

COMPANY CLEMENTS ENERGY LEASE DRUM WELL NO. 1 DATE 6-24-82

LOCATION: Unit E Section 33 Township 14S Range 26E

L 6726 H 6726 L/H 1.000 G .6986 % CO₂ 2.189 % N₂ 5.023 % H₂S -

GH 4701 P_{CT} 667 T_{CT} 375

LINE		RATE #1		RATE #2		RATE #3		RATE #4	
		1	2	3	4	5	6	7	8
1	T _w (W.H.°R)	534	534	534	534	534	534	534	534
2	T _s (B.H.°R)	592	592	592	592	592	592	592	592
3	T _s ($\frac{T_w + T_s}{2}$)	563	563	563	563	563	563	563	563
4	Z (Est.)	.774	.780	.783	.793	.809	.822	.839	.849
5	T _Z	435.762	439.14	440.83	446.46	455.47	462.79	472.36	477.99
6	GH/TZ	10.7880	10.7050	10.6640	10.5295	10.3213	10.1580	9.9522	9.8350
7	e ^s (Table XIV)	1.4986	1.4940	1.4917	1.4842	1.4726	1.4636	1.4524	1.4460
8	P ₁ or P _s	2097.2	2097.2	1867.2	1867.2	1485.2	1485.2	1181.2	1181.2
9	P ₁ ² or P _s ²	4398.2	4398.2	3486.4	3486.4	2205.8	2205.8	1395.2	1395.2
10	P _c ² - P ₁ ² /e ^s or P _w ² - P _s ² /e ^s	2934.8	2944.0	2337.3	2349.1	1497.9	1507.1	960.6	964.9
11	P _c or P _w	1713.1	1715.8	1528.8	1532.7	1223.9	1227.6	980.1	982.3
12	P _c ($\frac{P_w + P_s}{2}$) or ($\frac{P_c + P_1}{2}$)	1905.2	1906.5	1698.0	1699.9	1354.5	1356.4	1080.7	1081.7
13	P _r = (P/P _{CT})	2.8563	2.8583	2.5457	2.5486	2.0308	2.0336	1.6202	1.6218
14	T _r = (T/T _{CT})	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
15	Z (Table XI)	.780	.780	.793	.793	.822	.822	.849	.849

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GH 4701 PG 667 TGT 375
TABLE 1 & 2

LINE	1	2	3	4	5	6	7	8
1	T _w (W.H. °R)	534	534					
2	T _s (B.H. °R)	592	592					
3	$T(\frac{T_w + T_s}{2})$	563	563					
4	Z (Est.)	.773	.778					
5	TZ	435.20	438.01					
6	GH TZ	10.8019	10.7325					
7	e ^s (Table XIV)	1.4994	1.4955					
8	P _i or P _s	2157.2	2157.2					
9	P _i ² or P _s ²	4653.5	4653.5					
10	P _c ² - P _i ² /e ^s or P _w ² = P _s ² /e ^s	3103.5	3111.6					
11	P _r or P _w	1761.7	1764.0					
12	P ($\frac{P_w + P_s}{2}$) or ($\frac{P_c + P_i}{2}$)	1959.4	1960.6					
13	P _r = (P/P _{cr})	2.9370	2.9394					
14	T _r = (T/T _{cr})	1.50	1.50					
15	Z (Table XI)	.778	.778					

BENNET - CATHEY

748-3354 / Artesia, New Mexico 882

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY CLEMENTS ENERGY
DATE OF TEST 6-24-82 - 6-25-82
COMPANY MAN BILL GILLUN

WELL NAME DRUMM WELL NO. 1
FORMATION MORROW

PAGE 1 OF 2

FOUR POINT AND 24 HOUR FLOW TEST

CHART READINGS AND CALCULATIONS FOR BUILDUP OR DRAWDOWN TEST

ELEMENT NUMBER RPG3 #46950 RANGE 7,000 LBS.
CLOCK NUMBER 17245 RANGE 36 HOURS
TIME WELL SHUT IN 6-18-82 1400 HOURS
TIME CLOCK STARTED 0841 HOURS
DEAD WEIGHT ELEMENT ON SURFACE 1755 PSIA SHUT IN LBS.
TIME ELEMENT REACHED BOTTOM 0858 HOURS
DEAD WEIGHT ELEMENT ON BOTTOM 1781 PSIA SHUT IN LBS.
ELEMENT SET AT 6,726 FEET.
TEMPERATURE 6,726 FT. 132 °F.
1755 PSIA DEAD WEIGHT AT THE END OF 138 HOURS 4 MINUTES.

