

TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name & No.	RENNER #1-21	Test No.	1	Date	8/1/89
Company	BRITO OIL CO. INC	Zone Tested	I-J LKC		
Address	200 E. 1ST SWT 208 WICHITA KS 67202	Elevation	3085		
Co. Rep./Geo.	RAUL BRITO	Cont.	BLUE GOOSE #1	Est. Ft. of Pay	0
Location: Sec.	21	Twp.	9S	Rge.	32W
		Co.	THOMAS	State	KS

Interval Tested	4250-4300	Drill Pipe Size	4.5 XH			
Anchor Length	50	Top Choke — 1"				
Top Packer Depth	4245	Bottom Choke — 3/4"				
Bottom Packer Depth	4250	Hole Size — 7 7/8"				
Total Depth	4300	Rubber Size — 6 3/4"				
Wt. Pipe I.D. — 2.7		Ft. Run	0			
Drill Collar — 2.25		Ft. Run	300			
Mud Wt.	9.2	lb./gal.	Viscosity	48	Filtrate	12.2
Tool Open @	3:20 PM	Initial Blow	SURGE WHEN TOOL WAS OPEN-NO BLOW			
	FLUSHED TOOL-NO HELP					

Final Blow _____

Recovery — Total Feet 3 Flush Tool? _____

Rec. 3 Feet of DRILLING MUD (N.S.)

Rec. 0 Feet of _____

Rec. 0 Feet of _____

Rec. 0 Feet of _____

Rec. 0 Feet of _____

BHT 123 °F Gravity _____ °API @ 0 °F Corrected Gravity 0 °API

RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 1700 ppm System

(A) Initial Hydrostatic Mud 2220.2 PSI AK1 Recorder No. 10248 Range 4400

(B) First Initial Flow Pressure 41.2 PSI @ (depth) 4292 w/Clock No. 26191

(C) First Final Flow Pressure 41.2 PSI AK1 Recorder No. 13337 Range 3975

(D) Initial Shut-In Pressure 150.3 PSI @ (depth) 4296 w/Clock No. 25814

(E) Second Initial Flow Pressure 0 PSI Initial Opening 30

(F) Second Final Flow Pressure 0 PSI Initial Shut-In 30

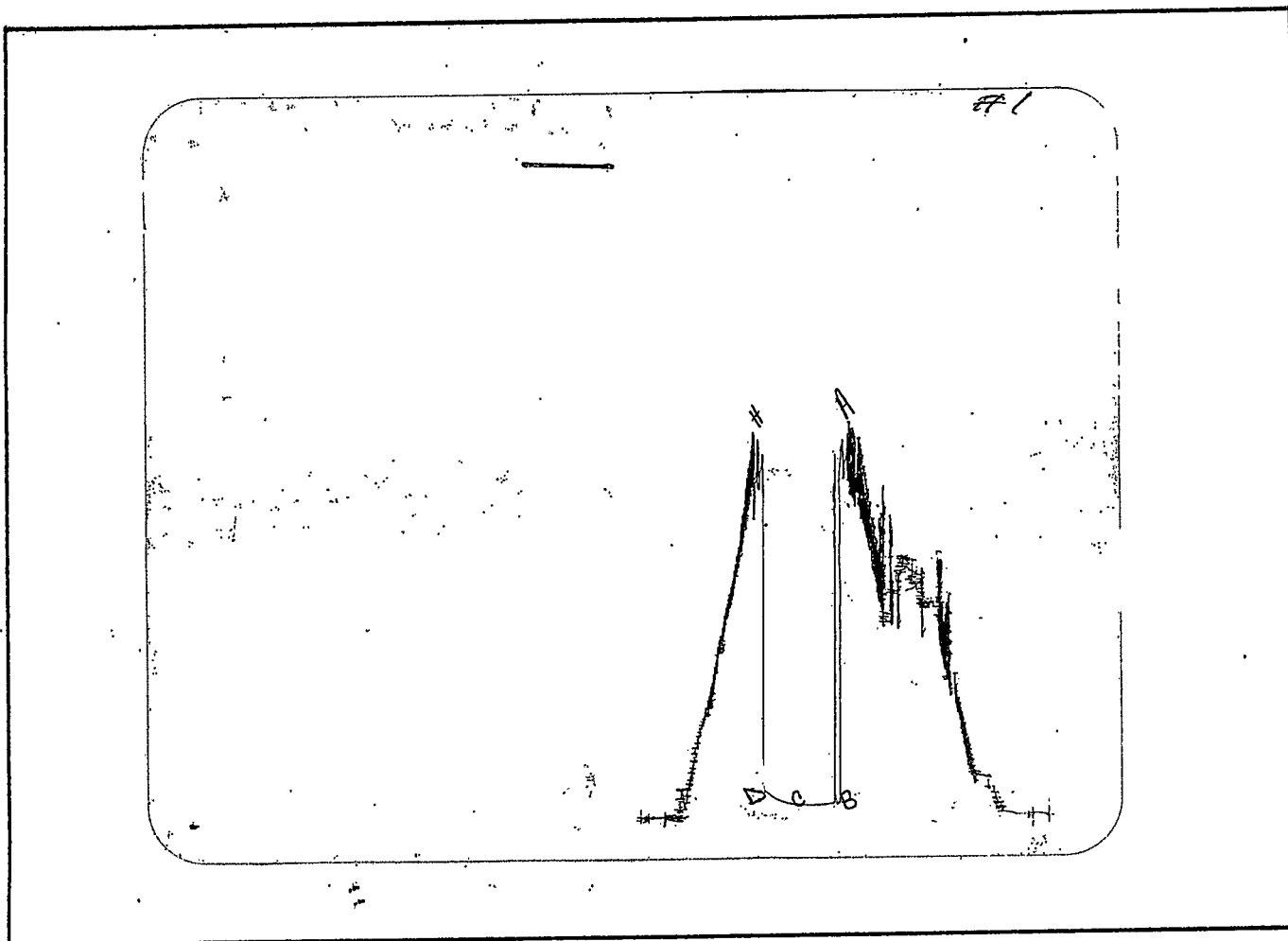
(G) Final Shut-In Pressure 0 PSI Final Flow 0

