STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

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

Form C-122
Revised 10-1-78

RECEIVED
OCT 1 '90
O. C. D.
ARTESIA, OFFICE

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 9-24-90	
Company: MURCHISON OIL & GAS			Connection: PIPELINE		Unit:
Pool: WHITE CITY PENN.			Formation: ATOKA		
Completion Date: 9-18-90	Total Depth: 11526.		Plug Back TD: 10885.	Elevation: 3374 G.L.	Farm or Lease Name: OGDEN STATE
Csg. Size: 4.500 / Wt.: 13.5 / d: 3.920 / Set At: 10885.			Perforations: From 10320. To 10372.		Well No.: 2
Tbg. Size: 2.375 / Wt.: 4.7 / d: 1.995 / Set At: 10210.			Perforations: From 0 To 0		Unit: / Sec.: / Twp.: / Rge.: S2-T25S-R26E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: SINGLE (GAS)			Packer Set At: 10150		County: EDDY
Producing Thru: TBG. (GAS)	Reservoir Temp. °F: 160.@ 10346.	Mean Annual Temp. °F: 60.0	Baro. Press. – P_a: 13.2		State: N.M.

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
10346.	10346.	.602	.48	.66	.00	.0	2.0	FLANGE

	FLOW DATA				TUBING DATA		CASING DATA		
NO.	Prover Line Size	X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow
SI						3525.	60.			72.0
1.	2.00	X 1.500	209.	3.6	66.	3415.	60.	0	0.	1.0
2.	2.00	X 1.500	230.	6.8	68.	3325.	60.	0	0.	1.0
3.	2.00	X 1.500	252.	18.0	77.	3190.	60.	0.	0.	1.0
4.	2.00	X 1.500	299.	39.6	77.	2747.	60.	0.	0.	1.0
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	13.20	28.44	221.9	.9943	1.2888	1.0181	490.
2.	13.20	40.78	243.0	.9924	1.2888	1.0196	702.
3	13.20	69.08	265.1	.9840	1.2888	1.0202	1180.
4.	13.20	111.18	312.1	.9840	1.2888	1.0238	1906.
5.							

NO.	P_r	Temp. °R	T_r	Z
1	.33	526.	1.48	.965
2.	.36	528.	1.48	.962
3.	.39	537.	1.51	.961
4.	.46	537.	1.51	.954
5.				

Gas Liquid Hydrocarbon Ratio 77.4 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 49.3 Deg.
Specific Gravity Separator Gas .602 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX .639
Critical Pressure 673. P.S.I.A. 672. P.S.I.A.
Critical Temperature 357. R 368. R

P_c 3538.2 P_c^2 12519.

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1	11753.	3432.	11782.	737.
2	11144.	3344.	11179.	1340.
3	10260.	3213.	10320.	2198.
4	7619.	2781.	7731.	4787.
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.6150$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2.0068$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 3825.$

Absolute Open Flow 3825. Mcfd @ 15.025 Angle of Slope θ 54.1 Slope, n .725

Remarks: CHOKE SIZE: 1ST RATE 3/64 2ND RATE 5.5/64
3RD RATE 8/64 4TH RATE 12/64

Approved By Division	Conducted By:	Calculated By:	Checked By:
	BENNETT-CATHEY	JIM SMITH, PE	M. R. RANDOLPH