

I.D. NUMBERS

OPERATOR: United Fuel Gas Co.
FARM: R.J. Whetzel
WELL NUMBER: 8418
LOCATION: Rockingham Co., Bergton 7.5' quad.
LAT.: 5300' NW mouth of Crab Run
LONG.: 5800' S of Sirks Run
ELEVATION: 1449.99'
TOTAL DEPTH: 3180'
DRILLING COMMENCED: 19 June 1956
WELL COMPLETED: 18 August 1956
RESULT: Gas Well

V.D.M.R. 141 (B-9)
OIL & GAS
INSPECTOR RO-12
API 45-165-19698-00-03

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

GEOLOGIC LOG

| <u>INTERVAL</u> | <u>DESCRIPTION</u> |
|-----------------|---|
| 1771-2975 | No Samples available |
| 2975-78 | SANDSTONE, lt. gray - brownish gray, fine to very fine grained w/ minor medium-sized grains, subangular glassy quartz w/ minor subrounded, frosted grains. Sample mostly disaggregated. Rare rock fragments are grain-supported w/ a little intergranular calcite, have rare black, fine grained rock fragments and are tight. (Composite of two sample intervals). |
| 2978-82 | SANDSTONE, white to med. gray, well-sorted, otherwise as above. (Composite of three intervals). Minor drill tool debris. |
| 2982-86 | SANDSTONE, calcareous, as above w/ a few large quartz pebbles in the interlocking quartz SANDSTONE matrix. Some rock fragments show fracture surfaces w/ calcite coating. (Composite of two intervals). |
| 2986-89 | SANDSTONE, as above, with increase in amount of conglomerate present in the samples. Some rock fragments show increase in percentage of calcareous matrix. |
| 2989-92 | SANDSTONE, as above, w/ minor conglomerate. |
| 2992-96 | As above, w/ calcite-coated fractures on some fragments. (Composite of two intervals). |
| 2996-3001 | SANDSTONE, mostly disaggregated, fine grained, subangular, glassy qtz. grains, lt. tan to white, with minor frosted grains, minor intergranular calcite. (Composite of three intervals). |
| 3001-06 | SANDSTONE, as above, w/ fair porosity in some rock fragments. (Composite of two intervals). |
| 3006-10 | SANDSTONE, as above, well-sorted, w/ trace of possible conglomerate. Apparently tight, w/ interlocking quartz crystals and intergranular calcite. |
| 3010-15 | SANDSTONE, as above, w/ minor bit debris. (Composite of three intervals). |

- 5015-20 SANDSTONE, lt. brown, otherwise as above, w/ minor subrounded-
rounded frosted qtz. grains. (Composite of three intervals).
- 5020-25 SANDSTONE, lt. brown to white, fine to very fine grained, grain-
supported, subangular-angular, glassy and minor amounts of
rounded frosted quartz grains; interlocking qtz. grains w/ minor
calcite, tight.
- 5025-29 SANDSTONE, as above, sample mostly disaggregated and crushed.
(Composite of two samples).
- 5029-32 As above (Composite of two intervals).
- 5032-38 SANDSTONE, fine to very fine, glassy, lt. brown qtz. grains, as
above. Sample mostly disaggregated. (Composite of two intervals).
- 5038-43 As above; rock fragments tight, w/ occasional black subangular
grains mixed in w/ the qtz. grain mosaic. (Composite of two intervals).
- 5043-46 SANDSTONE, lt. gray to white, v. fine to fine, subangular, inter-
locking quartz grains w/ rare fine grains of dark gray rock fragments
in the qtz. mosaic. Minor intergranular calcite; tight; probable
fractures.
- 5046-50 SANDSTONE, as above.
- 5050-55 SANDSTONE, as above, most of sample disaggregated qtz. grains.
(Composite of two intervals).
- 5055-60 As above (Composite of two intervals).
- 5060-65 As above (Composite of two intervals).
- 5065-68 As above.
- 5068-72 As above, w/ occasional rounded frosted qtz. grains mixed w/ the
subangular - angular glassy majority. Sample still mostly
disaggregated.
- 5072-77 As above, Rock fragments remain tight. (Composite of two intervals).
- 5077-85 As above. (Composite of two intervals).
- 5085-88 SANDSTONE, (quartzite) white to lt. gray, mostly v. fine to fine
grained w/ minor medium grains in a tight interlocking qtz. grain
mosaic, w/ minor intergranular calcite and rare dk. gray v. fine
rock fragments. Most of qtz. grains are subangular to angular
and glassy, w/ some evidence of fracturing on some quartzite
fragments.
- 5088-95 SANDSTONE, as above. Overall finer grained. (Composite of two
intervals).
- 5093-97 SANDSTONE, as above. Sample mostly disaggregated and crushed.
- 5097-3101 As above.
- 3101-05 SANDSTONE, as above, generally v. fine grained. Partially crushed.
(Composite of two intervals).

