Roesser & Pendleton-J. J. Weber No. 1
Emmons County, North Dakota
Well #23 - Permit #40

By D. F. Towse and S. B. Anderson
December, 1954


The Roesser & Pendleton-Weber well was spudded August 19, 1950, and 10 3/4 inch casing was set at 185 feet.

The well was completed as a dry hole September 18, 1950, plugged and abandoned.

Cement plugs were set as follows:

- 30 sacks at 5200
- 20 sacks at 3950
- 15 sacks at 2800
- 20 sacks at surface

The well was cored at the following intervals:

- 3374-3397 Recovered 23'
- 3378-3821 Recovered 43'
- 5246-5256 Recovered 3½'

No drill stem tests were run on this well.

Formation tops were determined from samples and electric logs. Colors determined by rock color chart.

FORMATION TOPS

Cretaceous System
- Niobrara 1280
- Greenhorn 1857
- "Muddy" 2290
- Dakota 2500

Jurassic System
- Morrison 2660
- Sundance 2692 (Elec. Log)
- Piper 2845

Triassic System
- Spearfish 3000

Mississippian System
- Amsden ? 3050
- Big Snowy 3100
- Charles 3290
- Mission Canyon 3430
- Lodgepole 3665
- Englewood 4010
Devonian System
  Nisku 4060
  Duperow ? 4102
Silurian System
  Interlake 4273
Ordovician System
  U. Stony Mtn. 4287
  L. Stony Mtn. 4372
  Red River 4470
  U. Winnipeg ss. 5052
  Winnipeg Shale 5088
  Winnipeg ss. 5240
Cambrian System
  Deadwood 5350
Pre-Cambrian 5545

