

I.D. NUMBERS

OPERATOR: Merrill Natural Resources
 FARM: Loy & Franklin Moyers
 WELL NUMBER: 1 (MN-3)
 LOCATION: Rockingham Co., Bergton 7.5' quad.
 LAT.: 6825' S of 38° 50'
 LONG.: 10250' W of 78° 55'
 ELEVATION: 1780'
 TOTAL DEPTH:
 DRILLING COMMENCED:
 WELL COMPLETED:
 RESULT: Plugged and Abandoned

V.D.M.R. W-6251
 OIL & GAS
 INSPECTOR RO-23
 API 45-165-20380-00-03

LOGGED BY Bartlett & Associates
 (THB, 5/81)

GEOLOGIC LOG

<u>INTERVAL</u>	<u>DESCRIPTION</u>
0-3930	Not Examined
3930-35	SHALE, black, soft, carbonaceous, very slightly silty w/ granular texture (appearance), minor pyrite, portions slightly calcareous.
3935-40	SHALE, as above.
3940-45	SHALE, as above. SANDSTONE, lt. gray to clear, fine to fine medium, subangular, glassy to frosted quartz grains in interlocking grain-supported mosaic. Intergranular calcite present, though most of sample disaggregated. Minor dark gray fine-sized rock fragments included in the qtz. grain matrix. The few rock fragments appear tight.
3945-50	SANDSTONE, as above. SHALE, as above, common-probably cavings.
3950-55	SANDSTONE, as above, w/ minor possible conglomerate. (Sample disaggregated and many qtz. grains crushed or broken). SHALE cavings abundant.
3955-60	As above, rare large qtz. grain suggests conglomerate (indefinite).
3960-65	SANDSTONE, lt. gray brown, calcareous, fine grained, clear to lt. gray, glassy and frosted subangular qtz. grains in interlocking matrix w/ minor intergranular carbonate. Tight to v. low porosity.
3965-70	SANDSTONE, as above.
3970-75	SANDSTONE, lt. gray to lt. gray-brown, fine to medium grained w/ occasional coarse grains, subangular to subrounded, glassy to frosted qtz. w/ minor intergranular calcite. Most of sample disaggregated. Rock fragments tight to v. low porosity.
3975-80	SANDSTONE, lt. gray to med. gray, v. fine to fine grained, glassy to frosted subangular qtz. grains w/ increased amount of carbonate (though still grain-supported). Sample disaggregated but few remaining rock fragments mostly tight as above. Minor crystalline calcite - possibly fracture filling.

3980-85 SANDSTONE, as above.

3985-90 SANDSTONE, as above.

3990-95 SANDSTONE, as above, w/ slightly larger average grain size. A few large qtz. grains - may indicate conglomerate zone (?) but sample too disaggregated.

3995-4000 SANDSTONE, as above, including possible conglomerate. Many sand grains well rounded and frosted. Most of sample disaggregated.

4000-05 SANDSTONE, as above, without large pebbles.

4005-10 SANDSTONE, as above.

4010-15 SANDSTONE, as above. Mostly disaggregated sample - rare rock fragments are tight, interlocking quartz grain mosaics. Grain size fine to medium, subangular and glassy to rounded and frosted.

4015-20 SANDSTONE, as above.

4020-25 SANDSTONE, as above, average grain size smaller and much lower percentage of frosted, rounded grains.

4025-30 SANDSTONE, as above, with fine conglomerate zone(?).

4030-35 SANDSTONE, as above, average grain size fine to medium with some coarse quartz grains. Samples continue to be disaggregated.

4035-40 SANDSTONE, lt. gray, fine grained, as above. Sample more contaminated than usual by up-hole black SHALE.

4040-45 SANDSTONE, as above, very abundant black SHALE.

4045-50 SANDSTONE and black SHALE, as above.

0-3950' Not examined

3950-3942' Millboro black shale

3942-4050' T.D. Oriskany sandstone: Tight quartzite w/ intergranular carbonate. Possible conglomerate zones (3950-5, 3995-4000, 4025-30) though difficult to be certain due to the near-total disaggregation of the sample. Much contamination of the Oriskany interval samples by black shale from up-hole, especially 4035-4050' interval.