(H) Final Hydrostatic Mud 2122.5 PSI Final Shut-In 0

Our Representative DAN BANGLE

TOTAL PRICE..... \$ 400

Printcraft Printers - Hays, KS



This is an actual photograph of recorder chart.

POINT	PRESSURE	
	Field Reading	Office Reading
(A) Initial Hydrostatic Mud.....	2219	2220.2
(B) First Initial Flow Pressure.....	39	41.2
(C) First Final Flow Pressure.....	39	41.2
(D) Initial Closed-in Pressure.....	148	150.3
(E) Second Initial Flow Pressure.....	0	0
(F) Second Final Flow Pressure.....	0	0
(G) Final Closed-in Pressure.....	0	0
(H) Final Hydrostatic Mud.....	2021	2122.5

TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name & No.	RENNER #1-21	Test No.	2	Date	8/2/89
Company	BRITO OIL CO. INC	Zone Tested	K LKC		
Address	200 E. 1ST SWT 208 WICHITA KS 67202	Elevation	3085		
Co. Rep./Geo.	RAUL BRITO	Cont.	BLUE GOOSE #1	Est. Ft. of Pay	0
Location: Sec.	21	Twp	9S	Rge.	32W
		Co.	THOMAS	State	KS

Interval Tested	4298-4330	Drill Pipe Size	4.5 XH
Anchor Length	32	Top Choke — 1"	
Top Packer Depth	4293	Bottom Choke — 3/4"	
Bottom Packer Depth	4298	Hole Size — 7 7/8"	
Total Depth	4330	Rubber Size — 6 3/4"	
Wt. Pipe I.D. — 2.7		Ft. Run	0
Drill Collar — 2.25		Ft. Run	300
Mud Wt.	9.2	Viscosity	48
		Filtrate	12.2
Tool Open @	3:15 AM	Initial Blow	SURGE WHEN TOOL WAS OPENED— NO BLOW