DATE	HOUR	TIME	DEFLECTION in/inches	CALCULATED PRESSURE psig	CORRECTION P ± PC psig	CORRECTED PRESSURE psia	PRESSURE AT MID-POINT OF PERFORATIONS psia
6-24-82				2144	13.2		2157
START TEST	0	1045		2144	13.2		2157
	1/4	1100		2106	13.2		2119
	1/2	1115		2106	13.2		2109
	3/4	1130		2090	13.2		2103
END RATE 1	1	1145		2084	13.2		2097
	1-1/4	1200		1995	13.2		2008
	1-1/2	1215		1923	13.2		1936
	1-3/4	1230		1884	13.2		1896
END RATE 2	2	1245		1854	13.2		1867
	2-1/4	1300		1717	13.2		1730
	2-1/2	1315		1584	13.2		1597
	2-3/4	1330		1516	13.2		1539
END RATE 3	3	1345		1472	13.2		1485
	3-1/4	1400		1390	13.2		1403
	3-1/2	1415		1291	13.2		1304
	3-3/4	1430		1231	13.2		1244
END RATE 4	4	1445		1168	13.2		1181
START FLOW TEST	5	1545		1532	13.2		1545
	6	1645		1602	13.2		1615
	7	1745		1641	13.2		1654
	8	1845		1613	13.2		1625
	9	1945		1602	13.2		1615
	10	2045		1601	13.2		1614
	11	2145		1588	13.2		1601
	12	2245		1579	13.2		1592
	13	2345		1568	13.2		1581
	14	2445		1562	13.2		1575
	15	0145		1562	13.2		1575
	16	0245		1556	13.2		1569
	17	0345		1553	13.2		1566
	18	0445		1560	13.2		1573
	19	0545		1550	13.2		1563
	20	0645		1541	13.2		1574
	21	0745		1523	13.2		1536
	22	0845		1505	13.2		1518

SUGGESTED FIELD DATA SHEET (Data Required To File)										1980 FNL	
										660 FWL	
Type Test ☒ Initial ☐ 4 POINT ☐ Annual ☐ Special										Test Date 6-24-82	
Company CLEMENTS ENERGY										Allottee	
Field MORROW										Unit E	
Completion Date 6940'										Plug Test ID 6891'	
3455 KB										3442 GR	
Log Size 4.5										Well No. 1	
10.5/11.60										6678	
2-3/8										6770	
4.7										6619	
Type Completion (Description) SINGLE										County of Interest CHAVES	
TUBING										State NEW MEXICO	
60°										13.2	
.6986										2.189	
5.023											
DATE	TIME	Wellhead Working Pressure			MUTUAL GAS PROVEN			REMARKS			
Time of Testing	hrs	Pressure	Temp. F	Pressure	Temp. F	Pressure	Temp. F	Pressure	Temp. F	(Include fluid properties data) Type-A-P. Gravity Specific	
1030		1773 SIP		WIRE LINE ON BOTTOM 0858 HRS.						TUESDAY 6-18-82	
START TEST	1045 HOURS		83	WELL HEAD TEMP.							
1100	1/4	1740	80	1760	84	1/16					
1115	1/2	1732	80	1750	84	1/16					
1130	3/4	1727	81	1750	84	1/16					
1145	1	1722	82	1750	85	1/16					
1200	1-1/4	1642	81	1660	79	1/8					
1215	1-1/2	1577	80	1610	80	1/8					
1230	1-3/4	1530	80	1560	82	1/8					
1245	2	1512	81	1550	80	1/8					
1300	2-1/4	1320	80	1350	80	3/16					
1315	2-1/2	1195	80	1225	82	3/16					
1330	2-3/4	1125	80	1150	84	3/16					
1345	3	1106	80	1140	83	3/16					
1400	3-1/4	1025	81	1050	84	7/32					
1415	3-1/2	950	82	975	85	7/32					
1430	3-3/4	906	80	925	85	7/32					
1445	4	865	81	900	87	7/32					
1545	5	1295	82	1215	91	1/8					
1645	6	1342	80	1275	89	1/8					
1745	7	1351	80	1275	86	1/8					
1845	8	1336	76	1250	79	1/8					
1945	9	1315	71	1230	70	1/8					
2045	10	1302	68	1225	67	1/8					
2145	11	1275	66	1200	65	1/8					
2245	12	1245	65	1160	64	1/8					
2345	13	1215	64	1135	60	1/8					
2445	14	1208	64	1125	60	1/8					
0145	15	1201	64	1125	60	1/8					
0245	16	1195	63	1110	59	1/8					
0345	17	1190	63	1080	59	1/8					

