

Appendix D:

BORING LOGS

Exhibit 20. Well and boring reports near the Lock and Dam 2 Protective Island Project

Minnesota Unique Well Number

249905

County Dakota
Quad Prescott
Quad ID 102D

MINNESOTA DEPARTMENT OF HEALTH WELL AND BORING REPORT Minnesota Statutes Chapter 1031

Entry Date 02/10/1995
Update Date 07/11/2018
Received Date

| Well Name LOCK NO. 2 Township 115 Range 17 Dir Section W 21 Subsection BBACD Elevation 697 ft. Elev. Method 7.5 minute topographic map (+/- 5 feet) | | | | Well Depth 312 ft. Depth Completed 312 ft. Date Well Completed | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|------|----------|-------|---|------|----------|-------|----------|---------------|---|-----|--|--|-----------|-----|-----|--|--|--------------------|-----|-----|--|--|------------|-----|-----|--|--|--|--|
| Address C/W 1350 LOCK & DAM RD HASTINGS MN 55033 | | | | Drill Method Cable Tool Drill Fluid | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stratigraphy Information <table border="1"> <thead> <tr> <th>Geological Material</th> <th>From</th> <th>To (ft.)</th> <th>Color</th> <th>Hardness</th> </tr> </thead> <tbody> <tr> <td>GLACIAL DRIFT</td> <td>0</td> <td>189</td> <td></td> <td></td> </tr> <tr> <td>FRANCONIA</td> <td>189</td> <td>263</td> <td></td> <td></td> </tr> <tr> <td>IRONTON-GALESVILLE</td> <td>263</td> <td>305</td> <td></td> <td></td> </tr> <tr> <td>EAU CLAIRE</td> <td>305</td> <td>312</td> <td></td> <td></td> </tr> </tbody> </table> | | | | Geological Material | From | To (ft.) | Color | Hardness | GLACIAL DRIFT | 0 | 189 | | | FRANCONIA | 189 | 263 | | | IRONTON-GALESVILLE | 263 | 305 | | | EAU CLAIRE | 305 | 312 | | | Use public supply/non-community Status Active Well Hydrofractured? Yes <input type="checkbox"/> No <input type="checkbox"/> From To Casing Type Single casing Joint Drive Shoe? Yes <input type="checkbox"/> No <input type="checkbox"/> Above/Below 0 ft. Casing Diameter 8 in. Weight 232 ft. lbs./ft. Open Hole From 232 ft. To 312 ft. Screen? <input type="checkbox"/> Type Make Static Water Level 1 ft. land surface Measure 02/03/1995 Pumping Level (below land surface) Wellhead Completion Pitless adapter manufacturer Model <input type="checkbox"/> Casing Protection <input type="checkbox"/> 12 in. above grade <input type="checkbox"/> At-grade (Environmental Wells and Borings ONLY) Grouting Information Well Grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Specified Nearest Known Source of Contamination feet Direction Type Well disinfected upon completion? <input type="checkbox"/> Yes <input type="checkbox"/> No Pump <input type="checkbox"/> Not Installed Date Installed Manufacturer's name Model Number HP 0 Volt Length of drop pipe ft Capacity g.p. Typ Abandoned Does property have any not in use and not sealed well(s)? <input type="checkbox"/> Yes <input type="checkbox"/> No Variance Was a variance granted from the MDH for this well? <input type="checkbox"/> Yes <input type="checkbox"/> No Miscellaneous First Bedrock Tunnel City/Lone Rock Fm Aquifer Tunnel City-Eau Last Strat Eau Claire Formation Depth to Bedrock 189 ft Located by Minnesota Geological Survey Locate Method Digitized - scale 1:24,000 or larger (Digitizing Table) System UTM - NAD83, Zone 15, Meters X 510389 Y 4956171 Unique Number Verification Information from Input Date 07/18/1996 Angled Drill Hole Well Contractor Minnesota Geological Survey MGS Licensee Business Lic. or Reg. No. Name of Driller | |
| Geological Material | From | To (ft.) | Color | Hardness | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GLACIAL DRIFT | 0 | 189 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FRANCONIA | 189 | 263 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| IRONTON-GALESVILLE | 263 | 305 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EAU CLAIRE | 305 | 312 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Remarks GAMMA LOGGED AND TV 2-3-1995 BY GEOSPHERE MIDWEST. | | | | Minnesota Well Index Report | | | | | | | | | | | | | | | | | | | | | | | | | | |

249905

Printed on 08/16/2019
HE-01205-15

559259

County Dakota
 Quad Prescott
 Quad ID 102D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING REPORT
Minnesota Statutes Chapter 1031

