

NORTH DAKOTA GEOLOGICAL SURVEY CIRCULAR NO. 116

A Summary of the J. P. Owens - Rosie Schann #1  
Pierce County, North Dakota  
Well No. 557 - Permit No. 570

By Clarence Carlson

J. P. Owens - Hyde Associates, Schann #1, Pierce County, North Dakota, C  
NW NW Section 11, T. 154N., R. 73W. Elevation 1546 D.F.

The J. P. Owens - Schann #1 was spudded April 1, 1954 and 10 3/4" casing  
was set at 235 feet with 130 sacks of cement. The well was drilled to a total  
depth of 3,215 feet. Dry and abandoned, April 14, 1954.

Cement plugs were set at:

3000 feet - 35 sacks	245 feet - 30 sacks
2890 feet - 35 sacks	Surface - 5 sacks

Formation tops were picked from samples and electric logs, corrected to  
electric logs, not all formation tops called in following list. Colors  
determined from the rock color chart.

FORMATION TOPS

Cretaceous System

Niobrara Formation	1128
Greenhorn Formation	1538
Dakota Sand	2022

Jurassic System

Jurassic Shale	2388
Piper Lime	2571

Triassic System

Spearfish Formation	2805
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Mississippian System

Mission Canyon Formation	2884
Lodgepole Formation	3012

265-285	Shale, light gray, lumpy, spongy to compact.
285-315	Shale, medium gray, calcareous, white specks, spongy, flaky to lumpy.
315-375	Shale, medium gray, lumpy to flaky, spongy, some white bentonite.
405-505	Shale, medium light gray, lumpy, spongy to compact.
525-545	Shale, medium light gray to medium gray, platy, brittle and compact.
585-645	Shale as above.
675-765	Shale, medium gray, lumpy, compact to brittle.
765-915	Shale, medium to medium dark gray, lumpy and platy brittle, compact.
915-945	Shale, medium gray, lumpy, compact, bentonite white to light gray, micaceous.
975-1005	Shale, medium gray, bentonitic, lumpy, compact, some bentonite, light gray, micaceous.
1005-1025	Shale, medium dark gray, flaky, spongy.

1125-1155 Shale, medium dark gray, flaky, spongy, white bentonite some, medium light gray shale, calcareous, with white specks.

1155-1175 Shale, medium gray to medium light gray, calcareous, white specks, lumpy, spongy.

1175-1205 Shale, medium gray, calcareous, white specks, some white bentonite.

1245-1275 Shale, medium gray, lumpy, compact.

1275-1305 Shale, medium dark gray, lumpy, spongy to compact.

1335-1365 Shale, medium gray, lumpy, compact.

1455-1565 Shale, medium dark gray, flaky, spongy.

1565-1585 Shale, dark gray, calcareous, spongy, many Inoceramus fragments.

1585-1605 Shale, dark gray, calcareous, white specks, lumpy compact.

1635-1665 Shale, as above, many Inoceramus fragments.

1665-1880 Shale, dark gray, flaky, spongy.

1880-1920 Shale, medium gray, lumpy, compact.

1920-1945 Shale, medium dark gray, splintery, compact.

1945-1960 Shale, light gray, bentonitic, lumpy, compact.

1960-2020 Shale, medium dark gray, flaky, spongy.

2020-2040 Shale, as above, many Inoceramus fragments, some sand, fine to medium subangular quartz grains.

2040-2060 Sandstone, fine to medium grained, subangular to rounded, clear quartz, calcareous and pyrite cement.

2060-2080 Sandstone, white, fine grained, calcareous, firmly cemented.

2080-2090 Sandstone, white, fine grained, calcareous and pyrite cement, reddish staining and some siderite pellets.

2090-2115 Sandstone, as above, with some shale, medium gray flaky, spongy.

2115-2175 Shale, medium to medium dark gray, flaky, spongy, some sandstone as above.

2175-2220 Sandstone, white to light gray, fine grained, calcareous, some pyrite cement some siderite nodules some shale, medium dark gray, spongy.

2220-2235 Sand, medium to coarse, subrounded to subangular clear quartz, some sandstone fine to medium subangular clear quartz with pyrite cement, little shale, as above.

2235-2250 Sandstone, fine to medium, subangular quartz with pyrite cement, some shale medium to medium dark gray.

2250-2315 Shale medium to medium dark gray, flaky, spongy, some sandstone as above.

2310-2325 Sandstone, white to light gray, very fine to fine grained, calcareous some sandstone as above, shale, medium to medium dark gray, flaky.

2325-2340 Sand, medium to coarse, subrounded, loose quartz, some pieces of white to light gray, fragmental limestone, shale, greenish gray 5G6/1, light olive gray flaky, spongy.

2340-2355 Shale, as above and pale brown, flaky, spongy, some loose sand and pieces of limestone as above.

2355-2385 Sandstone, light gray to orangish gray, fine grained, calcareous, few pieces limestone as above, much shale as above, some loose pyrite and siderite pellets.

2385-2400 Shale, light olive gray to greenish gray, splintery spongy, slightly calcareous some pieces of limestone very light gray, fine grained, with carbonaceous streaks.

2400-2415 Shale, light olive gray to greenish gray, medium gray and pale brown, slightly calcareous, splintery, spongy to compact, some pieces of limestone as above.

2415-2430 Limestone, light gray, fine grained with carbonaceous streaks and a few shell fragments, shale medium gray light greenish gray, pale brown, flaky, spongy

2430-2460 Shale, light olive gray to medium gray, slightly calcareous splintery, spongy some pieces of limestone as above.