TEST DATE: 6-25-82
TEST DEPTH: 6,726 FEET

ELEMENT NO.: RFG3 #46950
RANGE: 7,000 LBS.

CLOCKS: 17245
RANGE: 36 HOURS

OPERATOR: STEVE HARWELL

Note: See Attached Sheet for Tabulation of Pressure
And Time

FOUR POINT BACK PRESSURE TEST

BILL GILLUN

CLEMENTS ENERGY

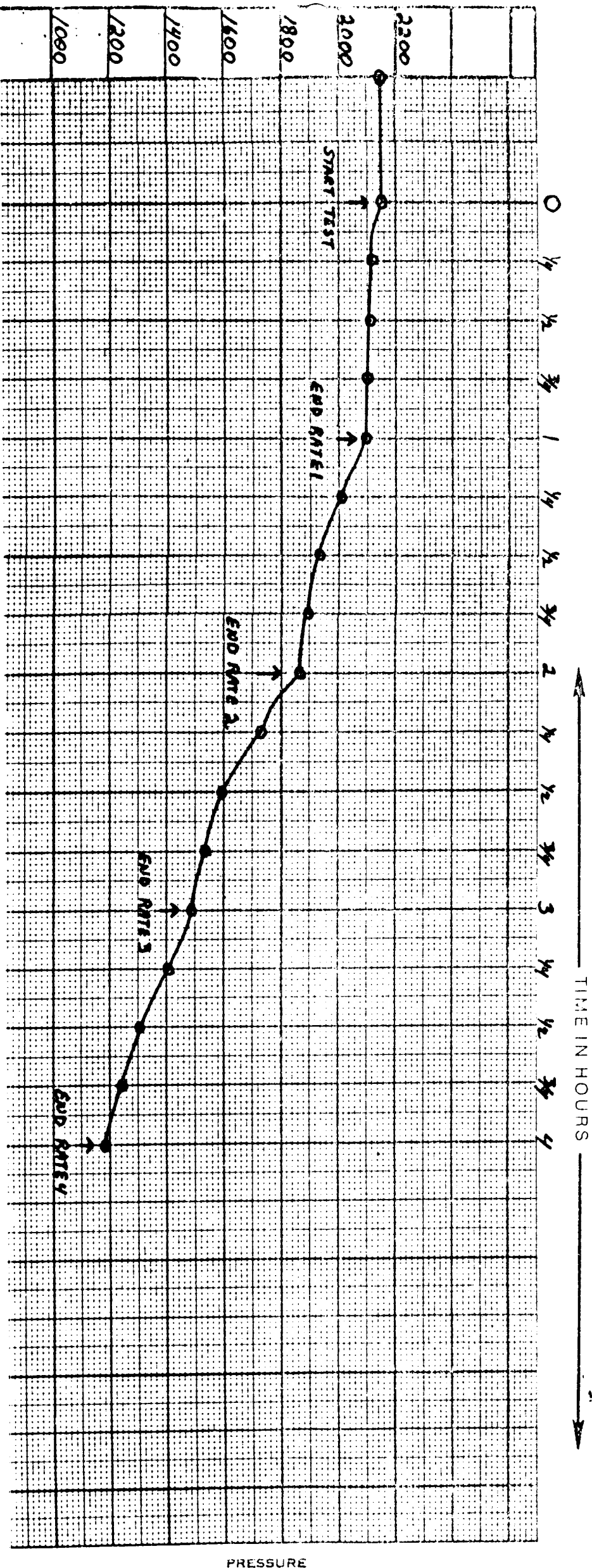
DRUM WELL NO. 1

BENNETT-CATHEY WIRE LINE SERVICE
Box 787
Artesia, N.M. 88210
505/746-3281

Drawn By

Scale: As Shown

BENNETT-
CATHEY
WELL SERVICES



TEST DATE: 6-25-82
TEST DEPTH: 6,726 FEET

ELEMENT NO.: RFG #46950
RANGE: 7,000 LBS.