- 3105-11 SANDSTONE, as above; sample mostly disaggregated but apparently more intergranular calcite present. (Composite of two intervals).
- 3111-16 SANDSTONE, white to med. gray, fine grained, subangular, grain-supported glassy qtz. grains w/ intergranular calcite fairly abundant in some sample fragments. (Composite of two intervals).
- 3116-20 SANDSTONE, as above, w/ some fragments nearly matrix-supported. Most of sample disaggregated.
- 3120-24 SANDSTONE, calcareous, as above. (Composite of two intervals).
- 3124-28 SANDSTONE, as above. (Composite of two intervals).
- 3128-31 SANDSTONE, as above, w/ considerable crushing.
- 3131-34 SANDSTONE, as above.
- 3134-58 SANDSTONE, as above. (Composite of two intervals).
- 3138-43 SANDSTONE, med. gray, fine to v. fine, subangular to subrounded, glassy to frosted, well-sorted, grain-supported, quartz w/ minor dk. gray rock grains. Intergranular calcite varies from trace to abundant. Most of sample disaggregated.
- 3145-47 SANDSTONE, as above.
- 3147-52 SANDSTONE, as above. Increase evident in amount of carbonate matrix in some rock fragments. (Composite of two intervals).
- 3152-58 SANDSTONE, very calcareous, as above. (Composite of two intervals).
- 3158-64 SANDSTONE, med. gray-brown to m. dk. gray, fine to very fine grained, calcareous, mostly grain-supported. (Composite of two intervals). Fracturing evident in some fragments, along w/ white crystalline calcite.
- 3164-67 SANDSTONE, v. calcareous, as above.
- 3167-71 SANDSTONE, v. calcareous, as above w/ minor LIMESTONE, m. dk. gray, fine crystalline, v. sandy.
- 3171-73 LIMESTONE, m. gray-brown to m. dk. gray, fine xln, v. sandy and SANDSTONE, v. calcareous, as above.
- 3173-76 LIMESTONE, dk. gray to m. gray brown, fine xln, argillaceous and/or sandy and SANDSTONE, as above, very calcareous, matrix- and grain-supported varieties (probably cavings?). White xln. calcite also present.
- 3176-80 LIMESTONE, as above, w/ lesser amts. of v. calcareous SANDSTONE.

SUMMARY

- 0-1771' Not examined.
- 1771-2975' No samples available.
- 2975-3170' Oriskany sandstone - Tight orthoquartzite composed of angular to subangular glassy quartz grains in an interlocking mosaic w/ minor intergranular calcite. Conglomerate zone (s) present between 2982'-2992' and a second zone 3006'-3010'. Amount of carbonate constituent increases toward bottom of formation. Basal contact transitional with underlying Helderberg Limestone.
- 3170'-3180' T.D.
Helderberg Limestone, very sandy to argillaceous.