Entry Date 12/14/1995
 Update Date 07/11/2018
 Received Date

| Well Name LOCK & DAM | Township 115 | Range 17 | Dir Section W 21 | Subsection BACBBA | Well Depth 305 ft. | Depth Completed 305 ft. | Date Well Completed 05/22/1995 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--------------------------------|----------------------------|---|---|-----------------------------------|--|---------|----------|------|---|----|-------|------|------|----|-----|------|--------|------|-----|-----|-----|--------|------|-----|-----|------|------|----------|-----|-----|--------|------|----------|-----|-----|--------|------|----------|-----|-----|---------|--------|----------|-----|-----|---------|--------|---|-------------------|--|
| Elevation 700 ft. | Elev. Method 7.5 minute topographic map (+/- 5 feet) | | | | Drill Method Non-specified Rotary | Drill Fluid Bentonite | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Address C/W 1350 LOCK & DAM RD HASTINGS MN 55033 | | | | | Use public supply/non-comm.-transient | Status Active | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stratigraphy Information <table border="1"> <thead> <tr> <th>Geological Material</th> <th>From</th> <th>To (ft.)</th> <th>Color</th> <th>Hardness</th> </tr> </thead> <tbody> <tr> <td>SAND</td> <td>0</td> <td>38</td> <td>BROWN</td> <td>SOFT</td> </tr> <tr> <td>CLAY</td> <td>38</td> <td>138</td> <td>BLUE</td> <td>MEDIUM</td> </tr> <tr> <td>CLAY</td> <td>138</td> <td>178</td> <td>RED</td> <td>MEDIUM</td> </tr> <tr> <td>ROCK</td> <td>178</td> <td>185</td> <td>BLUE</td> <td>HARD</td> </tr> <tr> <td>LIMEROCK</td> <td>185</td> <td>187</td> <td>YELLOW</td> <td>HARD</td> </tr> <tr> <td>LIMEROCK</td> <td>187</td> <td>195</td> <td>YELLOW</td> <td>HARD</td> </tr> <tr> <td>SANDROCK</td> <td>195</td> <td>261</td> <td>GRN/GRY</td> <td>MEDIUM</td> </tr> <tr> <td>SANDROCK</td> <td>261</td> <td>305</td> <td>GRN/GRY</td> <td>MEDIUM</td> </tr> </tbody> </table> | | | | | Geological Material | From | To (ft.) | Color | Hardness | SAND | 0 | 38 | BROWN | SOFT | CLAY | 38 | 138 | BLUE | MEDIUM | CLAY | 138 | 178 | RED | MEDIUM | ROCK | 178 | 185 | BLUE | HARD | LIMEROCK | 185 | 187 | YELLOW | HARD | LIMEROCK | 187 | 195 | YELLOW | HARD | SANDROCK | 195 | 261 | GRN/GRY | MEDIUM | SANDROCK | 261 | 305 | GRN/GRY | MEDIUM | Well Hydrofractured? Yes <input type="checkbox"/> No <input type="checkbox"/> | From To | |
| | | | | | Geological Material | From | To (ft.) | Color | Hardness | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | SAND | 0 | 38 | BROWN | SOFT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | CLAY | 38 | 138 | BLUE | MEDIUM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | CLAY | 138 | 178 | RED | MEDIUM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | ROCK | 178 | 185 | BLUE | HARD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | LIMEROCK | 185 | 187 | YELLOW | HARD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | LIMEROCK | 187 | 195 | YELLOW | HARD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | SANDROCK | 195 | 261 | GRN/GRY | MEDIUM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | SANDROCK | 261 | 305 | GRN/GRY | MEDIUM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Casing Type Single casing | Joint Welded | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Drive Shoe? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | Above/Below 0 ft. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Casing Diameter 8 in. | Weight 255 ft. | Hole Diameter 12 in. | 255 ft. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 28.5 lbs./ft. | 8 in. | 305 ft. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Open Hole Screen? <input type="checkbox"/> | From 255 ft. | To 305 ft. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | Type Make | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | Static Water Level 10 ft. land surface | Measure 05/22/1995 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | Pumping Level (below land surface) 20 ft. 15 hrs. Pumping at | 155 g.p.m. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | Wellhead Completion Pitless adapter manufacturer BAKER Model 10.5PS810W <input type="checkbox"/> Casing Protection <input type="checkbox"/> 12 in. above grade <input type="checkbox"/> At-grade (Environmental Wells and Borings ONLY) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Specified Material Amount From To neat cement 6 Cubic yards 0 ft. 255 ft. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | Nearest Known Source of Contamination 60 feet South Direction Septic tank/drain field Type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | Pump <input type="checkbox"/> Not Installed Date Installed 07/04/1995 Manufacturer's name GRUNDFOS Model Number 135S100-6 HP 10 Volt 460 Length of drop pipe 84 ft Capacity 135 g.p. Type Submersible | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | Abandoned Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | Variance Was a variance granted from the MDH for this well? <input type="checkbox"/> Yes <input type="checkbox"/> No | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | Miscellaneous First Bedrock Tunnel City/Lone Rock Fm Aquifer Wonewoc Last Strat Wonewoc Sandstone Depth to Bedrock 187 ft Located by Minnesota Department of Health Locate Method GPS SA Off (averaged) (15 meters) System UTM - NAD83, Zone 15, Meters X 510430 Y 4956083 Unique Number Verification Information from Input Date 08/14/2000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | Angled Drill Hole | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | Well Contractor Kimmes-Bauer 19521 MILLER, M. Licensee Business Lic. or Reg. No. Name of Driller | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

