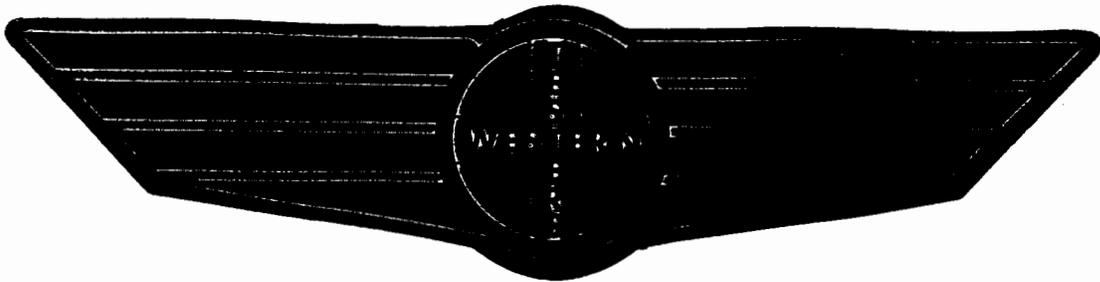


FORMATION TEST REPORT

KCC
SEP. 1 1994



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone 1-800-688-7021

COMPANY HOWELL OIL COMPANY

LEASE & WELL NO. #3 SABIN

SFC. 13 TWP. 23S RGE. 4W

'TEST' NO. 1

DATE 1/10/94

API # 15-155-21308

DST REPORT

GENERAL INFORMATION

DATE : 1/10/94	TICKET : 20145
CUSTOMER : HOWELL OIL COMPANY	LEASE : SABIN
WELL : #3 TEST: 1	GEOLOGIST: HASTINGS
ELEVATION: 1476 KB	FORMATION: HUNTON
SECTION : 13	TOWNSHIP : 23S
RANGE : 4W COUNTY: RENO	STATE : KS
GAUGE SN#: 10270 RANGE : 4150	CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 3624.00 ft TO: 3633.00 ft TVD: 3633.0 ft
 DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL
 DEPTH OF RECORDERS: 3627.0 ft 3630.0 ft
 TEMPERATURE: 117.0

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 : 3597.0 ft	I.D.:	3.800 in
TEST TOOL LENGTH : 27.0 ft	TOOL SIZE :	5.500 in
ANCHOR LENGTH : 9.0 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: 3619.0 ft	SIZE:	6.630 in
PACKER DEPTH: 3624.0 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 2	VISCOSITY : 50.00 cp
MUD TYPE : CHEMICAL	WATER LOSS: 9.600 cc
WEIGHT : 9.300 ppg	SERIAL NUMBER: 422
CHLORIDES : 1000 ppm	REVERSED OUT?: NO
JARS-MAKE : WTC	
DID WELL FLOW?: NO	

COMMENTS

Comment

INITIAL FLOW PERIOD WEAK BUILDING TO A STRONG BLOW
 IN 2 MINUTES. FINAL FLOW PERIOD WEAK BUILDING TO
 A STRONG BLOW IN 6 MINUTES.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
75.0	2.0	0.0	28.0	70.0	SLIGHTLY OIL CUT WTRY MUD
120.0	0.0	0.0	60.0	40.0	MUDDY WATER W/SHOW OF OIL
960.0	0.0	0.0	100.0	0.0	WATER
0.0	0.0	0.0	0.0	0.0	CHLORIDES 43000 PPM

RATE INFORMATION

OIL VOLUME:	0.0210	STB	TOTAL FLOW TIME:	60.0000	min.
GAS VOLUME:	0.0000	SCF	AVERAGE OIL RATE:	1.6832	STB/D
MUD VOLUME:	1.4096	STB	AVERAGE WATER RATE:	387.1274	STB/D
WATER VOLUME:	14.7698	STB			
TOTAL FLUID :	16.2004	STB			

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1848.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	72.00	312.00
INITIAL SHUT-IN	60.00		1288.00
FINAL FLOW	30.00	354.00	562.00
FINAL SHUT-IN	60.00		1288.00

FINAL HYDROSTATIC PRESSURE: 1817.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1866.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	73.00	322.00
INITIAL SHUT-IN	63.00		1288.00
FINAL FLOW	30.00	372.00	581.00
FINAL SHUT-IN	63.00		1288.00

FINAL HYDROSTATIC PRESSURE: 1826.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 1/10/94	TICKET : 20145
CUSTOMER : HOWELL OIL COMPANY	LEASE : SABIN
WELL : #3 TEST: 1	GEOLOGIST: HASTINGS
ELEVATION: 1476 KB	FORMATION: HUNTON
SECTION : 13	TOWNSHIP : 23S
RANGE : 4W COUNTY: RENO	STATE : KS
GAUGE SN#: 10270 RANGE : 4150	CLOCK : 12

INITIAL FLOW

Time (min)	Pressure	Delta P
0.00	73.00	73.00
5.00	89.00	16.00
10.00	135.00	46.00
15.00	183.00	48.00
20.00	231.00	48.00
25.00	278.00	47.00
30.00	322.00	44.00

INITIAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	1275.00	1275.00	11.00
6.00	1278.00	3.00	6.00
9.00	1288.00	10.00	4.33
12.00	1288.00	0.00	3.50
15.00	1288.00	0.00	3.00
18.00	1288.00	0.00	2.67
21.00	1288.00	0.00	2.43
24.00	1288.00	0.00	2.25
27.00	1288.00	0.00	2.11
30.00	1288.00	0.00	2.00
33.00	1288.00	0.00	1.91
36.00	1288.00	0.00	1.83
39.00	1288.00	0.00	1.77
42.00	1288.00	0.00	1.71
45.00	1288.00	0.00	1.67
48.00	1288.00	0.00	1.63
51.00	1288.00	0.00	1.59
54.00	1288.00	0.00	1.56
57.00	1288.00	0.00	1.53

PRESSURE TRANSIENT REPORT (CONTINUED)

INITIAL SHUT IN (CONTINUED)

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
60.00	1288.00	0.00	1.50
63.00	1288.00	0.00	1.48

FINAL FLOW

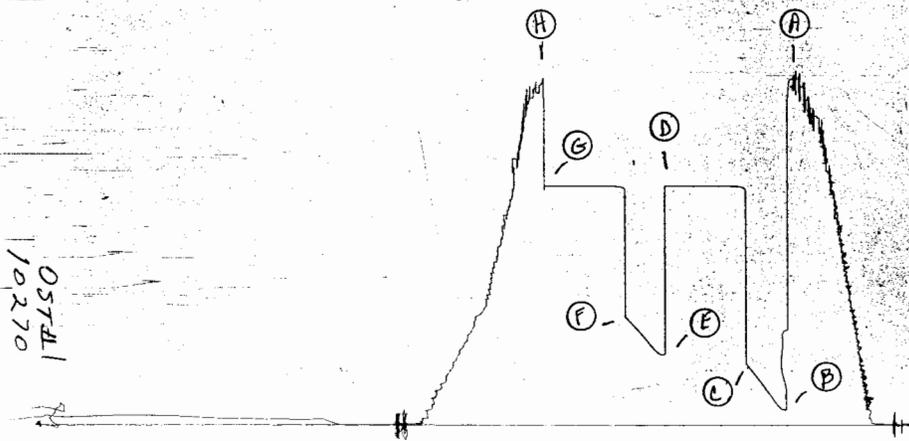
<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	372.00	372.00
5.00	381.00	9.00
10.00	417.00	36.00
15.00	458.00	41.00
20.00	500.00	42.00
25.00	544.00	44.00
30.00	581.00	37.00

FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	1280.00	1280.00	11.00
6.00	1284.00	4.00	6.00
9.00	1288.00	4.00	4.33
12.00	1288.00	0.00	3.50
15.00	1288.00	0.00	3.00
18.00	1288.00	0.00	2.67
21.00	1288.00	0.00	2.43
24.00	1288.00	0.00	2.25
27.00	1288.00	0.00	2.11
30.00	1288.00	0.00	2.00
33.00	1288.00	0.00	1.91
36.00	1288.00	0.00	1.83
39.00	1288.00	0.00	1.77
42.00	1288.00	0.00	1.71
45.00	1288.00	0.00	1.67
48.00	1288.00	0.00	1.63
51.00	1288.00	0.00	1.59
54.00	1288.00	0.00	1.56
57.00	1288.00	0.00	1.53
60.00	1288.00	0.00	1.50
63.00	1288.00	0.00	1.48

TKT 20145

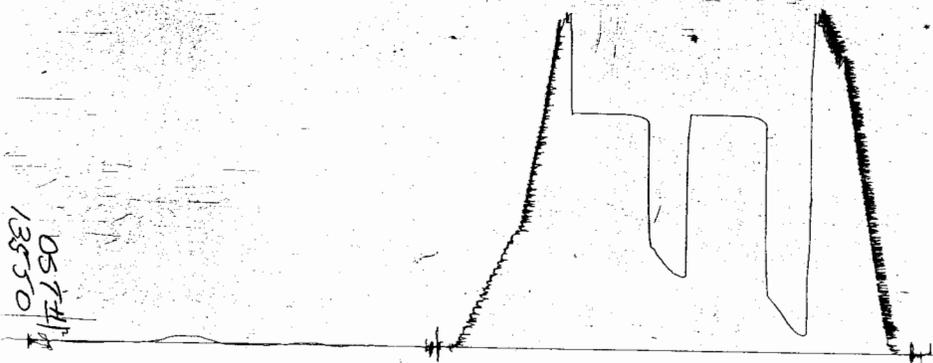
I



Inside Recorder

TKT 20145

0



Outside Recorder

FORMATION

TEST

REPORT

KCC

SEP 1 1994

COMPANY HOWELL OIL COMPANY

LEASE & WELL NO.

#3 SABIN

SRC. 13

TWP. 23

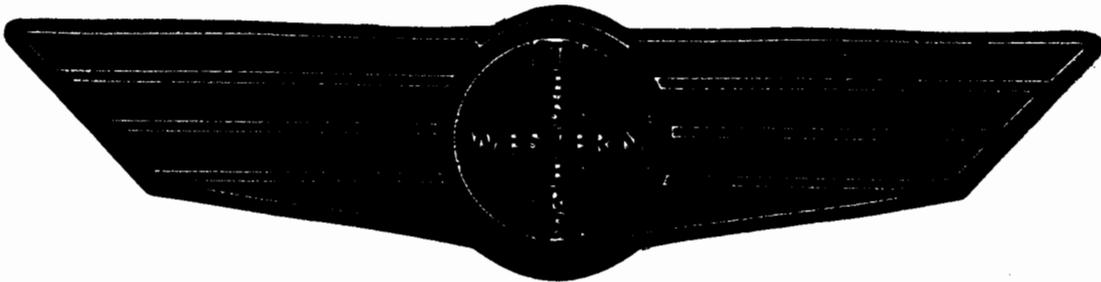
RGE. 4W

FIRST NO. 2

DATE

1/11/94

API# 15-155-21308



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone 1-800-688-7021

DST REPORT

GENERAL INFORMATION

DATE	: 1/11/94	TICKET	: 20146
CUSTOMER	: HOWELL OIL COMPANY	LEASE	: SABIN
WELL	: #3	GEOLOGIST	: HASTINGS
ELEVATION	: 1476 KB	FORMATION	: SIMPSON SAND
SECTION	: 13	TOWNSHIP	: 23S
RANGE	: 4W	COUNTY	: RENO
GAUGE SN#	: 10270	STATE	: KS
		RANGE	: 4150
		CLOCK	: 12

WELL INFORMATION

PERFORATION INTERVAL FROM:	3754.00 ft	TO:	3770.00 ft	TVD:	3770.0 ft
DEPTH OF SELECTIVE ZONE:				TEST TYPE:	OIL
DEPTH OF RECORDERS:	3762.0 ft		3765.0 ft		
TEMPERATURE:	121.0				
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 :	3734.0 ft	I.D.:	3.800 in		
TEST TOOL LENGTH :	20.0 ft	TOOL SIZE :	5.500 in		
ANCHOR LENGTH :	16.0 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:	3749.0 ft	SIZE:	6.630 in		
PACKER DEPTH:	3754.0 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 2	VISCOSITY :	48.00 cp
MUD TYPE :	CHEMICAL	WATER LOSS:	9.600 cc
WEIGHT :	9.300 ppg	SERIAL NUMBER:	
CHLORIDES :	3000 ppm	REVERSED OUT?:	NO
JARS-MAKE :			
DID WELL FLOW?:	NO		

COMMENTS

Comment

STRONG BLOW THROUGHOUT ON BOTH FLOW PERIODS.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	%	%	%	%	Comments
Oil	Gas	Water	Mud		
2040.0	0.0	0.0	100.0	0.0	WATER CHLORIDES 16000 PPM
0.0	0.0	0.0	0.0	0.0	

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:	0.0000	STB	AVERAGE WATER RATE:	1373.4607	STB/D
WATER VOLUME:	28.6138	STB			
TOTAL FLUID :	28.6138	STB			

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1900.00

Description	Duration	p1	p End
INITIAL FLOW	15.00	364.00	583.00
INITIAL SHUT-IN	30.00		1412.00
FINAL FLOW	15.00	811.00	1008.00
FINAL SHUT-IN	30.00		1412.00

FINAL HYDROSTATIC PRESSURE: 1890.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1913.00

Description	Duration	p1	p End
INITIAL FLOW	15.00	375.00	723.00
INITIAL SHUT-IN	30.00		1421.00
FINAL FLOW	15.00	838.00	1025.00
FINAL SHUT-IN	30.00		1419.00

FINAL HYDROSTATIC PRESSURE: 1902.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 1/11/94	TICKET : 20146
CUSTOMER : HOWELL OIL COMPANY	LEASE : SABIN
WELL : #3 TEST: 2	GEOLOGIST: HASTINGS
ELEVATION: 1476 KB	FORMATION: SIMPSON SAND
SECTION : 13	TOWNSHIP : 23S
RANGE : 4W COUNTY: RENO	STATE : KS
GAUGE SN#: 10270 RANGE : 4150	CLOCK : 12

INITIAL FLOW

Time (min)	Pressure	Delta P
0.00	375.00	375.00
5.00	427.00	52.00
10.00	562.00	135.00
15.00	723.00	161.00

INITIAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	1307.00	1307.00	0.00
6.00	1356.00	49.00	0.00
9.00	1376.00	20.00	0.00
12.00	1392.00	16.00	0.00
15.00	1402.00	10.00	0.00
18.00	1410.00	8.00	0.00
21.00	1415.00	5.00	0.00
24.00	1417.00	2.00	0.00
27.00	1419.00	2.00	0.00
30.00	1421.00	2.00	0.00

FINAL FLOW

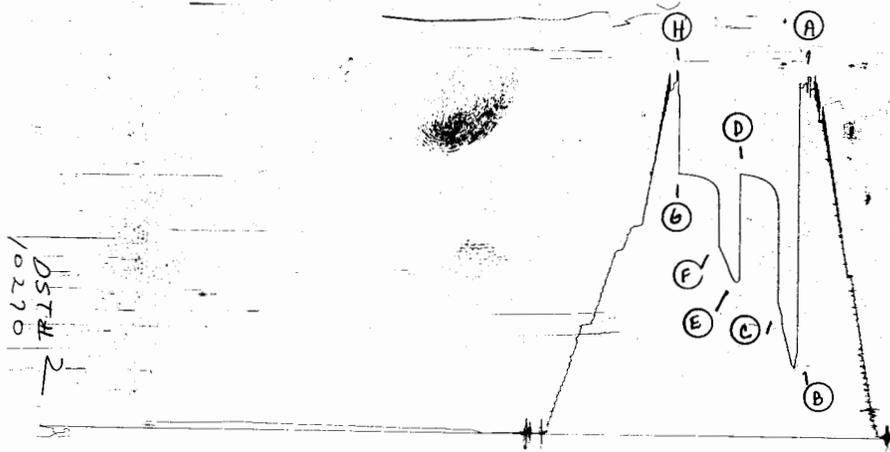
Time (min)	Pressure	Delta P
0.00	838.00	838.00
5.00	863.00	25.00
10.00	946.00	83.00
15.00	1025.00	79.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	1355.00	1355.00	0.00
6.00	1376.00	21.00	0.00
9.00	1390.00	14.00	0.00
12.00	1397.00	7.00	0.00
15.00	1407.00	10.00	0.00
18.00	1411.00	4.00	0.00
21.00	1413.00	2.00	0.00
24.00	1415.00	2.00	0.00
27.00	1417.00	2.00	0.00
30.00	1419.00	2.00	0.00

TKT 20146
I



Inside Recorder

TKT 20146
O

DSTW 2
13550



Outside Recorder