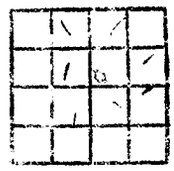
WELL LOG BUREAU—KANSAS GEOLOGICAL SOCIETY
503 East Murdock, Wichita, Kansas

Company- ATLANTIC REFINING CO., ET AL.
Farm-Theis Gas Unit #5 No. 1

SEC. 21 T. 34 R. 25W
SW SW NE

Total Depth. 5800'
Comm. 8-14-58 Comp. 9-4-58
Shot or Treated.
Contractor. Reaves Drilling Co., Inc.
Issued. 1-17-59

County Clark
KANSAS



Elevation. 2043' DF

Production. 425,000 CFG

CASING:
8 5/8" @ 1234.64' cem. w/450 sx.
4 1/2" @ 5800' cem. w/200 sx.

Figures indicate Bottom of Formations.

sand-shale	153
red bed & shale	590
shale	885
shale & lime streaks	1237
shale	2060
shale & lime	2668
shale, lime & chalk	2751
shale	2818
shale-chalky lime	2944
shale & lime	3023
shale	3110
shale & lime streaks	3257
shale & lime	3616
shale & sdy. shale	3740
shale	3890
shale & lime	4010
shale	4499
lime - shale streaks	4583
lime	4776
shale & lime	4846
lime	5003
lime & shale	5045
lime	5394
lime & shaly lime	5444
lime	5651
sand & lime	5681
lime	5800
Total Depth.	

TOPS: SCOUT

Heebner	4302
Lansing	4476
Morrow	5622
Mississippi	5671

DST. #1. 5608-5651 (Morrow-Miss.) Tool open 1 hr, very weak air blow for 16 min. and died. Rec. 10' drilling mud. IFP 0#, FFP 15#. BHSIP 35#/30 min.

DST. #2. 5651-5716 (Miss.) Tool open 1 hr. immediate strong air blow, gas to surface in 6 min. 20# fl surface pressure, 215 MCF/D. in 15 min., 60# surf. pressure, gas rate 499 MCF/D; 30 min. 100# surface pressure, 730 MCF/D; 45 minutes, and 1 hr. 110# surface pressure, 734 MCF/D. Rec. 60' heavily gas cut drilling mud. IFP 35#, FFP 205#. BHSIP 1990#/30 minutes.

DST #3 5716-5800 (Miss.) Tool open 1 hr. immediate strong air blow, gas to surface in 5 min. 40# surf. pressure, gas rate 353 MCF/D. Rec. 595'very heavily gas cut foamy salt water. IFP 50#, FFP 310#. BHSIP 1720#/30 min.

Perforation 5722-28 (Miss.): Squeezed: Killed well w/80 bbls. wtr. Pulled 178 jts 2" tbg. Ran HOWCO DC Squeeze tool on 184 jts tbg., set @ 5715', pressure to 5000 psi. annulus to 1500#. Broke formation w/1800#, pumped 10 bbls. wtr. @ 5 BPM @ 2500#. Mixed & pumped 50 sx. cem. @ 4 BPM, 1500#. Displaced w/18 bbls. wtr. min. 1000#, max. 5500#. Squeezed @ 5500# w/28 sx outside 4½" csg. reversed 22 sx cem. Pulled 2" tbg w/squeeze packer. Ran 178 jts. 2" 4.7# J-55 tbg hung @ 5518.08' w/collar on bottom.
Perforations 5650-56, 5660-69, 5673-81 & 5686-5705 (Miss.): Sand-Petrofrac & Waterfrac #1: Broke formation w/40 bbls.wtr. w/J-79 & 82 added, MP 3400-2400# @ 15 BPM. Pumped 40,000 gals. wtr. 140# J-79 & 400# J-84 FL additive added, w/20,000# 20-40 Ottawa sand,MP 4200-3600# @ 17.4 BPM. Pumped 30,000 gals. 7½% acid-Petrofrac (90% acid, 10% kero emulsion), 450# J-82 added & 20,000# 20-40 mesh Ottawa sand, MP 4800-4000# @ 18 BPM, using 17 nylon ball sealers in last 20,000 gals., pressure increasing from 4,000# to 4,800#. 63 ball sealers fouled in gun. Flushed W/155 bbls. water (35 bbls. overflush) @ 12.8 BPM. Reset packer @ 5685'.
Perforation 5686-5705 (Miss.): Acid-frac #2: Loaded hole & broke formation w/20 bbls. 7½% gelled acid, MP 3800-3200#. Mixed & pumped 8,000 gals. 7½% acid w/ 8000# 20-40 sand @ 7.9 BPM, MP 3400-3200# Flushed w/20 bbls. gelled 7½% acid & 23 BO @ 6.2 BPM, MP 4300-3200,final 4300#. Tubing hung @ 5552.13'. Completed 10-22-58 as gas well. Now shut in waiting for connection. Gas rate 425, MCF/D TP 390#, CP 781#, 23 hr. flow test.