

NORTH DAKOTA GEOLOGICAL SURVEY CIRCULAR NO. 108

Summary of A. J. Scott - A. J. & Louella Scott #1
Grand Forks County, North Dakota
Permit No. 594 - Well No. 580

By LaVerne B. Nelson
1955

A. J. Scott - Scott #1, Grand Forks. County, North Dakota. NE NE Section 15, T. 151N., R.53W. (660 feet from North line and 600 feet from East line). Elevation G.L. 939.5 feet.

The A. J. Scott - Scott #1 was spudded May 11, 1954. 7 5/8" casing was set to a depth of 90 feet and cemented with 20 sacks of cement. The well was drilled to a total depth of 895 foot, plugged and abandoned May 31, 1954.

Three sack cement plugs were set at 640', 520', 270', base and top of surface casing.

Formation tops were determined from samples and electric log. Colors were determined from rock color chart. Not all lithologic formation tops called in following list.

Cretaceous System	
Dakota formation	269
Ordovician System	
Red River formation	483
Winnipeg shale	663
lime and sand unit	743
Winnipeg Sand	887
Pre-Cambrian	895

This well has a sand and limestone unit in the Winnipeg Formation that has not been previously described.

200-210	Sandstone, poorly sorted, fine to coarse, angular to well rounded, frosted and clear some medium gray shale.
210-260	Silt, medium gray, argillaceous, some poorly sorted sandstone as above.
260-270	Silty sandstone, medium gray silt as above, with many sand grains, poorly sorted.
270-310	Sandstone, white, poorly sorted, fine to coarse, subangular, frosted and clear quartz, traces of pyrite. 60% in medium size range.
310-330	Sandstone as above, color becomes medium gray. Becomes shaly, coarse subangular grains become more predominate.
330-350	Sandstone, white, poorly sorted, fine to coarse, subangular, slightly frosted and pitted, slight iron staining on a few grains. Traces of pyrite.
350-360	Sandstone, as above, coarse, subangular grains become more predominate. Traces of pyrite.

360-370 Sandstone, pale red, poorly sorted, subangular to well rounded, pitted, argillaceous.

370-380 Sandstone, white, poorly sorted, fine to coarse, subangular to well rounded, frosted and pitted, traces of brown and red siderite pellets and pyrite.

380-390 Sandstone as above, color becomes medium gray and becomes argillaceous.

390-430 Sandstone, white to light gray, poorly sorted, fine to coarse, 90% fine to medium, subangular to well rounded, frosted and pitted, slightly argillaceous.

430-460 Sandstone, as above, increase in amount of coarse grains 50%.

460-470 Sandstone, medium gray, quite silty, poorly sorted, fine to coarse (60% fine 40% medium to coarse), slight iron staining.

470-480 Sandstone and chert, 403 white chert. Sandstone as above. Some iron staining on chert.

480-510 Limestone, white, fine to medium grained, fairly dense, possibly some pinpoint porosity. Much sandstone as above.

510-520 Sandstone, white, fine to medium (90%) coarse (10%) subangular to well rounded, slight iron staining, frosted.

520-580 Limestone, white, fine grained, traces of white chert, fairly dense, possibly some pinpoint porosity. Much quartz grains. Some crinoid stems.

580-610 Limestone, white, fine grained, slightly microcrystalline, dense, crinoid stems, slightly fragmental, fossiliferous.

610-620 Limestone, grayish orange pink, fine grained, fragmental, fossiliferous.

620-650 Limestone, grayish orange pink with moderate red and grayish red purple mottling, fine grained, dense.

650-670 Limestone, white and grayish red purple, fine grained, argillaceous. Much fine to medium grained quartz and moderate red silt.

670-738 Limestone, grayish red purple and grayish orange pink, fine grained, argillaceous, crinoid stems. Brachiopod fossils. Some fine to coarse, angular to subrounded quartz grains, spotted fluorescence.

738-750 Sandstone, fairly well sorted, medium grained, well cemented, iron stained, yellow and moderate red and white, well rounded and frosted grains.

750-770 Sandstone, white, medium grained, well sorted, well rounded, frosted and pitted, unconsolidated.

770-800 Limestone, greenish gray and pale red with red mottles, argillaceous, fine grained. Much sandstone as above, 790-820 some limestone with fluorescence and CCl₄ cut.

800-810 Limestone, greenish gray and pale red mottles, highly argillaceous, fine grained. Much sandstone. Traces of greenish gray shale. Fluorescence and CCl₄ cut on some limestone.

810-830 Sandstone, medium gray, medium grained, well rounded, frosted and pitted, very argillaceous. Some limestone and shale as above.

830-895 Shale, greenish gray and pale red, waxy, slightly calcareous. Much sandstone as above.