

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

Form C-122
Revised 9-1-65

*B/SF
File*

Type Test: ☒ Initial ☐ Annual ☐ Special				Test Date: 5-5-83		RECEIVED MAY 13 1983 FEDERAL ARTS OFFICE	
Company: DEPCO				Connection: AIR NEW WELL			
Pool: PECOS SLOPE				Formation: ABO			
Completion Date: 5-2-83		Total Depth: 4240		Plug Hole: 4161		Elevation: 3831	
Well Size: 4.500	Wt.: 10.5	d: 4.052	Est At: 4161	Perforations: 3696 From 3864 To 3940		Well No.: 8	
Well Size: 2.375	Wt.: 4.7	d: 1.995	Est At: 4161	Perforations: From 0 To 0		Unit: K	Sec.: 20
Type Well - Single - Threadhead - G.O. or G.O. Multiple				Packer Set At: 0		County: CHAVES	
Producing Thru: TUBING		Reservoir Temp. °F: 104		Mean Annual Temp. °F: 60.0		State: NEW MEXICO	
L: 3902	H: 3902	Q _g : 0.668	% CO ₂ : 1.98	% N ₂ : 6.90	% H ₂ S: 0	Proven: 0	Meter Run: 2.1
FLANGE							

FLOW DATA						TUBING DATA		B.H.P. DATA		Duration of Flow
NO	Proven 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.	
51							951		1086	
1	2.07 X 1.250			100	11.0	72°	932	72°	1067	12/64
2	2.07 X 1.250			415	23.5	72°	917	72°	1055	14.5/64
3	2.07 X 1.250			415	51.0	70°	890	72°	1034	18/64
4	2.07 X 1.250			420	98.0	69°	849	72°	1007	21/64
5										

RATE OF FLOW CALCULATIONS							
NO	Coefficient (24 Hour)	$\sqrt{P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor F _{sp}	Rate of Flow Q, Mcfd
1	8.12	67.42	413.2	0.9887	1.2235	1.0340	685
2	8.12	100.31	428.2	0.9887	1.2235	1.0352	1020
3	8.12	147.78	428.2	0.9905	1.2235	1.0358	1506
4	8.12	206.04	433.2	0.9915	1.2235	1.0365	2104
5							

NO	R	Temp. °R	Q	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	0.62	532	1.49	0.935	0	0	0.668	XXXXXX	666	358
2	0.64	532	1.49	0.933						
3	0.64	530	1.48	0.932						
4	0.65	529	1.48	0.931						
5										

