

ORIGINAL

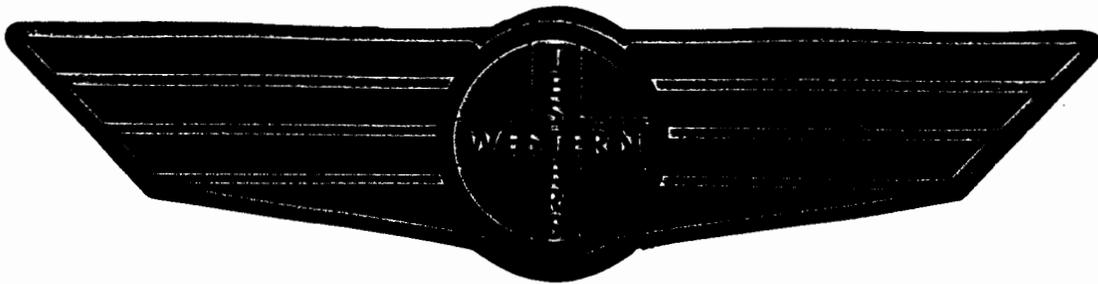
FORMATION

KCC

TEST

MAY 17 1995

REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone 1-800-688-7021

COMPANY NOBLE PETROLEUM, INC.

LEASE & WELL NO. #1 HERL TRUST

SEC. 3 TWP. 16S RGE. 18W TEST NO. 1

DATE 9/7/94

15-165-21668

DST REPORT

GENERAL INFORMATION

DATE	: 9/7/94	TICKET	: 20548
CUSTOMER	: NOBLE PETROLEUM, INC.	LEASE	: HERL TRUST
WELL	: #1	TEST:	1
ELEVATION:	1950 GL	GEOLOGIST:	HONAS
SECTION	: 3	FORMATION:	TORONTO-LANSING
RANGE	: 18W	COUNTY:	RUSH
GAUGE SN#:	10270	STATE	: KS
		RANGE	: 4150
		CLOCK	: 12

WELL INFORMATION

PERFORATION INTERVAL FROM:	3138.00 ft	TO:	3260.00 ft	TVD:	3260.0 ft
DEPTH OF SELECTIVE ZONE:				TEST TYPE:	GAS
DEPTH OF RECORDERS:	3252.0 ft		3255.0 ft		
TEMPERATURE:	103.0				
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 :	3118.0 ft	I.D.:		3.800 in	
TEST TOOL LENGTH :	20.0 ft	TOOL SIZE :		5.500 in	
ANCHOR LENGTH :	122.0 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:	3133.0 ft	SIZE:		6.630 in	
PACKER DEPTH:	3138.0 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 :	54.00 cp
MUD TYPE	: CHEMICAL	WATER LOSS:	9.600 cc
WEIGHT	: 8.900 ppg	SERIAL NUMBER:	
CHLORIDES	: 6000 ppm	REVERSED OUT?:	NO
JARS-MAKE	:		
DID WELL FLOW?:	NO		

COMMENTS

Comment

INITIAL FLOW PERIOD WEAK BLOW BUILDING TO A STRONG BLOW IN 8 MINUTES. FINAL FLOW PERIOD STRONG BLOW THROUGHOUT.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
0.0	0.0	0.0	0.0	0.0	350 FT GAS ABOVE FLUID
70.0	0.0	10.0	0.0	90.0	GAS CUT MUD

RATE INFORMATION

OIL VOLUME:	0.0000 STB	TOTAL FLOW TIME:	55.0000 min.
GAS VOLUME:	0.5513 SCF	AVERAGE OIL RATE:	0.0000 STB/D
MUD VOLUME:	0.8837 STB	AVERAGE WATER RATE:	0.0000 STB/D
WATER VOLUME:	0.0000 STB		
TOTAL FLUID :	0.8837 STB		

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1589.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	72.00	72.00
INITIAL SHUT-IN	30.00		894.00
FINAL FLOW	30.00	83.00	83.00
FINAL SHUT-IN	30.00		966.00

FINAL HYDROSTATIC PRESSURE: 1558.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1558.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	91.00	91.00
INITIAL SHUT-IN	27.00		900.00
FINAL FLOW	25.00	104.00	104.00
FINAL SHUT-IN	39.00		988.00

FINAL HYDROSTATIC PRESSURE: 1547.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 9/7/94	TICKET : 20548
CUSTOMER : NOBLE PETROLEUM, INC.	LEASE : HERL TRUST
WELL : #1 TEST: 1	GEOLOGIST: HONAS
ELEVATION: 1950 GL	FORMATION: TORONTO-LANSING
SECTION : 3	TOWNSHIP : 16S
RANGE : 18W COUNTY: RUSH	STATE : KS
GAUGE SN#: 10270 RANGE : 4150	CLOCK : 12

INITIAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	91.00	91.00
5.00	91.00	0.00
10.00	91.00	0.00
15.00	91.00	0.00
20.00	91.00	0.00
25.00	91.00	0.00
30.00	91.00	0.00

INITIAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	181.00	181.00	0.00
6.00	285.00	104.00	0.00
9.00	394.00	109.00	0.00
12.00	510.00	116.00	0.00
15.00	601.00	91.00	0.00
18.00	684.00	83.00	0.00
21.00	768.00	84.00	0.00
24.00	831.00	63.00	0.00
27.00	900.00	69.00	0.00

FINAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	104.00	104.00
5.00	104.00	0.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW (CONTINUED)

Time (min)	Pressure	Delta P
10.00	104.00	0.00
15.00	104.00	0.00
20.00	104.00	0.00
25.00	104.00	0.00

FINAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	182.00	182.00	0.00
6.00	281.00	99.00	0.00
9.00	378.00	97.00	0.00
12.00	479.00	101.00	0.00
15.00	570.00	91.00	0.00
18.00	658.00	88.00	0.00
21.00	728.00	70.00	0.00
24.00	799.00	71.00	0.00
27.00	844.00	45.00	0.00
30.00	892.00	48.00	0.00
33.00	932.00	40.00	0.00
36.00	964.00	32.00	0.00
39.00	988.00	24.00	0.00

