

WELL HISTORY REPORT

OPERATOR: Ernest A. Hanson

NO. & LEASE: #5 Max Gutman

LOCATION: 640' FSL & 1650' FWL  
Sec. 19, T-22-S, R-38-E, N.M.P.M.  
Lea County, New Mexico

FIELDS: Drinkard  
Undesignated Granite Wash

ELEVATION: 3358' Kelly Bushing (logs measured from KB)  
3346' Ground Level

DRILLING CONTRACTOR: Roy H. Smith Drilling Co.  
Wichita Falls, Texas

TYPE RIG: Rotary - National "50"

DRILLING COMMENCED: March 16, 1968

DRILLING COMPLETED: April 6, 1968

WELL COMPLETED: April 23, 1968

CASING PROGRAM: 8-5/8" @ 1180' w/450 sx. reg. cmt. + 2% CaCl  
(Cmt. circ. to surf.)  
5-1/2" @ 7447' w/425 sx. Incor + 6% NaCl + 5# sand per  
sx. cmt.

TOTAL DEPTH: 7447' Granite Wash

F.B. TOTAL DEPTH 7419'

TOP OF CEMENT: (from temperature survey)

DRILL STEM TESTS: DST #1 @ 7341-7447': op. 1 hr. w/weak blow for 19 min.  
and quit. Rec. 90' drilling fluid + 112' cutting  
in D.C.'s. Tool plugged. 1 hr. ISIP 2946#.  
FP 229-2942#. 2 hr. FSIP 2947#. Unsuccessful test.

CORES: Core #1 @ 2538-2552': rec. 6' being 2' gray sandy shale +  
4' light gray dolomite, NS.

LOGS: GR-Den-Cal (Welex)  
GR-N perforating log (Welex)  
Temperature Survey (West Engineering Co.)

PERFORATIONS: UPPER DRINKARD Perforations:  
1 - 3/8" jet per foot @ 6392', 6398', 6411', 6421', 6433',  
6441', 6451', 6460' & 6468'.  
LOWER DRINKARD Perforations:  
1 - 3/8" jet per foot @ 6505', 6511', 6523', 6528', 6535',  
6543', 6549' & 6558'.  
VIVIAN Perforations:  
1 - 3/8" jet per foot @ 6671, 6688', 6697', 6715', 6728',  
6741', 6750', 6765', 6781', & 6796'.  
ANDREWS Perforations:  
1 - 3/8" jet per foot @ 6855', 6862', 6875', 6885', 6891',  
6903', 6917', 6928', 6945', 6953' & 6963'.  
GRANITE WASH Perforations:  
1 - 0.50" jet per foot @ 7356', 7366', 7373', 7386' & 7391'.

OVER

TREATMENT:

Granite Wash Perforations @ 7356-7391'.

Treatment #1: Acidized w/1000 gals. 15% DS-30 acid via 3-1/2" tubing below HOWCO RTTS packer. Formation broke @ 4400 psi. ISDP @ 2800 psi. 10 min. SIP 2400 psi. Swabbed back load and acid and swabbed dry.

Treatment #2: Acidized w/5000 gals. 15% DS-30 acid via 3-1/2" tubing using ball sealers below a HOWCO RTTS packer. Swabbed back load and approximately 15 bbls. acid water when well commenced to swab 100% oil. After several swab runs and well cleaned up, well swabbed 35 barrels of oil in one hour and could not swab below 4200 feet from surface.

Andrews Perforations @ 6855-6963'.

Frac with 2500 gals. 15% DS-30 acid + 20,811 gals. lease oil + 1/2 lbs. sand per gal. via 3-1/2" tubing limited entry between HM straddle packers. Attempted to frac with 3/4 lbs. sand but treatment began screening-out. ISDP @ 3100 psi. Frac rate @ 15.8 BOPM.

Vivian Perforations @ 6671-6796'.

Frac with 2500 gals. 15% DS-30 acid + 20,811 gals. lease oil + 1/2 lbs. sand per gal via 3-1/2" tubing limited entry between HM straddle packers. ISDP @ 3000 psi. Frac rate @ 14.0 BOPM.

Lower Drinkard Perforations @ 6505-6558'.

Frac with 2500 gals 15% DS-30 acid + 20,811 gals. lease oil + 3/4 lbs. sand per gal. via 3-1/2" tubing limited entry between HM straddle packers. ISDP @ 2800 psi. Frac rate @ 16.9 BOPM.

Upper Drinkard Perforations @ 6392-6468'.

Frac with 2500 gals. 15% DS-30 acid + 20,811 gals. lease oil + 1 lb. sand per gal. via 3-1/2" tubing limited entry between HM straddle packers. ISDP @ 2400 psi. Frac rate @ 20.6 BOPM.

POTENTIAL:

Drinkard (6392-6963') IPF 260 BOPD.

Granite Wash (7356-7391') IPF 840 BOPD.

OIL PURCHASER:

Texaco, Inc.  
Midland, Texas

GAS PURCHASER:

Warren Petroleum Corporation  
Tulsa, Oklahoma

WELL STATUS:

Producing oil well.

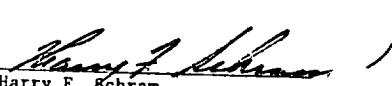
GEOLOGICAL FM. TOPS:

Top of Anhydrite	1158 = +2200
Top of Salt	1255 = +2103
Base of Salt	2496 = + 862
Top of Yates	2540 = + 818
Top of Queen	3365 = - 7
Top of Penrose	3517 = - 159
Top of Means Sand	3687 = - 329
Top of Grayburg	3718 = - 360
Top of Premier Sand	3897 = - 539
Top of San Andres	3945 = - 587
Top of McKnight	5087 = -1729
Top of Glorietta	5111 = -1753
Top of Paddock	5138 = -1780
Top of Blinebry	5480 = -2122
Top of Middle Blinebry	5560 = -2202
Top of Lower Blinebry	5847 = -2489

GEOLOGICAL FM. TOPS CONT'D.

Top of Tubb	6062 = -2704
Top of Drinkard	6270 = -2912
Top of Abo	6568 = -3210
Top of Vivian	6661 = -3303
Top of Andrews	6852 = -3494
Top of Granite Wash	7352 = -3994

ERNEST A. HANSON

  
Harry F. Schram  
Exploration Manager