

# NORTH DAKOTA GEOLOGICAL SURVEY CIRCULAR NO. 136

Summary of the McLaughlin Inc. - Wolfe #1  
Ramsey County, North Dakota  
Well No. 422 - Permit No. 438

by Clarence Carlson  
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McLaughlin Inc. - Wolfe #1, Ramsey County, North Dakota, NE SW Section  
33, T. 158N., R. 62W. Elevation GL. 1527 KB. 1535.

The McLaughlin Inc. - Wolfe #1 was spudded October 9, 1953, surface casing was set at 173 feet with 78 sacks of cement. The well was drilled to a total depth of 3196 feet, plugged and abandoned October 27, 1953.

## Cores:

1728-1758  
1962-1981  
2101-2171

## Logs: Gamma Ray

## Plugging Record:

3000 feet - 15 sacks of cement  
2000 feet - 15 sacks  
1450 feet - 15 sacks  
1250 feet - 15 sacks  
surface pipe - 15 sacks

Formation tops determined from samples and Gamma Ray log. Not all formation tops called in the following list.

## FORMATION TOPS

Cretaceous System	
Niobrara Formation	515
Greenhorn Formation	955
Dakota Group Sand	1312
Jurassic System	1565
Piper Lime	1687
Triassic System	
Spearfish Formation	1888
Devonian System	1963
Ashern Formation	2080
Silurian System	
Interlake Group	2125
Ordovician System	
Upper Stony Mountain	2310
Lower Stony Mountain	2365
Red River Formation	2455
Winnipeg Shale	3068
Winnipeg Sand	3178
Pre Cambrian	
Granite	3195

0-40	Glacial drift, silt, sand and gravel.
40-60	Shale, light gray, lumpy, compact, some gravel.
60-100	Shale, light gray, lumpy, compact.
160-180	Shale, light gray and medium gray, lumpy compact.
500-520	Shale, light gray and medium gray, lumpy compact.
520-560	Shale, light gray, lumpy, compact to flaky white specks, calcareous.
560-620	Shale, medium gray, lumpy to platy, compact.
620-700	Shale, medium dark gray and medium gray, lumpy to platy, compact.
700-800	Shale, medium gray, lumpy, compact to spongy.
800-840	Shale, medium light gray, lumpy, compact.
840-860	Shale, medium gray, lumpy, compact.
860-1100	Shale, medium dark gray, flaky to disaggregated spongy, calcareous, white specked, many Inoceramus fragments.
1100-1140	Shale, medium gray, lumpy to flaky, compact some light gray bentonite.
1140-1170	Shale, medium gray to medium dark gray, flaky, spongy to compact.
1170-1210	Shale, medium dark gray, flaky, spongy, some very light gray bentonite.
1210-1220	Shale, medium dark gray, lumpy, spongy to compact.
1220-1240	Shale, as above, sandstone very fine to medium, rounded to subrounded, loose quartz grains.
1240-1300	Shale, medium dark gray to medium gray, platy to lumpy, compact.
1300-1310	Shale, as above, some sandstone, light brownish gray, very fine grained, argillaceous.
1310-1400	Sand, medium to coarse, subrounded to subangular, colorless quartz grains with a little pyrite.
1400-1450	Shale, medium gray, lumpy, compact.
1450-1490	Shale, medium gray and medium light gray, lumpy, to platy, compact.
1400-1500	Shale, pale reddish brown, lumpy, compact, very calcareous.
1500-1510	Limestone, very light gray, some yellow and pink staining, fine to medium grained, granular, slightly silty.
1510-1520	Limestone, white to very light gray, finely crystalline and fine grained, with a few shell fragments.
1520-1530	Limestone, very light gray to white, fine grained, granular with carbonaceous streaks and finely crystalline with some shell fragments.
1530-1550	Shale, medium gray, platy to lumpy, compact calcareous, some limestone pieces as above.
1550-1580	Limestone, light gray, fine grained, granular, silty, shale, medium gray and pale reddish brown.
1580-1610	Shale, pale reddish brown, lumpy, calcareous some medium gray to light greenish gray, a few pieces of limestone, gypsum and loose quartz grains.
1610-1620	Shale, light greenish gray and pale reddish brown lumpy, calcareous, some white gypsum and loose, medium to coarse quartz.
1620-1630	Limestone, yellowish gray, very fine grained, earthy, some white gypsum and shale, as above.
1630-1650	Shale, pale reddish brown and light greenish gray some loose quartz and some gypsum.
1650-1660	Sandstone, very light gray, some yellow staining, very fine to fine grained, gypsum cemented, much shale, as above.

