

Phone
(303) 830-80



Drill Stem Testers, Inc.

Denver Center Bldg.
1776 Lincoln St., Suite 408
Denver, CO 80203

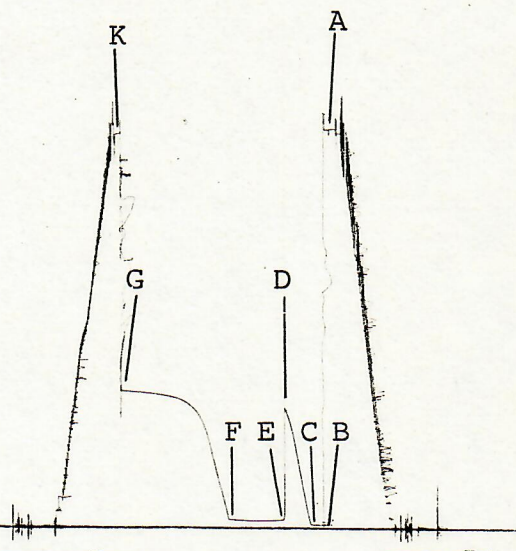
Contractor Gear Drlg.
Rig No. 1
Spot NE-SW
Sec. 28
Twp. 9N
Rng. 53W
Field Wildcat
County Logan
State Colorado
Elevation 4180' KB
Formation "J" Sand
On Location @ 12:45am 12-28-84

Surface Choke 1"
Bottom Choke 3/4"
Hole Size 7 7/8"
Core Hole Size --
DP Size & Wt. 4 1/2" XH 16.60
Wt. Pipe --
I.D. of DC 2.25"
Length of DC 368'
Total Depth 4957'
Type Test Conventional
Interval 4944-4957'
Off Location @ --

Mud Type Chemical-Gel
Weight 9.3
Viscosity 59
Water Loss --
Filter Cake --
Resistivity -- @ -- of
-- Ppm. NaCl
B.H.T. 152 of
Co. Rep. James Terwilliger
Tester Jeff Rittenhouse

	REPORTED	CORRECTED
Opened Tool @	<u>4:10</u> am	<u>15</u> hrs.
Flow No. 1	<u>15</u>	<u>15</u> min.
Shut-in No. 1	<u>30</u>	<u>30</u> min.
Flow No. 2	<u>60</u>	<u>64</u> min.
Shut-in No. 2	<u>120</u>	<u>123</u> min.
Flow No. 3	<u>--</u>	<u>--</u> min.
Shut-in No. 3	<u>--</u>	<u>--</u> min.

Recorder Type Kuster AK-1
No. 11038 Cap. 5075 psi
Depth 4920 feet
Inside X Outside
Clock No. 26318 Hr. 18
Initial Hydrostatic A 2607
Final Hydrostatic K 2576
Initial Flow B 25
Final Initial Flow C 27
Initial Shut-in D 791
Second Initial Flow E 61
Second Final Flow F 64
Second Shut-in G 904
Third Initial Flow H --
Third Final Flow I --
Third Shut-in J --



Pipe Recovery: 2302'
110'

Gas in pipe above fluid
Gas and oil cut mud = .54 bbls.
(Recovery was reverse circulated.)

Surface Blow:

1st Flow: Tool opened with a 1/4" blow, increased to a 3" blow in 10 minutes and a 7" blow at end of flow period.
2nd Flow: Tool opened with a bottom of bucket blow, increased to a 17 oz. blow in 5 minutes, a 19 oz. blow in 10 minutes, a 2.5 psi blow in 20 minutes, a 3 psi blow in 40 minutes, a 19 oz. blow in 50 minutes and an 18 oz. blow at end of flow period.

Pipe recovery grindouts: Top Sample - 60% oil, 40% mud
Middle Sample - 15% oil, 85% mud
Bottom Sample - 80% oil, 20% mud

Operator PETROLEUM, INC.
Ticket No. 1077

Well Name & No. CROW #1
Date 12-28-84

DST No. 3
Interval 4944-4957'

Drill Stem Testers, Inc.

PETROLEUM, INC.