100-120 Shale, light gray N7, slightly sandy.
  -300 No samples.
  -420 Shale, light olive gray, micaceous.
  -480 Shale, medium light gray, micaceous.
  -500 Shale as above, some yellow brown bentonite
  -540 Shale as above.
  -560 Shale as above, white bentonite, pyrite.
  -640 Shale as above.
  -740 Shale, light gray, bentonitic, flaky.
  -760 No samples.
  -780 Shale as above.
  -800 Shale as above, white bentonite.
  -820 Shale, medium light gray.
  -840 Shale as above, some fibrous calcite.
  -920 Shale as above.
  -960 Shale as above, some bentonite.
  -980 Shale as above, yellow brown bentonite.
  -1000 Shale as above, some fibrous calcite.
  -1040 Shale as above.
  -1060 Shale as above, yellow brown bentonite.
  -1260 No samples.
  -1270 Shale, medium gray, bentonitic, slightly calcareous.
  -1280 Shale as above, very calcareous, with small white specks.
  -1285 No samples.
  -1290 Shale as above.
  -1300 Shale, medium light gray, very calcareous, with white specks.
  -1340 Shale, as above, very calcareous, abundant white specks.
  -1350 Shale as above, some bentonite.
  -1360 No samples.
  -1370 Shale, medium light gray, calcareous, few specks, much bentonite, dirty sample.
  -1400 Shale as above, dirty samples.
  -1410 Shale, medium gray, calcareous, much bentonite to fibrous calcite.
  -1420 No samples.
  -1430 Shale, medium light gray, calcareous.
  -1450 No samples.
  -1460 Shale as above, much bentonite.
-1470  Shale as above.
-1480  Shale as above, much bentonite.
-1490  Shale as above
-1500  No samples.
-1510  Shale as above, much bentonite.
-1550  Shale as above.
-1570  Shale, medium light gray, some bentonite.
-1580  Shale as above, some bentonite, iridescent shell fragments.
-1590  Shale as above, some pyrite.
-1610  Shale as above, some white bentonite.
-1620  Shale as above.
-1630  Shale as above, iridescent shell fragments.
-1640  Shale as above, some bentonite, to fibrous calcite.
-1650  No samples.
-1670  Shale as above.
-1700  Shale as above, some white bentonite.
-1710  Shale as above.
-1720  Shale as above, bentonite.
-1750  Shale as above.
-1760  Shale as above, some bentonite.
-1770  Shale as above, bentonite, iridescent shell fragments.
-1780  No samples.
-1790  Shale, medium gray, bentonitic.
-1800  Shale as above, white bentonite.
-1820  Shale as above.
-1830  Shale as above, trace fibrous calcite.
-1840  Shale as above, bentonite.
-1850  Shale as above.
-1860  Shale as above, bentonite.
-1870  Shale, medium gray, white specks, very calcareous, medium gray limestone, soft.
-1880  Shale as above, white specks, fibrous calcite, medium gray limestone.
-1890  No samples.
-1900  Shale as above.
-1920  Shale as above, some limestone.
-1930  Shale as above, much white chalky limestone, fibrous calcite.
-1940  Shale as above.
-1950  Shale as above, very light gray bentonite.
-1960  Shale as above, bentonite, fibrous calcite.
-1970  Shale, medium gray, calcareous, no specks, some limestone.
-1980  Shale as above, fibrous calcite.
-1990  Shale as above, some white bentonite.
-2000  Shale as above, much soft granular limestone as above.
-2010  Shale, medium gray, calcite as above.
-2020  Shale as above, some limestone as above.
-2030  Shale as above, some limestone, some bentonite.
-2040  Shale as above, some limestone.
-2050  Shale and limestone as above, fibrous calcite.
-2056  No samples.
-2060  Shale, medium gray, slightly calcareous, white bentonite.
-2070  Shale, medium gray, micaceous, sparkly, white bentonite, pyrite.
-2080  Shale as above, fibrous calcite.
-2090  Shale as above, some bentonite, pyrite.
-2100  Shale as above, white to light gray bentonite, fibrous calcite.
Shale as above.
Shale as above, flaky.
Shale as above, white bentonite, fibrous calcite.
Shale as above, white bentonite, shell fragments.
Shale as above.
Shale as above, some bentonite.
Shale as above, bentonite, fibrous calcite.