CLOCKS: 17245
RANGE: 36 HOURS

OPERATOR: STEVE HARWELL

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

24 HOUR FLOW TEST

BILL GILLUN

CLEMENTS ENERGY

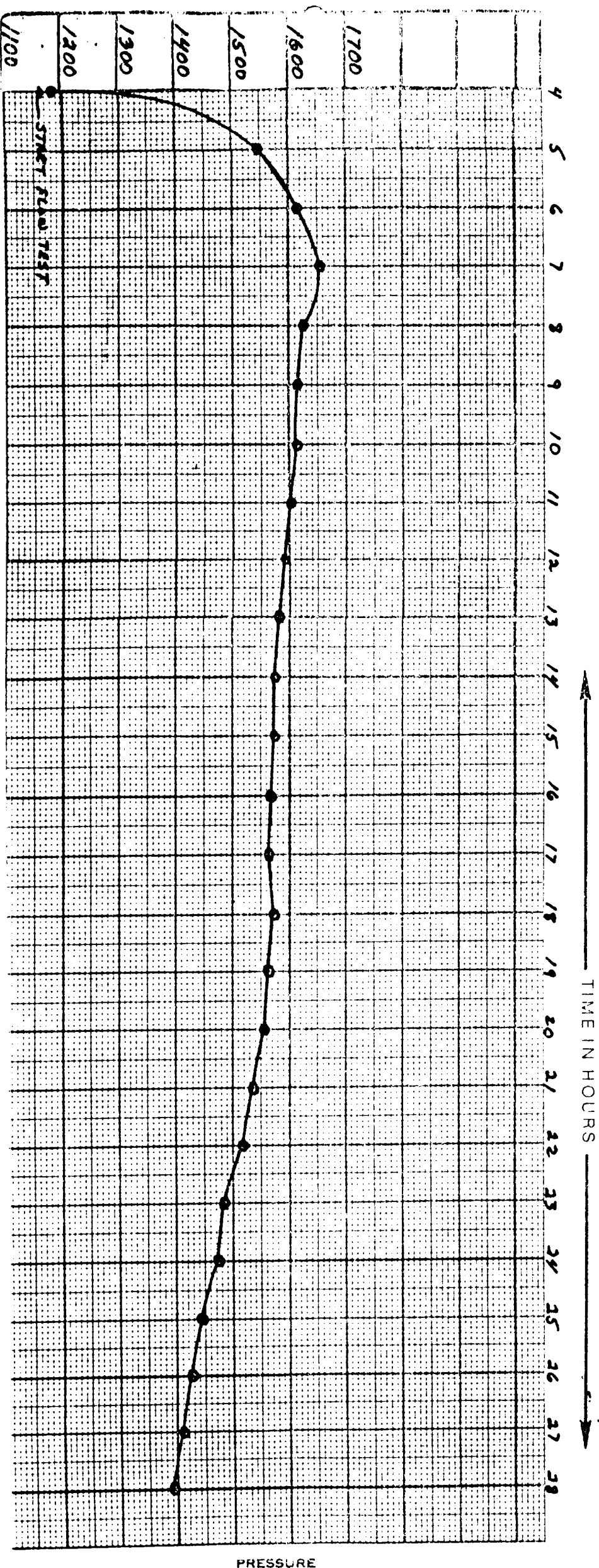
DRUM WELL NO. 1

BENNETT-CATHEY WIRE LINE SERVICE
Box 787
Artesia, N.M. 88210

Drawn By

Scale: As Shown

BENNETT-
CATHEY
WELL SERVICES





BENNETT-CATHERINE WIRE LINE SERVICE

P. O. BOX 787

ARTESIA, NEW MEXICO 88210

Phone (505) 746-3281