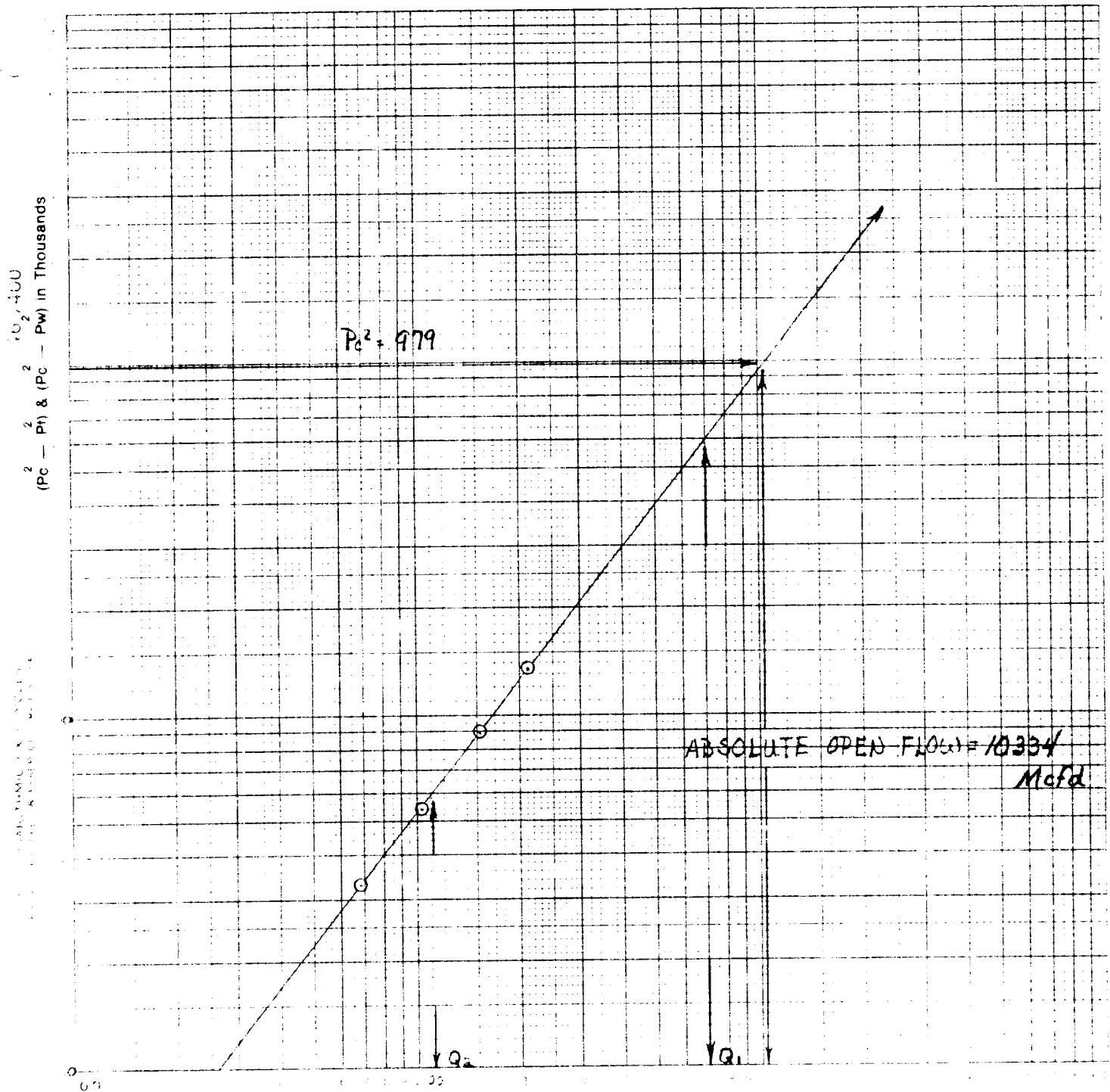
NO	P ₁	P ₂	R ₁	R ₂	(1) $\frac{P_1^2}{P_2^2 - P_1^2} = 7.3131$	(2) $\left[\frac{R_1^2}{R_2^2 - R_1^2} \right]^n = 4.9122$
1	1167	973	946	33		
2	1141	962	926	54		
3	1097	944	890	89		
4	1041	920	846	134		
5						

*Fast ID 2
5-20-83
Comp. VEH*

Absolute Open Flow: 10334 Mcfd @ 15.025		Angle of Slope: 51.3	Slope, n: 0.800
Remarks: BOTTOM HOLE PRESSURE MEASURED WITH AMERADA PRESSURE ELEMENTS			
Approved By Commission:	Conducted By: RICHARD TOWNLEY	Calculated By: BENNETT & CATHEY	Checked By:

BENNETT & CATHEY PRODUCTION TESTING BACK PRESSURE CURVE

Operator D. J. W. Lease Pass 1st Well No. 8
 County Ward Field Pass Slope 12 Location 30 55 25E
 Date of Test 5-5-33 Slope "n" .800 Angle of Slope 51.3
 Calc. Abs. Potential 10334 MCF/D



