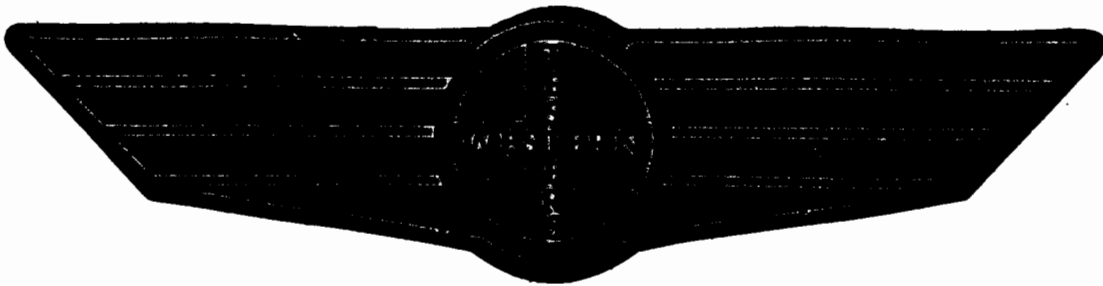


ORIGINAL

# FORMATION TEST REPORT

KCC

MAR 01 1993



Home Office:

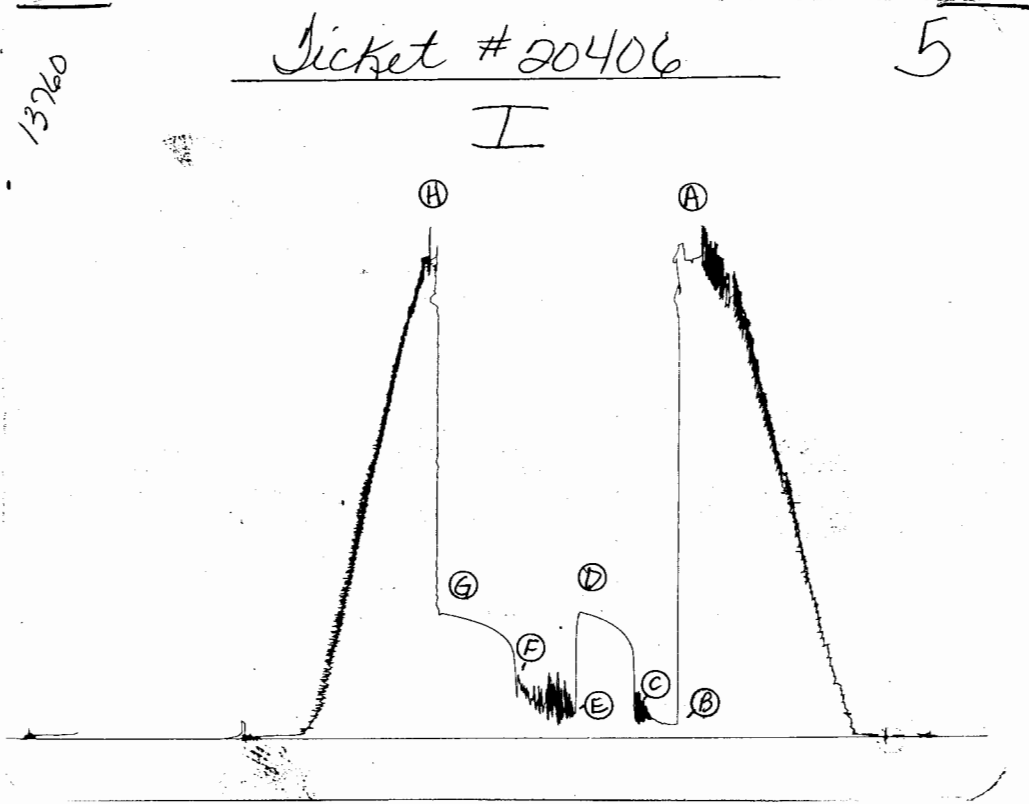
Wichita, Kansas 67201

P.O. Box 1599

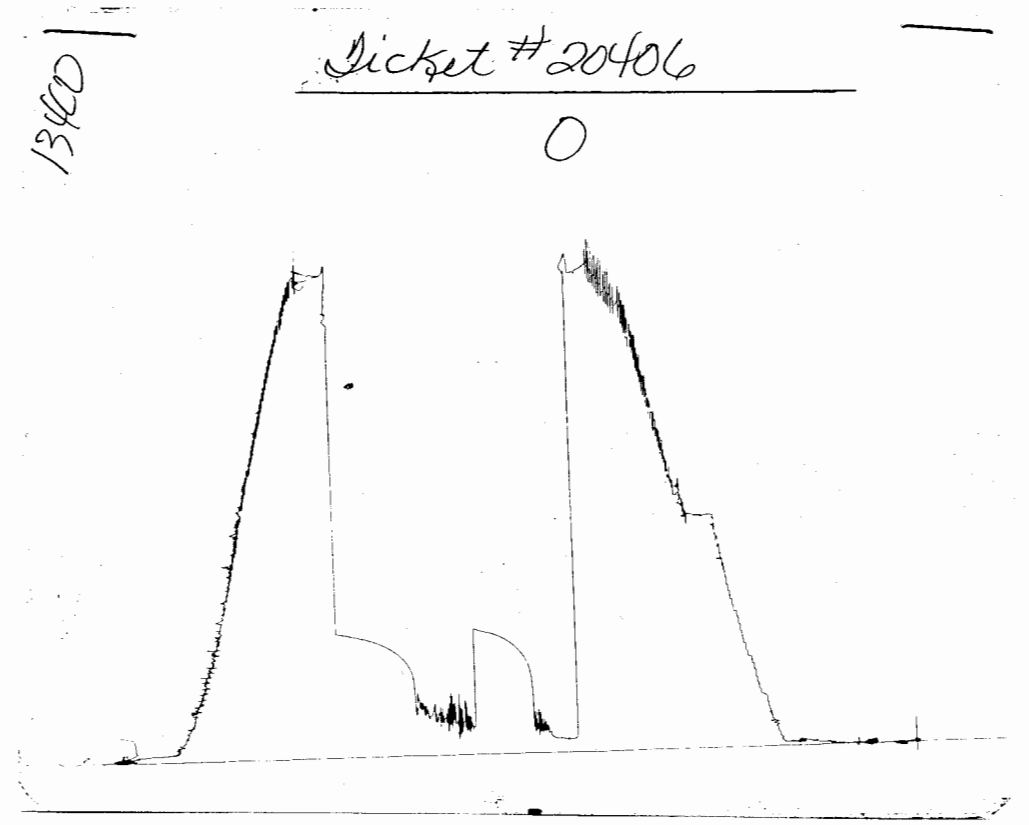
Phone 316-800-688-7021

COMPANY RED OAK ENERGY, INC. LEASE & WELL NO. #1-21 ROTHER FARMSSEC. 21 TWP. 15S RGE. 42W TEST NO. 1 DATE 12/15/94

RPT # 15-199-20225



Inside Recorder

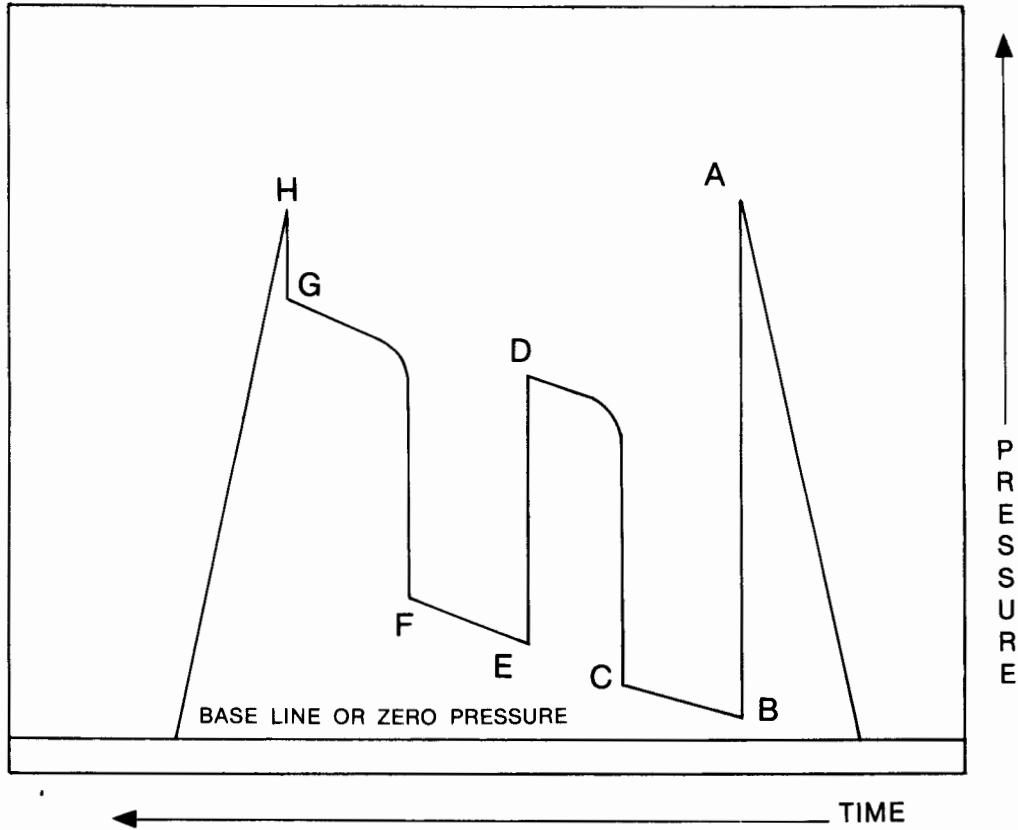


Outside Recorder

### 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

DST REPORT

GENERAL INFORMATION

DATE : 12/15/94  
CUSTOMER : RED OAK ENERGY, INC.  
WELL : #1-21 TEST: 1  
ELEVATION: 3886GR  
SECTION : 21  
RANGE : 42W COUNTY: WALLACE  
GAUGE SN#: 13760 RANGE : 3950  
TICKET : 20406  
LEASE : ROTHER FARMS  
GEOLOGIST: BANKS  
FORMATION: MORROW  
TOWNSHIP : 15S  
