

STATE CORPORATION COMMISSION OF KANSAS
OIL & GAS CONSERVATION DIVISION
WELL COMPLETION FORM
ACD-1 WELL HISTORY
DESCRIPTION OF WELL AND LEASE

API NO. 15- 051-24965 0000

County Ellis County, Kansas

C-W/2 - E/2-SW sec. 28 Twp. 15S Rge. 20 XXV^E

1345 Feet from 3N (circle one) Line of Section

1687 Feet from EW (circle one) Line of Section

Footages Calculated from Nearest Outside Section Corner:
NE, SE, NW or 3 (circle one)

Lease Name North Well # 1

Field Name Wallace

Producing Formation None

Elevation: Ground 2280' KB 2289'

Total Depth 4078' PSTD 3950'

Amount of Surface Pipe Set and Cemented at 334.68' Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set _____ Feet

If Alternate II completion, cement circulated from _____

feet depth to _____ w/ _____ sx cmt.

Drilling Fluid Management Plan D&A JK 6-8-98
(Data must be collected from the Reserve Pit)

Chloride content _____ ppm Fluid volume _____ bbls

Dewatering method used _____

Location of fluid disposal if hauled offsite: _____

Operator Name _____

Lease Name _____ License No. _____

Quarter Sec. _____ Twp. _____ S Rng. _____ E/W

County _____ Docket No. _____

Operator: License # 31389

Name: Noble Petroleum Inc.

Address 3101 North Rock Road-Suite 125

City/State/Zip Wichita, KS 67226

Purchaser: _____

Operator Contact Person: Jay Ablah

Phone (316) 636-2222

Contractor: Name: Duke Drilling Co., Inc.

License: 5929

Wellsite Geologist: Gerald D. Honas

Designate Type of Completion

New Well Re-Entry Workover

Oil SWD S10W Temp. Abd.

Gas ENHR SIGW

Dry Other (Core, WSW, Expl., Cathodic, etc)

If Workover/Re-Entry: old well info as follows:

Operator: _____

Well Name: _____

Comp. Date _____ Old Total Depth _____

Deepening Re-perf. Conv. to Inj/SWD

Plug Back PSTD

Commingled Docket No. _____

Dual Completion Docket No. _____

Other (SWD or Inj?) Docket No. _____

05-15-97 05-23-97 05-23-97

Spud Date Date Reached TD Completion Date

INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 200 Colorado Derby Building, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information on side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form (see rule 82-3-107 for confidentiality in excess of 12 months). One copy of all wireline logs and geologist well report shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

All requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Signature _____

Title President Date 6/19/97

Subscribed and sworn to before me this 19 day of June 19 97.

Notary Public Mari J. Rech

Date Commission Expires November 16, 1999

K.C.C. OFFICE USE ONLY		
F	<input checked="" type="checkbox"/>	Letter of Confidentiality Attached
C	<input checked="" type="checkbox"/>	Wireline Log Received
C	<input checked="" type="checkbox"/>	Geologist Report Received
Distribution		
<input checked="" type="checkbox"/>	KCC	<input type="checkbox"/> SWD/Rep
<input type="checkbox"/>	EGS	<input type="checkbox"/> PLUG
<input type="checkbox"/>		<input type="checkbox"/> NGPA
<input type="checkbox"/>		<input type="checkbox"/> Other
(Specify)		

MARI J. RECH
Notary Public - State of Kansas
My Appt. Expires 11-16-99

RECEIVED
KANSAS CORP COM
1997 JUN 20 PM 1:03

Operator Name NOBLE PETROLEUM INC Lease Name NORTH Well # 1

Sec. 28 Twp. 15S Rge. 20
 East
 West

County Ellis Co., KS

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all drill stem tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface during test. Attach extra sheet if more space is needed. Attach copy of log.

Drill Stem Tests Taken (Attach Additional Sheets.)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
Cores Taken	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Anhydrite	1538	+755
Electric Log Run (Submit Copy.)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Base Anhydrite	1579	+714
List All E.Logs Run:		Heebner	3565	-1272
		Lansing	3606	-1313
		B/KC	3856	-1563
		Marmaton	3926	-1633
		Cong. Sand	3988	-1695
		Reagan Sd.	4010	-1717
		Pre-Cambrian	4054	-1761
		TD	4077	-1784

CASING RECORD

New Used

Report all strings set-conductor, surface, intermediate, production, etc.

Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs./Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	12-1/4"	8-5/8"	23#	334.68'	60/40 Poz	190	3%cc 2%gel

ADDITIONAL CEMENTING/SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	#Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate				
<input type="checkbox"/> Protect Casing				
<input type="checkbox"/> Plug Back TD				
<input type="checkbox"/> Plug Off Zone				

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used)	Depth

TUBING RECORD	Size	Set At	Packer At	Liner Run	<input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or Inj. Producing Method Flowing Pumping Gas Lift Other (Explain)

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
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Disposition of Gas: Vented Sold Used on Lease (If vented, submit ACO-18.)

METHOD OF COMPLETION: Open Hole Perf. Dually-Comp. Commingled Other (Specify)

Production Interval _____

ALLIED CEMENTING CO., INC. 8349

Federal Tax I.D.# 48-0727860

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT:

ORIGINAL

Russell

DATE 5-23-97	SEC. 28	TWP. 15	RANGE 20	CALLED OUT 9:30 AM	ON LOCATION 11:30 AM	JOB START 1:15 PM	JOB FINISH 3:15 PM
LEASE NORTH	WELL # 1	LOCATION ELLIS 15S 74E INTD			COUNTY ELLIS	STATE KANSAS	
OLD OR NEW (Circle NEW)							

CONTRACTOR **Duke Drilling Rig #4**
 TYPE OF JOB **Rotary Plug**
 HOLE SIZE **7 7/8** T.D. **4078**
 CASING SIZE **8 7/8** SURFACE DEPTH **322**
 TUBING SIZE _____ DEPTH _____
 DRILL PIPE _____ DEPTH _____
 TOOL _____ DEPTH _____
 PRES. MAX _____ MINIMUM _____
 MEAS. LINE _____ SHOE JOINT _____
 CEMENT LEFT IN CSG: _____
 PERFS. _____
 DISPLACEMENT _____

OWNER **Same**
 CEMENT AMOUNT ORDERED **190 sk 6 7/8 62 Gel**
1/4" #10 Seal Per SK

EQUIPMENT
 PUMP TRUCK # **177** CEMENTER **Will** HELPER **Will**
 BULK TRUCK # **160** DRIVER **Bunt**
 BULK TRUCK # _____ DRIVER _____

COMMON	114	@	6.10	695.40
POZMIX	76	@	3.15	239.40
GEL	10	@	9.50	95.00
CHLORIDE	48	@	1.15	55.20
HANDLING		@	1.05	199.50
MILEAGE	44 / sk	@	5.50	243.00

TOTAL **1527.20**

REMARKS:

SERVICE

25 @ 15.75
100 @ 7.85
40 @ 3.85
10 @ 40 + wiper plug
15 @ RAT Hole

DEPTH OF JOB			
PUMP TRUCK CHARGE			115.00
EXTRA FOOTAGE		@	
MILEAGE	32	@	2.85
PLUG	8 5/8 Dry Hole Wiper	@	2.80

TOTAL **559.20**

CHARGE TO: **NOBLE PETROLEUM**
 STREET **3101 N Rock Rd # 125**
 CITY **Wichita** STATE **Kansas** ZIP **67226**

FLOAT EQUIPMENT

To Allied Cementing Co., Inc.
 You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read & understand the "TERMS AND CONDITIONS" listed on the reverse side.

TAX			
TOTAL CHARGE			
DISCOUNT			IF PAID IN 30-DAYS

SIGNATURE **Rich Wheeler**

PRINTED NAME

Jun-03-98 03:05P

ORIGINAL

P.01

ALLIED CEMENTING CO., INC. 5704

RECEIVED
KANSAS CORP CO SERVICE POINT

1998 JUN -5 12:41

Russell

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

DATE <u>5-15-97</u>	SEC <u>28</u>	TWP <u>15</u>	RANGE <u>20</u>	CALLED OUT <u>5:00pm</u>	ON LOCATION <u>6:00pm</u>	JOB START	JOB FINISH <u>8:45am</u>
EAST <u>NORTH</u>		WELL # <u>1</u>	LOCATION <u>SE 1/4 to Coline Fr well</u>		COUNTY <u>Ellis</u>	STATE <u>Ka</u>	

OLD OF NEW (Circle one)

CONTRACTOR Duke Delg #4

TYPE OF JOB SURFACE

HOLE SIZE 12 1/4 T.D. 335

CASING SIZE 8 1/2 24" DEPTH 334

TUBING SIZE _____ DEPTH _____

DRILL PIPE _____ DEPTH _____

TOOL _____ DEPTH _____

PRES. MAX _____ MINIMUM _____

MEAS. LINE _____ SHOE JOINT _____

CEMENT LEFT IN CSG. 15

PERFS _____

OWNER Noble Pet

CEMENT

AMOUNT ORDERED
190 lbs 69/40 3% CC 2% Gel

COMMON 114

POZMIX 76

GEL 4

CHLORIDE 5

EQUIPMENT

PUMP TRUCK CEMENTER Bill

221 HELPER Bill

BULK TRUCK

_____ DRIVER _____

BULK TRUCK

213 DRIVER Matt

HANDLING

MILEAGE 23

REMARKS:

Run 11 1/2 8 1/2 at 334

12 leading ft.

Sum id 190lb 69/40 3-2

pump plus 4 20% bbls

Com. did circ.

SERVICE

DEPTH OF JOB _____

PUMP TRUCK CHARGE _____

EXTRA FOOTAGE 34'

MILEAGE 23

PLUG WOOD 8 1/2

Charge to: Duke Delg

STREET P.O. Box 823

CITY Grafton STATE Kan ZIP 67530

FLOAT EQUIPMENT

TOTAL _____

TAX _____

TOTAL CHARGE _____

DISCOUNT _____ IF PAID IN 30 DA

To Allied Cementing Co., Inc.
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read & understand the "TERMS AND CONDITIONS" listed on the reverse side.

SIGNATURE Phil Wheeler

ALLIED CEMENTING CO., INC. 8349

Federal Tax I.D.# 48-0727860

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

ORIGINAL

SERVICE POINT: Russell

DATE <u>5-23-97</u>	SEC. <u>28</u>	TWP. <u>15</u>	RANGE <u>20</u>	CALLED OUT <u>9:30 AM</u>	ON LOCATION <u>11:30 AM</u>	JOB START <u>1:15 PM</u>	JOB FINISH <u>3:15 PM</u>
LEASE <u>NORTH</u>	WELL # <u>1</u>	LOCATION <u>ELLIS 15S 74E INTG</u>		COUNTY <u>ELLIS</u>	STATE <u>KANSAS</u>		
OLD OR NEW (Circle <input checked="" type="radio"/>)							

CONTRACTOR DUKE DRAG. Rig #4
 TYPE OF JOB ROTARY Plug
 HOLE SIZE 7 7/8 T.D. 4078
 CASING SIZE 8 7/8 SURFACE DEPTH 322
 TUBING SIZE _____ DEPTH _____
 DRILL PIPE _____ DEPTH _____
 TOOL _____ DEPTH _____
 PRES. MAX _____ MINIMUM _____
 MEAS. LINE _____ SHOE JOINT _____
 CEMENT LEFT IN CSG. _____
 PERFS. _____
 DISPLACEMENT _____

OWNER Same
 CEMENT AMOUNT ORDERED 190 sk 69/40 62 GEL. 1/4" FIO-Seal Per SK

COMMON	<u>114</u>	@	<u>6.10</u>	<u>695.40</u>
POZMIX	<u>76</u>	@	<u>3.15</u>	<u>239.40</u>
GEL	<u>10</u>	@	<u>9.50</u>	<u>95.00</u>
CHLORIDE		@		
<u>Fluorid</u>	<u>48</u>	@	<u>1.15</u>	<u>55.20</u>
HANDLING		@	<u>1.05</u>	<u>199.50</u>
MILEAGE	<u>44 / sk</u>	@	<u>5.50</u>	<u>242.00</u>
TOTAL				<u>1527.20</u>

EQUIPMENT

PUMP TRUCK # 177 CEMENTER Jim
 HELPER Will
 BULK TRUCK # 160 DRIVER Bunt
 BULK TRUCK # _____ DRIVER _____

REMARKS:

25 @ 1575
100 @ 785
40 @ 385
10 @ 40 + wiper plug
15 @ RAT Hole

THANKS

SERVICE

DEPTH OF JOB			
PUMP TRUCK CHARGE			<u>115.00</u>
EXTRA FOOTAGE		@	
MILEAGE	<u>32</u>	@	<u>2.85</u>
PLUG	<u>1 - 8 5/8 Dry Hole Wiper</u>	@	<u>28.00</u>
TOTAL <u>559.20</u>			

FLOAT EQUIPMENT

	@		
	@		
	@		
	@		
TOTAL <u>2.34</u>			

TAX _____
 TOTAL CHARGE _____
 DISCOUNT _____ IF PAID IN 30 DAYS

CHARGE TO: NOBLE Petroleum
 STREET 3101 N Rock Rd # 125
 CITY Wichita STATE Kansas ZIP 67226

To Allied Cementing Co., Inc.
 You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read & understand the "TERMS AND CONDITIONS" listed on the reverse side.