$$\overline{A}^2 \overline{P}_c^2 - \overline{P}_w^2 = 600$$

$$\overline{A}^2 \overline{P}_c^2 - \overline{P}_w^2 = 60$$

$$Q_1 = 7000$$

$$Q_2 = 1109$$

Q in MCF/Day

$$\log Q_1 = 3.8451$$

$$\log Q_2 = 3.0450$$

$$n = 0.8001 = .800$$

(505) 748-3354 / Artesia, New Mexico 88210

COMPANY DEPCO, INC. WELL NAME ROSE FEDERAL #8
DATE OF TEST 5-5-83 FORMATION ABO PAGE 1 OF 1
COMPANY MAN DANNY HOCKETT

CHART READINGS AND CALCULATIONS FOR BUILDUP OR DRAWDOWN TEST

ELEMENT NUMBER	RPG3#21121 N	RANGE	5175 LBS.
CLOCK NUMBER	B-3443	RANGE	12 HOUR
TIME WELL SHUT IN	1340 HOUR	5-2-83	
TIME CLOCK STARTED	1154 HOUR	5-5-83	
DEAD WEIGHT ELEMENT ON SURFACE	963.2 PSIA	SHUT IN	LBS.
TIME ELEMENT REACHED BOTTOM	1253 HOUR	5-5-83	
DEAD WEIGHT ELEMENT ON BOTTOM	963.2 PSIA	SHUT IN	LBS.
ELEMENT SET AT	3902		FEET.
TEMPERATURE	3902	FT.	104 °F.
DEAD WEIGHT AT THE END OF	72	HOURS	47 MINUTES.
TANDEM INST. # RPG3#23060		RANGE	5225 LBS.

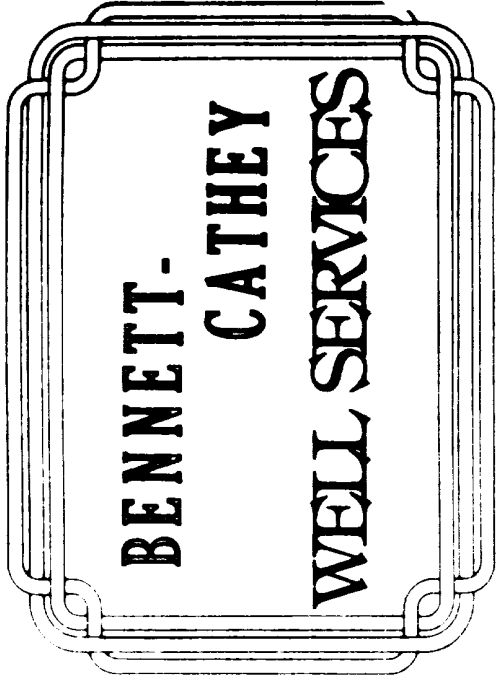
TANDEM INST. #		RPG5 #25060		RANGE 5225 LBS.			
DATE	HOUR	TIME	DEFLECTION in/inches	CALCULATED PRESSURE psig	CORRECTION P ± PC psig	CORRECTED PRESSURE psia	PRESSURE AT MID-POINT OF PERFORATIONS psia
5-5-83	SHUT IN	BOTTOM HOLE	PRESSURE	1086	13.2		1099.2
START TEST	0	1315		1086	13.2		1099.2
	1/4	1330		1077	13.2		1090.2
	1/2	1345		1073	13.2		1086.2
	3/4	1400		1070	13.2		1083.2
END RATE 1	1	1415		1067	13.2		1080.2
	1 1/4	1430		1061	13.2		1074.2
	1 1/2	1445		1059	13.2		1072.2
	1 3/4	1500		1056	13.2		1069.2
END RATE 2	2	1515		1055	13.2		1068.2
	2 1/4	1530		1045	13.2		1058.2
	2 1/2	1545		1040	13.2		1053.2
	2 3/4	1600		1036	13.2		1049.2
END RATE 3	3	1615		1034	13.2		1047.2
	3 1/4	1630		1022	13.2		1035.2
	3 1/2	1645		1015	13.2		1028.2
	3 3/4	1700		1012	13.2		1025.2
END RATE 4	4	1715		1007	13.2		1020.2

TEST DATE: 5-5-83
TEST DEPTH: 3902 FEET
ELEMENT NO.: RPG3#21121 N
RANGE: 5175 LBS.
CLOCKS: 8-3443
RANGE: 12 HOUR
OPERATOR: RICHARD TOWNLEY

RPG3#23060
5225 LBS.

