

ORIGINAL

FORMATION

TEST

REPORT

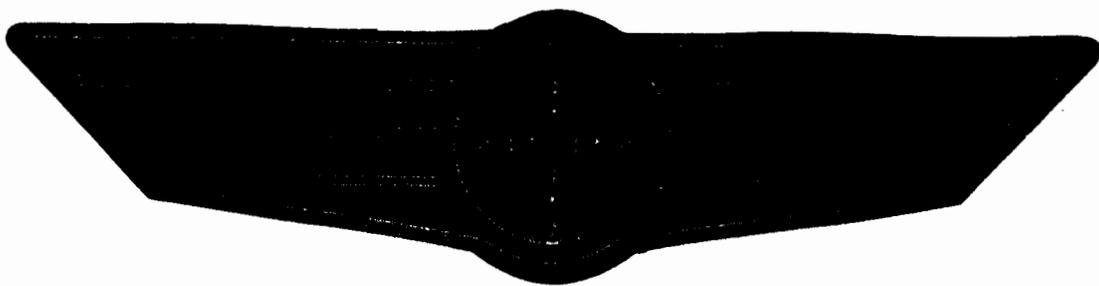
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MAY 30 1996

COMPANY NOBLE PETROLEUM
15-051-24897

LEASE & WELL NO. #1 GRABBE

SEC. 3 TWP. 16S RGE. 18W TEST NO. 1 DATE 2/12/94



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone 1-800-688-7021

DST REPORT

GENERAL INFORMATION

DATE : 2/12/94
CUSTOMER : NOBLE PETROLEUM
WELL : #1 TEST: 1
ELEVATION: 1952 KB
SECTION : 3
RANGE : 18W COUNTY: RUSH
GAUGE SN#: 11018 RANGE : 4425
TICKET : 20217
LEASE : GRABBE
GEOLOGIST: HONAS
FORMATION: L KANSAS CITY
TOWNSHIP : 16S
STATE : KS
CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 3174.00 ft TO: 3265.00 ft TVD: 3265.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL
DEPTH OF RECORDERS: 3177.0 ft 3262.0 ft
TEMPERATURE: 100.0
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 : 3154.0 ft I.D.: 3.800 in
TEST TOOL LENGTH : 20.0 ft TOOL SIZE : 5.500 in
ANCHOR LENGTH : 91.0 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: 3169.0 ft SIZE: 6.630 in
PACKER DEPTH: 3174.0 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 RIG 4
MUD TYPE : CHEMICAL VISCOSITY : 51.00 cp
WEIGHT : 9.000 ppg WATER LOSS: 9.600 cc
CHLORIDES : 4000 ppm
JARS-MAKE :
DID WELL FLOW?: NO SERIAL NUMBER:
REVERSED OUT?: NO

COMMENTS

Comment

INITIAL FLOW PERIOD WEAK BLOW - DEAD IN 15
MINUTES. FINAL FLOW PERIOD NO BLOW.

DST REPORT (CONTINUED)

FLUID RECOVERY

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

RATE INFORMATION

OIL VOLUME:	0.0000	STB	TOTAL FLOW TIME:	55.0000	min.
GAS VOLUME:	0.0000	SCF	AVERAGE OIL RATE:	0.0000	STB/D
MUD VOLUME:	0.2104	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: 1566.00

Description	Duration	p1	p End
INITIAL FLOW	20.00	22.00	24.00
INITIAL SHUT-IN	30.00		460.00
FINAL FLOW	20.00	28.00	28.00
FINAL SHUT-IN	30.00		186.00

FINAL HYDROSTATIC PRESSURE: 1548.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1577.00

Description	Duration	p1	p End
INITIAL FLOW	25.00	41.00	33.00
INITIAL SHUT-IN	24.00		479.00
FINAL FLOW	30.00	44.00	39.00
FINAL SHUT-IN	21.00		198.00

FINAL HYDROSTATIC PRESSURE: 1570.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 2/12/94	TICKET : 20217
CUSTOMER : NOBLE PETROLEUM	LEASE : GRABBE
WELL : #1	TEST: 1
ELEVATION: 1952 KB	GEOLOGIST: HONAS
SECTION : 3	FORMATION: L KANSAS CITY
RANGE : 18W	TOWNSHIP : 16S
COUNTY: RUSH	STATE : KS
GAUGE SN#: 11018	RANGE : 4425
	CLOCK : 12

INITIAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	41.00	41.00
5.00	41.00	0.00
10.00	36.00	-5.00
15.00	33.00	-3.00
20.00	33.00	0.00
25.00	33.00	0.00

INITIAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	46.00	46.00	0.00
6.00	73.00	27.00	0.00
9.00	130.00	57.00	0.00
12.00	209.00	79.00	0.00
15.00	276.00	67.00	0.00
18.00	360.00	84.00	0.00
21.00	419.00	59.00	0.00
24.00	479.00	60.00	0.00

FINAL 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	39.00	-5.00
15.00	39.00	0.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW (CONTINUED)

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
20.00	39.00	0.00
25.00	39.00	0.00
30.00	39.00	0.00

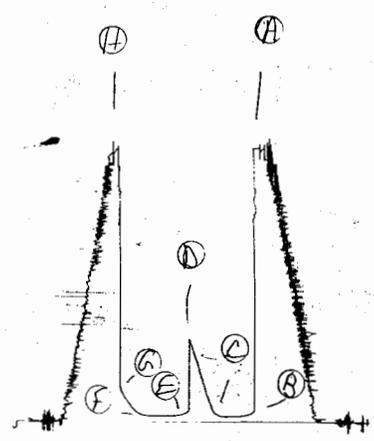
FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	40.00	40.00	0.00
6.00	46.00	6.00	0.00
9.00	58.00	12.00	0.00
12.00	81.00	23.00	0.00
15.00	107.00	26.00	0.00
18.00	140.00	33.00	0.00
21.00	198.00	58.00	0.00

DST#1 RBC #11018 INSIDE

Kit 20217

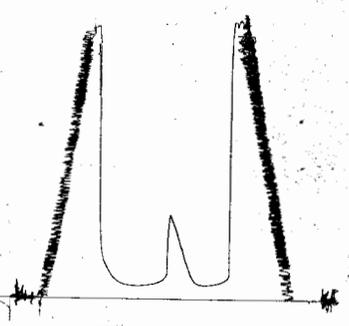
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DST#1 RBC #13629 OUTSIDE

Kit 20217

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FORMATION

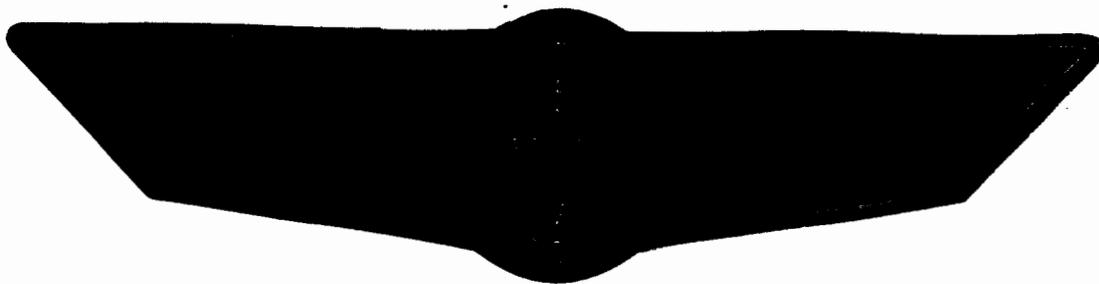
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REPORT

ORIGINAL

KCC

MAY 30 1996



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COMPANY NOBLE PETROLEUM

15-051-2489/

LEASE & WELL NO. #1 GRABBE

SEC. 3

TWP. 16S RGE. 18W TEST NO. 2

DATE 2/13/94

DST REPORT

GENERAL INFORMATION

DATE : 2/13/94
CUSTOMER : NOBLE PETROLEUM
WELL : #1 TEST: 2
ELEVATION: 1952 KB
SECTION : 3
RANGE : 18W COUNTY: RUSH
GAUGE SN#: 11018 RANGE : 4425
TICKET : 20218
LEASE : GRABBE
GEOLOGIST: HONAS
FORMATION: L KANSAS CITY
TOWNSHIP : 16S
STATE : KS
CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 3263.00 ft TO: 3367.00 ft TVD: 3367.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL
DEPTH OF RECORDERS: 3266.0 ft 3364.0 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 : 3243.0 ft I.D.: 3.800 in
TEST TOOL LENGTH : 20.0 ft TOOL SIZE : 5.500 in
ANCHOR LENGTH : 104.0 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: 3258.0 ft SIZE: 6.630 in
PACKER DEPTH: 3263.0 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 RIG 4
MUD TYPE : CHEMICAL VISCOSITY : 51.00 cp
WEIGHT : 9.000 ppq WATER LOSS: 10.000 cc
CHLORIDES : 4000 ppm
JARS-MAKE :
DID WELL FLOW?: NO SERIAL NUMBER:
REVERSED OUT?: NO

