

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Undesignated Formation Morrow County Lea
Initial X Annual _____ Special _____ Date of Test 10-23-64
Company Sinclair Oil & Gas Company Lease Southwest Jal Unit Well No. 1
Unit G Sec. 4 Twp. 26S Rge. 37E Purchaser None
Casing 4 1/2" Wt. 14.98 I.D. 3.826 Set at 13497 Perf. 13040 To 13202
Tubing 2 3/8" Wt. 4.7# I.D. 1.995 Set at 12,841 Perf. OE To _____
Gas Pay: From 13040 To 13202 L 12841 α G 0.9277 -GL 11912 Bar.Press. 13.2
Producing Thru: Casing _____ Tubing X Type Well Single w/ Packer
Date of Completion: 9-29-64 Packer 12841 Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. Single

OBSERVED DATA

Tested Through (Packer) (Casing) (Meter)Type Taps Flange

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Packer) (Line) Size	(Casing) (Orifice) Size	Press. psig	Diff. $\sqrt{h_w}$	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						3661				
1.	2"	1.50	2.2	5.3	71	261	71	Pkr.		1 hr.
2.	2"	1.50	2.0	4.8	72	314	72	"		1 hr.
3.	2"	1.50	2.0	4.6	77	365	77	"		1 hr.
4.	2"	1.50	1.8	4.4	77	443	77	"		1 hr.
5.										

FLOW CALCULATIONS

No.	Coefficient Flg. (24-Hour)	$\sqrt{h_{wpf}}$	Pressure psia	Flow Temp. Factor F_t	Gravity Factor F_g	Compress. Factor F_{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	35.97	11.36	47.2	0.9896	0.9645	1.050	420.3
2.	35.97	9.60	39.2	0.9887	0.9645	1.050	345.8
3.	35.97	9.20	39.2	0.9840	0.9645	1.050	329.7
4.	35.97	7.92	33.2	0.9840	0.9645	1.050	283.8
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 9120 cf/bbl.
Gravity of Liquid Hydrocarbons 48 deg.
 F_c 9.936 $(1-e^{-s})$ 0.700

Specific Gravity Separator Gas 0.645
Specific Gravity Flowing Fluid 0.927
 P_c 3674.2 P_c^2 13500

No.	P_w P_t (psia)	P_c^2 $\times 10^3$	$F_c Q$	$(F_c Q)^2$	$(F_c Q)^2$ $(1-e^{-s})$	P_w^2 $\times 10^3$	$P_c^2 - P_w^2$ $\times 10^3$	Cal. P_w	P_w P_c
1.	274.2	75.18	4.176	17.44	12.21	75.192	13.425	274.2	0.0748
2.	327.2	107.06	3.436	11.81	8.267	107.06	13.393	327.2	0.08937
3.	378.2	143.03	3.276	10.73	7.51	143.04	13.357	378.2	0.103
4.	456.2	208.11	2.819	7.947	5.57	208.12	13.292	456.2	0.1246
5.									

Absolute Potential: 475 MCFPD; n 0.0974COMPANY Sinclair Oil & Gas CompanyADDRESS P. O. Box 1928, Hobbs, New MexicoAGENT and TITLE F. M. Singleton, Senior EngineerWITNESSED D. PayneCOMPANY Sinclair Oil & Gas CompanyREMARKS BHP 4863 Psi (@ 10,136)
DHT 141°F

Orig. & 2 cc: OCC-Santa Fe
cc: RFS, GAC, File