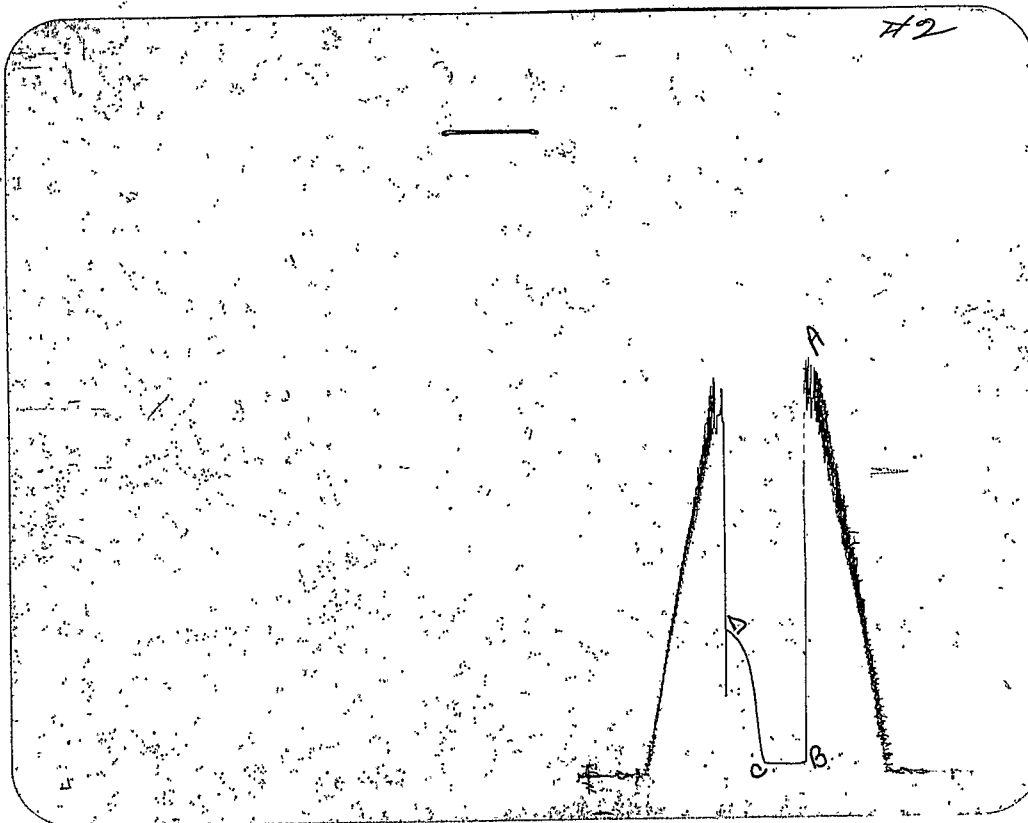
Final Blow

Recovery — Total Feet	3	Flush Tool?	
Rec.	3	Feet of	DRILLING MUD (N.S.)
Rec.	0	Feet of	
Rec.	0	Feet of	
Rec.	0	Feet of	
Rec.	0	Feet of	

BHT	123	°F	Gravity		°API @	0	°F	Corrected Gravity	0	°API
RW		@	°F	Chlorides		ppm	Recovery	Chlorides	1700	ppm
(A) Initial Hydrostatic Mud	2122.2	PSI	AK1 Recorder No.	10248	Range	4400				
(B) First Initial Flow Pressure	61.2	PSI	@(depth)	4322	w/Clock No.	26191				
(C) First Final Flow Pressure	61.2	PSI	AK1 Recorder No.	13337	Range	3975				
(D) Initial Shut-In Pressure	740.5	PSI	@(depth)	4326	w/Clock No.	25814				
(E) Second Initial Flow Pressure	0	PSI	Initial Opening	30						
(F) Second Final Flow Pressure	0	PSI	Initial Shut-In	30						
(G) Final Shut-In Pressure	0	PSI	Final Flow	0						
(H) Final Hydrostatic Mud	1879.2	PSI	Final Shut-In	0						

Our Representative DAN BANGLE TOTAL PRICE..... \$ 400

Printcraft Printers - Hays, KS



This is an actual photograph of recorder chart.

POINT	PRESSURE	
	Field Reading	Office Reading
(A) Initial Hydrostatic Mud.....	2120	2122.2 PSI
(B) First Initial Flow Pressure.....	59	61.2 PSI
(C) First Final Flow Pressure.....	59	61.2 PSI
(D) Initial Closed-in Pressure.....	739	740.5 PSI
(E) Second Initial Flow Pressure.....	0	0 PSI
(F) Second Final Flow Pressure.....	0	0 PSI
(G) Final Closed-in Pressure.....	0	0 PSI
(H) Final Hydrostatic Mud.....	1875	1879.2 PSI

TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name & No.	RENNER #1-21	Test No.	3	Date	8/2/89
Company	BRITO OIL CO. INC	Zone Tested	L LKC		
Address	200 E. 1ST SWT 208 WICHITA KS 67202	Elevation	3085		
Co. Rep./Geo.	RAUL BRITO	Cont.	BLUE GOOSE #1	Est. Ft. of Pay	6
Location: Sec.	21	Twp.	9S	Rge.	32W
		Co.	THOMAS	State	KS

Interval Tested	4338-4368	Drill Pipe Size	4.5 XH
Anchor Length	30	Top Choke — 1"	
Top Packer Depth	4333	Bottom Choke — 3/4"	
Bottom Packer Depth	4338	Hole Size — 7 7/8"	
Total Depth	4368	Rubber Size — 6 3/4"	
Wt. Pipe I.D. — 2.7		Ft. Run	0
Drill Collar — 2.25		Ft. Run	300
Mud Wt.	9.4	Viscosity	88
	lb./gal.	Filtrate	12.8
Tool Open @	3:55 PM	Initial Blow STRONG-OFF BOTTOM OF BUCKET IN 1 1/2 MIN	

