

NORTH DAKOTA GEOLOGICAL SURVEY CIRCULAR NO. 232

Summary of the Calvert Exploration Company - D.C. Wood #1
Stutsman County, North Dakota
Well No. 670 - Permit No. 684

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The Calvert Exploration Company - D.C. Wood #1 is located at the center of the SE 1/4 of the SW 1/4 of Section 24, T. 139N., R. 67W. Elevation: G.L. 1863; K.B. 1874.

The Calvert Exploration Company - D.C. Wood #1 was spudded October 8, 1954; drilled to granite at a total depth of 3701'; found dry and plugged October 18, 1954. 94' of surface casing 10 3/4" was cemented with 70 sacks of cement and 2 sacks of chloride.

LOGS: Electrical and Gamma Ray neutron

Cores: None

Drill Stem Tests: None

Pugging Record:

0' - 45' Top of surface casing with 15 sacks cement
94' - 139' Bottom surface casing with 15 sacks cement
2007' - 2052' with 15 sacks cement
2240' - 2285' with 15 sacks cement
2303' - 2348' with 15 sacks cement
2760' - 2805' with 15 sacks cement
2937' - 2982' with 15 sacks cement

The formation tops were picked from electric logs and only those recognizable are listed here.

FORMATION TOPS

Cretaceous System	
Pierre formation	454
Niobrara formation	1000
Greenhorn formation	1490
Dakota group	1797
Fall River formation	2007
Jurassic System	
Piper Lime	2355
Mississippian System	
Tilston interval	2308
Bottineau interval	2388
Devonian System	
Devonian undifferentiated	2763
Silurian	
?	?

Ordovician System		
Stony Mountain formation		2824
Red River formation		2939
Winnipeg formation		3503
Precambrian System		
Precambrian		3697

The color descriptions of the samples are from the rock color chart distributed by the Geological Society of America.

0-400	Glacial till, light olive gray (5Y6/1) with many fine, rounded quartz grains, limestone and gypsum grains, clay matrix. Unleached.
400-430	Shale, calcareous, medium dark gray (N4), compact, with light olive gray till and some quartz, gypsum, and limestone grains.
430-520	Shale, slightly calcareous, medium dark gray (N4), massive, compact.
520-550	Shale as above, somewhat micaceous with Inoceramus prisms.
550-790	Shale, slightly calcareous, medium dark gray (N4), less micaceous than above. Some Inoceramus prisms.
790-1060	Shale, calcareous, dark gray (N3) to medium dark gray (N4), bentonitic. Some Inoceramus prisms.
1060-1120	Shale, calcareous, medium light gray (N6), slightly fissile.
1120-1150	Shale as above. Some Inoceramus prisms.
1150-1180	Shale as above.
1180-1210	Shale as above. Pyrite and Inoceramus prisms abundant. Some shale is highly fissile.
1210-1270	Shale, calcareous, dark gray (N3), massive, Inoceramus prisms and abundant pyrite.
1270-1330	Shale, slightly calcareous, medium light gray (N6), pyrite and Inoceramus prisms.
1330-1450	Shale, highly calcareous, medium light gray (N6) and medium dark gray (N4), Inoceramus prisms and pyrite.
1450-1480	Shale, slightly calcareous, light gray (N7).
1480-1510	Shale as above. Also some light gray (N7) crystalline limestone in small amounts.
1510-1630	Shale as above. Abundant Inoceramus prisms and pyrite.
1630-1660	Shale as above. Some light gray (N7) crystalline limestone with abundant Inoceramus prisms and pyrite.
1660-1690	Shale, calcareous, medium light gray (N6), and some medium dark gray (N4) shale. Abundant Inoceramus prisms and pyrite.
1690-1780	Shale, highly calcareous, medium dark gray (N4), bentonitic with abundant Inoceramus prisms and pyrite.
1780-1860	Shale, calcareous, medium light gray (N6), with abundant Inoceramus prisms and pyrite.
1860-1920	Shale, highly calcareous, bentonitic, medium dark gray (N4), with abundant Inoceramus prisms and pyrite.
1920-1940	Shale, calcareous, medium light gray (N6), with white specks of calcareous material. Inoceramus prisms abundant. Some medium dark gray (N4) shale.
1940-1960	Shale as above, very few white specks.
1960-1980	Shale, calcareous, medium light gray (N6) with some Inoceramus prisms.
1980-2000	Shale, slightly calcareous, medium dark gray (N4) to dark gray (N3).

2000-2040 Shale as above with some dark yellowish brown (10YR4/2) siltstone and medium gray (N5) siltstone composed of quartz cemented with pyrite.

2040-2060 Shale as above, but non-calcareous.

2060-2100 Shale as above, abundant unconsolidated angular to subrounded, frosted to clear, quartz grains and rounded siderite? pellets.

2100-2120 Shale and sand as above, larger amount of sand.

2120-2160 Shale and sand as above, also some pale yellowish brown (10YR6/2) dolomite.

2160-2180 Shale, calcareous, medium light gray (N6), with abundant angular to subrounded, clear to frosted, quartz grains.

2180-2200 Shale and sand as above, with some light gray (N7) crystalline limestone.

2200-2260 Shale, sand, and limestone as above, with some pale yellowish brown (10YR6/2) dolomite.

2260-2280 Siltstone, dark yellowish brown (10YR4/2), iron stained, with a little quartz sand.

2280-2310 Limestone, yellowish gray (5Y7/2), oolitic, pelletiferous, porous, slightly crystalline.

2310-2320 Limestone, light gray (N7), very fine grained, and pale red purple (5RP6/2) crystalline dolomite.

2320-2330 Limestone, light gray (N7), fine grained, with some light brown (5YR4/2) crystalline dolomite and grayish red purple (5RP4/2) limestone.

2330-2350 Limestone, light brownish gray (5YR6/1), fine grained, and some grayish red purple (5RP4/2) crystalline limestone.

2350-2360 Limestone, light gray (N7) to grayish red purple (5RP4/2), crystalline.

2360-2400 Limestone, light gray (N7), dense, finely crystalline.

2400-2520 Limestone, light gray (N7) to pale red purple (5RP6/2), crystalline, with some dense light gray (N7) limestone.

2520-2645 Limestone, yellowish gray (5Y8/1), slightly crystalline, dense.

2645 Circulation: one hour. Limestone as above.

2645-2720 Limestone as above.

2720-2750 Limestone light gray (N7), dense, with some yellowish gray (5Y8/1) crystalline dolomite.

2750-2760 Limestone and dolomite as above, some pale red purple (5RP6/2) dense chalky dolomite.

2760-2805 Dolomite, pale yellowish brown (10YR6/2), crystalline, with some pale red purple (5RP6/2) dolomite.

2805 Circulation: one hour. Dolomite as above with some very dusky red purple (5RP2/2) calcareous dolomite.

2805-2820 Dolomite as above.

2820-2840 Dolomite, pale yellowish brown (10YR6/2) to pale reddish brown (10R5/4) crystalline, with some slightly crystalline very dusky purple (5RP2/2) limestone and dense very light gray (N8) limestone.

2840-2860 Limestone, dolomitic, light olive gray (5Y6/1), dense with some pale brown (5YR5/2) crystalline dolomite and pale red purple (5RP6/2) dense dolomite.

2860-2870 Dolomite, mostly pale red purple (5RP6/2) dense, crystalline, with some pale yellowish gray (10YR6/2) crystalline dolomite.

2870-2880 Limestone, dolomitic, light brownish gray (5YR6/1) to pale red purple (5RP6/2), crystalline.

2880-2890 Dolomite, light brown (5YR6/4), crystalline, with some light gray (N7) to very dark red (5R2/6) limestone and pale yellowish brown (10YR6/2) dense dolomite.

2890-2910 Dolomite, calcareous, pale yellowish brown (10YR6/2) dense, slightly crystalline with some pale red purple (5RP6/2) crystalline limestone.

2910-2920 Dolomite, pale brown (5YR5/2), dense, crystalline, with some dark reddish brown (10R3/4) calcareous siltstone.

2920-2930 Dolomite as above. Some grayish block (N2) shale.

2930-2940 Mudstone, moderate reddish brown (10R4/2) with a small amount of very pale orange (10YR 8/2) dolomite fragments. Possibly a weathered zone.

2940-2970 Dolomite, pale yellowish brown (10YR6/2) to pale red purple (5RP6/2) dense, slightly crystalline.

2970-3040 Dolomite as above. Increasing amounts of white (N9) to very light gray (N8) calcareous dolomite.

3040-3060 Dolomite, calcareous, white (N8) to pinkish gray (5YR8/1), dense.

3060-3110 Dolomite, pinkish gray (5YR8/1), dense, slightly crystalline, with some calcareous dolomite (becoming more calcareous with depth) and some dense, pale red purple (5RP4/2) dolomite.

3110-3160 Dolomite, very light gray (N8), finely crystalline.

3160-3210 Dolomite, pale yellowish brown (10YR6/2), finely crystalline.

3210-3220 Dolomite, light brownish gray (5YR6/1), finely crystalline, with small amounts of very light gray (N8) dense limestone.

3220-3230 Dolomite as above. Some medium dark gray (N4), slightly fissile, calcareous, shale.

3230-3290 Dolomite, calcareous, pinkish gray (5YR8/1) to light brownish gray (5YR6/1), finely crystalline, and dolomitic limestone with small amounts of medium light gray (N6), massive, slightly calcareous shale, decreasing in quantity downward.

3290-3330 Dolomite light brownish gray (5YR6/1), finely crystalline, and a little pinkish gray (5YR8/1) dense dolomite with some medium dark gray (N4) slightly calcareous shale.

3330-3460 Limestone, dolomitic, very light gray (N8), with very fine crystals in a chalky matrix.

3460-3470 Limestone, dolomitic, very light gray (N8), chalky to slightly crystalline with some medium gray (N5) calcareous shale particles.

3470-3480 Limestone, light gray (N8), finely crystalline, with a small amount of medium gray (N5), calcareous shale.

3480-3510 Limestone, dolomitic, light gray (N7) (greenish tinge), dense, and a small amount of pale pink (5RP8/2) crystalline dolomite.

3510-3530 Shale, calcareous, medium gray (N5), slightly fissile, slightly bentonitic with a little dolomitic limestone as above.

3530-3550 Shale as above, but more compact and fissile, somewhat greenish.

3550-3560 Shale, very slightly calcareous, medium dark gray (N4), fissile.

3560-3570 Shale as above, with some light gray (N7), dense, crystalline limestone.

3570-3580 Shale, slightly calcareous, medium light gray (N6) to medium dark gray (N3), fissile.

3580-3590 Shale, calcareous, greenish gray (5GY6/1), fissile.

3590-3600 Shale, slightly calcareous, medium dark gray (N4) to dark gray (N3), fissile.

3600-3620 Shale, slightly calcareous, greenish gray (5GY6/1), fissile.

3620-3650 Shale as above, with some medium gray (N5) shale.

3650-3690 Shale as above, somewhat mineralized with pyrite. Also some medium gray (N5), slightly calcareous, fissile shale.

3690-3700 Shale as above, with some granite composed of rose quartz, pink feldspar, and hornblende.

3701 Total depth. Circulation: one hour. Shale and granite as above.