255874

County Dakota
 Quad St Paul Park
 Quad ID 102C

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING REPORT
Minnesota Statutes Chapter 1031

Entry Date 09/26/2002
 Update Date 07/11/2018
 Received Date

| | | | | | | | | | | |
|--|------------------------------------|---------------------|---|----------------|---|---|------------------------------|-----------------------------|--------------------|-----------|
| Well Name | Township | Range | Dir | Section | Subsection | Well Depth | Depth Completed | Date Well Completed | | |
| | 115 | 17 | W | 20 | DBADAD | 410 ft. | 410 ft. | | | |
| Elevation | 793 ft. | Elev. Method | 7.5 minute topographic map (+/- 5 feet) | | | | | | | |
| Address | | | | | | Use | domestic | Status | | |
| Well | 1976 NININGER RD HASTINGS MN 55033 | | | | | | | Sealed | | |
| Stratigraphy Information Geological Material From To (ft.) Color Hardness GLACIAL DRIFT 0 410 | | | | | | Well Hydrofractured? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | From | To |
| | | | | | | Casing Type | Single casing | | Joint | |
| | | | | | | Drive Shoe? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | Above/Below | 1 ft. |
| | | | | | | Casing Diameter | Weight | Hole Diameter | | |
| | | | | | | 4 in. To | 407 ft. | lbs./ft. | 4 in. To 410 ft. | |
| | | | | | | Open Hole | From | ft. | To | ft. |
| | | | | | | Screen? | <input type="checkbox"/> | Type | Make | |
| | | | | | | Static Water Level | | | | |
| | | | | | | 96.5 ft. | land surface | Measure | 09/17/2002 | |
| | | | | | | Pumping Level (below land surface) | | | | |
| Wellhead Completion | | | | | | | | | | |
| Pitless adapter manufacturer | | | | | Model | | | | | |
| <input type="checkbox"/> Casing Protection | | | | | <input checked="" type="checkbox"/> 12 in. above grade | | | | | |
| <input type="checkbox"/> At-grade (Environmental Wells and Borings ONLY) | | | | | | | | | | |
| Grouting Information | | | | | Well Grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Specified | | | | | |
| Nearest Known Source of Contamination | | | | | | | | | | |
| feet Direction | | | | | Type | | | | | |
| Well disinfected upon completion? <input type="checkbox"/> Yes <input type="checkbox"/> No | | | | | | | | | | |
| Pump <input type="checkbox"/> Not Installed | | | | | Date Installed | | | | | |
| Manufacturer's name | | | | | | | | | | |
| Model Number | | | | | HP | | | | | |
| Length of drop pipe | | | | | ft | | | | | |
| Capacity | | | | | g.p. | | | | | |
| Typ | | | | | | | | | | |
| Abandoned | | | | | | | | | | |
| Does property have any not in use and not sealed well(s)? <input type="checkbox"/> Yes <input type="checkbox"/> No | | | | | | | | | | |
| Variance | | | | | | | | | | |
| Was a variance granted from the MDH for this well? <input type="checkbox"/> Yes <input type="checkbox"/> No | | | | | | | | | | |
| Miscellaneous | | | | | | | | | | |
| First Bedrock | | | | | Aquifer | | | | | |
| Last Strat | | | | | Quaternary deposit | | | | | |
| Depth to Bedrock | | | | | ft | | | | | |
| Located by | | | | | Minnesota Geological Survey | | | | | |
| Locate Method | | | | | Digitization (Screen) - Map (1:24,000) (15 meters or | | | | | |
| System | | | | | UTM - NAD83, Zone 15, Meters | | | | | |
| Unique Number Verification | | | | | Information from | | | | | |
| Input Date | | | | | 09/19/2002 | | | | | |
| Angled Drill Hole | | | | | | | | | | |
| Well Contractor | | | | | | | | | | |
| Minnesota Geological Survey | | | | | MGS | | | | | |
| Licensee Business | | | | | Lic. or Reg. No. | | | | | |
| Name of Driller | | | | | | | | | | |
| Remarks | | | | | | | | | | |
| GAMMA LOGGED 9-17-2002. | | | | | | | | | | |
| IT IS POSSIBLE TO HAVE A SCREEN IN BOTTOM OF WELL. | | | | | | | | | | |
| WELL SEALED 10-30-2002 BY 19302. | | | | | | | | | | |
| Minnesota Well Index Report | | | | | | | | | | |
| 255874 | | | | | | | | | | |
| Printed on 08/16/2019 | | | | | | | | | | |
| HE-01205-15 | | | | | | | | | | |

233923

County Dakota
 Quad Prescott
 Quad ID 102D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING REPORT
Minnesota Statutes Chapter 1031

