

825627

CountyOtter Tail  
QuadDent  
Quad ID237C

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

Entry Date10/03/2017  
Update Date10/22/2018  
Received Date01/26/2018

| <div>Well NameSAZAMA, AL</div> <div>Township135</div> <div>Range40</div> <div>Dir SectionW 4</div> <div>SubsectionAADCCA</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <div>Well Depth90 ft.</div> <div>Depth Completed90 ft.</div> <div>Date Well Completed05/17/2017</div> |                                                                                                                                               |          |        |          |      |   |    |        |        |      |    |    |      |        |      |    |    |      |      |      |    |    |      |        |      |    |    |      |      |      |    |    |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                    |                              |                                                                                                                                               |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|----------|--------|----------|------|---|----|--------|--------|------|----|----|------|--------|------|----|----|------|------|------|----|----|------|--------|------|----|----|------|------|------|----|----|------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <div>Elevation1364.8</div> <div>Elev. MethodLiDAR 1m DEM (MNDNR)</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <div>Drill MethodNon-specified Rotary</div> <div>Drill FluidBentonite</div>                           |                                                                                                                                               |          |        |          |      |   |    |        |        |      |    |    |      |        |      |    |    |      |      |      |    |    |      |        |      |    |    |      |      |      |    |    |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                    |                              |                                                                                                                                               |
| <div>Address</div> <div>C/W39787 35 CH DENT MN 56528</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <div>Use domestic</div> <div>StatusActive</div>                                                       |                                                                                                                                               |          |        |          |      |   |    |        |        |      |    |    |      |        |      |    |    |      |      |      |    |    |      |        |      |    |    |      |      |      |    |    |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                    |                              |                                                                                                                                               |
| <div>Stratigraphy Information</div> <table><thead><tr><th>Geological Material</th><th>From</th><th>To (ft.)</th><th>Color</th><th>Hardness</th></tr></thead><tbody><tr><td>CLAY</td><td>0</td><td>18</td><td>YELLOW</td><td>MEDIUM</td></tr><tr><td>CLAY</td><td>18</td><td>23</td><td>BLUE</td><td>MEDIUM</td></tr><tr><td>SAND</td><td>23</td><td>64</td><td>GRAY</td><td>SOFT</td></tr><tr><td>SAND</td><td>64</td><td>69</td><td>GRAY</td><td>MEDIUM</td></tr><tr><td>SAND</td><td>69</td><td>78</td><td>GRAY</td><td>SOFT</td></tr><tr><td>SAND</td><td>78</td><td>90</td><td>GRAY</td><td>MEDIUM</td></tr></tbody></table> | Geological Material                                                                                   | From                                                                                                                                          | To (ft.) | Color  | Hardness | CLAY | 0 | 18 | YELLOW | MEDIUM | CLAY | 18 | 23 | BLUE | MEDIUM | SAND | 23 | 64 | GRAY | SOFT | SAND | 64 | 69 | GRAY | MEDIUM | SAND | 69 | 78 | GRAY | SOFT | SAND | 78 | 90 | GRAY | MEDIUM | <div>Well Hydrofractured?<div>Yes<input type="checkbox"/></div><div>No<input checked="" type="checkbox"/></div><div>From</div><div>To</div></div> <div>Casing TypeSingle casing<div>JointUnknown</div></div> <div>Drive Shoe?<div>Yes<input type="checkbox"/></div><div>No<input checked="" type="checkbox"/></div><div>Above/Below</div></div> <div><div>Casing Diameter</div><div>Weight</div><div>Hole Diameter</div><div>4 in. To 85 ft. lbs./ft.</div><div>7.8 in. To 20 ft.</div><div>6.7 in. To 90 ft.</div></div> <div><div>Open Hole</div><div>Fromft.</div><div>Toft.</div><div>Screen?<input checked="" type="checkbox"/></div><div>Typestainless</div><div>MakeJOHNSON</div><div>DiameterSlot/GauzeLengthSet</div><div>4 in. 185 ft. 85 ft. 90 ft.</div></div> <div><div>Static Water Level</div><div>18 ft. land surface</div><div>Measure</div><div>05/17/2017</div></div> <div><div>Pumping Level (below land surface)</div><div>90 ft. 2 hrs. Pumping at</div><div>80 g.p.m.