

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator MURCHISON OIL AND GAS					Lease or Unit Name ENRON 9 STATE COM				
Test Type ☐ Initial ☐ Annual ☐ Special					Test Date 10-12-00		Well No. 1		
Completion Date 10-10-00		Total Depth 13598		Plug Back TD		Elevation 3584		Unit Ltr - Sec - TWP - Rge. 24S33E 650FN2550FW	
Csg. Size 7.000	Wt. 29.000	d 6.184	Set At 12573	Perforation: From To			County LEA		
Tbg. Size 3.500	Wt. 10.300	d 2.922	Set At 13598	Perforation: From 13175 To 13414			Pool		
Type Well-Single-Bradenhead-G.G. or G.O. Multiple					Packer Set At		Formation		
Producing Thru TUBING		Reservoir Temp.F 180		Mean Annual Temp.F 65		Baro. Pressure 13.20		Connection NO	
L 13598	H 13598	Gg .684	% CO ₂ 1.46	% N ₂ 1.01	% H ₂ S	Prover METER		Meter Run 4.026	Taps FLANGE

Flow Data						Tubing Data		Casing Data		SIP/Flow Duration (HRS.)
No.	(Prover) Line SizeOrifice Size	Press. PSIG	Diff. h _w	Temp. F		Press. PSIG	Temp. F	Press. PSIG	Temp. F	
Shut-in Pressure						5720	71		71	72
1.	4.03 x 2.50	38.00	10.00	62		5520	71		71	1
2.	4.03 x 2.50	78.00	18.00	76		5210	72		71	1
3.	4.03 x 2.50	126.00	28.00	56		4615	69		71	1
4.	4.03 x 2.50	246.00	35.00	52		4055	66		70	1

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 _{pv}	Rate of Flow (Q) MCFD
1.	32.640	22.627	51.2	.9981	1.2091	1.0050	895.7
2.	32.640	40.517	91.2	.9850	1.2091	1.0082	1587.9
3.	32.640	62.431	139.2	1.0039	1.2091	1.0143	2508.8
4.	32.640	95.247	259.2	1.0078	1.2091	1.0281	3894.5

No.	P _r	TEMP.	T _r	Z
1.	.076	522	1.377	.9901
2.	.136	536	1.414	.9838
3.	.207	516	1.361	.9720
4.	.386	512	1.350	.9462

Gas-Liquid Hydrocarbon Ratio	5.3	Mcf/bbl
API Gravity of Liquid Hydrocarbons	53.5	Deg.
Specific Gravity Separator Gas	.684	
Specific Gravity Flowing Fluid	1.178	
Critical Pressure	672 PSIA	647 PSIA
Critical Temperature	379 R	536 R

$$P_C = 5733.2 \quad P_C^2 = 32869.6$$

No.	P _w	P _w ²	P _C ² - P _w ²
1.	5534.8	30634	2235.338
2.	5227.9	27330	5538.754
3.	4639.4	21523	*****
4.	4094.3	16763	*****

$$(1) \frac{P_C^2}{P_C^2 - P_W^2} = \frac{2.041}{\left[\frac{P_C^2}{P_C^2 - P_W^2} \right]^n} = \frac{2.041}{\left[\frac{P_C^2}{P_C^2 - P_W^2} \right]^n} = \frac{7947}{\left[\frac{P_C^2}{P_C^2 - P_W^2} \right]^n}$$

$$AOF = Q$$

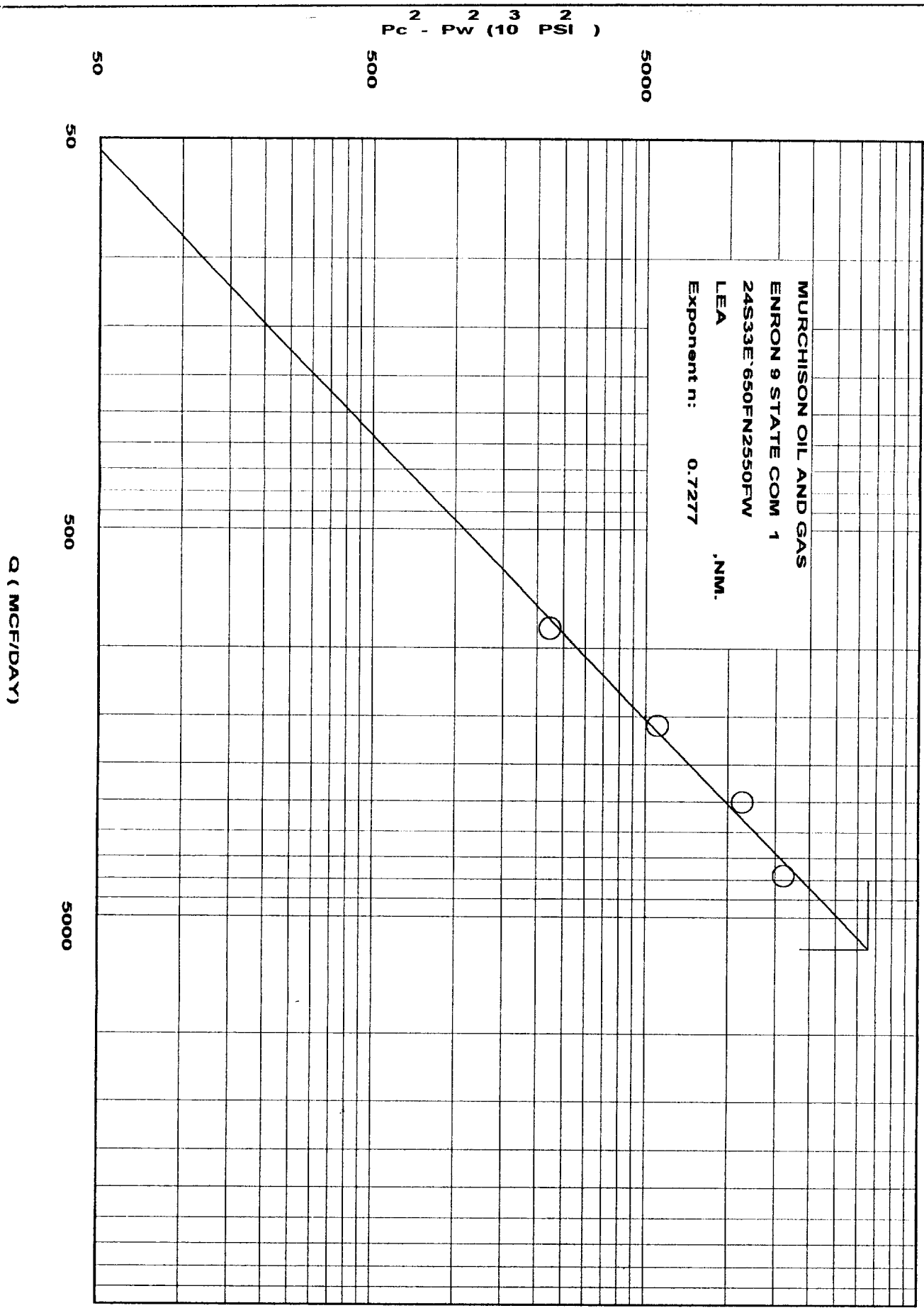
Absolute Open Flow	7947	Mcf/d @ 15.025	Angle of Slope -	45.0	Slope, n	1.000
Remarks						
Approved By Division:		Conducted By: LARRY RACKLEY		Calculated By: BPT System/Guardian		Checked By: GOSI