COMMENTS

Comment

INITIAL FLOW PERIOD WEAK BLOW - DEAD IN 8 MINUTES.
FINAL FLOW PERIOD NO BLOW - FLUSHED TOOL -
RECEIVED SURGE AND THEN DIED.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
20.0	0.0	0.0	0.0	100.0	DRILLING 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:	0.2805 STB	AVERAGE WATER RATE:	0.0000 STB/D
WATER VOLUME:	0.0000 STB		
TOTAL FLUID :	0.2805 STB		

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1590.00

Description	Duration	p1	p End
INITIAL FLOW	15.00	33.00	34.00
INITIAL SHUT-IN	20.00		58.00
FINAL FLOW	15.00	40.00	40.00
FINAL SHUT-IN	20.00		43.00

FINAL HYDROSTATIC PRESSURE: 1568.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1637.00

Description	Duration	p1	p End
INITIAL FLOW	15.00	55.00	44.00
INITIAL SHUT-IN	27.00		71.00
FINAL FLOW	15.00	59.00	52.00
FINAL SHUT-IN	27.00		56.00

FINAL HYDROSTATIC PRESSURE: 1619.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 2/13/94	TICKET : 20218
CUSTOMER : NOBLE PETROLEUM	LEASE : GRABBE
WELL : #1 TEST: 2	GEOLOGIST: HONAS
ELEVATION: 1952 KB	FORMATION: L KANSAS CITY
SECTION : 3	TOWNSHIP : 16S
RANGE : 18W COUNTY: RUSH	STATE : KS
GAUGE SN#: 11018 RANGE : 4425	CLOCK : 12

INITIAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	55.00	55.00
5.00	55.00	0.00
10.00	47.00	-8.00
15.00	44.00	-3.00

INITIAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	44.00	44.00	0.00
6.00	44.00	0.00	0.00
9.00	44.00	0.00	0.00
12.00	44.00	0.00	0.00
15.00	46.00	2.00	0.00
18.00	49.00	3.00	0.00
21.00	55.00	6.00	0.00
24.00	61.00	6.00	0.00
27.00	71.00	10.00	0.00

FINAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	59.00	59.00
5.00	64.00	5.00
10.00	52.00	-12.00
15.00	52.00	0.00

PRESSURE TRANSIENT REPORT (CONTINUED)

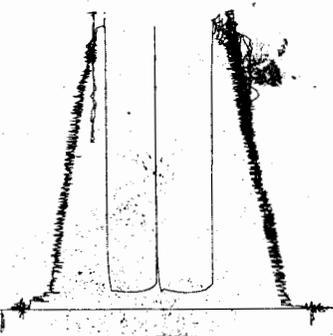
FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	52.00	52.00	0.00
6.00	52.00	0.00	0.00
9.00	52.00	0.00	0.00
12.00	52.00	0.00	0.00
15.00	52.00	0.00	0.00
18.00	52.00	0.00	0.00
21.00	52.00	0.00	0.00
24.00	53.00	1.00	0.00
27.00	56.00	3.00	0.00

DST #2 REC# 13624 OUTSIDE

JK + JDS 18

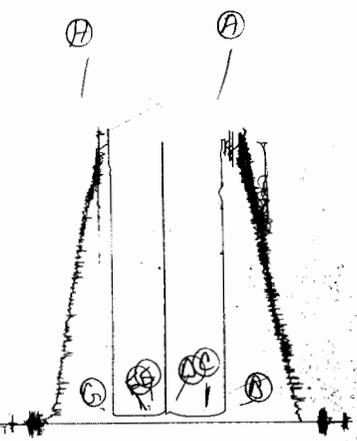
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DST #2 REC# 11018 INSIDE

JK + JDS 18

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COMPANY NOBLE PETROLEUM LEASE & WELL NO. #1 GRABBE SEC. 3 TWP. 16S RGE. 18W TEST NO. 3 DATE 2/14/94

ORIGINAL

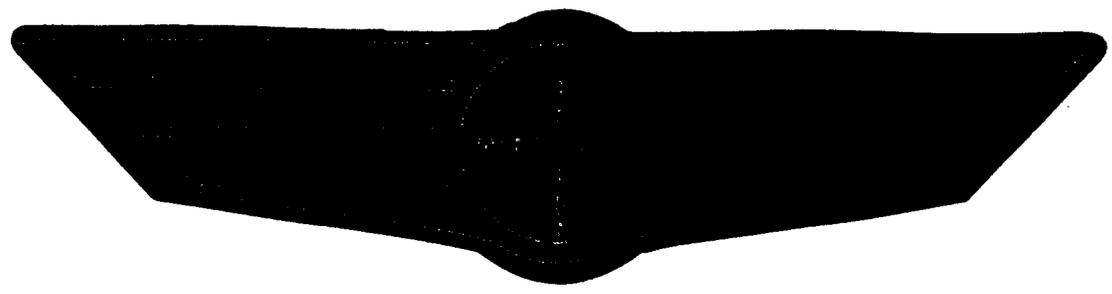
FORMATION

TEST

KCC

MAY 30 1993

REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone 316-688-7021

DST REPORT

GENERAL INFORMATION

DATE : 2/14/94
CUSTOMER : NOBLE PETROLEUM
WELL : #1 TEST: 3
ELEVATION: 1952 KB
SECTION : 3
RANGE : 18W COUNTY: RUSH
GAUGE SN#: 11018 RANGE : 4425
TICKET : 20219
LEASE : GRABBE
GEOLOGIST: HONAS
FORMATION: CONGLOMERATE SAND
TOWNSHIP : 16S
STATE : KS
CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 3457.00 ft TO: 3516.00 ft TVD: 3516.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL
DEPTH OF RECORDERS: 3460.0 ft 3454.0 ft
TEMPERATURE: 109.0
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 : 3437.0 ft I.D.: 3.800 in
TEST TOOL LENGTH : 20.0 ft TOOL SIZE : 5.500 in
ANCHOR LENGTH : 59.0 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: 3452.0 ft SIZE: 6.630 in
PACKER DEPTH: 3457.0 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 RIG 4
MUD TYPE : CHEMICAL VISCOSITY : 50.00 cp
WEIGHT : 9.000 ppg WATER LOSS: 9.600 cc
CHLORIDES : 4000 ppm
JARS-MAKE :
DID WELL FLOW?: NO SERIAL NUMBER:
REVERSED OUT?: NO

COMMENTS

Comment

INITIAL FLOW PERIOD STRONG BLOW - BOTTOM OF BUCKET
IN 8 MINUTES. FINAL FLOW PERIOD STRONG BLOW -
BOTTOM OF BUCKET IN 10 MINUTES.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
0.0	0.0	0.0	0.0	0.0	200 FT GAS ABOVE FLUID
700.0	80.0	20.0	0.0	0.0	CLEAN GASSY OIL
0.0	0.0	0.0	0.0	0.0	GRAVITY 35 @ 60 DEGREES
1110.0	20.0	5.0	70.0	5.0	OIL & GAS C/MUDDY SUL WTR
62.0	0.0	0.0	100.0	0.0	SULPHUR WATER
0.0	0.0	0.0	0.0	0.0	CHLORIDES 20000 PPM

RATE INFORMATION

OIL VOLUME:	10.9686 STB	TOTAL FLOW TIME:	80.0000 min.
GAS VOLUME:	15.3972 SCF	AVERAGE OIL RATE:	200.5488 STB/D
MUD VOLUME:	0.7785 STB	AVERAGE WATER RATE:	222.7245 STB/D
WATER VOLUME:	11.7681 STB		
TOTAL FLUID :	23.5152 STB		

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1691.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	34.00	345.00
INITIAL SHUT-IN	45.00		1112.00
FINAL FLOW	45.00	422.00	765.00
FINAL SHUT-IN	60.00		1112.00

FINAL HYDROSTATIC PRESSURE: 1664.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1721.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	51.00	364.00
INITIAL SHUT-IN	45.00		1127.00
FINAL FLOW	50.00	457.00	795.00
FINAL SHUT-IN	63.00		1130.00

FINAL HYDROSTATIC PRESSURE: 1692.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 2/14/94	TICKET : 20219
CUSTOMER : NOBLE PETROLEUM	LEASE : GRABBE
WELL : #1	GEOLOGIST: HONAS
ELEVATION: 1952 KB	FORMATION: CONGLOMERATE SAND
SECTION : 3	TOWNSHIP : 16S
RANGE : 18W	STATE : KS
GAUGE SN#: 11018	CLOCK : 12
TEST: 3	
COUNTY: RUSH	
RANGE : 4425	

INITIAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	51.00	51.00
5.00	53.00	2.00
10.00	130.00	77.00
15.00	207.00	77.00
20.00	244.00	37.00
25.00	303.00	59.00
30.00	364.00	61.00

INITIAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	1021.00	1021.00	11.00
6.00	1062.00	41.00	6.00
9.00	1079.00	17.00	4.33
12.00	1088.00	9.00	3.50
15.00	1097.00	9.00	3.00
18.00	1104.00	7.00	2.67
21.00	1109.00	5.00	2.43
24.00	1115.00	6.00	2.25
27.00	1118.00	3.00	2.11
30.00	1120.00	2.00	2.00
33.00	1122.00	2.00	1.91
36.00	1124.00	2.00	1.83
39.00	1125.00	1.00	1.77
42.00	1126.00	1.00	1.71
45.00	1127.00	1.00	1.67

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	457.00	457.00
5.00	469.00	12.00
10.00	511.00	42.00
15.00	558.00	47.00
20.00	596.00	38.00
25.00	634.00	38.00
30.00	672.00	38.00
35.00	714.00	42.00
40.00	749.00	35.00
45.00	779.00	30.00
50.00	795.00	16.00

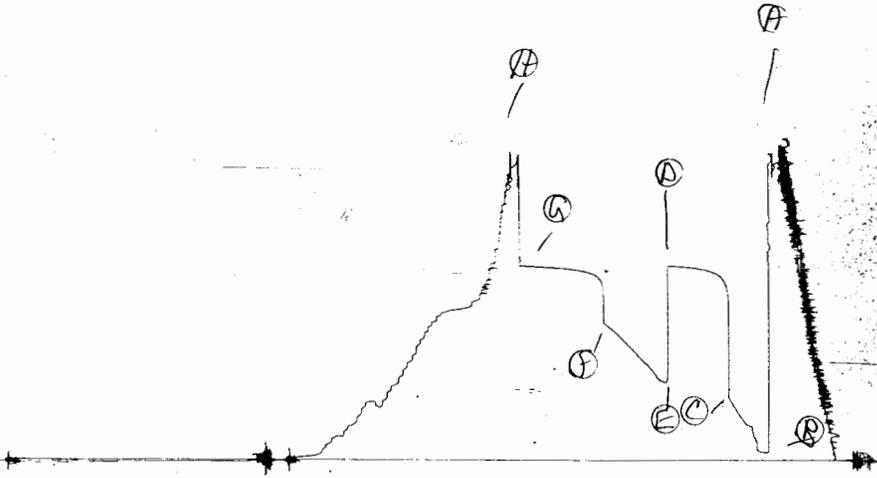
FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	1044.00	1044.00	17.67
6.00	1070.00	26.00	9.33
9.00	1082.00	12.00	6.56
12.00	1090.00	8.00	5.17
15.00	1097.00	7.00	4.33
18.00	1101.00	4.00	3.78
21.00	1107.00	6.00	3.38
24.00	1110.00	3.00	3.08
27.00	1113.00	3.00	2.85
30.00	1116.00	3.00	2.67
33.00	1118.00	2.00	2.52
36.00	1119.00	1.00	2.39
39.00	1120.00	1.00	2.28
42.00	1121.00	1.00	2.19
45.00	1122.00	1.00	2.11
48.00	1123.00	1.00	2.04
51.00	1124.00	1.00	1.98
54.00	1125.00	1.00	1.93
57.00	1126.00	1.00	1.88
60.00	1128.00	2.00	1.83
63.00	1130.00	2.00	1.79

DST #3 REC #11618 INSIDE

JK + 2019

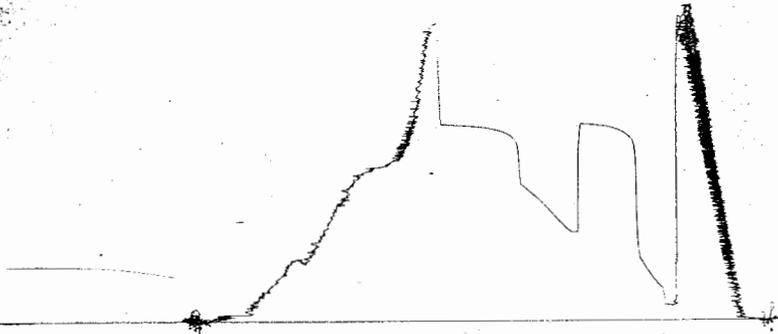
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DST #3 REC #13629 OUTSIDE

JK + 2019

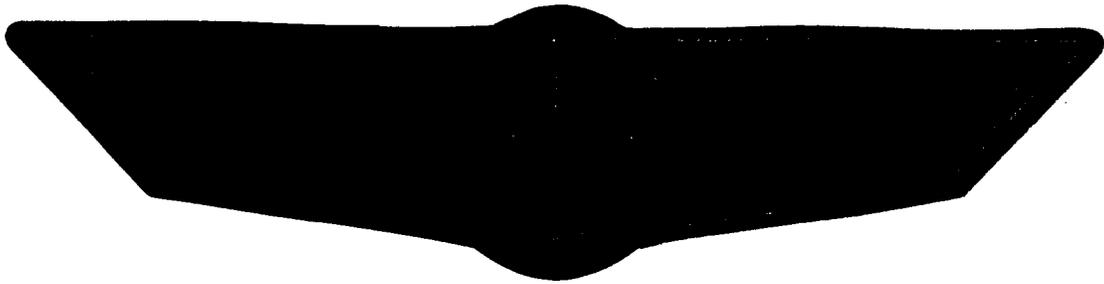
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FORMATION ORIGINAL

TEST

REPORT K C C
MAY 30 1996



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COMPANY NOBLE PETROLEUM

15-051-24891
LEASE & WELL NO.

#1 GRABBE

SEC. 3

TWP. 16S

RGE. 18W

TRSP NO. 4

DATE

2/14/94

DST REPORT

GENERAL INFORMATION

DATE : 2/14/94	TICKET : 20220
CUSTOMER : NOBLE PETROLEUM	LEASE : GRABBE
WELL : #1 TEST: 4	GEOLOGIST: HONAS
ELEVATION: 1952 KB	FORMATION: CONGLOMERATE SAND
SECTION : 3	TOWNSHIP : 16S
RANGE : 18W COUNTY: RUSH	STATE : KS
GAUGE SN#: 11018 RANGE : 4425	CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 3530.00 ft	TO: 3536.00 ft	TVD: 3536.0 ft
DEPTH OF SELECTIVE ZONE:		TEST TYPE: OIL
DEPTH OF RECORDERS: 3518.0 ft	3533.0 ft	
TEMPERATURE: 110.0		
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 : 3506.0 ft	I.D.:	3.800 in
TEST TOOL LENGTH : 24.0 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: 3525.0 ft	SIZE:	6.630 in
PACKER DEPTH: 3533.0 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 RIG 4	VISCOSITY : 53.00 cp
MUD TYPE : CHEMICAL	WATER LOSS: 10.500 cc
WEIGHT : 9.100 ppg	
CHLORIDES : 8500 ppm	SERIAL NUMBER:
JARS-MAKE :	REVERSED OUT?: NO
DID WELL FLOW?: NO	

COMMENTS

Comment

INITIAL FLOW PERIOD WEAK BLOW - 1/4 INCREASING TO
 1/2 INCH. FINAL FLOW PERIOD VERY WEAK BLOW -
 (SURFACE BLOW THROUGHOUT)

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
25.0	0.0	0.0	40.0	60.0	HEAVY WATER CUT MUD CHLORIDES 20000 PPM
0.0	0.0	0.0	0.0	0.0	

RATE INFORMATION

OIL VOLUME:	0.0000	STB	TOTAL FLOW TIME:	65.0000	min.
GAS VOLUME:	0.0000	SCF	AVERAGE OIL RATE:	0.0000	STB/D
MUD VOLUME:	0.2104	STB	AVERAGE WATER RATE:	7.7684	STB/D
WATER VOLUME:	0.1403	STB			
TOTAL FLUID :	0.3507	STB			

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1690.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	10.00	10.00
INITIAL SHUT-IN	30.00		885.00
FINAL FLOW	30.00	18.00	20.00
FINAL SHUT-IN	30.00		800.00

FINAL HYDROSTATIC PRESSURE: 1670.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1776.00

Description	Duration	p1	p End
INITIAL FLOW	35.00	24.00	24.00
INITIAL SHUT-IN	33.00		903.00
FINAL FLOW	30.00	47.00	47.00
FINAL SHUT-IN	30.00		824.00

FINAL HYDROSTATIC PRESSURE: 1749.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 2/14/94	TICKET : 20220
CUSTOMER : NOBLE PETROLEUM	LEASE : GRABBE
WELL : #1	GEOLOGIST: HONAS
ELEVATION: 1952 KB	FORMATION: CONGLOMERATE SAND
SECTION : 3	TOWNSHIP : 16S
RANGE : 18W	STATE : KS
GAUGE SN#: 11018	CLOCK : 12
TEST: 4	
COUNTY: RUSH	
RANGE : 4425	

INITIAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	24.00	24.00
5.00	24.00	0.00
10.00	24.00	0.00
15.00	24.00	0.00
20.00	24.00	0.00
25.00	24.00	0.00
30.00	24.00	0.00
35.00	24.00	0.00

INITIAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	388.00	388.00	0.00
6.00	585.00	197.00	0.00
9.00	661.00	76.00	0.00
12.00	716.00	55.00	0.00
15.00	761.00	45.00	0.00
18.00	796.00	35.00	0.00
21.00	827.00	31.00	0.00
24.00	851.00	24.00	0.00
27.00	874.00	23.00	0.00
30.00	896.00	22.00	0.00
33.00	903.00	7.00	0.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	47.00	47.00
5.00	47.00	0.00
10.00	47.00	0.00
15.00	47.00	0.00
20.00	47.00	0.00
25.00	47.00	0.00
30.00	47.00	0.00

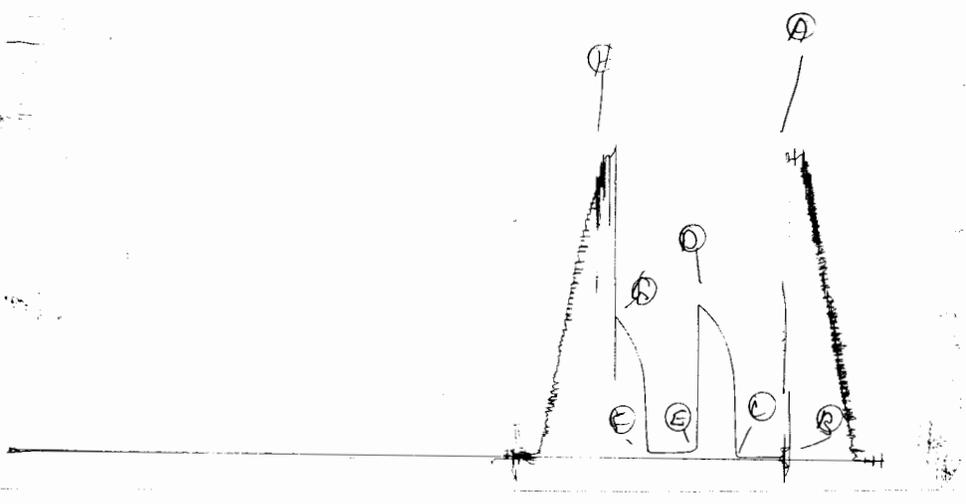
FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	79.00	79.00	0.00
6.00	404.00	325.00	0.00
9.00	557.00	153.00	0.00
12.00	616.00	59.00	0.00
15.00	673.00	57.00	0.00
18.00	709.00	36.00	0.00
21.00	749.00	40.00	0.00
24.00	780.00	31.00	0.00
27.00	808.00	28.00	0.00
30.00	824.00	16.00	0.00

DST#4 RSC#11008 INSIDE TOP

JKT J0510

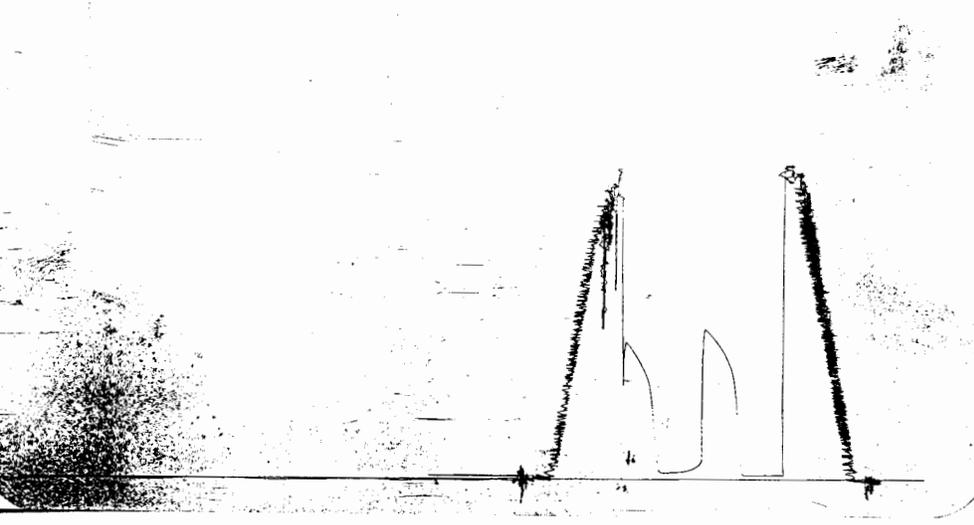
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DST#4 RSC#13629 OUTSIDE BTM

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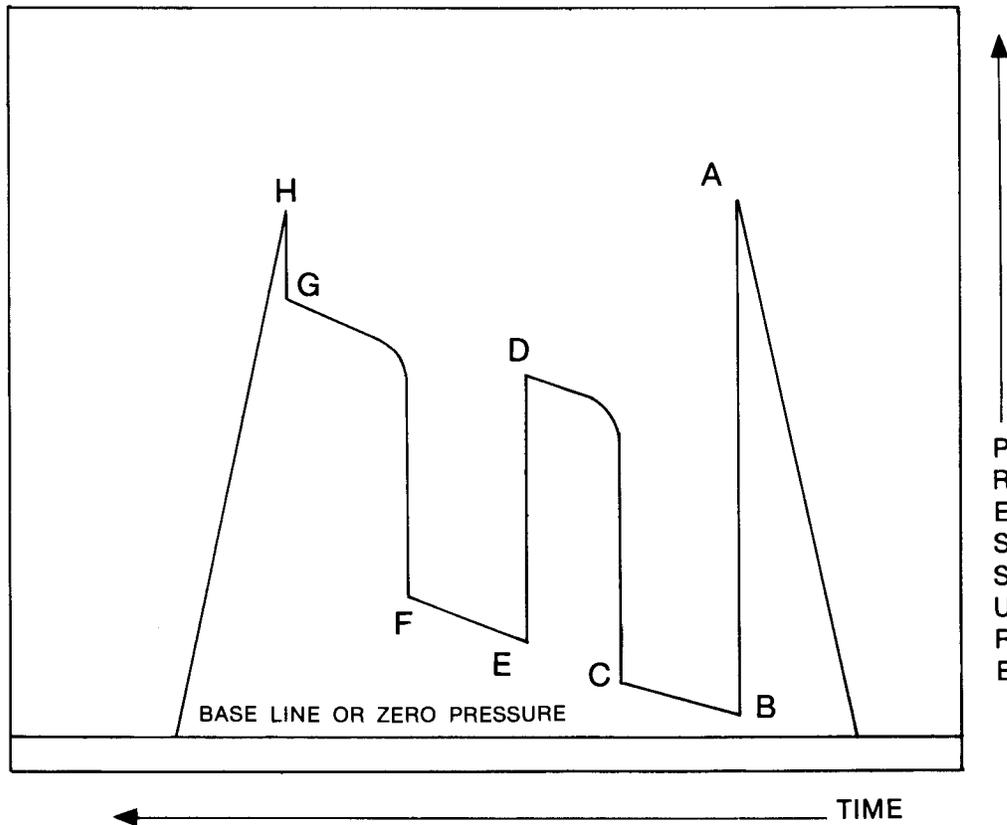
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COMPANY TERMS

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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