Entry Date 03/19/2003
 Update Date 08/18/2014
 Received Date

| Well Name BORING-69 - | Township 115 | Range 17 | Dir W | Section 16 | Subsection CDCBDD | Well Depth 144 ft. | Depth Completed 144 ft. | Date Well Completed 04/29/1937 | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---------------------------------|--------------------|-----------------|----------------------|-----------------------------|--|-----------------------------------|--|-------|----------|-------------|---|----|--|--|--------------------|----|----|--|--|----------------|----|-----|--|--|-----------|-----|-----|--|--|--|--|--|
| Elevation 665 ft. | Elev. Method Surveyed | | | | | Drill Method | Drill Fluid | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Address | | | | | | Use other (specify in remarks) Status Unknown | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | Geological Material | From | To (ft.) | Color | Hardness | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | MEDIUM SAND | 0 | 45 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | CLAY & SILT, TRACE | 45 | 99 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | MED. TO COARSE | 99 | 116 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | SANDSTONE | 116 | 144 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | Casing Type Joint | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | Drive Shoe? Yes <input type="checkbox"/> No <input type="checkbox"/> Above/Below | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | Open Hole From ft. To ft. | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Screen? <input type="checkbox"/> Type Make | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Static Water Level -17. ft. land surface Measure 04/29/1937 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pumping Level (below land surface) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Wellhead Completion Pitless adapter manufacturer Model <input type="checkbox"/> Casing Protection <input type="checkbox"/> 12 in. above grade <input type="checkbox"/> At-grade (Environmental Wells and Borings ONLY) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Grouting Information Well Grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Specified | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nearest Known Source of Contamination feet Direction Type Well disinfected upon completion? <input type="checkbox"/> Yes <input type="checkbox"/> No | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pump <input type="checkbox"/> Not Installed Date Installed Manufacturer's name Model Number HP Volt Length of drop pipe ft Capacity g.p. Typ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Abandoned Does property have any not in use and not sealed well(s)? <input type="checkbox"/> Yes <input type="checkbox"/> No | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Variance Was a variance granted from the MDH for this well? <input type="checkbox"/> Yes <input type="checkbox"/> No | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Miscellaneous First Bedrock Tunnel City/Lone Rock Fm Aquifer Last Strat Tunnel City/Lone Rock Fm Depth to Bedrock 116 ft Located by Minnesota Geological Survey Locate Method Digitized - scale 1:24,000 or larger (Digitizing Table) System UTM - NAD83, Zone 15, Meters X 510496 Y 4956392 Unique Number Verification Information from Input Date 01/01/1990 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Angled Drill Hole | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Well Contractor Licensee Business Lic. or Reg. No. Name of Driller | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Remarks ARMY CORP OF ENGINEERS BORING. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

233924

County Dakota
 Quad Prescott
 Quad ID 102D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING REPORT
Minnesota Statutes Chapter 1031

Entry Date 03/19/2003
 Update Date 11/08/2005
 Received Date

| Well Name BORING-68 - | Township 115 | Range 17 | Dir W | Section 16 | Subsection CDCCAB | Well Depth 119 ft. | Depth Completed 119 ft. | Date Well Completed 05/20/1937 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---------------------------------|--------------------|-----------------|----------------------|-----------------------------|--|-----------------------------------|--|-------|----------|-------------|---|----|--|--|------------------|----|----|--|--|--------------------|----|-----|--|--|--------------|-----|-----|--|--|--------------------|-----|-----|--|--|-------------------|-----|-----|--|--|--|--|--|
| Elevation 666 ft. | Elev. Method Surveyed | | | | | Drill Method | Drill Fluid | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Address | | | | | | Use other (specify in remarks) Status Unknown | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stratigraphy Information <table border="1"> <thead> <tr> <th>Geological Material</th> <th>From</th> <th>To (ft.)</th> <th>Color</th> <th>Hardness</th> </tr> </thead> <tbody> <tr> <td>MEDIUM SAND</td> <td>0</td> <td>42</td> <td></td> <td></td> </tr> <tr> <td>SILT, SOME CLAY,</td> <td>42</td> <td>57</td> <td></td> <td></td> </tr> <tr> <td>CLAY & SILT, TRACE</td> <td>57</td> <td>100</td> <td></td> <td></td> </tr> <tr> <td>MEDIUM SAND,</td> <td>100</td> <td>111</td> <td></td> <td></td> </tr> <tr> <td>CLAY & SILT, TRACE</td> <td>111</td> <td>116</td> <td></td> <td></td> </tr> <tr> <td>CLAY, TRACE SILT,</td> <td>116</td> <td>119</td> <td></td> <td></td> </tr> </tbody> </table> | | | | | | Geological Material | From | To (ft.) | Color | Hardness | MEDIUM SAND | 0 | 42 | | | SILT, SOME CLAY, | 42 | 57 | | | CLAY & SILT, TRACE | 57 | 100 | | | MEDIUM SAND, | 100 | 111 | | | CLAY & SILT, TRACE | 111 | 116 | | | CLAY, TRACE SILT, | 116 | 119 | | | Well Hydrofractured? Yes <input type="checkbox"/> No <input type="checkbox"/> From To | | |
| | | | | | | Geological Material | From | To (ft.) | Color | Hardness | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | MEDIUM SAND | 0 | 42 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | SILT, SOME CLAY, | 42 | 57 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | CLAY & SILT, TRACE | 57 | 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | MEDIUM SAND, | 100 | 111 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | CLAY & SILT, TRACE | 111 | 116 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | CLAY, TRACE SILT, | 116 | 119 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | Casing Type Joint | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | Drive Shoe? Yes <input type="checkbox"/> No <input type="checkbox"/> Above/Below | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Open Hole From ft. To ft. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Screen? <input type="checkbox"/> Type Make | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Static Water Level 19.5 ft. land surface Measure 05/20/1937 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pumping Level (below land surface) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Wellhead Completion Pitless adapter manufacturer Model <input type="checkbox"/> Casing Protection <input type="checkbox"/> 12 in. above grade <input type="checkbox"/> At-grade (Environmental Wells and Borings ONLY) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Grouting Information Well Grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Specified | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nearest Known Source of Contamination feet Direction Type Well disinfected upon completion? <input type="checkbox"/> Yes <input type="checkbox"/> No | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pump <input type="checkbox"/> Not Installed Date Installed Manufacturer's name Model Number HP Volt Length of drop pipe ft Capacity g.p. Typ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Abandoned Does property have any not in use and not sealed well(s)? <input type="checkbox"/> Yes <input type="checkbox"/> No | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Variance Was a variance granted from the MDH for this well? <input type="checkbox"/> Yes <input type="checkbox"/> No | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Miscellaneous First Bedrock Aquifer Last Strat clay/sand/silt-no peb. Depth to Bedrock ft Located by Minnesota Geological Survey Locate Method Digitized - scale 1:24,000 or larger (Digitizing Table) System UTM - NAD83, Zone 15, Meters X 510476 Y 4956370 Unique Number Verification Information from Input Date 01/01/1990 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Angled Drill Hole | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Well Contractor Licensee Business Lic. or Reg. No. Name of Driller | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Remarks

