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
Columbus, Ohio

№ 80366

County STARK Township PERRY Section of Township ~~or Lot Number~~ 25

Owner P CHAMBERS Address RD #8, CANTON

Location of property SHEPLER, CH. RD.

CONSTRUCTION DETAILS

Casing diameter 4 in Length of casing 60 FT

Type of screen NONE Length of screen —

Type of pump SHALLOW WELL

Capacity of pump 5 G.P.M.

Depth of pump setting 30 FT

PUMPING TEST

Pumping rate 5 G.P.M. Duration of test 2 hrs.

Drawdown 5 ft. Date 9-23-52

Developed capacity 5 G.P.M.

Static level—depth to water 22 FT ft.

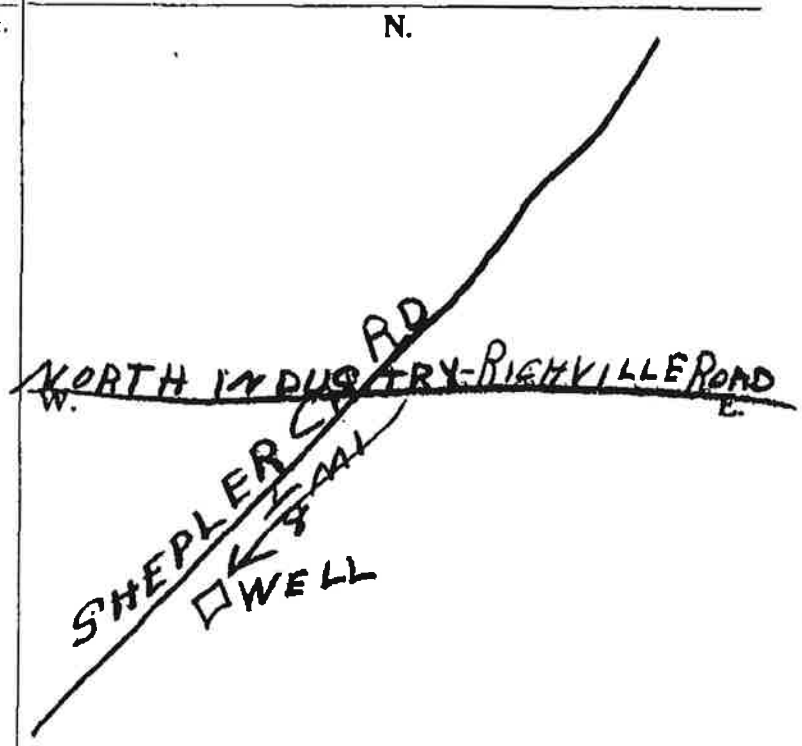
Pump installed by OWNER.

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
	0 Feet	Ft.
Clay & BOLDERS		35
CLAY-BOLDERS & COAL	35	40
FIRE CLAY	20	60
GRAY-SANDY SHALE	12	72
Water from 60 ft to 72 ft		

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Carl Davis Date 9-23-52

Address R.D. 1, Navarre Signed Carl Davis

DNR 7810.10

WATER WELL SEALING REPORT
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

0200121

LOCATION

County Stark Township Perry Circle One or Both Section/Lot Number

Owner/Builder Stokes Pitman
Circle One or Both

Address of Well Location 4000 Number Shepler Church Street Name

City Canton Zip Code 44706

Property Location Description miles n, e, s, w of nearest intersection

on the n, e, s, w side of road name

Location of Well in either: State Plane N S X 4074922.7 +/- ft. or m Y 81.43538.0 +/- ft. or m
OR
Latitude/Longitude Check ONE In Decimal Degrees Degrees Minutes Degrees Min. Sec.
Latitude Longitude

Elevation of Well +/- ft. or m Datum Plain: NAD27 NAD83

Source of Coordinates: X GPS Survey Other

ORIGINAL WELL ODNR Well Log Number None Copy attached? Yes or No (circle one)

MEASURED CONSTRUCTION DETAILS Date of measurements

Depth of Well 14 ft Static Water Level No water
Size of Casing 5 in Length of casing Unknown
Well Condition Poor

SEALING PROCEDURE
Method of Placement Gravity Bentonite Sealing Material Volume 300, pds

Placement: From Bottom To Top
From To
From To

Was Casing Removed? Yes or No (circle one)

Condition of Casing Poor
Perforations: From To
From To

Date Sealing Performed 11-13-12
Reason(s) for Sealing New Well

CONTRACTOR
Name Adams-Sons Pump Service Inc ODH Registration # 2554
Address 2605 Easton St
City/State/Zip North Canton Ohio 44721

Signature
I hereby certify the information given is accurate and correct to the best of my knowledge

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DNR 7810.10

WATER WELL SEALING REPORT
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

0200147

LOCATION

County Stark Township Perry Circle One or Both Section/Lot Number

Owner/Builder Hobert Hermon
Circle One or Both

Address of Well Location 4004 Number Shepler Church Street Name

City Canton Zip Code 44706

Property Location Description miles n, e, s, w of nearest intersection road name

on the n, e, s, w side of

Location of Well in either: State Plane N S X 40.749197 +/- ft. or m Y 81.435492 +/- ft. or m
OR
Latitude/Longitude Check ONE In Decimal Degrees Degrees Minutes Degrees Min. Sec.
Latitude Longitude

Elevation of Well +/- ft. or m Datum Plain: NAD27 NAD83

Source of Coordinates: X GPS Survey Other

ORIGINAL WELL ODNR Well Log Number None 2039116 Copy attached? (circle one) Yes or No

MEASURED CONSTRUCTION DETAILS Date of measurements

Depth of Well Unknown Static Water Level Unknown
Size of Casing 4 in Length of casing Unknown
Well Condition Poor

SEALING PROCEDURE
Method of Placement Gravity Bentonite Sealing Material Volume 100 pls

Placement: From Bottom To Top
From To
From To

Was Casing Removed? Yes or No (circle one)

Condition of Casing Poor
Perforations: From To
From To

Date Sealing Performed 10-31-12
Reason(s) for Sealing New Well Stuck Set

CONTRACTOR
Name Adams-Sons Pump Service ODH Registration # 2554
Address 2605 Easton St
City/State/Zip North Canton Ohio 44721

Signature

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DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number: 2039116

Page 1 of 1 for this record.

WELL LOCATION

County: STARK Township: PERRY

Owner/Builder: HOBERT HARMON

Address of Well Location: 4004 SHEPLER CHURCH AVE

City: CANTON Zip Code +4: 44706

Permit No.: N/A Section: ____ and/or Lot No. ____

Use of Well: AGRIC/IRRIG

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X ____ +/- ____ ft

S ☐ Y ____ +/- ____ ft

Latitude, Longitude Coordinates

Latitude: 40.748833 Longitude: -81.435833

Elevation of Well in feet: 1130 +/- ____ ft

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source: GPS

Source of Coordinates: GPS

Well location written description:

Comments on water quality/quantity and well construction:

WELL TEST *

Pre-Pumping Static Level: 15 ft. Date: 8/15/2012

Measured from: GROUND LEVEL

Pumping test method: AIR

Test Rate: 25 gpm Duration of Test: 1 hrs.

Feet of Drawdown: 25 ft. Sustainable Yield: 25 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump: ____ Capacity: ____ gpm

Pump set at ____ ft. Pitless Type: ____

Pump installed by: ____

I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm: DAVIDSON WELL DRILLING

Address: 3160 BEECHWOOD

City, State, Zip: ALLIANCE OH 44601

Signed: JOHN L. DAVIDSON (Filed Electronically) Date: 8/17/2012

ODH Registration Number: 506

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter: 7.875 inches Depth: 60 ft.
Casing Diameter: 5 in. Length: 61 ft. Thickness: 0.265 in.

2 Borehole Diameter: 5 inches Depth: 68 ft.
Casing Diameter: ____ in. Length: ____ ft. Thickness: ____ in.

Casing Height Above Ground: 1 ft.

Type 1: PVC
Type 2: ____

Joints 1: Solvent
Joints 2: ____

SCREEN

Diameter: ____ in. Slot Size: ____ in. Screen Length: ____ ft.

Type: ____ Material: ____

Set Between: ____ ft. and ____ ft.

GRAVEL PACK (Filter Pack)

Material/Size: ____ Vol/Wt. Used: ____

Method of Installation: ____

Depth: Placed From: ____ ft. To: ____ ft.

GROUT

Material: Bentonite/polymer slurry Vol/Wt. Used: 78 Gallons

Method of Installation: Pumped w/Tremie pipe

Depth: Placed From: 60 ft. To: 0 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
		SOIL	0	1
BROWN		CLAY	1	17
GRAY		CLAY & GRAVEL	17	36
		GRAVEL	36	42
GRAY		CLAY	42	53
BLUE	SOFT	SHALE	53	59
GRAY	HARD	SHALE	59	68
		Water Encountered At	65	67

Aquifer Type (Formation producing the most water.): SHALE

Date of Well Completion: 8/15/2012 Total Depth of Well: 68 ft.

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Distribute copies of this record to Customer, and Local Health Deptartment.

