

Prod (WF)

REPORT NO.
102981 DST 1

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TEST DATE:

15-Sep-1987

WELL PERFORMANCE TESTING™
REPORT

FLOPETROL JOHNSTON

Schlumberger

A Production System Analysis (NODAL™)
Based On Model Verified™ Interpretation

Company: SANTA FE ENERGY

Well: STERLING SILVER "34" FEDERAL #1

TEST IDENTIFICATION

Test Type MFE OH SPRO/TEL
Test No. One
Formation Atoka
Test Interval (ft) ... 13686 to 13741
Reference Depth Kelly Bushing

WELL LOCATION

Field Wildcat
County Eddy
State New Mexico
Sec/Twn/Rng 34/ 23s/ 31e
Elevation (ft) n/a

HOLE CONDITIONS

Total Depth (MD/TUD)(ft) . 13741
Hole Size (in) 6
Casing/Liner I.D. (in) ... --
Perf'd Interv./Nt Pay(ft). -- / 12
Shot Density/Diameter(in). --

MUD PROPERTIES

Mud Type XC
Mud Weight (lb/gal) 9.9
Mud Resistivity (ohm.m) .. --
Filtrate Resistiv.(ohm.m). 0.07 at 75 F
Filtrate Chlorides (ppm) . 122,000

INITIAL TEST CONDITIONS

Initial Hydrostatic (psi). 7316
Gas Cushion Type None
Surface Pressure (psi) ... --
Liquid Cushion Type Fresh Water
Cushion Length (ft) 5500

TEST STRING CONFIGURATION

Pipe Length (ft)/I.D.(in). 12599 / 2.603
Collar Length ft/I.D.(in). 1014 / 2.25
Packer Depths (ft) 13680, 13686
Bottomhole Choke Size(in). 1/2
Gauge Depth (ft)/Type 13642 / SPRO

NET PIPE RECOVERY

Volume	Fluid Type	Properties
Not measured	due to the	circulating of the
pipe volume.		
60 feet	Mud	Rw 0.07 at 75 F
between MFE	and R.S.sub	117,000 PPM

NET SAMPLE CHAMBER RECOVERY

Volume	Fluid Type	Properties
9.22 SCF	Gas	
30 cc	Mud	
Press. 500	GOR:	GLR:

VALIDATION RESULTS

Model of Behavior Heterogeneous
Fluid Type Used Gas
Reservoir Pressure (psi) . 7215 (ISI)
Transmissivity (md.ft/cp) 20.35
Permeability (md) 0.053
Skin Factor/Damage Ratio . -4.10 / 0.19
Storativity Ratio
Interporosity Flow Coeff..
Distance to Anomaly (ft).
Investigation Radius (ft). 52
Potentiometric Surf. (ft).

ROCK/FLUID/WELLBORE PROPERTIES

Oil Density (deg. API) ... None
Basic Solids (%)
Gas Gravity 0.65 (est)
Water Cut (%)
Viscosity (cp) 0.031
Tot. Compress. (1/psi) ... 3.23 E-05
Porosity (%) 3.50
Reservoir Temperature (F). 206
Form.Vol.Factor (bbl/STB).

PRODUCTION RATE DURING TEST: 839 mscf/day

COMMENTS:

The results of the interpretation indicate that the well is in an apparent non-homogeneous system (probably naturally fractured) with low effective permeability and with some wellbore stimulation at the time and conditions of the test. The report flowrate was the TELEFLOW(tm) average during the first 75 minutes of the final flow period (prior to opening at surface). The difference in the pressure extrapolations is believed to be due to drawdown in the fractured system and not depletion in the total reservoir.