

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 11-20-1964 to 11-24-1964
Company The British-American Oil Prod. Co. Lease North Wilson Deep Unit Well No. 1
Unit 0 Sec. 31 Twp. 20-S Rge. 36-E Purchaser No Contra ct
Casing 7"OD Wt. 35 I.D. 5.95 Set at 12,725 Perf. 11,353 To 11,376
Tubing 2 3/8" Wt. 4.6 I.D. 1.995 Set at 11,267 Perf. - To -
Gas Pay: From 11,353 To 11,376 L 11,267 xGMIX 0.649 -GL 7,312 Bar.Press. 13.2
Producing Thru: Casing Tubing X Type Well Single
Recompletion Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 11-24-1964 Packer 11,267 Reservoir Temp. 165 Deg. F.

OBSERVED DATA

Type Taps Flange

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
1.						5,487	70	Pkr	Pkr	72 Hr.
2.	1"	1.5"	320	66	114	4,525	74	Pkr	Pkr	1 Hr.
3.	1"	1.5"	725	78	78	3,910	74	Pkr	Pkr	1 Hr.
4.	1"	2.0"	735	55	71	3,330	75	Pkr	Pkr	3 Hr.
5.	1"	2.0"	930	80	65	2,540	76	Pkr	Pkr	1 1/2 Hr.

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_w p_f}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	15.59	148.3	333.2	0.9518	0.9958	1.018	2,002
2.	13.99	240.0	738.2	0.9831	0.9958	1.057	3,474
3.	25.53	202.9	748.2	0.9896	0.9958	1.061	5,426
4.	25.53	274.7	943.2	0.9952	0.9958	1.079	7,541
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 59.102 cf/bbl.
Gravity of Liquid Hydrocarbons 48 deg.
P_c 2,936 (1-e^{-s}) .395
Specific Gravity Separator Gas .65
Specific Gravity Flowing Fluid .7853
P_c 5500.2 P_c 30252 (Thousands)

No.	P _w P _t (psia)	P _t ² Thou	F _c Q Thou	(F _c Q) ²	(F _c Q) ² (1-e ^{-s})	P _w ²	P _c ² -P _w ²	Cal. P _w	P _w / P _c %
1.	4538.2	20,595	19,892	395.69	156.30	20751	9501	4555.3	82.8
2.	3923.2	15,391	34,513	1191.49	170.64	15862	11390	3982.7	72.4
3.	3343.2	11,177	53,913	2906.61	1148.11	12325	17927	3510.7	63.8
4.	2543.2	6,519	74,659	5573.97	2201.72	8721	21531	2953.2	53.7
5.									

Absolute Potential: 10,700 MCFPD; n 1.00COMPANY The British American Oil Producing Co.ADDRESS P.O. Box 474, Midland, TexasAGENT and TITLE E.L. Daniel, Field Engineer.WITNESSED A.L. EllerdCOMPANY Shell Oil Company

REMARKS