STATE : KS  
CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 5018.00 ft TO: 5130.00 ft TVD: 5130.0 ft  
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL  
DEPTH OF RECORDERS: 5021.0 ft 5024.0 ft  
TEMPERATURE: 0.0  
DRILL COLLAR LENGTH: 0.0 ft I.D.: 0.000 in  
WEIGHT PIPE LENGTH : 256.0 ft I.D.: 3.200 in  
DRILL PIPE LENGTH : 4730.0 ft I.D.: 3.800 in  
TEST TOOL LENGTH : 32.0 ft TOOL SIZE : 5.500 in  
ANCHOR LENGTH : 112.0 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: 5013.0 ft SIZE: 6.750 in  
PACKER DEPTH: 5018.0 ft SIZE: 6.750 in  
PACKER DEPTH: 0.0 ft SIZE: 0.000 in  
PACKER DEPTH: 0.0 ft SIZE: 0.000 in

MUD INFORMATION

DRILLING CON. : ABERCROMBIE RIG #4  
MUD TYPE : CHEMICAL VISCOSITY : 51.00 cp  
WEIGHT : 8.800 ppg WATER LOSS: 6.400 cc  
CHLORIDES : 5000 ppm  
JARS-MAKE : WESTERN SERIAL NUMBER: 414  
DID WELL FLOW?: NO REVERSED OUT?: NO

COMMENTS

Comment

INITIAL FLOW: OPENED WITH WEAK BLOW, INCREASED TO  
4 INCHES IN WATER.  
FINAL FLOW: WEAK BLOW, 1 INCH IN WATER.

DST REPORT (CONTINUED)

COMMENTS (CONTINUED)

Comment

BOTH FLOWS SHOWED PLUGGING ACTION.

K C C

MAR 01 1953

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
250.0	0.0	0.0	0.0	100.0	MUD

RATE INFORMATION

OIL VOLUME: 0.0000 STB	
GAS VOLUME: 0.0000 SCF	TOTAL FLOW TIME: 75.0000 min.
MUD VOLUME: 2.4867 STB	AVERAGE OIL RATE: 0.0000 STB/D
WATER VOLUME: 0.0000 STB	AVERAGE WATER RATE: 0.0000 STB/D
TOTAL FLUID : 2.4867 STB	

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2424.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	68.00	87.00
INITIAL SHUT-IN	45.00		624.00
FINAL FLOW	45.00	97.00	244.00
FINAL SHUT-IN	60.00		624.00