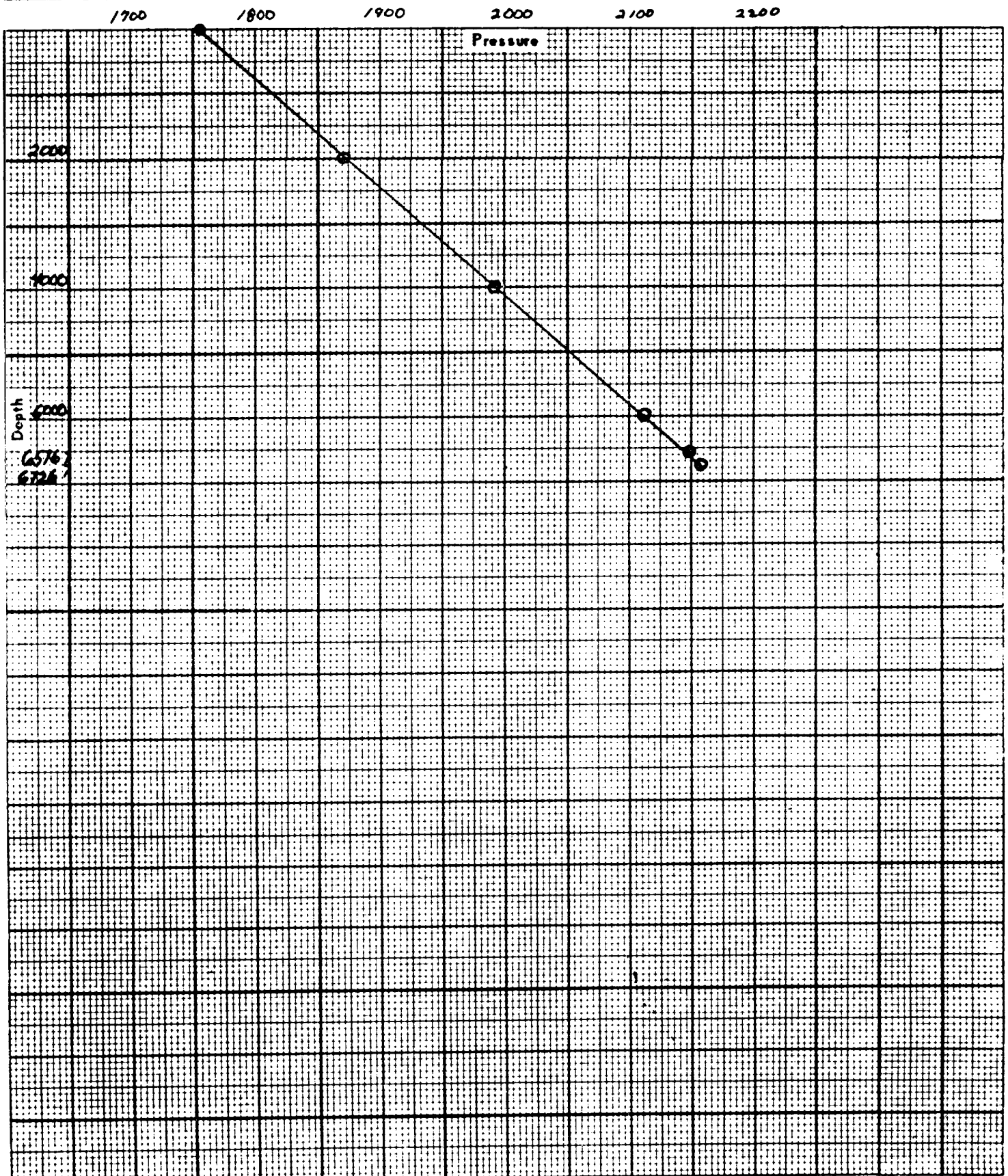
BOTTOM HOLE PRESSURE SURVEY REPORT

OPERATOR CLEMENTS ENERGY
LEASE DRUMM
WELL NO. 1
POOL FORMATION MORROW
DATE 6-24-82 TIME 0804 HRS.
CO. MAN BILL GILLEN
STATUS SHUT IN TEST DEPTH 6,726 FEET
TIME S.I. 1400 HRS LAST TEST DATE FIRST TEST
6-18-82 BHP LAST TEST
TUB. PRES. 1755 LBS BHP CHANGE
CAS. PRES. FLUID TOP
DATUM PLANE WATER TOP
DATUM PSIA 2157 RUN BY STEVE HARWELL
TEMP 132 CLOCK #
PRESSURE RANGE 0-7,000 LBS.
ELEMENT NO. RPG3# 46950