SIGNATURE Rich Wheeler

PRINTED NAME

RECEIVED
 KANSAS CORP COMM
 JUN 30 2:34

DST REPORT

GENERAL INFORMATION

DATE : 5/20/97
CUSTOMER : NOBLE PETROLEUM INC
WELL : #1 TEST: 1
ELEVATION: 2284 GL
SECTION : 28
RANGE : 20W COUNTY: ELLIS
GAUGE SN#: 3027 RANGE : 4995

ORIGINAL

TICKET : 22500
LEASE : NORTH
GEOLOGIST:
FORMATION: LANSING
TOWNSHIP : 15S
STATE : KS
CLOCK : 12 15-051-24965

WELL INFORMATION

PERFORATION INTERVAL FROM: 3727.00 ft TO: 3760.00 ft TVD: 3760.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL
DEPTH OF RECORDERS: 3730.0 ft 3735.0 ft
TEMPERATURE: 111.0

DRILL COLLAR LENGTH: 0.0 ft I.D.: 0.000 in
WEIGHT PIPE LENGTH : 0.0 ft I.D.: 0.000 in
DRILL PIPE LENGTH : 3707.0 ft I.D.: 3.800 in
TEST TOOL LENGTH : 20.0 ft TOOL SIZE : 5.500 in
ANCHOR LENGTH : 33.0 ft ANCHOR SIZE: 5.500 in
SURFACE CHOKE SIZE : 0.750 in BOTTOM CHOKE SIZE: 0.750 in
MAIN HOLE SIZE : 7.875 in TOOL JOINT SIZE : 4.5XH
PACKER DEPTH: 3722.0 ft SIZE: 6.630 in
PACKER DEPTH: 3727.0 ft SIZE: 6.630 in
PACKER DEPTH: 0.0 ft SIZE: 0.000 in
PACKER DEPTH: 0.0 ft SIZE: 0.000 in

MUD INFORMATION

DRILLING CON. : DUKE DRLG RIG 4
MUD TYPE : CHEMICAL VISCOSITY : 44.00 cp
WEIGHT : 9.300 ppg WATER LOSS: 9.800 cc
CHLORIDES : 2500 ppm
JARS-MAKE :
DID WELL FLOW?: NO SERIAL NUMBER:
REVERSED OUT?: NO

COMMENTS

Comment

INITIAL FLOW PERIOD WEAK BLOW THROUGHOUT - 1/2 TO
1 1/2 INCH BLOW. FINAL FLOW PERIOD WEAK BLOW
THROUGHOUT - 1 TO 3 INCH BLOW.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
0.0	0.0	0.0	0.0	0.0	85 FT GAS ABOVE FLUID
35.0	45.0	0.0	0.0	55.0	HEAVY OIL CUT MUD

ORIGINAL

RATE INFORMATION

OIL VOLUME:	0.2209 STB	TOTAL FLOW TIME:	90.0000 min.
GAS VOLUME:	0.0000 SCF	AVERAGE OIL RATE:	7.8548 STB/D
MUD VOLUME:	0.2700 STB	AVERAGE WATER RATE:	0.0000 STB/D
WATER VOLUME:	0.0000 STB		
TOTAL FLUID :	0.4909 STB		

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1854.00

Description	Duration	p1	p End
INITIAL FLOW	45.00	30.00	34.00
INITIAL SHUT-IN	45.00		792.00
FINAL FLOW	45.00	35.00	42.00
FINAL SHUT-IN	45.00		534.00

FINAL HYDROSTATIC PRESSURE: 1815.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1854.50

Description	Duration	p1	p End
INITIAL FLOW	45.00	30.20	34.50
INITIAL SHUT-IN	45.00		800.30
FINAL FLOW	45.00	35.70	42.10
FINAL SHUT-IN	45.00		628.10

FINAL HYDROSTATIC PRESSURE: 1815.30

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: NOBLE PETRO. NORTH#1 DST#1 05-20-1997

DATE: 05/20/97 TIME: 06:30:50

	Time	Pressure PSig	delta P PSig	Temp: DEG F	(T+dT)/dT	P^2/10^6
***** Initial Hydro.	91.00	1854.5	0.0	105.34		
***** Start Flow 1	0.00	30.2	0.0	105.91		
	0.50	30.8	0.6	106.05		
	1.00	31.1	0.9	106.09		
	1.50	31.2	1.1	106.14		
	2.00	31.4	1.2	106.17		
	2.50	31.6	1.4	106.16		
	3.00	31.8	1.7	106.17		
	3.50	32.0	1.9	106.19		
	4.00	32.2	2.0	106.18		
	4.50	32.3	2.1	106.19		
	5.00	32.4	2.2	106.19		
	5.50	32.1	1.9	106.19		
	6.00	31.9	1.8	106.19		
	6.50	31.9	1.8	106.18		
	7.00	32.1	1.9	106.19		
	7.50	31.9	1.7	106.20		
	8.00	31.7	1.6	106.20		
	8.50	31.7	1.6	106.20		
	9.00	31.9	1.8	106.19		
	9.50	32.1	1.9	106.19		
	10.00	32.1	1.9	106.18		
	10.50	32.1	1.9	106.18		
	11.00	32.1	2.0	106.17		
	11.50	32.1	2.0	106.16		
	12.00	32.2	2.0	106.12		
	12.50	32.2	2.0	106.11		
	13.00	32.2	2.0	106.10		
	13.50	32.2	2.1	106.08		
	14.00	32.2	2.0	106.07		
	14.50	32.3	2.1	106.05		
	15.00	32.0	1.9	106.03		
	15.50	32.1	2.0	106.01		
	16.00	32.3	2.1	105.99		
	16.50	32.3	2.1	105.99		
	17.00	32.1	1.9	105.99		
	17.50	32.3	2.2	106.00		
	18.00	31.8	1.6	106.00		
	18.50	32.4	2.2	106.03		
	19.00	32.3	2.2	106.07		
	19.50	32.5	2.3	106.10		
	20.00	32.3	2.2	106.15		
	20.50	32.4	2.2	106.19		
	21.00	32.4	2.2	106.25		
	21.50	32.4	2.3	106.32		
	22.00	32.5	2.4	106.43		
	22.50	32.6	2.4	106.43		
	23.00	32.6	2.4	106.43		
	23.50	32.6	2.5	106.43		
	24.00	32.5	2.4	106.47		
	24.50	32.8	2.7	106.54		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: NOBLE PETRO. NORTH#1 DST#1 05-20-1997

DATE: 05/20/97 TIME: 06:30:50

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
	25.00	32.7	2.5	106.61		
	25.50	32.8	2.6	106.68		
	26.00	32.8	2.6	106.74		
	26.50	32.8	2.7	106.81		
	27.00	32.9	2.7	106.88		
	27.50	32.9	2.7	106.94		
	28.00	33.1	2.9	106.99		
	28.50	33.1	3.0	107.03		
	29.00	33.0	2.9	107.07		
	29.50	33.3	3.2	107.12		
	30.00	33.0	2.9	107.16		
	30.50	33.4	3.2	107.20		
	31.00	33.3	3.1	107.23		
	31.50	33.4	3.2	107.29		
	32.00	33.5	3.3	107.34		
	32.50	33.5	3.3	107.39		
	33.00	33.6	3.4	107.44		
	33.50	33.6	3.5	107.49		
	34.00	33.6	3.5	107.54		
	34.50	33.4	3.3	107.60		
	35.00	33.9	3.7	107.65		
	35.50	33.7	3.5	107.69		
	36.00	33.9	3.7	107.73		
	36.50	33.7	3.6	107.78		
	37.00	33.9	3.7	107.82		
	37.50	33.8	3.6	107.85		
	38.00	34.2	4.0	107.89		
	38.50	33.8	3.6	107.91		
	39.00	34.2	4.0	107.95		
	39.50	34.0	3.8	107.98		
	40.00	34.1	3.9	108.01		
	40.50	34.2	4.0	108.02		
	41.00	34.1	3.9	108.03		
	41.50	34.6	4.4	108.04		
	42.00	34.5	4.3	108.06		
	42.50	34.1	3.9	108.06		
	43.00	34.4	4.2	108.07		
	43.50	34.2	4.0	108.09		
	44.00	34.3	4.1	108.09		
*****	End Flow 1	44.50	34.5	4.3	108.11	
*****	Start Shutin 1	0.00	34.5	0.0	108.11	0.0000
		0.50	34.4	-0.1	108.11	90.0000
		1.00	34.5	0.0	108.13	45.5000
		1.50	35.5	1.1	108.15	30.6667
		2.00	36.8	2.3	108.14	23.2500
		2.50	38.1	3.6	108.15	18.8000
		3.00	39.4	4.9	108.15	15.8333
		3.50	40.7	6.3	108.17	13.7143
		4.00	42.1	7.6	108.18	12.1250
		4.50	43.3	8.9	108.21	10.8889
		5.00	44.8	10.3	108.21	9.9000

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: NOBLE PETRO. NORTH#1 DST#1 05-20-1997

DATE: 05/20/97

TIME: 06:30:50

Time	Pressure PSI _g	delta P PSI _g	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
5.50	46.1	11.7	108.21	9.0909	0.002
6.00	47.5	13.0	108.23	8.4167	0.002
6.50	48.9	14.4	108.23	7.8462	0.002
7.00	50.2	15.7	108.25	7.3571	0.003
7.50	51.5	17.0	108.28	6.9333	0.003
8.00	53.1	18.6	108.28	6.5625	0.003
8.50	54.7	20.2	108.29	6.2353	0.003
9.00	56.2	21.8	108.30	5.9444	0.003
9.50	57.9	23.5	108.31	5.6842	0.003
10.00	59.6	25.2	108.31	5.4500	0.004
10.50	61.5	27.1	108.33	5.2381	0.004
11.00	63.4	28.9	108.34	5.0455	0.004
11.50	65.3	30.8	108.34	4.8696	0.004
12.00	67.3	32.8	108.37	4.7083	0.005
12.50	69.3	34.9	108.37	4.5600	0.005
13.00	71.4	37.0	108.40	4.4231	0.005
13.50	73.6	39.2	108.40	4.2963	0.005
14.00	75.9	41.4	108.42	4.1786	0.006
14.50	78.3	43.9	108.45	4.0690	0.006
15.00	80.8	46.3	108.47	3.9667	0.007
15.50	83.4	48.9	108.48	3.8710	0.007
16.00	86.0	51.6	108.49	3.7812	0.007
16.50	88.8	54.4	108.51	3.6970	0.008
17.00	91.7	57.3	108.53	3.6176	0.008
17.50	94.8	60.3	108.54	3.5429	0.009
18.00	97.9	63.4	108.54	3.4722	0.01
18.50	101.2	66.8	108.57	3.4054	0.010
19.00	104.8	70.3	108.58	3.3421	0.011
19.50	108.4	73.9	108.59	3.2821	0.012
20.00	112.2	77.7	108.61	3.2250	0.013
20.50	116.2	81.7	108.61	3.1707	0.013
21.00	120.5	86.0	108.63	3.1190	0.015
21.50	125.0	90.6	108.65	3.0698	0.016
22.00	129.9	95.4	108.66	3.0227	0.017
22.50	134.9	100.5	108.68	2.9778	0.018
23.00	140.3	105.8	108.68	2.9348	0.020
23.50	146.0	111.6	108.71	2.8936	0.021
24.00	152.0	117.6	108.71	2.8542	0.023
24.50	158.4	123.9	108.71	2.8163	0.025
25.00	165.3	130.9	108.73	2.7800	0.027
25.50	172.5	138.1	108.73	2.7451	0.030
26.00	180.3	145.9	108.75	2.7115	0.033
26.50	188.7	154.3	108.76	2.6792	0.036
27.00	197.7	163.2	108.77	2.6481	0.039
27.50	207.2	172.7	108.78	2.6182	0.043
28.00	217.3	182.8	108.81	2.5893	0.047
28.50	228.2	193.7	108.81	2.5614	0.052
29.00	239.8	205.3	108.81	2.5345	0.057
29.50	252.1	217.7	108.82	2.5085	0.064
30.00	265.4	231.0	108.85	2.4833	0.070
30.50	279.6	245.1	108.86	2.4590	0.078

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: NOBLE PETRO. NORTH#1 DST#1 05-20-1997

DATE: 05/20/97

TIME: 06:30:50

Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
31.00	294.7	260.2	108.88	2.4355	0.087
31.50	310.6	276.2	108.88	2.4127	0.096
32.00	327.5	293.0	108.90	2.3906	0.107
32.50	345.3	310.8	108.92	2.3692	0.119
33.00	363.9	329.4	108.92	2.3485	0.132
33.50	383.4	349.0	108.92	2.3284	0.147
34.00	403.7	369.2	108.92	2.3088	0.163
34.50	424.5	390.1	108.94	2.2899	0.180
35.00	445.8	411.4	108.94	2.2714	0.199
35.50	467.4	432.9	108.96	2.2535	0.218
36.00	489.2	454.7	108.97	2.2361	0.239
36.50	510.9	476.5	108.99	2.2192	0.261
37.00	532.6	498.2	109.03	2.2027	0.284
37.50	554.0	519.6	109.04	2.1867	0.307
38.00	575.1	540.7	109.05	2.1711	0.331
38.50	595.7	561.3	109.08	2.1558	0.355
39.00	615.7	581.3	109.09	2.1410	0.379
39.50	635.1	600.7	109.10	2.1266	0.403
40.00	653.8	619.4	109.12	2.1125	0.427
40.50	671.8	637.3	109.16	2.0988	0.451
41.00	689.0	654.6	109.16	2.0854	0.475
41.50	705.5	671.0	109.18	2.0723	0.498
42.00	721.1	686.7	109.19	2.0595	0.520
42.50	736.1	701.7	109.21	2.0471	0.542
43.00	750.3	715.9	109.23	2.0349	0.563
43.50	763.8	729.3	109.25	2.0230	0.583
44.00	776.5	742.1	109.26	2.0114	0.603
44.50	788.8	754.3	109.27	2.0000	0.622
45.00	800.3	765.8	109.29	1.9889	0.640
***** End Shut-in 1					
***** Start Flow 2					
0.00	35.7	0.0	109.36		
0.50	36.5	0.8	109.37		
1.00	37.2	1.5	109.36		
1.50	37.3	1.6	109.36		
2.00	37.0	1.3	109.34		
2.50	37.4	1.7	109.34		
3.00	37.3	1.6	109.34		
3.50	37.5	1.8	109.34		
4.00	37.4	1.6	109.36		
4.50	37.5	1.8	109.38		
5.00	37.6	1.9	109.40		
5.50	37.7	2.0	109.43		
6.00	37.8	2.1	109.45		
6.50	38.0	2.3	109.47		
7.00	37.8	2.1	109.50		
7.50	37.9	2.2	109.52		
8.00	37.9	2.2	109.54		
8.50	37.9	2.2	109.56		
9.00	38.1	2.3	109.59		
9.50	38.0	2.3	109.61		
10.00	37.9	2.1	109.63		
10.50	37.9	2.2	109.65		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: NOBLE PETRO. NORTH#1 DST#1 05-20-1997

DATE: 05/20/97

TIME: 06:30:50

Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
11.00	38.2	2.4	109.67		
11.50	38.1	2.4	109.67		
12.00	38.5	2.8	109.71		
12.50	38.4	2.6	109.74		
13.00	38.4	2.6	109.75		
13.50	38.5	2.7	109.75		
14.00	38.6	2.8	109.76		
14.50	38.5	2.8	109.79		
15.00	38.4	2.7	109.80		
15.50	38.5	2.8	109.80		
16.00	38.6	2.9	109.83		
16.50	38.7	2.9	109.84		
17.00	38.6	2.8	109.87		
17.50	39.0	3.3	109.88		
18.00	39.0	3.2	109.91		
18.50	38.5	2.8	109.92		
19.00	38.9	3.2	109.94		
19.50	39.0	3.3	109.97		
20.00	38.9	3.1	109.99		
20.50	38.8	3.0	110.01		
21.00	39.0	3.3	110.02		
21.50	38.8	3.0	110.05		
22.00	39.1	3.3	110.06		
22.50	38.9	3.2	110.10		
23.00	39.2	3.4	110.10		
23.50	39.1	3.3	110.15		
24.00	39.1	3.4	110.15		
24.50	38.8	3.1	110.16		
25.00	39.3	3.6	110.18		
25.50	39.2	3.4	110.19		
26.00	39.2	3.5	110.20		
26.50	39.5	3.7	110.22		
27.00	39.5	3.8	110.22		
27.50	39.5	3.8	110.24		
28.00	39.7	3.9	110.26		
28.50	39.3	3.6	110.26		
29.00	39.8	4.1	110.28		
29.50	39.7	4.0	110.30		
30.00	39.6	3.8	110.30		
30.50	39.6	3.9	110.31		
31.00	39.6	3.9	110.32		
31.50	39.8	4.1	110.34		
32.00	39.9	4.1	110.36		
32.50	39.8	4.1	110.36		
33.00	39.8	4.1	110.37		
33.50	40.2	4.5	110.37		
34.00	40.0	4.2	110.40		
34.50	39.8	4.0	110.41		
35.00	39.9	4.1	110.42		
35.50	40.1	4.4	110.43		
36.00	40.1	4.4	110.45		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: NOBLE PETRO. NORTH#1 DST#1 05-20-1997