FINAL HYDROSTATIC PRESSURE: 2424.00

DST REPORT (CONTINUED)

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2444.00

<u>Description</u>	<u>Duration</u>	<u>p1</u>	<u>p End</u>
INITIAL FLOW	30.00	67.00	86.00
INITIAL SHUT-IN	42.00		635.00
FINAL FLOW	45.00	125.00	207.00
FINAL SHUT-IN	57.00		629.00

FINAL HYDROSTATIC PRESSURE: 2439.00

**PRESSURE TRANSIENT REPORT**

**GENERAL INFORMATION**

DATE	: 12/15/94	TICKET	: 20406
CUSTOMER	: RED OAK ENERGY, INC.	LEASE	: ROTHER FARMS
WELL	: #1-21	TEST:	1
ELEVATION:	3886GR	GEOLOGIST:	BANKS
SECTION	: 21	FORMATION:	MORROW
RANGE	: 42W	COUNTY:	WALLACE
GAUGE SN#:	13760	STATE	: KS
		RANGE	: 3950
		CLOCK	: 12

**INITIAL FLOW**

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	67.00	67.00
5.00	67.00	0.00
10.00	74.00	7.00
15.00	84.00	10.00
20.00	99.00	15.00
25.00	85.00	-14.00
30.00	86.00	1.00

**INITIAL SHUT IN**

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	461.00	461.00	0.00
6.00	502.00	41.00	0.00
9.00	528.00	26.00	0.00
12.00	546.00	18.00	0.00
15.00	560.00	14.00	0.00
18.00	577.00	17.00	0.00
21.00	587.00	10.00	0.00
24.00	595.00	8.00	0.00
27.00	603.00	8.00	0.00
30.00	611.00	8.00	0.00
33.00	620.00	9.00	0.00
36.00	625.00	5.00	0.00
39.00	630.00	5.00	0.00
42.00	635.00	5.00	0.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	125.00	125.00
5.00	104.00	-21.00
10.00	120.00	16.00
15.00	82.00	-38.00
20.00	137.00	55.00
25.00	133.00	-4.00
30.00	146.00	13.00
35.00	170.00	24.00
40.00	248.00	78.00
45.00	207.00	-41.00

FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	445.00	445.00	0.00
6.00	488.00	43.00	0.00
9.00	510.00	22.00	0.00
12.00	524.00	14.00	0.00
15.00	541.00	17.00	0.00
18.00	554.00	13.00	0.00
21.00	563.00	9.00	0.00
24.00	570.00	7.00	0.00
27.00	580.00	10.00	0.00
30.00	586.00	6.00	0.00
33.00	592.00	6.00	0.00
36.00	598.00	6.00	0.00
39.00	605.00	7.00	0.00
42.00	610.00	5.00	0.00
45.00	615.00	5.00	0.00
48.00	619.00	4.00	0.00
51.00	623.00	4.00	0.00
54.00	626.00	3.00	0.00
57.00	629.00	3.00	0.00

FLUID SAMPLE REPORT

GENERAL INFORMATION

DATE : 12/15/94  
CUSTOMER : RED OAK ENERGY, INC.  
WELL : #1-21 TEST: 1  
ELEVATION: 3886GR  
SECTION : 21  
RANGE : 42W COUNTY: WALLACE  
GAUGE SN#: 13760 RANGE : 3950  
TICKET : 20406  
LEASE : ROTHER FARMS  
GEOLOGIST: BANKS  
FORMATION: MORROW  
TOWNSHIP : 15S  
STATE : KS  
CLOCK : 12

SAMPLE INFORMATION

PRESSURE IN SAMPLER: 75.00 PSIG BHT: 0.0 DEG F  
TOTAL VOLUME OF SAMPLER: 3150.00 cc  
TOTAL VOLUME OF SAMPLE: 3150.00 cc  
OIL: 0.00 cc  
WATER: 0.00 cc  
MUD: 3150.00 cc  
GAS: 0.00 cc  
OTHER: 0.00 cc

RESISTIVITY

DRILLING MUD: CHLORIDE CONTENT: 0.00 ppm  
MUD PIT SAMPLE: CHLORIDE CONTENT: 0.00 ppm  
GAS/OIL RATIO: GRAVITY:  
WHERE WAS SAMPLE DRAINED:  
REMARKS: