

Well File

REPORT NO.
103006 DST 1

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TEST DATE:

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WELL PERFORMANCE TESTING™ REPORT

FLOPETROL JOHNSTON

Schlumberger

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

Company: SANTA FE ENERGY COMPANY

Well: TRIPLE "S" 33 FEDERAL #1

TEST IDENTIFICATION

Test Type MFE OH SPRO DST
Test No. One
Formation Bone Springs
Test Interval (ft) ... 9260 to 9308
Reference Depth Kelly Bushing

WELL LOCATION

Field Sterling Silver
County Eddy
State New Mexico
Sec/Twn/Rng 33/ 23s/ 31e
Elevation (ft) n/a

HOLE CONDITIONS

Total Depth (MD/TUD)(ft) . 9308
Hole Size (in) 7 7/8
Casing/Liner I.D. (in) ... --
Perf'd Interv./Nt Pay(ft). -- / 6
Shot Density/Diameter(in). --

MUD PROPERTIES

Mud Type Fresh Water Gel
Mud Weight (lb/gal) 8.4
Mud Resistivity (ohm.m) .. 0.65 at 72 F
Filtrate Resistiv.(ohm.m). --
Filtrate Chlorides (ppm) . 13,000

INITIAL TEST CONDITIONS

Initial Hydrostatic (psi). 4227
Gas Cushion Type None
Surface Pressure (psi) ... --
Liquid Cushion Type Water
Cushion Length (ft) 90

TEST STRING CONFIGURATION

Pipe Length (ft)/I.D.(in). 8661 / 3.83
Collar Length ft/I.D.(in). 582 / 2.25
Packer Depths (ft) 9254, 9260
Bottomhole Choke Size(in). 1/2
Gauge Depth (ft)/Type 9218 / J-200

NET PIPE RECOVERY

Volume	Fluid Type	Properties
Not measured	due to	circulating out.

NET SAMPLE CHAMBER RECOVERY

Volume	Fluid Type	Properties
0.52 SCF	Gas	
980 cc	Oil	44 API at 60 F
120 cc	Water	0.65 @72F 13000PPM
400 cc	Mud	0.65 at 72 F
Press. 180	GOR: 84	GLR: 84

VALIDATION RESULTS

Model of Behavior Homogeneous
Fluid Type Used Liquid
Reservoir Pressure (psi) . 4512
Transmissivity (md.ft/cp) 0.10
Permeability (md) 0.04
Skin Factor/Damage Ratio . 0.87 / 1.41
Storativity Ratio --
Interporosity Flow Coeff.. --
Distance to Anomaly (ft). --
Investigation Radius (ft). 4
Potentiometric Surf. (ft). --

ROCK/FLUID/WELLBORE PROPERTIES

Oil Density (deg. API) ... 44
Basic Solids (%)
Gas Gravity 0.65 (est)
Water Cut (%) Assumed to be 0
Viscosity (cp) 2.28
Tot. Compress. (1/psi) ... 1.33 E-05
Porosity (%) 8
Reservoir Temperature (F). 139
Form.Vol.Factor (bbl/STB). 1.04

GOR = 1.034 in chamber mcf/b

PRODUCTION RATE DURING TEST: 1 Bbls/day

COMMENTS:

The results of the interpretation indicate that the well is in an apparent homogeneous system with low effective permeability and with slight wellbore damage at the time and conditions of the test. The water in the sample chamber was assumed to be mud filtrate. NODAL(tm) plots were included to show the effect of perforation shot density and propped hydraulic fracture length.