DATE: 05/20/97

TIME: 06:30:50

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
	36.50	40.3	4.6	110.45		
	37.00	40.1	4.4	110.46		
	37.50	40.4	4.6	110.48		
	38.00	40.4	4.6	110.49		
	38.50	40.2	4.5	110.50		
	39.00	40.2	4.5	110.52		
	39.50	40.5	4.7	110.52		
	40.00	40.5	4.8	110.55		
	40.50	40.5	4.8	110.57		
	41.00	40.7	4.9	110.58		
	41.50	40.7	5.0	110.61		
	42.00	40.8	5.0	110.63		
	42.50	40.2	4.5	110.65		
	43.00	40.7	5.0	110.66		
	43.50	40.5	4.8	110.69		
	44.00	40.2	4.5	110.71		
	44.50	40.9	5.1	110.74		
*****	End Flow 2	45.00	42.1	6.3	110.75	
*****	Start Shutin 2	0.00	42.1	0.0	110.75	0.0000
	0.50	43.2	1.2	110.76	180.0000	0.002
	1.00	44.5	2.4	110.78	90.5000	0.002
	1.50	45.7	3.6	110.80	60.6667	0.002
	2.00	47.0	4.9	110.81	45.7500	0.002
	2.50	48.3	6.2	110.83	36.8000	0.002
	3.00	49.5	7.4	110.84	30.8333	0.002
	3.50	50.8	8.8	110.85	26.5714	0.003
	4.00	52.1	10.1	110.86	23.3750	0.003
	4.50	53.4	11.4	110.89	20.8889	0.003
	5.00	54.8	12.7	110.90	18.9000	0.003
	5.50	56.1	14.1	110.91	17.2727	0.003
	6.00	57.5	15.5	110.93	15.9167	0.003
	6.50	59.0	16.9	110.93	14.7692	0.003
	7.00	60.4	18.3	110.95	13.7857	0.004
	7.50	61.9	19.9	110.96	12.9333	0.004
	8.00	63.5	21.4	110.97	12.1875	0.004
	8.50	65.0	23.0	111.00	11.5294	0.004
	9.00	66.6	24.6	110.99	10.9444	0.004
	9.50	68.2	26.1	111.02	10.4211	0.005
	10.00	69.9	27.8	111.02	9.9500	0.005
	10.50	71.7	29.6	111.02	9.5238	0.005
	11.00	73.4	31.3	111.04	9.1364	0.005
	11.50	75.2	33.1	111.05	8.7826	0.006
	12.00	76.9	34.9	111.05	8.4583	0.006
	12.50	78.8	36.7	111.06	8.1600	0.006
	13.00	80.7	38.6	111.07	7.8846	0.007
	13.50	82.6	40.6	111.09	7.6296	0.007
	14.00	84.6	42.5	111.09	7.3929	0.007
	14.50	86.7	44.6	111.09	7.1724	0.008
	15.00	88.9	46.8	111.11	6.9667	0.008
	15.50	91.1	49.1	111.11	6.7742	0.008
	16.00	93.5	51.4	111.12	6.5938	0.009

ALPINE SUBSURFACE ELECTRONICS' PROBE INCREMENTS LISTING

TEST: NOBLE PETRO. NORTH#1 DST#1 05-20-1997

DATE: 05/20/97

TIME: 06:30:50

Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
16.50	95.9	53.8	111.13	6.4242	0.009
17.00	98.3	56.2	111.14	6.2647	0.01
17.50	100.7	58.6	111.14	6.1143	0.010
18.00	103.2	61.1	111.15	5.9722	0.011
18.50	105.8	63.7	111.16	5.8378	0.011
19.00	108.6	66.5	111.16	5.7105	0.012
19.50	111.4	69.4	111.18	5.5897	0.012
20.00	114.4	72.4	111.17	5.4750	0.013
20.50	117.5	75.4	111.19	5.3659	0.014
21.00	120.7	78.6	111.20	5.2619	0.015
21.50	124.0	82.0	111.20	5.1628	0.015
22.00	127.5	85.5	111.21	5.0682	0.016
22.50	131.2	89.1	111.24	4.9778	0.017
23.00	135.0	93.0	111.24	4.8913	0.018
23.50	139.1	97.0	111.25	4.8085	0.019
24.00	143.3	101.3	111.26	4.7292	0.021
24.50	147.8	105.7	111.27	4.6531	0.022
25.00	152.5	110.4	111.28	4.5800	0.023
25.50	157.4	115.3	111.30	4.5098	0.025
26.00	162.5	120.4	111.29	4.4423	0.026
26.50	167.9	125.8	111.32	4.3774	0.028
27.00	173.5	131.5	111.34	4.3148	0.030
27.50	179.5	137.4	111.37	4.2545	0.032
28.00	185.6	143.6	111.38	4.1964	0.034
28.50	192.2	150.1	111.40	4.1404	0.037
29.00	199.1	157.1	111.40	4.0862	0.040
29.50	206.4	164.4	111.40	4.0339	0.043
30.00	214.2	172.1	111.40	3.9833	0.046
30.50	222.3	180.3	111.40	3.9344	0.049
31.00	230.9	188.9	111.40	3.8871	0.053
31.50	240.0	198.0	111.40	3.8413	0.058
32.00	249.5	207.5	111.41	3.7969	0.062
32.50	259.7	217.7	111.41	3.7538	0.067
33.00	270.4	228.4	111.43	3.7121	0.073
33.50	281.7	239.7	111.44	3.6716	0.079
34.00	293.6	251.5	111.44	3.6324	0.086
34.50	306.1	264.0	111.48	3.5942	0.094
35.00	319.1	277.0	111.48	3.5571	0.102
35.50	332.6	290.6	111.49	3.5211	0.111
36.00	346.7	304.6	111.50	3.4861	0.120
36.50	361.3	319.2	111.51	3.4521	0.131
37.00	376.3	334.2	111.52	3.4189	0.142
37.50	391.6	349.6	111.54	3.3867	0.153
38.00	407.4	365.3	111.56	3.3553	0.166
38.50	423.3	381.3	111.57	3.3247	0.179
39.00	439.5	397.5	111.57	3.2949	0.193
39.50	455.9	413.8	111.61	3.2658	0.208
40.00	472.3	430.2	111.61	3.2375	0.223
40.50	488.7	446.6	111.63	3.2099	0.239
41.00	505.1	463.0	111.63	3.1829	0.255
41.50	521.3	479.3	111.65	3.1566	0.272

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: NOBLE PETRO. NORTH#1 DST#1 05-20-1997

DATE: 05/20/97 TIME: 06:30:50

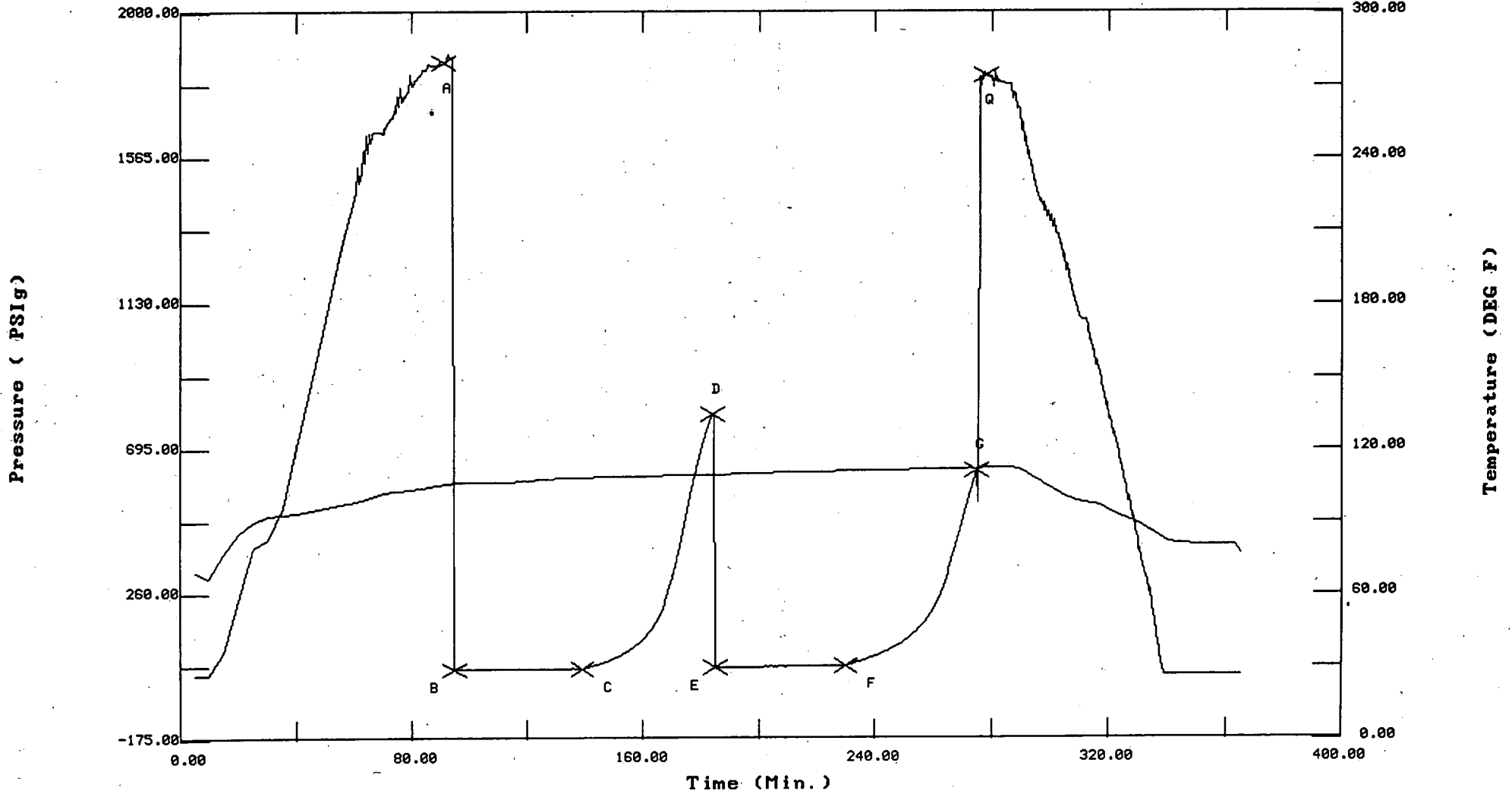
	Time	Pressure PSig	delta P PSig	P	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
	42.00	537.4	495.4		111.65	3.1310	0.289
	42.50	553.4	511.4		111.65	3.1059	0.306
	43.00	569.1	527.0		111.67	3.0814	0.324
	43.50	584.4	542.3		111.68	3.0575	0.342
	44.00	599.4	557.3		111.70	3.0341	0.359
	44.50	613.9	571.9		111.71	3.0112	0.377
***** End Shut-in 2	45.00	628.1	586.0		111.72	2.9889	0.395
***** Final Hydro.	278.00	1815.3	0.0		111.91		

