

Operator: United Fuel Gas Co.  
 Farm: P. S. Lantz  
 Well No.: 1-8387  
 Location: Rockingham County  
           13,500' S of 38°50'  
           12,250' W of 78°55'  
 Elevation: 1554.29' Ground  
 Total Depth: 2967  
 Drilling Commenced: June 21, 1955  
 Well Completed: August 30, 1955  
 Result: Dry Hole

## GEOLOGIC LOG (Martens sample log)

<u>Depth</u>	<u>Thickness</u>	<u>Description</u>
2525-2645	120	Shale, black, calcareous, with small veins of white calcite; many of the shale fragments are slickensided
2645-2660	15	Shale, black, highly calcareous; small amount of dark-gray limestone
2660-2680	20	Shale, dark-gray to black, highly calcareous; also some gray limestone
2680-2685	5	Shale, gray, slightly calcareous
2685-2695	10	Shale, gray, calcareous
2695-2715	20	Shale, very dark gray to black, calcareous
2715-2743	28	Shale, black, slightly to moderately calcareous
ORISKANY SANDSTONE		
2743		A few rounded sand grains, vein quartz, and calcite. Pyrite (from concretions). Mostly gray to black shale
2743-2754	11	Sandstone, light-gray to white, fine- to medium-grained, at least partly calcareous; the samples from this interval are mostly shale, with only a few fragments of sandstone; no pores could be seen in this sandstone but the nature of the samples is such that this does not mean much; the first two

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2743-2754 (Cont.)

samples at the top of the Oriskany contain a few detached rounded sand grains suggesting that there may be a thin loose cemented zone; the samples contain a few pieces of clear quartz crystals and some vein calcite

2754

Total Depth

I.D. NUMBERS

OPERATOR: United Fuel Gas  
FARM: P.S. Lantz  
WELL NUMBER: 8387  
LOCATION: Rockingham Co., Bergton 7.5' Quad.  
LAT.: 13,500' S. of 38° 50'  
LONG.: 12,250' W. of 78° 55'  
ELEVATION: 1554.3'  
TOTAL DEPTH: 2967'  
DRILLING COMMENCED: 21 June 1955  
WELL COMPLETED: 30 August 1955  
RESULT: Dry Hole

V.D.M.R. 156 (B-4)  
OIL & GAS  
INSPECTOR RO-8  
API 45-165-19695-00-03

LOGGED BY Bartlett & Associates  
(THB) (✓)

GEOLOGIC LOG

<u>INTERVAL</u>	<u>DESCRIPTION</u>
2750-54	SANDSTONE, lt. gray, fine grained w/ minor medium grained component; grain-supported w/ intergranular CALCITE, Tight; most grains QUARTZ, glassy to milky, subangular although the larger size components are moderately frosted and subrounded; Rare fine to very fine, rounded, dark gray carbonate (?) clasts. Fragments of casing. Sample mostly disaggregated. Black SHALE cavings common.
2754-58	SANDSTONE, as above, very calcareous. Porosity v. low. (Composite of 3 sample intervals.)
2758-60	SANDSTONE, as above, very disaggregated. (Composite of two samples intervals).
2760-65	SANDSTONE, as above, many QUARTZ grains are broken w/ thin tabular habit. (Composite of three sample intervals).
2765-69	SANDSTONE, as above, w/ minor black glassy FLINT. (Composite of two sample intervals).
2769-2875	No Samples.
2875-2880	SANDSTONE, white to light brown (w/ orange stain), fine grained angular to subangular, glassy w/ only minor frosting on some grains. Mostly disaggregated - rare rock fragment is grain - supported w/ QTZ. xls. overgrowths - Tight. (Composite of three sample intervals.) Small pieces of bit common. Rock probably quite hard.
2880-87	QUARTZ SANDSTONE, as above, w/ perhaps more grains having frosted surfaces. Bit debris common. Rare rock fragments appear tight.
2887-90	QUARTZ SANDSTONE, as above, w/ slight increase in average grain size and minor amounts of intergranular CALCITE. Tight. (Composite of two sample intervals).
2890-94	SANDSTONE, as above (actual rock fragments med. gray & glassy.) Tight. (Composite of two sample intervals.)

- 2894-2900 SANDSTONE, as above, very tight. (Composite of three intervals).
- 2900-2903 SANDSTONE, white to med. gray, fine grained, subangular - angular grain-supported w/ minor intergranular CALCITE, most of QTZ. grains are glassy, zero - v. low porosity. Abundant bit debris. (Composite of two sample intervals.)
- 2903-2906 SANDSTONE, as above - very hard, very tight w/ grain overgrowths. and intergranular calcite. (Composite of two samples intervals).
- 2906-10 SANDSTONE, as above, mostly subangular, calcareous, tight. (Composite of two sample intervals.)
- 2913-17 SANDSTONE, as above, very tight; abundant fragments of drilling tools. (Composite of two sample intervals.)
- 2917-21 SANDSTONE, as above, sample mostly disaggregated. (Composite of two intervals.)
- 2921-25 SANDSTONE, as above, with increase in overall amount of calcareous matrix. Some of the rock fragments of this interval are soft and have apparently good porosity. (Composite of three sample intervals.)
- 2925-2927 SANDSTONE, as above, very calcareous, although still grain-supported; much is soft and apparently porous. Interval may be thin bedded (?). Abundant drilling tool fragments.
- 2927-29 SANDSTONE, med. dk. gray, fine grained, glassy, subangular, grain-supported with calcareous matrix, looks pretty tight; SILTSTONE/silty SHALE, black, calcareous, occasional fine glassy QTZ. grain, thin bedded (20%); LIMESTONE, dark gray - grayish brown, micro xln, dense with QTZ. grains, to white, v. finely granular soft (5%)
- 2929-33 SANDSTONE, white to med. gray to brownish gray, fine grained, grain supported w/ calcareous matrix, subangular and glassy QTZ. grains, though some grains are subrounded and frosted. Varies from hard, tight to fairly soft w/ some porosity. (Composite of two sample intervals)
- 2933-37 SANDSTONE, as above, med. dark gray to light gray brown, tight. (Composite of three intervals)
- 2937-41 SANDSTONE, as above, though some rock fragments are matrix supported and virtually a very sandy LIMESTONE, med. dark gray, fine crystalline, w/ fine, subangular, glassy QTZ. grains. (Composite of two sample intervals)
- 2941-45 Same as above. (Composite of two sample intervals.)
- 2945-52 SANDSTONE, as above, (Composite of 3 sample intervals.)
- 2952-56 SANDSTONE, as above, w/ minor amt. LIMESTONE, dk. gray, microxln., argillaceous and sandy. (Composite of two sample intervals.)

2956-60

SANDSTONE and very sandy LIMESTONE, as above, w/ abundant white crystalline CALCITE.

2960-64

SANDSTONE, m. dk. gray to m. brownish gray, fine grained, matrix - and grain supported, calcareous matrix, subrounded and frosted to subangular and glassy QUARTZ grains, well-sorted. Minor LIMESTONE, v. dk. gray, micro xln, argillaceous and sandy.

2964-67

As above.

ORIGINALLY COMPLETED IN 1946 by JAMES GAS Co. as  
dry hole at 2743'  
SAMPLES IN U.D.M.R. REPOSITORY FROM 2750' TO T.D.  
ENTIRE INTERVAL IN THE ORISKANY SANDSTONE.