NORTH DAKOTA GEOLOGICAL SURVEY CIRCULAR NO. 214

Summary of the Triton Oil Company - Fredrickson No. 1
McHenry County, North Dakota
Well No. 1632 - Permit No. 1644

by David S. Johnson
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The Triton Oil Company - Fredrickson #1 is located in C SW NE of Section 24, T. 157N., R. 80W. Elevation 1497 GR; 1509 K.B.

The Triton Oil Company - Fredrickson #1 was spudded November 13, 1957 and 8 5/8", 24 #J-55 casing was set at 298.42 feet K.B. with 250 sacks of cement plus 2% calcium chloride. The well was drilled to a total depth of 4552 feet, plugged and abandoned as a dry hole on November 24, 1957.

Logs:
Schlumberger electric 297' - 4551'
Schlumberger microlateral 3551' - 4551'

Cores: None

Tests:
DST #1; 4182-4198 (Mission Canyon) Open 1 hour, very slight blow for 18 minutes, shut in 15 minutes. Recovered 65 feet slightly salty mud. Hole pressure 2380#, Initial flow pressure 0#, Final flow pressure 50#, Shut in pressure 1075#.

Plugging Record:

Plug No. 1	4150' - 4215' with 20 sacks cement.
Plug No. 2	3760' - 3825' with 20 sacks cement.
Plug No. 3	2470' - 2535' with 20 sacks cement.
Plug No. 4	265' - 330' with 20 sacks cement.
Plug No. 5	10% plug on top of 8 5/8" surface casing. Welded 1/4" plate on top.

Formation tops were determined from samples and the electric and micro-lateral logs. Not all formation tops were picked, colors and identifying numbers are taken from the Rock-Color Chart distributed by the Geological Society of America.

FORMATION TOPS

Cretaceous System	
Greenhorn formation	1965
Mowry formation	2265
Fall River formation	2495
Jurassic System	
Piper formation	3289
Piper “Lime”	3341
Triassic System	
Spearfish	3542
Mississippian System	

Charles formation	3787
Midale Zone	4051
Nesson Zone	4109
MC -3	4187
MC -2	4363
MC -1	4398
Lodgepole	4546

0-1810	Samples missing.
1810-1960	Shale, medium gray, compact. Inoceramus prisms, some shale, dark gray.
1960-2000	Shale, grayish black - dark gray, compact - lumpy, carboniferous.
2000-2020	Shale, black, lumpy - carboniferous, some shale, dark gray, white speck. Many Inoceramus fragments.
2020-2040	Shale, grayish black, compact, some white specks, many Inoceramus. fragments.
2040-2060	Shale, dark gray - medium dark gray, white specks. Inoceramus fragments.
2060-2090	Shale, medium dark gray, compact, calcareous white specks. Inoceramus fragments.
2090-2110	Shale, medium dark gray, compact, fissile. Inoceramus fragments, pyrite.
2110-2160	Shale, as above, some grayish black shale. Inoceramus fragments, pyrite.
2160-2250	Shale, grayish black, compact, carbonaceous. Shale, as above. Inoceramus fragments. Some white specks.
2250-2290	Shale, dark gray-medium gray, compact - fissile. Some Inoceramus fragments and pyrite.
2290-2310	Shale, grayish black, carbonaceous, soft, platy, Inoceramus fragments.
2310-2350	Shale, as above, shale, medium light gray, compact.
2350-2390	Shale, dark gray - grayish black, compact.
2390-2410	Shale, medium dark gray, fissile. Shale, medium light gray, compact.
2410-2420	Shale, grayish black-black, splintery-compact, carbonaceous.
2420-2470	Shale, as above. Shale, medium light gray, compact. Some Inoceramus fragments.
2470-2500	Shale, dark gray - medium light gray, compact, splintery.
2500-2550	Shale, medium dark gray - light gray, fissile-splintery, some course sand grains, well rounded, pyrite.
2550-2610	Sand grains, coarse grained, clear, subangular-well rounded.
2610-2630	Shale, medium dark gray, splintery, sand grains, as above. Siderite “pellets”, light brown (5YR6/4).
2630-2640	Shale, medium dark gray, splintery, some sand grains, as above.
2640-2670	Sample, as above. Siderite “pellets” light brown (5YR6/4).
2670-2710	Shale, dark gray, splintery. Some siltstone, moderate red (5R4/6), sand grains, as above. Some siderite “pellets”.
2710-2720	Sandstone, clear, medium grained, grains subangular-rounded, poorly sorted. Loose sand.
2720-2800	Shale, medium gray, siderite “pellets”. Sandstone as above. Siltstone, moderate red (5R6/4), pyrite sandstone is calcareous, friable.
2800-2830	Sandstone, clear, medium-coarse grained, subangular, loose grains, poorly sorted.

2830-2860	Sand, as above, shale, medium gray, splintery.
2860-2910	Sand, as above, shale, variegated, splintery-compact.
2910-3020	Shale, greenish gray (5GY6/1) splintery, some sand grains, as above, some medium gray shale.
3020-3100	Shale, variegated, splintery. Predominantly medium gray and greenish gray (5GY6/1).
3100-3180	Shale, medium gray - greenish gray (5GY6/1) splintery.
3180-3300	Shale, as above. Some shale, pale reddish brown (10R5/4) silty.
3300-3360	Shale, as above. Dolomite, pinkish gray (5YR8/1) sublithographic. Some dolomite is sandy.
3360-3510	Limestone, pinkish gray, some porosity, soft. Shale, variegated.
3510-3580	Siltstone, grayish red, (10R4/2). Gypsum, white, shale, medium gray-greenish gray, fissile.
3580-3610	Siltstone, moderate reddish orange, (10R6/6). Siltstone, shale, as above. Some gypsum.
3610-3790	Sandstone, moderate reddish orange, (10R6/6) very fine-medium grained, silty, well rounded. Shale and siltstone as above, mostly variegated, many loose sand grains. Small amounts of gypsum.
3790-3800	Shale, variegated, splintery - compact; sand grains, as above.
3800-3820	Anhydrite, white, dense, shale, as above.
3820-3840	Dolomite, moderate pink, (5R7/4), dense, sublithographic. Some anhydrite, as above.
3840-3860	Shale, medium gray, fissile, anhydrite, white dolomite, as above.
3860-3900	Limestone, grayish pink, (5R8/2) sublithographic. Limestone very light brown, secondary, some anhydrite, as above.
3900-3910	Limestone, as above, anhydrite, white, dense, shale, medium gray-pale reddish brown (10R5/4), compact.
3910-3960	Limestone, as above. Some anhydrite, as above. Increasing shale content (as above) with increased depth.
3960-3990	Dolomite, very light gray, anhydritic, sublithographic. Some anhydrite, white.
3990-4010	Limestone, very light brown, fragmental, some dolomite and anhydrite, as above.
4010-4020	Anhydrite, medium light gray, dense.
4020-4030	Limestone, very light brown, fine grained, dolomite, light gray, microsucrosic, some porosity.
4030-4055	Limestone, medium light gray, dense, some limestone, as above.
4059	Circulate 3/4 hour.
4055-4100	Dolomite, pinkish gray (5YR8/1) fine grained, some porosity, shale, medium gray, platy.
4100-4110	Dolomite, light gray, fine grained, some porosity, some anhydrite, white.
4110-4130	Limestone, light brownish gray, fine grained, some porosity. Some limestone is recrystallized. Some dolomite, as above.
4130-4140	Dolomite, medium light gray, fine grained, some porosity.
4140-4150	Limestone, white, soft, earthy, some dolomite, as above.
4150-4160	Dolomite, medium light gray, fine grained, some porosity. Caving material.
4160-4190	Limestone, white, soft, earthy, some dolomite as above. Shale, medium gray, probably caving.
4190	Circulate 1 hour.
4194	Circulate 1 1/6 hour.
4198	Circulate 1 hour.
4190-4200	Shale, variegated, caving material.

4203	Circulate 1 hour.
4200-4210	Limestone, very light brown, recrystallized. Much caving material. Poor sample.
4210-4215	Caving material.
4215-4360	Limestone, very light brown - pinking gray (5YR8/1), crystalline. Some caving material. The limestone is partly vuggy. Some secondary calcite.
4360-4380	Dolomite, medium light gray-fine grained, dense. Samples are poorly washed.
4380-4430	Limestone, very light brown, fine grained, dense. Partly re-crystallized.
4430-4460	Limestone, light brownish gray - very light gray, medium grained, pelletoidal, some limestone, as above.
4460-4530	Limestone, yellowish gray - very light brown sucrosic, some vuggy porosity, some limestone as above.
4530-4550	Limestone, as above. Some limestone, very fine grained, pinkish gray (5YR8/1).
4550	Circulate 1/2 hour.
4552	Total Depth.