

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

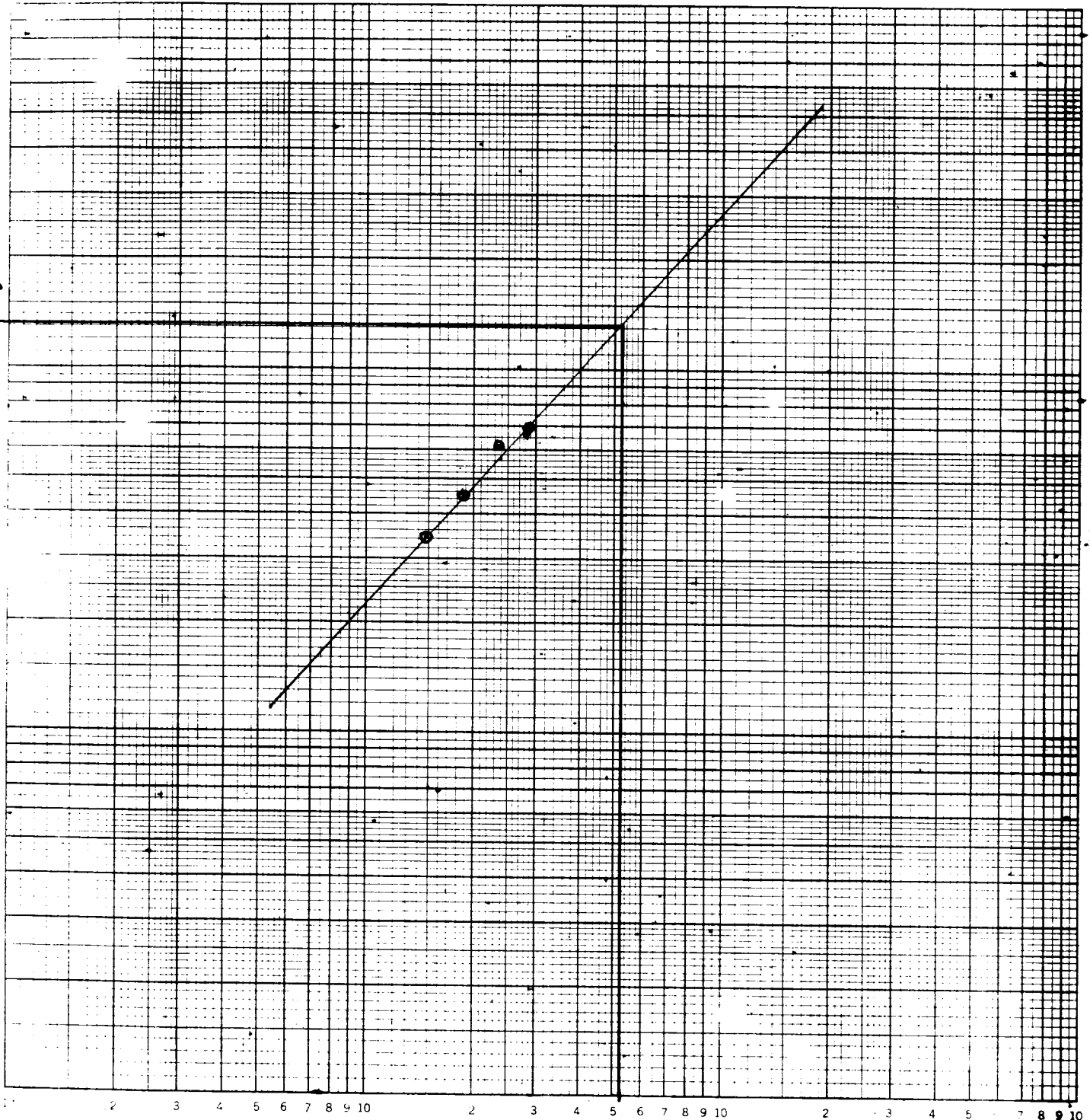
3F, file.
USGS, 122 file.
Form C-122
Revised 9-1-65