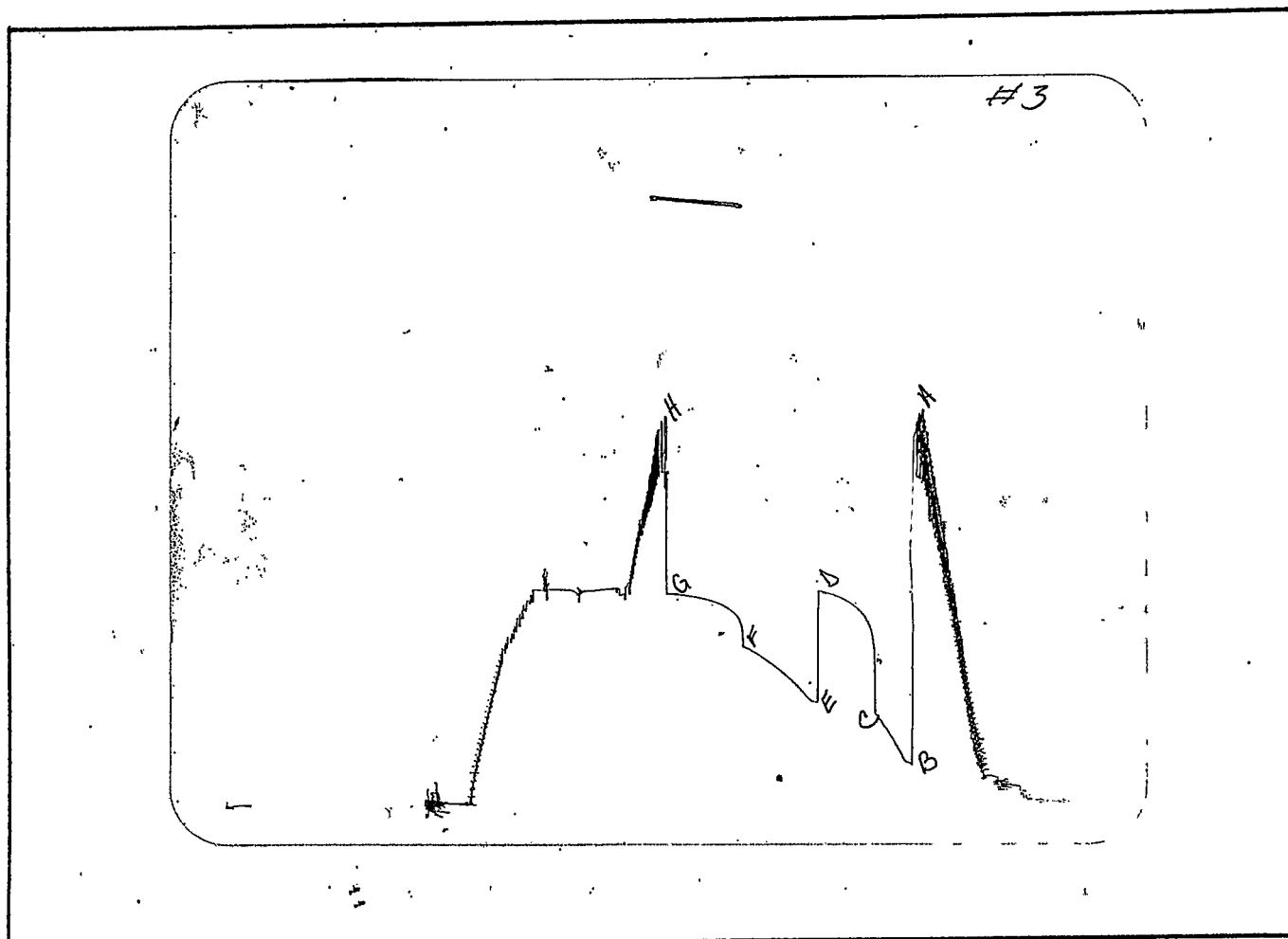
Final Blow STRONG-OFF BOTTOM OF BUCKET IN 3 MIN
GAS TO SURFACE IN 2 MIN

Recovery — Total Feet	2840	Flush Tool?	
Rec.	2840	Feet of	CLEAN GASSY OIL
Rec.	0	Feet of	
Rec.	0	Feet of	
Rec.	0	Feet of	
Rec.	0	Feet of	
BHT	126	°F	Gravity
		°API @	0
		°F	Corrected Gravity
			1500
RW		°F	Chlorides
		ppm Recovery	10248
		ppm System	4400
(A) Initial Hydrostatic Mud	192.7	PSI	AK1 Recorder No.
			4360
(B) First Initial Flow Pressure	503	PSI	@ (depth)
			13337
(C) First Final Flow Pressure	1252.5	PSI	AK1 Recorder No.
			4364
(D) Initial Shut-In Pressure	589.4	PSI	@ (depth)
			30
(E) Second Initial Flow Pressure	907.7	PSI	Initial Opening
			45
(F) Second Final Flow Pressure	1243.5	PSI	Initial Shut-In
			60
(G) Final Shut-In Pressure	2081	PSI	Final Flow
			60
(H) Final Hydrostatic Mud		PSI	Final Shut-In

Our Representative DAN BANGLE

TOTAL PRICE..... \$ 420

Printcraft Printers - Hays, KS



This is an actual photograph of recorder chart.

