

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST, FOR GAS WELL

RECEIVED C-122
Revised 5-1-65

MAY 6 1976

☒ Initial ☐ Annual ☐ Special		Test Date 4-23-76		MESA - PBD	
MESA PETROLEUM Co.		Connection Air		Unit	
Nash Draw, Morrow		Formation Morrow		F	
Date 4-21-76		Total Depth 13,946'		Plug Back TD 13,895'	
Elevation 3057' RKB		Well No. #2		Nash Draw Unit	
Size 5"		Set At 13,946'		Perforations: From 13416 To 13654	
Rate 2.375EUE		Set At 13400		Perforations: From To	
Type Well - Single - Bradenhead - G.C. or G.O. Multiple		Packer Set At 13400		County Eddy	
Dual Completion Gas-Gas		Baro. Press. - P _g 13.2		State New Mexico	
Predicting Thru Tubing		Reservoir Temp. °F 13535		Mean Annual Temp. °F 60	
H 13535		G _g 0.571		% CO ₂ 0.97	
Prover X		% N ₂ 0.00		% H ₂ S 0.00	
Meter Run X		Taps			

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow
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.	
1.	3.00	1.75	605	9.00"	90	4450	70	1.00 Hr.		
2.	3.00	1.75	630	17.00"	80	4250	70	1.00 Hr.		
3.	3.00	1.75	635	34.00"	70	4000	70	1.00 Hr.		
4.	3.00	1.75	640	50.00"	70	3600	70	1.00 Hr.		

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mscf
1.	13.24	74.591	618.20	0.9723	1.3234	1.0390	1320
2.	13.24	104.568	643.20	0.9813	1.3234	1.0440	1877
3.	13.24	148.455	648.20	0.9905	1.3234	1.0480	2700
4.	13.24	180.721	653.20	0.9905	1.3234	1.0480	3287

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Met/bbl.
1.	0.92	550	1.59	0.909	None Produced	
2.	0.96	540	1.56	0.905	0.571	XXXXXXX
3.	0.96	530	1.53	0.904	0.571	XXXXXXX
4.	0.97	530	1.53	0.904	672	P.S.I.A. 672 P.S.I.A.
					346	R 346 R

NO.	P _w	P _w ²	P _e ² - P _w ²
1.	4475.0	20026	2662
2.	4015.3	16123	6565
3.	4053.5	16431	6257
4.	3675.8	13511	6515

(1) $\frac{P_e^2}{P_e^2 - P_w^2} = 3.48243$

AOF = 0 $\left[\frac{P_e^2}{P_e^2 - P_w^2} \right]^n = 11446$

(2) $\left[\frac{P_e^2}{P_e^2 - P_w^2} \right]^n = 3.48248$

RECEIVED

MAY 21 1976

AOF = 11446	Mscf @ 15.025	Angle of Slope ° 45	O.C.C. CO
-------------	---------------	---------------------	-----------

Calculated by: *James Davis* Checked by: