NEW MEXICO OIL CONSERVATION COMMSSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 1-1-65

RECEIVED
MAR 2 - 1972
O. C. C.
ARTESIA, OFFICE

Type Test: [X] Initial [ ] Annual [ ] Special — Test Date: 2-17-72

Company: Black River Corporation — Connection: — 660 FEL 2088 FSL

Pool: Wildcat (Lindsay Morrow) — Formation: Morrow — Unit:

Completion Date	Total Depth	Plug Back TD	Elevation	Farm or Lease Name
2-17-72	7070	7037	3763 KB	Cities Fed.

Csg. Size	Wt.	d	Set At	Perforations	Well No.
5 1/2	15½		7067	From 6921 To 6968	3

Tbg. Size	Wt.	d	Set At	Perforations	Unit	Sec.	Twp.	Rge.
2 1/2	6.5		6885	From To	I	33	25	24

Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single — Packer Set At: 6885 — County: Eddy

Producing Thru	Reservoir Temp. °F	Mean Annual Temp. °F	Baro. Press. – P_a	State
Tbg.	@138			New Mexico

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
6945	6945	.570					4"	Flg.

FLOW DATA / TUBING DATA / CASING DATA

NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	Tubing Press. p.s.i.g.	Tubing Temp. °F	Casing Press. p.s.i.g.	Casing Temp. °F	Duration of Flow
SI							2462	74			27½ hrs.
1.	4	x	2.250	640	4.0	79	1987	79			3 hr. 15 min.
2.	4	x	2.250	650	12.0	78	1637	82			1 hr.
3.	4	x	2.250	645	27.0	110	1360	84			1 hr. 45 min.
4.	4	x	2.250	625	39.0	90	1093	81			1 hr.
5.											

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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	25.64	51.12	653.2	.9822	1.325	1.044	1,781
2.	25.64	89.21	663.2	.9831	1.325	1.047	3,120
3.	25.64	133.31	658.2	.9551	1.325	1.035	4,477
4.	25.64	157.77	638.2	.9723	1.325	1.040	5,420
5.							

NO.	P_t	Temp. °R	T_r	Z
1	.97	539	1.56	.917
2.	.99	538	1.55	.913
3.	.98	570	1.65	.934
4.	.95	550	1.59	.925
5.				

Gas Liquid Hydrocarbon Ratio: Dry Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: None Deg.
Specific Gravity Separator Gas: .570 — XXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX
Critical Pressure: 672 P.S.I.A. — P.S.I.A.
Critical Temperature: 346 R — R

P_c 2475.2 P_c^2 6126.6

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		2007.6	4030.5	2096.1
2		1670.2	2789.6	3337.0
3		1423.2	2025.5	4101.1
4		1197.7	1434.5	4692.1
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.306$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.306$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 7.077$

Absolute Open Flow: 7,077 Mcfd @ 15.025 — Angle of Slope θ: 45 — Slope, n: 1.000

Remarks:

Approved By Commission: — Conducted By: J. C. Roberts, Reggie Preston, Randy Kiker — Calculated By: J. C. Roberts, J. B. Murray — Checked By: J. B. Murray