ARMY CORP OF ENGINEERS BORING.

233925

County Dakota

Quad Prescott

Quad ID 102D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING REPORT
Minnesota Statutes Chapter 1031

Entry Date 03/19/2003

Update Date 11/08/2005

Received Date

| | | | | | | | | |
|--|---------------------------------|--------------------|-----------------|----------------------|-----------------------------|---|-----------------------------------|--|
| Well Name BORING-67 - | Township 115 | Range 17 | Dir W | Section 16 | Subsection CDCCAD | Well Depth 107 ft. | Depth Completed 107 ft. | Date Well Completed 04/26/1937 |
| Elevation 655 ft. | Elev. Method Surveyed | | | | | Drill Method | Drill Fluid | |
| Address | | | | | | Use other (specify in remarks) Status Unknown | | |
| | | | | | | Well Hydrofractured? Yes <input type="checkbox"/> No <input type="checkbox"/> From To | | |
| | | | | | | Casing Type Joint | | |
| | | | | | | Drive Shoe? Yes <input type="checkbox"/> No <input type="checkbox"/> Above/Below | | |
| Stratigraphy Information | | | | | | | | |
| Geological Material | From | To (ft.) | Color | Hardness | | | | |
| SEWER SLUDGE & | 0 | 7 | | | | | | |
| M. SAND, SOME SILT & | 7 | 28 | | | | | | |
| CLAY & SILT, TRACE | 28 | 93 | | | | | | |
| COARSE SAND, SOME | 93 | 101 | | | | | | |
| CLAY & SILT | 101 | 105 | | | | | | |
| CLAY, SOME GRAVEL | 105 | 107 | | | | | | |
| | | | | | | Open Hole From ft. To ft. | | |
| | | | | | | Screen? <input type="checkbox"/> Type Make | | |
| | | | | | | Static Water Level -28. ft. land surface Measure 04/26/1937 | | |
| | | | | | | Pumping Level (below land surface) | | |
| | | | | | | Wellhead Completion Pitless adapter manufacturer Model <input type="checkbox"/> Casing Protection <input type="checkbox"/> 12 in. above grade <input type="checkbox"/> At-grade (Environmental Wells and Borings ONLY) | | |
| | | | | | | Grouting Information Well Grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Specified | | |
| | | | | | | Nearest Known Source of Contamination feet Direction Type Well disinfected upon completion? <input type="checkbox"/> Yes <input type="checkbox"/> No | | |
| | | | | | | Pump <input type="checkbox"/> Not Installed Date Installed Manufacturer's name Model Number HP Volt Length of drop pipe ft Capacity g.p. Typ | | |
| | | | | | | Abandoned Does property have any not in use and not sealed well(s)? <input type="checkbox"/> Yes <input type="checkbox"/> No | | |
| | | | | | | Variance Was a variance granted from the MDH for this well? <input type="checkbox"/> Yes <input type="checkbox"/> No | | |
| | | | | | | Miscellaneous First Bedrock Aquifer Last Strat pebbly sand/silt/clay Depth to Bedrock ft Located by Minnesota Geological Survey Locate Method Digitized - scale 1:24,000 or larger (Digitizing Table) System UTM - NAD83, Zone 15, Meters X 510507 Y 4956371 Unique Number Verification Information from Input Date 01/01/1990 | | |
| Remarks ARMY CORP OF ENGINEERS BORING. | | | | | | Angled Drill Hole | | |
| | | | | | | Well Contractor | | |
| | | | | | | Licensee Business Lic. or Reg. No. Name of Driller | | |