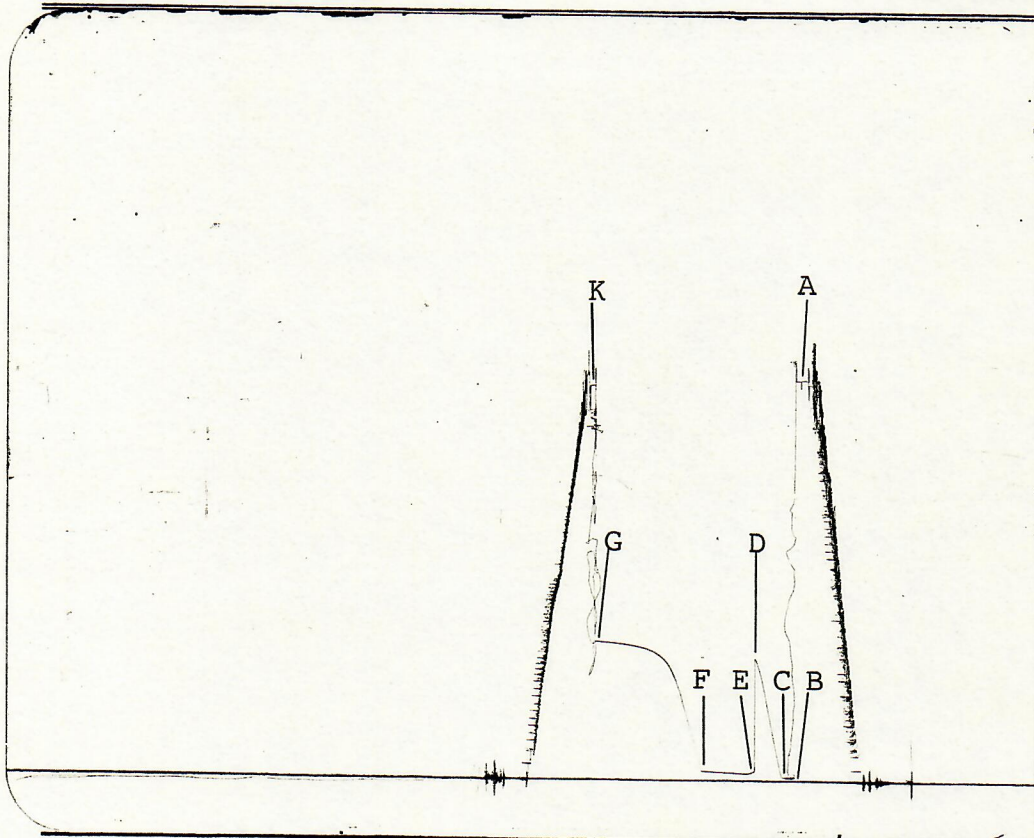
Operator

CROW #1

Well Name and No.

3

DST No.



Recorder Type Kuster AK-1
No. 11039 Cap. 5125 psi
Depth 4925 feet
Inside X Outside

Clock No. 26570 Hr. 18

Initial Hydrostatic	A	<u>2611</u>
Final Hydrostatic	K	<u>2574</u>
Initial Flow	B	<u>24</u>
Final Initial Flow	C	<u>26</u>
Initial Shut-in	D	<u>797</u>
Second Initial Flow	E	<u>58</u>
Second Final Flow	F	<u>59</u>
Second Shut-in	G	<u>905</u>
Third Initial Flow	H	<u>--</u>
Third Final Flow	I	<u>--</u>
Third Shut-in	J	<u>--</u>

Recorder Type _____
No. _____ Cap. _____ psi
Depth _____ feet
Inside _____ Outside _____

Clock No. _____ Hr. _____

Initial Hydrostatic	A	_____
Final Hydrostatic	K	_____
Initial Flow	B	_____
Final Initial Flow	C	_____
Initial Shut-in	D	_____
Second Initial Flow	E	_____
Second Final Flow	F	_____
Second Shut-in	G	_____
Third Initial Flow	H	_____
Third Final Flow	I	_____
Third Shut-in	J	_____

Drill Stem Testers, Inc.

PETROLEUM, INC.

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CROW #1

Well Name and No.

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DST No.

This pressure chart analysis has been made on the basis of the liquid recovery, the Horner Extrapolation method, and the Horner equations applicable to liquid recovery tests.

The pressure extrapolation plot for the initial shut-in build-up curve indicates that "steady-state" conditions were not attained during the initial shut-in period. It is therefore, not possible to determine a reliable initial shut-in pressure. The pressure extrapolation plot for the final shut-in build-up curve indicates a maximum reservoir pressure of 962 PSI, at the recorder depth of 4920 feet.

The Average Production Rate of 9.90 bbls./day, which was used in this analysis has been calculated on the basis of the total liquid recovery of 0.54 barrels and the total flowing time of 79 minutes.

The calculated Damage Ratio of 0.61, indicates that no significant well-bore damage was present at the time of this drillstem formation test.

The evaluation criteria used in this drillstem formation test analysis system provide indications that the results obtained should be reliable within reasonable limits relative to the assumptions that have been made.

Drill Stem Testers, Inc.

PETROLEUM, INC.

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CROW #1

Well Name and No.

3

DST No.

TEST PARAMETERS

DRILLPIPE CAPACITY	.0142 bbl/Ft	BOTTOM HOLE TEMP	152.0 Deg F
DRILLCOLLAR CAPACITY	.0049 bbl/Ft	HOLE SIZE	7.875 in.
DRILLPIPE RECOVERY	0.0 Ft	PAY THICKNESS	10'
DRILLCOLLAR RECOVERY	110.0 Ft	VISCOSITY (EST.)	1.16 cp
RECORDER NUMBER	11038	1st FLOW TIME	15.1 min
RECORDER DEPTH	4920 Ft	1st SHUT-IN TIME	30.1 min
ELEVATION (KB)	4180 Ft	2nd FLOW TIME	63.5 min
DATUM	-740 Ft	2nd SHUT-IN TIME	123.2 min

CALCULATIONS

EXTRAPOLATED INITIAL SHUT-IN PRESSURE (PSI)	0.0
SLOPE (PSI/LOG CYCLE)	0.0
NUMBER OF POINTS USED	0
EXTRAPOLATED FINAL SHUT-IN PRESSURE (PSI)	962.0
SLOPE (PSI/LOG CYCLE)	271.1
NUMBER OF POINTS USED	5
AVERAGE PRODUCTION RATE (BARRELS/DAY)	9.9
TRANSMISSIBILITY (MD.-FT./CP.)	5.92
AVERAGE EFFECTIVE PERMEABILITY (MD.)69
FLOW CAPACITY (MD.-FT.)	6.87
PRODUCTIVITY INDEX (BARRELS/DAY/PSI)01
DAMAGE RATIO61
PRODUCTIVITY INDEX WITH DAMAGE REMOVED (BARRELS/DAY/PSI)01
APPROXIMATE RADIUS OF INVESTIGATION (FT.)	7.3
DRAWDOWN FACTOR (%)	0.00
POTENTIOMETRIC SURFACE (FT.)	1481.7

Drill Stem Testers, Inc.

INCREMENTAL READING DATA

PETROLEUM, INC.

Operator

CROW #1

Well Name and No.

3

DST No.

RECORDER NO. 11038

DEPTH 4920 Ft.

INITIAL SHUT-IN
INITIAL FLOW TIME: T = 15

dt min	(T+dt/dt) min	PRESSURE PSIG
0	0.00	27
1	14.40	46
2	8.44	69
3	6.15	92
4	4.72	116
5	4.05	145
6	3.48	180
7	3.16	205
8	2.91	233
9	2.68	263
10	2.52	291
12	2.26	346
14	2.08	408
16	1.94	472
18	1.84	533
20	1.76	594
22	1.69	639
24	1.63	690
26	1.58	730
28	1.54	763
30	1.50	791

Drill Stem Testers, Inc.

INCREMENTAL READING DATA

PETROLEUM, INC.

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CROW #1

Well Name and No.

3

DST No.

