NEW MEXICO OIL CONSERVATION COMMSSION

MULTIPOINT) ONE POINT BACK PRESSURE TES OR GAS WELL

Form C-122
Revised 9-1-65

Type Test: [X] Initial [ ] Annual [ ] Special			Test Date: 1-30-78	SPUD DATE 1-5-78	
Company: DOYLE HARTMAN		Connection: TO AIR			
Pool: LANGLIE MATTIX		Formation: SEVEN RIVERS - QUEEN		Unit	
Completion Date: 1-24-78	Total Depth: 3,718'	Plug Back TD:	Elevation: 3283	Farm or Lease Name: ADELE SOWELL	
Csg. Size: 4½" / Wt.: 10.5# / d: 4.052" / Set At: 3,718'			Perforations: From 3,387' To 3,497'	Well No.: 2	
Tbg. Size: 2 3/8" / Wt.: 4.7# / d: 1.995" / Set At: 3,487'			Perforations: From OPEN ENDED	Unit: I / Sec.: 19 / Twp.: 24S / Rge.: 37E	
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: SINGLE			Packer Set At: NONE	County: LEA	
Producing Thru: TUBING	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
.3487	3487	0.650						POSITIVE CHOKES

	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	6" CHOKE NIPPLE				198		200		24 HR.
1.	1/8	195		42	195	42	197		1 HR.
2.	5/16	192		48	192	48	194		1 HR.
3.	3/16	190		51	190	51	192		1 HR.
4.	7/32	187		53	187	53	189		1 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	.2618		208.2	1.018	1.240	1.024	70
2	.4173		205.2	1.012	1.240	1.023	110
3	.6101		203.2	1.009	1.240	1.022	159
4	.8419		200.2	1.007	1.240	1.022	215
5							

NO.	P_t	Temp. °R	T_r	Z
1	.31	502	1.34	.954
2	.31	508	1.35	.955
3	.30	511	1.36	.957
4	30	513	1.37	.958
5				

Gas Liquid Hydrocarbon Ratio: DRY GAS Mcf/bbl.

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

Specific Gravity Separator Gas: 0.650 XXXXXXXXX

Specific Gravity Flowing Fluid: XXXXX

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

Critical Temperature: 375 R R

P_c 213.2 P_c^2 45.5

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		210.2	44.2	1.3
2		207.2	42.9	2.6
3		205.2	42.1	3.4
4		202.2	40.9	4.6
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 9.891$ (3) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 9.891$

Slope $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2.127$

Absolute Open Flow: 2,127 Mcfd @ 15.025 Angle of Slope θ: 45 Slope, n: 1.00 LIMIT

Remarks:

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
Orig. Signed by Jerry Sexton Dist. I, Supv.	M.C.T.	R.R.	J.W.W.

DOYLE HARTMAN ADELE SOWELL NO. 2 1-30-78

Q_1 = 420 = LOG 2.623249
Q_2 = 42 = LOG 1.623249
N = 1.000000

CAOF = $215 \frac{45.5}{4.6}^{1.00}$ = 2,127 MCF/DAY