c/SF File

NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED BY
AUG 08 1985
O. C. D.
ARTESIA, OFFICE

Type Test: ☒ Initial ☐ Annual ☐ Special				Test Date: 7-11-85	
Company: O. SANTA FE ENERGY			Connection: AIR NEW WELL		
Pool: ~~SOUTH CARLSBAD~~ Atls Morrow Gas			Formation: MORROW		Unit: D
Completion Date: 7-5-85	Total Depth: ~~12253~~ 12255		Plug Back T.D.: 12140	Elevation: 0	Farm or Lease Name: DUNN
Csg. Size: 5.000 / Wt.: 18.0 / d: 4.276 / Set At: 12140	Perforations: From 11901 To 11914				Well No.: 1
Tbg. Size: 2.375 / Wt.: 4.7 / d: 1.995 / Set At: 11792	Perforations: From 0 To 0				Unit: D / Sec.: 25 / Twp.: 22S / Rge.: 27E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: SINGLE			Packer Set At: 11792		County: EDDY
Producing Thru: TUBING	Reservoir Temp. °F: 240 @ 11908	Mean Annual Temp. °F: 60.0	Baro. Press. – P_a:		State: NEW MEXICO

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
11908	11908	0.576	1.13	0.14	0	0	4.0	FLANGE

NO.	FLOW DATA: Prover Line Size X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	TUBING DATA: Press. p.s.i.g.	Temp. °F	B.H.P. DATA: Press. p.s.i.g.	CHOKE	Duration of Flow
SI					4019		5075		112.5
1.	4.03 X 1.625	600	2.0	120	3185	86	4183	4.5/64	1.0
2.	4.03 X 1.625	587	3.1	121	2778	88	3740	5.5/64	1.0
3.	4.03 X 1.625	547	4.6	111	2513	86	3407	6.9/64	1.0
4.	4.03 X 1.625	496	6.0	94	2363	84	3214	8.0/64	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	12.79	35.02	613.2	0.9469	1.3176	1.0310	576
2	12.79	43.13	600.2	0.9460	1.3176	1.0302	708
3	12.79	50.76	560.2	0.9543	1.3176	1.0304	841
4	12.79	55.27	509.2	0.9688	1.3176	1.0314	931
5							

NO.	P_t	Temp. °R	T_r	Z
1	0.90	580	1.66	0.941
2	0.88	581	1.67	0.942
3	0.83	571	1.64	0.942
4	0.75	554	1.59	0.940
5				

Gas Liquid Hydrocarbon Ratio: 0 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: 0 Deg.
Specific Gravity Separator Gas: 0.576 XXXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX 0.576
Critical Pressure: 678 P.S.I.A. 678 P.S.I.A.
Critical Temperature: 349 R 349 R

P_c 4075.6 P_c^2 16610

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		3317	11006	5605
2		2951	8709	7902
3		2680	7184	9427
4		2525	6377	10234
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.6231$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.4733$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1371$

Post ID-2
8-16-85
Comp + BK

Absolute Open Flow: 1371 Mcfd @ 15.025 | Angle of Slope θ: 51.3 | Slope, n: 0.800

Remarks: B.H.P. MEASURED WITH AMERADA PRESSURE ELEMENT

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	BENNETT & CATHEY	DON BENNETT	