2460-2490 Shale, medium light gray, pale olive 10Y6/2, pale reddish brown, calcareous, lumpy to platy, compact.

2490-2505 Shale, medium light gray, pale reddish brown, light olive gray, calcareous, lumpy, compact, a little very light gray, sublithographic limestone.

2505-2520 Shale, light greenish gray, splintery, brittle, calcareous some shale, as above.

2520-2535 Shale, medium gray, calcareous, splintery, spongy, some pale reddish brown, greenish gray, calcareous, compact to spongy.

2535-2560 Shale, as above, some sandstone very light gray, fine grained, calcareous.

2560-2570 Shale, medium gray, calcareous, flaky to lumpy, spongy.

2570-2590 Limestone, white to very light gray, sublithographic.

2590-2600 Limestone, yellowish gray, sublithographic.

2600-2610 Sandstone, light gray to white, fine to medium, rounded, colorless quartz grains with anhydrite and calcareous cement.

2610-2620 Limestone, yellowish gray, sublithographic with a little white anhydrite.

2620-2630 Shale, medium gray to light olive gray, some limestone as above and sandstone light gray to white, fine grained, calcareous and anhydrite cement.

2630-2640 Limestone, white to yellowish gray, sublithographic, a little white anhydrite, shale, as above.

2640-2660 Limestone, white to very light gray, sublithographic.

2660-2670 Limestone, as above, shale, medium gray, lumpy, compact.

2680-2730 Limestone, yellowish gray, sublithographic.

2730-2740 Limestone, very light gray, sublithographic.

2740-2760 Limestone, as above and anhydrite, white, sugary.

2760-2780 Anhydrite, white, sugary to dense, some limestone as above.

2780-2790 Anhydrite, white to colorless, dense, some limestone, yellowish gray, fine grained, argillaceous.

2790-2815 Shale, pale reddish brown, massive to lumpy, compact, anhydrite, white, sugary to dense.

2815-2820 Shale, as above, anhydrite, white, some siltstone, moderate reddish orange, calcareous, shaly.

2820-2825 Shale, pale reddish brown, lumpy, compact, anhydrite white, dense, some sandstone, very pale orange, fine grained slightly calcareous.

2825-2830 Sandstone, as above, some anhydrite, shale, moderate reddish orange and pale reddish brown, lumpy, compact.

2830-2835 Sandstone, moderate reddish orange, very fine to fine grained with anhydrite cement.

2835-2845 Sandstone, as above, with some loose medium, rounded frosted quartz grains, some pale reddish brown shale and white anhydrite.

2845-2860 Sand, loose, medium, rounded, frosted, quartz grains some anhydrite and pale reddish brown shale.

2860-2885 Sandstone, moderate reddish orange, fine grained, anhydrite cement some loose sand grains, as above, some anhydrite and pale reddish brown shale.

2885-2895 Limestone, yellowish gray, sublithographic and white, dense anhydrite.

2895-2900 Limestone, white, fine grained, fragmental, some white, dense anhydrite.

2900-2916 Anhydrite, white, dense, some limestone, yellowish gray, fine grained.

2916 Circulation 20 minutes - limestone, yellowish gray to very light gray, sublithographic to microsucrosic.

2916 Circulation 40 minutes - limestone as above with some reddish staining and white, dense anhydrite.

2915-2935 Limestone, pinkish gray to yellowish gray, fine grained dolomitic, some white sugary to dense anhydrite.

2935-2945 Limestone, white to yellowish gray, fine grained, some white anhydrite.

2945-2955 Limestone, yellowish gray, fine grained, microsucrosic.

2955-2960 Limestone, as above and white, fine grained, fragmental.

2960-2965 Limestone, very light gray, fine grained, microsucrosic in part.

2965-2970 Limestone, yellowish gray, microsucrosic.

2970-2980 Limestone, very light gray, fine grained, oolitic, some yellowish gray, microsucrosic.

2980-2985 Limestone, very light gray, fine grained, oolitic.

2985-2990 Limestone, yellowish gray, sublithographic, some oolitic.

2990-3005 Limestone, yellowish gray, microsucrosic, some oolitic.

3005-3015 Limestone, white, chalky, some yellowish gray, oolitic and microsucrosic.

3015-3030 Limestone, yellowish gray, microsucrosic, a few pieces of brachiopod shells.

3030-3040 Limestone, yellowish gray, microsucrosic and oolitic.

3040-3045 Limestone, pinkish gray, fine to medium gained, fragmental, some yellowish gray as above.

3045-3065 Limestone, pinkish gray, fine to medium grained, fragmental, fossiliferous.

3065-3075 Limestone, pinkish gray, fine to medium grained, fragmental fossiliferous, some reddish mottling.

3085-3095 Limestone, pinkish gray, fine to medium grained, fragmental fossiliferous.

3095-3115 Limestone, yellowish gray, fine grained, oolitic, some sublithographic.

3115-3125 Limestone, pinkish gray, fine to medium grained, fragmental fossiliferous.

3125-3165 Limestone, light gray, fine to medium grained, fragmental, fossiliferous, some microgranular.

3165-3180 Limestone, light gray, fine to medium grained, fragmental fossiliferous, granular in part.

3180-3215 Limestone, light gray, fine to medium grained, coarse fragmental fossiliferous, a little light gray chert (80-85 and 90-95).