DNR 7810.10

WATER WELL SEALING REPORT
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

0200115

LOCATION

County Stark Township Perry Circle One or Both Section/Lot Number

Owner/Builder Roger Haught
Circle One or Both

Address of Well Location 4014 (Number) Shepler Church (Street Name)

City Canton Zip Code 44706

Property Location Description ____ miles ____ (n, e, s, w) of ____ (nearest intersection)

on the ____ (n, e, s, w) side of ____ (road name)

Location of Well in either: State Plane N ☐ S ☐ X 1074981210 +/- ____ ft. or m Y 1814957721 +/- ____ ft. or m
OR
Latitude/Longitude (Check ONE ☐ In Decimal Degrees ☐ Degrees Minutes ☐ Degrees Min. Sec.) Latitude ____ Longitude ____

Elevation of Well ____ +/- ____ ft. or m Datum Plain: ☐ NAD27 ☐ NAD83

Source of Coordinates: ☐ GPS ☐ Survey ☐ Other ____

ORIGINAL WELL ODNR Well Log Number None Copy attached? Yes or No (circle one)

MEASURED CONSTRUCTION DETAILS

Date of measurements ____

Depth of Well 76 FT Static Water Level 45 FT
Size of Casing 4 IN Length of casing UNKNOWN
Well Condition Poor

SEALING PROCEDURE

Method of Placement Gravity Sealing Material Bentonite Volume 450 pds

Placement: From Bottom To Top
From ____ To ____
From ____ To ____

Was Casing Removed? Yes or No (circle one)

Condition of Casing Poor

Perforations: From ____ To ____
From ____ To ____

Date Sealing Performed 11-14-12

Reason(s) for Sealing ____

CONTRACTOR

Name Adams Sons Pump Service Inc ODH Registration # 2554

Address 2665 Easton St

City/State/Zip North Canton Ohio 44721

Signature ____

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DNR 7810.10

WATER WELL SEALING REPORT
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

0200120

LOCATION

County Stark Township Perry Circle One or Both Section/Lot Number

Owner/Builder Richard Essik
Circle One or Both

Address of Well Location 4022 Number Shepler Church Street Name

City Canton Zip Code 44706

Property Location Description miles n, e, s, w of nearest intersection

on the n, e, s, w side of road name

Location of Well in either: State Plane N S X 4074905.9 +/- ft. or m Y 814359.9 +/- ft. or m
OR
Latitude/Longitude Check ONE In Decimal Degrees Degrees Minutes Degrees Min. Sec.
Latitude Longitude

Elevation of Well +/- ft. or m Datum Plain: NAD27 NAD83

Source of Coordinates: GPS Survey Other

ORIGINAL WELL ODNR Well Log Number None Copy attached? Yes or No (circle one)

MEASURED CONSTRUCTION DETAILS Date of measurements

Depth of Well 63 ft Static Water Level 27
Size of Casing 4 in Length of casing UNKOWN
Well Condition Poor

SEALING PROCEDURE

Method of Placement Gravity Sealing Material Bentonite Volume 400 pls

Placement: From Bottom To Top
From To
From To

Was Casing Removed? Yes or No (circle one)

Condition of Casing
Perforations: From To
From To

Date Sealing Performed 10-29-12
Reason(s) for Sealing New well

CONTRACTOR

Name Holmes - Sons Pump Inc ODH Registration # 2554
Address 2465 Easton St
City/State/Zip North Canton Ohio 44721

Signature

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DNR 7810.10

WATER WELL SEALING REPORT
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

0200118

LOCATION

County Stark Township Perry Circle One or Both Section/Lot Number

Owner/Builder Joseph Gang
Circle One or Both

Address of Well Location 4027 (Number) Shepler Church (Street Name)

City Canton Zip Code 44706

Property Location Description miles n, e, s, w of nearest intersection road name

on the n, e, s, w side of

Location of Well in either: State Plane N S X 1024904.31 +/- ft. or m Y 81436105.0 +/- ft. or m
OR
Latitude/Longitude Check ONE In Decimal Degrees Degrees Minutes Degrees Min. Sec.
Latitude Longitude

Elevation of Well +/- ft. or m Datum Plain: NAD27 NAD83

Source of Coordinates: X GPS Survey Other

ORIGINAL WELL ODNR Well Log Number None Copy attached? Yes or No (circle one)

MEASURED CONSTRUCTION DETAILS Date of measurements

Depth of Well 48 Ft Static Water Level 36 Ft
Size of Casing 5 in Length of casing
Well Condition Poor

SEALING PROCEDURE
Method of Placement Gravity Sealing Material Bentonite Volume 500 pds

Placement: From Bottom To Top
From To
From To

Was Casing Removed? Yes or No (circle one)

Condition of Casing
Perforations: From To
From To

Date Sealing Performed 11-13-12
Reason(s) for Sealing New Well

CONTRACTOR
Name Adams & Son Pump Service Inc ODH Registration # 2554
Address 2665 Easton St
City/State/Zip North Canton Ohio 44721

Signature
I hereby certify the information given is accurate and correct to the best of my knowledge

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DNR 7810.10

WATER WELL SEALING REPORT
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

0200102

LOCATION

County Stark Township Canton Circle One or Both Section/Lot Number

Owner/Builder Ed Jordan
Circle One or Both

Address of Well Location 4026 Number Sheppler Church Street Name

City Canton Zip Code 44706

Property Location Description miles n, e, s, w of nearest intersection

on the n, e, s, w side of road name

Location of Well in either: State Plane OR Latitude/Longitude (Check ONE) N S X 40 7 49 0 2 8 +/- ft. or m Y 8 1 4 3 6 1 0 5 +/- ft. or m

In Decimal Degrees — Degrees Minutes, Degrees Min. Sec

Latitude — Longitude

Elevation of Well +/- ft. or m Datum Plain: NAD27 NAD83

Source of Coordinates: GPS Survey Other

ORIGINAL WELL ODNR Well Log Number Copy attached? Yes or No (circle one)

MEASURED CONSTRUCTION DETAILS

Date of measurements

Depth of Well Unknown
Size of Casing 4 in
Well Condition

Static Water Level Unknown
Length of casing Unknown

SEALING PROCEDURE

Method of Placement Gravity

Placement: From Bottom To Top Sealing Material Bentonite Volume 250 pds
From To
From To

Was Casing Removed? Yes or No (circle one)

Condition of Casing Poor

Perforations: From To
From To

Date Sealing Performed 5-14-12

Reason(s) for Sealing New Well

CONTRACTOR

Name Adams Sons Pump Service Inc ODH Registration # 2554

Address 2665 Easton St

City/State/Zip North Canton Ohio 44721

Signature

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DNR 7810.10

WATER WELL SEALING REPORT
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

0200043

LOCATION

County Stark Township Canton Circle One or Both Section/Lot Number

Owner/Builder Carole Gillilan
Circle One or Both

Address of Well Location 4031 Shepler Church
Number Street Name

City Canton Zip Code 44706

Property Location Description miles n, e, s, w of nearest intersection

on the n, e, s, w side of road name

Location of Well in either: State Plane N ☐ S ☐ X 40.74900.3 +/- ft. or m Y 81.43626.9 +/- ft. or m
OR
Latitude/Longitude {Check ONE ☐ In Decimal Degrees ☐ Degrees Minutes ☐ Degrees Min. Sec.
Latitude Longitude}

Elevation of Well +/- ft. or m Datum Plain: ☐ NAD27 ☐ NAD83

Source of Coordinates: ☑ GPS ☐ Survey ☐ Other

ORIGINAL WELL ODNR Well Log Number 438679 Copy attached? Yes or No (circle one)

MEASURED CONSTRUCTION DETAILS Date of measurements 8-24-2012

Depth of Well 75 ft Static Water Level 27
Size of Casing 6 in Length of casing Unknown
Well Condition Poor

SEALING PROCEDURE

Method of Placement

			Sealing Material	Volume
Placement:	From Bottom	To Top	Bentonite	850 pds
	From	To		
	From	To		

Was Casing Removed? Yes or No (circle one)

Condition of Casing Poor

Perforations: From To
From To

Date Sealing Performed 8-24-2012
Reason(s) for Sealing New Well

CONTRACTOR

Name Adams and Sons Pump Service ODH Registration # 02554
Address 2605 Easton St
City/State/Zip North Canton Ohio 44721

Signature
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NO CARBON PAPER NECESSARY— SELF-TRANSCRIBING

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
65 S. Front St., Rm. 815 Phone (614) 469-2646
Columbus, Ohio 43215

438679

County Stark Township Perry Section of Township

Owner Carl Gillilan Address 2966 Shepler Ch Rd

Location of property 4031 Shepler Church SW

CONSTRUCTION DETAILS

Casing diameter 6 1/2 Length of casing 77

Type of screen Length of screen

Type of pump

Capacity of pump

Depth of pump setting

Date of completion

BAILING OR PUMPING TEST
(Specify one by circling)

Test Rate 20 G.P.M. Duration of test 1 hrs

Drawdown 12 ft. Date 9-3-72

Static level-depth to water 2 ft.

Quality (clear, cloudy, taste, odor) Clear

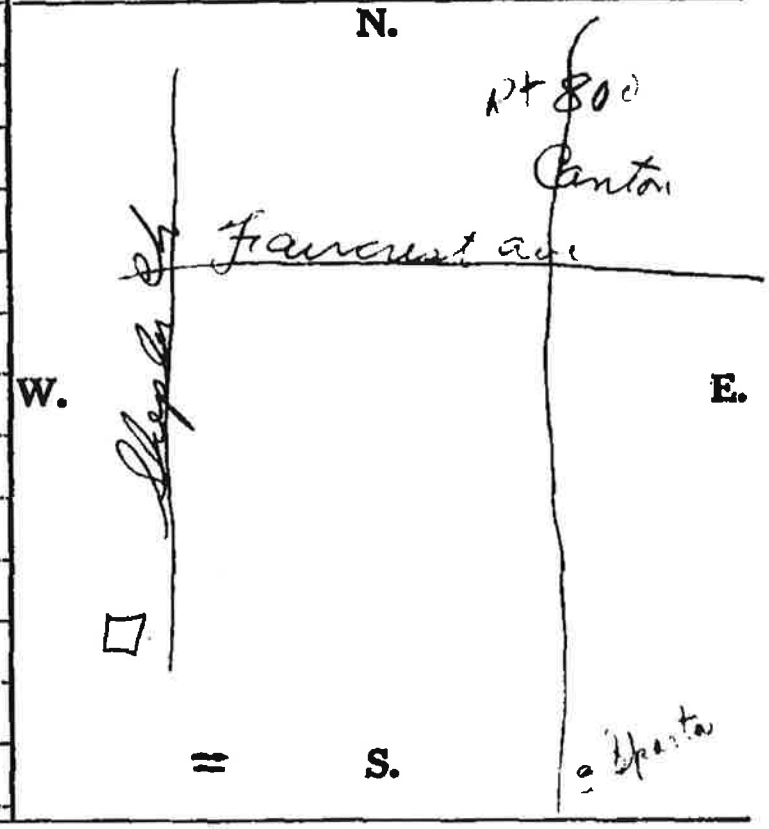
Pump installed by

WELL LOG*

Formations Sandstone, shale, limestone, gravel and clay	From	To
Soft shale	0 Feet	72 Ft.
Greyshale	72	78
Sandrock	78	81

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



Drilling Firm J J Skolnik Date 9-14-72

Address Wadsworth Signed J Sk

*If additional space is needed to complete well log, use next consecutive numbered form.

