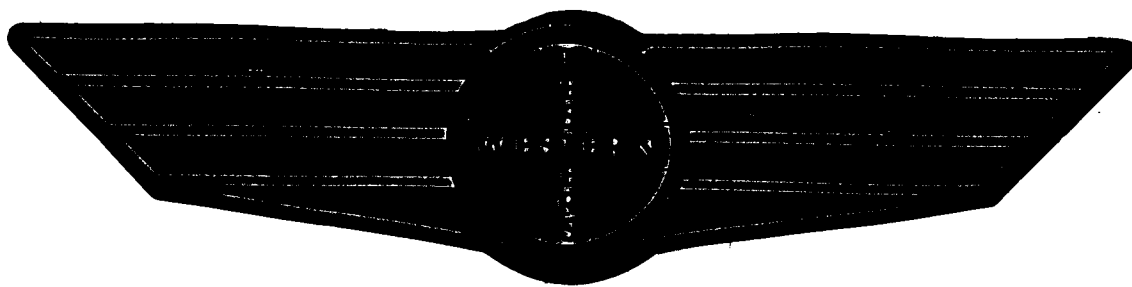


FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone 1 - 800-688-7021

COMPANY RANGE OIL COMPANY, INC LEASE & WELL NO. #3 TERRELL SEC. 2 TWP. 32S RGE. 9E TEST NO. 1 DATE 10/9/92

DST REPORT

GENERAL INFORMATION

DATE : 10/9/92
CUSTOMER : RANGE OIL COMPANY, INC.
WELL : 3 TEST: 1
ELEVATION: 1127 KB
SECTION : 2
RANGE : 9E COUNTY: CHAUTAUQUA
GAUGE SN#: 10979 RANGE : 4100
TICKET : 18615
LEASE : TERRELL
GEOLOGIST: DAVE CALLEWAERT
FORMATION: IOLA
TOWNSHIP : 32S
STATE : KS
CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 1374.00 ft TO: 1396.00 ft TVD: 1396.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL
DEPTH OF RECORDERS: 1390.0 ft 1393.0 ft
TEMPERATURE: 82.0
DRILL COLLAR LENGTH: 360.0 ft I.D.: 2.250 in
WEIGHT PIPE LENGTH : 0.0 ft I.D.: 0.000 in
DRILL PIPE LENGTH : 994.0 ft I.D.: 3.800 in
TEST TOOL LENGTH : 20.0 ft TOOL SIZE : 5.500 in
ANCHOR LENGTH : 22.0 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 : 4.5FH
PACKER DEPTH: 1369.0 ft SIZE: 6.630 in
PACKER DEPTH: 1374.0 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. : GLAVES RIG 1
MUD TYPE : CHEMICAL VISCOSITY : 63.00 cp
WEIGHT : 9.100 ppg WATER LOSS: 0.000 cc
CHLORIDES : 0 ppm
JARS-MAKE :
DID WELL FLOW?: NO SERIAL NUMBER:
REVERSED OUT?: NO

COMMENTS

Comment

INITIAL FLOW PERIOD VERY WEAK BLOW, DIED IN 4
MINUTES. FINAL FLOW PERIOD VERY WEAK BLOW, DIED IN
2 MINUTES.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
6.0	0.0	0.0	0.0	100.0	DRILLING MUD

RATE INFORMATION

OIL VOLUME: 0.0000 STB	TOTAL FLOW TIME: 60.0000 min.
GAS VOLUME: 0.0000 SCF	AVERAGE OIL RATE: 0.0000 STB/D
MUD VOLUME: 0.0295 STB	AVERAGE WATER RATE: 0.0000 STB/D
WATER VOLUME: 0.0000 STB	
TOTAL FLUID : 0.0295 STB	

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 605.00

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

FINAL HYDROSTATIC PRESSURE: 595.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 693.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	32.00	32.00
INITIAL SHUT-IN	33.00		32.00
FINAL FLOW	30.00	32.00	32.00
FINAL SHUT-IN	33.00		32.00

FINAL HYDROSTATIC PRESSURE: 690.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 10/9/92	TICKET : 18615
CUSTOMER : RANGE OIL COMPANY, INC.	LEASE : TERRELL
WELL : 3	TEST: 1
ELEVATION: 1127 KB	GEOLOGIST: DAVE CALLEWAERT
SECTION : 2	FORMATION: IOLA
RANGE : 9E	COUNTY: CHAUTAUQUA
GAUGE SN#: 10979	RANGE : 4100
	STATE : KS
	CLOCK : 12

INITIAL FLOW

<u>Time</u> <u>(min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	32.00	32.00
5.00	32.00	0.00
10.00	32.00	0.00
15.00	32.00	0.00
20.00	32.00	0.00
25.00	32.00	0.00
30.00	32.00	0.00

INITIAL SHUT IN

<u>Time</u> <u>(min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	32.00	32.00	0.00
6.00	32.00	0.00	0.00
9.00	32.00	0.00	0.00
12.00	32.00	0.00	0.00
15.00	32.00	0.00	0.00
18.00	32.00	0.00	0.00
21.00	32.00	0.00	0.00
24.00	32.00	0.00	0.00
27.00	32.00	0.00	0.00
30.00	32.00	0.00	0.00
33.00	32.00	0.00	0.00

FINAL FLOW

<u>Time</u> <u>(min)</u>	<u>Pressure</u>	<u>Delta P</u>
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PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW (CONTINUED)

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	32.00	32.00
5.00	32.00	0.00
10.00	32.00	0.00
15.00	32.00	0.00
20.00	32.00	0.00
25.00	32.00	0.00
30.00	32.00	0.00

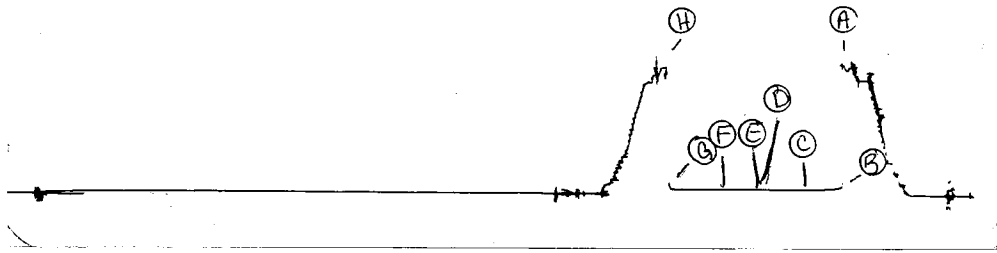
FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	32.00	32.00	0.00
6.00	32.00	0.00	0.00
9.00	32.00	0.00	0.00
12.00	32.00	0.00	0.00
15.00	32.00	0.00	0.00
18.00	32.00	0.00	0.00
21.00	32.00	0.00	0.00
24.00	32.00	0.00	0.00
27.00	32.00	0.00	0.00
30.00	32.00	0.00	0.00
33.00	32.00	0.00	0.00

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TKT 18615

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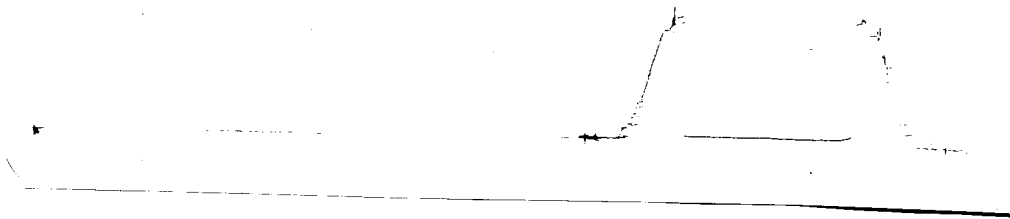
Inside Recorder

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TKT 18615

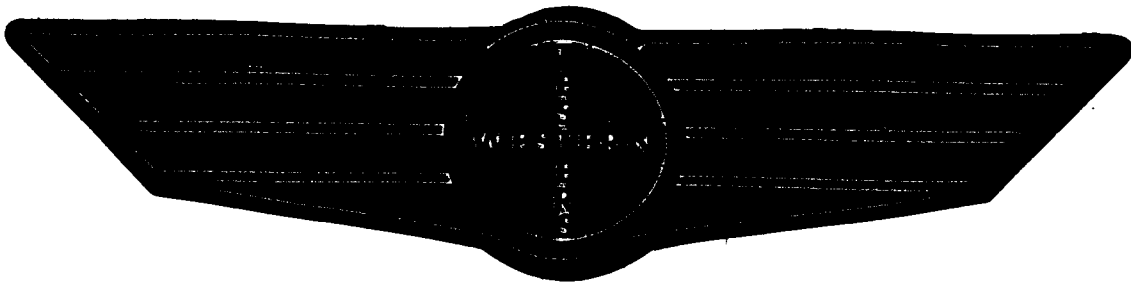
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3410



Outside Recorder

FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone 1 - 800-688-7021

DST REPORT

GENERAL INFORMATION

DATE : 10/11/92	TICKET : 18616
CUSTOMER : RANGE OIL COMPANY, INC.	LEASE : TERRELL
WELL : 3	TEST: 2
ELEVATION: 1127 KB	GEOLOGIST: DAVE CALLEWAERT
SECTION : 2	FORMATION: MISSISSIPPI
RANGE : 9E	COUNTY: CHAUTAUQUA
GAUGE SN#: 10979	RANGE : 4100
	STATE : KS
	CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 2190.00 ft	TO: 2207.00 ft	TVD: 2207.0 ft
DEPTH OF SELECTIVE ZONE:		TEST TYPE: OIL
DEPTH OF RECORDERS: 2201.0 ft	2204.0 ft	
TEMPERATURE: 100.0		
DRILL COLLAR LENGTH: 360.0 ft	I.D.:	2.250 in
WEIGHT PIPE LENGTH : 0.0 ft	I.D.:	0.000 in
DRILL PIPE LENGTH : 1810.0 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 :	4.5FH
PACKER DEPTH: 2185.0 ft	SIZE:	6.630 in
PACKER DEPTH: 2190.0 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. : GLAVES RIG 1	
MUD TYPE : CHEMICAL	VISCOSITY : 47.00 cp
WEIGHT : 9.600 ppq	WATER LOSS: 11.200 cc
CHLORIDES : 1100 ppm	
JARS-MAKE :	SERIAL NUMBER:
DID WELL FLOW?: NO	REVERSED OUT?: NO

COMMENTS

Comment

INITIAL FLOW PERIOD WEAK BLOW BUILDING TO A STRONG BLOW, 8 INCH INTO BUCKET. FINAL FLOW PERIOD VERY STRONG BLOW OFF BOTTOM OF BUCKET IN 3 MINUTES,

DST REPORT (CONTINUED)

COMMENTS (CONTINUED)

Comment

DIMINISHING TO A STRONG BLOW THROUGHOUT TEST.

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
5.0	100.0	0.0	0.0	0.0	FREE OIL
0.0	0.0	0.0	0.0	0.0	36 GRAVITY AT 60 DEGREES
60.0	35.0	15.0	0.0	50.0	GASSY OIL CUT MUD
0.0	0.0	0.0	0.0	0.0	450' OF GAS ABOVE FLUID

RATE INFORMATION

OIL VOLUME:	0.1279 STB	TOTAL FLOW TIME:	90.0000 min.
GAS VOLUME:	0.2485 SCF	AVERAGE OIL RATE:	4.4061 STB/D
MUD VOLUME:	0.1475 STB	AVERAGE WATER RATE:	0.0000 STB/D
WATER VOLUME:	0.0000 STB		
TOTAL FLUID :	0.2754 STB		

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1120.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	30.00	30.00
INITIAL SHUT-IN	30.00		365.00
FINAL FLOW	60.00	30.00	40.00
FINAL SHUT-IN	60.00		490.00

FINAL HYDROSTATIC PRESSURE: 1110.00

DST REPORT (CONTINUED)

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1132.00

<u>Description</u>	<u>Duration</u>	<u>p1</u>	<u>p End</u>
INITIAL FLOW	30.00	41.00	41.00
INITIAL SHUT-IN	48.00		383.00
FINAL FLOW	60.00	53.00	57.00
FINAL SHUT-IN	63.00		483.00

FINAL HYDROSTATIC PRESSURE: 1114.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 10/11/92	TICKET : 18616
CUSTOMER : RANGE OIL COMPANY, INC.	LEASE : TERRELL
WELL : 3	TEST: 2
ELEVATION: 1127 KB	GEOLOGIST: DAVE CALLEWAERT
SECTION : 2	FORMATION: MISSISSIPPI
RANGE : 9E	COUNTY: CHAUTAUQUA
GAUGE SN#: 10979	RANGE : 4100
	STATE : KS
	CLOCK : 12

INITIAL FLOW

<u>Time</u> <u>(min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	41.00	41.00
5.00	41.00	0.00
10.00	41.00	0.00
15.00	41.00	0.00
20.00	41.00	0.00
25.00	41.00	0.00
30.00	41.00	0.00

