

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENTP. O. BOX 2088
SANTA FE, NEW MEXICO 87501Form C-122
Revised 10-1-7845F.
File

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test 4 POINT ☒ Initial ☐ Annual ☐ Special				Test Date 4-14-87	
Company FORAN				Connection TO AIR	
Pool BUFFALO VALLEY				Formation MORROW	
Completion Date 4-12-87		Total Depth 9300		Plug Back TD 9236	
Elevation		Lease Name FEDERAL 30 COMM			
Csg. Size 4.5	Wt. 11.6	d 4.000	Set At 9294	Perforations: From 9000 To 9020	
Trg. Size 2.375	Wt. 4.7	d 1.995	Set At 8929	Perforations: From OPEN To ENDED	
Type Well - Single - Drivenhead - G.G. or G.O. Multiple SINGLE				Packer Set At 8929	
Producing Thru TUBING		Reservoir Temp. °F 160 @ 9010		Mean Annual Temp. °F 60°	
Baro. Press. - P _a 13.2		State NEW MEXICO			
L 9010	H 9010	C _g .682	% CO ₂ 2.18	% N ₂ 1.13	% H ₂ S 0
Prover 0		Meter Run 3.068		Taps FLG	

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							2302	68			48 HRS
1.	3.068		.875	260	6.0	63	2192	70			60 MIN
2.	3.068		.875	265	14.0	72	2012	70			60 MIN
3.	3.068		.875	280	34.0	68	1959	70			60 MIN
4.	3.068		.875	275	61.0	63	1774	69			60 MIN
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	3.65	40.49	273.2	0.9971	1.2109	1.0281	183
2	3.65	62.41	278.2	0.9887	1.2109	1.0270	280
3	3.65	99.84	293.2	0.9924	1.2109	1.0290	451
4	3.65	132.59	288.2	0.9971	1.2109	1.0298	602
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1	0.40	523	1.39	0.946	15.8	
2	0.41	532	1.41	0.948		
3	0.43	528	1.40	0.944		
4	0.43	523	1.39	0.943		
5						

NO.	P _r	P _w	P _r ²	P _r ² - P _w ²
1	2303.0	5304		
1		2189	4790	514
2		2098	4403	900
3		1955	3823	1481
4		1773	3144	2159
5				

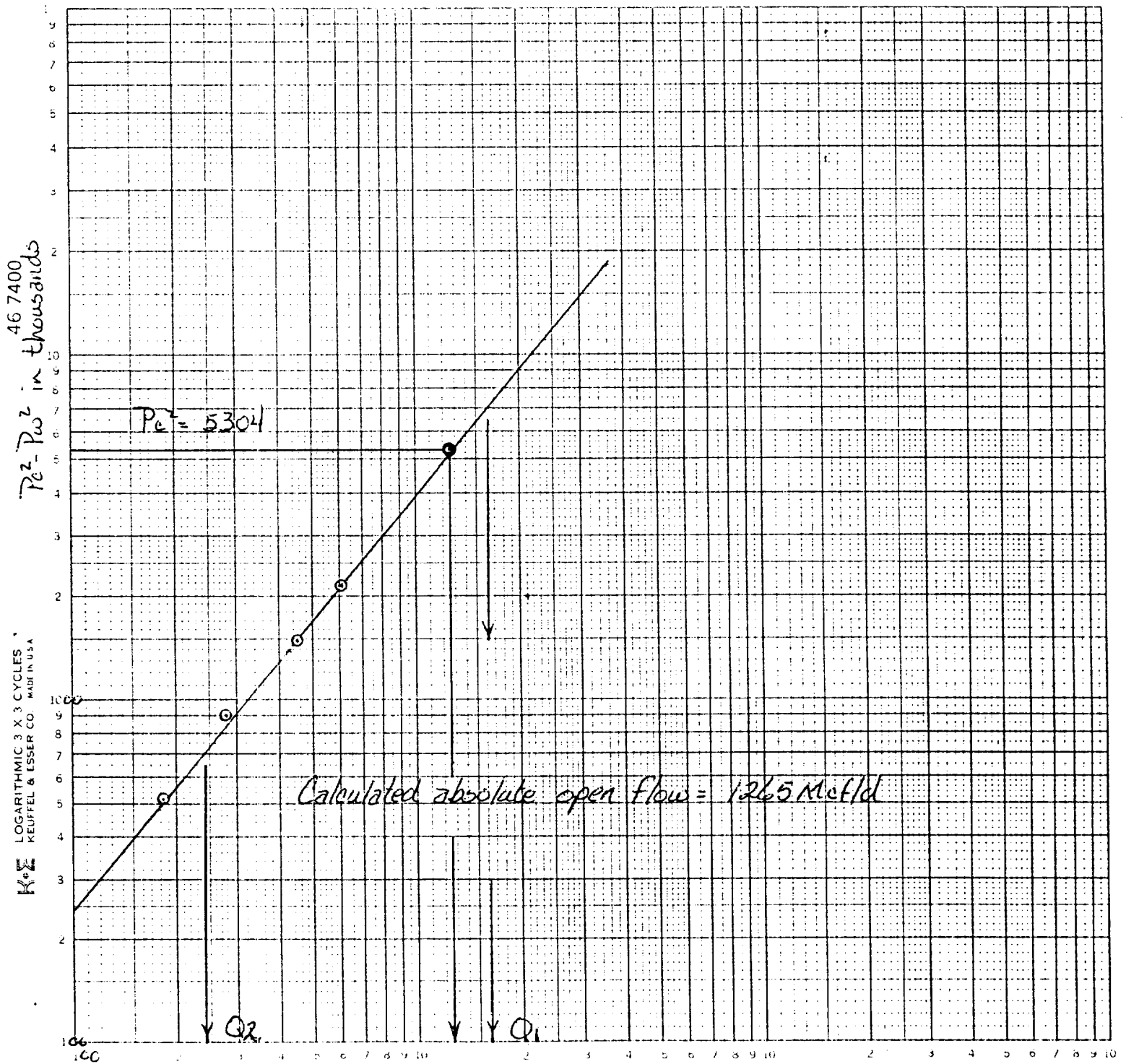
(1) $\frac{P_r^2}{P_r^2 - P_w^2} = 2.4561$ (2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 2.1014$