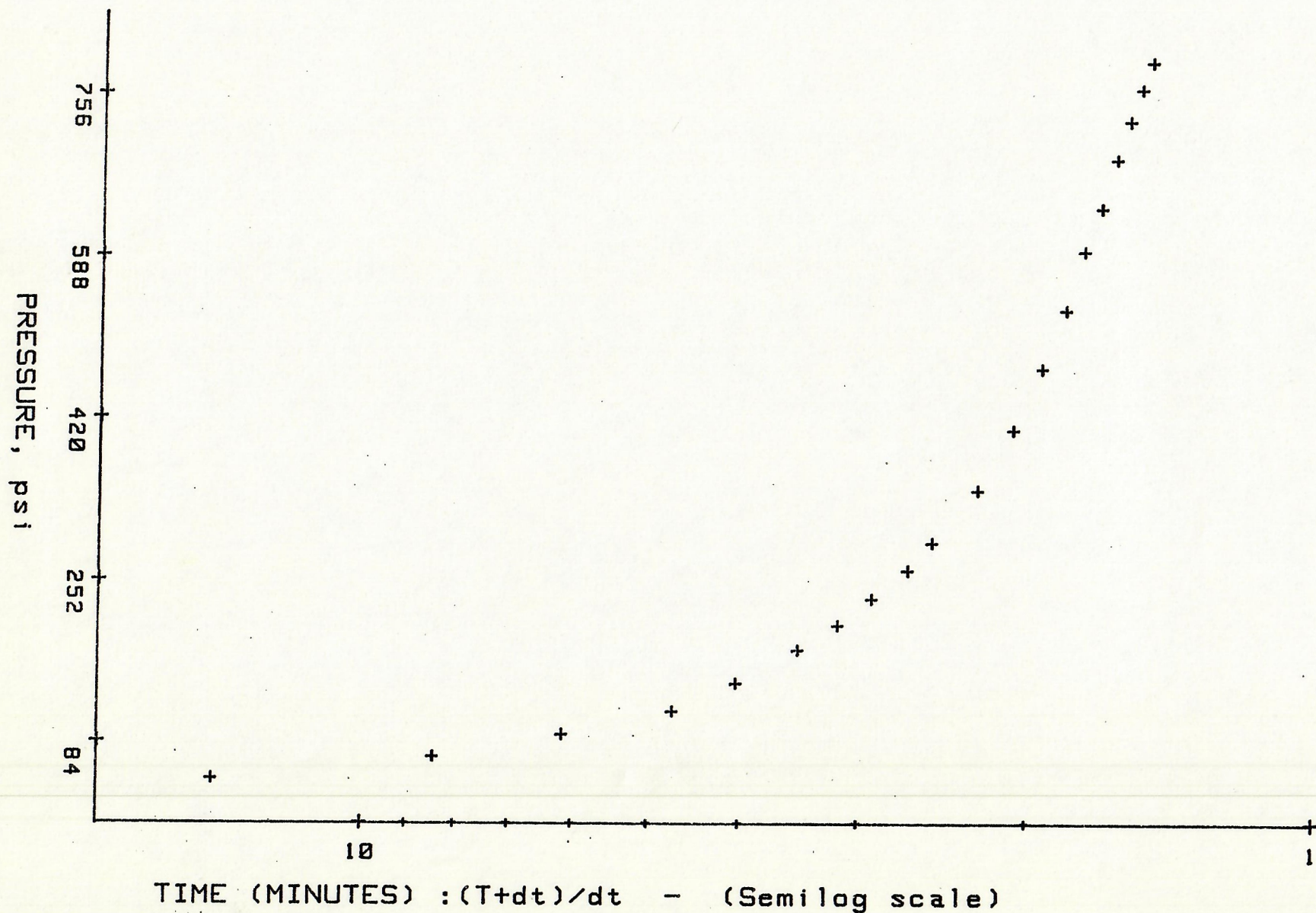
RECORDER NO. 11038

DEPTH 4920 Ft.