Shale as above, some bentonite, some fine grained bentonitic sandstone.
Shale as above, shell fragments, bentonitic sandstone.
Shale as above, shell fragments, bentonitic sandstone.
No samples.
Shale medium gray as above.
Shale as above, gray bentonite.
Shale as above, much gray bentonitic.
Shale as above.
Shale as above, light gray bentonite.
Shale as above, shell fragments.
Bentonite, very light gray, slightly sandy.
Shale as above, much fine grained gray bentonitic sandstone, Globigerina.
Sandstone, fine grained, micaceous, some medium coarse grained, loose, some coal
Shale, medium dark gray, finely micaceous.
Shale as above.
Shale as above, some fine medium grained quartz sandstone, loose.
Shale as above.
Shale as above, white bentonite with biotites.
Shale as above, some gray bentonite.
Shale as above.
Shale as above, some bentonite.
Shale as above.
No samples.
Shale, green gray, much cave.
Shale as above, much light brown 5YR6/4 sandy shale, very slightly calcareous.
Shale as above, much loose subround coarse quartz sand, probable cave.
Shale as above.
Shale and cave as above.
Shale as above.
Limestone, very light gray, porous, coarse oolitic and fragmental.
Limestone, very light gray.
Limestone as above, same medium gray shale.
Shale, medium gray, dirty sample.
Shale as above, some green limestone as above.
Shale as above, some green limestone as above.
Limestone, white, very fine grained.
Limestone, white and pinkish gray, very fine grained, clayey, some green gray shale.
Limestone, white and pinkish gray, some green gray shale.
Limestone, white, pinkish gray and pale red 10R6/2, shale as above.
Shale, green gray, fine grained.
Limestone, white, fine grained, clayey.
-2980  Gypsum, white, medium granular, some light brown 5YR6/6 shale, few coarse rounded sand grains.
-2990  Limestone as above, sand as above, few coarse rounded sand grains.
-3000  Shale, mixed green gray and pale red, gypsum.
-3020  Shale, gray green as above, fine crystalline anhydrite.
-3030  Shale as above, some moderate red shale 5R5/4.
-3040  Shale as above, some gypsum.
-3050  Shale and anhydrite as above.
-3060  Shale and anhydrite as above, coarse crystalline gypsum.
-3070  Gypsum, coarse crystalline, white
-3080  Shale, medium gray, much gypsum.
-3090  Shale, green gray, some medium gray shale.
-3100  Shale as above, some calcareous shale.
-3110  Shale, dark gray, carbonaceous to coaly, some gypsum.
-3120  Shale, green gray, some gypsum.
-3130  Shale and gypsum as above, some calcareous shale.
-3140  Shale, pale red brown 10R5/4, much gray anhydrite.
-3150  Shale, dark gray carbonaceous as above, some red brown shale and gypsum.
-3160  Shale, light gray, bentonitic, iridescent shell fragments, much cave.
-3170  Shale as above, some pale red 5R6/2 limestone and shale, some gypsum, cave.
-3180  Limestone, very light gray, medium granular, some gypsum.
-3190  Limestone, white, yellow gray, medium granular.
-3200  Limestone as above, chert and medium gray shale.
-3210  Gypsum, white medium crystalline, some loose sand, mostly cave.
-3220  Gypsum as above, some red brown shale, much cave.
-3230  Shale, light gray, medium gray dense limestone, some gypsum, much cave.
-3249  Shale as above, dark gray carbonaceous shale, some limestone, much cave.
-3250  Limestone, white to pink gray, fine granular, dirty.
-3260  Limestone, white to pink gray, some loose sand, dirty.
-3280  Shale, medium brown and medium gray, some limestone and gypsum.
-3290  Limestone, pink gray, fine grained to medium crystalline.
-3300  Limestone as above, some loose coarse rounded sand.
-3310  Limestone, pink gray, some medium fragmental.
-3320  Limestone as above, some medium gray shale.
-3350  Limestone, pink gray.
-3360  Limestone as above, some medium gray to dark gray shale.
-3370  Limestone as above.
-3376  Limestone as above, slight stain, some light fluorescence.