DEPTH	PRESSURE	GRADIENT
0	1755	
2,000	1871	5.8
4,000	1993	6.1
6,000	2112	6.0
6,576	2147	6.1
6,726	2157	6.6

TIME B.H.P. MEASURED 0804 HRS.

LENGTH OF TIME WELL SHUT IN 138 HRS.
4 MIN.



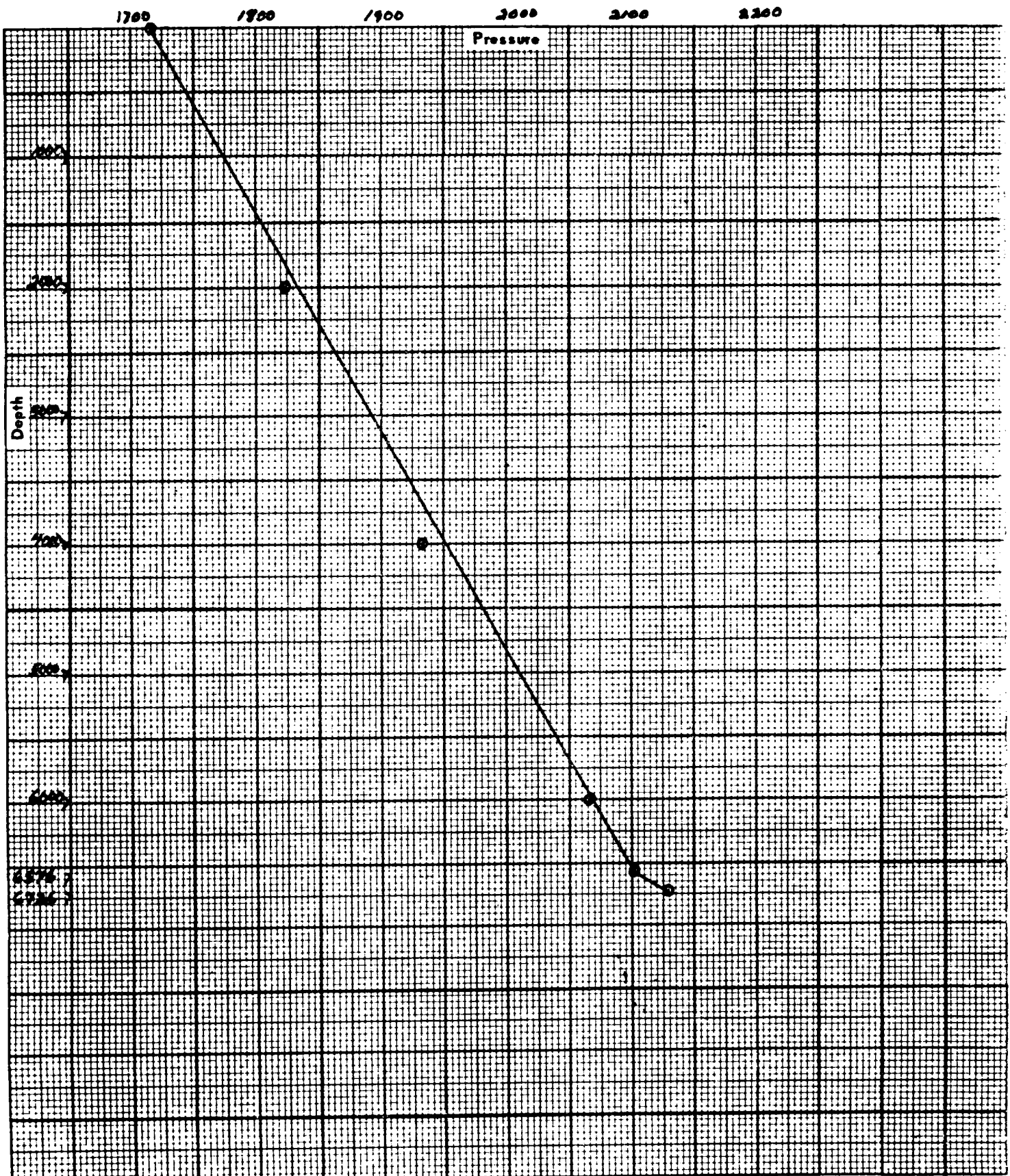


BOTTOM HOLE PRESSURE SURVEY REPORT

OPERATOR CLEMENTS ENERGY
LEASE DRUMM
WELL NO. 1
POOL FORMATION MORROW
DATE 6-28-82 TIME 1621 HRS.
CO. MAN BILL GILLUM
STATUS SHUT IN TEST DEPTH 6,726 FEET
TIME S.I. 1600 HRS. LAST TEST DATE FIRST TEST
6-25-82 BHP LAST TEST
TUB. PRES. 1716 LBS BHP CHANGE
CAS. PRES. FLUID TOP
DATUM PLANE WATER TOP
DATUM PSIA 2115 LBS RUN BY STEVE HARWELL
TEMP 132 CLOCK #
PRESSURE RANGE 0-7,000 LBS.
ELEMENT NO. RPG3# 46950

DEPTH	PRESSURE	GRADIENT
0	1716	
2,000	1824	5.4
4,000	1933	5.5
6,000	2067	6.7
6,576	2101	6.8
6,726	2115	18.0

TIME B.H.P. MEASURED 1621 HRS.

LENGTH OF TIME WELL SHUT IN 72 HRS.
22 MIN.

BENNET - CATHEY

(5) 748-3354 / Artesia, New Mexico 8 3

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY CLEMENTS ENERGY WELL NAME DRUMM WELL NO. 1
 DATE OF TEST 6-25-82 - 6-28-82 FORMATION MURROW PAGE 1 OF 1
 COMPANY MAN BILL GILLUN

CHART READINGS AND CALCULATIONS FOR BUILDUP OR DRAWDOWN TEST

ELEMENT NUMBER RPG3 #46950 RANGE 7,000 LBS.
 CLOCK NUMBER 9489 RANGE 72 HOURS
 TIME WELL SHUT IN 1559 HOURS 6-25-82
 TIME CLOCK STARTED 1535 HOURS
 DEAD WEIGHT ELEMENT ON SURFACE 1193 PSIA SHUT IN LBS.