DNR 7810.10

WATER WELL SEALING REPORT
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

0200045

LOCATION

County Stark Township Canton Circle One or Both Section/Lot Number

Owner/Builder Michael Shaplite
Circle One or Both

Address of Well Location 4066 Number Shepler Church Street Name

City Canton Zip Code 44706

Property Location Description miles n, e, s, w of nearest intersection on the n, e, s, w side of road name

Location of Well in either: State Plane N S X 40.748721 +/- ft. or m Y 81.437221 +/- ft. or m OR Latitude/Longitude Check ONE In Decimal Degrees Degrees Minutes Degrees Min. Sec. Latitude Longitude

Elevation of Well +/- ft. or m Datum Plain: NAD27 NAD83

Source of Coordinates: X GPS Survey Other

ORIGINAL WELL ODNR Well Log Number Copy attached? Yes or No (circle one)

MEASURED CONSTRUCTION DETAILS Date of measurements

Depth of Well Unknow Static Water Level Unknow
Size of Casing 4in Length of casing Unknow
Well Condition Poor

SEALING PROCEDURE
Method of Placement Gravity

Placement: From Bottom To Top Sealing Material Bentonite Volume 150 lbs
From To
From To

Was Casing Removed? Yes or No (circle one)

Condition of Casing Poor
Perforations: From To
From To

Date Sealing Performed 8-30-2012
Reason(s) for Sealing New Well

CONTRACTOR
Name Adams and Sons Pump Service ODH Registration # 2554
Address 2465 Easton St
City/State/Zip North Canton Ohio 44721

Signature

I hereby certify the information given is accurate and correct to the best of my knowledge

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2045 MORSE ROAD BLDG. B, COLS., OHIO 43229-6693
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DNR 7810.10

WATER WELL SEALING REPORT
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

0200148

LOCATION

County Stark Township Perry

Circle One or Both
Owner/Builder Rhonda Hamilton
Circle One or Both

Section/Lot Number

Address of Well Location 4077 Number Shepler Church Street Name

City Canton Zip Code 44708

Property Location Description miles n, e, s, w of nearest intersection

on the n, e, s, w side of road name

Location of Well in either: State Plane N S X 40248612 +/- ft. or m Y 81437544 +/- ft. or m
OR
Latitude/Longitude Check ONE ☐ In Decimal Degrees ☐ Degrees Minutes ☐ Degrees Min. Sec.
Latitude Longitude

Elevation of Well +/- ft. or m Datum Plain: ☐ NAD27 ☐ NAD83

Source of Coordinates: ☒ GPS ☐ Survey ☐ Other

ORIGINAL WELL ODNR Well Log Number Unknown Copy attached? Yes or No (circle one)

MEASURED CONSTRUCTION DETAILS Date of measurements

Depth of Well 68 ft
Size of Casing 4 in
Well Condition Poor

Static Water Level Unknown
Length of casing Unknown

SEALING PROCEDURE

Method of Placement Gravity Sealing Material Bentonite Volume 400 lbs

Placement: From Bottom To Top
From To
From To

Was Casing Removed? Yes or No (circle one)

Condition of Casing
Perforations: From To
From To

Date Sealing Performed 11-19-12
Reason(s) for Sealing New Well

CONTRACTOR

Name Adams - Sons Pump Service Inc ODH Registration # 2554
Address 2665 Easton St
City/State/Zip North Canton Ohio 44721

Signature
I hereby certify the information given is accurate and correct to the best of my knowledge.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
ORIGINAL COPY TO - ODNR, DIVISION OF SOIL AND WATER RESOURCES,
2045 MORSE ROAD BLDG. B, COLS., OHIO 43229-6693
Blue - Customer's copy Pink - Driller's copy Green - Local Health Dept. copy

DNR 7810.10

WATER WELL SEALING REPORT
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

0200042

LOCATION

County Stark Township Canton Circle One or Both Section/Lot Number

Owner/Builder Kirk Christman
Circle One or Both

Address of Well Location 4080 Shepler Church
Number Street Name

City Canton Zip Code 44706

Property Location Description miles n, e, s, w of nearest intersection

on the n, e, s, w side of road name

Location of Well in either: State Plane N/S X 40.748158.0 +/- ft. or m Y 81.437559.2 +/- ft. or m
OR Latitude/Longitude Check ONE ☐ In Decimal Degrees ☐ Degrees Minutes ☐ Degrees Min. Sec.
Latitude Longitude

Elevation of Well +/- ft. or m Datum Plain: ☐ NAD27 ☐ NAD83

Source of Coordinates: ☑ GPS ☐ Survey ☐ Other

ORIGINAL WELL ODNR Well Log Number Copy attached? Yes or No (circle one)

MEASURED CONSTRUCTION DETAILS Date of measurements

Depth of Well 47ft Static Water Level 25ft
Size of Casing 4in Length of casing Unknow
Well Condition Poor

SEALING PROCEDURE
Method of Placement Gravity

Placement: From Bottom To Top Sealing Material Bentonite Volume 300 pds
From To
From To

Was Casing Removed? Yes or No (circle one)

Condition of Casing Poor
Perforations: From To
From To

Date Sealing Performed 8-24-2012
Reason(s) for Sealing New Well

CONTRACTOR
Name Adams-and-Sons Pump Service Inc ODH Registration # 2554
Address 2465 Eatson St North Canton Ohio 44721
City/State/Zip

Signature
I hereby certify the information given is accurate and correct to the best of my knowledge

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
ORIGINAL COPY TO - ODNR, DIVISION OF SOIL AND WATER RESOURCES,
2045 MORSE ROAD BLDG. B, COLS., OHIO 43229-6693
Blue - Customer's copy Pink - Driller's copy Green - Local Health Dept. copy

DNR 7810.12e

WATER WELL SEALING REPORT e-FORM
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

301858

LOCATION

County STARK Township PERRY Section No. ____ Lot No. ____

Owner ADAMS & SONS - SHAW

Address of Well Location 4101 SHEPLER CHURCH RD

City CANTON Zip Code 44708

Well Location Description (120 Characters)

Location of Well in either: State Plane N ☐ S ☐ X ____ +/- ____ ft. Y ____ +/- ____ ft.
OR
Latitude/Longitude Latitude 40.748227 Longitude -81.439313

Elevation of Well 1091.00 +/- ____ ft. Datum Plane: ☐ NAD27 ☒ NAD83

Source of Coordinates: ☒ GPS ☐ Survey ☐ Other ____
Source of Elevation: ☒ GPS ☐ Survey ☐ Other ____

WELL IDENTIFICATION ODNR Well Log Number 2041177 Project Well ID ____

MEASURED CONSTRUCTION DETAILS

Date of measurements 12/17/2012
Depth of Well 320 ft. Static Water Level 110 ft.
Borehole Depth ____ ft. Borehole Diameter 7.875 in.
Casing Diameter 5 in. Casing Length 100 ft. Casing Type PVC

SEALING PROCEDURE

Placement:

	Sealing Material	Volume/Weight Used (Units Required)	Placement Method
From 0 ft. To 320 ft.	Bentonite slurry	396 GALS 900 LBS	Pumped w/ tremie pipe
From ____ ft. To ____ ft.			
From ____ ft. To ____ ft.			
From ____ ft. To ____ ft.			

Condition of Casing GOOD Was Casing Removed? ☐ Yes or ☒ No (check one)

If casing **Not Removed**, was it Perforated? ☐ Yes or ☒ No (check one) Perforations: From ____ ft. To ____ ft.

Date Sealing Performed 12/17/2012
Comments/Reason for Sealing SEDIMENT IN WATER

CONTRACTOR

Name JAMISON WELL DRILLING, INC. ODH Registration # 0391
Address 258 CENTRAL AVE
City/State/Zip MANSFIELD, OH 44905

e-Signature CYNTHIA GOLDEN Filed electronically on 3/26/2013
I hereby certify the information given is accurate and correct to the best of my knowledge.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of sealing.
Distribute additional copies to: Customer, Driller and Local Health Department.

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number: 2041177

Page 1 of 1 for this record.

WELL LOCATION

County: STARK Township: PERRY

Owner/Builder: ADAMS & SONS - SHAW

Address of Well Location: 4101 SHEPLER CHURCH RD

City: CANTON Zip Code +4: 44708

Permit No.: EMERGENCY Section: ____ and/or Lot No. ____

Use of Well: DOMESTIC

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X ____ +/- ____ ft.

S ☐ Y ____ +/- ____ ft.

Latitude, Longitude Coordinates

Latitude: 40.748227 Longitude: -81.439313

Elevation of Well in feet: 1190 +/- ____ ft

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source: GPS

Source of Coordinates: GPS

Well location written description:

Comments on water quality/quantity and well construction:
CLEAR

WELL TEST *

Pre-Pumping Static Level: 110 ft. Date: 12/17/2012

Measured from: GROUND LEVEL

Pumping test method: AIR

Test Rate: 10 gpm Duration of Test: 2 hrs.

Feet of Drawdown: 30 ft. Sustainable Yield: 10 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump: ____ Capacity: ____ gpm

Pump set at: ____ ft. Pitless Type: ____

Pump installed by: OTHER

I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm: JAMISON WELL DRILLING, INC.

Address: 258 CENTRAL AVE

City, State, Zip: MANSFIELD OH 44905

Signed: CYNTHIA GOLDEN Date: 12/18/2012

(Filed Electronically)

ODH Registration Number: 0391

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 Borehole Diameter: 7.875 inches Depth: 98 ft.
Casing Diameter: 5 in. Length: 100 ft. Thickness: 0.265 in.

2 Borehole Diameter: 4.75 inches Depth: 320 ft.
Casing Diameter: ____ in. Length: ____ ft. Thickness: ____ in.

Casing Height Above Ground: 2 ft.

Type 1: PVC
Type 2: ____

Joints 1: Solvent
Joints 2: ____

SCREEN

Diameter: ____ in. Slot Size: ____ in. Screen Length: ____ ft.

Type: ____ Material: ____

Set Between: ____ ft. and ____ ft.

GRAVEL PACK (Filter Pack)

Material/Size: ____ Vol/Wt. Used: ____

Method of Installation: ____

Depth: Placed From: ____ ft. To: ____ ft.