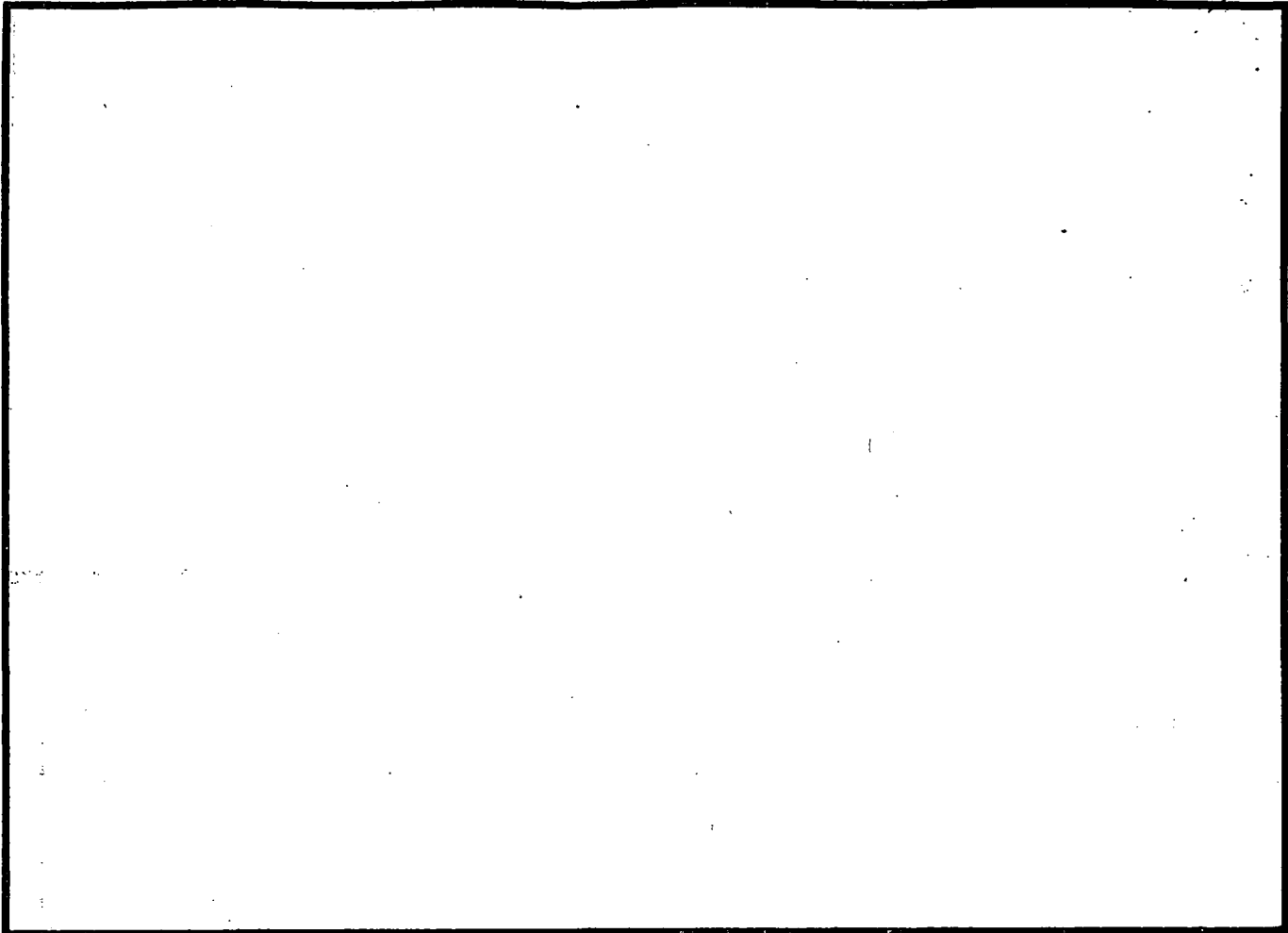
TEST HISTORY

NOBLE PETROLEUM NORTH #1 DST#1 TKT 22500

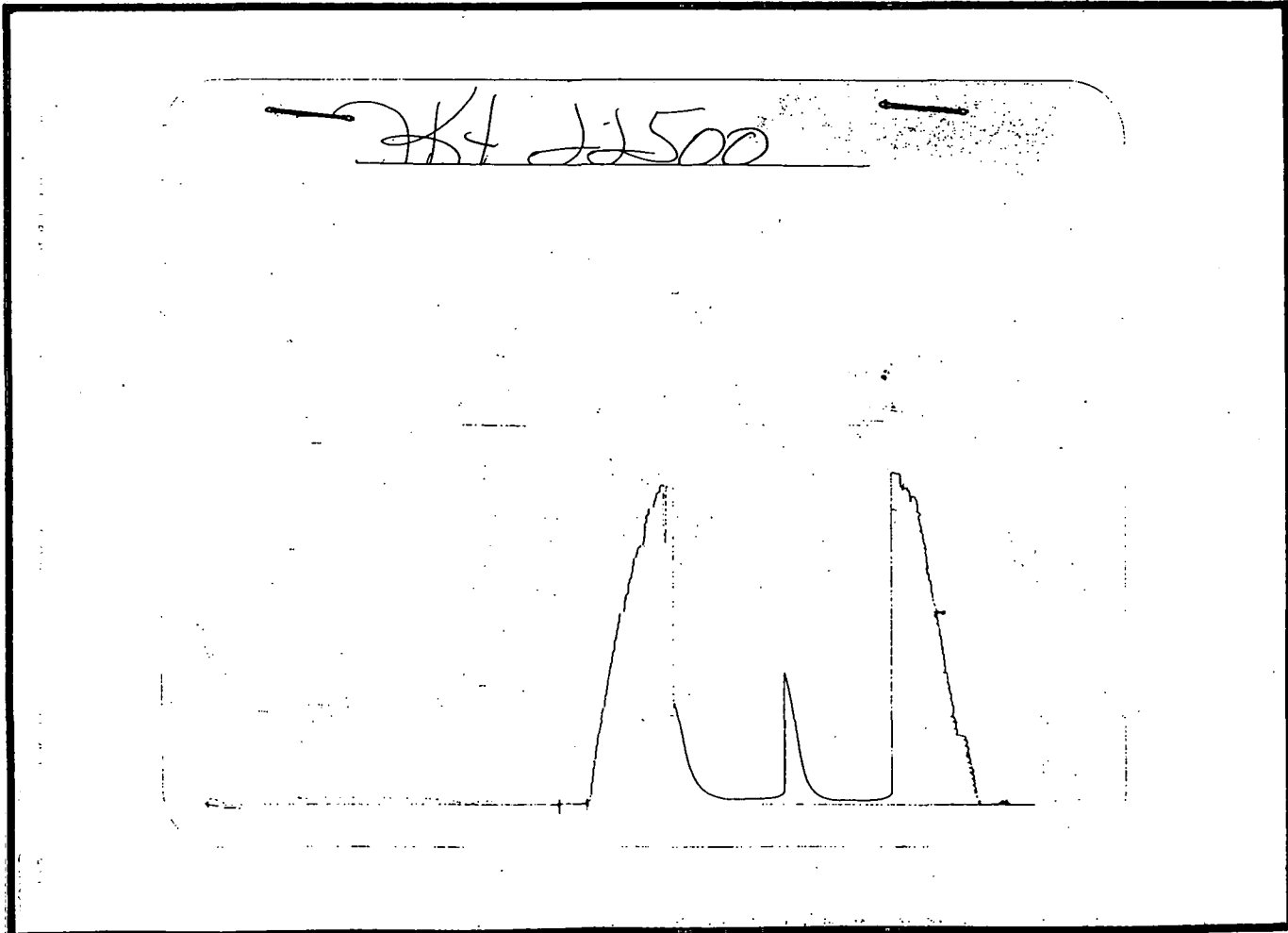
Flag Points

	t (Min.)	P (PSig)
A:	0.00	1854.53
B:	0.00	30.17
C:	44.50	34.45
D:	45.00	800.25
E:	0.00	35.73
F:	45.00	42.06
G:	45.00	628.10
Q:	0.00	1815.27





Inside Recorder



Outside Recorder

DST REPORT

GENERAL INFORMATION

DATE : 5/21/97
CUSTOMER : NOBLE PETROLEUM INC
WELL : #1 TEST: 2
ELEVATION: 2284 GL
SECTION : 28
RANGE : 20W COUNTY: ELLIS
GAUGE SN#: 3027 RANGE : 4995
TICKET : 22401
LEASE : NORTH
GEOLOGIST: ABLAH
FORMATION: CHEROKEE SAND
TOWNSHIP : 15S
STATE : KS
CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 3975.00 ft TO: 3992.00 ft TVD: 3992.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL
DEPTH OF RECORDERS: 3979.0 ft 3984.0 ft
TEMPERATURE: 112.0
DRILL COLLAR LENGTH: 0.0 ft I.D.: 0.000 in
WEIGHT PIPE LENGTH : 0.0 ft I.D.: 0.000 in
DRILL PIPE LENGTH : 3955.0 ft I.D.: 3.800 in
TEST TOOL LENGTH : 20.0 ft TOOL SIZE : 5.500 in
ANCHOR LENGTH : 17.0 ft ANCHOR SIZE: 5.500 in
SURFACE CHOKE SIZE : 0.750 in BOTTOM CHOKE SIZE: 0.750 in
MAIN HOLE SIZE : 7.875 in TOOL JOINT SIZE : 4.5XH
PACKER DEPTH: 3970.0 ft SIZE: 6.630 in
PACKER DEPTH: 3975.0 ft SIZE: 6.630 in
PACKER DEPTH: 0.0 ft SIZE: 0.000 in
PACKER DEPTH: 0.0 ft SIZE: 0.000 in

MUD INFORMATION

DRILLING CON. : DUKE DRLG RIG 4
MUD TYPE : CHEMICAL VISCOSITY : 54.00 cp
WEIGHT : 9.500 ppg WATER LOSS: 8.000 cc
CHLORIDES : 4000 ppm
JARS-MAKE :
DID WELL FLOW?: NO SERIAL NUMBER:
REVERSED OUT?: NO

COMMENTS

Comment

INITIAL FLOW PERIOD WEAK SURFACE BLOW - DIED IN 20
MINUTES. FINAL FLOW PERIOD NO BLOW.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
5.0	7.0	0.0	0.0	93.0	OIL CUT MUD

RATE INFORMATION

OIL VOLUME:	0.0049 STB	TOTAL FLOW TIME:	34.0000 min.
GAS VOLUME:	0.0000 SCF	AVERAGE OIL RATE:	2.9703 STB/D
MUD VOLUME:	0.0652 STB	AVERAGE WATER RATE:	0.0000 STB/D
WATER VOLUME:	0.0000 STB		
TOTAL FLUID :	0.0701 STB		

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2044.00

Description	Duration	p1	p End
INITIAL FLOW	24.00	27.00	29.00
INITIAL SHUT-IN	30.00		1055.00
FINAL FLOW	10.00	29.00	30.00
FINAL SHUT-IN	30.00		1117.00

FINAL HYDROSTATIC PRESSURE: 1974.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2044.30

Description	Duration	p1	p End
INITIAL FLOW	24.00	27.80	30.30
INITIAL SHUT-IN	30.00		1065.30
FINAL FLOW	10.00	30.00	31.00
FINAL SHUT-IN	30.00		1117.90

FINAL HYDROSTATIC PRESSURE: 1974.20

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: NOBLE PETRO. NORTH DST#2 05-21-1997 W.T.C.

DATE: 05/21/97 TIME: 11:14:54

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
***** Initial Hydro.	74.50	2044.3	0.0	107.78		
***** Start Flow 1	0.00	27.8	0.0	108.24		
	0.50	28.2	0.4	108.37		
	1.00	28.4	0.6	108.46		
	1.50	28.5	0.7	108.54		
	2.00	28.6	0.8	108.59		
	2.50	28.6	0.9	108.64		
	3.00	28.7	0.9	108.68		
	3.50	28.8	1.0	108.72		
	4.00	28.7	0.9	108.74		
	4.50	28.8	1.0	108.77		
	5.00	28.8	1.0	108.80		
	5.50	28.8	1.0	108.83		
	6.00	28.8	1.1	108.85		
	6.50	28.8	1.1	108.88		
	7.00	28.9	1.1	108.90		
	7.50	28.9	1.2	108.92		
	8.00	28.9	1.1	108.92		
	8.50	28.9	1.1	108.92		
	9.00	29.0	1.2	108.94		
	9.50	29.0	1.2	108.95		
	10.00	29.0	1.2	108.97		
	10.50	29.0	1.2	108.99		
	11.00	29.0	1.2	108.99		
	11.50	29.1	1.3	109.01		
	12.00	29.0	1.3	109.02		
	12.50	29.0	1.3	109.03		
	13.00	29.0	1.2	109.04		
	13.50	29.1	1.3	109.05		
	14.00	29.1	1.4	109.05		
	14.50	29.2	1.4	109.06		
	15.00	29.2	1.4	109.06		
	15.50	29.3	1.5	109.06		
	16.00	29.4	1.6	109.07		
	16.50	29.4	1.6	109.07		
	17.00	29.5	1.7	109.08		
	17.50	29.5	1.7	109.08		
	18.00	29.6	1.8	109.09		
	18.50	29.6	1.8	109.09		
	19.00	29.7	1.9	109.10		
	19.50	29.7	1.9	109.09		
	20.00	29.7	1.9	109.10		
	20.50	29.7	1.9	109.10		
	21.00	29.7	2.0	109.11		
	21.50	29.8	2.0	109.11		
	22.00	29.8	2.0	109.12		
	22.50	29.8	2.1	109.12		
	23.00	29.9	2.1	109.13		
	23.50	29.8	2.0	109.13		
***** End Flow 1	24.00	30.3	2.5	109.12		
***** Start Shutin 1	0.00	30.3	0.0	109.12	0.0000	0.001

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: NOBLE PETRO. NORTH DST#2 05-21-1997 W.T.C.
 DATE: 05/21/97 TIME: 11:14:54

Time	Pressure PSig	delta P PSig	P	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
0.50	31.6	1.2	109.14	49.0000	0.001	
1.00	32.9	2.6	109.13	25.0000	0.001	
1.50	34.3	4.0	109.14	17.0000	0.001	
2.00	35.9	5.6	109.14	13.0000	0.001	
2.50	37.6	7.3	109.15	10.6000	0.001	
3.00	39.4	9.1	109.16	9.0000	0.002	
3.50	41.5	11.1	109.16	7.8571	0.002	
4.00	43.8	13.4	109.16	7.0000	0.002	
4.50	46.2	15.9	109.18	6.3333	0.002	
5.00	49.0	18.6	109.18	5.8000	0.002	
5.50	52.1	21.8	109.19	5.3636	0.003	
6.00	55.7	25.4	109.18	5.0000	0.003	
6.50	59.8	29.5	109.21	4.6923	0.004	
7.00	64.7	34.4	109.22	4.4286	0.004	
7.50	70.3	40.0	109.24	4.2000	0.005	
8.00	76.9	46.6	109.25	4.0000	0.006	
8.50	84.9	54.6	109.25	3.8235	0.007	
9.00	94.6	64.2	109.26	3.6667	0.009	
9.50	106.3	76.0	109.27	3.5263	0.011	
10.00	120.6	90.3	109.30	3.4000	0.015	
10.50	138.0	107.6	109.30	3.2857	0.019	
11.00	160.5	130.2	109.32	3.1818	0.026	
11.50	188.6	158.3	109.34	3.0870	0.036	
12.00	223.2	192.9	109.34	3.0000	0.050	
12.50	264.4	234.0	109.36	2.9200	0.070	
13.00	310.9	280.5	109.38	2.8462	0.097	
13.50	360.8	330.5	109.40	2.7778	0.130	
14.00	412.1	381.7	109.41	2.7143	0.170	
14.50	462.8	432.4	109.43	2.6552	0.214	
15.00	511.6	481.2	109.44	2.6000	0.262	
15.50	557.6	527.3	109.46	2.5484	0.311	
16.00	600.6	570.3	109.49	2.5000	0.361	
16.50	640.5	610.1	109.51	2.4545	0.410	
17.00	677.2	646.9	109.53	2.4118	0.459	
17.50	711.0	680.6	109.56	2.3714	0.505	
18.00	742.1	711.7	109.58	2.3333	0.551	
18.50	770.6	740.2	109.61	2.2973	0.594	
19.00	796.8	766.5	109.63	2.2632	0.635	
19.50	821.0	790.7	109.65	2.2308	0.674	
20.00	843.3	813.0	109.65	2.2000	0.711	
20.50	863.9	833.6	109.69	2.1707	0.746	
21.00	882.9	852.6	109.71	2.1429	0.780	
21.50	900.5	870.2	109.73	2.1163	0.811	
22.00	916.9	886.6	109.76	2.0909	0.841	
22.50	932.1	901.7	109.76	2.0667	0.869	
23.00	946.2	915.9	109.80	2.0435	0.895	
23.50	959.4	929.0	109.82	2.0213	0.920	
24.00	971.6	941.3	109.83	2.0000	0.944	
24.50	983.1	952.8	109.85	1.9796	0.967	
25.00	993.8	963.5	109.88	1.9600	0.988	
25.50	1003.9	973.6	109.89	1.9412	1.008	

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: NOBLE PETRO. NORTH DST#2 05-21-1997 W.T.C.

DATE: 05/21/97 TIME: 11:14:54

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
	26.00	1013.3	983.0	109.91	1.9231	1.027
	26.50	1022.1	991.8	109.93	1.9057	1.045
	27.00	1030.5	1000.1	109.95	1.8889	1.062
	27.50	1038.3	1008.0	109.96	1.8727	1.078
	28.00	1045.6	1015.3	109.99	1.8571	1.093
	28.50	1052.6	1022.2	110.00	1.8421	1.108
	29.00	1059.1	1028.8	110.02	1.8276	1.122
***** End Shut-in 1	29.50	1065.3	1035.0	110.04	1.8136	1.135
***** Start Flow 2	0.00	30.0	0.0	110.10		
	0.50	29.7	-0.3	110.11		
	1.00	29.8	-0.2	110.11		
	1.50	30.0	-0.0	110.10		
	2.00	30.0	-0.0	110.09		
	2.50	30.0	0.0	110.08		
	3.00	30.1	0.2	110.08		
	3.50	30.1	0.2	110.08		
	4.00	30.1	0.1	110.07		
	4.50	30.3	0.3	110.07		
	5.00	30.1	0.1	110.07		
	5.50	30.2	0.3	110.08		
	6.00	30.2	0.2	110.08		
	6.50	30.5	0.6	110.08		
	7.00	30.6	0.6	110.09		
	7.50	30.4	0.4	110.09		
	8.00	30.7	0.7	110.10		
	8.50	30.6	0.6	110.11		
	9.00	30.6	0.6	110.13		
	9.50	30.6	0.6	110.14		
	10.00	30.7	0.7	110.15		
***** End Flow 2	10.50	31.0	1.0	110.15		
***** Start Shutin 2	0.00	31.0	0.0	110.15	0.0000	0.001
	0.50	32.4	1.4	110.16	70.0000	0.001
	1.00	34.0	3.0	110.19	35.5000	0.001
	1.50	35.7	4.7	110.19	24.0000	0.001
	2.00	37.6	6.6	110.21	18.2500	0.001
	2.50	39.7	8.7	110.24	14.8000	0.002
	3.00	42.0	11.0	110.26	12.5000	0.002
	3.50	44.5	13.6	110.29	10.8571	0.002
	4.00	47.4	16.4	110.30	9.6250	0.002
	4.50	50.7	19.7	110.34	8.6667	0.003
	5.00	54.4	23.4	110.36	7.9000	0.003
	5.50	58.7	27.7	110.39	7.2727	0.003
	6.00	63.6	32.6	110.41	6.7500	0.004
	6.50	69.4	38.4	110.43	6.3077	0.005
	7.00	76.3	45.3	110.45	5.9286	0.006
	7.50	84.8	53.8	110.48	5.6000	0.007
	8.00	95.0	64.0	110.50	5.3125	0.009
	8.50	107.5	76.5	110.53	5.0588	0.012
	9.00	123.2	92.2	110.56	4.8333	0.015
	9.50	142.9	111.9	110.57	4.6316	0.020
	10.00	167.9	136.9	110.60	4.4500	0.028

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: NOBLE PETRO. NORTH DST#2 05-21-1997 W.T.C.
 DATE: 05/21/97 TIME: 11:14:54

