

617630

County Sherburne
Quad Elk River
Quad ID 137D

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

Entry Date03/18/2002

Update Date08/18/2014

Received Date

Well Name VANMAN	Township 32	Range 26	Dir Section W 11	Subsection ABCCDC	Well Depth 230 ft.	Depth Completed 230 ft.	Date Well Completed 10/22/1998																										
Elevation 892 ft.	Elev. Method 7.5 minute topographic map (+/- 5 feet)	Drill Method Non-specified Rotary				Drill Fluid Bentonite																											
Address Well 10752 171ST AV ELK RIVER MN Contact 9211 PLYMOUTH AV MINNEAPOLIS MN 55427					Use industrial	Status Active																											
Stratigraphy Information					Well Hydrofractured? Yes ☐ No ☒ From To																												
<table><tr><td>Geological Material</td><td>From</td><td>To (ft.)</td><td>Color</td><td>Hardness</td></tr><tr><td>GRAVEL</td><td>0</td><td>36</td><td>BROWN</td><td>SOFT</td></tr><tr><td>CLAY/GRAVEL/ROCKS</td><td>36</td><td>178</td><td>BRN/GRY</td><td>HARD</td></tr><tr><td>SHALE</td><td>178</td><td>183</td><td>GREEN</td><td>MEDIUM</td></tr><tr><td>SANDROCK</td><td>183</td><td>230</td><td>WHITE</td><td>MEDIUM</td></tr></table>					Geological Material	From	To (ft.)	Color	Hardness	GRAVEL	0	36	BROWN	SOFT	CLAY/GRAVEL/ROCKS	36	178	BRN/GRY	HARD	SHALE	178	183	GREEN	MEDIUM	SANDROCK	183	230	WHITE	MEDIUM	Casing Type Single casing			Joint Threaded
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SANDROCK	183	230	WHITE	MEDIUM																													
					Drive Shoe? Yes ☒ No ☐ Above/Below																												
					<table><tr><td>Casing Diameter</td><td colspan="2">Weight</td><td colspan="2">Hole Diameter</td></tr><tr><td>4 in. To</td><td>180 ft.</td><td>11 lbs./ft.</td><td>6.5 in. To</td><td>180 ft.</td></tr><tr><td></td><td></td><td></td><td>4 in. To</td><td>230 ft.</td></tr></table>			Casing Diameter	Weight		Hole Diameter		4 in. To	180 ft.	11 lbs./ft.	6.5 in. To	180 ft.				4 in. To	230 ft.											
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4 in. To	180 ft.	11 lbs./ft.	6.5 in. To	180 ft.																													
			4 in. To	230 ft.																													
					Open Hole From 180 ft. To 230 ft.																												
					Screen? ☐ Type Make																												
					Static Water Level 22 ft. land surface Measure 10/22/1998																												
					Pumping Level (below land surface) 60 ft. 2 hrs. Pumping at 100 g.p.m.																												
					Wellhead Completion Pitless adapter manufacturer Model ☐ Casing Protection ☐ 12 in. above grade ☐ At-grade (Environmental Wells and Borings ONLY)																												
					Grouting Information Well Grouted? ☒ Yes ☐ No ☐ Not Specified Material Amount From To high solids bentonite 0.17 Cubic yards 0 ft. 30 ft. cuttings 30 ft. 180 ft.																												
					Nearest Known Source of Contamination feet Direction Type Well disinfected upon completion? ☒ Yes ☐ No																												
					Pump ☒ 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)? ☐ Yes ☒ No																												
					Variance Was a variance granted from the MDH for this well? ☐ Yes ☒ No																												
					Miscellaneous First Bedrock Tunnel City Group Aquifer Tunnel City- Last Strat Wonewoc Sandstone Depth to Bedrock 178 ft Located by Minnesota Geological Survey Locate Method GPS SA Off (averaged) (15 meters) System UTM - NAD83, Zone 15, Meters X 457526 Y 5014369 Unique Number Verification Address verification Input Date 02/28/2011																												
					Angled Drill Hole																												
					Well Contractor McAlpine Bros., Inc. 27270 MCALPINE, K. Licensee Business Lic. or Reg. No. Name of Driller																												