GROUT

Material: Bentonite slurry Vol/Wt. Used: 220/500#

Method of Installation: Pumped w/Tremie pipe

Depth: Placed From: 98 ft. To: 0 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
		SOIL	0	3
BROWN	SANDY	CLAY	3	10
GRAY		CLAYSANDGRAVEL	10	39
GRAY		CLAY & GRAVEL	39	61
GRAY	SANDY	CLAY	61	70
GRAY		COAL AND CLAY	70	71
GRAY	SANDY	CLAY	71	77
GRAY	SANDY	SHALE	77	93
GRAY	HARD	SHALE	93	133
GRAY	HARD	SANDSTONE	133	135
GRAY	SANDY	SHALE	135	137
DARK GRAY	SANDY	SHALE	137	205
GRAY	SANDY	SHALE	205	320

Aquifer Type (Formation producing the most water): SHALE

Date of Well Completion: 12/17/2012 Total Depth of Well: 320 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

DNR 7810.12e

WATER WELL SEALING REPORT e-FORM
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

301859

LOCATION

County STARK Township PERRY Section No. ____ Lot No. ____

Owner ADAMS & SONS - SHAW

Address of Well Location 4101 SHEPLER CHURCH RD

City CANTON Zip Code 44708

Well Location Description (120 Characters)

Location of Well in either: State Plane N ☐ S ☐ X ____ +/- ____ ft. Y ____ +/- ____ ft.
OR
Latitude/Longitude Latitude 40.748227 Longitude -81.439313

Elevation of Well 1091.00 +/- ____ ft. Datum Plane: ☐ NAD27 ☒ NAD83

Source of Coordinates: ☒ GPS ☐ Survey ☐ Other ____
Source of Elevation: ☐ GPS ☐ Survey ☐ Other ____

WELL IDENTIFICATION ODNR Well Log Number 2041957 Project Well ID ____

MEASURED CONSTRUCTION DETAILS

Date of measurements 2/13/2013
Depth of Well 320 ft. Static Water Level 130 ft.
Borehole Depth ____ ft. Borehole Diameter 5 in.
Casing Diameter 5 in. Casing Length 140 ft. Casing Type PVC

SEALING PROCEDURE

Placement:	Sealing Material	Volume/Weight Used Units Required	Placement Method
From 0 ft. To 320 ft.	Bentonite slurry	396 GALS 900 LBS	Pumped w/ tremie pipe
From ____ ft. To ____ ft.			
From ____ ft. To ____ ft.			
From ____ ft. To ____ ft.			

Condition of Casing GOOD Was Casing Removed? ☐ Yes or ☒ No (check one)

If casing **Not Removed**, was it Perforated? ☐ Yes or ☒ No (check one) Perforations: From ____ ft. To ____ ft.

Date Sealing Performed 2/13/2013
Comments/Reason for Sealing SEDIMENT IN WATER

CONTRACTOR

Name JAMISON WELL DRILLING, INC. ODH Registration # 0391
Address 258 CENTRAL AVE
City/State/Zip MANSFIELD, OH 44905

e-Signature CYNTHIA GOLDEN Filed electronically on 3/26/2013
I hereby certify the information given is accurate and correct to the best of my knowledge.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of sealing.
Distribute additional copies to: Customer, Driller and Local Health Department.

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number: 2041957

Page 1 of 1 for this record.

WELL LOCATION

County: STARK Township: PERRY

Owner/Builder: ADAMS & SONS - SHAW

Address of Well Location: 4101 SHEPLER CHURCH RD

City: CANTON Zip Code +4: 44708

Permit No.: 23969 Section: ____ and/or Lot No. ____

Use of Well: DOMESTIC

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X ____ +/- ____ ft.

S ☐ Y ____ +/- ____ ft.

Latitude, Longitude Coordinates

Latitude: 40.748227 Longitude: -81.439313

Elevation of Well in feet: ____ +/- ____ ft

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source ____

Source of Coordinates: GPS

Well location written description:

Comments on water quality/quantity and well construction:
#3

WELL TEST *

Pre-Pumping Static Level: 130 ft. Date: 2/13/2013

Measured from: GROUND LEVEL

Pumping test method: AIR

Test Rate: 12 gpm Duration of Test: 1 hrs.

Feet of Drawdown: 55 ft. Sustainable Yield: 12 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump ____ Capacity ____ gpm

Pump set at ____ ft. Pitless Type ____

Pump installed by: OTHER

I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm: JAMISON WELL DRILLING, INC.

Address: 258 CENTRAL AVE

City, State, Zip: MANSFIELD OH 44905

Signed: CYNTHIA GOLDEN Date: 2/21/2013

(Filed Electronically)

ODH Registration Number: 0391

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 { Borehole Diameter: 5 inches Depth: 138 ft.
Casing Diameter: 5 in. Length: 140 ft. Thickness: 0.265 in.

2 { Borehole Diameter: 4.75 inches Depth: 320 ft.
Casing Diameter: ____ in. Length: ____ ft. Thickness: ____ in.

Casing Height Above Ground: 2 ft.

Type { 1: PVC
2: ____

Joints { 1: Solvent
2: ____

SCREEN

Diameter ____ in. Slot Size ____ in. Screen Length ____ ft.

Type ____ Material ____

Set Between ____ ft. and ____ ft.

GRAVEL PACK (Filter Pack)

Material/Size ____ Vol/Wt. Used ____

Method of Installation ____

Depth: Placed From: ____ ft. To: ____ ft.

GROUT

Material: Bentonite slurry Vol/Wt. Used: 308/700#

Method of Installation: Pumped w/Tremie pipe

Depth: Placed From: 138 ft. To: 0 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
		SOIL	0	5
BROWN		CLAY	5	13
GRAY		CLAY & GRAVEL	13	60
GRAY		SHALE	60	70
		LIMESTONE	70	72
		COAL	72	74
		FIRECLAY	74	76
GRAY	SANDY	SHALE	76	150
		COAL	150	152
GRAY		SHALE	152	280
GRAY		SANDSTONE	280	320

Aquifer Type (Formation producing the most water.): SANDSTONE

Date of Well Completion: 2/13/2013 Total Depth of Well: 320 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

DNR 7810.12e

WATER WELL SEALING REPORT e-FORM
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

301857

LOCATION

County STARK Township PERRY Section No. ____ Lot No. ____

Owner ADAMS & SONS - SHAW

Address of Well Location 4101 SHEPLER CHURCH RD

City CANTON Zip Code 44708

Well Location Description (120 Characters)

Location of Well in either: State Plane N ☐ S ☐ X ____ +/- ____ ft. Y ____ +/- ____ ft.
OR
Latitude/Longitude Latitude 40.748227 Longitude -81.439313

Elevation of Well 1091.00 +/- ____ ft. Datum Plane: ☐ NAD27 ☒ NAD83

Source of Coordinates: ☒ GPS ☐ Survey ☐ Other ____
Source of Elevation: ☐ GPS ☐ Survey ☐ Other ____

WELL IDENTIFICATION ODNR Well Log Number 2041959 Project Well ID ____

MEASURED CONSTRUCTION DETAILS

Date of measurements 12/13/2012
Depth of Well 150 ft. Static Water Level 30 ft.
Borehole Depth ____ ft. Borehole Diameter 8 in.
Casing Diameter 5 in. Casing Length 80 ft. Casing Type PVC

SEALING PROCEDURE

Placement:	Sealing Material	Volume/Weight Used (Units Required)	Placement Method
From 0 ft. To 150 ft.	Bentonite slurry	176 GALS 400 LBS	Pumped w/ tremie pipe
From ____ ft. To ____ ft.			
From ____ ft. To ____ ft.			
From ____ ft. To ____ ft.			

Condition of Casing GOOD Was Casing Removed? ☐ Yes or ☒ No (check one)

If casing **Not Removed**, was it Perforated? ☐ Yes or ☒ No (check one) Perforations: From ____ ft. To ____ ft.

Date Sealing Performed 12/13/2012
Comments/Reason for Sealing HOLE COLLAPSED

CONTRACTOR

Name JAMISON WELL DRILLING, INC. ODH Registration # 0391
Address 258 CENTRAL AVE
City/State/Zip MANSFIELD, OH 44905

e-Signature CYNTHIA GOLDEN Filed electronically on 3/26/2013
I hereby certify the information given is accurate and correct to the best of my knowledge.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of sealing.
Distribute additional copies to: Customer, Driller and Local Health Department.

DNR 7802.05e

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605
Voice (614) 265-6740 Fax (614) 265-6767

Well Log Number: 2041959

Page 1 of 1 for this record.

WELL LOCATION

County: STARK Township: PERRY

Owner/Builder: ADAMS & SONS - SHAW

Address of Well Location: 4101 SHEPLER CHURCH RD

City: CANTON Zip Code +4: 44708

Permit No.: 23969 Section: ____ and/or Lot No. ____

Use of Well: DOMESTIC

Coordinates of Well (Use only one of the below coordinate systems)

State Plane Coordinates

N ☐ X ____ +/- ____ ft.

S ☐ Y ____ +/- ____ ft.

Latitude, Longitude Coordinates

Latitude: 40.748227 Longitude: -81.439313

Elevation of Well in feet: ____ +/- ____ ft

Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source ____

Source of Coordinates: GPS

Well location written description:

Comments on water quality/quantity and well construction:
#1 CLEAR

WELL TEST *

Pre-Pumping Static Level: 30 ft. Date: 12/13/2012

Measured from: GROUND LEVEL

Pumping test method: AIR

Test Rate: 20 gpm Duration of Test: 1 hrs.

Feet of Drawdown: 45 ft. Sustainable Yield: 20 gpm

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

Is Copy Attached? ☐ Yes ☒ No Flowing Well? ☐ Yes ☒ No

PUMP/PITLESS

Type of pump ____ Capacity ____ gpm

Pump set at ____ ft. Pitless Type ____

Pump installed by: OTHER

I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm: JAMISON WELL DRILLING, INC.

Address: 258 CENTRAL AVE

City, State, Zip: MANSFIELD OH 44905

Signed: CYNTHIA GOLDEN Date: 2/21/2013

(Filed Electronically)

ODH Registration Number: 0391

CONSTRUCTION DETAILS

Drilling Method: ROTARY

BOREHOLE/CASING (Measured from ground surface)

1 { Borehole Diameter: 8 inches Depth: 78 ft.
Casing Diameter: 5 in. Length: 80 ft. Thickness: 0.265 in.

2 { Borehole Diameter: 4.75 inches Depth: 150 ft.
Casing Diameter: ____ in. Length: ____ ft. Thickness: ____ in.

Casing Height Above Ground: 2 ft.

Type { 1: PVC
2: ____

Joints { 1: Solvent
2: ____

SCREEN

Diameter ____ in. Slot Size ____ in. Screen Length ____ ft.

Type ____ Material ____

Set Between ____ ft. and ____ ft.

GRAVEL PACK (Filter Pack)

Material/Size ____ Vol/Wt. Used ____

Method of Installation ____

Depth: Placed From: ____ ft. To: ____ ft.

