NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED

APR 14 1982

O. C. D.

ARTESIA, OFFICE

C/SF C-122

Type Test: ☒ Initial ☐ Annual ☐ Special			Test Date: 4-5-82	
Company: Gulf Oil ~~Exploration & Prod.~~ Corp.	Connection: Air			
Pool: ~~Wildcat~~ Shugart Morrow	Formation: Morrow		Unit: C	
Completion Date: 4-1-82	Total Depth: 13510	Plug Back TD: 13466	Elevation: G.L. 3586	Farm or Lease Name: South Shugart Deep ~~Pe~~ Unit
Csg. Size: 5 ½ / Wt.: 17 / d: / Set At: 13510	Perforations: From 11823 To 11969			Well No.: ~~Unit~~ #1
Tbg. Size: 2 3/8 / Wt.: / d: / Set At: 11769	Perforations: From To			Unit: C / Sec.: 4 / Twp.: 19s / Rge.: 31e
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single	Packer Set At: 11769			County: Eddy
Producing Thru: Tbg.	Reservoir Temp. °F: 192@ 11751	Mean Annual Temp. °F: 60°	Baro. Press. – P_a: 13.2	State: N.M.

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
*11751	11751	.654	.49	.44			4"	Flg.

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					3260				48 hrs.
1.	4 X 1.500	455	2.0	98	2765				1 hr.
2.	4 X 1.500	460	4.0	97	2615				1 hr.
3.	4 X 1.500	450	8.0	85	2380				1 hr.
4.	4 X 1.500	460	17.0	84	2040				1.5 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	10.84	30.60	468.2	.9653	1.237	1.038	411
2	10.84	43.51	473.2	.9662	1.237	1.039	586
3	10.84	60.87	463.2	.9768	1.237	1.041	830
4	10.84	89.69	473.2	.9777	1.237	1.043	1226
5							

NO.	P_t	Temp. °R	T_r	Z
1	.70	558	1.49	.928
2	.71	557	1.49	.927
3	.69	545	1.45	.922
4	.71	544	1.45	.920
5				

Gas Liquid Hydrocarbon Ratio 21.821 Mcf/bbl.

A.P.I. Gravity of Liquid Hydrocarbons 56.5 @ 60 Deg.

Specific Gravity Separator Gas .654 XXXXXXXXXX

Specific Gravity Flowing Fluid XXXXX .784

Critical Pressure 670 P.S.I.A. 666 P.S.I.A.

Critical Temperature 375 R 418 R

P_c 3501.8 P_c^2 12262.6

NO	*BHP	P_w	P_w^2	$P_c^2 - P_w^2$
1	4337.2	3009.4	9056.5	3206.1
2	4137.2	2846.4	8102.2	4160.4
3	3852.2	2617.7	6852.4	5410.2
4	3246.2	2164.8	4686.4	7576.2
5	4929.2	S.I.P.		

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.619$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.619$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1,984$

Posted ID-2 + Comp. Book SI 4-23-82

Absolute Open Flow 1,984 Mcfd @ 15.025 Angle of Slope θ 45° Slope, n 1.000

Remarks: Bottom-hole pressures taken from a bomb set @ 11751'
7 bbls. of distillate produced during the test.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	Davis Services, Inc.	Rick Pagan	