

NORTH DAKOTA GEOLOGICAL SURVEY CIRCULAR NO. 46

Summary of the T. M. Evans-Christian Erikson #1
 Foster County, North Dakota
 Permit #350, Well #334

By Morton Strassberg
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T. M. Evans - Christian Erikson #1, Foster County, North Dakota; C NE SE Section 24, T. 145, N. R., 64W. (1980 feet from S. line and 660 feet from E. line) Elevation K.B. 1547, G.L. 1537.

T. M. Evans-Erikson was spudded June 21, 1953 and 10 3/4 inch casing was set at 247 feet with 150 sacks of cement.

The drilling was completed June 30, 1953 and the well was abandoned. Total depth 3279 feet. Fifteen foot cement plugs were set at the following depths:

3200	1500
2400	248
1700	Top of surface pipe

Formation tops were determined from samples and electric logs, not all lithologic tops called in following list. Colors were determined from rock color chart.

	<u>TOPS</u>
Cretaceous System	<u>Depth</u>
Niobrara Formation	592
Greenhorn Formation	1100
"Muddy"	1425
Dakota	1580
Jurassic System	
Piper Formation	1843 Electric log*
Mississippian System	
Lodgepole Formation	1940
Englewood Formation	2068
Devonian System	2118
Silvrian System	
Interlake Group	2185
Ordovician System	
Upper Stony Mountain	2309
Lower Stony Mountain	2352
Red River Formation	2457
Winnipeg Formation	2990
Winnipeg Sandstone	3194
Pre-Cambrian	3293
Total Depth	3297

*The electric log at 1843 can be correlated with the electric logs of surrounding wells. These wells find the presence of the Piper limestone at the same resistivity value that a sandstone resembling the Lakota was found in the T. M. Evans Erikson well.

<u>To</u>	<u>From</u>	<u>Formation</u>
300	330	Shale, light to medium gray.
330	360	Shale, light gray.
360	370	Shale, light to medium gray
370	380	Shale, light gray, some white specks? very light gray limestone.
380	390	Shale, light gray.
390	400	Shale, light to medium light gray.
400	430	Shale, light gray.
430	440	Shale, light to medium light gray, bentonitic, calcite prisms.
440	450	Shale, light to medium light gray.
450	460	Shale, light to medium light gray, bentonitic.
460	480	Shale, medium light gray.
480	510	Shale, medium light gray, bentonitic.
510	520	Shale, medium light to medium gray.
520	540	Shale, dark gray, white specks, calcareous.
540	560	Shale, dark gray, white specks, calcareous.
560	610	Shale, medium dark and light gray, white speck, calcareous.
610	650	Shale, light to dark gray, white specks, calcareous.
650	670	Shale, light to medium gray, white specks, highly calcareous.
670	730	Shale, light to medium dark gray, white specks, calcareous.
730	750	Shale, light gray, white specks, highly calcareous.
750	760	Shale, light to medium gray, white specks, calcareous.
760	830	Shale, light gray white specks, highly calcareous.
830	850	Shale, light gray, white specks, highly calcareous, white bentonite.
850	940	Shale, light to medium light gray calcareous.
940	980	Shale, medium light to medium dark gray calcareous.
980	1000	Shale, medium to medium dark gray, calcareous.
1000	1050	Shale, medium gray, calcareous.
1050	1070	Shale, medium to medium dark gray, slightly calcareous.
1070	1080	Shale, medium dark to dark gray, calcareous.
1080	1100	Shale, medium to medium dark gray, slightly calcareous.
1100	1120	Shale, medium gray, calcareous, light gray fragmental limestone composed of calcite prisms.
1120	1140	Shale, dark gray, white specks, calcareous, fragmental limestone.
1140	1150	Shale, medium gray, white specks, calcareous, fragmental limestone.
1150	1170	Shale, medium dark gray, white specks, calcareous, fragmental limestone.
1170	1190	Shale, medium gray, white specks, calcareous.
1190	1200	Shale, medium gray, calcareous.
1200	1210	Shale, medium gray, calcareous.
1210	1220	Shale, medium to medium dark gray, calcareous, calcite prisms.

<u>To</u>	<u>From</u>	<u>Formation</u>
1220	1240	Shale, medium gray white specks, calcareous.
1240	1280	Shale, medium to medium dark gray, white specks, calcareous.
1280	1290	Shale, medium gray, calcareous.
1290	1300	Shale, medium to medium dark gray, calcareous.
1300	1350	Shale, medium to medium dark gray, calcareous.
1350	1360	Shale, medium to medium dark gray, calcareous, bentonitic.
1360	1370	Shale, medium gray, calcareous.
1370	1380	Shale, medium to medium dark gray, calcareous, fragmental limestone and calcite prisms.
1380	1410	Shale, medium to medium dark gray, calcareous, calcite prisms.
1410	1420	Shale, medium dark gray, calcareous.
1420	1430	Shale, medium gray, calcareous, calcite prisms.
1430	1440	Shale, medium to medium dark gray, calcareous very fine grained calcareous sandstone.
1440	1460	Shale, medium gray, calcareous, very light gray calcareous siltstone, calcite prisms.
1460	1480	Shale, medium to medium dark gray calcareous light gray siltstone and free coarse grains of quartz.
1480	1490	Shale, medium gray calcareous, very light to light gray siltstone.
1490	1500	Shale, medium dark gray.
1500	1520	Shale, medium dark gray, few free coarse quartz grains.
1520	1540	Shale, very light to medium gray, calcareous.
1540	1550	Shale, medium gray, calcareous.
1550	1570	Shale, very light gray, calcareous.
1570	1580	Shale, medium gray, calcareous, pyrite.
1580	1610	Siltstone, medium to coarse grained free quartz, iron stained, medium gray shale.
1610	1630	Siltstone, iron stained concretions few free quartz grains, medium gray shale, pyrite.
1630	1650	Sandstone, coarse, subrounded, frosted, iron stained siltstone concretions medium gray shale.
1650	1700	Shale, medium gray calcareous, iron stained, siltstone concretions few medium to coarse quartz grains.
1700	1710	Shale, medium gray calcareous, silty
1710	1730	Shale, medium gray, calcareous, silty few free quartz grains.
1730	1750	Shale, medium light to medium gray, silty, calcareous, few free coarse quartz grains.
1750	1760	Shale, medium light to medium gray and pale red, calcareous.
1760	1770	Shale, medium to medium light gray, silty calcareous. Iron stained siltstone concretions and medium to coarse grained free quartz.
1770	1780	Siltstone, iron stained, concretions, medium light to moderate yellow silty, calcareous shale.
1780	1790	Shale, medium light, silty, calcareous, iron stained siltstone concretions,
1790	1810	Shale, medium light gray to pale red, silty calcareous, iron stained siltstone concretions.
1810	1830	Shale, medium light gray calcareous, few iron stained siltstone concretions, very light gray argillaceous limestone.

<u>To</u>	<u>From</u>	<u>Formation</u>
1830	1910	Sandstone, medium to very coarse grained, subrounded, frosted.
1910	1930	Sandstone, medium to very coarse grained, subrounded, frosted, medium light gray shale.
1930	1950	Sandstone, medium to very coarse grained, subrounded, frosted, medium gray and pale red shale.
1950	1955	Limestone, white fine grained, highly arenaceous.
1955	1965	Limestone, white fine grained, arenaceous, medium gray and pale red shale, medium to coarse free quartz.
1965	1970	limestone, white to very light gray, fine grained, arenaceous, medium gray shale.
1970	2010	Limestone, white fine grained, arenaceous, medium to coarse grained free quartz.
2010	2015	Limestone, white to very light gray fine grained, arenaceous.
2015	2020	Limestone, white to very light gray, fine grained to microsucrosic.
2020	2025	Missing samples.
2025	2030	Limestone, white to very light gray, microsucrosic.
2030	2035	Limestone, white to yellowish gray, microsucrosic, medium to coarse grained free quartz.
2035	2060	Limestone, white to yellowish gray, fine grained to microsucrosic, medium to coarse free quartz.
2060	2065	Dolomite, yellowish gray microsucrosic, intergranular porosity, medium to coarse grained free quartz.
2065	2075	Limestone, white to pinkish gray, microsucrosic, medium to very coarse grained free quartz.
2075	2085	Limestone, yellowish to pinkish microsucrosic to fine grained, medium to coarse grained free quartz, medium gray shale.
2085	2100	Limestone, yellowish to pinkish gray, medium to coarse grained quartz medium to pale red shale.
2100	2130	Shale, medium gray, yellowish gray microsucrosic to fine grained limestone, medium to coarse grained free quartz.
2130	2140	Dolomite, pale yellowish brown, finely sucrosic.
2140	2160	Shale, medium dark gray and light red.
2160	2190	Missing samples.
2190	2220	Limestone, yellowish to pinkish gray, sublithographic.
2220	2240	Dolomite, very light gray, microsucrosic, light red shale.
2240	2280	Dolomite, very light to pinkish gray, light red shale.
2280	2310	Shale, pale red and moderate yellowish brown, yellowish gray microsucrosic to sublithographic dolomite.
2310	2340	Dolomite, yellowish gray, microsucrosic, with medium to coarse grained rounded imbedded quartz.
2340	2360	Shale, light to pale red, calcareous.
2360	2370	Shale, medium gray and pale red, calcareous.
2370	2400	Shale, medium gray and pale red, calcareous very light gray, microsucrosic limestone.
2400	2430	Dolomite, yellowish to light brownish gray, microsucrosic, medium gray shale.
2430	2460	Sandstone, medium to very coarse grained, pinkish gray fine grained to microsucrosic, dolomite, medium gray shale.