GROUT

Material: Bentonite slurry Vol/Wt. Used: 264/600#

Method of Installation: Pumped w/Tremie pipe

Depth: Placed From: 78 ft. To: 0 ft.

DRILLING LOG*

FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Color	Texture	Formation	From	To
		SOIL	0	5
BROWN		CLAY	5	13
GRAY		CLAY & GRAVEL	13	60
GRAY		SHALE	60	70
		LIMESTONE	70	72
		COAL	72	74
		FIRECLAY	74	76
GRAY	SANDY	SHALE	76	150

Aquifer Type (Formation producing the most water.): SHALE

Date of Well Completion: 12/13/2012 Total Depth of Well: 150 ft.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
Distribute copies of this record to Customer, and Local Health Deptartment.

DNR 7810.10

WATER WELL SEALING REPORT
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

0200044

LOCATION

County: Stark Township: Canton Circle One or Both Section/Lot Number:
Owner/Builder (Circle One or Both): Premier Homes LLC
Address of Well Location: 4110 (Number) Shepler Church (Street Name)
City: Canton Zip Code: 44706
Property Location Description: miles (n, e, s, w) of (nearest intersection)
on the (n, e, s, w) side of (road name)
Location of Well in either: State Plane N ☐ S ☐ X 1040824.1 +/- ft. or m Y 814385 4.5 +/- ft. or m
OR Latitude/Longitude {Check ONE ☐ In Decimal Degrees ☐ Degrees Minutes ☐ Degrees Min. Sec. Latitude Longitude}
Elevation of Well +/- ft. or m Datum Plain: ☐ NAD27 ☐ NAD83
Source of Coordinates: ☒ GPS ☐ Survey ☐ Other

ORIGINAL WELL ODNR Well Log Number Copy attached? Yes or No (circle one)

MEASURED CONSTRUCTION DETAILS

Date of measurements
Depth of Well: 31 ft Static Water Level: 30 ft
Size of Casing: 4 in Length of casing: UNKNOW
Well Condition: Poor

SEALING PROCEDURE

Method of Placement: Gravity

Placement:	From	To	Sealing Material	Volume
	Bottom	Top	Bentonite	250 pd

Was Casing Removed? Yes or No (circle one)
Condition of Casing: Poor
Perforations: From To
From To

Date Sealing Performed: 8-30-2012
Reason(s) for Sealing: New well

CONTRACTOR

Name: Adams and Sons Pump ODH Registration #: 2554
Address: 2605 Easton St
City/State/Zip: North Canton Ohio 44721

Signature
I hereby certify the information given is accurate and correct to the best of my knowledge.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
ORIGINAL COPY TO - ODNR, DIVISION OF SOIL AND WATER RESOURCES,
2045 MORSE ROAD BLDG. B, COLS., OHIO 43229-6693
Blue - Customer's copy Pink - Driller's copy Green - Local Health Dept. copy

DNR 7810.10

WATER WELL SEALING REPORT
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

0200135

LOCATION

County Stark Township Canton Circle One or Both Section/Lot Number

Owner/Builder Richard A Marsh
Circle One or Both

Address of Well Location 4126 (Number) Shepler Church (Street Name)

City Canton Zip Code 44706

Property Location Description ____ miles ____ (n, e, s, w) of ____ (nearest intersection)
on the ____ (n, e, s, w) side of ____ (road name)

Location of Well in either: State Plane N ☐ S ☐ X 40.747149 +/- ____ ft. or m Y 81.439844 +/- ____ ft. or m
OR
Latitude/Longitude {Check ONE ☐ In Decimal Degrees ☐ Degrees Minutes ☐ Degrees Min. Sec.
Latitude ____ Longitude ____}

Elevation of Well ____ +/- ____ ft. or m Datum Plain: ☐ NAD27 ☐ NAD83

Source of Coordinates: ☒ GPS ☐ Survey ☐ Other ____

ORIGINAL WELL ODNR Well Log Number ____ Copy attached? Yes or No (circle one)

MEASURED CONSTRUCTION DETAILS

Date of measurements ____

Depth of Well Unknown Static Water Level Unknown
Size of Casing 5 in Length of casing Unknown
Well Condition Poor

SEALING PROCEDURE

Method of Placement Gravity

Placement:	From	To	Sealing Material	Volume
	Bottom	Top	Bentonite	350 lbs

Was Casing Removed? Yes or No (circle one)

Condition of Casing Poor

Perforations: From ____ To ____
From ____ To ____

Date Sealing Performed 2-12-13

Reason(s) for Sealing Pump Stuck New well [redacted] well Out Side

CONTRACTOR

Name Adams and Sons Pump Service ODH Registration # 2554

Address 2665 Easton St

City/State/Zip Canton Ohio 44721

Signature ____

I hereby certify the information given is accurate and correct to the best of my knowledge.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
ORIGINAL COPY TO - ODNR, DIVISION OF SOIL AND WATER RESOURCES,
2045 MORSE ROAD BLDG. B, COLS., OHIO 43229-6693
Blue - Customer's copy Pink - Driller's copy Green - Local Health Dept. copy

DNR 7810.10

WATER WELL SEALING REPORT
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

0200144

LOCATION

County Stark Township Canton Circle One or Both Section/Lot Number

Owner/Builder Richard A Marsh
Circle One or Both

Address of Well Location 4126 (Number) Shep ler Church (Street Name)

City Canton Zip Code 44706

Property Location Description ____ miles (n, e, s, w) of ____ (nearest intersection)

on the ____ (n, e, s, w) side of ____ (road name)

Location of Well in either: State Plane N ☐ S ☐ X 40.24249 +/- ____ ft. or m Y 81.43984.2 +/- ____ ft. or m

OR Latitude/Longitude {Check ONE ☐ In Decimal Degrees ☐ Degrees Minutes ☐ Degrees Min. Sec.
Latitude ____ Longitude ____}

Elevation of Well ____ +/- ____ ft. or m Datum Plain: ☐ NAD27 ☐ NAD83

Source of Coordinates: ☒ GPS ☐ Survey ☐ Other ____

ORIGINAL WELL

ODNR Well Log Number 493527 Copy attached? Yes or No (circle one)

MEASURED CONSTRUCTION DETAILS

Date of measurements 2-12-13

Depth of Well 48 ft Static Water Level 40 ft

Size of Casing 5 in Length of casing Unknown

Well Condition Poor

SEALING PROCEDURE

Method of Placement Gravity

			Sealing Material	Volume
Placement:	From Bottom	To Top	Bentonite	400 lbs.
	From	To		
	From	To		

Was Casing Removed? Yes or No (circle one)

Condition of Casing Poor

Perforations: From ____ To ____
From ____ To ____

Date Sealing Performed 2-12-13

Reason(s) for Sealing New well
Well inside Basement

CONTRACTOR

Name Adams and Sons Pump ODH Registration # 2554

Address 2665 Easton St

City/State/Zip North Canton Ohio 44721

Signature [signature]

I hereby certify the information given is accurate and correct to the best of my knowledge.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
ORIGINAL COPY TO - ODNR, DIVISION OF SOIL AND WATER RESOURCES,
2045 MORSE ROAD BLDG. B, COLS., OHIO 43229-6693
Blue - Customer's copy Pink - Driller's copy Green - Local Health Dept. copy

WELL LOG AND DRILLING REPORT

ORIGINAL

NO CARBON PAPER NECESSARY – SELF-TRANSCRIBING

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Geological Survey
Fountain Square
Columbus, Ohio 43224 Phone (614) 466-5344

493527

COUNTY Stark TOWNSHIP Canton SECTION OF TOWNSHIP OR LOT NUMBER

OWNER James Huhn ADDRESS 4126 Shepler Church Ave., SW Canton

LOCATION OF PROPERTY Same as above

CONSTRUCTION DETAILS

Casing diameter 5" Length of casing 112

Type of screen Length of screen

Type of pump

Capacity of pump

Depth of pump setting

Date of completion

BAILING OR PUMPING TEST
(specify one by circling)

Test rate 6 gpm Duration of test 1 hrs

Drawdown 70 ft Date 3-12-76

Static level (depth to water) 30 ft

Quality (clear, cloudy, taste, odor) good

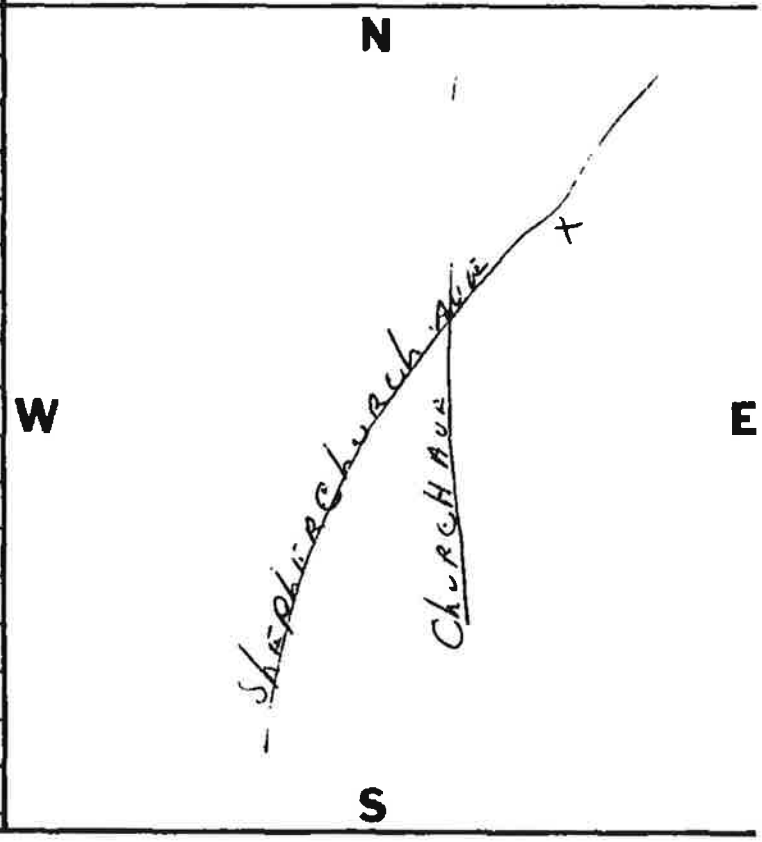
Pump installed by

WELL LOG*

Formations: sandstone, shale, limestone, gravel, clay	From	To
Brown wash	0 ft	15 ft
Gray mud & gravel	15	92
Gray shale	92	95
Limestone	95	98
Clay	98	103
Gray shale	103	127
Dark plastic shale	127	190
Gray shale	190	200

SKETCH SHOWING LOCATION

Locate in reference to numbered state highways, street intersections, county roads, etc.



