

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

Form O-122
 Revised 4-1-65

RECEIVED

C/SF C-122

☒ Initial ☐ Annual ☐ Special		11-5-81		FEB 24 1982			
URIAH EXPLORATION, INC. /			Connection -		O. C. D.		
undesignated <i>Wildcat Morrow</i>			Formation Morrow		Unit ARTESIA, OFFICE		
Completion Date 11-4-81		Total Depth <i>OTD</i> 11436' 10436'		Perforations: 10155		Leverage 3869 DF	
Well No. 5 1/2		WT. 17.0		d 4.892		Set At 10155	
WT. 6.5		d 2.441		Set At 9918		Perforations: From 9951 To 9956	
2 7/8		6.5		2.441		9918	
Type well - Single - Bradenhead - G.C. or G.O. Multiple		Packer Set At 9918'		County EDDY		State NEW MEXICO	
Producing thru Tubing		Reservoir Temp. °F 154 @ 9900		Mean Annual Temp. °F 60		Para. Press. = P _g 13.2	
L 9954'		H -		G _g 0.5960		% CO ₂ 0.785	
						% N ₂ 1.496	
						Prover 2"	
						Meter Run	

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
1	2"	5/64	0.250	78	-	48	3010	80	PACKER		10.0 HRS
2	2"	9/64	0.375	245	-	-12	2970				1.0 HRS
3	2"	10/64	0.500	305	-	-2	2795				1.0 HRS
4	2"	15/64	0.500	435	-	16	2195				1.0 HRS
5							1675				1.0 HRS

RATE OF FLOW CALCULATIONS							
NO	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{sp}	Rate of flow Q, Mscf/d
1	1.087	-	91.2	1.012	1.295	-	129.92
2	2.378	-	258.2	1.077	1.295	-	856.35
3	4.279	-	318.2	1.066	1.295	-	1879.62
4	4.279	-	448.2	1.045	1.295	1.050	2725.14
5							

NO	R	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Data	
1	0.14	508	1.46	-	Dry Gas	
2	0.38	448	1.29	-	A.P.I. Gravity of Liquid Hydrocarbons -	
3	0.47	458	1.32	-	Specific Gravity Separator Gas 0.596	
4	0.67	476	1.37	0.907	Specific Gravity Flowing Fluid XXXXX	
5					Critical Pressure 673 P.S.I.A.	
					Critical Temperature 347 °R	

3775.2 P _c ² 14252.1				$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 1.465$		$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.448$	
NO	P _w	P _w ²	P _c ² - P _w ²				
1	3696.2	13661.9	590.2				
2	3547.2	11203.7	3048.4				
3	2697.2	7274.9	6977.2				
4	2126.2	4520.7	9731.4				
5							

$ADP = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3946$		Angle of Slope α 45° 54'		Slope n 0.969	
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Remarks: * BHP @ (-6085) 9954' Used for pressure calculations

Approved By Commission:	Conducted By:	Calculated By:	Corrected By:
		Joe A. Coleman	PE #2208