1660-1670 Shale, varicolored, medium gray, pale reddish brown, dusky yellow, some limestone light gray, earthy and some loose, medium sand grains.

1670-1680 Shale, as above.

1680-1690 Shale, as above, limestone, very light gray, sublithographic.

1690-1710 Limestone, very light gray to yellowish gray, fine grained, some chert, very light gray.

#### Cores

1728-1732 Limestone, grayish pink, very finely crystalline, earthy slightly argillaceous.

1732-1734 Limestone, light gray, fine to medium grained, granular slightly arenaceous with a few greenish gray, shale lenses.

1734-1736 Limestone, white, fine grained, chalky.

1736-1738 Limestone, light gray, finely crystalline.

1738-1740 Limestone, white, fine grained, chalky and white, sugary gypsum.

1740-1742 Limestone, white, fine grained, chalky.

1742-1744 Limestone, yellowish gray to light gray, fine grained, argillaceous.

1744-1750 Limestone, light gray, finely crystalline.

1750-1752 Limestone, yellowish gray, fine grained.

1752-1754 Limestone, light brownish gray, fine grained, argillaceous thinly laminated, with a little light gray chert.

1754-1756 Limestone, yellowish gray, fine grained.

1756-1758 Limestone, light gray, fine grained, slightly argillaceous, thinly laminated.

#### Samples

1830-1880 Shale, pale reddish brown, lumpy, calcareous and white gypsum.

1880-1890 Shale as above and gypsum, also loose sand, medium grained, rounded frosted.

1890-1900 Sand, loose, rounded, medium quartz and siltstone, moderate reddish orange, arenaceous gypsum cement.

1900-1910 Siltstone, moderate reddish orange, arenaceous, gypsum cement, some white gypsum and pale reddish brown shale.

1910-1920 Sand, loose, rounded, fine to coarse, frosted quartz grains, some siltstone, as above.

#### Cores

1962-1963 Siltstone, moderate reddish orange, sandy, anhydrite slightly calcareous.

1963-1964 Dolomite, very light gray, finely crystalline with some red mottling, limey.

1964-1965 Limestone, light gray, fine grained, fragmental fossiliferous, some red mottling some dolomite, as above.

1965-1973 Dolomite, pinkish gray, finely crystalline to fine grained granular, some vugs and some red mottling, slightly limey.

1973-1977 Dolomite, pinkish gray, fine grained, granular, limey, silty.

1977-1980 Dolomite, yellowish gray and grayish red, fine grained, limey, slightly vuggy some red staining.

#### Samples

1980-1990 Dolomite, grayish orange pink, fine to medium grained, good intergranular porosity.

1990-2010 Dolomite, pinkish gray, finely crystalline, dense some fine grained, granular with a few coarse crystals of calcite.  
 2010-2030 Dolomite, yellowish gray to pinkish gray, fine to medium grained, granular, slightly limey.  
 2030-2060 Limestone, very light gray, fine grained with a few shell fragments and a little red mottling.  
 2060-2070 Dolomite, yellowish gray, fine grained, granular.  
 2070-2080 Dolomite, moderate orange pink, fine grained slightly silty.  
 2077- Circulation 1/2 hour - dolomite, yellowish gray, fine grained, granular.  
 2097-2100 Shale, moderate reddish orange, fine grained, very calcareous.