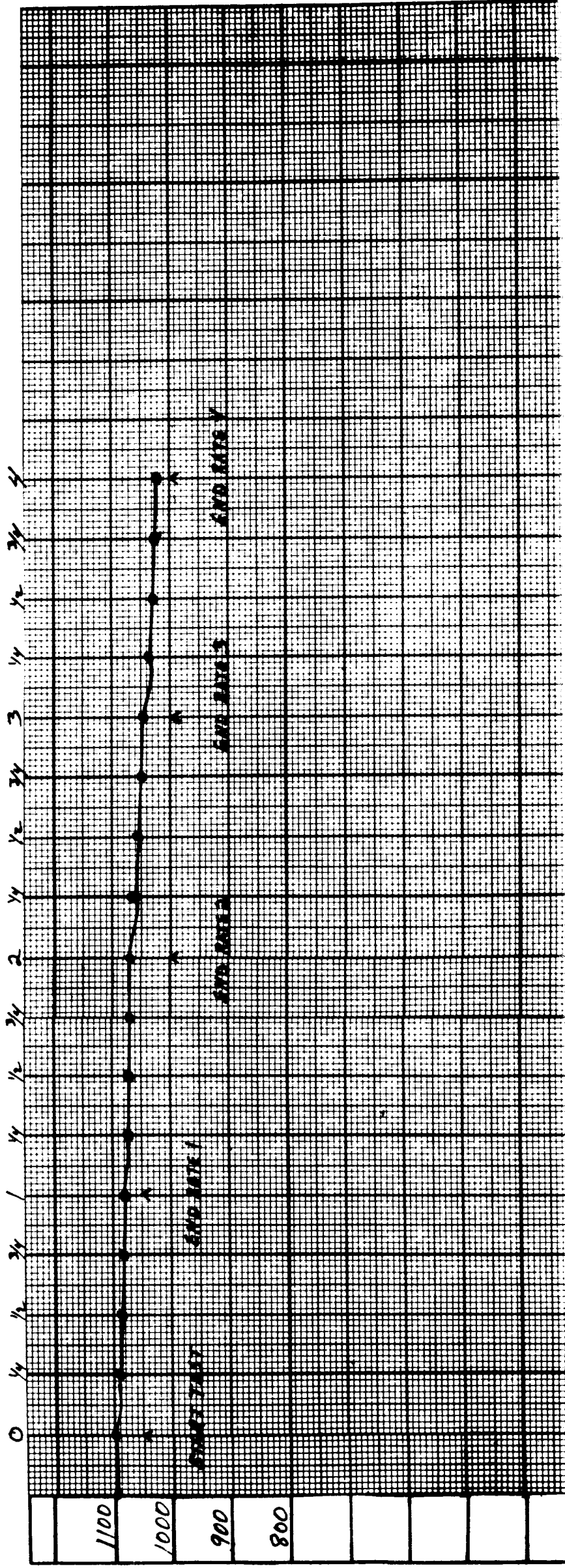
Note: See Attached Sheet for Tabulation of Pressure
And Time.