 TIME ELEMENT REACHED BOTTOM 1555 HOURS
 DEAD WEIGHT ELEMENT ON BOTTOM 913 PSIA FLOWING LBS.
 ELEMENT SET AT 6,726 FEET.
 TEMPERATURE 6,726 FT. 132 °F.
 1719 PSIA DEAD WEIGHT AT THE END OF 72 HOURS 22 MINUTES.

DATE	HOUR	TIME	DEFLECTION in/inches	CALCULATED PRESSURE psig	CORRECTION P ± PC psig	CORRECTED PRESSURE psia	PRESSURE AT MID-POINT OF PERFORATIONS psia
6-25-82	0	1600		1334	13.2		1347
	1/4	1615		1487	13.2		1500
	1/2	1630		1588	13.2		1601
	3/4	1645		1649	13.2		1662
	1	1700		1674	13.2		1687
	1-1/4	1715		1705	13.2		1718
	1-1/2	1730		1732	13.2		1745
	1-3/4	1745		1747	13.2		1760
	2	1800		1765	13.2		1778
	2-1/4	1815		1775	13.2		1788
	2-1/2	1830		1782	13.2		1795
	2-3/4	1845		1791	13.2		1804
	3	1900		1802	13.2		1815
	3-1/2	1930		1814	13.2		1827
	4	2000		1832	13.2		1845
	4-1/2	2030		1850	13.2		1863
	5	2100		1863	13.2		1876
	6	2200		1884	13.2		1897
	7	2300		1898	13.2		1911
	8	2400		1908	13.2		1921
6-26-82	9	0100		1917	13.2		1930
	10	0200		1926	13.2		1939
	12	0400		1944	13.2		1957
	14	0600		1955	13.2		1968
	16	0800		1968	13.2		1981
	18	1000		1980	13.2		1993
	20	1200		1991	13.2		2004
	25	1700		2012	13.2		2025
6-27-82	30	2200		2030	13.2		2043
	35	0300		2047	13.2		2060
	40	0800		2063	13.2		2076
	45	1300		2073	13.2		2086
	50	1800		2084	13.2		2097
	55	2300		2092	13.2		2105
6-28-82	60	0400		2100	13.2		2113
	65	0900		2107	13.2		2120
	70	1400		2114	13.2		2127

