Well file

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

Form C-122
Revised 9-1-65

RECEIVED
SEP 10 1971
O. C. C.
ARTESIA, OFFICE

Type Test: ☐ Initial ☒ Annual (after Conn. test) ☐ Special	Test Date: 9--4-71		
Company: Shenandoah Oil Corporation	Connection: Transwestern Pipeline		
Pool: Haystack (Cisco Gas)	Formation: Cisco Gas	Unit	
Completion Date: 12-18-70	Total Depth: 6350'	Plug Back TD: 6308'	Elevation: 4084'KB
Farm or Lease Name: Federal L Com			
Csg. Size: 4 1/2" / Wt.: 9.5 / d: 4.090 / Set At: 6350'	Perforations: From 5803' To 5922'	Well No.: NO.1	
Tbg. Size: 2 3/8" / Wt.: 4.7 / d: 1.995 / Set At: 5725'	Perforations: From Open To Ended	Unit: F / Sec.: 21 / Twp.: 6s / Rge.: 27e	
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single	Packer Set At: 5725'	County: Chaves	
Producing Thru: Tubing	Reservoir Temp. °F: 106 @ 5800'	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
5863'	-	0.661	0.18	4.42	0.00		X	F

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	CASING DATA: Press. p.s.i.g.	Temp. °F	Duration of Flow
SI							1911				72.0
1.	4	11/64	1.5	860	25	90	1830		PACKER		4.0
2.	4	13/64	1.5	860	36	82	1775				4.0
3.	4	15/64	1.5	880	63	74	1696				4.0
4.	4	17/64	1.5	880	81	72	1610				4.0
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	10.84	147.75	873.2	0.9723	1.230	1.066	2041.8
2	10.84	177.30	873.2	0.9795	1.230	1.071	2479.9
3	10.84	237.17	893.2	0.9868	1.230	1.076	3357.7
4	10.84	268.83	893.2	0.9887	1.230	1.076	3813.2
5							

NO.	P_r	Temp. °R	T_r	Z
1	1.31	550	1.52	0.880
2	1.31	542	1.49	0.872
3	1.34	534	1.47	0.863
4	1.34	532	1.47	0.863
5				

Gas Liquid Hydrocarbon Ratio 35.321 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 64.2 Deg.
Specific Gravity Separator Gas 0.661 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX
Critical Pressure 665 P.S.I.A. - P.S.I.A.
Critical Temperature 363 R - R

P_c 2290.2 P_c^2 5245.0

NO	P_w	P_w*	P_w^2	$P_c^2 - P_w^2$
1	-	2261.2	5113.0	132.0
2	-	2253.2	5076.9	168.1
3	-	2235.2	4996.1	248.9
4	-	2226.2	4956.0	289.0
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 39.735$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 20.0$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 40836$

Absolute Open Flow 40800 Mcfd @ 15.025 Angle of Slope θ 50° 47' Slope, n 0.816

Remarks: * BHP @(-1779') 5863' used for pressure calculations

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	COLEMAN PET.ENG.CO.	JOE A. COLEMAN	JOE A. COLEMAN