Kit 20548

0

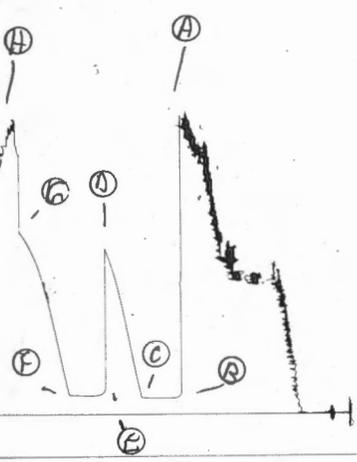
OSTA
13550



Kit 20548

I

OSTA
10270



ORIGINAL

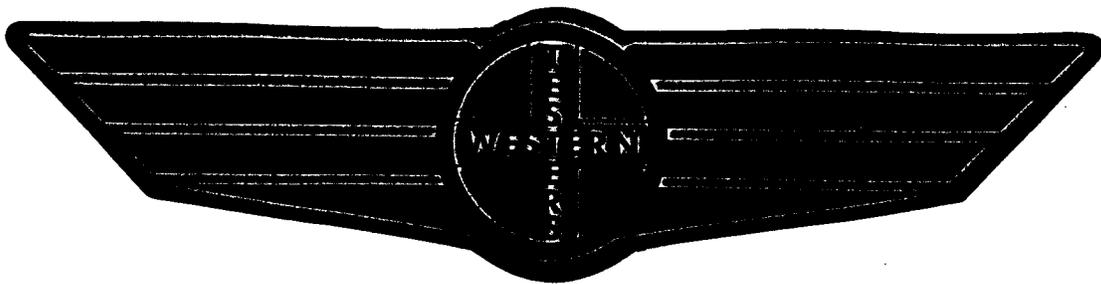
FORMATION

TEST

REPORT

KCC

MAY 17 1996



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone 1-800-688-7021

COMPANY NOBLE PETROLEUM, INC. LEASE & WELL NO. #1 HERL TRUST SFC. 3 TWP 16S RGE 18W TEST NO. 2 DATE 9/8/94

15-165-21668

DST REPORT

GENERAL INFORMATION

DATE : 9/8/94
CUSTOMER : NOBLE PETROLEUM, INC.
WELL : #1 TEST: 2
ELEVATION: 1950 GL
SECTION : 3
RANGE : 18W COUNTY: RUSH
GAUGE SN#: 10270 RANGE : 4150
TICKET : 20549
LEASE : HERL TRUST
GEOLOGIST: HONAS
FORMATION: LANSING
TOWNSHIP : 16S
STATE : KS
CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 3259.00 ft TO: 3340.00 ft TVD: 3340.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL
DEPTH OF RECORDERS: 3332.0 ft 3335.0 ft
TEMPERATURE: 102.0

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 :	3239.0 ft	I.D.:	3.800 in
TEST TOOL LENGTH :	20.0 ft	TOOL SIZE :	5.500 in
ANCHOR LENGTH :	81.0 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:	3254.0 ft	SIZE:	6.630 in
PACKER DEPTH:	3259.0 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
WEIGHT : 9.000 ppg
CHLORIDES : 6000 ppm
JARS-MAKE :
DID WELL FLOW?: NO
VISCOSITY : 50.00 cp
WATER LOSS: 9.600 cc
SERIAL NUMBER:
REVERSED OUT?: NO

COMMENTS

Comment

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

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
15.0	2.0	0.0	0.0	98.0	SLIGHTLY OIL CUT MUD

RATE INFORMATION

OIL VOLUME:	0.0042 STB	TOTAL FLOW TIME:	40.0000 min.
GAS VOLUME:	0.0000 SCF	AVERAGE OIL RATE:	7.5742 STB/D
MUD VOLUME:	0.2062 STB	AVERAGE WATER RATE:	0.0000 STB/D
WATER VOLUME:	0.0000 STB		
TOTAL FLUID :	0.2104 STB		

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1620.00

Description	Duration	p1	p End
INITIAL FLOW	20.00	72.00	72.00
INITIAL SHUT-IN	30.00		166.00
FINAL FLOW	20.00	72.00	72.00
FINAL SHUT-IN	30.00		104.00

FINAL HYDROSTATIC PRESSURE: 1620.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1629.00

Description	Duration	p1	p End
INITIAL FLOW	20.00	96.00	75.00
INITIAL SHUT-IN	33.00		169.00
FINAL FLOW	20.00	77.00	77.00
FINAL SHUT-IN	30.00		118.00

FINAL HYDROSTATIC PRESSURE: 1629.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 9/8/94	TICKET : 20549
CUSTOMER : NOBLE PETROLEUM, INC.	LEASE : HERL TRUST
WELL : #1 TEST: 2	GEOLOGIST: HONAS
ELEVATION: 1950 GL	FORMATION: LANSING
SECTION : 3	TOWNSHIP : 16S
RANGE : 18W COUNTY: RUSH	STATE : KS
GAUGE SN#: 10270 RANGE : 4150	CLOCK : 12

INITIAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	96.00	96.00
5.00	81.00	-15.00
10.00	75.00	-6.00
15.00	75.00	0.00
20.00	75.00	0.00

INITIAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	77.00	77.00	7.67
6.00	78.00	1.00	4.33
9.00	79.00	1.00	3.22
12.00	80.00	1.00	2.67
15.00	82.00	2.00	2.33
18.00	89.00	7.00	2.11
21.00	98.00	9.00	1.95
24.00	109.00	11.00	1.83
27.00	122.00	13.00	1.74
30.00	143.00	21.00	1.67
33.00	169.00	26.00	1.61

FINAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	77.00	77.00
5.00	77.00	0.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW (CONTINUED)

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
10.00	77.00	0.00
15.00	77.00	0.00
20.00	77.00	0.00

