OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-122
Revised 10-1-78

RECEIVED
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OIL CON. DIV.
DIST. 3

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test: [x] Initial [ ] Annual [ ] Special			Test Date: 4-14-84		
Company: SOVEREIGN OIL COMPANY	Connection:			Unit:	
Pool: Undesignated	Formation: Pictured Cliffs				
Completion Date: 4-4-84	Total Depth: 3181	Plug Back TD:	Elevation: TbgHd:6159	Farm or Lease Name: Navajo Lake 32-6	
Csg. Size: 4 1/2 / Wt.: 10.5 / d: / Set At: 3180	Perforations: From 2826 To 3020			Well No.: 1	
Tbg. Size: 2 3/8" / Wt.: 4.7 / d: / Set At: 2860'	Perforations: From Open end To			Unit: NW / Sec.: 9 / Twp.: 32N / Rge.: 6W	
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single	Packer Set At: None			County: San Juan	
Producing Thru: Tubing	Reservoir Temp. °F:	Mean Annual Temp. °F:	Baro. Press. – P_a:	State: New Mexico	
L:	H:	Gg:	% CO_2:	% N_2:	% H_2S: / Prover: / Meter Run: / Taps:

FLOW DATA / TUBING DATA / CASING DATA

NO.	Prover Line Size X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	Tubing Press. p.s.i.g.	Tubing Temp. °F	Casing Press. p.s.i.g.	Casing Temp. °F	Duration of Flow
SI	231 hrs				1491		1483		SI
1.	0.75 C.N.				96		654		1 hr
2.	0.75 C.N.				80		467		2 hrs
3.	0.75 C.N.				61		454		3 hrs
4.									
5.									

RATE OF FLOW CALCULATIONS

NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P_m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	12.365		108	74° -.9868	Est.1.0	1.007	1327
2.	12.365		92	74° -.9868	Est.1.0	0	1123
3.	12.365		73	74° -.9868	Est.1.0	0	891
4.							
5.							

NO.	P_t	Temp. °R	T_t	Z
1.				
2.				
3.				
4.				
5.				

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
Specific Gravity Separator Gas _____ XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX _____
Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
Critical Temperature _____ R _____ R

P_c 1503 P_c^2 2259009

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1				
2				
3				
4				
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = \frac{2259009}{2253680}$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = (1.002)^{.85} = 1.002$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 891 \times 1.002$

Absolute Open Flow 893 Mcfd @ 15.025 | Angle of Slope θ _____ | Slope, n 0.85

Remarks: Water vapor in 2 min. started heavy water vapor in 33 min. and continued throughout test. Est 4-5 BWPH

Approved By Division	Conducted By:	Calculated By:	Checked By:
	John Heller	John Heller	