INITIAL SHUT IN

<u>Time</u> <u>(min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	41.00	41.00	0.00
6.00	41.00	0.00	0.00
9.00	41.00	0.00	0.00
12.00	41.00	0.00	0.00
15.00	41.00	0.00	0.00
18.00	46.00	5.00	0.00
21.00	53.00	7.00	0.00
24.00	69.00	16.00	0.00
27.00	90.00	21.00	0.00
30.00	118.00	28.00	0.00
33.00	151.00	33.00	0.00
36.00	191.00	40.00	0.00
39.00	234.00	43.00	0.00
42.00	288.00	54.00	0.00
45.00	352.00	64.00	0.00
48.00	383.00	31.00	0.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	53.00	53.00
5.00	53.00	0.00
10.00	53.00	0.00
15.00	53.00	0.00
20.00	53.00	0.00
25.00	53.00	0.00
30.00	53.00	0.00
35.00	53.00	0.00
40.00	54.00	1.00
45.00	56.00	2.00
50.00	56.00	0.00
55.00	56.00	0.00
60.00	57.00	1.00

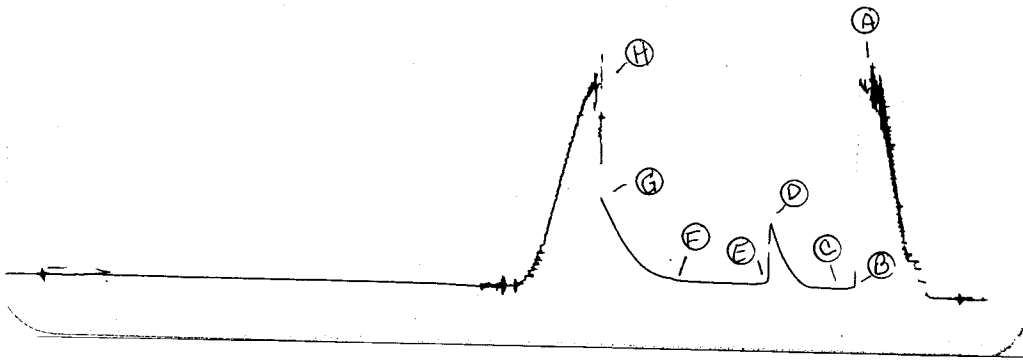
FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	59.00	59.00	0.00
6.00	61.00	2.00	0.00
9.00	65.00	4.00	0.00
12.00	72.00	7.00	0.00
15.00	75.00	3.00	0.00
18.00	78.00	3.00	0.00
21.00	86.00	8.00	0.00
24.00	93.00	7.00	0.00
27.00	105.00	12.00	0.00
30.00	120.00	15.00	0.00
33.00	137.00	17.00	0.00
36.00	159.00	22.00	0.00
39.00	183.00	24.00	0.00
42.00	209.00	26.00	0.00
45.00	239.00	30.00	0.00
48.00	276.00	37.00	0.00
51.00	317.00	41.00	0.00
54.00	356.00	39.00	0.00
57.00	400.00	44.00	0.00
60.00	441.00	41.00	0.00
63.00	483.00	42.00	0.00

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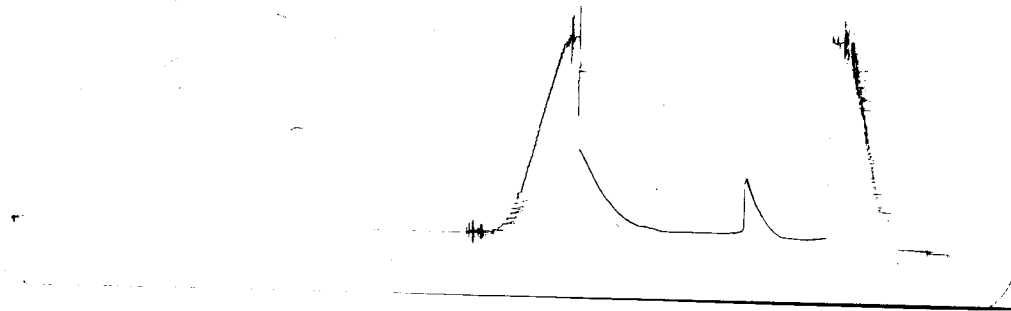


Inside Recorder

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Outside Recorder