#### Cores

2101-2107 Shale, moderate reddish orange to moderate orange pink, lumpy, compact, very calcareous, with some fine to medium sand grains.  
 2107-2109 Shale, moderate reddish orange and light gray, compact, very calcareous.  
 2109-2111 Shale, moderate reddish orange, as above, dolomite very light gray to pinkish gray, fine grained, slightly argillaceous.  
 2111-2113 Shale, moderate reddish orange, as above.  
 2113-2115 Shale, moderate reddish orange, compact, very calcareous, some sand grains, dolomite, very light grey, fine grained, slightly argillaceous.  
 2115-2119 Dolomite, light gray to moderate reddish orange, fine grained, argillaceous and arenaceous.  
 2119-2121 Limestone, pinkish gray, fine to medium grained, slightly dolomitic.  
 2121-2125 Dolomite, moderate reddish orange, fine grained, slightly argillaceous, limey.  
 2125-2127 Limestone, moderate orange pink to grayish orange pink, fine grained, fragmental with red staining and fragments of white to colorless recrystallized calcite.  
 2127-2129 Dolomite, grayish orange pink 10R8/2, finely crystalline, slightly limey.  
 2129-2135 Limestone, grayish orange pink, very finely crystalline, dense with a little red staining along fractures and some red shale partings.  
 2135-2139 Limestone, white to very light gray, finely crystalline, dense.  
 2139-2143 Limestone, grayish orange pink 10R8/2, finely crystalline, dense.  
 2143-2145 Limestone, as above and shale, pale reddish brown compact, calcareous.  
 2145-2149 Limestone, white, finely crystalline to pinkish gray, finely crystalline.  
 2149-2151 Shale, moderate reddish brown, compact, calcareous waxy.  
 2151-2153 Limestone, white, finely crystalline, slightly dolomitic.  
 2153-2155 Limestone, pale red 10R6/2, finely crystalline, dense, dolomitic.  
 2155-2161 Dolomite, white, finely crystalline.  
 2161-2163 Dolomite, grayish orange pink to yellowish gray finely crystalline, some red staining.  
 2163-2165 Dolomite, pale red and light gray finely crystalline with a thin layer of shale, moderate reddish brown.  
 2165-2167 Dolomite, grayish orange pink, fine grained to finely crystalline.  
 2167-2171 Dolomite, pinkish gray, fine to medium crystalline with some vugs, mostly dense.

Samples	
2170-2180	Dolomite, yellowish gray, and grayish orange pink, very finely crystalline, dense.
2180-2220	Dolomite, yellowish gray, finely crystalline.
2220-2310	Dolomite, yellowish gray to very light gray, very finely crystalline to sublithographic.
2310-2315	Dolomite, as above, some shale, moderate reddish orange, calcareous.
2315-2325	Dolomite, yellowish gray, finely crystalline, limey, some shale, as above and pale red, calcareous.
2325-2335	Dolomite, very light gray to yellowish gray, finely crystalline, limey, a few pieces of white, sandy limestone.
2335-2370	Dolomite, yellowish gray, finely crystalline, limey.
2370-2380	Dolomite, yellowish gray to grayish orange pink, fine grained slightly argillaceous, limey.
2390-2400	Dolomite, grayish orange yellow, fine grained granular, limey.
2400-2460	Limestone, light gray to pinkish gray, fine to medium grained, fragmental, fossiliferous.
2460-2480	Limestone, yellowish gray, fine grained, earthy.
2480-2500	Limestone, yellowish gray as above some dolomite, grayish orange pink, fine grained, granular.
2500-2520	Dolomite, grayish orange pink, fine grained, granular, slightly limey.
2520-2540	Limestone, yellowish gray, fine grained, fragmental in part with some recrystallized calcite and a few Bryozoa fragments.
2540-2600	Limestone, yellowish gray, fine grained, earthy in part, fragmental and fossiliferous in part.
2600-2630	Limestone, yellowish gray, fine to medium grained, granular good intergranular porosity, slightly dolomitic.
2630-2690	Limestone, yellowish gray, very finely crystalline, dense.
2690-2710	Limestone, yellowish gray, finely crystalline to fine grained with a little white chert.
2710-2770	Limestone, yellowish gray, finely crystalline and fine to medium grained, granular, slightly dolomitic.
2770-2850	Limestone, yellowish gray, fine grained, fragmental fossiliferous, some yellowish gray limestone, fine to medium grained, granular.
2850-2890	Limestone, yellowish gray, fine to medium grained, granular, with a few shell fragments.
2890-2970	Limestone, yellowish gray, fine grained, with a few shell fragments.
2970-2990	Limestone, as above and shale, medium gray, laminated compact.
2990-3010	Limestone, yellowish gray, fine grained, fragmental, fossiliferous.
3010-3060	Limestone, light gray, fine grained, earthy.
3060-3080	Limestone, as above and shale, medium gray to greenish gray, platy, compact, calcareous.
3080-3192	Shale, greenish gray, lumpy to platy, compact calcareous, some pyrite.
3194-	Circulation: Shale, as above; some sand, fine to medium, rounded, loose, colorless quartz grains.
3196	Granite chips, fresh looking pink feldspar white to colorless quartz and Biotite.