TEST DEPTH: 6,726

ELEMENT NO.: RFG3 # 46950
RANGE: 7,000 LBS.

CLOCKS: 9489
RANGE: 72 HOURS

OPERATOR: STEVE HARWELL

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

72 HOUR BUILD-UP

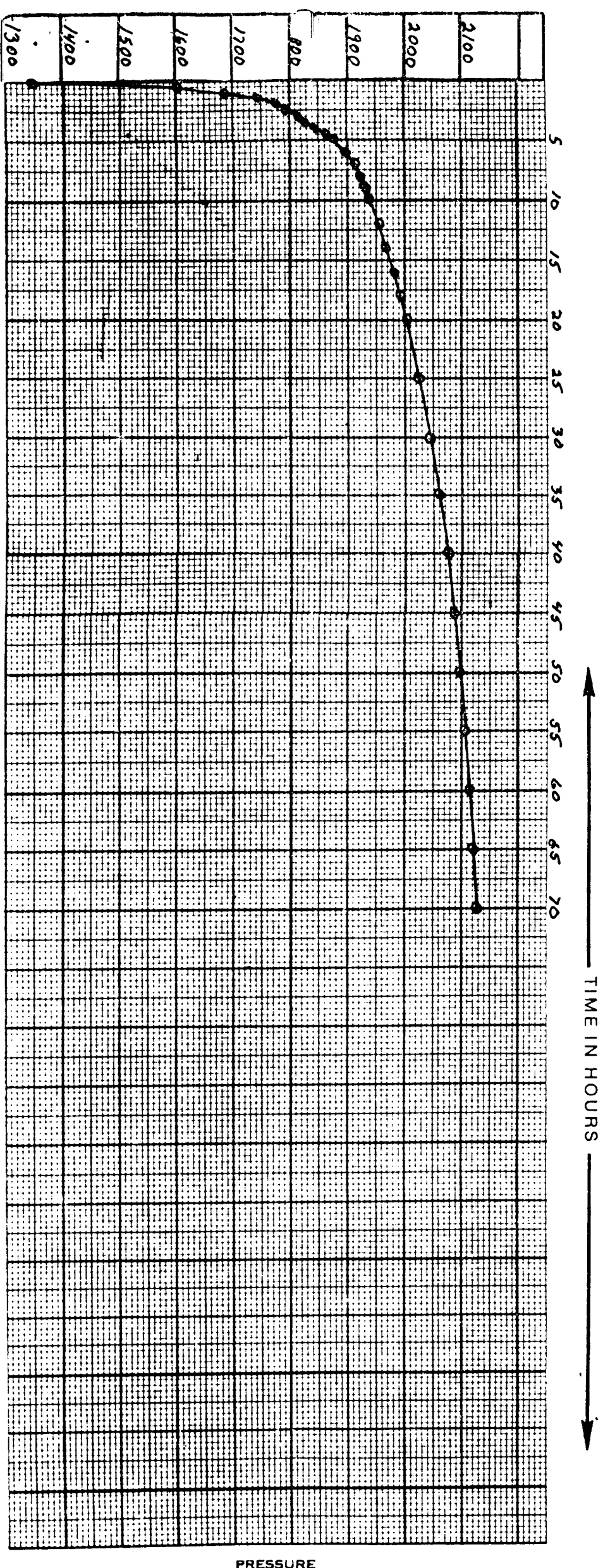
BILL GILLUN

CLEMENTS ENERGY

DRUM WELL NO. 1

BENNETT-CATHEY WIRE LINE SERVICE
Box 787
Artesia, N.M. 88210
505/746-3281

Drawn By _____ Scale: As Shown



PRESSURE

TIME IN HOURS