RECEIVED

Type Test <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special				Test Date 10-15-77		DEC 6 1977									
Company Dorchester Exploration, Inc.			Connection None												
Pool Under W. Four Mile Draw Morrow			Formation Morrow			Unit G. G. G. ARTEBIA, OFFICE									
Completion Date 10-15-77		Total Depth 9448		Plug Back TD 9448		Elevation 3363.5 GR									
Farm or Lease Name Morrison Com.		Well No. 1													
Csg. Size 4 1/2	Wt. 11.6	d	Set At 9448	Perforations: From 9179 To 9190		Unit Sec. Twp. Rge. L 5 19-S 26-E									
Tbg. Size 2 3/8	Wt. 4.7	d	Set At 9113	Perforations: From To											
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single (Gas)				Packer Set At 9080		County Eddy									
Producing Thru tubing		Reservoir Temp. °F 166°F @ 9185		Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.0									
State New Mexico															
L 9185	H 9185	G _g .594	% CO ₂ .0	% N ₂ .0	% H ₂ S .0	Prover X	Meter Run F								
FLOW DATA				TUBING DATA		CASING DATA									
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	Duration of Flow				
SI							2920								
1.	3.068		1.750		7.65	62	2490				1 hr.				
2.	3.068		1.750		12.25	60	2330				1 hr.				
3.	3.068		1.750		19	57	2069				1 hr.				
4.	3.068		1.750		27.75	58	1935				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	15.922	68.518	615.7	.9981	1.2975	1.0490	1485								
2	15.922	86.67	613.2	1.0000	1.2975	1.0496	1883								
3	15.922	107.94	613.2	1.0029	1.2975	1.0508	2355								
4	15.922	131.24	620.7	1.0019	1.2975	1.0510	2861								
5															
NO.	R _f	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio 5.419 Mcf/bbl.										
1	.92	522	1.49	.903	A.P.I. Gravity of Liquid Hydrocarbons 52.6 Deg.										
2	.91	520	1.49	.905	Specific Gravity Separator Gas .534 X X X X X X X X										
3	.91	517	1.48	.905	Specific Gravity Flowing Fluid X X X X X										
4	.92	518	1.48	.903	Critical Pressure _____ P.S.I.A. _____ P.S.I.A.										
5					Critical Temperature _____ R _____ R										
P _c 2920		P _c ² 8526													
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	2490	2518	6340	2182	AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n =$ _____										
2	2330	2377	5650	2876											
3	2069	2151	4627	2905											
4	1935	2064	4260	4326											
5															
Absolute Open Flow 5250 Mcfd @ 15.025					Angle of Slope @ 47°			Slope, n _____							
Remarks: _____															
Approved By Commission:				Conducted By: D.W. Stafford				Calculated By: D.W. Stafford				Checked By: D.W. Stafford			

46 7402
 $P_2 - P_3$

RECORDED MIC 3 X 3 V
KIDDELL & ESSER CO. MA.



$Q \rightarrow \text{MCF/DAY}$

ADF - 5250
 $\theta - 47.0$
 $n - .933$

4000
10000

ASPARIS WIRE LINE SERVICE

P. O. BOX 1044
SONORA, TEXAS 76950
(915) 387-2323

Dorchester
Morrison Comm. #1
Eddy Co. New Mexico
BHP instrument @ 9185 (MPP)

<u>Date & Time</u>	<u>Delta Time</u>	<u>BHP</u>	<u>Remarks</u>
		3661	Tbg. 2920 Casing Pkr. SI pressure w/instrument @ 9185 (MPP)
10-15-77 2:05 PM		3661	Tbg. 2920 Open Well on 1st Rate
2:55 PM	50 min.	3158	Tbg. 2490 End of 1st Rate
3:35 PM	40 min.	2975	Tbg. 2330 End of 2nd Rate
4:55 PM	20 min.	2691	Tbg. 2069 End of 3rd Rate
5:40 PM	45 min.	2548	Tbg. 1935 End of 4th Rate
6:00 PM	0	2548	Tbg. 1935 SI well for B.U.
	5 min.	2901	
	10 min.	3257	
	15 min.	3612	
	20 min.	3641	
	25 min.	3647	
	30 min.	3649	Tbg. 2906
	1 hr.	3623	
	5 hrs.	3659	
	10 hrs.	3661	
10-16-77 6:00 PM	24 hrs.	3663	Tbg. 2919 Casing PKR Pulled BHP instrument

CASPARIS WIRE LINE SERVICE

SONORA, TEXAS 76950

PHONE 387-2323

P. O. BOX 1044

INDIVIDUAL WELL DATA SHEET

Company Dorchester Lease Morrison Comm. Well No. J
 Field _____ County Eddy State New Mexico
 Test Date 10-15-77 Time 10 AM Status of Well _____ Shut In _____
 Top of Pay _____ Total Depth _____ Producing Formation _____
 Tubing 2 3/8 " Depth 9080 S. N. _____ Packer 9030 Pressure Datum MPP
 Casing _____ " Depth _____ Perf. 9179-9190 Liner _____ Packer _____

Depth Feet	Δ Depth	Pressure Lbs. Sq. In.	Δ Pressure	*Gradient Lbs./Ft.	
Surf.		2916			Casing Press. <u>Pkr.</u>
	8000		646	.081	Tubing Press. <u>2920</u>
8000		3562			Top of Fluid <u>Nil</u>
	785		63	.081	Top of Water
8785		3625			Hrs. - Shut In <u>72 hrs.</u>
	200		18	.092	
8985		3643			Elevation
	200		18	.092	Last Test Date
9185 (MPP)		3661			Press. Last Test
					B.H.P. Change

RPG 37668
 Calibration No. 1173
 Run By JDC
 Calculated By JNC

* Pressure and Gradients are calculated in decimals. Pressure and Δ pressure are shown to the nearest pound.

Calculations and Remarks: All Pressure Instruments are Temperature Compensated

Distribution