

30-025-03152

Submit in duplicate to
appropriate district office.
See Rule 401 & Rule 1122

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

Form C-122
Revised October, 1999

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator PALADIN ENERGY CORP. Lease or Unit Name SOUTH VACUUM "35" Unit

Type Test ☒ Initial ☐ Annual ☐ Special Test Date 6/7/04 Well No. 353

Completion Date Total Depth 13755 Plug Back TD 11351 Elevation 3279 Unit Ltr - Sec - TWP - Rge C 35-18S-35E

Csg. Size 5 Wt. 13 d 4.494 Set At 13750 Perforations: From: 13506 To: 13630 County LEA

Tbg. Size 2 7/8 / 2 3/8 Wt. 6.5/4.7 d 441/1.99 Set At 13394 Perforations: From: To: Pool

Type Well-Single-Bradenhead-G.G. or G.O. Multiple SINGLE Packer Set At 13362 Formation MCKEE

Producing Thru TUBING Reservoir Temp. 186.3 Mean Annual Temp. 60 Baro. Press.-P_a 13.2 Connection SALES

L 13394 H 13394 Gg 0.657 %CO₂ 0.425 %N₂ 8.653 %H₂S Prover Meter Run 4.026 Taps FLG

FLOW DATA				TUBING DATA				CASING DATA		Duration of Flow
No.	Prover Line Size	Orifice Size	Press p.s.i.g.	Diff. h _w	Temp.	Press p.s.i.g.	Temp.	Press p.s.i.g.	Temp.	
SI						3783				
1		4.026 X 1.750	220	4	68	3646				1 HRS
2		4.026 X 1.750	240	8	68	3487				1 HRS
3		4.026 X 1.750	300	13	65	3239				1 HRS
4		4.026 X 1.750	420	36	65	2514				1 HRS
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	14.93	30.54	233.2	0.9924	1.234	0.92	513
2	14.93	45	253.2	0.9924	1.234	0.92	822
3	14.93	63.8	313.2	0.9952	1.234	0.92	1074
4	14.93	124.8	433.2	0.9952	1.234	0.92	2102
5							

No.	P _r	Temp. R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf bbl.
1	0.8	528	1.5	1.043	N/A	
2	0.8	528	1.5	1.043	N/A	
3	0.79	525	1.49	1.043	0.657	XXXXXX
4	0.79	525	1.49	1.043	N/A	XXXXXX
5						
Critical Pressure 659 P.S.I.A.					P.S.I.A.	
Critical Temperature 351 R.					R.	

No.	P _t ²	P _w	P _w ²	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		4027.1	16217.5	965.2	2.69	2.14
2		3886.4	15104.1	2078.6		
3		3733.3	13934.5	3248.2		
4		3287.1	10805	6377.7		
5						

Absolute Open Flow 4.494 Mcfd @ 15.025 Angle of Slope (°) 52.39 Slope n: 0.77

Remarks: * CALCULATED FROM KNOWN BOTTOM HOLE PRESSURES. NO LIQUID MADE DURING TEST.

Approved By Division: Conducted By: PRO WELL TESTING Calculated By: MERV BUECKER Checked By: BM

PALADIN ENERGY
SOUTH VACUUM "35" #3