GAS WELL BACK PRESSURE CURVE

WELL TESTER: LARRY RACKLEY
TEST DATE: 10-12-00

MURCHISON OIL AND GAS
ENRON 9 STATE COM 1
24S33E`650FN2550FW
LEA
Exponent n: 0.7277





Submit to Appropriate
District Office
State Lease - 6 copies
Fee Lease - 5 copies
DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-105
Revised 1-1-89

WELL API NO.

3002534165

5. Indicate Type of Lease

STATE ☒

FEE ☐

6. State Oil & Gas Lease No.

V-4096-1

7. Lease Name or Unit Agreement Name

ENRON "9" STATE COM

8. Well No.

#1

9. Pool name or Wildcat

JOHNSON RANCH WOLFCAMP

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well:
OIL WELL ☐ GAS WELL ☒ DRY ☐ OTHER ☐

b. Type of Completion:

NEW WELL ☒ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DEEP RESVR ☐ OTHER ☐

2. Name of Operator

MURCHISON OIL & GAS, INC.

3. Address of Operator

1445 ROSS AVE., STE. 5300, LB 152, DALLAS, TX. 75202-2883

4. Well Location

Unit Letter 0 : 660 Feet From The SOUTH Line and 1980 Feet From The EAST Line

Section 9 Township 24S Range 33E NMPM LEA County

10. Date Spudded

10/28/97

11. Date T.D. Reached

12/8/97

12. Date Compl. (Ready to Prod.)

1/11/98

13. Elevations (DF & RKB, RT, GR, etc.)

3612 GL

3638 RKDB

14. Elev. Casinghead

3612'

15. Total Depth

13891

16. Plug Back T.D.

13845

17. If Multiple Compl. How Many Zones?

ONE

18. Intervals Drilled By

Rotary Tools

X

Cable Tools

19. Producing Interval(s), of this completion - Top, Bottom, Name

13,234 - 13,737

20. Was Directional Survey Made

NO

21. Type Electric and Other Logs Run

DUAL LATERLOG MICRO-SFL/GR

COMPENSATED NEUTRON, LITHO DENSITY

22. Was Well Cored

NO

23.

CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB/FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13-3/8"	68	761	17-1/2	540	
9-5/8"	47	5212	12-1/4	2750	
7"	29	12580	8-1/2	1150	

24. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET
4 1/2	12217	13891	220		2 7/8	13118	12128

25. TUBING RECORD

26. Perforation record (interval, size, and number) ALL PERFS 2 SHOTS/FT					27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.	
INTERVAL	SIZE	NUMBER	INTERVAL	SIZE	DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
13234-38	13300-12	13341-45	13463-67	13665-67	13234-13737	15000 GAL 20% GELLED HCL
13240-42	13316-18	13353-59	13408-11	13690-92		
13255-62	13323-27	13382-84	13479-88	13722-24		
13264-66	13330-39	13445-49	13639-43	13735-37		

28.

PRODUCTION

Date First Production		Production Method (Flowing, gas lift, pumping - Size and type pump)				Well Status (Prod. or Shut-in)	
1/7/98		FLOWING				PROD	
Date of Test	Hours Tested	Choke Size	Prod'n For Test Period	Oil - Bbl.	Gas - MCF	Water - Bbl.	Gas - Oil Ratio
1/11/98	4 HRS	11/64		79	321	0	4.1 MCF/BBL
Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API - (Corr.)	
4490	0		474	1926	0	53.3	

29. Disposition of Gas (Sold, used for fuel, vented, etc.)

VENTED

Test Witnessed By

PRO WELL TESTERS

30. List Attachments

31. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief

Signature

Michael S. Daugherty

Printed Name

MICHAEL S. DAUGHERTY

Title

V P OPERATIONS

Date 1/13/98