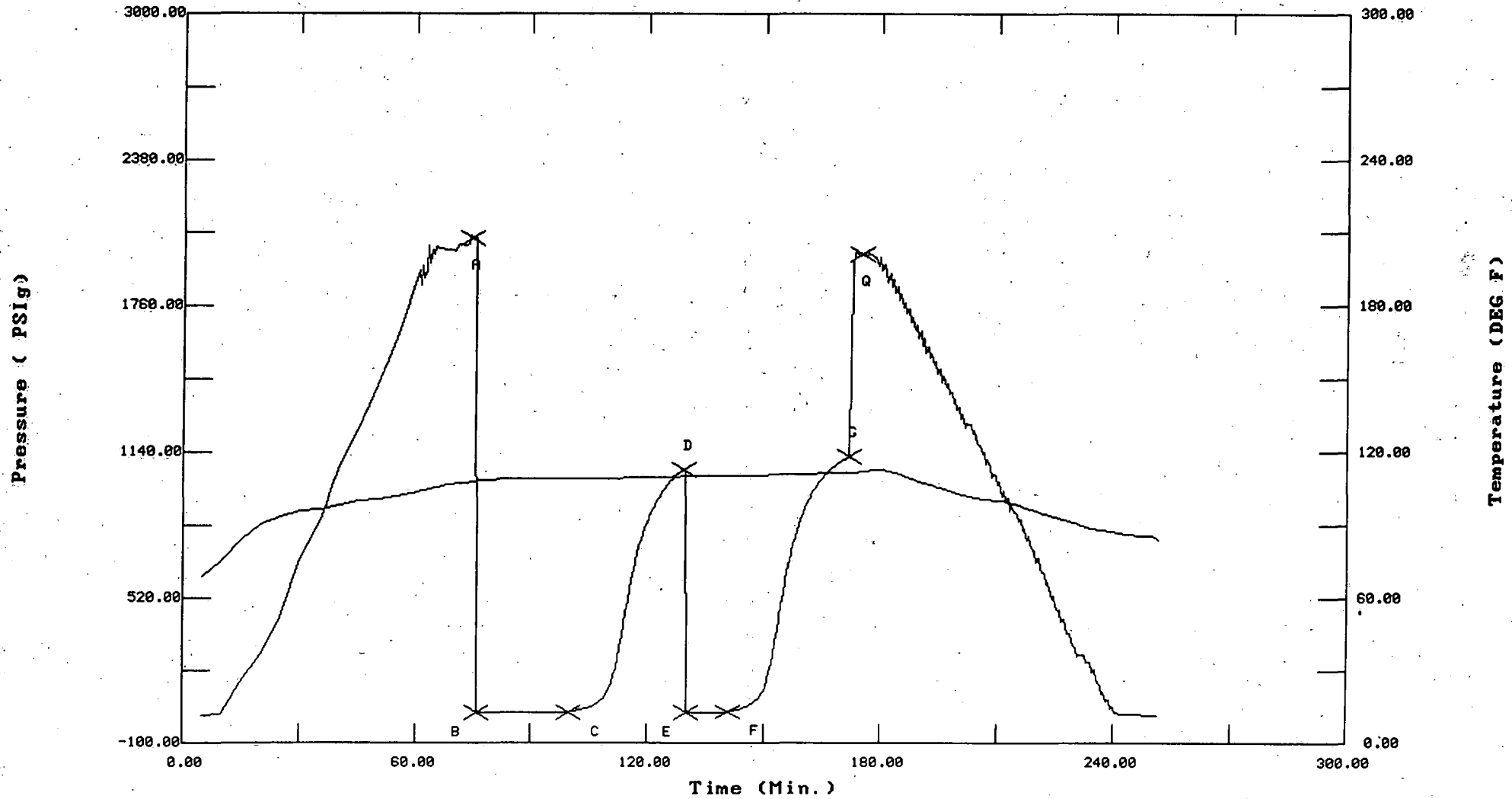
	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
	10.50	199.4	168.4	110.63	4.2857	0.040
	11.00	237.8	206.9	110.65	4.1364	0.057
	11.50	283.2	252.2	110.67	4.0000	0.080
	12.00	332.5	301.5	110.70	3.8750	0.111
	12.50	385.9	354.9	110.71	3.7600	0.149
	13.00	440.6	409.6	110.73	3.6538	0.194
	13.50	494.1	463.1	110.76	3.5556	0.244
	14.00	545.1	514.1	110.80	3.4643	0.297
	14.50	593.0	562.0	110.82	3.3793	0.352
	15.00	637.4	606.4	110.84	3.3000	0.406
	15.50	678.2	647.3	110.87	3.2258	0.460
	16.00	715.8	684.8	110.89	3.1562	0.512
	16.50	750.2	719.2	110.92	3.0909	0.563
	17.00	781.6	750.7	110.95	3.0294	0.611
	17.50	810.5	779.5	110.98	2.9714	0.657
	18.00	836.9	805.9	111.00	2.9167	0.700
	18.50	861.1	830.1	111.02	2.8649	0.742
	19.00	883.3	852.3	111.04	2.8158	0.780
	19.50	903.8	872.8	111.07	2.7692	0.817
	20.00	922.5	891.6	111.09	2.7250	0.851
	20.50	939.9	908.9	111.12	2.6829	0.883
	21.00	955.9	924.9	111.15	2.6429	0.914
	21.50	970.7	939.7	111.17	2.6047	0.942
	22.00	984.3	953.4	111.19	2.5682	0.969
	22.50	997.0	966.1	111.20	2.5333	0.994
	23.00	1008.8	977.8	111.25	2.5000	1.018
	23.50	1019.7	988.7	111.27	2.4681	1.040
	24.00	1029.9	998.9	111.29	2.4375	1.061
	24.50	1039.3	1008.3	111.33	2.4082	1.080
	25.00	1048.1	1017.1	111.35	2.3800	1.098
	25.50	1056.3	1025.3	111.38	2.3529	1.116
	26.00	1063.9	1032.9	111.40	2.3269	1.132
	26.50	1071.1	1040.1	111.40	2.3019	1.147
	27.00	1077.8	1046.8	111.40	2.2778	1.162
	27.50	1084.0	1053.0	111.41	2.2545	1.175
	28.00	1089.8	1058.8	111.43	2.2321	1.188
	28.50	1095.3	1064.3	111.44	2.2105	1.200
	29.00	1100.4	1069.4	111.46	2.1897	1.211
	29.50	1105.2	1074.2	111.48	2.1695	1.221
	30.00	1109.7	1078.7	111.50	2.1500	1.231
	30.50	1113.9	1083.0	111.52	2.1311	1.241
	31.00	1117.9	1086.9	111.54	2.1129	1.250
*****	End Shut-in 2					
*****	Final Hydro.	175.00	1974.2	0.0	111.99	

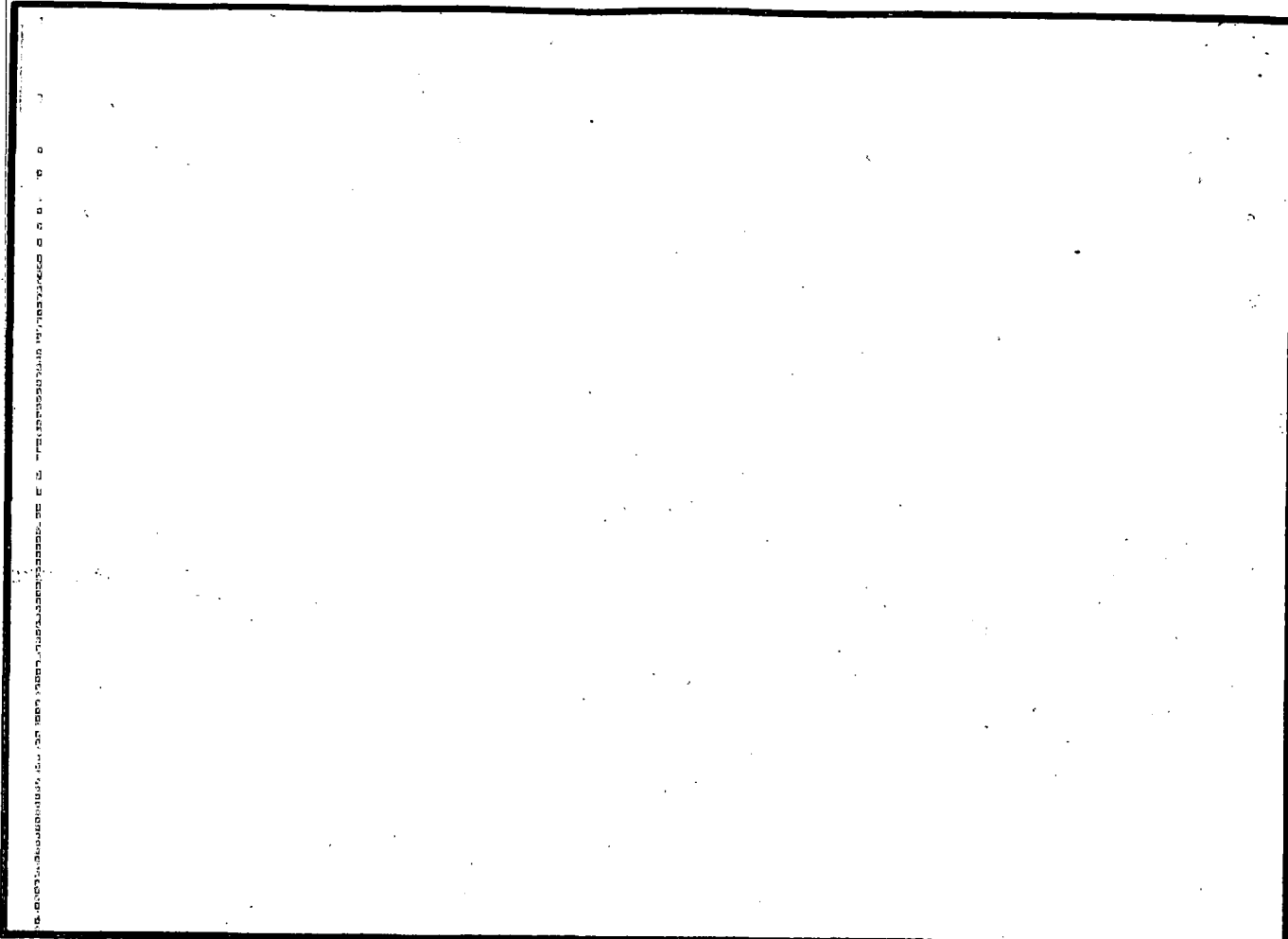
TEST HISTORY

NOBLE PETRO. NORTH DST#2 05-21-1997 W.T.C.

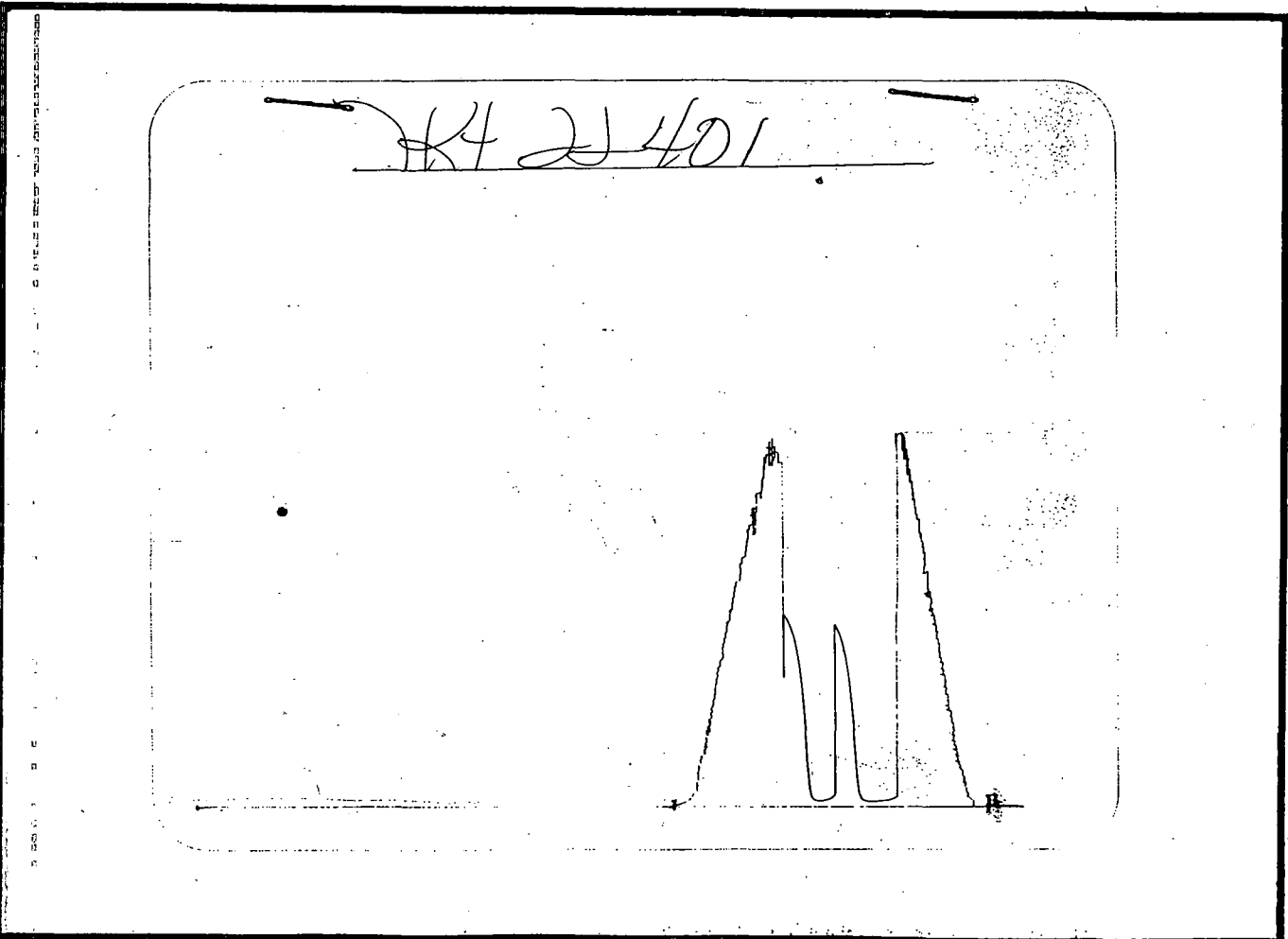
Flag Points

	t (Min.)	P (PSig)
A:	0.00	2044.34
B:	0.00	27.78
C:	24.00	30.33
D:	29.50	1065.29
E:	0.00	29.98
F:	10.50	30.99
G:	31.00	1117.92
Q:	0.00	1974.25





Inside Recorder



Outside Recorder

DST REPORT

GENERAL INFORMATION

DATE : 5/21/97
CUSTOMER : NOBLE PETROLEUM INC
WELL : #1 TEST: 3
ELEVATION: 2284 GL
SECTION : 28
RANGE : 20W COUNTY: ELLIS
GAUGE SN#: 3027 RANGE : 4995
TICKET : 22402
LEASE : NORTH
GEOLOGIST: ABLAH
FORMATION: CHEROKEE SAND
TOWNSHIP : 15S
STATE : KS
CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 3976.50 ft TO: 3996.50 ft TVD: 3996.5 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL
DEPTH OF RECORDERS: 3980.0 ft 3990.0 ft
TEMPERATURE: 116.0

