

NORTH DAKOTA GEOLOGICAL SURVEY CIRCULAR NO. 233

Summary of the Calvert Exploration Company - Margaret Meyers #1  
Stutsman County, North Dakota  
Well #668 - Permit #682

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Calvert Exploration Company - Margaret Meyers #1. Location: Center of SE  
1/4 SW 1/4, Section 25, T. 137N., R. 67W. Elevation: 1896' G.L., Total Depth:  
3700

The Calvert Exploration Company - Margaret Meyers #1 was spudded  
November 10, 1954; drilled to a total depth of 3700 feet, found dry and  
plugged November 21, 1954.

Logs: Electrical and Gamma ray - Neutron.

Cores: None

Drill Stem Tests: None

Casing Record:

Set 14 jts. of 10 3/4" surface casing at 432 ft. cemented with 285 sacks  
cement and 4 sacks chloride.

Plugging Record:

0 - 45 ft. top surface casing - 5 sacks cement  
387 - 432 bottom surface casing - 15 sacks cement  
1965 - 2010 15 sacks cement  
2200 - 2245 15 sacks cement  
2340 - 2385 15 sacks cement  
2815 - 2860 15 sacks cement  
3585 - 3630 15 sacks cement

Formation tops were determined from samples and from electric logs.  
Colors and descriptive numbers were taken from Goddard, et: al., 1951, Rock  
Color Chart, Geol. Soc. America

FORMATION TOPS

Cretaceous System	
Pierre formation	398
Niobrara formation	1040
Greenhorn formation	1474
Dakota Group	1777
Fall River formation	2010
Jurassic System	
Piper lime	2315
Mississippian System	
Bottineau Inerval	2345
Bakken formation	

Devonian Undifferentiated	2710
Silurian System	Absent
Ordovician System	
Stony Mountain formation	2755
Red River formation	2880
Winnipeg formation	
Upper	3371
Middle	3462
Lower	3587
Cambrian	
Deadwood	3595
Precambrian	3700

0-60	Glacial sand (outwash?), coarse, with light tan matrix.
60-90	Coarse gravel, medium gray.
90-150	Till, medium gray, calcareous, with some sand (less sand near base).
150-240	Till, medium gray, slightly sandy, calcareous.
240-270	Till, medium gray, calcareous, slightly shaly.
270-300	Till, medium light gray, sandy, some shale granules with Inoceramus fragments.
300-330	Shale, medium gray, slightly bentonitic, some sand and gravel (cavings).
330-390	Shale, medium gray, with sand and gravel, bentonitic.
390-420	Shale, medium gray, Inoceramus fragments.
420-450	Shale as above, calcareous and sandy.
450-530	Shale, medium gray, slightly calcareous, lumpy.
530-680	Shale as above, slightly more fissile, "sticky".
680-770	Shale, light-medium gray, crumbly, sandy.
770-830	Shale, light-medium gray, bentonitic, crumbly, some pyrite, soft.
830-890	Shale, light-medium gray, Inoceramus fragments, mostly molds, crumbly.
890-920	Shale, grayish-black (5YR N2), white specks (bentonite), slightly calcareous, soft.
920-980	Shale as above, more iron staining and slightly less calcareous, less white specks.
980-1010	Shale as above.
1010-1040	Shale, light gray with dark gray intermixed, some white specks.
1040-1070	Missing.
1070-1100	Shale, medium light gray (5YR N6), very calcareous, some white specks (bentonite).
1100-1160	Shale, light and dark gray intermixed, some white specks, crumbly, white specks more calcareous.
1160-1190	Shale as above, more uniformly gray.
1190-1220	Shale, light gray, some pyrite, very sandy, clean quartz, well rounded.
1220-1250	Shale, same as above, occasional dolomite fragment, moderate red orange (10R6/6), more shaly than above, some pyrite.
1250-1340	Shale, medium-medium dark gray, some disseminated pyrite, quartz sand, slightly calcareous, some calcareous crystalline material (10YR8/6).
1340-1370	Shale as above, Inoceramus fragments, some calcareous crystalline material (pale yellow orange - 10YR8/6).

1370-1430 Shale, medium dark gray (5YR N4), Inoceramus fragments, slightly bentonitic, pyritic and chalcopiritic, some sandstone.

1430-1520 Shale, dark gray (5YR N3), occasional pyrite specks, some rounded quartz grains, abundant Inoceramus fragments, some lighter gray shale, cavings.

1520-1640 Shale, medium light gray, to medium dark gray, Inoceramus prisms, some pyrite, quartz.

1640-1670 Shale, dark gray to grayish black, some limestone fragments; shale, very calcareous, some white calcareous specks (bentonite).

1670-1760 Shale, medium dark gray, white calcareous specks, occasional pyrite, very calcareous.

1760-1790 Shale, medium dark gray, very calcareous, sandy.

1790-1850 Shale, medium dark gray; bentonite, gray to white; moderately calcareous.

1850-1880 Shale, medium dark gray, moderately calcareous, some iridescent shell fragments, calcareous.

1880-1910 Shale, medium dark gray, much pyrite, some brown quartz fragments (cavings ?).

1910-1935 Shale as above but without pyrite.

1935-2040 Shale, medium dark gray, slightly calcareous, some medium gray shale, pyritic.

2040-2100 Sandstone, clear, quartzose, subangular to poorly rounded, non-calcareous, some frosted grains, occasional pyrite, medium grained.

2100-2160 Shale, medium gray, calcareous.

2160-2220 Sandstone, medium grained, moderately well rounded, predominantly clear, but some pinkish-white (5R8/2), vitreous, pyritic.

2220-2230 Sandstone as above, shaly.

2230-2270 Sandstone, moderately well rounded, medium grained, quartzose, mainly white and frosted, pyrite, some limestone and dolomite particles.

2270-2320 Sandstone as above, more varied grain sizes (fine through coarse sand), some slight consolidation.

2320-2330 Limestone, pinkish (10R7/4), sandy, moderate orange pink, dolomite.

2330-2350 Limestone as above, some anhydrite, pyrite and dolomitic.

2350-2390 Limestone, grayish-orange-pink (10R8/2), finely crystalline, some purplish-red limestone.

2390-2430 Limestone as above, some reddish stains on surfaces; some shale, pale olive (10Y6/2), calcareous.

2430-2470 Limestone, grayish-orange-pink (10R8/2), sandy, shaly.

2470-2480 Shale, moderate red-orange (10R6/6), with reel limestone; shale, calcareous, pyritic.

2480-2580 Limestone, predominantly whitish, finely crystalline, frosty, pyritic, some iron-staining, some lithographic limestone.

2580-2620 Limestone, white as above, with some dark gray shale fragments, slightly calcareous, dolomitic, same color.

2620-2680 Limestone, yellow-gray (5Y8/1), medium crystalline, with pyrite; some limestone yellow gray (5Y7/2), some iron staining.

2680-2700 Limestone as above, without pyrite, some shale.

2700-2720 Limestone, gray-orange-pink (5YR7/2), dolomitic, finely crystalline, dense.

2720-2750 Dolomite, pale yellow-brown (10R6/2), finely crystalline, some granular some crystalline limestone, white vuggy porosity.

2750-2800 Limestone, white to very pale orange (10YR8/2), pyritic, some dolomite, shaly.

2800-2830 Limestone, gray-orange-pink (5YR7/2), some white limestone and dolomite fragments.

2830-2910 Dolomite, very pale-orange (10YR9/2), some grayish, brown and yellow; porous, finely crystalline.

2910-3000 Dolomite as above, slightly shaly.

3000-3050 Dolomite, grayish-orange-pink (5YR7/2), very slightly calcareous, various other shades of pink, finely crystalline.

3050-3070 Dolomite as above, but more coarsely crystalline, vuggy.

3070-3140 Dolomite, light brownish gray (5YR6/1), medium crystalline, sugary texture, dense, sucrosic in part.

3140-3170 Dolomite, grayish-orange-pink (10R8/2), finely crystalline, white limestone fragments.

3170-3210 Limestone, pinkish-gray (5YR8/1), finely crystalline, sugary texture, much cavings, some white siliceous material (chert?).

3210-3220 Limestone as above, with pyrite.

3220-3250 Limestone, varicolored, pyritic; shale fragments, dark gray, calcareous; cherty, tan-white.

3250-3280 Limestone as above; some gypsum and anhydrite, white-tan.

3280-3290 Limestone as above.

3290-3300 Limestone, pinkish-gray (5YR8/1), dense.

3300-3340 Limestone as above, with argillaceous-shaly material, pyrite specks.

3340-3370 Limestone, grayish-orange-pink (5YR7/2), finely crystalline, sugary texture; some shale, gray.

3370-3390 Circulated 1/4 hour; limestone, grayish-orange pink (5YR7/2), crystalline, some dolomite fragments.

3390-3420 Limestone as above, with green shale; some black shale fragments, poor fissility, non-calcareous.

3420-3450 Limestone as above, some fossil shell fragments, white limestone.

3450-3500 Shale, greenish-olive (10Y4/2), slightly calcareous, some white chert; sandy, very splintery.

3500-3590 Shale as above, very splintery, some mica flakes.

3590-3600 Missing.

3600-3660 Sandstone, reddish-orange (10Y6/6), quartzose, mostly clear grains, moderate to well rounded, fine to medium grained, moderately consolidated.

3660-3700 Sandstone as above, slightly redder (5R5/4), some cavings, becoming more consolidated, much clear quartz.

3700 Total Depth - Circulated 1/2 hour - bottomed in red-pink granite (Precambrian).