DRILLING FIRM D. M. Waltz Drilling Co., Inc DATE March 19, 1976

ADDRESS 221 Fifth St., SW, Strasburg SIGNED Paul H. Kate
IB

*If additional space is needed to complete well log, use next consecutive numbered form.

DNR 7810.10

WATER WELL SEALING REPORT
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

0200104

LOCATION

County Stark Township Canton Circle One or Both Section/Lot Number

Owner/Builder Zack Bowman
Circle One or Both

Address of Well Location 4141 (Number) Shepler Church Rd (Street Name)

City Canton Zip Code 44706

Property Location Description miles n, e, s, w of nearest intersection

on the n, e, s, w side of road name

Location of Well in either: State Plane N S X 4074784.3 +/- ft. or m Y 81.439151 +/- ft. or m
OR
Latitude/Longitude (Check ONE In Decimal Degrees) Latitude Degrees Minutes Degrees Min. Sec. Longitude

Elevation of Well +/- ft. or m Datum Plain: NAD27 NAD83

Source of Coordinates: GPS Survey Other

ORIGINAL WELL ODNR Well Log Number Copy attached? Yes or No (circle one)

MEASURED CONSTRUCTION DETAILS Date of measurements

Depth of Well Unknown
Size of Casing 4 in
Well Condition Poor

Static Water Level Unknown
Length of casing Unknown

SEALING PROCEDURE
Method of Placement Gravity

Placement: From Bottom To Top Sealing Material Bentonite Volume 200 pds
From To
From To

Was Casing Removed? Yes or No (circle one)

Condition of Casing Poor
Perforations: From To
From To

Date Sealing Performed 9-14-12
Reason(s) for Sealing New well

CONTRACTOR
Name Adams Sons Pump Service ODH Registration # 2554
Address 1145 Easton St
City/State/Zip North Canton Ohio 44721

Signature

I hereby certify the information given is accurate and correct to the best of my knowledge.

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ORIGINAL COPY TO - ODNR, DIVISION OF SOIL AND WATER RESOURCES,
2045 MORSE ROAD BLDG. B, COLS., OHIO 43229-6693
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DNR 7810.10

WATER WELL SEALING REPORT
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

0200136

LOCATION

County Stark Township Canton Circle One or Both Section/Lot Number

Owner/Builder Brian Baker
Circle One or Both

Address of Well Location 4151 (Number) Sherpler Church (Street Name)

City Canton Zip Code 44706

Property Location Description ____ miles (n, e, s, w) of ____ (nearest intersection)

on the ____ (n, e, s, w) side of ____ (road name)

Location of Well in either: State Plane N ☐ S ☐ X 40.747715 +/- ____ ft. or m Y 81.440541 +/- ____ ft. or m
OR
Latitude/Longitude {Check ONE ☐ In Decimal Degrees ☐ Degrees Minutes ☐ Degrees Min. Sec.
Latitude ____ Longitude ____}

Elevation of Well ____ +/- ____ ft. or m Datum Plain: ☐ NAD27 ☐ NAD83

Source of Coordinates: ☒ GPS ☐ Survey ☐ Other

ORIGINAL WELL ODNR Well Log Number ____ Copy attached? Yes or No (circle one)

MEASURED CONSTRUCTION DETAILS Date of measurements 2-4-13

Depth of Well 180 ft Static Water Level 60 ft
Size of Casing 4 in Length of casing Unknown
Well Condition Poor

SEALING PROCEDURE
Method of Placement Gravity

Placement:	From	To	Sealing Material	Volume
	Bottom	Top	Bentonite	1100 lbs

Was Casing Removed? Yes or No (circle one)

Condition of Casing Poor
Perforations: From ____ To ____
From ____ To ____

Date Sealing Performed 2-4-13
Reason(s) for Sealing New well

CONTRACTOR
Name Adams and Sons Pump ODH Registration # 2554
Address 2665 Easton St
City/State/Zip North Canton Ohio 44721

Signature [signature]
I hereby certify the information given is accurate and correct to the best of my knowledge.

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2045 MORSE ROAD BLDG. B, COLS., OHIO 43229-6693
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DNR 7810.10

WATER WELL SEALING REPORT
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

0200049

LOCATION

County Stark Township Canton Circle One or Both Section/Lot Number

Owner/Builder Scott Zollers
Circle One or Both

Address of Well Location 460 Number Shepler Church Street Name

City Canton Zip Code 44706

Property Location Description miles n, e, s, w of nearest intersection

on the n, e, s, w side of road name

Location of Well in either: State Plane N S X 40 74 76 0.3 +/- ft. or m Y 81 43 95 8.4 +/- ft. or m
OR Latitude/Longitude Check ONE Latitude In Decimal Degrees Degrees Minutes Degrees Min. Sec. Longitude

Elevation of Well +/- ft. or m Datum Plain: NAD27 NAD83

Source of Coordinates: GPS Survey Other

Copy attached? Yes or No (circle one)

ORIGINAL WELL ODNR Well Log Number

MEASURED CONSTRUCTION DETAILS Date of measurements

Depth of Well 65 ft
Size of Casing 4 in
Well Condition Poor

Static Water Level 30 ft
Length of casing unknown

SEALING PROCEDURE

Method of Placement Gravity Sealing Material Bentonite Volume 400

Placement: From Bottom To Top Bentonite
From To
From To

Was Casing Removed? Yes or No (circle one)

Condition of Casing Poor

Perforations: From To
From To

Date Sealing Performed 8-30-2012
Reason(s) for Sealing New well

CONTRACTOR

Name Adams and Sons Pump Service ODH Registration # 2554
Address 2665 Easton St
City/State/Zip North Canton Ohio 44721

Signature

I hereby certify the information given is accurate and correct to the best of my knowledge.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.

ORIGINAL COPY TO - ODNR, DIVISION OF SOIL AND WATER RESOURCES,
2045 MORSE ROAD BLDG. B, COLS., OHIO 43229-6693

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DNR 7810.12e

WATER WELL SEALING REPORT e-FORM
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

300334

LOCATION

County STARK Township PERRY Section No. ____ Lot No. ____

Owner JIM WOODLOCK

Address of Well Location 4180 SHEPLER CHURCH AVE SW

City CANTON Zip Code 44706

Well Location Description (120 Characters)

Location of Well in either: State Plane N ☐ S ☐ X ____ +/- ____ ft. Y ____ +/- ____ ft.
OR
Latitude/Longitude Latitude 40.746233 Longitude -81.44085

Elevation of Well 1075.00 +/- ____ ft. Datum Plane: ☐ NAD27 ☒ NAD83

Source of Coordinates: ☒ GPS ☐ Survey ☐ Other ____
Source of Elevation: ☒ GPS ☐ Survey ☐ Other ____

WELL IDENTIFICATION ODNR Well Log Number ____ Project Well ID ____

MEASURED CONSTRUCTION DETAILS

Date of measurements 9/7/2012
Depth of Well 79 ft. Static Water Level 60 ft.
Borehole Depth 79 ft. Borehole Diameter 4 in.
Casing Diameter 4 in. Casing Length ____ ft. Casing Type Steel

SEALING PROCEDURE

Placement:	Sealing Material	Volume/Weight Used (Units Required)	Placement Method
From 0 ft. To 79 ft.	Bentonite pellets/chunks	560 LBS	Poured (gravity)
From ____ ft. To ____ ft.			
From ____ ft. To ____ ft.			
From ____ ft. To ____ ft.			

Condition of Casing ____ Was Casing Removed? ☐ Yes or ☒ No (check one)

If casing **Not Removed**, was it Perforated? ☐ Yes or ☒ No (check one) Perforations: From ____ ft. To ____ ft.

Date Sealing Performed 9/7/2012
Comments/Reason for Sealing MADE VERY LITTLE WATER

CONTRACTOR

Name GREG ROGERS ENTERPRISES ODH Registration # 02835
Address 820 Stafford
City/State/Zip MINERVA, OH 44657

e-Signature GREGORY A ROGERS Filed electronically on 9/28/2012
I hereby certify the information given is accurate and correct to the best of my knowledge.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of sealing.
Distribute additional copies to: Customer, Driller and Local Health Department.

DNR 7810.10

WATER WELL SEALING REPORT
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

0200101

LOCATION

County Stark Township Canton Circle One or Both Section/Lot Number

Owner/Builder Jason - Cindy McClearg
Circle One or Both

Address of Well Location 4481 Number Shepler Church Street Name

City Canton Zip Code 44706

Property Location Description miles n, e, s, w of nearest intersection road name

on the n, e, s, w side of

Location of Well in either: State Plane N/S X 40.74659.8 +/- ft. or m Y 81.44165.6 +/- ft. or m
OR
Latitude/Longitude Check ONE In Decimal Degrees Degrees Minutes Degrees Min. Sec.
Latitude Longitude

Elevation of Well +/- ft. or m Datum Plain: NAD27 NAD83

Source of Coordinates: GPS Survey Other

ORIGINAL WELL ODNR Well Log Number Copy attached? Yes or No (circle one)

MEASURED CONSTRUCTION DETAILS Date of measurements

Depth of Well Unknown
Size of Casing 7"
Well Condition Poor

Static Water Level Unknown
Length of casing Unknown

SEALING PROCEDURE
Method of Placement Gravity

Placement: From Bottom To Top Sealing Material Bentonite Volume 30 x pds
From To
From To

Was Casing Removed? Yes or No (circle one)

Condition of Casing Poor
Perforations: From To
From To

Date Sealing Performed 9-14-12
Reason(s) for Sealing New well

CONTRACTOR
Name Adams-Sons Pump Service Inc ODH Registration # 2554
Address 2665 Easton, St
City/State/Zip North Canton Ohio 44721

Signature

I hereby certify the information given is accurate and correct to the best of my knowledge

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
ORIGINAL COPY TO - ODNR, DIVISION OF SOIL AND WATER RESOURCES,
2045 MORSE ROAD BLDG. B, COLS., OHIO 43229-6693
Blue - Customer's copy Pink - Driller's copy Green - Local Health Dept. copy

DNR 7810.10

WATER WELL SEALING REPORT
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

0200046

LOCATION

County Stark Township Sterling Circle One or Both Section/Lot Number Wilkes Canton

Owner/Builder Circle One or Both

Address of Well Location 4200 Number #Shepler Church Rd Street Name

City Canton Zip Code 44706

Property Location Description miles n, e, s, w of nearest intersection

on the n, e, s, w side of road name

Location of Well in either: State Plane N S X 40.74636.4 +/- ft. or m Y 81.44207.9 +/- ft. or m OR Latitude/Longitude Check ONE In Decimal Degrees Degrees Minutes Degrees Min. Sec. Latitude Longitude

Elevation of Well +/- ft. or m Datum Plain: NAD27 NAD83

Source of Coordinates: X GPS Survey Other

ORIGINAL WELL ODNR Well Log Number Copy attached? Yes or No (circle one)

MEASURED CONSTRUCTION DETAILS Date of measurements

Depth of Well 66 ft Static Water Level 53 ft

Size of Casing 4 in Length of casing

Well Condition Poor

SEALING PROCEDURE

Method of Placement Gravity Sealing Material Bentonite Volume 400 pds

Placement: From Bottom To Top
From To
From To

Was Casing Removed? Yes or No (circle one)

Condition of Casing Poor

Perforations: From To
From To

Date Sealing Performed 8-30-2012

Reason(s) for Sealing New Well

CONTRACTOR

Name Adams Sons Pump Service ODH Registration # 2554

Address 2665 Easton St

City/State/Zip North Canton Ohio 44721

Signature

I hereby certify the information given is accurate and correct to the best of my knowledge.