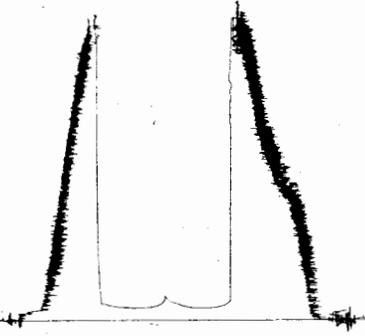
FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	78.00	78.00	7.67
6.00	79.00	1.00	4.33
9.00	80.00	1.00	3.22
12.00	82.00	2.00	2.67
15.00	84.00	2.00	2.33
18.00	89.00	5.00	2.11
21.00	93.00	4.00	1.95
24.00	99.00	6.00	1.83
27.00	106.00	7.00	1.74
30.00	118.00	12.00	1.67

KT 20549

0

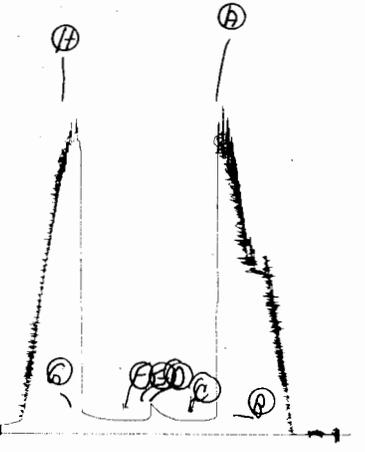
05742
13550



KT 20549

I

05742
10270



ORIGINAL

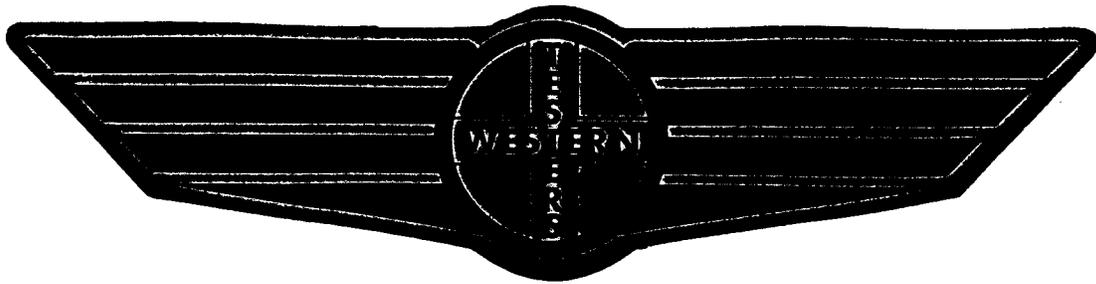
FORMATION

KCC

TEST

MAY 17 1995

REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone 1-800-688-7021

COMPANY NOBLE PETROLEUM, INC. LEASE & WELL NO. HERL TRUST #1 SEC. 3 TWP. 16S RGE. 18W TEST NO. 3 DATE 9/9/94

15-165-21668

DST REPORT

GENERAL INFORMATION

DATE : 9/9/94
CUSTOMER : NOBLE PETROLEUM, INC.
WELL : #1 TEST: 3
ELEVATION: 1950 GL
SECTION : 3
RANGE : 18W COUNTY: RUSH
GAUGE SN#: 10270 RANGE : 4150
TICKET : 20550
LEASE : HERL TRUST
GEOLOGIST: HONAS
FORMATION: CONGLOMERATE
TOWNSHIP : 16S
STATE : KS
CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 3453.00 ft TO: 3509.00 ft TVD: 3509.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: GAS
DEPTH OF RECORDERS: 3501.0 ft 3504.0 ft
TEMPERATURE: 107.0

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 :	3428.0 ft	I.D.:	3.800 in
TEST TOOL LENGTH :	25.0 ft	TOOL SIZE :	5.500 in
ANCHOR LENGTH :	56.0 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:	3448.0 ft	SIZE:	6.630 in
PACKER DEPTH:	3453.0 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
WEIGHT : 8.800 ppg
CHLORIDES : 6000 ppm
JARS-MAKE : WTC
DID WELL FLOW?: YES
VISCOSITY : 50.00 cp
WATER LOSS: 9.200 cc
SERIAL NUMBER: 422
REVERSED OUT?: NO

COMMENTS

Comment

INITIAL FLOW PERIOD STRONG BLOW - GAS TO SURFACE
IN 2 MINUTES.
FINAL FLOW PERIOD GAS TO SURFACE.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	%	%	%	%	Comments
Oil	Gas	Water	Mud		
70.0	0.0	0.0	0.0	100.0	MUD

RATE INFORMATION

OIL VOLUME: 0.0000 STB		TOTAL FLOW TIME: 25.0000 min.	
GAS VOLUME: 0.0000 SCF		AVERAGE OIL RATE: 0.0000 STB/D	
MUD VOLUME: 0.9818 STB		AVERAGE WATER RATE: 0.0000 STB/D	
WATER VOLUME: 0.0000 STB			
TOTAL FLUID : 0.9818 STB			

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1807.00

Description	Duration	p1	p End
INITIAL FLOW	15.00	1070.00	1070.00
INITIAL SHUT-IN	45.00		1184.00
FINAL FLOW	15.00	1112.00	1101.00
FINAL SHUT-IN	45.00		1174.00

FINAL HYDROSTATIC PRESSURE: 1724.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1821.00

Description	Duration	p1	p End
INITIAL FLOW	15.00	1073.00	1066.00
INITIAL SHUT-IN	45.00		1188.00
FINAL FLOW	10.00	1130.00	1108.00
FINAL SHUT-IN	48.00		1185.00

FINAL HYDROSTATIC PRESSURE: 1752.00

GAS FLOW REPORT

GENERAL INFORMATION

DATE : 9/9/94	TICKET : 20550
CUSTOMER : NOBLE PETROLEUM, INC.	LEASE : HERL TRUST
WELL : #1 TEST: 3	GEOLOGIST: HONAS
ELEVATION: 1950 GL	FORMATION: CONGLOMERATE
SECTION : 3	TOWNSHIP : 16S
RANGE : 18W COUNTY: RUSH	STATE : KS
GAUGE SN#: 10270 RANGE : 4150	CLOCK : 12

PRE FLOW

Time Guage (min)	Tester Type	Orifice Size	Pressure	Flow Desc.
---------------------	----------------	-----------------	----------	------------

