NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELLS

Form C-122
Revised 9-1-65

RECEIVED
MAR 5 - 1976
OIL CONSERVATION COMM.
Santa Fe

Type Test: [X] Initial [ ] Annual [ ] Special			Test Date: 2/23/76	
Company: PETROLEUM DEVELOPMENT CORP.	Connection: none			
Pool: Wildcat	Formation: Morrow			Unit
Completion Date: 2/23/76	Total Depth: 13,007	Plug Back TD: 12,946	Elevation: 3684 KB	Farm or Lease Name: McKay-Shell Federal
Csg. Size: 5½" / Wt.: 17# / d: 4.892" / Set At: 13,007		Perforations: From 12,603 to 12,900		Well No.: 1
Tbg. Size: 2-3/8" / Wt.: 4.7# / d: 1.995" / Set At:		Perforations: From See "Remarks"		Unit: K / Sec.: 3 / Twp.: 19S / Rge.: 32E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single		Packer set at 12,545		County: Lea
Producing Thru: Tubing	Reservoir Temp. °F: 163 @ 13,007	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
12,760	12,760	0.660	0.35	0.40	----	----	4"	Flange

	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						3930	57°	2350	choke	24 hr.
1.	4"	1"	490	8	100	2800	55°	2350	4/64	1 hr.
2.	4"	1"	493	11.5	86	2600	58°	2350	6/64	1 hr.
3.	4"	1"	500	23	96	2200	60°	2350	7/64	1 hr.
4.	4"	1"	500	27	78	1890	60°	2350	8/64	1 hr.
5.	4"	1"	500	51	96	1490	60°	2350	10/64	1 hr.

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	4.753	63.45	503.2	0.9636	1.231	1.042	373
2.	4.753	76.30	506.2	0.9759	1.231	1.047	456
3.	4.753	108.64	513.2	0.9671	1.231	1.044	642
4.	4.753	117.71	513.2	0.9831	1.231	1.050	711
5.	4.753	161.78	513.2	0.9671	1.231	1.044	956

NO.	P_t	Temp. °R	T_r	Z
1.	0.75	560	1.48	0.921
2.	0.76	546	1.44	0.913
3.	0.77	556	1.47	0.918
4.	0.77	538	1.42	0.907
5.	0.77	556	1.47	0.918

Gas Liquid Hydrocarbon Ratio 12,084 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 53.1 @ 60° Deg.
Specific Gravity Separator Gas 0.660 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX
Critical Pressure 670 P.S.I.A. ____ P.S.I.A.
Critical Temperature 378 R ____ R

P_c 5663.2 P_c^2 32.07

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1	7.91	4345.2	18.88	13.19
2	6.83	4177.2	17.45	14.62
3	4.90	3718.2	13.83	18.24
4	3.62	3365.2	11.32	20.75
5	2.26	2758.2	7.61	24.46

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.3111$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.3111$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1253$

Absolute Open Flow 1253 Mcfd @ 15.025 Angle of Slope θ 45° Slope, n 1

Remarks: BHP by Amarada gauge at 12,550'. PERFORATIONS: 12,603-05, 12,618-21, 12,664-65, 12,669-70, 12,687-94, 12,714-15, 12,726-28, 12,741-46, 12,755-59, 12,896-900.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	C. W. Sanders	J. C. Johnson	