FINAL SHUT-IN
TOTAL FLOW TIME: T = 79

dt min	(T+dt/dt) min	PRESSURE PSIG
0	0.00	64
1	70.60	99
2	39.67	122
3	27.77	143
4	20.33	167
5	16.82	187
6	13.89	210
7	12.23	232
8	10.94	252
9	9.70	275
10	8.91	296
12	7.57	339
14	6.61	385
16	5.90	430
18	5.35	472
20	4.95	515
25	4.14	620
30	3.62	696
35	3.25	749
40	2.97	783
45	2.75	811
50	2.57	829
55	2.43	843
60	2.31	855
70	2.12	869
80	1.98	880
90	1.87	888
100	1.79	894
110	1.71	899
120	1.66	902
123	1.64	904

HORNER PLOT FOR INITIAL SHUT-IN

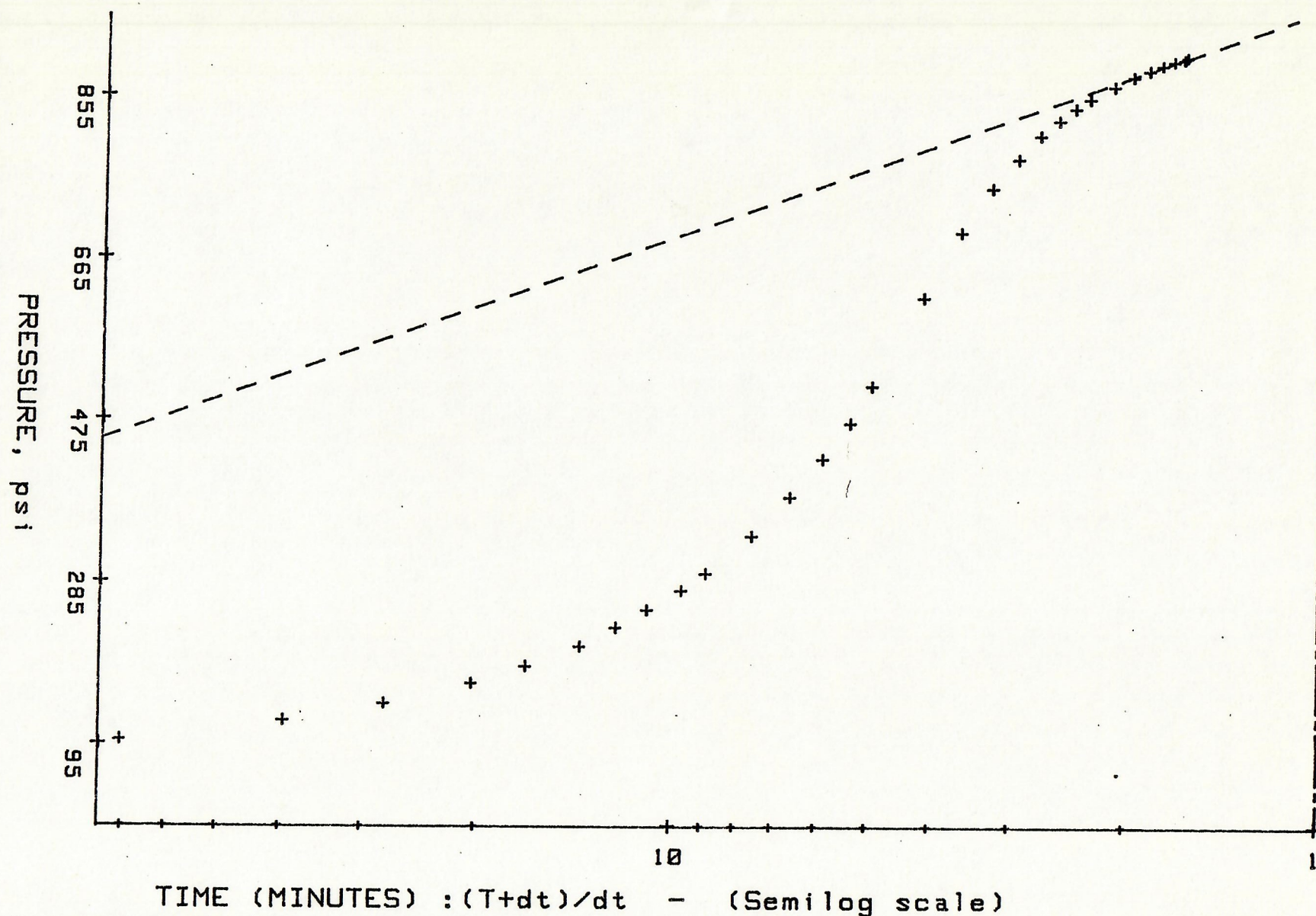


Drill Stem Testers, Inc.