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ORIGINAL COPY TO - ODNR, DIVISION OF SOIL AND WATER RESOURCES,
2045 MORSE ROAD BLDG. B, COLS., OHIO 43229-6693

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DNR 7810.10

WATER WELL SEALING REPORT
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

0200103

LOCATION

County Stark Township Canton Circle One or Both Section/Lot Number

Owner/Builder Jack Urban
Circle One or Both

Address of Well Location 4210 Number Shepler Church Street Name

City Canton Zip Code 44706

Property Location Description miles n, e, s, w of nearest intersection

on the n, e, s, w side of road name

Location of Well in either: State Plane N S X 4017462 4.16 +/- ft. or m Y 8144231.8 +/- ft. or m
OR
Latitude/Longitude Check ONE In Decimal Degrees Degrees Minutes Degrees Min. Sec.
Latitude Longitude

Elevation of Well +/- ft. or m Datum Plain: NAD27 NAD83

Source of Coordinates: GPS Survey Other

ORIGINAL WELL ODNR Well Log Number Copy attached? Yes or No (circle one)

MEASURED CONSTRUCTION DETAILS Date of measurements

Depth of Well 68 ft Static Water Level 44 ft
Size of Casing 4 in Length of casing Unknown
Well Condition Poor

SEALING PROCEDURE
Method of Placement Gravity

Placement: From Bottom To Top Sealing Material Bentonite Volume 400 pds
From To
From To

Was Casing Removed? Yes or No (circle one)

Condition of Casing Poor
Perforations: From To
From To

Date Sealing Performed 9-14-12
Reason(s) for Sealing New well

CONTRACTOR
Name Adams-Son Pump Service ODH Registration # 2554
Address 2665 Easton St
City/State/Zip North Canton Ohio 44721

Signature

I hereby certify the information given is accurate and correct to the best of my knowledge.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
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2045 MORSE ROAD BLDG. B, COLS., OHIO 43229-6693
Blue - Customer's copy Pink - Driller's copy Green - Local Health Dept. copy

DNR 7810.10

WATER WELL SEALING REPORT
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

0200108

LOCATION

County Stark Township Canton Circle One or Both Section/Lot Number

Owner/Builder Kenneth Brown
Circle One or Both

Address of Well Location 4215 Number Shepler Church Street Name

City Canton Zip Code 44706

Property Location Description miles n, e, s, w of nearest intersection

on the n, e, s, w side of road name

Location of Well in either: State Plane N S X 4074620.0 +/- ft. or m Y 8144246.0 +/- ft. or m
OR
Latitude/Longitude Check ONE Latitude In Decimal Degrees Degrees Minutes Degrees Min. Sec Longitude

Elevation of Well +/- ft. or m Datum Plain: NAD27 ☐ NAD83

Source of Coordinates: X GPS Survey ☐ Other

ORIGINAL WELL

ODNR Well Log Number 252928 Copy attached? Yes or No (circle one)

MEASURED CONSTRUCTION DETAILS

Date of measurements

Depth of Well Unkown
Size of Casing 4in
Well Condition Poor

Static Water Level Unknown
Length of casing Unknown

SEALING PROCEDURE

Method of Placement Gravity

Placement: From Bottom To Top Sealing Material Bentonite Volume 650 pds
From To
From To

Was Casing Removed? Yes or No (circle one)

Condition of Casing Poor

Perforations: From To
From To

Date Sealing Performed 9-28-12

Reason(s) for Sealing New Well

CONTRACTOR

Name Adams Sons Pump Service ODH Registration # 2554

Address 2665 Easton St

City/State/Zip North Canton Ohio 44721

Signature

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2045 MORSE ROAD BLDG. B, COLS., OHIO 43229-6693

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WELL LOG AND DRILLING REPORT

ORIGINAL

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus, Ohio

PLEASE USE PENCIL OR TYPEWRITER. DO NOT USE INK.

No. 252928

County Stark Township Perry Section of Township

Owner Guy V. Hurless Address Route # Massillon Ohio

Location of property 4215 Shipley Church Road, S.W. Canton Ohio

CONSTRUCTION DETAILS

Casing diameter 4" Length of casing 96'

Type of screen Length of screen

Type of pump

Capacity of pump

Depth of pump setting

Date of completion

BAILING OR PUMPING TEST

Pumping rate G.P.M. Duration of test hrs.

Drawdown 40 ft. Date

Developed capacity

Static level—depth to water 40 ft.

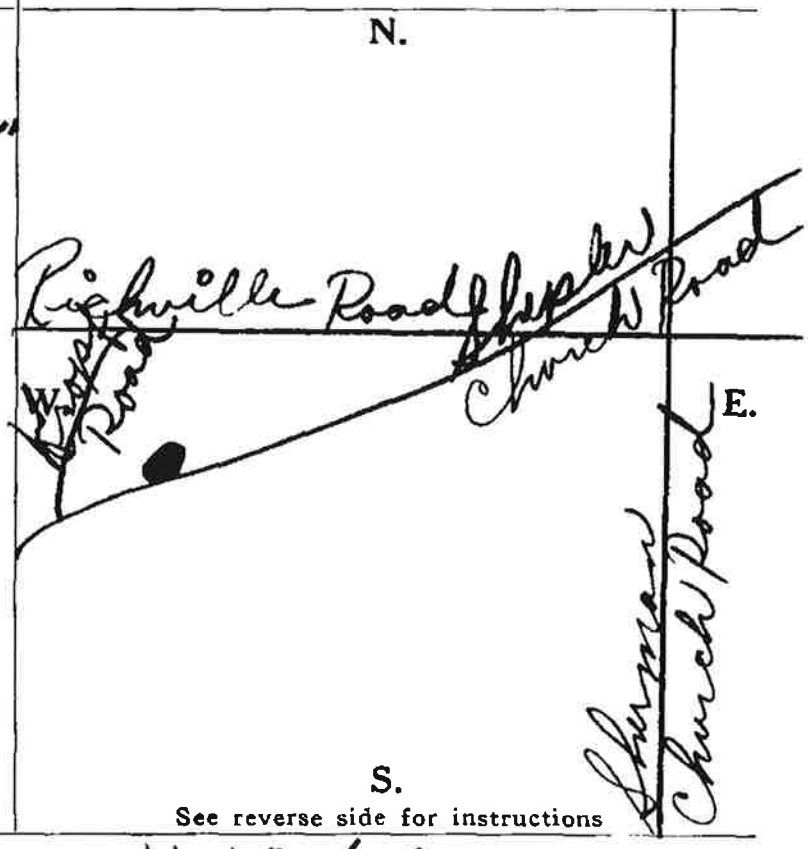
Pump installed by

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
Brown Clay	0 Feet	10 Ft.
Sand + Gravel	10'	43'
Limestone cap	43'	43'6"
Sand + Gravel	43'6"	54'
Gray Shale	54'	85'
Limestone	85'	89'
Gray Sandstone	89'	96'
Gray Shale	96'	110'
Limestone	110'	112'
Sandy Shale	112'	148'

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

DNR 7810.10

WATER WELL SEALING REPORT
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

0200138

LOCATION

County Stark Township Canton Circle One or Both Section/Lot Number

Owner/Builder Dave Laher
Circle One or Both

Address of Well Location 4202 (Number) Sherman Church (Street Name)

City Canton Zip Code 44706

Property Location Description ____ miles (n, e, s, w) of ____ (nearest intersection)

on the ____ (n, e, s, w) side of ____ (road name)

Location of Well in either: State Plane N ☐ S ☐ X 40.75062.2 +/- ____ ft. or m Y 81.41954.8 +/- ____ ft. or m
OR
Latitude/Longitude {Check ONE ☐ In Decimal Degrees ☐ Degrees Minutes ☐ Degrees Min. Sec.
Latitude ____ Longitude ____}

Elevation of Well ____ +/- ____ ft. or m Datum Plain: ☐ NAD27 ☐ NAD83

Source of Coordinates: ☑ GPS ☐ Survey ☐ Other

ORIGINAL WELL ODNR Well Log Number ____ Copy attached? Yes or No (circle one)

MEASURED CONSTRUCTION DETAILS Date of measurements 2-6-13

Depth of Well 63 ft Static Water Level 41 ft
Size of Casing 4" Length of casing Unkown
Well Condition Poor

SEALING PROCEDURE

Method of Placement Gravity

Placement:	From	To	Sealing Material	Volume
	Bottom	Top	Bentonite	350 lbs

Was Casing Removed? Yes or No (circle one)

Condition of Casing Poor

Perforations: From ____ To ____
From ____ To ____

Date Sealing Performed 2-6-13
Reason(s) for Sealing New Well

CONTRACTOR

Name Adams and Sons Pump Service ODH Registration # 2554
Address 2645 Easton St
City/State/Zip Canton Ohio 44721

Signature ____
I hereby certify the information given is accurate and correct to the best of my knowledge.

