N MEXICO OIL CONSERVATION COMM:)N

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

HOBBS OFFICE O. C. C.

JAN 19 11 44 AM '67

Type Test: [X] Initial [ ] Annual [ ] Special			Test Date: 1-12-67	
Company: SHELL OIL COMPANY (WESTERN DIVISION)	Connection: SHELL-ANTELOPE RIDGE PLANT			
Pool: ANTELOPE RIDGE (MORROW GAS)	Formation: MORROW			Unit: ANTELOPE RIDGE
Completion Date: JANUARY 5, 1967	Total Depth: 14,832'	Plug Back TD: 13,282'	Elevation: 3483' DF	Farm or Lease Name: ANTELOPE RIDGE UNIT
Csg. Size: 5 1/2 / Wt.: 19.8# / d: 4.778 / Set At: 14,655'	Perforations: From 13,226' To 13,278'			Well No.: 1
Tbg. Size: 2 3/8 / Wt.: 4.7# / d: 1.995" / Set At: 13,165'	Perforations: From OPEN To END			Unit: N / Sec.: 27 / Twp.: 23S / Rge.: 34E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: SINGLE		Packer Set At: 13,165'		County: LEA
Producing Thru: TBG.	Reservoir Temp. °F: @	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
13,165	13,165	.595	0	0	0		4"	FLGE.

	FLOW DATA					TUBING DATA		CASING DATA		
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.	Temp. °F	Duration of Flow
SI						6991	60	PACKER		29 HRS
1.	4	X 2.750	790	5.29	62	5620	69			3
2.	4	X 2.750	920	9.00	73	4498	76			3
3.	4	X 2.750	925	14.44	78	3319	78			3
4.	4	X 2.750	800	25.00	80	1848	80			4
5.	4	X 2.750	845	19.80	80	2687	80			20

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	41.10	65.18	803.2	.9981	1.296	1.069	3,705
2.	41.10	91.64	933.2	.9877	1.296	1.071	5,163
3.	41.10	116.4	938.2	.9831	1.296	1.070	6,522
4.	41.10	142.6	813.2	.9813	1.296	1.059	7,893
5.	41.10	130.4	858.2	.9813	1.296	1.062	7,239

NO.	P_r	Temp. °R	T_r	Z
1.	1.20	522	1.47	.875
2.	1.39	533	1.51	.872
3.	1.40	538	1.52	.873
4.	1.21	540	1.53	.891
5.	1.28	540	1.53	.886

Gas Liquid Hydrocarbon Ratio 134 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 47.0 API Deg.
Specific Gravity Separator Gas .595 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX .7927
Critical Pressure 672 P.S.I.A. ____ P.S.I.A.
Critical Temperature 354 R ____ R

P_c 8754.2 P_c^2 76,636

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		7384.2	54,526	22,110
2		6236.2	38,890	37,746
3		5007.2	25,072	51,564
4		3563.2	12,696	63,940
5		4322.2	18,681	57,955

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.322$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.244$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 9,005$

Absolute Open Flow 9,005 Mcfd @ 15.025 Angle of Slope θ 51.5° Slope, n .781

Remarks: BOTTOM HOLE PRESSURES MEASURED WITH BHP BOMB.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	A. L. ELLERD	A. L. ELLERD	