



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET NO 8714

P. O. BOX 1599 PHONE (316) 262-5861

Elevation 1150 KB Formation LA PERRY SS Eff. Pay Ft.

WICHITA, KANSAS 67201

RD 40 District Augusta Date 12-27-85 Customer Order No.

COMPANY NAME RANGE Oil Co. INC

ADDRESS 240 PAGE COURT 220 W. Douglas Wichita Ks. 67202

LEASE AND WELL NO. JIMMERSON "A" #1 COUNTY Cowley STATE KS Sec. 27 Twp. 34 S Rge. 3 E

Mail Invoice To SAMA No. Copies Requested Reg

Co. Name SAME #1 JIMMERSON "A" Address No. Copies Requested Reg

Mail Charts To Address

Formation Test No. 1 Interval Tested From 2411 ft. to 2425 ft. Total Depth 2425 ft.

Packer Depth 2406 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Packer Depth 2411 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 2419 ft. Recorder Number 1134 Cap. 4475

Bottom Recorder Depth (Outside) 2422 ft. Recorder Number 13521 Cap. 4375

Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor RANGE OIL #2 Drill Collar Length 205 I. D. 2.25 in.

Mud Type Chemical Viscosity 40 Weight Pipe Length I. D. in.

Weight 9.8 Water Loss 12.0 cc. Drill Pipe Length 2186 I. D. 3.8 in.

Chlorides 2,500 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 O.D. in.

Jars: Make Serial Number Anchor Length 14 ft. Size 5 1/2 O.D. in.

Did Well Flow? NO Reversed Out NO Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Main Hole Size 7 1/8 in. Tool Joint Size 4 1/2 x 4 in.

Blow: STRONG blow throughout test with GAS to SURFACE 2nd & FLOW

Recovered 70 ft. of Heavy Gas Cut Mud

Recovered 120 ft. of Muddy Water

Recovered ft. of

Recovered ft. of

Recovered ft. of

Chlorides 98,000 P.P.M. Sample Jars used 4 Remarks: GAS FLOW REPORT # 4452

Time On Location 7:30 A.M. Time Pick Up Tool 9:00 A.M. Time Off Location 4:00 A.M.

Time Set Packer(s) 10:15 P.M. Time Started Off Bottom 1:15 P.M. Maximum Temperature 98°

Initial Hydrostatic Pressure (A) 1250 P.S.I.

Initial Flow Period Minutes 30 (B) 43 P.S.I. to (C) 43 P.S.I.

Initial Closed In Period Minutes 30 (D) 642 P.S.I.

Final Flow Period Minutes 60 (E) 54 P.S.I. to (F) 65 P.S.I.

Final Closed In Period Minutes 60 (G) 697 P.S.I.

Final Hydrostatic Pressure (H) 1238 P.S.I.

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.

All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By [Signature] H. G. McMAHON, III

Signature of Customer or his authorized representative

Western Representative

[Signature] KENNETH ZIMMERMAN

FIELD INVOICE

Open Hole Test \$550
Mistun \$
Straddle Test \$
Jars \$
Selective Zone \$
Safety Joint \$
Standby \$
Evaluation \$
Extra Packer \$
Circ. Sub. \$
Mileage \$
Fluid Sampler \$
Extra Charts \$
Insurance \$
Telecopier \$
TOTAL \$



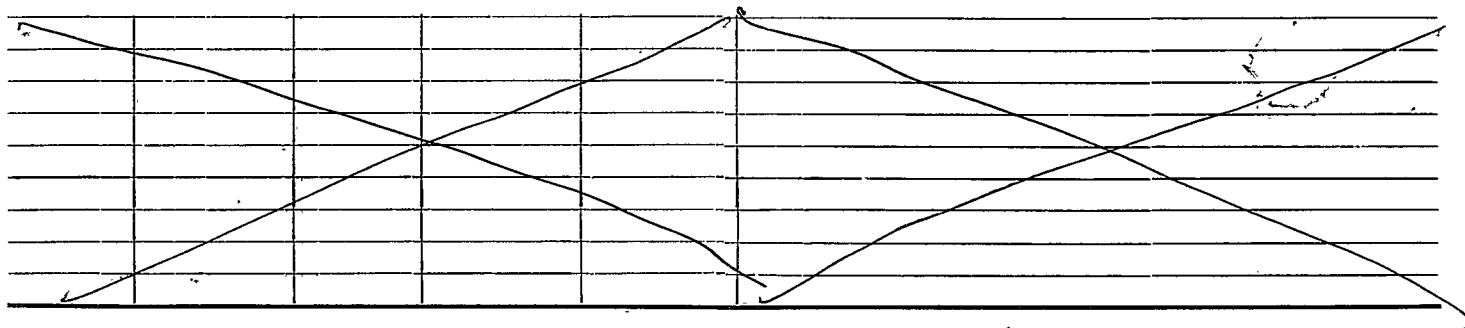
GAS FLOW REPORT

No. 4452

Date 12-27-85 Ticket 8714 Company Range Oil Co. Inc
 Well Name and No. Jimmerson "A" #1 Dst No. 1 Interval Tested 2411-2425
 County Cowley State Ks Sec. 27 Twp. 34 Rg. 3

Time Gauge in Min.	P.S.I. on Merla Orifice Well Tester	Size of Orifice	P.S.I. on Pitot Tester	P.S.I. on Side Static Tester	Description of Flow
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PRE FLOW