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2045 MORSE ROAD BLDG. B, COLS., OHIO 43229-6693
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DNR 7810.10

WATER WELL SEALING REPORT
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

0200149

LOCATION

County Stark Township Perry

Circle One or Both
Owner/Builder Diana Scott Section/Lot Number
Circle One or Both

Address of Well Location 3810 Number Whipple Ave Street Name

City Canton Zip Code 44708

Property Location Description miles n, e, s, w of nearest intersection

on the n, e, s, w side of road name

Location of Well in either: State Plane N S X 40.79781.0 +/- ft. or m Y 81.37156.9 +/- ft. or m
OR
Latitude/Longitude Check ONE In Decimal Degrees | Degrees Minutes | | Degrees Min. Sec.
Latitude Longitude

Elevation of Well +/- ft. or m Datum Plain: NAD27 NAD83

Source of Coordinates: X GPS Survey Other

ORIGINAL WELL ODNR Well Log Number ~~Unknown~~ 643125 Copy attached? Yes or No (circle one)

MEASURED CONSTRUCTION DETAILS Date of measurements

Depth of Well 57
Size of Casing 5 in
Well Condition Poor

Static Water Level 47
Length of casing Unknown

SEALING PROCEDURE
Method of Placement Gravity Sealing Material Bentonite Volume 500 lbs

Placement: From To
From To
From To

Was Casing Removed? Yes or No (circle one)

Condition of Casing Poor
Perforations: From To
From To

Date Sealing Performed 11-15-12
Reason(s) for Sealing New Well

CONTRACTOR
Name Adams-Sons Pump Service Inc ODH Registration # 2554
Address 2665 Easton St
City/State/Zip North Canton Ohio 44721

Signature

I hereby certify the information given is accurate and correct to the best of my knowledge.

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2045 MORSE ROAD BLDG. B, COLS., OHIO 43229-6693
Blue - Customer's copy Pink - Driller's copy Green - Local Health Dept. copy

WELL LOG AND DRILLING REPORT

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
Fountain Square
Columbus, Ohio 43224

NO CARBON PAPER NECESSARY – SELF-TRANSCRIBING

Permit #16737

g.a.

643125

COUNTY Stark TOWNSHIP Canton SECTION OF TOWNSHIP 30

OWNER Elmer Parks ADDRESS 3810 Whipple Ave. SW, Canton, O 44706

LOCATION OF PROPERTY Same

CONSTRUCTION DETAILS

Casing diameter 5" Length of casing 50'

Type of screen _____ Length of screen _____

Type of pump Sub

Capacity of pump 580 G.P.H.

Depth of pump setting 30'

Date of completion Same

BAILING OR PUMPING TEST
(specify one by circling)

Test rate 10 gpm Duration of test 2 hrs

Drawdown none ft Date 10/29/83

Static level (depth to water) 20 ft

Quality (clear, cloudy, taste, odor) clear

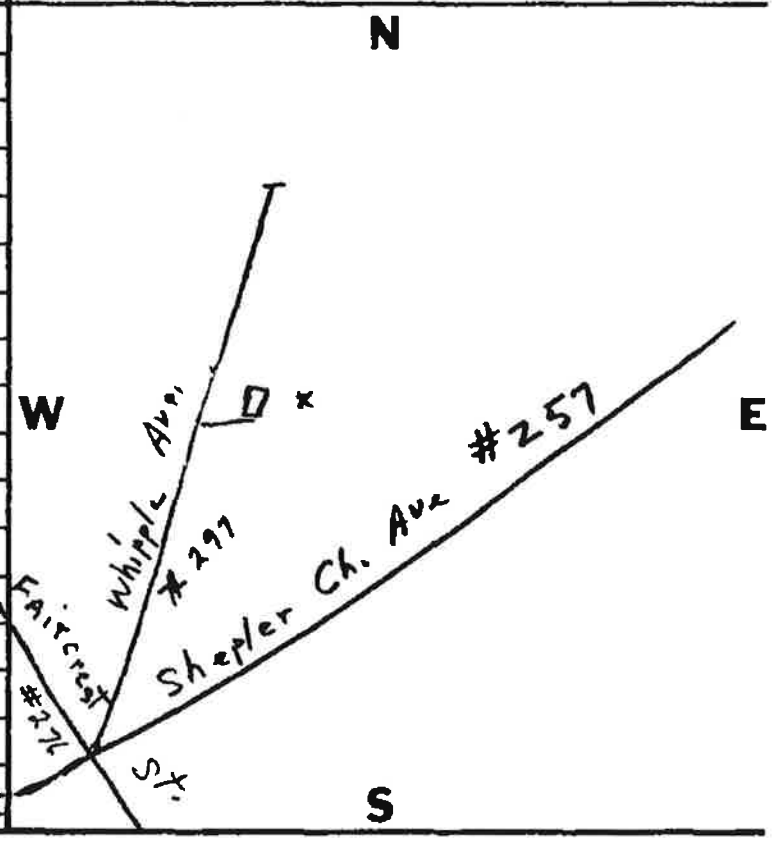
Pump installed by Same

WELL LOG*

Formations: sandstone, shale, limestone, gravel, clay	From	To
drift	0 ft	7 ft
sand, & gravel	7	17
sand	17	29
~~XXX~~ clay	29	47
dark shale	47	53

SKETCH SHOWING LOCATION

Locate in reference to numbered state highways, street intersections, county roads, etc.



DRILLING FIRM Adams & Sons Well Drilling Inc. DATE 10/31/83

ADDRESS 4310 38th St. NW, Canton, O 44718 SIGNED John Adams

*If additional space is needed to complete well log, use next consecutive numbered form.

ORIGINAL COPY - ODNR, DIVISION OF WATER, FOUNTAIN SQ., COLS., OHIO 43224

DNR 7810.12e

WATER WELL SEALING REPORT e-FORM
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

302176

LOCATION

County STARK Township PERRY Section No. ____ Lot No. ____

Owner MADISON BRUFFY

Address of Well Location 4530 SURMAY AVE SW

City CANTON Zip Code 44706

Well Location Description (120 Characters)

Location of Well in either: State Plane N ☐ S ☐ X ____ +/- ____ ft. Y ____ +/- ____ ft.
OR
Latitude/Longitude Latitude 40.741917 Longitude -81.44165

Elevation of Well 1128.00 +/- ____ ft. Datum Plane: ☐ NAD27 ☒ NAD83

Source of Coordinates: ☒ GPS ☐ Survey ☐ Other ____
Source of Elevation: ☒ GPS ☐ Survey ☐ Other ____

WELL IDENTIFICATION ODNR Well Log Number ____ Project Well ID ____

MEASURED CONSTRUCTION DETAILS

Date of measurements 5/8/2013
Depth of Well 28 ft. Static Water Level 22 ft.
Borehole Depth 28 ft. Borehole Diameter 4 in.
Casing Diameter 4.5 in. Casing Length ____ ft. Casing Type ____

SEALING PROCEDURE

Placement:	Sealing Material	Volume/Weight Used (Units Required)	Placement Method
From 0 ft. To 28 ft.	Bentonite pellets/chunks	200 LBS	Poured (gravity)
From ____ ft. To ____ ft.			
From ____ ft. To ____ ft.			
From ____ ft. To ____ ft.			

Condition of Casing DETERIORATED Was Casing Removed? ☐ Yes or ☒ No (check one)

If casing **Not Removed**, was it Perforated? ☐ Yes or ☒ No (check one) Perforations: From ____ ft. To ____ ft.

Date Sealing Performed 5/8/2013
Comments/Reason for Sealing

CONTRACTOR

Name GREG ROGERS ENTERPRISES ODH Registration # 02835
Address 820 Stafford
City/State/Zip MINERVA, OH 44657

e-Signature GREGORY A ROGERS Filed electronically on 5/12/2013
I hereby certify the information given is accurate and correct to the best of my knowledge.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of sealing.
Distribute additional copies to: Customer, Driller and Local Health Department.

DNR 7810.11

0203994

WATER WELL SEALING REPORT
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Soil and Water Resources
2045 Morse Road, Bldg B
Columbus, OH 43229-6693
Voice: (614) 265-6740 Fax: (614) 265-6767

LOCATION

County: STARK Township: PERRY Circle One or Both Section/Lot Number: —

Owner/Builder (Circle One or Both): JOSEPH PICKETT

Address of Well Location: 4691 (Number) SHERMONT AVE SW (Street Name)

City: CANTON OH Zip Code: 44706

Property Location Description: 1/10 miles NORTH (n, e, s, w) of Richville Dr + SHERMONT (nearest intersection)

on the WEST (n, e, s, w) side of SHERMONT (road name)

Location of Well in either: State Plane N/S X +/- ft. or m Y +/- ft. or m OR Latitude/Longitude (Check ONE: In Decimal Degrees / Degrees Minutes, Degrees Min. Sec.)
Latitude 40- 4001 Longitude 81-3304

Elevation of Well: 1020.00 +/- ft. or m Datum Plain: NAD27 NAD83

Source of Coordinates: X GPS Survey Other

ORIGINAL WELL ODNR Well Log Number: N/A Copy attached? Yes or No (circle one)

MEASURED CONSTRUCTION DETAILS Date of measurements: 10-27-12

Depth of Well: 51 f Static Water Level: 35 f
Size of Casing: 4" Length of casing: N/A
Well Condition: POOR, INSIDE HOUSE LACK OF WATER

SEALING PROCEDURE
Method of Placement: DRY POUR

Placement: From 51 To SURF Sealing Material: BENTONITE Volume: 350#
From To
From To

Was Casing Removed? Yes or No (circle one)

Condition of Casing: GOOD
Perforations: From — To —
From To

Date Sealing Performed: 10-27-12
Reason(s) for Sealing: LACK OF WATER, WILL CAVED

CONTRACTOR
Name: BEITRIS PUMP + WELL SERV ODH Registration #: 2429
Address: 10127 JOHNSFORD RD
City/State/Zip: BEACHCITY OH 44608

Signature: [signature]
I hereby certify the information given is accurate and correct to the best of my knowledge.

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
ORIGINAL COPY TO - ODNR, DIVISION OF SOIL AND WATER RESOURCES,
2045 MORSE ROAD BLDG. B, COLS., OHIO 43229-6693
Blue - Customer's copy Pink - Driller's copy Green - Local Health Dept. copy

Prepared by:

Curtis J Coe, CPG, PG, and James Raab

Ohio Department of Natural Resources
Division of Soil and Water Resources
2045 Morse Road
Columbus Ohio 43229

January 2014

John Kasich,*Governor* James Zehringer, *Director* Mike Bailey, *Chief*