DRILL COLLAR LENGTH:	0.0 ft	I.D.:	0.000 in
WEIGHT PIPE LENGTH :	0.0 ft	I.D.:	0.000 in
DRILL PIPE LENGTH :	3956.0 ft	I.D.:	3.800 in
TEST TOOL LENGTH :	20.0 ft	TOOL SIZE :	5.500 in
ANCHOR LENGTH :	20.0 ft	ANCHOR SIZE:	5.500 in
SURFACE CHOKE SIZE :	0.750 in	BOTTOM CHOKE SIZE:	0.750 in
MAIN HOLE SIZE :	7.875 in	TOOL JOINT SIZE :	4.5XH
PACKER DEPTH:	3971.5 ft	SIZE:	6.630 in
PACKER DEPTH:	3976.5 ft	SIZE:	6.630 in
PACKER DEPTH:	0.0 ft	SIZE:	0.000 in
PACKER DEPTH:	0.0 ft	SIZE:	0.000 in

MUD INFORMATION

DRILLING CON. : DUKE DRLG RIG 4
MUD TYPE : CHEMICAL
WEIGHT : 9.400 ppg
CHLORIDES : 4000 ppm
JARS-MAKE :
DID WELL FLOW?: NO
VISCOSITY : 54.00 cp
WATER LOSS: 8.000 cc
SERIAL NUMBER:
REVERSED OUT?: NO

COMMENTS

Comment

INITIAL FLOW PERIOD WEAK BLOW THROUGHOUT - 1/2 TO
2 1/2 INCH BLOW. FINAL FLOW PERIOD WEAK BLOW
THROUGHOUT - 1/4 TO 1 INCH BLOW.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
120.0	1.0	45.0	0.0	54.0	SLIGHTLY OIL C/WTRY MUD CHLORIDES 28000 PPM
0.0	0.0	0.0	0.0	0.0	

RATE INFORMATION

OIL VOLUME:	0.0168 STB	TOTAL FLOW TIME:	190.0000 min.
GAS VOLUME:	4.2529 SCF	AVERAGE OIL RATE:	14.8118 STB/D
MUD VOLUME:	0.9089 STB	AVERAGE WATER RATE:	0.0000 STB/D
WATER VOLUME:	0.0000 STB		
TOTAL FLUID :	0.9257 STB		

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2057.00

Description	Duration	p1	p End
INITIAL FLOW	45.00	29.00	68.00
INITIAL SHUT-IN	45.00		1160.00
FINAL FLOW	45.00	60.00	86.00
FINAL SHUT-IN	45.00		1156.00

FINAL HYDROSTATIC PRESSURE: 1940.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2057.20

Description	Duration	p1	p End
INITIAL FLOW	45.00	29.70	68.70
INITIAL SHUT-IN	45.00		1160.40
FINAL FLOW	45.00	60.20	86.10
FINAL SHUT-IN	45.00		1156.30

FINAL HYDROSTATIC PRESSURE: 1940.10

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: NOBLE PETRO. NORTH #1 DST#3 05-21-1997

DATE: 05/21/97 TIME: 23:15:13

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
***** Initial Hydro.	82.00	2057.2	0.0	105.79		
***** Start Flow 1	0.00	29.7	0.0	106.15		
	0.50	30.6	0.9	106.26		
	1.00	30.3	0.7	106.39		
	1.50	29.8	0.2	106.43		
	2.00	29.9	0.3	106.43		
	2.50	30.3	0.7	106.55		
	3.00	30.9	1.3	106.68		
	3.50	31.6	1.9	106.81		
	4.00	32.2	2.5	106.92		
	4.50	34.0	4.3	107.04		
	5.00	35.8	6.1	107.17		
	5.50	37.3	7.6	107.26		
	6.00	36.3	6.6	107.35		
	6.50	35.1	5.4	107.45		
	7.00	35.1	5.4	107.52		
	7.50	35.3	5.6	107.60		
	8.00	35.6	5.9	107.62		
	8.50	35.9	6.2	107.66		
	9.00	36.3	6.6	107.68		
	9.50	36.7	7.0	107.68		
	10.00	37.0	7.3	107.68		
	10.50	37.1	7.4	107.68		
	11.00	37.3	7.6	107.68		
	11.50	37.5	7.9	107.67		
	12.00	37.6	7.9	107.65		
	12.50	37.7	8.1	107.63		
	13.00	38.0	8.3	107.62		
	13.50	38.3	8.6	107.58		
	14.00	38.6	8.9	107.58		
	14.50	38.9	9.3	107.56		
	15.00	39.3	9.7	107.54		
	15.50	39.7	10.1	107.51		
	16.00	40.0	10.3	107.48		
	16.50	40.2	10.6	107.49		
	17.00	40.4	10.8	107.46		
	17.50	40.7	11.0	107.45		
	18.00	40.9	11.3	107.42		
	18.50	41.3	11.6	107.42		
	19.00	41.7	12.0	107.40		
	19.50	42.2	12.5	107.38		
	20.00	42.5	12.8	107.38		
	20.50	42.7	13.1	107.36		
	21.00	43.0	13.3	107.35		
	21.50	43.2	13.6	107.33		
	22.00	43.5	13.8	107.34		
	22.50	43.7	14.1	107.32		
	23.00	44.0	14.3	107.32		
	23.50	44.3	14.6	107.33		
	24.00	44.5	14.9	107.33		
	24.50	44.8	15.1	107.34		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: NOBLE PETRO. NORTH #1 DST#3 05-21-1997

DATE: 05/21/97 TIME: 23:15:13

Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶	
25.00	45.1	15.4	107.34			
25.50	45.4	15.7	107.36			
26.00	45.7	16.0	107.38			
26.50	46.0	16.3	107.38			
27.00	46.2	16.5	107.41			
27.50	46.4	16.8	107.43			
28.00	46.7	17.0	107.45			
28.50	47.0	17.3	107.47			
29.00	47.2	17.6	107.49			
29.50	47.5	17.8	107.52			
30.00	47.7	18.0	107.56			
30.50	47.9	18.2	107.58			
31.00	48.1	18.4	107.63			
31.50	48.3	18.7	107.66			
32.00	48.6	19.0	107.69			
32.50	48.8	19.1	107.73			
33.00	49.0	19.3	107.75			
33.50	49.3	19.6	107.81			
34.00	49.6	19.9	107.84			
34.50	49.8	20.1	107.88			
35.00	50.1	20.4	107.91			
35.50	50.3	20.6	107.96			
36.00	50.7	21.0	108.01			
36.50	50.8	21.2	108.05			
37.00	51.1	21.4	108.09			
37.50	51.3	21.7	108.13			
38.00	51.7	22.0	108.17			
38.50	51.8	22.2	108.22			
39.00	52.1	22.5	108.23			
39.50	52.4	22.8	108.29			
40.00	52.7	23.1	108.34			
40.50	52.9	23.3	108.39			
41.00	53.2	23.5	108.40			
41.50	53.5	23.8	108.46			
42.00	53.7	24.1	108.50			
42.50	54.0	24.3	108.55			
43.00	54.2	24.5	108.57			
43.50	54.5	24.8	108.61			
44.00	54.9	25.3	108.66			
44.50	55.3	25.6	108.69			
45.00	55.8	26.1	108.73			
45.50	56.0	26.3	108.77			
46.00	56.2	26.6	108.80			
46.50	68.7	39.1	108.85			
***** End Flow 1						
***** Start Shutin 1	0.00	68.7	0.0	108.85	0.0000	0.005
	0.50	96.9	28.2	108.90	94.0000	0.009
	1.00	157.8	89.1	108.92	47.5000	0.025
	1.50	315.8	247.0	108.92	32.0000	0.10
	2.00	566.3	497.5	108.97	24.2500	0.321
	2.50	709.3	640.6	109.01	19.6000	0.503
	3.00	773.6	704.9	109.05	16.5000	0.599

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: NOBLE PETRO. NORTH #1 DST#3 05-21-1997

DATE: 05/21/97 TIME: 23:15:13

Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
3.50	814.2	745.5	109.10	14.2857	0.663
4.00	845.8	777.1	109.16	12.6250	0.715
4.50	872.0	803.3	109.20	11.3333	0.760
5.00	894.5	825.8	109.26	10.3000	0.800
5.50	914.2	845.4	109.30	9.4545	0.836
6.00	931.5	862.8	109.36	8.7500	0.868
6.50	946.9	878.2	109.40	8.1538	0.897
7.00	960.9	892.2	109.45	7.6429	0.923
7.50	973.5	904.8	109.50	7.2000	0.948
8.00	985.0	916.3	109.55	6.8125	0.970
8.50	995.5	926.8	109.60	6.4706	0.991
9.00	1005.1	936.4	109.65	6.1667	1.010
9.50	1014.0	945.3	109.71	5.8947	1.028
10.00	1022.3	953.5	109.75	5.6500	1.045
10.50	1029.8	961.1	109.78	5.4286	1.061
11.00	1036.9	968.2	109.85	5.2273	1.075
11.50	1043.5	974.8	109.92	5.0435	1.089
12.00	1049.6	980.9	109.97	4.8750	1.102
12.50	1055.3	986.6	110.02	4.7200	1.114
13.00	1060.6	991.9	110.08	4.5769	1.125
13.50	1065.6	996.9	110.15	4.4444	1.136
14.00	1070.3	1001.6	110.19	4.3214	1.146
14.50	1074.8	1006.0	110.26	4.2069	1.155
15.00	1079.0	1010.3	110.32	4.1000	1.164
15.50	1082.9	1014.2	110.37	4.0000	1.173
16.00	1086.6	1017.9	110.43	3.9062	1.181
16.50	1090.2	1021.5	110.49	3.8182	1.189
17.00	1093.5	1024.8	110.55	3.7353	1.196
17.50	1096.7	1028.0	110.61	3.6571	1.203
18.00	1099.7	1031.0	110.67	3.5833	1.209
18.50	1102.6	1033.8	110.71	3.5135	1.216
19.00	1105.3	1036.6	110.77	3.4474	1.222
19.50	1107.9	1039.2	110.82	3.3846	1.227
20.00	1110.4	1041.6	110.88	3.3250	1.233
20.50	1112.7	1044.0	110.93	3.2683	1.238
21.00	1114.9	1046.2	110.97	3.2143	1.243
21.50	1117.1	1048.4	111.02	3.1628	1.248
22.00	1119.1	1050.4	111.07	3.1136	1.252
22.50	1121.1	1052.4	111.11	3.0667	1.257
23.00	1123.0	1054.3	111.17	3.0217	1.261
23.50	1124.8	1056.1	111.20	2.9787	1.265
24.00	1126.5	1057.8	111.26	2.9375	1.269
24.50	1128.1	1059.4	111.30	2.8980	1.273
25.00	1129.7	1061.0	111.36	2.8600	1.276
25.50	1131.2	1062.5	111.40	2.8235	1.280
26.00	1132.7	1064.0	111.40	2.7885	1.283
26.50	1134.1	1065.4	111.41	2.7547	1.286
27.00	1135.5	1066.8	111.46	2.7222	1.289
27.50	1136.8	1068.1	111.50	2.6909	1.292
28.00	1138.0	1069.3	111.53	2.6607	1.295
28.50	1139.3	1070.5	111.57	2.6316	1.298

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: NOBLE PETRO. NORTH #1 DST#3 05-21-1997

DATE: 05/21/97 TIME: 23:15:13

Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
29.00	1140.4	1071.7	111.61	2.6034	1.301
29.50	1141.5	1072.8	111.64	2.5763	1.303
30.00	1142.6	1073.9	111.67	2.5500	1.306
30.50	1143.7	1074.9	111.70	2.5246	1.308
31.00	1144.7	1076.0	111.74	2.5000	1.310
31.50	1145.7	1076.9	111.78	2.4762	1.313
32.00	1146.6	1077.9	111.80	2.4531	1.315
32.50	1147.5	1078.8	111.82	2.4308	1.317
33.00	1148.4	1079.7	111.85	2.4091	1.319
33.50	1149.2	1080.5	111.89	2.3881	1.321
34.00	1150.1	1081.4	111.92	2.3676	1.323
34.50	1150.8	1082.1	111.93	2.3478	1.324
35.00	1151.7	1082.9	111.97	2.3286	1.326
35.50	1152.4	1083.7	111.98	2.3099	1.328
36.00	1153.1	1084.4	112.02	2.2917	1.330
36.50	1153.8	1085.1	112.04	2.2740	1.331
37.00	1154.6	1085.8	112.08	2.2568	1.333
37.50	1155.2	1086.5	112.09	2.2400	1.334
38.00	1155.8	1087.1	112.12	2.2237	1.336
38.50	1156.5	1087.7	112.13	2.2078	1.337
39.00	1157.1	1088.4	112.16	2.1923	1.339
39.50	1157.7	1089.0	112.19	2.1772	1.340
40.00	1158.3	1089.5	112.22	2.1625	1.342
40.50	1158.8	1090.1	112.23	2.1481	1.343
41.00	1159.4	1090.7	112.24	2.1341	1.344
41.50	1159.9	1091.2	112.28	2.1205	1.345
42.00	1160.4	1091.7	112.28	2.1071	1.347

***** End Shut-in 1

***** Start Flow 2

0.00	60.2	0.0	112.19
0.50	58.3	-1.9	112.36
1.00	58.5	-1.7	112.34
1.50	58.9	-1.3	112.32
2.00	59.2	-1	112.28
2.50	59.5	-0.7	112.26
3.00	59.8	-0.4	112.24
3.50	60.1	-0.0	112.22
4.00	60.5	0.3	112.22
4.50	60.8	0.6	112.22
5.00	61.1	0.9	112.22
5.50	61.6	1.4	112.23
6.00	62.0	1.8	112.24
6.50	62.3	2.1	112.24
7.00	62.6	2.5	112.27
7.50	62.9	2.7	112.27
8.00	63.1	3.0	112.29
8.50	63.5	3.3	112.30
9.00	63.7	3.5	112.32
9.50	64.1	3.9	112.35
10.00	64.4	4.2	112.37
10.50	64.6	4.4	112.39
11.00	64.9	4.7	112.43
11.50	65.1	4.9	112.45

ALPINE SUBSURFACE ELECTRONICS' PROBE INCREMENTS LISTING

TEST: NOBLE PETRO. NORTH #1 DST#3 05-21-1997

DATE: 05/21/97 TIME: 23:15:13

Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
12.00	65.3	5.1	112.49		
12.50	65.7	5.5	112.50		
13.00	65.9	5.7	112.53		
13.50	66.2	6.0	112.55		
14.00	66.5	6.3	112.57		
14.50	66.7	6.5	112.60		
15.00	67.0	6.8	112.63		
15.50	67.3	7.1	112.63		
16.00	67.5	7.3	112.67		
16.50	67.7	7.5	112.69		
17.00	68.0	7.8	112.71		
17.50	68.3	8.1	112.75		
18.00	68.5	8.3	112.78		
18.50	68.8	8.6	112.80		
19.00	69.3	9.1	112.83		
19.50	69.7	9.5	112.86		
20.00	70.1	9.9	112.89		
20.50	70.4	10.2	112.92		
21.00	70.6	10.4	112.95		
21.50	70.9	10.7	112.98		
22.00	71.1	10.9	113.03		
22.50	71.4	11.2	113.05		
23.00	71.6	11.5	113.06		
23.50	71.9	11.7	113.10		
24.00	72.1	11.9	113.14		
24.50	72.4	12.2	113.15		
25.00	72.6	12.5	113.19		
25.50	72.9	12.7	113.23		
26.00	73.1	12.9	113.27		
26.50	73.4	13.2	113.30		
27.00	73.6	13.4	113.36		
27.50	73.9	13.7	113.38		
28.00	74.2	14.0	113.42		
28.50	74.4	14.2	113.45		
29.00	74.7	14.5	113.49		
29.50	75.0	14.8	113.51		
30.00	75.2	15.0	113.55		
30.50	75.4	15.3	113.60		
31.00	75.7	15.5	113.64		
31.50	76.0	15.8	113.68		
32.00	76.2	16.0	113.71		
32.50	76.4	16.2	113.75		
33.00	76.6	16.5	113.78		
33.50	77.0	16.8	113.84		
34.00	77.2	17.0	113.86		
34.50	77.4	17.2	113.88		
35.00	77.7	17.5	113.91		
35.50	77.9	17.7	113.96		
36.00	78.2	18.0	113.99		
36.50	78.4	18.2	114.03		
37.00	78.7	18.5	114.06		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: NOBLE PETRO. NORTH #1 DST#3 05-21-1997
 DATE: 05/21/97 TIME: 23:15:13