233926

County Dakota
 Quad Prescott
 Quad ID 102D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING REPORT
Minnesota Statutes Chapter 1031

Entry Date 03/19/2003
 Update Date 07/11/2018
 Received Date

| Well Name BORING-119 - | Township 115 | Range 17 | Dir Section W 21 | Subsection BBAAAB | Well Depth 152 ft. | Depth Completed 152 ft. | Date Well Completed 08/10/1937 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---------------------------------|--------------------|--|-----------------------------|---|-----------------------------------|--|-------|----------|------|---|---|--|--|-------------|---|----|--|--|------|----|----|--|--|-------------|----|----|--|--|------|----|----|--|--|------|----|----|--|--|-------------|----|----|--|--|------|----|----|--|--|-------------|----|-----|--|--|------|-----|-----|--|--|------|-----|-----|--|--|-------------|-----|-----|--|--|------|-----|-----|--|--|------|-----|-----|--|--|--|--|--|
| Elevation 685 ft. | Elev. Method Surveyed | | | | Drill Method | Drill Fluid | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Address | | | | | Use other (specify in remarks) Status Unknown | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stratigraphy Information <table border="1"> <thead> <tr> <th>Geological Material</th> <th>From</th> <th>To (ft.)</th> <th>Color</th> <th>Hardness</th> </tr> </thead> <tbody> <tr><td>SAND</td><td>0</td><td>6</td><td></td><td></td></tr> <tr><td>CLAY & SILT</td><td>6</td><td>29</td><td></td><td></td></tr> <tr><td>SILT</td><td>29</td><td>32</td><td></td><td></td></tr> <tr><td>CLAY & SILT</td><td>32</td><td>43</td><td></td><td></td></tr> <tr><td>SAND</td><td>43</td><td>57</td><td></td><td></td></tr> <tr><td>SILT</td><td>57</td><td>60</td><td></td><td></td></tr> <tr><td>CLAY & SILT</td><td>60</td><td>65</td><td></td><td></td></tr> <tr><td>SILT</td><td>65</td><td>72</td><td></td><td></td></tr> <tr><td>CLAY & SILT</td><td>72</td><td>111</td><td></td><td></td></tr> <tr><td>SAND</td><td>111</td><td>124</td><td></td><td></td></tr> <tr><td>CLAY</td><td>124</td><td>139</td><td></td><td></td></tr> <tr><td>CLAY & SILT</td><td>139</td><td>146</td><td></td><td></td></tr> <tr><td>CLAY</td><td>146</td><td>152</td><td></td><td></td></tr> <tr><td>SAND</td><td>152</td><td>152</td><td></td><td></td></tr> </tbody> </table> | | | | | Geological Material | From | To (ft.) | Color | Hardness | SAND | 0 | 6 | | | CLAY & SILT | 6 | 29 | | | SILT | 29 | 32 | | | CLAY & SILT | 32 | 43 | | | SAND | 43 | 57 | | | SILT | 57 | 60 | | | CLAY & SILT | 60 | 65 | | | SILT | 65 | 72 | | | CLAY & SILT | 72 | 111 | | | SAND | 111 | 124 | | | CLAY | 124 | 139 | | | CLAY & SILT | 139 | 146 | | | CLAY | 146 | 152 | | | SAND | 152 | 152 | | | Well Hydrofractured? Yes <input type="checkbox"/> No <input type="checkbox"/> From To | | |
| | | | | | Geological Material | From | To (ft.) | Color | Hardness | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | SAND | 0 | 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | CLAY & SILT | 6 | 29 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | SILT | 29 | 32 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | CLAY & SILT | 32 | 43 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | SAND | 43 | 57 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | SILT | 57 | 60 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | CLAY & SILT | 60 | 65 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | SILT | 65 | 72 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CLAY & SILT | 72 | 111 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SAND | 111 | 124 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CLAY | 124 | 139 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CLAY & SILT | 139 | 146 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CLAY | 146 | 152 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SAND | 152 | 152 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Casing Type | | | Joint | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Drive Shoe? Yes <input type="checkbox"/> No <input type="checkbox"/> | | | Above/Below | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Open Hole From ft. To ft. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Screen? <input type="checkbox"/> Type | | | Make | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Static Water Level -1.9 ft. land surface | | | Measure 08/10/1937 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pumping Level (below land surface) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Wellhead Completion Pitless adapter manufacturer Model <input type="checkbox"/> Casing Protection <input type="checkbox"/> 12 in. above grade <input type="checkbox"/> At-grade (Environmental Wells and Borings ONLY) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Grouting Information Well Grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Specified | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nearest Known Source of Contamination feet Direction Type Well disinfected upon completion? <input type="checkbox"/> Yes <input type="checkbox"/> No | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pump <input type="checkbox"/> Not Installed Date Installed Manufacturer's name Model Number HP Volt Length of drop pipe ft Capacity g.p. Typ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Abandoned Does property have any not in use and not sealed well(s)? <input type="checkbox"/> Yes <input type="checkbox"/> No | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Variance Was a variance granted from the MDH for this well? <input type="checkbox"/> Yes <input type="checkbox"/> No | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Miscellaneous First Bedrock Aquifer Last Strat sand Depth to Bedrock ft Located by Minnesota Geological Survey Locate Method Digitized - scale 1:24,000 or larger (Digitizing Table) System UTM - NAD83, Zone 15, Meters X 510353 Y 4956270 Unique Number Verification Information from Input Date 01/01/1990 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Remarks ARMY CORP OF ENGINEERS BORING. | | | Angled Drill Hole | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | Well Contractor Licensee Business Lic. or Reg. No. Name of Driller | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

233927

County Dakota
 Quad Prescott
 Quad ID 102D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING REPORT
Minnesota Statutes Chapter 1031

Entry Date 03/19/2003
 Update Date 11/08/2005
 Received Date

| Well Name BORING-118 - | Township 115 | Range 17 | Dir Section W 16 | Subsection CCBDAC | Well Depth 157 ft. | Depth Completed 157 ft. | Date Well Completed 07/29/1937 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---------------------------------|--------------------|--|-----------------------------|---|-----------------------------------|--|-------|----------|------|---|---|--|--|-------------|---|----|--|--|------|----|----|--|--|------|----|----|--|--|-------------|----|----|--|--|------|----|----|--|--|------|----|----|--|--|-------------|----|-----|--|--|------|-----|-----|--|--|------|-----|-----|--|--|-------------|-----|-----|--|--|--|--|--|
| Elevation 681 ft. | Elev. Method Surveyed | | | | Drill Method | Drill Fluid | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Address | | | | | Use other (specify in remarks) Status Unknown | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stratigraphy Information <table border="1"> <thead> <tr> <th>Geological Material</th> <th>From</th> <th>To (ft.)</th> <th>Color</th> <th>Hardness</th> </tr> </thead> <tbody> <tr><td>SILT</td><td>0</td><td>3</td><td></td><td></td></tr> <tr><td>CLAY & SILT</td><td>3</td><td>14</td><td></td><td></td></tr> <tr><td>SAND</td><td>14</td><td>16</td><td></td><td></td></tr> <tr><td>SILT</td><td>16</td><td>18</td><td></td><td></td></tr> <tr><td>CLAY & SILT</td><td>18</td><td>31</td><td></td><td></td></tr> <tr><td>SAND</td><td>31</td><td>52</td><td></td><td></td></tr> <tr><td>SILT</td><td>52</td><td>61</td><td></td><td></td></tr> <tr><td>CLAY & SILT</td><td>61</td><td>109</td><td></td><td></td></tr> <tr><td>SAND</td><td>109</td><td>121</td><td></td><td></td></tr> <tr><td>CLAY</td><td>121</td><td>139</td><td></td><td></td></tr> <tr><td>CLAY & SILT</td><td>139</td><td>157</td><td></td><td></td></tr> </tbody> </table> | | | | | Geological Material | From | To (ft.) | Color | Hardness | SILT | 0 | 3 | | | CLAY & SILT | 3 | 14 | | | SAND | 14 | 16 | | | SILT | 16 | 18 | | | CLAY & SILT | 18 | 31 | | | SAND | 31 | 52 | | | SILT | 52 | 61 | | | CLAY & SILT | 61 | 109 | | | SAND | 109 | 121 | | | CLAY | 121 | 139 | | | CLAY & SILT | 139 | 157 | | | Well Hydrofractured? Yes <input type="checkbox"/> No <input type="checkbox"/> From To | | |
| | | | | | Geological Material | From | To (ft.) | Color | Hardness | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | SILT | 0 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | CLAY & SILT | 3 | 14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | SAND | 14 | 16 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | SILT | 16 | 18 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | CLAY & SILT | 18 | 31 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | SAND | 31 | 52 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | SILT | 52 | 61 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | CLAY & SILT | 61 | 109 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SAND | 109 | 121 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CLAY | 121 | 139 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CLAY & SILT | 139 | 157 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Casing Type | | | Joint | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Drive Shoe? Yes <input type="checkbox"/> No <input type="checkbox"/> | | | Above/Below | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Open Hole From ft. To ft. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Screen? <input type="checkbox"/> Type | | | Make | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Static Water Level -6.3 ft. land surface | | | Measure 07/29/1937 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pumping Level (below land surface) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Wellhead Completion Pitless adapter manufacturer Model <input type="checkbox"/> Casing Protection <input type="checkbox"/> 12 in. above grade <input type="checkbox"/> At-grade (Environmental Wells and Borings ONLY) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Grouting Information Well Grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Specified | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nearest Known Source of Contamination feet Direction Type Well disinfected upon completion? <input type="checkbox"/> Yes <input type="checkbox"/> No | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pump <input type="checkbox"/> Not Installed Date Installed Manufacturer's name Model Number HP Volt Length of drop pipe ft Capacity g.p. Typ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Abandoned Does property have any not in use and not sealed well(s)? <input type="checkbox"/> Yes <input type="checkbox"/> No | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Variance Was a variance granted from the MDH for this well? <input type="checkbox"/> Yes <input type="checkbox"/> No | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Miscellaneous First Bedrock Aquifer Last Strat silt+clay Depth to Bedrock ft Located by Minnesota Geological Survey Locate Method Digitized - scale 1:24,000 or larger (Digitizing Table) System UTM - NAD83, Zone 15, Meters X 510143 Y 4956545 Unique Number Verification Information from Input Date 01/01/1990 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Remarks ARMY CORP OF ENGINEERS BORING. | | | Angled Drill Hole | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | Well Contractor Licensee Business Lic. or Reg. No. Name of Driller | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