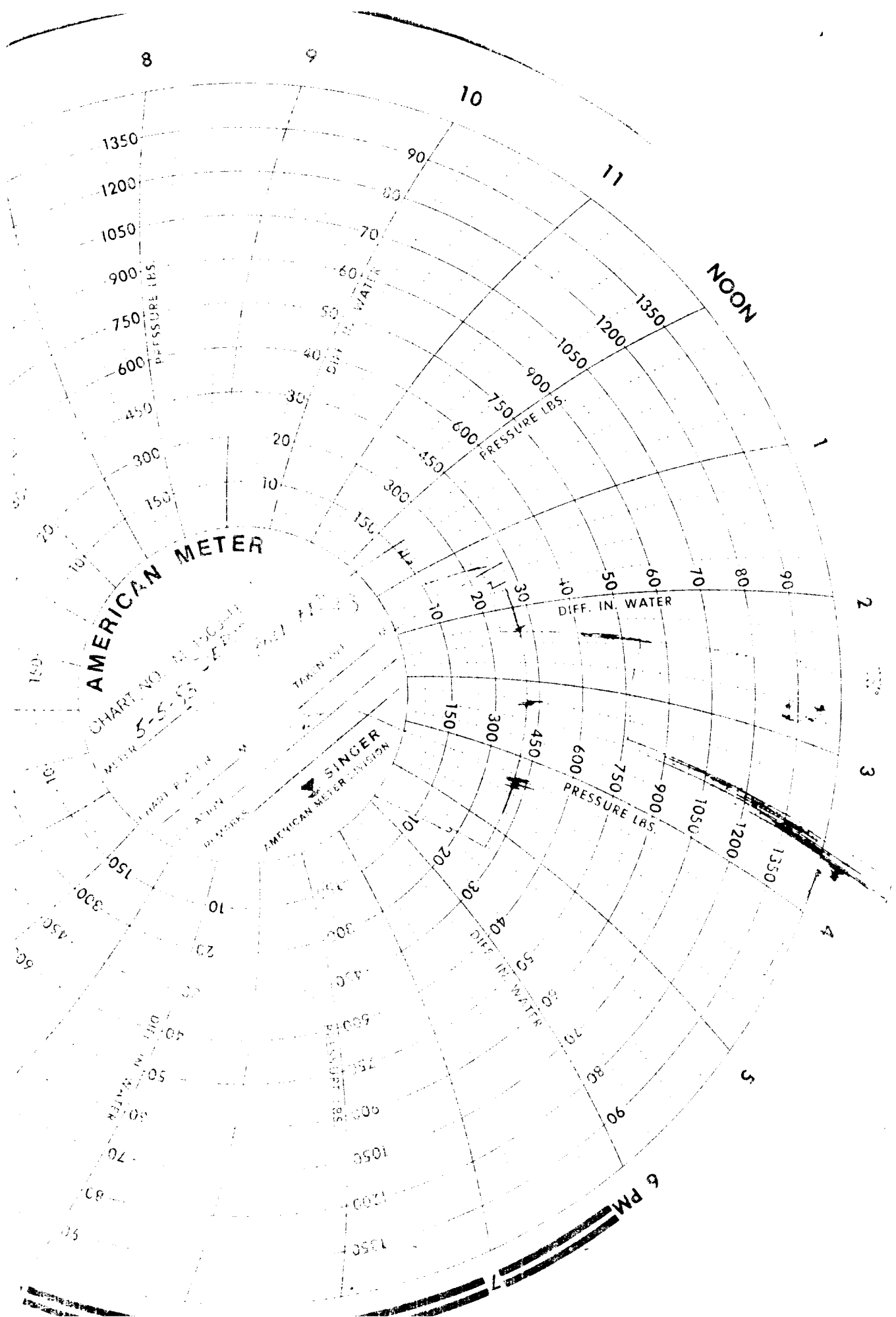
DANNY HOKETT
DEPCO, INC.
ROSE FEDERAL # 8
BENNETT-CATHEY WIRE LINE SERVICE Box 787 Artesia, N.M. 88210
505/746-3281
Drawn By
Scale: As Shown



4 POINT BACK PRESSURE TEST

TIME IN HOURS





BENNET - CATHEY

(505) 748-3354 / Artesia, New Mexico 88210

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY DEPCO, INC. WELL NAME ROSE FEDERAL #8
 DATE OF TEST 5-2-83 TO 5-5-83 FORMATION ABO PAGE 1 OF 1
 COMPANY MAN DANNY HOKETT

72 HOUR BUILD UP TEST

CHART READINGS AND CALCULATIONS FOR BUILDUP OR DRAWDOWN TEST

ELEMENT NUMBER RPG3#21121 RANGE 5175 LBS.
 CLOCK NUMBER 19040 RANGE 72 HOUR
 TIME WELL SHUT IN 1340 HOUR 5-2-83
 TIME CLOCK STARTED 1225 HOUR 5-2-83
 DEAD WEIGHT ELEMENT ON SURFACE 93.2 PSIA SHUT IN LBS.
 TIME ELEMENT REACHED BOTTOM 1259 HOUR 5-2-83
 DEAD WEIGHT ELEMENT ON BOTTOM 93.2 PSIA SHUT IN LBS.
 ELEMENT SET AT 3902 FEET.
 963.2 TEMPERATURE 3902 FT. 104 °F.
 PSIA DEAD WEIGHT AT THE END OF 72 HOURS 47 MINUTES.
 TANDEM INST.# RPG3#23060 RANGE 5225 LBS.

