

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

Form C-122
Revised 9-1-65

4157
File

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 11-7-85			
Company <u>Apache Corp.</u> <u>HARPER OIL CO.</u>				Venturi TO AIR					
Pool WILDCAT - <u>ABO</u>				Packer ABO				Unit	
Completion Date 11-1-85		Total Depth 6560'		Flow Back TD RVP 5504		Elevation 3843.3		Farm or Lease Name SOUTH DALLAS	
Csg. Size 5 1/2"	Wt. 15.5	d 4.825	Set At 6560	Perforations: From 4940 to 4950 To 4932		Well No. 1			
Tbg. Size 2 3/8"	Wt. 4.7	d 1.995	Set At 4787	Perforations: From OPEN ENDED		Unit F		Sec. 2	Twp. 10S
Type Well - Single - Bradenhead - G.C. or G.O. Multiple SINGLE				Packer Set At 4787		County Chaves			
Producing Thru Tubing		Reservoir Temp. °F 119 @ 4941		Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2		State N.M.	
L 4941	H 4941	G _g .7046	% CO ₂ .251	% N ₂ 21.883	% H ₂ S	Prover 2"	Meter Run	Taps	

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				781							72 Hrs.
1.	2.000	x	3/32	750		68°	750				45 Min.
2.	2.000	x	1/8	637		70	657				30 Min.
3.	2.000	x	1/4	527		70	527				30 Min.
4.	2.000	x	3/8	305		69	305				
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	1410		763	.9924	1.191	1.055	134
2	2648		650	.9905	1.191	1.041	211.3
3	1.087		540	.9905	1.191	1.034	716
4	2.378		318	.9915	1.191	1.021	930.9
5							

NO.	R	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio <u>Dry</u> Mcf/bbl.	
1	1.202	528	1.595	.899	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.	
2	1.024	530	1.601	.922	Specific Gravity Separator Gas <u>7046</u> XXXXXXXXXX	
3	.8347	530	1.601	.936	Specific Gravity Flowing Fluid <u>XXXXXX</u>	
4	.5008	529	1.598	.960	Critical Pressure <u>635</u> P.S.I.A. _____ P.S.I.A.	
5					Critical Temperature <u>331</u> R _____ R	

P _c <u>870</u> P _c ² <u>756.9</u>		(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.194$		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.194$	
NO	P _c ²	P _w	P _w ²	P _c ² - P _w ²	
1		838	702.24	54.66	$ACF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1111.96$ Post FD-2 11-26-87 camp #60
2		719	516.96	239.94	
3		597	356.41	400.49	
4		365	133.25	633.65	
5					

Absolute Open Flow <u>1112</u> Mcfd @ 15.025		Angle of Slope θ <u>45°</u>	Slope, n <u>1.000</u>
Remarks: <u>Calculated from known Bottom Hole Pressures from Kuster Gauge #56392.</u>			
Approved By Commission:		Conducted By: M.T.	Calculated By: J.D.
			Checked By: J.D.

NOVEM 7, 1985

Log - 2000 3.301
 Log - 200 2.301
N = 1.000

Q1 = Log 2000
 Q2 = Log 200

CAOF = 930.9 $\frac{(756.9)}{633.65}$ 1.000
 = 1111.96