233928

County Dakota

Quad Prescott

Quad ID 102D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING REPORT
Minnesota Statutes Chapter 1031

Entry Date 03/19/2003

Update Date 07/11/2018

Received Date

| | | | | | | | | |
|----------------------------------|---------------------------------|--------------------|-----------------|----------------------|-----------------------------|--|--|--|
| Well Name BORING-117 - | Township 115 | Range 17 | Dir W | Section 21 | Subsection BABCDD | Well Depth 147 ft. | Depth Completed 147 ft. | Date Well Completed 08/00/1937 |
| Elevation 683 ft. | Elev. Method Surveyed | | | | Drill Method | Drill Fluid | | |
| Address | | | | | | Use other (specify in remarks) Status Unknown | | |
| | | | | | | Well Hydrofractured? Yes <input type="checkbox"/> No <input type="checkbox"/> From To | | |
| | | | | | | Casing Type Joint | | |
| | | | | | | Drive Shoe? Yes <input type="checkbox"/> No <input type="checkbox"/> Above/Below | | |
| Stratigraphy Information | | | | | | | | |
| Geological Material | | From | To (ft.) | Color | Hardness | | | |
| SAND | | 0 | 12 | | | | | |
| CLAY & SILT | | 12 | 20 | | | | | |
| SAND | | 20 | 60 | | | | | |
| SILT | | 60 | 69 | | | | | |
| CLAY & SILT | | 69 | 75 | | | | | |
| SAND | | 75 | 77 | | | | | |
| CLAY & SILT | | 77 | 116 | | | | | |
| SAND | | 116 | 127 | | | | | |
| CLAY | | 127 | 136 | | | | | |
| CLAY & SILT | | 136 | 147 | | | | | |
| | | | | | | Open Hole From ft. To ft. | | |
| | | | | | | Screen? <input type="checkbox"/> Type Make | | |
| | | | | | | Static Water Level | | |
| | | | | | | Pumping Level (below land surface) | | |
| | | | | | | Wellhead Completion | | |
| | | | | | | Pitless adapter manufacturer | Model | |
| | | | | | | <input type="checkbox"/> Casing Protection | <input type="checkbox"/> 12 in. above grade | |
| | | | | | | <input type="checkbox"/> At-grade (Environmental Wells and Borings ONLY) | | |
| | | | | | | Grouting Information | Well Grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Specified | |
| | | | | | | Nearest Known Source of Contamination | | |
| | | | | | | feet | Direction | Type |
| | | | | | | Well disinfected upon completion? <input type="checkbox"/> Yes <input type="checkbox"/> No | | |
| | | | | | | Pump <input type="checkbox"/> Not Installed | Date Installed | |
| | | | | | | Manufacturer's name | | |
| | | | | | | Model Number | HP | Volt |
| | | | | | | Length of drop pipe ft | Capacity g.p. | Type |
| | | | | | | Abandoned | | |
| | | | | | | Does property have any not in use and not sealed well(s)? <input type="checkbox"/> Yes <input type="checkbox"/> No | | |
| | | | | | | Variance | | |
| | | | | | | Was a variance granted from the MDH for this well? <input type="checkbox"/> Yes <input type="checkbox"/> No | | |
| | | | | | | Miscellaneous | | |
| | | | | | | First Bedrock | Aquifer | |
| | | | | | | Last Strat silt+clay | Depth to Bedrock | ft |
| | | | | | | Located by Minnesota Geological Survey | | |
| | | | | | | Locate Method Digitized - scale 1:24,000 or larger (Digitizing Table) | | |
| | | | | | | System UTM - NAD83, Zone 15, Meters | X 510480 | Y 4956115 |
| | | | | | | Unique Number Verification | Information from | Input Date 01/01/1990 |
| | | | | | | Angled Drill Hole | | |
| | | | | | | Well Contractor | | |
| | | | | | | Licensee Business | Lic. or Reg. No. | Name of Driller |
| Remarks | | | | | | | | |
| ARMY CORP OF ENGINEERS BORING. | | | | | | | | |