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TEST DATE: 11-Dec-1986

WELL PERFORMANCE TESTING™ REPORT

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

FLOPETROL JOHNSTON
Schlumberger

Company: SANTA FE ENERGY COMPANY

Well: NH "5" FEDERAL #1

TEST IDENTIFICATION

Test Type	L.Inf J-300/Tel
Test No.	Seven
Formation	Wolfcamp
Test Interval (ft)	10090 to 10200
Reference Depth	Kelly Bushing

WELL LOCATION

Field	N.Hume Prospect
County	Lea
State	New Mexico
Sec/Twn/Rng	5/ 16s/ 34e
Elevation (ft)	4159

HOLE CONDITIONS

Total Depth (MD/TVD) (ft)	11238
Hole Size (in)	7 7/8
Casing/Liner I.D. (in)	--
Perf'd Interval/Net Pay (ft)	-- / 8
Shot Density/Diameter (in)	--

MUD PROPERTIES

Mud Type	Gel
Mud Weight (lb/gal)	9.5
Mud Resistivity (ohm.m)	n/a
Filtrate Resistivity (ohm.m)	--
Filtrate Chlorides (ppm)	2,000

INITIAL TEST CONDITIONS

Initial Hydrostatic (psi)	5084
Gas Cushion Type	None
Surface Pressure (psi)	--
Liquid Cushion Type	Fresh Water
Cushion Length (ft)	1297

TEST STRING CONFIGURATION

Pipe Length (ft)/I.D. (in)	n/a / 3.83
Collar Length (ft)/I.D. (in)	n/a / 2.25
Packer Depths (ft)	10092, 10200
Bottomhole Choke Size (in)	1.0
Gauge Depth (ft)/Type	10076 / J-300

NET PIPE RECOVERY

Volume	Fluid Type	Properties
1297 feet	Cushion	Slight oil/mud cut
		Rw 4.6 @ 70 800 PPM
70 feet	Mud, slight	oil cut 2,000 PPM
1308 feet	Mud heavily	oil and gas cut
		Rw 1.4 @ 66 1800 PPM

NET SAMPLE CHAMBER RECOVERY

Volume	Fluid Type	Properties
2.87 scf	Gas	
1200 cc	Oil	45 API at 42 F
200 cc	Water	Rw 0.29 at 64 F
		19,000 PPM
Pressure: 800	GOR: 380	GLR: 326

INTERPRETATION RESULTS

Model of Behavior	Homogeneous
Fluid Type Used for Analysis	Liquid
Reservoir Pressure (psi)	3816
Transmissibility (md.ft/cp)	947.88
Effective Permeability (md)	90.05
Skin Factor/Damage Ratio	49.90 / 8.38
Storativity Ratio	
Interporosity Flow Coeff.	
Distance to an Anomaly (ft)	
Radius of Investigation (ft)	378
Potentiometric Surface (ft)	2894

ROCK/FLUID/WELLBORE PROPERTIES

Oil Density (deg. API)	42 (est)
Basic Solids (%)	
Gas Gravity	0.65 (est)
Water Cut (%)	14 (sampler)
Viscosity (cp)	0.76
Total Compressibility (1/psi)	1.6 E-05
Porosity (%)	8
Reservoir Temperature (F)	141
Form.Vol.Factor (bbl/STB)	1.14

PRODUCTION RATE DURING TEST: 270 Bbls/day

COMMENTS:

The results of the interpretation indicate that the well is in a homogeneous system with good effective permeability and severe apparent wellbore damage at the time and conditions of the test. The buildups may have been affected by a constant pressure boundary (as indicated by the tendency of the curves to flatten), this would make the calculated permeability optimistic and the skin number/damage ratio pessimistic.

This is preliminary report that does not include the surface pressure data collected during the test.