

Associated with Dennis Owens Co.

TEFTELLER, INC.

reservoir engineering data

MIDLAND, TEXAS / FARMINGTON, NEW MEXICO

P. O. Box 5247

Midland, Texas 79701

September 19, 1972

Marathon Oil Company
1804 Brenwood Drive
Farmington, New Mexico 87401

Attention: Mr. Eric Nelson

Subject: Bottom Hole Pressure and
Absolute Open Flow Measurement
Jicarilla Apache No. 16
Basin Dakota Field
Rio Arriba County, New Mexico
Our File No. 2-4787-P

Gentlemen:

Attached hereto are the results of a bottom hole pressure and absolute open flow measurement which was made on the above captioned well August 30, 1972.

The data presented are in tabular and graphical form. Form C-122 is attached.

It has been our pleasure to have conducted this service for you. If we may be of further assistance, please call us at any time.

Respectfully submitted,

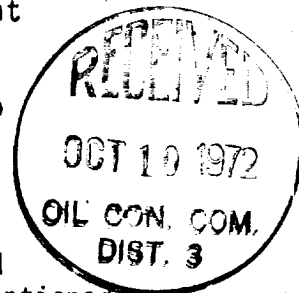
TEFTELLER, INC.

Neil Tefteller

Neil Tefteller

NT/ct

4cc Marathon Oil Company
P. O. Box 39
Sidney, Nebraska 69162



Marathon Oil Co.
Marathon, Texas
Sidney, Nebraska



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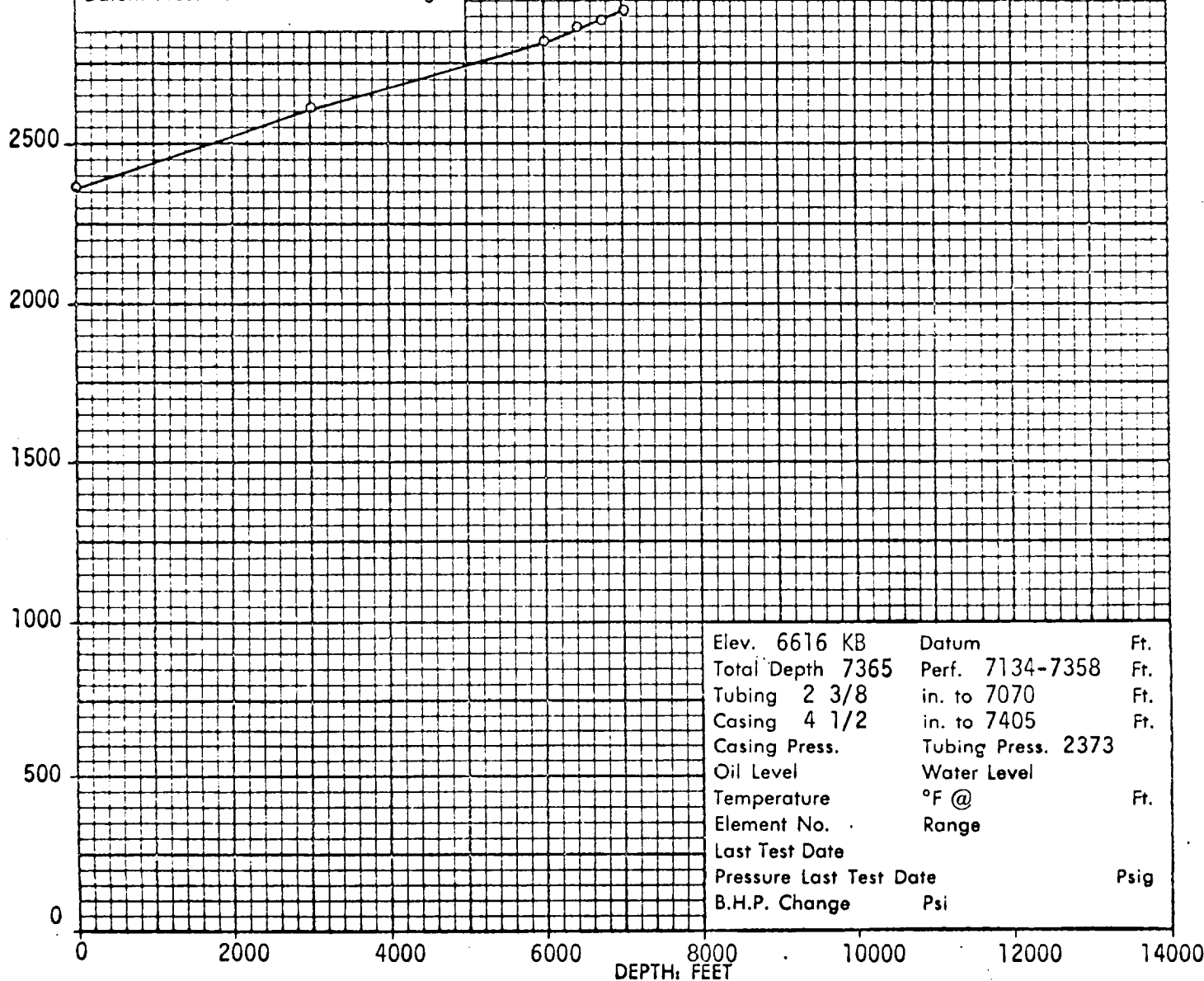
Company MARATHON OIL COMPANY Lease JICARILLA APACHE Well No. 16
Field BASIN DAKOTA County RIO ARRIBA State NEW MEXICO
Formation DAKOTA Test Date AUGUST 30, 1972

Status of Well Shut in 7 days

DEPTH Feet	PRESSURE Psig	GRADIENT Psi/Ft.
0	2373	
3000	2612	0.080
5000	2829	0.072
5450	2865	0.080
6750	2895	0.100
7050	2925	0.100
7246 Mid-Perf	2945	0.100

PRESSURE POUNDS PER SQUARE INCH GAUGE

Datum Pressure Psig



MARATHON OIL COMPANY

JICARILLA APACHE WELL #16
Section 34, T. 26N., R. 5W.
Rio Arriba County, New Mexico

DEVIATION RECORD

<u>DEPTH</u>	<u>DEVIATION (DEGREES)</u>
137'	1/4
318'	1/2
826'	3/4
1,356'	1
1,855'	1
2,260'	1/4
2,762'	1-1/2
3,600'	1-1/4
4,125'	1-1/4
4,640'	1-1/4
5,164'	1-1/2
5,687'	2
6,205'	2
6,706'	2-1/4
7,229'	2-1/4



State of Nebraska)
County of Cheyenne..) ss.

I hereby certify that the rules and regulations of the Oil Conservation Commission have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Frank Baum
District Operations Manager

Subscribed and sworn to in my presence this 20th day of September, 1972.

James Jo Ribera
Notary Public.

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

Form C-172
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 8-30-72	
Company Marathon Oil Company				Connection	
Pool Basin Dakota				Formation Dakota	
Completion Date		Total Depth 7406		Plug Back TD 7365	
				Elevation 6616 KB	
Farm or Lease Name Jicarilla Apache				Well No. 16	
Csg. Size 4.5	Wt. 11.6	d	Set At 7405	Perforations: From 7134 To 7358	
Tbg. Size 2.375	Wt. 4.7	d	Set At 7070	Perforations: From To	
Type Well - Single - Brdenhead - G.G. or G.O. Multiple Single				Packer Set At	
Producing Thru Tubing		Reservoir Temp. °F a		Baro. Press. - P _g 12.0	
				County Rio Arriba	
				State New Mexico	
L	H	G _g	% CO ₂	% N ₂	% H ₂ S
					Prover X
					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.	
SI							2373		2383	
1.	2	X	3/4				160	60	488	
2.										
3.										
4.										
5.										

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super. Compress. Factor, F _{sp}	Rate of Flow
1	12.3650		172	1.0000	.9608	1.052	2150
2.							
3.							
4.							
5.							

NO.	P _t	Temp. °R	T _t	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1										
2.										
3.										
4.										
5.										

NO.	P _t	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		500	250000	5486025	1.0456	1.0339
2						
3						
4						
5						

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2223$

Absolute Open Flow	2223	Mcf @ 15.025	Angle of Slope	Slope, n	.75
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Remarks:

Approved By Commission:	Conducted By:	Calculated By: Neil Tefteller	Checked By:
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