Core 3374-97 (Chips)

-3379  Limestone, very light gray to yellow gray, medium granular, few vugs, very slight stain, very small pinpoint fluorescence.
-3384  Limestone, medium light gray, fine grained massive, with streak of white rounded sandy limestone, with coarse rounded gray to white quartz grains.
-3389  Limestone, conglomerate, white limestone sharpstone to 3/4", poorly sorted, much gray limestone matrix.
Limestone, fractured, white to yellow gray, with carbonaceous residue on fractures, medium granular dolomite and limestone in thin 1/4" beds, slight fluorescence, odor with acid, tight.

Limestone, yellow gray, fine crystalline to medium fragmental, salt in some vugs.

Limestone, yellow gray, mostly cave.

Limestone, yellow gray, medium fragmental as above.

Limestone as above, some medium gray shale.

Limestone as above, some chert, shell fragments.

Limestone as above, trace medium light gray splintery shale.

Limestone as above, some chert.

Limestone as above.

Limestone as above, some chert.

Limestone as above, some gypsum.

Limestone as above, slightly vugular.

Limestone, yellow gray.

Limestone, coarse fragmental, porous, slightly oolitic.

Limestone, yellow gray.

Dolomite, pale yellow brown, coarse fragmental, porous.

Limestone, yellow gray, coarse oolitic, porous.

Limestone, yellow gray, coarse fragmental, slightly porous, some fine grain sandy dolomite, pale yellow brown, light stain, good fluorescence, odor of acid, no cut.

Yellow gray limestone.

Limestone, light gray, medium grained, porous.

Limestone, light gray, some white chalky limestone.

Limestone, light gray to yellow gray, coarse fragmental, porous.

Limestone, yellow gray, coarse fragmental, porous.

Limestone, yellow gray, much medium gray shale.

Limestone as above, loose oolitic.

Limestone as above, chert and medium gray shale.

Limestone as above, much medium to light gray shale.