TICKET # : 1077
RECORDER # : 11038
DATE : 12-28-84

P* = 962 PSI
SLOPE = 271.07 PSI/LOG-CYCLE
POINTS USED = 5

HORNER PLOT FOR FINAL SHUT-IN



LOG-LOG PLOT FOR INITIAL SHUT-IN

DELTA TIME (min)

100

10

DELTA PRESSURE (psi)

10

100

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10000

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LOG-LOG PLOT FOR FINAL SHUT-IN

DELTA TIME (min)

100

10

10

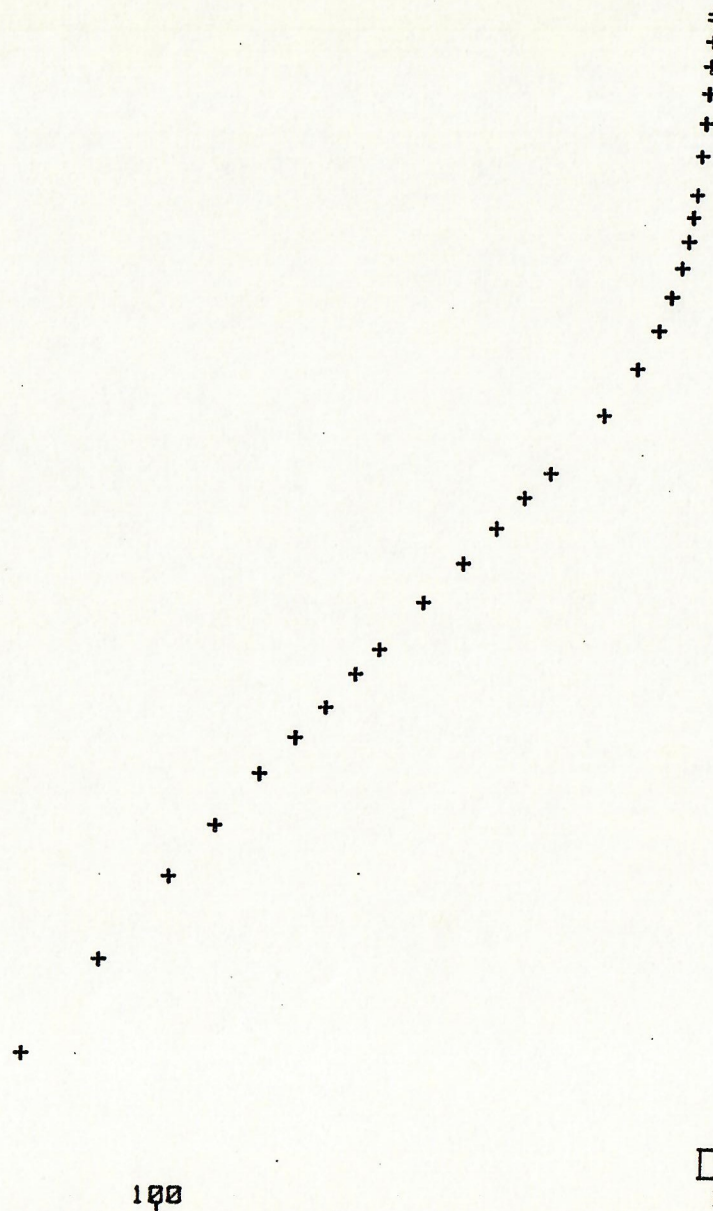
+

100

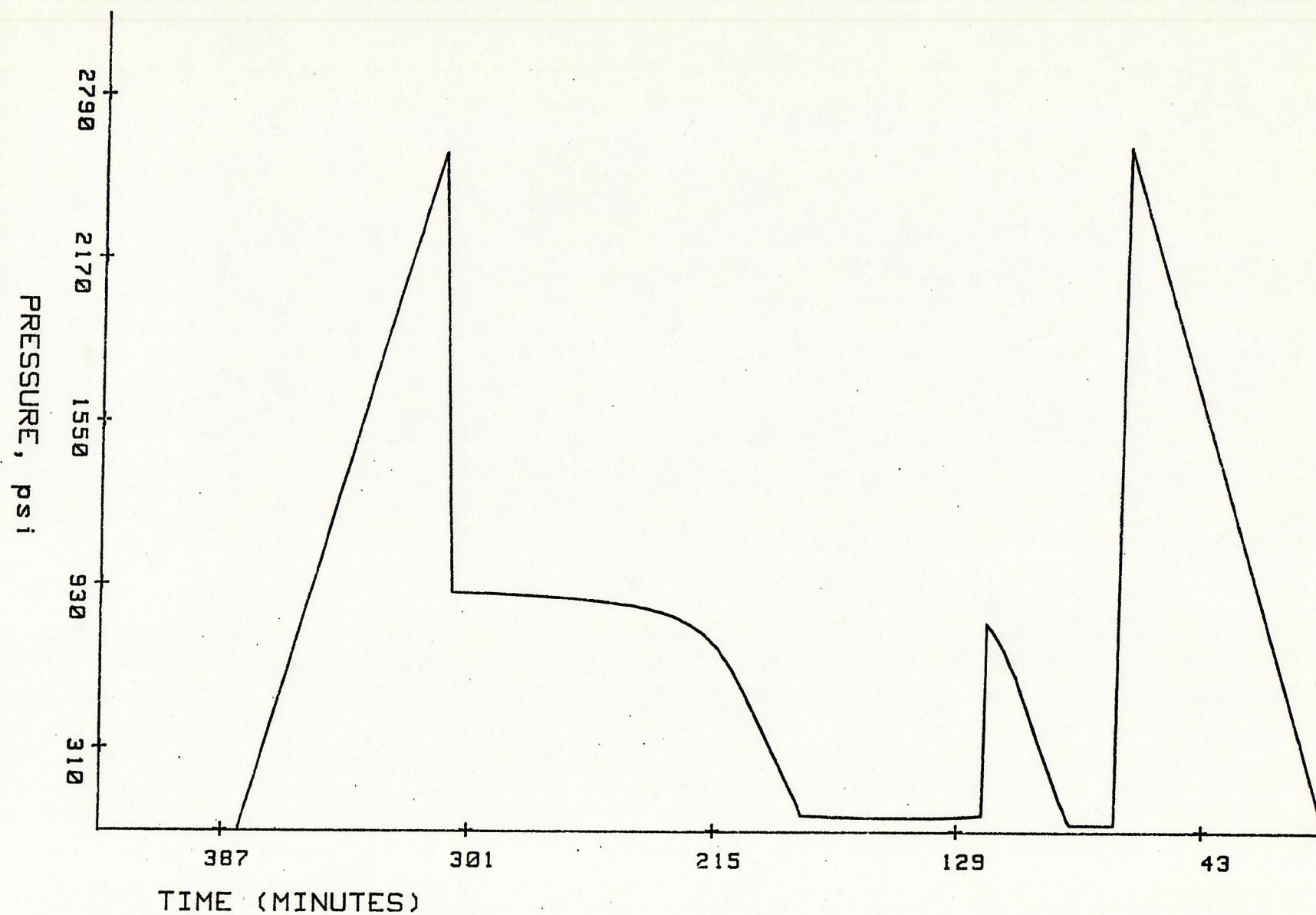
DELTA PRESSURE (psi)

1000

10000



TICKET # : 1077
RECORDER # : 11038
DATE : 12-28-84



PETROLEUM, INC.

3

Well Name and No.

DST No.

Pressure in Sampler:	30	
Total Volume of Sampler:	2150	psig
Total Volume of Sample:	1600	cc.
Oil:	700	cc.
Water:	--	cc.
Mud:	900	cc.
Gas:	Trace	cc.
Other:	--	cu. ft.

		Resistivity			
Sample RW:	--	@		°F of Chloride Content	
Make Up Water	10+	@	58	°F of Chloride Content	Fresh
Mud Pit Sample	4.5	@	70	°F of Chloride Content	1200 NaCl
Gas/Oil Ratio	--				
Where was sample taken?	On location			Gravity	38°API @ 60 °F

Where was sample drained On location.

Remarks: Sampler Grindout: 80% oil, 20% mud

No gas to surface.

[illegible]

Drill Stem Testers, Inc.

DISTRIBUTION OF FINAL REPORTS

PETROLEUM, INC.

Operator

CROW #1

Well Name and No.

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Attn: B. Cowdrey

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