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
	37.50	78.9	18.7	114.10		
	38.00	79.2	19.0	114.15		
	38.50	79.4	19.2	114.17		
	39.00	79.6	19.4	114.22		
	39.50	79.9	19.7	114.25		
	40.00	80.1	19.9	114.29		
	40.50	80.4	20.2	114.32		
	41.00	80.6	20.4	114.36		
	41.50	80.9	20.7	114.39		
	42.00	81.1	20.9	114.42		
	42.50	81.4	21.2	114.46		
	43.00	81.6	21.4	114.50		
	43.50	81.8	21.6	114.53		
	44.00	82.1	21.9	114.56		
	44.50	82.3	22.1	114.59		
	45.00	82.6	22.4	114.63		
	45.50	82.8	22.6	114.68		
	46.00	83.2	23.0	114.69		
*****	End Flow 2	46.50	86.1	25.9	114.74	
*****	Start Shutin 2	0.00	86.1	0.0	114.74	0.0000
		0.50	116.2	30.1	114.78	187.0000
		1.00	170.5	84.4	114.81	94.0000
		1.50	281.0	194.9	114.84	63.0000
		2.00	468.5	382.4	114.88	47.5000
		2.50	635.0	548.9	114.91	38.2000
		3.00	721.7	635.6	114.95	32.0000
		3.50	771.1	685.0	114.99	27.5714
		4.00	806.5	720.4	115.05	24.2500
		4.50	834.8	748.7	115.09	21.6667
		5.00	858.9	772.8	115.14	19.6000
		5.50	879.9	793.9	115.21	17.9091
		6.00	898.6	812.5	115.24	16.5000
		6.50	915.3	829.2	115.29	15.3077
		7.00	930.4	844.3	115.34	14.2857
		7.50	944.0	857.9	115.38	13.4000
		8.00	956.3	870.2	115.44	12.6250
		8.50	967.7	881.6	115.47	11.9412
		9.00	978.2	892.1	115.51	11.3333
		9.50	987.8	901.8	115.57	10.7895
		10.00	996.8	910.8	115.59	10.3000
		10.50	1005.1	919.0	115.64	9.8571
		11.00	1012.8	926.8	115.68	9.4545
		11.50	1020.1	934.0	115.73	9.0870
		12.00	1026.8	940.7	115.75	8.7500
		12.50	1033.1	947.0	115.79	8.4400
		13.00	1039.1	953.0	115.83	8.1538
		13.50	1044.6	958.5	115.86	7.8889
		14.00	1049.9	963.8	115.91	7.6429
		14.50	1054.8	968.8	115.92	7.4138
		15.00	1059.5	973.4	115.96	7.2000
		15.50	1063.9	977.8	115.99	7.0000

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: NOBLE PETRO. NORTH #1 DST#3 05-21-1997
 DATE: 05/21/97 TIME: 23:15:13

Time	Pressure PSI _g	delta P PSI _g	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
16.00	1068.1	982.0	116.02	6.8125	1.141
16.50	1072.0	986.0	116.06	6.6364	1.149
17.00	1075.8	989.7	116.08	6.4706	1.157
17.50	1079.4	993.3	116.11	6.3143	1.165
18.00	1082.8	996.7	116.13	6.1667	1.172
18.50	1085.9	999.9	116.17	6.0270	1.179
19.00	1089.0	1002.9	116.21	5.8947	1.186
19.50	1091.9	1005.9	116.21	5.7692	1.192
20.00	1094.7	1008.7	116.23	5.6500	1.198
20.50	1097.4	1011.3	116.28	5.5366	1.204
21.00	1099.9	1013.9	116.31	5.4286	1.210
21.50	1102.4	1016.3	116.33	5.3256	1.215
22.00	1104.7	1018.6	116.33	5.2273	1.220
22.50	1106.9	1020.8	116.33	5.1333	1.225
23.00	1109.1	1023.0	116.33	5.0435	1.230
23.50	1111.1	1025.1	116.36	4.9574	1.235
24.00	1113.1	1027.0	116.38	4.8750	1.239
24.50	1115.0	1028.9	116.38	4.7959	1.243
25.00	1116.9	1030.8	116.41	4.7200	1.247
25.50	1118.6	1032.5	116.43	4.6471	1.251
26.00	1120.3	1034.2	116.45	4.5769	1.255
26.50	1121.9	1035.8	116.48	4.5094	1.259
27.00	1123.5	1037.4	116.49	4.4444	1.262
27.50	1125.0	1038.9	116.49	4.3818	1.266
28.00	1126.4	1040.4	116.51	4.3214	1.269
28.50	1127.9	1041.8	116.53	4.2632	1.272
29.00	1129.2	1043.1	116.54	4.2069	1.275
29.50	1130.5	1044.4	116.56	4.1525	1.278
30.00	1131.8	1045.7	116.57	4.1000	1.281
30.50	1133.0	1046.9	116.59	4.0492	1.284
31.00	1134.2	1048.1	116.59	4.0000	1.286
31.50	1135.3	1049.2	116.62	3.9524	1.289
32.00	1136.4	1050.4	116.62	3.9062	1.292
32.50	1137.5	1051.5	116.64	3.8615	1.294
33.00	1138.5	1052.5	116.66	3.8182	1.296
33.50	1139.6	1053.5	116.66	3.7761	1.299
34.00	1140.5	1054.5	116.68	3.7353	1.301
34.50	1141.5	1055.4	116.69	3.6957	1.303
35.00	1142.4	1056.3	116.69	3.6571	1.305
35.50	1143.3	1057.2	116.71	3.6197	1.307
36.00	1144.1	1058.1	116.72	3.5833	1.309
36.50	1145.0	1058.9	116.73	3.5479	1.311
37.00	1145.8	1059.7	116.74	3.5135	1.313
37.50	1146.6	1060.5	116.76	3.4800	1.315
38.00	1147.4	1061.3	116.77	3.4474	1.316
38.50	1148.1	1062.1	116.77	3.4156	1.318
39.00	1148.8	1062.8	116.78	3.3846	1.320
39.50	1149.6	1063.5	116.78	3.3544	1.322
40.00	1150.2	1064.2	116.79	3.3250	1.323
40.50	1150.9	1064.8	116.82	3.2963	1.325
41.00	1151.6	1065.5	116.83	3.2683	1.326

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: NOBLE PETRO. NORTH #1 DST#3 05-21-1997

DATE: 05/21/97 TIME: 23:15:13

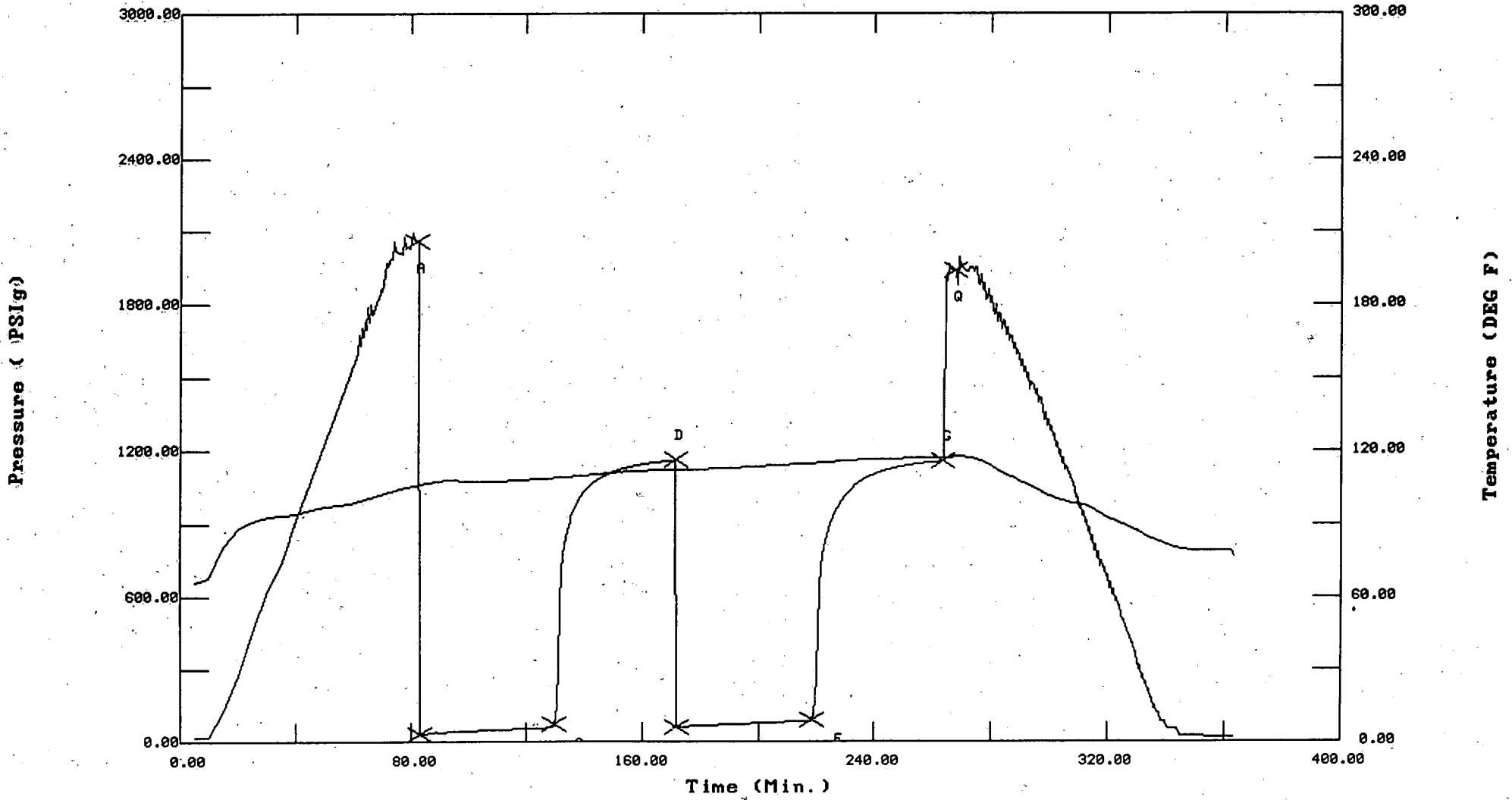
	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶	
	41.50	1152.2	1066.1	116.82	3.2410	1.328	
	42.00	1152.9	1066.8	116.82	3.2143	1.329	
	42.50	1153.5	1067.4	116.85	3.1882	1.330	
	43.00	1154.1	1068.0	116.86	3.1628	1.332	
	43.50	1154.6	1068.5	116.86	3.1379	1.333	
	44.00	1155.2	1069.1	116.87	3.1136	1.334	
	44.50	1155.7	1069.7	116.88	3.0899	1.336	
*****	End Shut-in 2	45.00	1156.3	1070.2	116.88	3.0667	1.337
*****	Final Hydro.	267.50	1940.1	0.0	117.26		

TEST HISTORY

NOBLE PETRO. NORTH #1 DST#3 05-21-1997

Flag Points

	t (Min.)	P (PSig)
R:	0.00	2057.22
B:	0.00	29.66
C:	46.50	68.72
D:	42.00	1160.42
E:	0.00	60.19
F:	46.50	86.08
G:	45.00	1156.28
Q:	0.00	1940.06



DST REPORT

GENERAL INFORMATION

DATE : 5/22/97	TICKET : 22403
CUSTOMER : NOBLE PETROLEUM INC	LEASE : NORTH
WELL : #1 TEST: 4	GEOLOGIST: ABLAH
ELEVATION: 2284 GL	FORMATION: CHEROKEE SAND
SECTION : 28	TOWNSHIP : 15S
RANGE : 20W COUNTY: ELLIS	STATE : KS
GAUGE SN#: 10270 RANGE : 4150	CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 4000.00 ft	TO: 4006.00 ft	TVD: 4006.0 ft
DEPTH OF SELECTIVE ZONE:		TEST TYPE: OIL
DEPTH OF RECORDERS: 4003.0 ft	0.0 ft	
TEMPERATURE: 116.0		

DRILL COLLAR LENGTH: 0.0 ft	I.D.:	0.000 in
WEIGHT PIPE LENGTH : 0.0 ft	I.D.:	0.000 in
DRILL PIPE LENGTH : 3973.0 ft	I.D.:	3.800 in
TEST TOOL LENGTH : 27.0 ft	TOOL SIZE :	5.500 in
ANCHOR LENGTH : 6.0 ft	ANCHOR SIZE:	5.500 in
SURFACE CHOKE SIZE : 0.750 in	BOTTOM CHOKE SIZE:	0.750 in
MAIN HOLE SIZE : 7.875 in	TOOL JOINT SIZE :	4.5XH
PACKER DEPTH: 3995.0 ft	SIZE:	6.630 in
PACKER DEPTH: 4000.0 ft	SIZE:	6.630 in
PACKER DEPTH: 0.0 ft	SIZE:	0.000 in
PACKER DEPTH: 0.0 ft	SIZE:	0.000 in

MUD INFORMATION

DRILLING CON. : DUKE DRLG RIG 4	VISCOSITY : 48.00 cp
MUD TYPE : CHEMICAL	WATER LOSS: 8.500 cc
WEIGHT : 9.400 ppg	
CHLORIDES : 4000 ppm	SERIAL NUMBER: 422
JARS-MAKE : WTC	REVERSED OUT?: NO
DID WELL FLOW?: NO	

COMMENTS

Comment

INITIAL FLOW PERIOD WEAK BUILDING TO A GOOD BLOW-
 1/2 TO 7 1/2 INCH BLOW. FINAL FLOW PERIOD WEAK
 BUILDING TO A FAIR BLOW - 1/4 TO 5 1/2 INCH BLOW.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
45.0	0.0	0.0	60.0	40.0	MUDDY WATER W/SHOW OF OIL WATER CHLORIDES 21000 PPM
120.0	0.0	0.0	100.0	0.0	

RATE INFORMATION

OIL VOLUME:	0.0000 STB	TOTAL FLOW TIME:	90.0000 min.
GAS VOLUME:	0.0000 SCF	AVERAGE OIL RATE:	0.0000 STB/D
MUD VOLUME:	0.2525 STB	AVERAGE WATER RATE:	37.0296 STB/D
WATER VOLUME:	2.0619 STB		
TOTAL FLUID :	2.3143 STB		

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2077.00

Description	Duration	p1	p End
INITIAL FLOW	45.00	52.00	72.00
INITIAL SHUT-IN	45.00		1039.00
FINAL FLOW	45.00	83.00	93.00
FINAL SHUT-IN	45.00		977.00

FINAL HYDROSTATIC PRESSURE: 1952.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2076.00

Description	Duration	p1	p End
INITIAL FLOW	45.00	64.64	69.70
INITIAL SHUT-IN	45.00		1037.16
FINAL FLOW	45.00	109.04	105.53
FINAL SHUT-IN	45.00		990.33

FINAL HYDROSTATIC PRESSURE: 1960.00

Company: NOBLE PETROLEUM INC

Well: #1 NORTH

Field: TKT 22403 DST 4

[Thursday: May. 22, 1997]

Page 1

REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)
START FLOW 1				
1	0	14:20: 9	0.0000	64.64
9	0	14:21: 6	0.0160	64.62
18	0	14:22:11	0.0340	62.86
27	0	14:23:15	0.0519	59.37
36	0	14:24:20	0.0699	57.62
45	0	14:25:25	0.0879	55.86
54	0	14:26:30	0.1059	54.98
63	0	14:27:34	0.1238	54.96
72	0	14:28:39	0.1418	54.94
81	0	14:29:44	0.1598	54.91
90	0	14:30:49	0.1778	54.89
99	0	14:31:53	0.1958	54.87
108	0	14:32:58	0.2138	54.85
117	0	14:34: 3	0.2317	54.83
126	0	14:35: 8	0.2497	55.68
135	0	14:36:12	0.2677	56.53
144	0	14:37:17	0.2857	56.51
153	0	14:38:22	0.3037	58.44
162	0	14:39:27	0.3217	59.07
171	0	14:40:31	0.3397	59.70
180	0	14:41:36	0.3577	60.33
189	0	14:42:41	0.3757	60.96
198	0	14:43:46	0.3936	61.59
207	0	14:44:50	0.4116	62.47
216	0	14:45:55	0.4296	63.35
225	0	14:47: 0	0.4476	64.23
234	0	14:48: 5	0.4656	65.11
243	0	14:49:10	0.4836	65.99
252	0	14:50:14	0.5016	66.80
261	0	14:51:19	0.5196	67.38
270	0	14:52:24	0.5376	67.96
279	0	14:53:29	0.5556	68.54
288	0	14:54:33	0.5735	69.12
297	0	14:55:38	0.5915	69.15
306	0	14:56:43	0.6095	69.70
END FLOW 1				
START SHUTIN 1				
309	0	14:57: 5	0.6156	83.89
314	0	14:57:44	0.6265	231.32
322	0	14:58:47	0.6441	497.57
330	0	14:59:47	0.6608	613.78
339	0	15: 0:53	0.6791	669.27
348	0	15: 1:59	0.6973	710.01
357	0	15: 3: 4	0.7155	741.21
366	0	15: 4:10	0.7336	767.21
375	0	15: 5:15	0.7517	788.88
384	0	15: 6:20	0.7699	808.80
393	0	15: 7:25	0.7879	824.80
402	0	15: 8:30	0.8060	840.43
411	0	15: 9:35	0.8241	855.31
420	0	15:10:40	0.8422	869.26
429	0	15:11:45	0.8602	882.05
438	0	15:12:50	0.8783	893.48
447	0	15:13:55	0.8963	903.63

WESTERN TESTING CO., INC.

Company: NOBLE PETROLEUM INC
Well: #1 NORTH
Field: TKT 22403 DST 4

[Thursday: May. 22, 1997]
Page 2

REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)
456	0	15:15: 0	0.9144	912.69
465	0	15:16: 5	0.9324	920.91
474	0	15:17:10	0.9504	928.47
483	0	15:18:15	0.9685	935.53
492	0	15:19:20	0.9865	942.17
501	0	15:20:25	1.0045	948.47
510	0	15:21:30	1.0225	954.46
519	0	15:22:35	1.0405	960.17
528	0	15:23:39	1.0586	965.64
537	0	15:24:44	1.0766	970.88
546	0	15:25:49	1.0946	975.92
555	0	15:26:54	1.1126	980.76
564	0	15:27:59	1.1306	985.42
573	0	15:29: 4	1.1486	989.93
582	0	15:30: 8	1.1666	994.30
591	0	15:31:13	1.1846	998.56
600	0	15:32:18	1.2027	1002.72
609	0	15:33:23	1.2207	1006.80
618	0	15:34:28	1.2387	1010.81
627	0	15:35:33	1.2567	1014.76
636	0	15:36:37	1.2747	1018.65
645	0	15:37:42	1.2927	1022.48
654	0	15:38:47	1.3107	1026.28
663	0	15:39:52	1.3287	1030.05
672	0	15:40:57	1.3467	1033.81
681	0	15:42: 2	1.3647	1037.16
		END SHUTIN 1		
		START FLOW 2		
689	0	15:42:39	1.3751	109.04
693	0	15:43: 8	1.3831	104.70
702	0	15:44:12	1.4010	97.74
711	0	15:45:17	1.4190	93.38
720	0	15:46:22	1.4370	90.76
729	0	15:47:26	1.4549	89.00
738	0	15:48:31	1.4729	88.12
747	0	15:49:36	1.4909	87.23
756	0	15:50:41	1.5089	87.21
765	0	15:51:45	1.5269	87.19
774	0	15:52:50	1.5448	87.17
783	0	15:53:55	1.5628	87.15
792	0	15:55: 0	1.5808	87.99
801	0	15:56: 4	1.5988	87.97
810	0	15:57: 9	1.6168	88.82
819	0	15:58:14	1.6348	88.80
828	0	15:59:19	1.6528	90.51
837	0	16: 0:23	1.6708	90.49
846	0	16: 1:28	1.6888	92.32
855	0	16: 2:33	1.7068	92.82
864	0	16: 3:38	1.7247	93.32
873	0	16: 4:42	1.7427	93.82
882	0	16: 5:47	1.7607	94.32
891	0	16: 6:52	1.7787	94.82
900	0	16: 7:57	1.7967	95.32
909	0	16: 9: 1	1.8147	96.01
918	0	16:10: 6	1.8327	96.86

WESTERN TESTING CO., INC.

Company: NOBLE PETROLEUM INC
 Well: #1 NORTH
 Field: TKT 22403 DST: 4

[Thursday: May. 22, 1997]
 Page 3

REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)
927	0	16:11:11	1.8507	97.71
936	0	16:12:16	1.8686	98.56
945	0	16:13:20	1.8866	99.40
954	0	16:14:25	1.9046	100.25
963	0	16:15:30	1.9226	100.99
972	0	16:16:35	1.9406	101.63
981	0	16:17:40	1.9586	102.28
990	0	16:18:44	1.9766	102.93
999	0	16:19:49	1.9946	103.58
1008	0	16:20:54	2.0126	104.23
1017	0	16:21:59	2.0306	104.88
1026	0	16:23: 3	2.0485	105.53
END FLOW 2				
START SHUTIN 2				
1031	0	16:23:40	2.0586	116.07
1035	0	16:24:10	2.0672	208.00
1043	0	16:25:13	2.0845	431.75
1051	0	16:26:13	2.1012	549.69
1060	0	16:27:19	2.1196	616.45
1069	0	16:28:25	2.1378	660.67
1078	0	16:29:30	2.1560	691.87
1087	0	16:30:35	2.1741	718.74
1096	0	16:31:41	2.1923	742.14
1105	0	16:32:46	2.2104	761.20
1114	0	16:33:51	2.2285	776.79
1123	0	16:34:56	2.2465	792.38
1132	0	16:36: 1	2.2646	806.24
1141	0	16:37: 6	2.2827	819.23
1150	0	16:38:11	2.3007	831.35
1159	0	16:39:16	2.3188	841.74
1168	0	16:40:21	2.3368	851.26
1177	0	16:41:26	2.3549	860.78
1186	0	16:42:31	2.3729	869.43
1195	0	16:43:36	2.3909	877.21
1204	0	16:44:41	2.4090	885.00
1213	0	16:45:46	2.4270	892.79
1222	0	16:46:51	2.4450	899.70
1231	0	16:47:55	2.4630	905.75
1240	0	16:49: 0	2.4811	911.81
1249	0	16:50: 5	2.4991	917.86
1258	0	16:51:10	2.5171	923.91
1267	0	16:52:15	2.5351	929.09
1276	0	16:53:20	2.5531	934.27
1285	0	16:54:25	2.5711	938.59
1294	0	16:55:30	2.5892	943.77
1303	0	16:56:34	2.6072	948.09
1312	0	16:57:39	2.6252	952.41
1321	0	16:58:44	2.6432	956.72
1330	0	16:59:49	2.6612	960.17
1339	0	17: 0:54	2.6792	963.62
1348	0	17: 1:59	2.6972	967.94
1357	0	17: 3: 3	2.7152	971.39
1366	0	17: 4: 8	2.7332	974.83
1375	0	17: 5:13	2.7512	978.28
1384	0	17: 6:18	2.7692	980.86

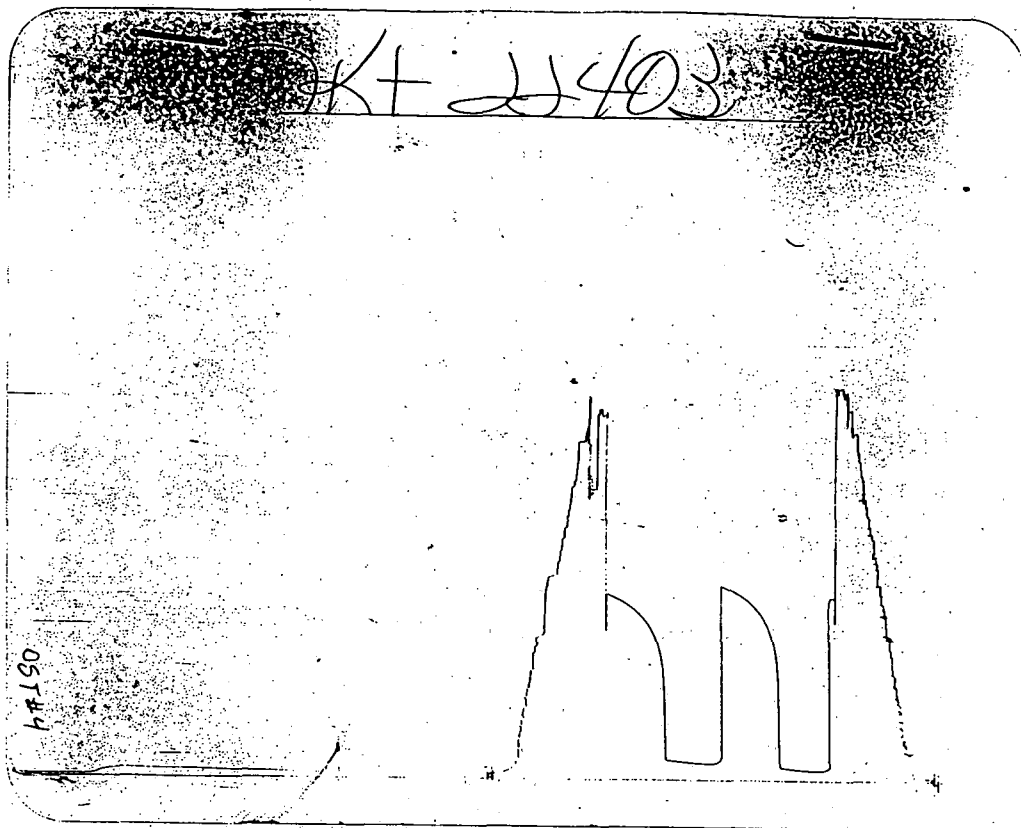
WESTERN TESTING CO., INC.

Company: NOBLE PETROLEUM INC
Well: #1 NORTH
Field: TKT 22403 DST 4

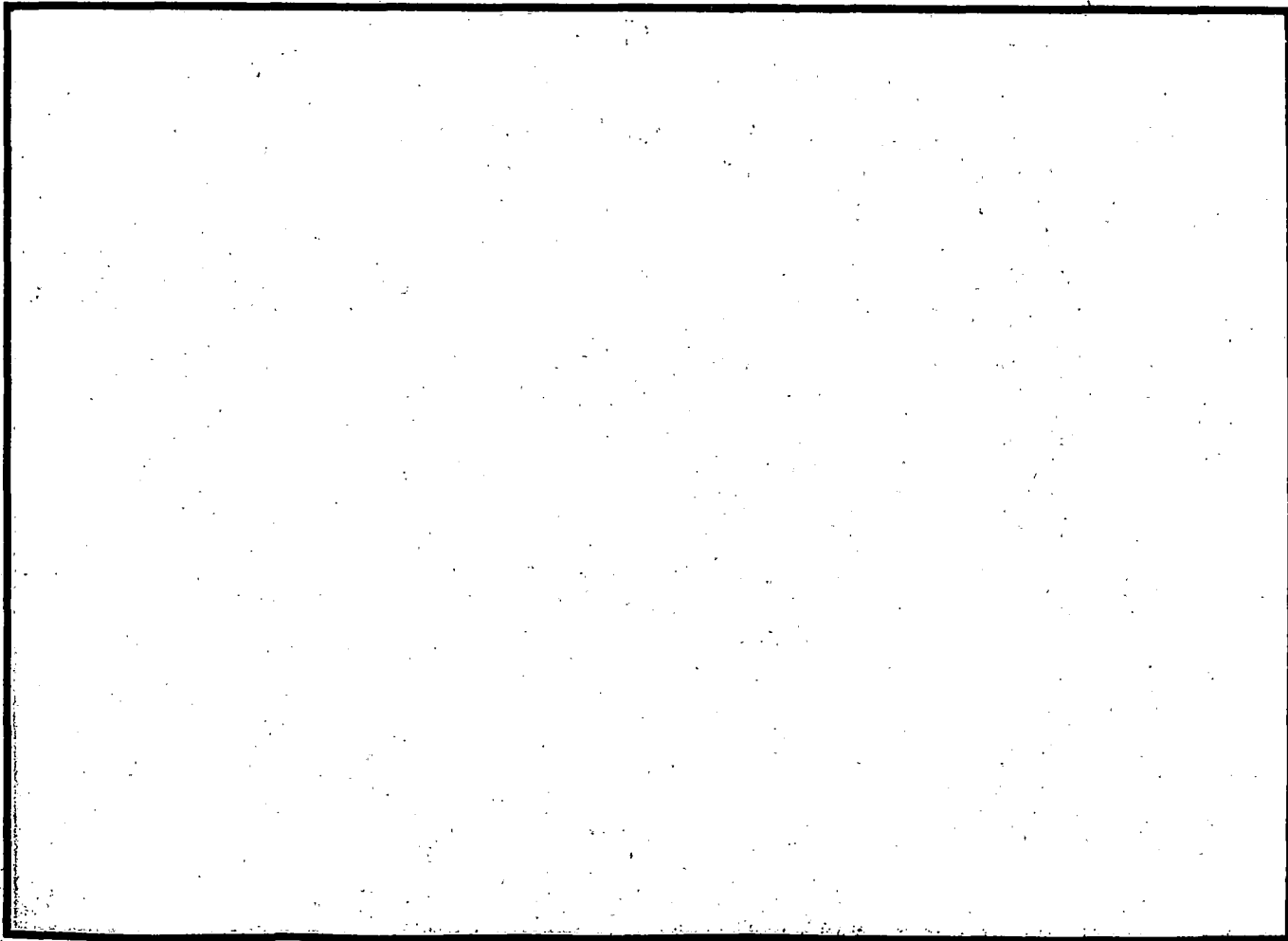
[Thursday: May. 22, 1997]
Page 4

REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)
1393	0	17: 7:23	2.7872	984.31
1402	0	17: 8:27	2.8052	987.76
1411	0	17: 9:32	2.8232	990.33

WESTERN TESTING CO., INC.



Inside Recorder



Outside Recorder