

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 9/26/84		RECEIVED BY OCT 12 1984 O. C. D. Unit ARTESIA Farm or Lease Name SU <i>Federal</i> Well No. 1 Unit Sec. Twp. Rge. E 9 - 9S - 25S County Chaves State New Mexico			
Company McClellan Oil Corp.				Connection Air		Pool S. Pecos Slope <i>Also</i>				Formation ABO	
Completion Date 9/24/84		Total Depth 4310		Plug Back TD		Elevation 3650					
Coq. Size 4 1/2	Wt. d	Set At 4310	Perforations: From 4050 To 4054		Well No.						
Thq. Size 2-3/8	Wt. d	Set At 4008	Perforations: From Open To Ended		Unit Sec. Twp. Rge. E 9 - 9S - 25S						
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single					Packer Set At 4006		County Chaves				
Producing Thru Tubing		Reservoir Temp. °F 60		Mean Annual Temp. °F 13.2		Baro. Press. - P _a		State New Mexico			
L	H	G _g .68	% CO ₂	% N ₂	% 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							1015	63	Packer		
1.	2		3/16	785			810	63			1 hr
2.	2		1/4	575			605	60			"
3.	2		3/8	332			365	60			"
4.	2		1/2	196			230	61			"
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, Mcld
1	.6082		798.2	.9971	1.2127	1.0904	640
2	1.087		585.2	1.000	1.2127	1.0654	862
3	2.378		345.2	1.000	1.2127	1.0358	1031
4	4.279		209.2	.999	1.2127	1.0244	1111
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1.					A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2.					Specific Gravity Separator Gas _____ XXXXXXXXXX
3.					Specific Gravity Flowing Fluid _____ XXXXX
4.					Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
5.					Critical Temperature _____ R _____ R

P_c 1216 P_c² 1479

NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²
1	1051.2	1105	374	
2	881.2	777	702	
3	636.2	405	1074	
4	476.1	227	1252	
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.1813$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.0831$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1209$

Absolute Open Flow 1209 Mcld @ 15.025 Angle of Slope @ .5095 Slope, n 63

Remarks: Bottom hole pressures recorded w/ amerada type gauge.

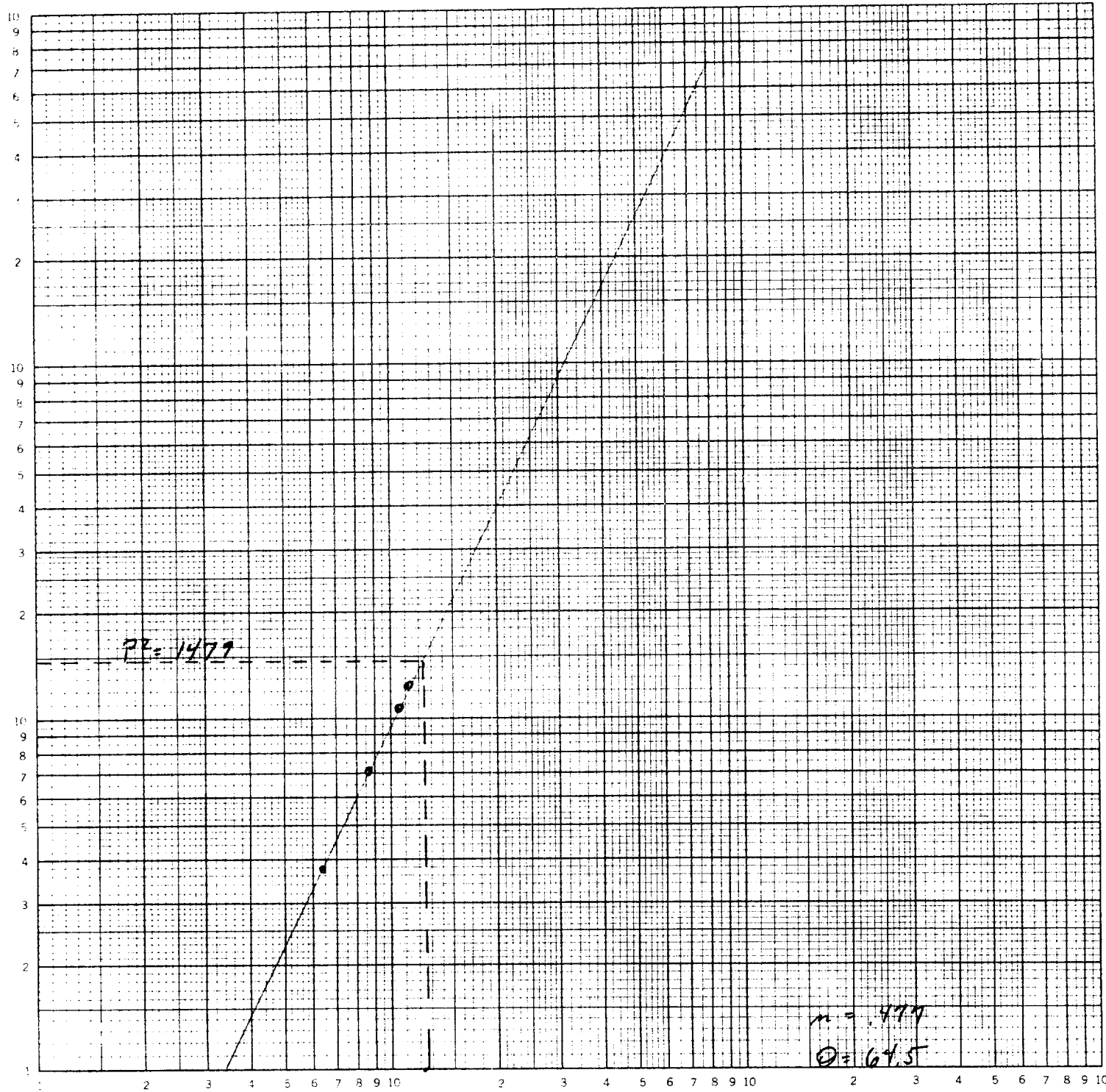
Approved By Division	Conducted By: KELTIC SERVICES	Calculated By: KELLY	Checked By:
----------------------	----------------------------------	-------------------------	-------------