</div></div> <div><div>Wellhead Completion</div><div>Pitless adapter manufacturerMONITORModelB4B0</div><div><input type="checkbox"/> Casing Protection<input type="checkbox"/> 12 in. above grade</div><div><input type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)</div></div> <div><div>Grouting Information</div><div>Well Grouted?<input checked="" type="checkbox"/> Yes<input type="checkbox"/> No<input type="checkbox"/> Not Specified</div><div>MaterialAmountFromTo</div><div>bentonite4 Sacksft. 50 ft.</div></div> <div><div>Nearest Known Source of Contamination</div><div>60 feetEast DirectionOther Type</div><div>Well disinfected upon completion?<input checked="" type="checkbox"/> Yes<input type="checkbox"/> No</div></div> <div><div>Pump<input type="checkbox"/> Not InstalledDate Installed05/17/2017</div><div>Manufacturer's nameFLOWISE</div><div>Model Number10P4S05-HP0.5Volt230</div><div>Length of drop pipe60 ftCapacity10 g.p.TypSubmersible</div></div> <div><div>Abandoned</div><div>Does property have any not in use and not sealed well(s)?<input type="checkbox"/> Yes<input checked="" type="checkbox"/> No</div></div> <div><div>Variance</div><div>Was a variance granted from the MDH for this well?<input type="checkbox"/> Yes<input checked="" type="checkbox"/> No</div></div> <div><div>Miscellaneous</div><div>First Bedrock</div><div>AquiferQuat. buried</div><div>Last Strat sand-grayDepth to Bedrockft</div><div>Located byMinnesota Department of Health</div><div>Locate MethodGPS SA Off (averaged) (15 meters)</div><div>SystemUTM - NAD83, Zone 15, MetersX 291299Y 5157534</div><div>Unique Number VerificationInfo/GPS from dataInput Date06/13/2017</div></div> <tr><td rowspan="3"><div>Remarks</div><div>NEAREST SOURCE OF CONTAMINATION-PLUMBING FLOOR DRAIN</div></td><td><div>Angled Drill Hole</div></td></tr> <tr><td><div>Well Contractor</div><div>Antonsen Well Drilling, Inc.2147FREEMAN, M.</div><div>Licensee BusinessLic. or Reg. No.Name of Driller</div></td></tr> | <div>Remarks</div> <div>NEAREST SOURCE OF CONTAMINATION-PLUMBING FLOOR DRAIN</div> | <div>Angled Drill Hole</div> | <div>Well Contractor</div> <div>Antonsen Well Drilling, Inc.2147FREEMAN, M.</div> <div>Licensee BusinessLic. or Reg. No.Name of Driller</div> |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | CLAY                                                                                                  | 0                                                                                                                                             | 18       | YELLOW | MEDIUM   |      |   |    |        |        |      |    |    |      |        |      |    |    |      |      |      |    |    |      |        |      |    |    |      |      |      |    |    |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                    |                              |                                                                                                                                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | CLAY                                                                                                  | 18                                                                                                                                            | 23       | BLUE   | MEDIUM   |      |   |    |        |        |      |    |    |      |        |      |    |    |      |      |      |    |    |      |        |      |    |    |      |      |      |    |    |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                    |                              |                                                                                                                                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | SAND                                                                                                  | 23                                                                                                                                            | 64       | GRAY   | SOFT     |      |   |    |        |        |      |    |    |      |        |      |    |    |      |      |      |    |    |      |        |      |    |    |      |      |      |    |    |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                    |                              |                                                                                                                                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | SAND                                                                                                  | 64                                                                                                                                            | 69       | GRAY   | MEDIUM   |      |   |    |        |        |      |    |    |      |        |      |    |    |      |      |      |    |    |      |        |      |    |    |      |      |      |    |    |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                    |                              |                                                                                                                                               |
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Minnesota Well Index Report

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