<u>To</u>	<u>From</u>	<u>Formation</u>
2460	2480	Shale, medium gray, pale red to yellowish gray, very fine grained dolomite.
2480	2490	Dolomite, white sublithographic, medium gray shale, medium to coarse free quartz.
2490	2560	Dolomite, white sublithographic, medium to coarse grained free quartz.
2560	2610	Dolomite, pale red to yellow gray, very fine grained dense.
2610	2620	Shale, pale red and mediwn gray and pale red very fine grained dolomite.
2620	2630	Dolomite, pale yellowish brown sublithographic, lost circulation.
2630	2640	Lost circulation.
2640	2680	Dolomite, grayish orange pink, sublithographic, fine to coarse grained free quartz.
2680	2690	Dolomite, grayish orange pink, very fine grained, medium gray shale lost circulation.
2690	2700	Dolomite, yellowish gray to grayish orange pink, fine grained to microsucrosic.
2700	2720	Dolomite, grayish orange pink fine grained to sublithographic.
2720	2820	Dolomite, pinkish gray to yellowish gray, very fine grained to sublithographic, fine to coarse grained free quartz.
2820	2920	Dolomite, pinkish gray to grayish orange pink, microsucrosic to sublithographic, medium to coarse grained free quartz.
2920	2950	Limestone, white sublithographic, pinkish gray sublithographic dolomite, fine to coarse grained free quartz.
2950	2960	Dolomite, grayish orange pink, sublithographic, medium to coarse grained free quartz.
2960	2980	Dolomite, very light gray to grayish orange pink.
2980	2990	Dolomite, grayish orange pink fine grained, white to very light gray sublithographic limestone.
2990	3000	Dolomite, light brownish gray, very fine grained, white chert.
3000	3020	Dolomite, grayish orange pink, microsucrosic to fine grained, dense yellowish gray, microsucrosic limestone.
3020	3030	Lost circulation.
3030	3050	Shale, medium gray, medium to coarse grained free quartz and (iron stained siltstone concretions cave?) grayish orange pink dolomite.
3050	3060	Shale, light to medium gray, pyritic, grayish orange pink fine grained dolomite.
3060	3070	Lost circulation.
3070	3080	Shale, medium light to medium dark gray.
3080	3110	Limestone, white to very light gray, sublithographic, medium to coarse grained free quartz, grayish red splintery shale.
3110	3130	Lost circulation
3130	3140	Shale, greenish gray, grayish orange pink fine grained dolomite.
3140	3160	Dolomite, yellowish gray, sublithographic dolomite, medium to coarse grained free quartz.

<u>To</u>	<u>From</u>	<u>Formation</u>
3160	3180	Shale, medium light to medium gray, platy.
3180	3190	Shale, medium gray and grayish red, platy.
3190	3210	Shale, medium light to medium dark gray platy light gray siltstone.
3210	3230	Shale, medium to medium dark gray.
3230	3240	Shale, medium gray and grayish red.
3240	3250	Shale, grayish red and medium gray, yellowish gray fine grained limestone.
3250	3260	Shale, medium light gray, calcareous.
3260	3270	Missing samples.
3270	3280	Basic igneous rock?
3280	3290	Shale, medium light to medium dark gray and gray red, medium to coarse grained, iron stained sandstone.
3290	3297	Sandstone, medium to coarse grained, medium gray shale.
3297		Granite, 1 hour circulation.