SECOND FLOW

Time Guage (min)	Tester Type	Orifice Size	Pressure	Flow Desc.
3 MIN	MERLA	1.500	35 PSIG	2858000 SCF/D
8 MIN	MERLA	1.500	55 PSIG	4051000 SCF/D

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 9/9/94	TICKET : 20550
CUSTOMER : NOBLE PETROLEUM, INC.	LEASE : HERL TRUST
WELL : #1 TEST: 3	GEOLOGIST: HONAS
ELEVATION: 1950 GL	FORMATION: CONGLOMERATE
SECTION : 3	TOWNSHIP : 16S
RANGE : 18W COUNTY: RUSH	STATE : KS
GAUGE SN#: 10270 RANGE : 4150	CLOCK : 12

INITIAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	1073.00	1073.00
5.00	1062.00	-11.00
10.00	1066.00	4.00
15.00	1066.00	0.00

INITIAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	1166.00	1166.00	6.00
6.00	1177.00	11.00	3.50
9.00	1184.00	7.00	2.67
12.00	1185.00	1.00	2.25
15.00	1186.00	1.00	2.00
18.00	1186.00	0.00	1.83
21.00	1186.00	0.00	1.71
24.00	1186.00	0.00	1.63
27.00	1186.00	0.00	1.56
30.00	1186.00	0.00	1.50
33.00	1187.00	1.00	1.45
36.00	1187.00	0.00	1.42
39.00	1188.00	1.00	1.38
42.00	1188.00	0.00	1.36
45.00	1188.00	0.00	1.33

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW

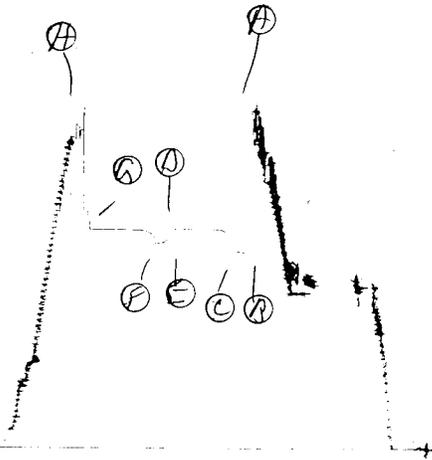
<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	1130.00	1130.00
5.00	1111.00	-19.00
10.00	1108.00	-3.00

FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	1165.00	1165.00	4.33
6.00	1173.00	8.00	2.67
9.00	1178.00	5.00	2.11
12.00	1182.00	4.00	1.83
15.00	1182.00	0.00	1.67
18.00	1183.00	1.00	1.56
21.00	1183.00	0.00	1.48
24.00	1184.00	1.00	1.42
27.00	1184.00	0.00	1.37
30.00	1184.00	0.00	1.33
33.00	1185.00	1.00	1.30
36.00	1185.00	0.00	1.28
39.00	1185.00	0.00	1.26
42.00	1185.00	0.00	1.24
45.00	1185.00	0.00	1.22
48.00	1185.00	0.00	1.21

KT 20550

I



03743 }
10270

KT 20550

0



05743 }
13550

FORMATION

ORIGINAL

TEST

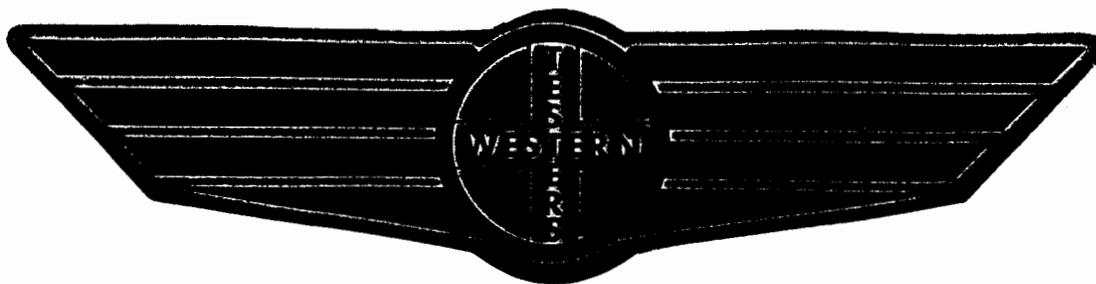
KCC

REPORT

MAY 17 1996

COMPANY NOBLE PETROLEUM, INC. LEASE & WELL NO. #1 HERL TRUST SEC. 3 TWP. 16S RGE. 18W TEST NO. 4 DATE 9/9/94

15-165-21668



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone 1-800-688-7021

DST REPORT

GENERAL INFORMATION

DATE : 9/9/94
CUSTOMER : NOBLE PETROLEUM, INC.
WELL : #1 TEST: 4
ELEVATION: 1950 GL
SECTION : 3
RANGE : 18W COUNTY: RUSH
GAUGE SN#: 13550 RANGE : 4175
TICKET : 20926
LEASE : HERL TRUST
GEOLOGIST: HONAS
FORMATION: CONGLOMERATE
TOWNSHIP : 16S
STATE : KS
CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 3453.00 ft TO: 3517.00 ft TVD: 3517.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: GAS
DEPTH OF RECORDERS: 3509.0 ft 3512.0 ft
TEMPERATURE: 106.0
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 : 3428.0 ft I.D.: 3.800 in
TEST TOOL LENGTH : 25.0 ft TOOL SIZE : 5.500 in
ANCHOR LENGTH : 64.0 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: 3448.0 ft SIZE: 6.630 in
PACKER DEPTH: 3453.0 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 : 47.00 cp
WEIGHT : 9.100 ppg WATER LOSS: 10.500 cc
CHLORIDES : 4500 ppm
JARS-MAKE : WTC SERIAL NUMBER: 422
DID WELL FLOW?: YES REVERSED OUT?: NO

COMMENTS

Comment

INITIAL FLOW PERIOD STRONG BLOW - GAS TO SURFACE
IN 1 MINUTE-30 SECONDS. FINAL FLOW PERIOD GAS TO
SURFACE.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
50.0	0.0	0.0	0.0	100.0	MUD

RATE INFORMATION

OIL VOLUME:	0.0000	STB	TOTAL FLOW TIME:	30.0000	min.
GAS VOLUME:	0.0000	SCF	AVERAGE OIL RATE:	0.0000	STB/D
MUD VOLUME:	0.7013	STB	AVERAGE WATER RATE:	0.0000	STB/D
WATER VOLUME:	0.0000	STB			
TOTAL FLUID :	0.7013	STB			

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1706.00

Description	Duration	p1	p End
INITIAL FLOW	15.00	1092.00	1092.00
INITIAL SHUT-IN	30.00		1186.00
FINAL FLOW	15.00	1165.00	1144.00
FINAL SHUT-IN	30.00		1175.00

FINAL HYDROSTATIC PRESSURE: 1686.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1713.00

Description	Duration	p1	p End
INITIAL FLOW	15.00	1100.00	1100.00
INITIAL SHUT-IN	30.00		1182.00
FINAL FLOW	15.00	1168.00	1165.00
FINAL SHUT-IN	30.00		1183.00

FINAL HYDROSTATIC PRESSURE: 1686.00

GAS FLOW REPORT

GENERAL INFORMATION

DATE : 9/9/94 CUSTOMER : NOBLE PETROLEUM, INC. WELL : #1 ELEVATION: 1950 GL SECTION : 3 RANGE : 18W GAUGE SN#: 13550	TEST: 4	TICKET : 20926 LEASE : HERL TRUST GEOLOGIST: HONAS FORMATION: CONGLOMERATE TOWNSHIP : 16S STATE : KS CLOCK : 12
COUNTY: RUSH RANGE : 4175		

PRE FLOW

Time Guage (min)	Tester Type	Orifice Size	Pressure	Flow Desc.
5 MIN	MERLA	1.500	35 PSIG	2858000 SCF/D
10 MIN	MERLA	1.500	60 PSIG	4349000 SCF/D
15 MIN	MERLA	1.500	65 PSIG	4647000 SCF/D

SECOND FLOW

Time Guage (min)	Tester Type	Orifice Size	Pressure	Flow Desc.
5 MIN	MERLA	1.500	58 PSIG	4230000 SCF/D
10 MIN	MERLA	1.500	65 PSIG	4647000 SCF/D
15 MIN	MERLA	1.500	70 PSIG	4946000 SCF/D

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 9/9/94	TICKET : 20926
CUSTOMER : NOBLE PETROLEUM, INC.	LEASE : HERL TRUST
WELL : #1 TEST: 4	GEOLOGIST: HONAS
ELEVATION: 1950 GL	FORMATION: CONGLOMERATE
SECTION : 3	TOWNSHIP : 16S
RANGE : 18W COUNTY: RUSH	STATE : KS
GAUGE SN#: 13550 RANGE : 4175	CLOCK : 12

INITIAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	1100.00	1100.00
5.00	1100.00	0.00
10.00	1100.00	0.00
15.00	1100.00	0.00

INITIAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	1146.00	1146.00	6.00
6.00	1162.00	16.00	3.50
9.00	1171.00	9.00	2.67
12.00	1174.00	3.00	2.25
15.00	1179.00	5.00	2.00
18.00	1181.00	2.00	1.83
21.00	1182.00	1.00	1.71
24.00	1182.00	0.00	1.63
27.00	1182.00	0.00	1.56
30.00	1182.00	0.00	1.50

FINAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	1168.00	1168.00
5.00	1167.00	-1.00
10.00	1162.00	-5.00
15.00	1165.00	3.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	1174.00	1174.00	6.00
6.00	1176.00	2.00	3.50
9.00	1178.00	2.00	2.67
12.00	1180.00	2.00	2.25
15.00	1182.00	2.00	2.00
18.00	1182.00	0.00	1.83
21.00	1183.00	1.00	1.71
24.00	1183.00	0.00	1.63
27.00	1183.00	0.00	1.56
30.00	1183.00	0.00	1.50

KT 20956

I

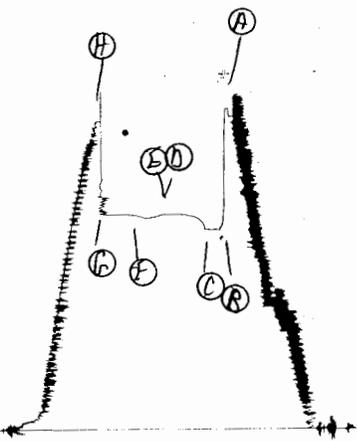
10328
OST#4



KT 20956

0

13550
OST#4



FORMATION

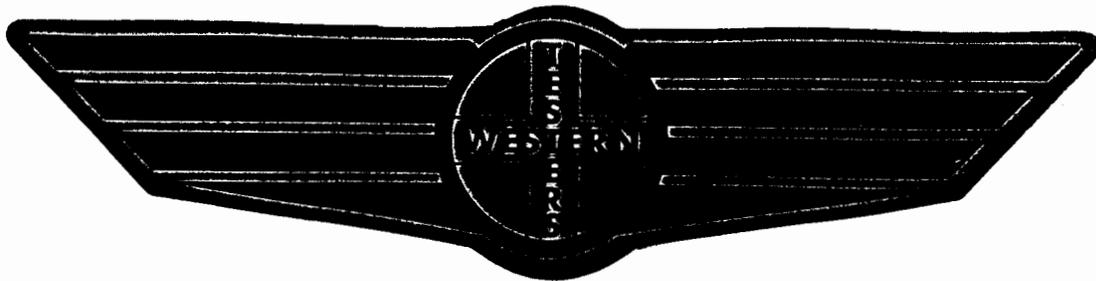
TEST

REPORT

ORIGINAL

KCC

MAY 17 1996



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone 1-800-688-7021

COMPANY NOBLE PETROLEUM, INC.

LEASE & WELL NO. #1 HERT TRUST

SFC. 3 TWP. 16SRGE. 18W TEST NO.

5 DATE 9/9/94

15-165-21668

DST REPORT

GENERAL INFORMATION

DATE	: 9/9/94	TICKET	: 20927
CUSTOMER	: NOBLE PETROLEUM, INC.	LEASE	: HERL TRUST
WELL	: #1	TEST: 5	GEOLOGIST: HONAS
ELEVATION:	1950 GL	FORMATION:	CONGLOMERATE
SECTION	: 3	TOWNSHIP	: 16S
RANGE	: 18W	COUNTY:	RUSH
GAUGE SN#:	10270	RANGE	: 4150
		STATE	: KS
		CLOCK	: 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 3520.00 ft TO: 3531.00 ft TVD: 3531.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL
DEPTH OF RECORDERS: 3523.0 ft 3526.0 ft
TEMPERATURE: 108.0

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 :	3495.0 ft	I.D.:	3.800 in
TEST TOOL LENGTH :	25.0 ft	TOOL SIZE :	5.500 in
ANCHOR LENGTH :	11.0 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:	3515.0 ft	SIZE:	6.630 in
PACKER DEPTH:	3520.0 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 :	47.00 cp
MUD TYPE :	CHEMICAL	WATER LOSS:	10.500 cc
WEIGHT :	9.100 ppg	SERIAL NUMBER:	422
CHLORIDES :	4500 ppm	REVERSED OUT?:	NO
JARS-MAKE :	WTC		
DID WELL FLOW?:	YES		

COMMENTS

Comment

INITIAL FLOW PERIOD WEAK BUILDING TO A STRONG BLOW
IN 10 MINUTES. FINAL FLOW PERIOD STRONG BLOW
THROUGHOUT.

DST REPORT (CONTINUED)

COMMENTS (CONTINUED)

Comment

GAS TO SURFACE 5 MINUTES INTO FINAL SHUT-IN

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
40.0	10.0	10.0	48.0	32.0	OIL & GAS CUT MUDDY WATER
240.0	3.0	0.0	97.0	0.0	SLIGHTLY OIL CUT WATER
0.0	0.0	0.0	0.0	0.0	CHLORIDES 28000 PPM

RATE INFORMATION

OIL VOLUME:	0.1571 STB	TOTAL FLOW TIME:	75.0000 min.
GAS VOLUME:	0.3150 SCF	AVERAGE OIL RATE:	3.6106 STB/D
MUD VOLUME:	0.1795 STB	AVERAGE WATER RATE:	70.7179 STB/D
WATER VOLUME:	3.5346 STB		
TOTAL FLUID :	3.8713 STB		

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1744.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	42.00	72.00
INITIAL SHUT-IN	45.00		1174.00
FINAL FLOW	45.00	93.00	135.00
FINAL SHUT-IN	45.00		1174.00

FINAL HYDROSTATIC PRESSURE: 1713.00

DST REPORT (CONTINUED)

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1809.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	62.00	80.00
INITIAL SHUT-IN	45.00		1173.00
FINAL FLOW	45.00	116.00	142.00
FINAL SHUT-IN	48.00		1182.00

FINAL HYDROSTATIC PRESSURE: 1722.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 9/9/94	TICKET : 20927
CUSTOMER : NOBLE PETROLEUM, INC.	LEASE : HERL TRUST
WELL : #1	GEOLOGIST: HONAS
ELEVATION: 1950 GL	FORMATION: CONGLOMERATE
SECTION : 3	TOWNSHIP : 16S
RANGE : 18W	COUNTY: RUSH
GAUGE SN#: 10270	RANGE : 4150
	STATE : KS
	CLOCK : 12

INITIAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	62.00	62.00
5.00	62.00	0.00
10.00	63.00	1.00
15.00	65.00	2.00
20.00	70.00	5.00
25.00	76.00	6.00
30.00	80.00	4.00

INITIAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	565.00	565.00	11.00
6.00	740.00	175.00	6.00
9.00	831.00	91.00	4.33
12.00	892.00	61.00	3.50
15.00	941.00	49.00	3.00
18.00	989.00	48.00	2.67
21.00	1037.00	48.00	2.43
24.00	1076.00	39.00	2.25
27.00	1107.00	31.00	2.11
30.00	1131.00	24.00	2.00
33.00	1145.00	14.00	1.91
36.00	1157.00	12.00	1.83
39.00	1164.00	7.00	1.77
42.00	1169.00	5.00	1.71
45.00	1173.00	4.00	1.67

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW

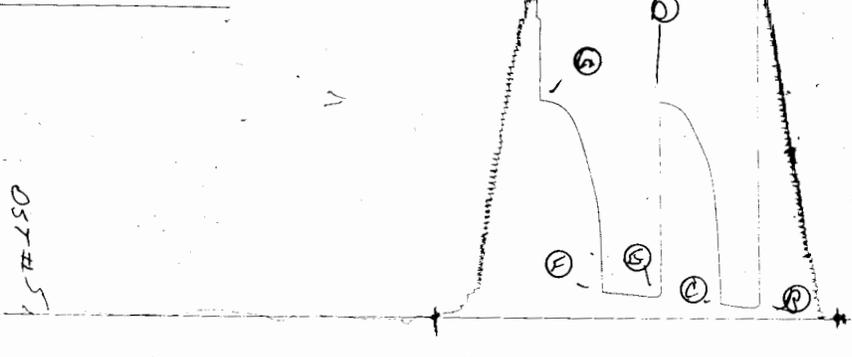
<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	116.00	116.00
5.00	116.00	0.00
10.00	118.00	2.00
15.00	123.00	5.00
20.00	126.00	3.00
25.00	129.00	3.00
30.00	132.00	3.00
35.00	135.00	3.00
40.00	138.00	3.00
45.00	142.00	4.00

FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	553.00	553.00	16.00
6.00	676.00	123.00	8.50
9.00	766.00	90.00	6.00
12.00	842.00	76.00	4.75
15.00	918.00	76.00	4.00
18.00	988.00	70.00	3.50
21.00	1041.00	53.00	3.14
24.00	1082.00	41.00	2.88
27.00	1114.00	32.00	2.67
30.00	1138.00	24.00	2.50
33.00	1155.00	17.00	2.36
36.00	1163.00	8.00	2.25
39.00	1169.00	6.00	2.15
42.00	1173.00	4.00	2.07
45.00	1177.00	4.00	2.00
48.00	1182.00	5.00	1.94