DATE	HOUR	TIME	DEFLECTION in/inches	CALCULATED PRESSURE psig	CORRECTION P ± PC psig	CORRECTED PRESSURE psia	PRESSURE AT MID-POINT OF PERFORATIONS psia
5-2-83	0	1340		855	13.2		868.2
	1/4	1355		960	13.2		973.2
	1/2	1410		978	13.2		991.2
	3/4	1425		982	13.2		995.2
	1	1440		989	13.2		1002.2
	1 1/2	1510		998	13.2		1012.2
	2	1540		1005	13.2		1018.2
	2 1/2	1610		1010	13.2		1023.2
	3	1640		1014	13.2		1027.2
	4	1740		1020	13.2		1033.2
5-3-83	5	1840		1025	13.2		1038.2
	6	1940		1031	13.2		1044.2
	7	2040		1034	13.2		1047.2
	8	2240		1036	13.2		1049.2
	10	2440		1042	13.2		1055.2
	12	0240		1047	13.2		1060.2
	14	0440		1050	13.2		1063.2
	16	0640		1054	13.2		1067.2
	18	0840		1057	13.2		1070.2
	20	1040		1059	13.2		1072.2
5-4-83	25	1540		1064	13.2		1077.2
	30	2040		1067	13.2		1080.2
	35	0140		1070	13.2		1083.2
	40	0640		1072	13.2		1085.2
	45	1140		1074	13.2		1087.2
	50	1640		1076	13.2		1089.2
	55	2140		1078	13.2		1091.2
	60	0240		1080	13.2		1093.2
	65	0740		1082	13.2		1095.2
	69	1140		1084	13.2		1097.2

TEST DATE: 5-2-83 TO 5-5-83

TEST DEPTH: 3902 FEET

ELEMENT NO.: RPG3#21121 N RPG3#23060
RANGE: 5175 LBS. 5225 LBS.

CLOCKS: 19040

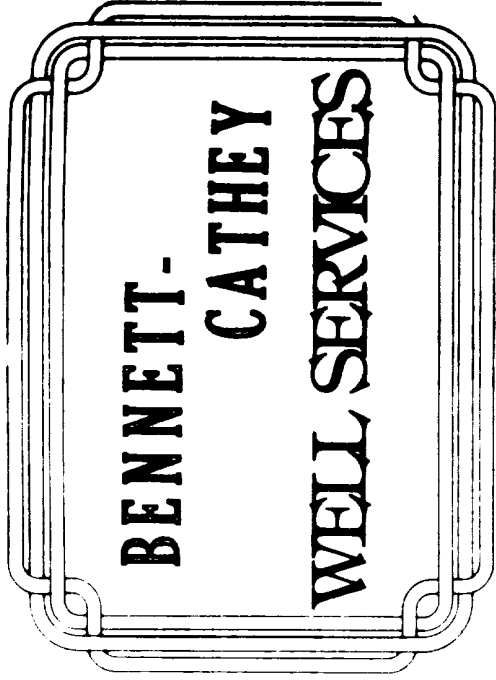
RANGE: 72 HOUR

OPERATOR: BO FAULKENBERRY

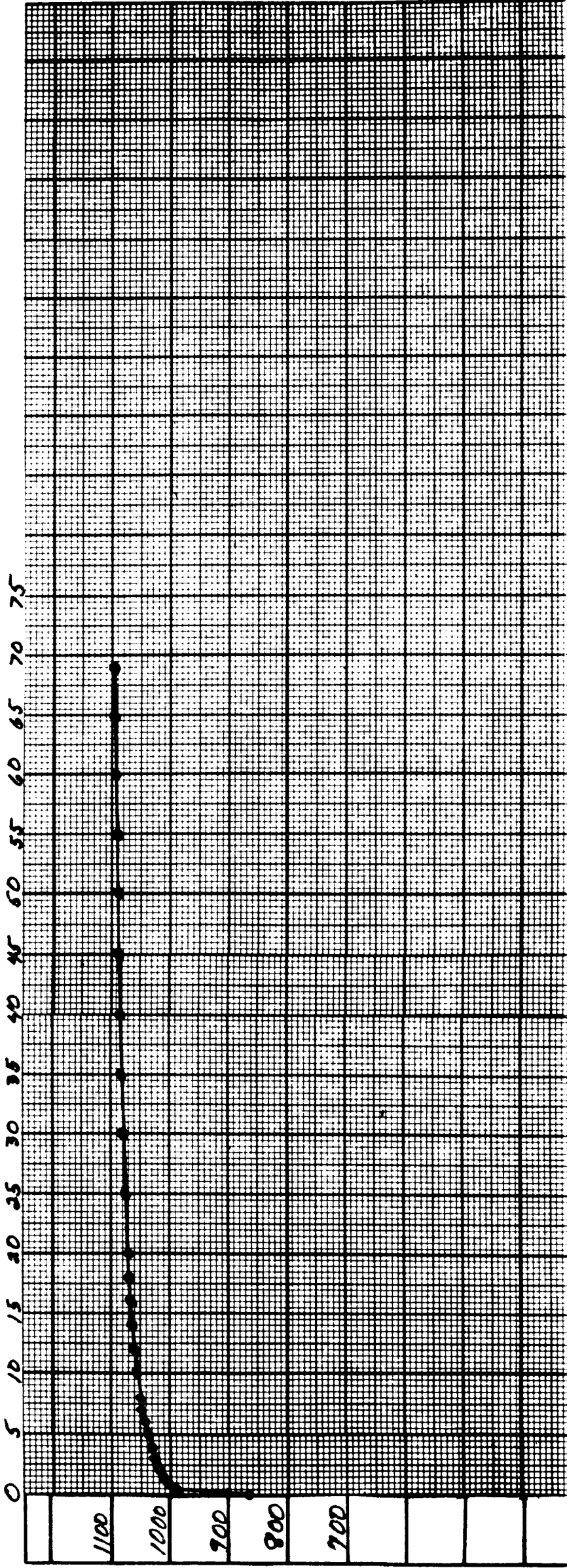
Note: See Attached Sheet for Tabulation of Pressure
And Time.

72 HOUR BUILD UP TEST

DANNY HOKETT	
DEPCO, INC.	
ROSE FEDERAL #8	
BENNETT-CATHEY WIRE LINE SERVICE	
Box 787	Artesia, N.M. 88210 505/746-3281
Drawn By	Scale: As Shown



← TIME IN HOURS →



PRESSURE



BENNETT-CATHEY WIRE LINE SERVICE

P. O. BOX 787

ARTESIA, NEW MEXICO 88210

Phone (505) 746-3281



BOTTOM HOLE PRESSURE SURVEY REPORT

OPERATOR DEPCO, INC.
LEASE ROSE FEDERAL
WELL NO. #8
POOL FORMATION
DATE 5-2-83 TIME 1253 HOUR
CO. MAN DANNY HOKETT
STATUS SHUT IN TEST DEPTH 3902 FEET
TIME S.I. 1340 HOUR LAST TEST DATE 1ST TEST
5-2-83 BHP LAST TEST
TUB. PRES. 964.2# BHP CHANGE
CAS. PRES. FLUID TOP
DATUM PLANE WATER TOP
DATUM PSIA 1099.2# RUN BY BO FAULKENBERRY
TEMP 104° CLOCK # B-3443
PRESSURE RANGE RPG3#23060 RPG3#21121N
ELEMENT NO. 5225LBS. 5175 LBS.

DEPTH	PRESSURE	GRADIENT
0	964.2	
1000	1002.2	3.8
2000	1027.2	2.5
3000	1054.2	2.7
3752	1076.2	2.9
3902	1099.2	15.3

TIME B.H.P. MEASURED 1253 HOUR
LENGTH OF TIME WELL SHUT IN 72HR 47M