Limestone as above, chert.

Limestone as above, much medium gray shale.

Limestone as above, shale as above, chert.

Limestone, white to pink gray, fine grained, some loose medium sand.

Limestone as above.

Limestone as above, much medium gray shale.

Cored 3678-3821 (chips 1 foot)

Limestone, medium light gray, fine grained, dense, with some dark gray shale.

Limestone, medium gray, fine grained with abundant brachiopod fragments.

Limestone, medium light gray, fine grained, dense.

Limestone, medium light gray, fine to medium grain to crystalline, dense, brachiopods.

Limestone, medium dark gray, medium crystalline, thin bedded with thin light gray beds.

Limestone, medium light to light gray, medium crystalline, sandy with some very sandy streaks, some thin bedding, mostly tight.

Limestone, light gray, shaly, fine grained, tight.

Limestone, light gray, medium crystalline and fragmental dense.
-3811 Limestone, light gray, fine grained to medium fragmental, carbonaceous shaly material.
-3813 Limestone, medium light gray, coarse crystalline to fragmental, brachiopod shells.
-3816 Limestone, medium light gray, fine grained, some stylolitic fractures.
-3817 Limestone, medium light gray, medium crystalline to fragmental.
-3819 Limestone, yellow gray, with white crystalline specks, medium crystalline to fragmental, some pinpoint porosity.
-3820 Limestone, very light brown gray, 5YR7/1, medium crystalline, tight, small brachiopod shells.
-3821 Limestone, medium light gray, fine crystalline, with very thin streaks of dark shale.
-3825 No samples.
-3845 Limestone, light gray to white, medium grain.
-3850 Limestone, white to yellow gray, fine grained to medium fragmental, porous.
-3865 Limestone as above.
-3870 Limestone as above, some medium gray shale.
-3875 Limestone as above, shell fragments.
-3915 Limestone, white to yellow gray.
-3920 Limestone as above, some medium gray shale.
-3925 Limestone, white to yellow gray, medium fragmental, porous as above, some medium gray shale.
-3960 Limestone, white chalky to fine crystalline.
-3980 Limestone as above, some brown-black carbonaceous shale.
-4000 Limestone, very pale orange, some moderate brown shale, shale as above.
-4020 Limestone as above, medium gray shale.
-4030 Limestone and shale as above, pyrite.
-4040 Limestone and shale as above.
-4050 Medium gray shale, some dark gray shale.
-4070 Shale, medium dark gray.
-4080 Limestone, yellow gray, coarse crystalline.
-4081 Sandstone, loose, medium to coarse, angular to subround quartz, white, pink, light gray.
-4090 Sandstone as above.
-4100 Dolomite, light brown gray, coarse crystalline, few small vugs.
-4110 Dolomite, light brown gray as above, some granular, porous.
-4130 Dolomite, light brown gray.
-4140 Dolomite, white, medium granular, porous.
-4160 Limestone, light brown gray, medium granular, porous.
-4200 Limestone, light brown gray to very pale brown 5YR6/2, medium granular, porous, stain plus good fluorescence. No Cut.
-4210 Cherty.
-4220 Limestone, white, pinkish gray and medium crystalline, cherty, some dusky yellow gray 5GY5/2 shaly limestone.
-4230 Limestone, white, pinkish gray.
-4240 Limestone as above, some medium gray shale.
-4260 Limestone as above.
-4270 No Sample.
-4280 Limestone as above, much loose, coarse subround sand.
-4290 Dolomite, white, very fine grained.
-4330 Limestone, white, pinkish gray, very fine grained.
-4340 No sample.
-4350 Limestone as above, much medium to light gray shale.
-4380 Dolomite, white to yellow gray, fine granular, porous, slightly sandy.
-4400 Limestone, light gray, fine grained, cherty, medium gray shale.
-4410 Limestone and shale as above, (lost circulation material - oats).
-4420 Limestone as above, some medium gray shale.
-4460 Limestone as above, much medium gray shale.
-4470 Limestone as above, few loose sand grains, much medium gray shale, bryozoa.
-4480 Limestone and shale as above, few loose sand grains.
-4500 Limestone, white, fine grained.
-4510 Dolomite, very light gray to pink gray, coarse fragmental, good intergranular porosity.
-4530 Limestone as above.
-4540 Limestone as above, some medium gray shale.
-4550 Limestone as above.
-4560 Limestone, white to pinkish gray, fine grained, some medium gray shale.
-4570 Limestone as above.
-4590 Limestone, white to pinkish gray, slightly dolomitic, some chert.
-4600 Limestone as above, few vugs.
-4650 Limestone, white to pinkish gray, fine granular as above, slightly sandy.
-4670 No samples.
-4680 Limestone, white to pinkish gray, fine grained as above.
-4690 Limestone as above, some chert and medium gray shale, crinoid columned.
-4700 Limestone, white to pinkish gray.
-4720 Limestone as above, very fine grained.
-4740 Limestone as above, some medium granular porosity.
-4760 Limestone as above.
-4770 Limestone as above, some medium grain, porous.
-4780 Limestone as above, much chert.
-4820 Limestone as above.
-4830 Limestone, white to very light gray, coarse fragmental porous with gray chert.
-4840 Limestone, white to very light gray.
-4850 Limestone, white to pinkish gray and fine grained as above.
-4860 Limestone, pinkish gray, fine crystalline, much greenish gray fine grain shale.
-4890 Limestone as above.
-4900 Limestone as above, shell fragments, pyrite.
-4910 Limestone as above.
-4920 Limestone as above, greenish gray shale.
-4930 Limestone as above, some greenish gray shale.
-4940 Limestone as above, much greenish gray shale, shell fragments.
-4950 Limestone and shale as above.
-4970 Limestone as above, some light olive gray, medium crystalline limestone.
-4980 Limestone as above.
-4990 Limestone as above, some greenish gray shale.
-5000 Limestone as above.
-5010 Limestone as above, some medium gray shale.
-5030  Limestone white to very light gray, fine grained.
-5040  Limestone as above, trace moderate brown shale.
-5050  Limestone as above.
-5060  Limestone as above, trace medium gray shale.
-5070  Limestone as above.
-5100  Silt, light gray, porous, coarse silt to very fine sandstone.
-5120  Shale, light gray.
-5130  Shale, green gray, fine grained.
-5160  As above, flaky, splintery.
-5180  As above, some limestone and pyrite.
-5190  As above, some limestone, trace sandstone.
-5200  Shale, dark gray, carbonaceous, flaky.
-5220  Shale, greenish gray as above, some rusty orange shale.
-5230  Shale as above, trace limestone.
-5240  Shale, green gray as above, some silt.
-5246  No samples.
-5256  Sandstone, Core 5246-56 (rec. 5 1/2' (chips) (some green gray shale interbedded.
-5260  Sandstone, mostly cave, (fine medium grain, well sorted, pink gray to light gray, porous, sa-sr quartz, no shows at 5256.)
-5270  No samples.
-5280  Sandstone as above, few coarse rounded frosted quartz.
-5340  Sandstone, loose, coarse, subround quartz, frosted.
-5350  Sandstone, fine grained, yellow gray, porous, poor sorting, some medium grains.
-5360  Sandstone, fine grained, yellow gray, much loose coarse sand.
-5370  Sandstone as above, much rounded, glauconite.
-5400  Sandstone as above.
-5410  Sandstone as above, some medium gray shale, glauconite.
-5420  Sandstone as above.
-5430  Sandstone as above, with glauconite and dark femic pellets.
-5440  Sandstone as above.
-5460  Sandstone as above, pyrite.
-5470  Sandstone as above, some muscovite.
-5480  Sandstone as above.
-5500  Sandstone as above, some medium gray shale.
-5510  Sandstone as above.
-5530  Sandstone as above, some greenish gray shale.
-5550  Sandstone as above.
-5555  Granite.
-5556  Granite, medium green.

Total Depth