

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

Form C-122
Revised 9-1-65

RECEIVED

Type Test ☐ Initial ☒ Annual ☐ Special				Test Date 12-3-73		DEC 21 1973	
Company Belco Petroleum Corp.				Connection El Paso Natural Gas		O.C.C.	
Pool <i>Carlsted morrow</i> Undesignated				Formation Morrow Gas		UNITARTESIA, OFFICE	
Completion Date 10-20-72		Total Depth 11650'		Plug Back TD 11648'		Elevation 3112' KB	
Farm or Lease Name Union Mead Com							
Csg. Size 5 1/2"	Wt. 20.0	d 4.778	Set At 11648'	Perforations: From 11167' To 11184' <i>113/5</i>		Well No. 1	
Tbg. Size 2 7/8"	Wt. 7.9	d 2.323	Set At 11088'	Perforations: From Open To ended		Unit Sec. Twp. Rge. H 8, 22s 27e	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Dual				Packer Set At 11050'		County EDDY	
Producing Thru Tubing		Reservoir Temp. °F 191° @ 11000'		Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2	
State NEW MEXICO							
L 11176'	H -	G _g 0.5859	% CO ₂ 0.86	% N ₂ 0.50	% H ₂ S -	Prover -	Meter Run 3"
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. DWT	Temp. °F	Press. p.s.i.g.	Temp. °F	
SI							3808.0	62	Packer	Choke	53.0 Hrs
1.	3"	x	2.00"	660.0	69.0	51	2745.0	72		19/64"	1 Hr
2.	3"	x	2.00"	660.0	52.0	53	2965.0	75		17/64"	1 Hr
3.	3"	x	2.00"	650.0	30.5	62	3315.0	76		14/64"	1 Hr
4.	3"	x	2.00"	635.0	14.5	63	3575.0	76		11/64"	1 Hr
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	21.32	215.52	673.2	1.009	1.306	1.059	6412
2	21.32	187.10	673.2	1.007	1.306	1.058	5550
3	21.32	142.23	663.2	0.9981	1.306	1.054	4166
4	21.32	96.95	648.2	0.9971	1.306	1.052	2832
5.							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Dry Gas	Mcf/bbl.
1.	1.00	511	1.46	0.892	A.P.I. Gravity of Liquid Hydrocarbons	-	Deq.
2.	1.00	513	1.47	0.894	Specific Gravity Separator Gas	0.5859	XXXXXXXXXX
3.	0.99	522	1.49	0.900	Specific Gravity Flowing Fluid	XXXXX	
4.	0.96	523	1.49	0.903	Critical Pressure	672	P.S.I.A.
5.					Critical Temperature	350	R

$P_c = 854.2$ $P_c^2 = 23563.3$					$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 2.3078$	$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.6600$
NO.	P _t ²	P _w ²	P _w ²	P _c ² - P _w ²		
1	3654.2	1335.2	10210.1			
2	3918.2	1535.2	8211.0			
3	4294.2	1844.0	5123.1			
4	4581.2	2098.7	2575.9			
5						

$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 10,643$			
Absolute Open Flow		10,643 Mcfd @ 15.025	
Angle of Slope @		58' 8"	
Slope, n		0.606	

Remarks: * BHP @ (-8064') 11176' used for pressure calculations

Approved By Commission:	Conducted By: COLEMAN PET.ENG.CO.	Calculated By: R. WEST	Checked By: <i>Joe A. Coleman</i> JOE A. COLEMAN
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