

CISF

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 6/18/99		JUL 1999 RECEIVED OCD - ARTESIA					
Company OXY USA, INC.		Connection							
Pool Crow Flats Morrow		Formation MORROW							
Completion Date 4-22-99		Total Depth 9000		Plug Back TD 8948		Elevation		Farm or Lease Name LUCKY DOG STATE	
Casing Size 4.5		Wt. 11.6		d 4.000		Set At		Perforations: From 8674 To 8790	
Tubing Size 2.375		Wt. 4.7		d 1.995		Set At 8632		Perforations: From To	
Type Well - Single - Bradenhead - G.C. or G.O. Multiple SINGLE						Packer Set At 8634		County EDDY	
Producing Thru TUBING		Reservoir Temp. °F 153 @ 8648		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		State NM	
L 8648		H 8648		G _g 0.630		% CO ₂ 0.41		% N ₂ 0.35	
						% H ₂ S		Prover	
								Meter Run X	
								Taps FLANGE	

FLOW DATA							TUBING DATA		CASING DATA		Duration of Flow
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	
SI							2673	70			69
1.							2315	70			1
2.							2420	71			1
3.							2508	71			1
4.							2562	71			1
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, F _{pv}	Rate of Flow Q, Mcfd
1							2678
2							2247
3							1771
4							1938
5							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1	1.32	523	1.43	0.847	16.973	58.6	0.63	0.78	665	672
2	1.31	529	1.44	0.854						
3	1.32	529	1.44	0.854						
4	1.33	534	1.46	0.858						
5										

NO.	P _t	P _w	P _c	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} =$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n =$
1	2178	4742	1525		4.1091	2.4685
2	2260	5109	1159			
3	2339	5470	798			
4	2300	5289	979			
5						

Absolute Open Flow		6612		Mcfd @ 15.025		Angle of Slope °		57.4		Slope, n		0.6394	
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Remarks: The well was producing through two separate meter runs, each monitored by an electronic flow measurement system. The reported flow rates are the sum of the flow rates taken from both meters. A problem with the choke resulted in the last rate increasing instead of decreasing as initially planned. Bottomhole pressures were measured with electronic gauge #40007.

Approved By Commission:	Conducted By: ARC Pressure Data, Inc.	Calculated By: <i>Kate Korman</i>	Checked By:
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GAS WELL BACK-PRESSURE CURVE

OXY USA, INC.
LUCKY DOG STATE #1
EDDY COUNTY, NM
6/18/99

$n = 0.6394$

$\theta = 57.4^\circ$

AOF = 6612