POINT	PRESSURE	
	Field Reading	Office Reading
(A) Initial Hydrostatic Mud.....	2219	2199.6
(B) First Initial Flow Pressure.....	197	192.7
(C) First Final Flow Pressure.....	513	503
(D) Initial Closed-in Pressure.....	1244	1252.5
(E) Second Initial Flow Pressure.....	592	589.4
(F) Second Final Flow Pressure.....	936	907.7
(G) Final Closed-in Pressure.....	1244	1243.5
(H) Final Hydrostatic Mud.....	2169	2081

COMPUTER EVALUATION BY TRILOBITE TESTING
BRITO OIL CO INC
REPORT FOR DST#3 FOR THE RENNER #1-21
21-9S-32W , THOMAS KS

TEST PARAMETERS

ELEVATION:	3085 KB	EST. PAY:	6 FT
DATUM:	-1280	ZONE TESTED:	L LKC
TEST INTERVAL:	4338-4368		
RECORDER DEPTH:	4364	TIME INTERVALS:	30 45 60 60
BOTTOM HOLE TEMP:	126	VISCOSITY:	4.5 CP
		HOLE SIZE:	7.875 IN

CALCULATIONS

CUBIC FEET OF GAS IN PIPE: 199.5985

TOTAL FEET OF RECOVERY: 2840
BARRELS IN DRILL PIPE: 36.1188
BARRELS IN DRILL COLLARS: 1.467
GAS OIL RATIO: 5.310476 CU.FT./BBL
TOTAL BARRELS OF RECOVERY: 37.5858

API GRAVITY: 36 UNCORR. INIT. PROD.: 601.3728 BBL/DAY

CORRECTED PIPE FILLUP: 2480.055 FLUID GRADIENT: .366

CORR. BARRELS OF RECOVERY: 32.4666 BBL
INITIAL PRODUCTION CORRECTED TO FINAL FLOW PRESSURE: 519.4656 BBL/DAY
INITIAL PRODUCTION CORRECTED TO PSEUDO STEADY FLOW STATE
307.0627

INITIAL SHUT-IN VALUES:
THEORETICAL STATIC PRESSURE 1357.005
SLOPE 471.1498

FINAL SHUT-IN VALUES
THEORETICAL STATIC PRESSURE 1331.477
SLOPE 221.1205

TRANSMISSIBILITY	381.9877 (MD.-FT./CP.)
PERMEABILITY	286.4908 (MD.)
INDICATED FLOW CAPACITY	1718.945 (MD.FT)
PRODUCTIVITY INDEX	.4316461 (BARRELS/DAY/PSI)
DAMAGE RATIO	.3506951
RADIUS OF INVESTIGATION	160.5745 (FT.)
POTENTIOMETRIC SURFACE	1808.626 (FT.)
DRAWDOWN FACTOR	1.8812 (%)

INITIAL FLOW

REORDER # 13337
DST #3

DT(MIN)	PRESSURE	<> PRESSURE
0	192.7	192.7
3	231.2	38.5
6	272.7	41.50002
9	314.2	41.5
12	347.8	33.59998
15	381.4	33.60001
18	416	34.60001
21	449.6	33.60001
24	476.3	26.69998
27	503	26.70001

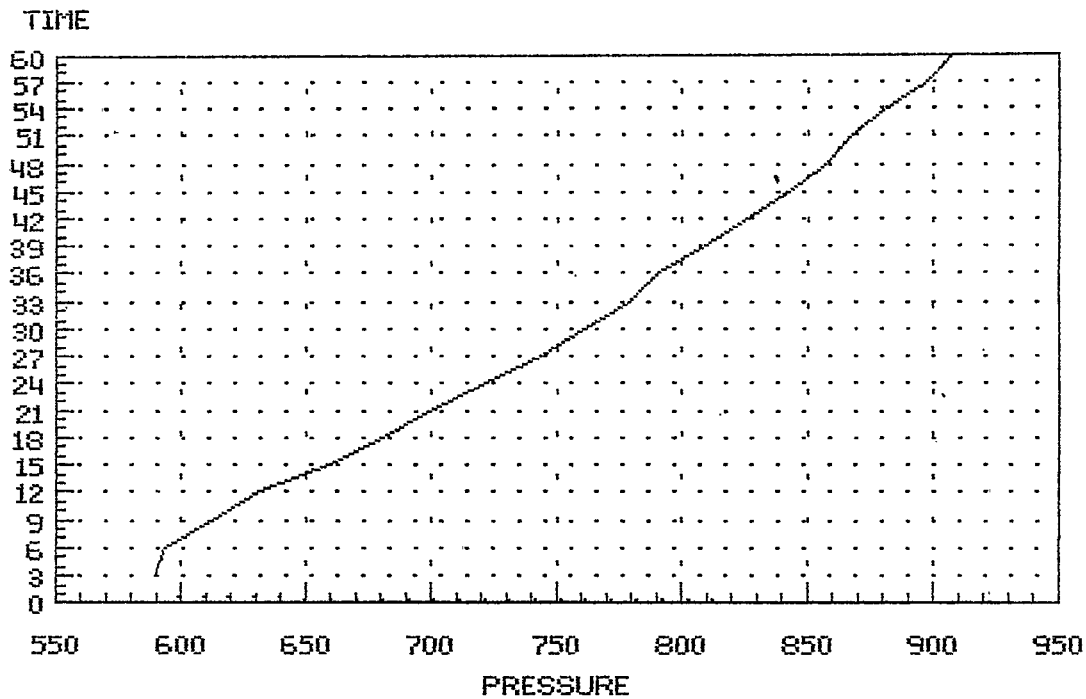
FINAL FLOW

REORDER # 13337
DST #3

DT(MIN)	PRESSURE	<> PRESSURE
0	589.4	589.4
3	589.4	0
6	593.3	3.899964
9	612	18.70001
12	631.6	19.59998
15	660.1	28.5
18	680.7	20.60004
21	699.4	18.70001
24	722	22.59998
27	743.6	21.59998
30	761.3	17.70001
33	779	17.70001
36	790.8	11.79999
39	809.4	18.60004
42	826.1	16.69995
45	842.8	16.70001
48	857.6	14.79999
51	867.4	9.800049
54	882.1	14.69995
57	897.9	15.80005
60	907.7	9.799988

DELTA T DELTA P

DST #3 FINAL FLOW
RECORDER # 13337



INITIAL PRODUCTION CORRECTED TO PSEUDO STEADY FLOW STATE 307.0627 BBL/DAY

DST #3

RECORDER # 13337
INITIAL FLOW TIME (MIN.): 30

MIN	LOG(T+MIN/MIN)	PRESSURE	<> PRESSURE
0	0	503	503
3	1.041205	870.4	367.4
6	.778011	1028.9	158.5
9	.6367073	1080.8	51.90003
12	.5439701	1117.8	37
15	.4770353	1140.7	22.8999
18	.425892	1153.7	13
21	.3852815	1172.6	18.90003
24	.352119	1186.6	14
27	.3244526	1199.6	13
30	.3009757	1210.6	11
33	.280776	1218.5	7.900025
36	.263194	1225.5	7
39	.2477398	1230.5	5
42	.234041	1239.5	9
45	.2218087	1252.5	13

FINAL SHUT-IN BUILDUP
DST #3

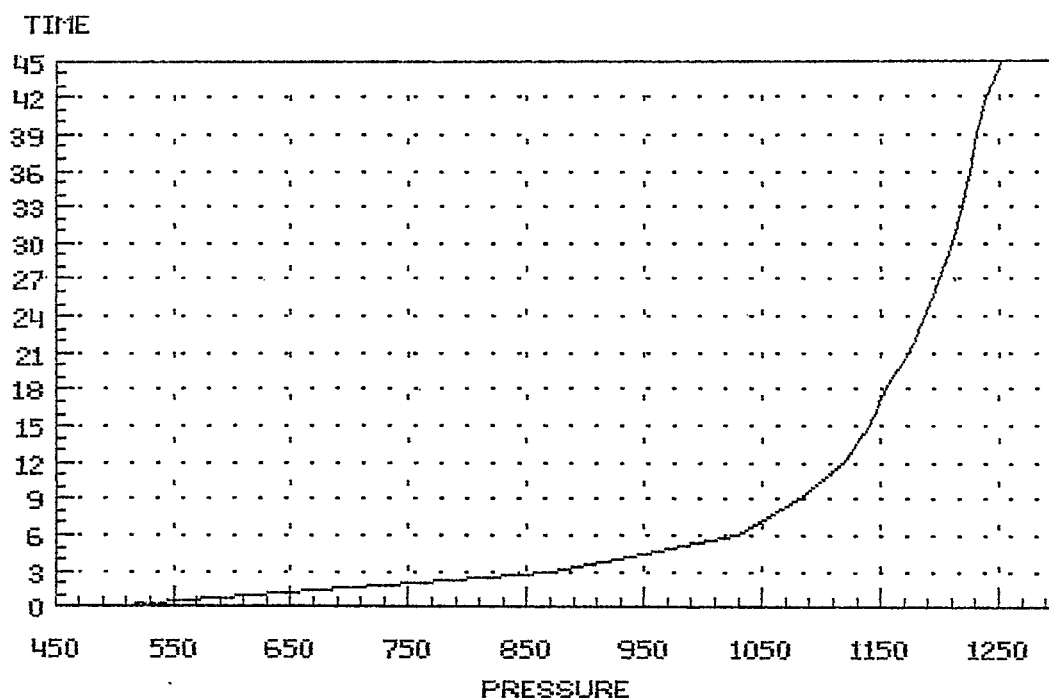
RECORDER # 13337
TOTAL FLOW TIME (MIN.): 90

MIN	LOG(T+MIN/MIN)	PRESSURE	<> PRESSURE
0	0	907.7	907.7
3	1.491093	932.2	24.5
6	1.203903	1049.9	117.7
9	1.041205	1106.8	56.90003
12	.9292515	1129.7	22.8999
15	.8449459	1144.7	15
18	.778011	1160.7	16
21	.7229735	1173.6	12.90003
24	.6765717	1182.6	9
27	.6367073	1193.6	11
30	.6019515	1201.6	8
33	.5712882	1205.6	4
36	.5439701	1210.6	5
39	.5194315	1214.6	4
42	.4972351	1219.5	4.900025
45	.4770353	1222.5	3
48	.4585552	1225.5	3
51	.4415694	1229.5	4
54	.425892	1234.5	5
57	.4113683	1239.5	5
60	.3978683	1243.5	4

DELTA T DELTA P

DST #3 INITIAL SHUTIN

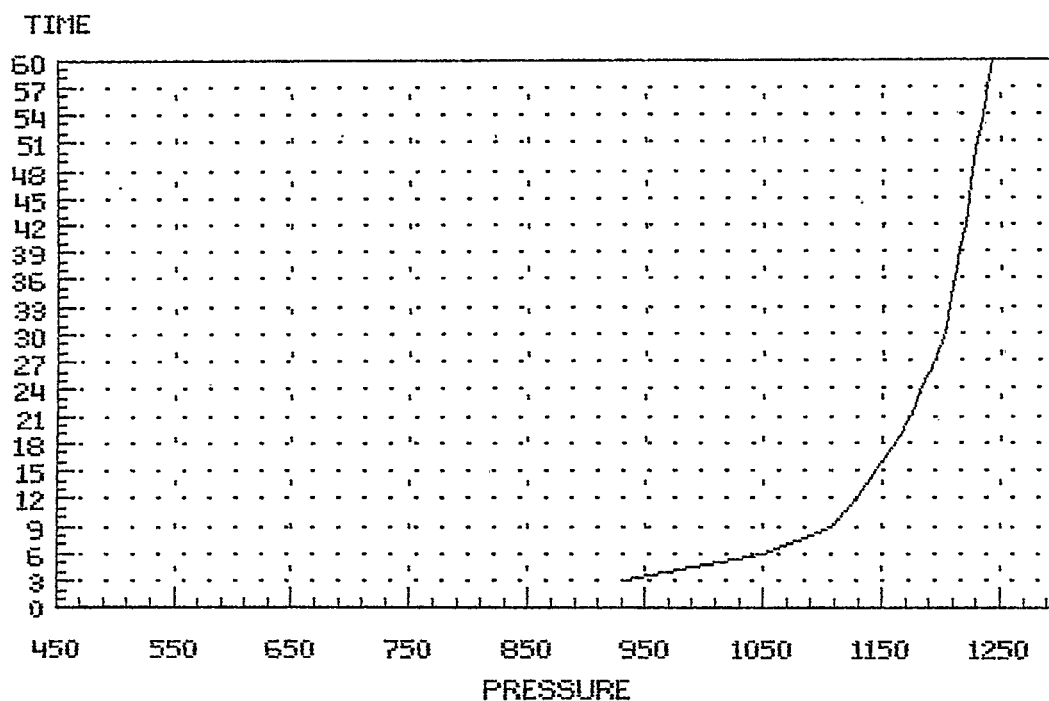
RECORDER #13337



DELTA T DELTA P

DST #3 FINAL SHUTIN

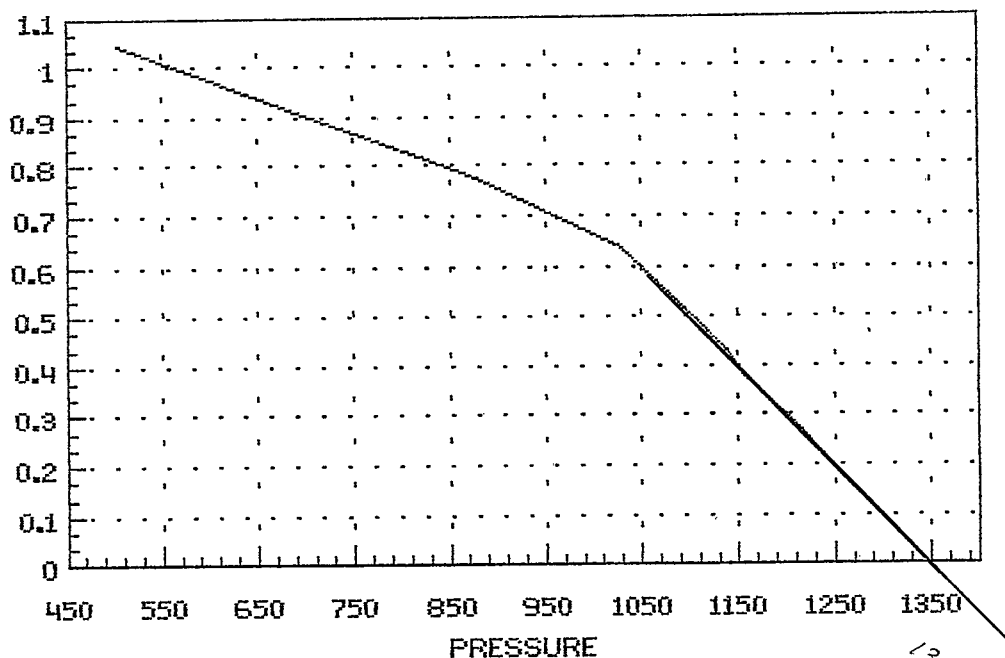
RECORDER # 13337



HORNER PLOT

DST #3 INITIAL SHUTIN
RECORDER #13337

LOG (T+MIN/MIN)

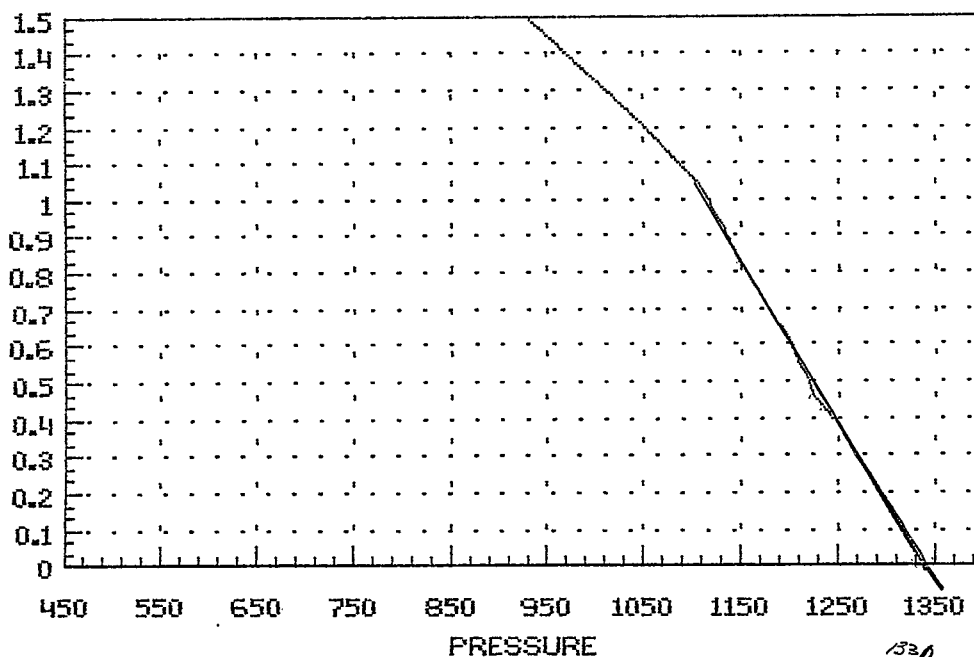


STATIC PRESSURE 1357.005
SLOPE 471.1498
POINTS USED 13

HORNER PLOT

DST #3 FINAL SHUTIN
RECORDER # 13337

LOG(T+MIN/MIN)



STATIC PRESSURE 1331.477
SLOPE 221.1205
POINTS USED 18