KT 20927

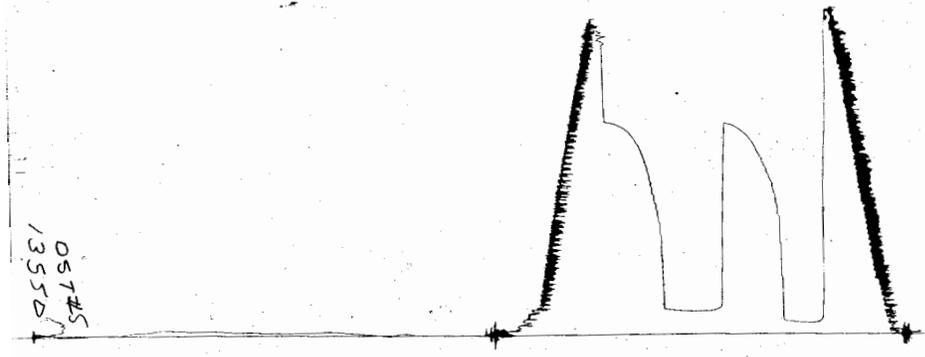
I



OST #5

KT 20927

O



OST #5
1355

ORIGINAL

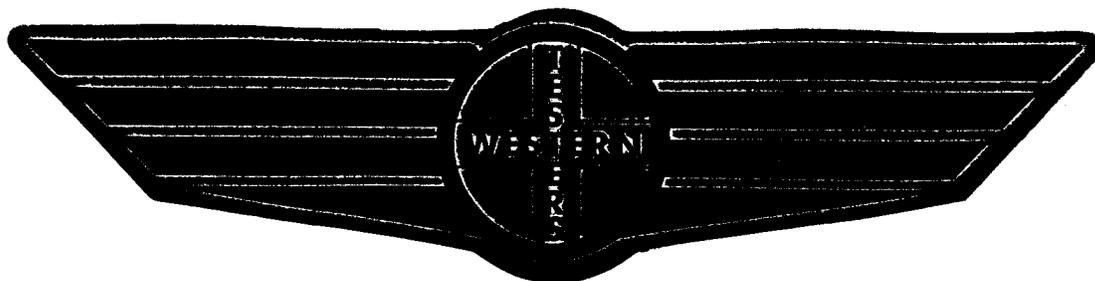
FORMATION

TEST

KCC

MAY 17 1995

REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone 1-800-688-7021

COMPANY NOBLE PETROLEUM, INC. LEASE & WELL NO. #1 HERL TRUST SEC. 3 TWP. 16S RGE. 18W TEST NO. 6 DATE 9/10/94

15-165-21668

DST REPORT

GENERAL INFORMATION

DATE	: 9/10/94	TICKET	: 20928
CUSTOMER	: NOBLE PETROLEUM, INC.	LEASE	: HERL TRUST
WELL	: #1	TEST: 6	GEOLOGIST: HONAS
ELEVATION	: 1950 GL	FORMATION	: ARBUCKLE
SECTION	: 3	TOWNSHIP	: 16S
RANGE	: 18W	COUNTY: RUSH	STATE : KS
GAUGE SN#	: 10270	RANGE : 4150	CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM:	3535.00 ft	TO:	3545.00 ft	TVD:	3545.0 ft
DEPTH OF SELECTIVE ZONE:				TEST TYPE:	OIL
DEPTH OF RECORDERS:	3539.0 ft		3542.0 ft		
TEMPERATURE:	108.0				
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 :	3510.0 ft	I.D.:		3.800 in	
TEST TOOL LENGTH :	25.0 ft	TOOL SIZE :		5.500 in	
ANCHOR LENGTH :	10.0 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:	3530.0 ft	SIZE:		6.630 in	
PACKER DEPTH:	3535.0 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 :	50.00 cp
MUD TYPE :	CHEMICAL	WATER LOSS:	9.200 cc
WEIGHT :	8.800 ppg	SERIAL NUMBER:	422
CHLORIDES :	4500 ppm	REVERSED OUT?:	NO
JARS-MAKE :	WTC		
DID WELL FLOW?:	NO		

COMMENTS

Comment

INITIAL FLOW PERIOD WEAK BUILDING TO A GOOD BLOW -
1/2 TO 8 INCH BLOW. FINAL FLOW PERIOD WEAK
BUILDING TO A FAIR BLOW - 1/2 TO 5 1/2 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	150 FT GAS ABOVE FLUID
30.0	0.0	0.0	60.0	40.0	MUDDY WATER
180.0	0.0	0.0	100.0	0.0	WATER
0.0	0.0	0.0	0.0	0.0	CHLORIDES 27000 PPM

RATE INFORMATION

OIL VOLUME:	0.0000 STB	TOTAL FLOW TIME:	80.0000 min.
GAS VOLUME:	0.0000 SCF	AVERAGE OIL RATE:	0.0000 STB/D
MUD VOLUME:	0.1683 STB	AVERAGE WATER RATE:	53.0196 STB/D
WATER VOLUME:	2.7772 STB		
TOTAL FLUID :	2.9455 STB		

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1744.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	41.00	52.00
INITIAL SHUT-IN	45.00		1153.00
FINAL FLOW	45.00	93.00	114.00
FINAL SHUT-IN	45.00		1143.00

FINAL HYDROSTATIC PRESSURE: 1734.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1742.00

Description	Duration	p1	p End
INITIAL FLOW	35.00	44.00	57.00
INITIAL SHUT-IN	45.00		1151.00
FINAL FLOW	45.00	93.00	113.00
FINAL SHUT-IN	45.00		1143.00

FINAL HYDROSTATIC PRESSURE: 1740.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 9/10/94	TICKET : 20928
CUSTOMER : NOBLE PETROLEUM, INC.	LEASE : HERL TRUST
WELL : #1 TEST: 6	GEOLOGIST: HONAS
ELEVATION: 1950 GL	FORMATION: ARBUCKLE
SECTION : 3	TOWNSHIP : 16S
RANGE : 18W COUNTY: RUSH	STATE : KS
GAUGE SN#: 10270 RANGE : 4150	CLOCK : 12

INITIAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	44.00	44.00
5.00	44.00	0.00
10.00	44.00	0.00
15.00	44.00	0.00
20.00	47.00	3.00
25.00	50.00	3.00
30.00	53.00	3.00
35.00	57.00	4.00

INITIAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	446.00	446.00	0.00
6.00	736.00	290.00	0.00
9.00	909.00	173.00	0.00
12.00	990.00	81.00	0.00
15.00	1034.00	44.00	0.00
18.00	1060.00	26.00	0.00
21.00	1079.00	19.00	0.00
24.00	1097.00	18.00	0.00
27.00	1109.00	12.00	0.00
30.00	1118.00	9.00	0.00
33.00	1128.00	10.00	0.00
36.00	1134.00	6.00	0.00
39.00	1141.00	7.00	0.00
42.00	1147.00	6.00	0.00
45.00	1151.00	4.00	0.00

ORIGINAL

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	93.00	93.00
5.00	93.00	0.00
10.00	93.00	0.00
15.00	94.00	1.00
20.00	96.00	2.00
25.00	98.00	2.00
30.00	100.00	2.00
35.00	103.00	3.00
40.00	108.00	5.00
45.00	113.00	5.00

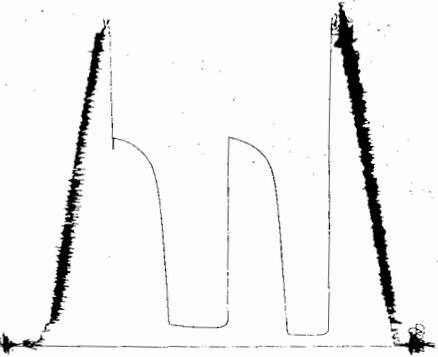
FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	472.00	472.00	0.00
6.00	762.00	290.00	0.00
9.00	888.00	126.00	0.00
12.00	977.00	89.00	0.00
15.00	1017.00	40.00	0.00
18.00	1050.00	33.00	0.00
21.00	1071.00	21.00	0.00
24.00	1086.00	15.00	0.00
27.00	1099.00	13.00	0.00
30.00	1108.00	9.00	0.00
33.00	1116.00	8.00	0.00
36.00	1124.00	8.00	0.00
39.00	1131.00	7.00	0.00
42.00	1137.00	6.00	0.00
45.00	1143.00	6.00	0.00

KT 20918

0

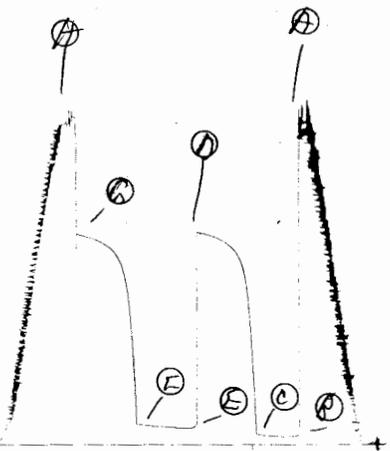
O5T #4
13550



KT 20918

I

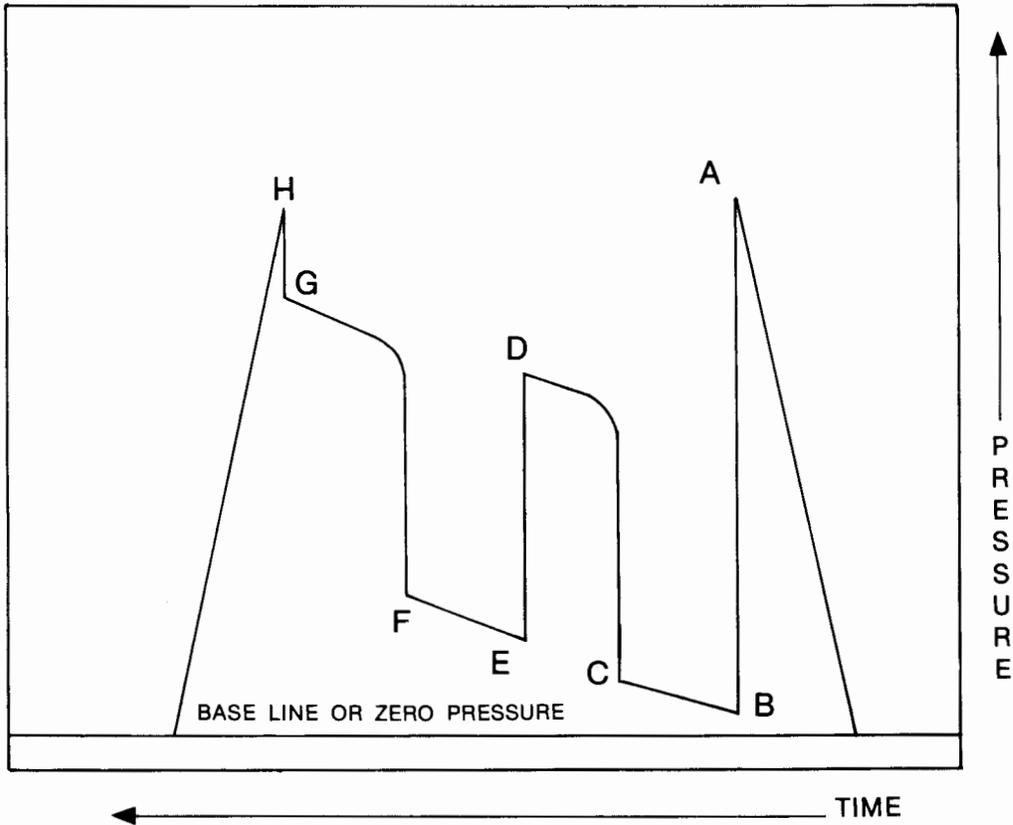
O5T #4
10270



COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained directly or indirectly through the use of its equipment, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.

AK-1 Recorders



A - Initial Hydrostatic

B - First Initial Flow

C - First Final Flow

D - Initial Shut-In

E - Second Initial Flow

F - Second Final Flow

G - Final Shut-In

H - Final Hydrostatic

Four Point Delivery Plot

HERL TRUST # 1

420-33