Post ID-2
8-28-87
comp & RK

AOIF = Q $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1265$

Absolute Open Flow 1265 Mcfd @ 15.025		Angle of Slope 50.4	Slope, n 826
Remarks:			
Approved By Division			
Conducted By: BENNETT & CATHEY		Calculated By: BENNETT & CATHEY	
Checked By:			

Federal 30 Comm #1
 K 30 155 28E
 Chaves County
 4-14-87



$$\frac{\Delta P_1}{\Delta P_2} \frac{P_e^2 - P_w^2}{P_e^2 - P_w^2} = \frac{7000}{700}$$

Q , Mcf/d

$$\log Q_1 = 3.2098$$

$$\log Q_2 = 2.3838$$

$$Q_1 = 1621$$

$$Q_2 = 242$$

$$n = 0.826$$



LESLIE K. EVERTSON - ROSWELL
KENNETH D. REYNOLDS - ARTESIA

DRILLING CO., INC. - OIL WELL DRILLING CONTRACTORS

P. O. Box 1498 ROSWELL, NEW MEXICO 88201
TELEPHONES: ARTESIA 505/746-6757
ROSWELL 505/623-5070

February 26, 1986

Foran Oil Company
P.O. Box 50346
Amarillo, Texas 79159

RE: Foran Federal #1-30

Gentlemen:

The following is a Deviation Survey on the above referenced well,
located in Eddy County, New Mexico.

390' - 3/4 ^o	3800' - 3/4 ^o	6830' - 1 1/4 ^o
890' - 3/4 ^o	3900' - 3/4 ^o	7030' - 1 1/4 ^o
970' - 3/4 ^o	4400' - 3/4 ^o	7314' - 1 1/4 ^o
1427' - 3/4 ^o	4900' - 3/4 ^o	7605' - 1 1/4 ^o
1806' - 1/2 ^o	5400' - 3/4 ^o	8126' - 1 1/4 ^o
2300' - 3/4 ^o	5721' - 3/4 ^o	8434' - 1 ^o
2796' - 1/2 ^o	5903' - 1 ^o	8650' - 1 1/4 ^o
3295' - 1/2 ^o	6400' - 1 1/4 ^o	8979' - 1 1/4 ^o
3636' - 3/4 ^o	6538' - 1 ^o	9300' - 1 1/2 ^o T.D.

Sincerely,

WEK DRILLING CO, INC.

Arnold Newkirk

STATE OF NEW MEXICO)
)
COUNTY OF CHAVES)

The foregoing was acknowledged before me this 26TH day of February,
1987 by Arnold Newkirk.

My Commission Expires:
5-4-87

Notary Public

Schlumberger

COMPENSATED NEUTRON/LITHO-DENSITY

CSU

Field Log

COMPANY: FORAN OIL COMPANY
WELL: FORAN FED "30" COM NO. 1
FIELD: BUFFALO VALLEY (MORROW)
COUNTY: CHAVES
STATE: NEW MEXICO
LOCATION: 1980" FSL & 1980" FEL
SEC: 30 TWP: 15-S RGE: 28-E

PERMANENT DATUM: G.L. ELEVATIONS-
ELEV. OF PERM. DATUM: 3632.3 F KB: 3644.3 F
LOG MEASURED FROM: K.B. DF: 3643.3 F
12.0 F ABOVE PERM. DATUM GL: 3632.3 F
DRLG. MEASURED FROM: K.B.

DATE: 20 FEB 87
RUN NO: ONE

DEPTH-DRILLER: 9300.0 F
DEPTH-LOGGER: 9286.0 F
BTM. LOG INTERVAL: 9283.0 F
TOP LOG INTERVAL:
CASING-DRILLER: 1800.0 F
CASING-LOGGER: 1800.0 F
CASING: 9 5/8
WEIGHT: 24.0000 LB/F
BIT SIZE: 7 7/8
DEPTH: 9300.0 F

TENS(LB)	0.0
10000.	
NPHI	.30000
PEF	10.000
NPHI	-.1000
DPHI	
	.70000
	0.0
	.30000
GR (GAPI)	200.00
100.00	
CALI(IN)	16.000
6.0000	
GR (GAPI)	

