NEW MEXICO OIL CONSERVATION COMMISSION

Form C-12. Revised ...

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test: [X] Initial [ ] Annual [ ] Special	Test Date: 9/26/79		
Company: SHELL OIL COMPANY	Connection: UNCONNECTED		
Pool: ANTELOPE RIDGE (MORROW GAS)	Formation: MORROW.	Unit: ANTELOPE RIDGE	
Completion Date:	Total Depth: 13,758'	Plug Back TD: 13,658'	Elevation: 3499'
Farm or Lease Name: ANTELOPE RIDGE UNIT	Well No.: 6		

Csg. Size	Wt.	d	Set At	Perforations: From	To
5-1/2	22.54	4.67	13,758	13,216	13,643

Tbg. Size	Wt.	d	Set At	Perforations: From	To
2-7/8	6.5	2.441	13,100	13,216	13,643

Unit	Sec.	Twp.	Rge.
G	3	24S	34E

County: LEA

State: NEW MEXICO

Type Well – Single – Bradenhead – G.G. or G.O. Multiple: NA

Packer Set At: 13,100

Producing Thru	Reservoir Temp. °F	Mean Annual Temp. °F	Baro. Press. – P_a
TBG	#183	82	13.2

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
13,100	13,100	.615	0	0	0		4.026	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							5160	80	Packer		95 hrs.
1.	4	x	2.75	290	9	80	4075	81			1 hr
2.	4	x	2.75	315	15	64	3455	84			1 hr
3.	4	x	2.75	340	27	72	2470	85			1 hr
4.	4	x	2.75	340	41	74	1292	86			1 hr
5.											

RATE OF FLOW CALCULATIONS

NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P_m	Flow Temp. Factor F_t	Gravity Factor F_g	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	41.1	52.24	303.2	.9813	1.275	1.024	2750
2.	41.1	70.14	328.2	.9962	1.275	1.030	3772
3	41.1	97.65	353.2	.9887	1.275	1.031	5216
4.	41.1	120.34	353.2	.9868	1.275	1.030	6409
5.							

NO.	P_r	Temp. °R	T_r	Z
1	.45	540	1.49	.953
2.	.49	524	1.44	.942
3.	.53	532	1.46	.94
4.	.53	534	1.47	.943
5.				

Gas Liquid Hydrocarbon Ratio: 0 Mcf/bbl.

A.P.I. Gravity of Liquid Hydrocarbons: – Deg.

Specific Gravity Separator Gas: .615 XXXXXXXXX

Specific Gravity Flowing Fluid: XXXXX

Critical Pressure: 671 P.S.I.A. ____ P.S.I.A.

Critical Temperature: 363 R ____ R

P_c 6847 P_c^2 46844 x 10^3

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_t^2$
1	32515x10^3			14369x10^3
2	24366x10^3			22518x10^3
3	13832x10^3			33052x10^3
4	4810			42074x10^3
5				

(1) $\frac{P_c^2}{P_c^2 - P_t^2}$ = 2.08

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n$ = 1.86

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n$ = 7011

Absolute Open Flow: 7011 Mcfd @ 15.025

Angle of Slope θ: ____

Slope, n: .8464

Remarks:

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	B. G. Ryahs	Q. B. Nguyen	