McCLELLAN OIL CORP.

SU # 1

9-26-84

KSE LOGARITHMIC 3 X 3 CYCLES KEUFFEL & ESSER CO. MADE IN U.S.A. ($p \sim p'(\infty)$) 46 7400



Q



PRECISION SERVICE INC.

Flow Measurement Engineers

Analysis Results Summary

Casper, WY 82601

Run No. 927-2
Date Run 09/27/84
Date Sampled 09/26/84

Analysis For: McCLLELAN OIL CORP.

Lease: SU Federal #1 Producer McCllelan Oil Corp
Location ABO County Chaves State New Mexico
Purpose _____ Sampled By Keltic
Sampling Temp. 61 °F Atmos Temp. 60 °F
Volume/day _____ Formation _____
Pressure on Bomb 600 PSIG; Line Pressure 613.2 PSIA PSIG

Gas Component

Analysis

Press. Base: 14.73

	Mol. %	Liq. %	GPM Per MCF
Carbon Dioxide CO ₂	<u>.066</u>		
Oxygen O ₂	<u>.063</u>		
Nitrogen N ₂	<u>5.928</u>		
Hydrogen Sulfide H ₂ S			
Methane C ₁	<u>85.567</u>		<u>14.503</u>
Ethane C ₂	<u>4.783</u>		<u>1.279</u>
Propane C ₃	<u>1.787</u>		<u>.492</u>
Iso-Butane IC ₄	<u>.286</u>		<u>.094</u>
Nor-Butane NC ₄	<u>.564</u>		<u>.178</u>
Iso-Pentane IC ₅	<u>.207</u>		<u>.076</u>
Nor-Pentane NC ₅	<u>.199</u>		<u>.072</u>
hexanes plus	<u>.550</u>		<u>.254</u>
hexanes C ₆			
heptanes			
heptanes Plus C ₇ +			
Total	<u>100.000</u>		<u>16.948</u>
Pentane + G.P.M.			<u>.402</u>
opane + GPM			<u>1.166</u>
-lb Gasoline			<u>.966</u>

BTU Dry 1073
BTU Wet 1054
Calc. Specific Gravity .657

@ Std. Press. 14.696

BTU Dry 1071
BTU Wet 1052

Calc. Vap. Press. #/Sq.In. _____

Reid Vap. Press. #/Sq.In. _____

Z Factor .9976
N Value 1.3000
Ave Mol Wt 19.0021
Ave Cu Ft/Gal _____

Run by Joe H. Kroum

Calculated By Jeffrey A. Propp

Ethane + GPM 2.445

marks:

Distribution: