NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 9-1-65

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

RECEIVED
JAN 21 1982
O. C. D.
ARTESIA, OFFICE

Type Test: [X] Initial [ ] Annual [ ] Special	Test Date: 12-30-81		
Company: MESA PETROLEUM CO.	Connection: Unconnected		
Pool: ~~Undesignated~~ Abo	Formation: Abo		
Completion Date: 12-30-81	Total Depth: 4150'	Plug Back T.D.: 4089'	Elevation: 3981'
Farm or Lease Name: Stancel Federal			
Csg. Size: 4½ / Wt.: 10.5# / d: / Set At: 4150'	Perforations: From 3679 To 3938	Well No.: 5	
Tbg. Size: 2-3/8 / Wt.: 4.7# / d: / Set At: 3581'	Perforations: From Open Ended To	Unit: C / Sec.: 23 / Twp.: 5 / Rge.: 24	
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single	Packer Set At: None	County: Chaves	
Producing Thru: Tubing	Reservoir Temp. °F: 102° @ 4150'	Mean Annual Temp. °F: 60	Baro. Press. – P_a: 13.2
State: New Mexico			

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
		.65	1	1		2" orifice well tester		

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							940		910		72 hr. SI
1.	2" orifice		1¼	14		20	770	50	745		1 hr.
2.	well		1¼	24		30	600	56	605		1 hr.
3.	tester		1¼	28		38	455	55	470		1 hr.
4.			1¼	30		48	350	61	375		1 hr.
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	928	2" orifice well		1.0408	.9608		928
2	1411	tester		1.0302	.9608		1397
3	1559			1.0219	.9608		1531
4	1632			1.0117	.9608		1586
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 _____ XXXXXXXXXX
Specific Gravity Flowing Fluid XXXXX _____
Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
Critical Temperature _____ R _____ R

P_c 923 P_c^2 852

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		758	575	277
2		618	382	470
3		483	233	619
4		388	151	701
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2}$ = 1.2154 (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n$ = 1.0125

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n$ = 1750

Absolute Open Flow 1750 Mcfd @ 15.025 Angle of Slope θ 63.5° Slope, n .5

Remarks: Plot of $Pc^2 - Pw^2$ vs. Q yielded a straight line with a θ greater than 63.5°. Drew 63.5° line through highest point.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	James Craig	E. L. Buttross, Jr. 1-5-82	

MESA PETROLEUM CO
STANCEL FEDERAL #5
12-30-81