SECOND FLOW

15 15	1.0	1/4"		1,680	CFPD
15 30	4.0	1/4"		3,370	CFPD
15 45	1.0	1/4"		1,680	CFPD
15 60	—	1/4"		Not able to GAUGE	

GAS BOTTLE

Serial No. 542 Date Bottle Filled 12-27-85 Date to be Invoiced 1-27-86

Requisition and Provisions for high pressure stainless steel gas bottles. Western Testing Co., Inc. shall not be liable for damage of any kind to property or personnel of the one whom gas bottle is filled or for any loss suffered or sustained directly or indirectly through the use of these bottles. By signing of this ticket showing receipt of a gas testing bottle, the undersigned agrees for himself and as agent for operator, to return this bottle to Western Testing Co., Inc. within thirty (30) days free of charge, or be invoiced in the amount of \$75.00 (total charge). Should valve or seal plug be missing or damaged beyond repair, operator shall be invoiced for repairs at our invoiced price.

All charges subject to 1 1/2% per month, equal to 18% interest per annum after 30 days from date of invoice. Any expense incurred for collection will be added to the original amount.

COMPANY'S NAME Range Oil Co. Inc.Authorized by [Signature] H.G. McHAB III

WESTERN TESTING CO., INC.

Pressure Data

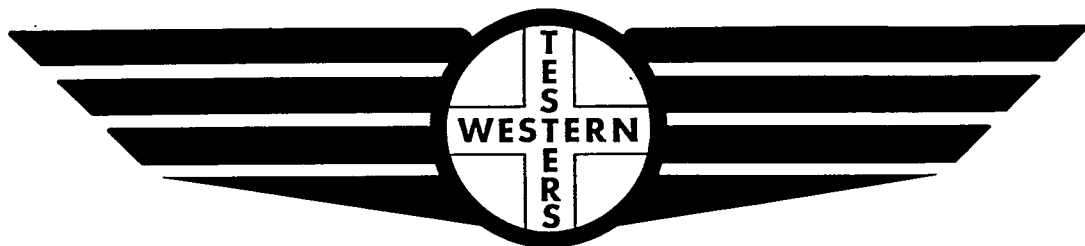
Date 12-27-85 Test Ticket No. 8714
 Recorder No. 13521 Capacity 4375 Location _____ Ft.
 Clock No. _____ Elevation _____ Well Temperature 98 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1291</u>	P.S.I.	<u>10:15 A.M.</u>	<u>1:15 P.</u>
B First Initial Flow Pressure	<u>79</u>	P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>85</u>	P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
D Initial Closed-in Pressure	<u>663</u>	P.S.I.	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>97</u>	P.S.I.	<u>60</u> Mins.	<u>90</u> Mins.
F Second Final Flow Pressure	<u>106</u>	P.S.I.		
G Final Closed-in Pressure	<u>742</u>	P.S.I.		
H Final Hydrostatic Mud	<u>1291</u>	P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.	
of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	<u>79</u>						
P 2 5	<u>1</u>	3	<u>170</u>	5	<u>97</u>	3	<u>177</u>
P 3 10	<u>1</u>	6	<u>268</u>	10	<u>1</u>	6	<u>272</u>
P 4 15		9	<u>352</u>	15	<u>1</u>	9	<u>351</u>
P 5 20	<u>79</u>	12	<u>422</u>	20	<u>1</u>	12	<u>418</u>
P 6 25	<u>84</u>	15	<u>478</u>	25	<u>1</u>	15	<u>469</u>
P 7 30	<u>85</u>	18	<u>531</u>	30	<u>97</u>	18	<u>504</u>
P 8 35		21	<u>575</u>	35	<u>98</u>	21	<u>538</u>
P 9 40		24	<u>619</u>	40	<u>99</u>	24	<u>566</u>
P 10 45		27	<u>648</u>	45	<u>100</u>	27	<u>588</u>
P 11 50		30	<u>663</u>	50	<u>102</u>	30	<u>612</u>
P 12 55		33		55	<u>104</u>	33	<u>631</u>
P 13 60		36		60	<u>106</u>	36	<u>649</u>
P 14 65		39		65		39	<u>664</u>
P 15 70		42		70		42	<u>679</u>
P 16 75		45		75		45	<u>694</u>
P 17 80		48		80		48	<u>707</u>
P 18 85		51		85		51	<u>717</u>
P 19 90		54		90		54	<u>726</u>
P 20 95		57		95		57	<u>736</u>
100		60		100		60	<u>742</u>

FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

COMPANY RANGE OIL COMPANY, INC. LEASE & WELL NO. #1 JIMMERSON "A" SEC. 27 TWP. 34S RGE. 3E TEST NO. 1 DATE 12/27/85

SUBSURFACE PRESSURE SURVEY

DATE	: 122785	TICKET	: 8714
CUSTOMER	: RANGE OIL COMPANY INC.	LEASE	: JIMMERSON "A"
WELL	: #1 TEST: 1	GEOLOGIST	: McMAHON III
ELEVATION	: 1150	FORMATION	: PERRY SS
SECTION	: 27	TOWNSHIP	: 34S
RANGE	: 3E	COUNTY	: COWLEY
GAUGE SN#	: 13521	STATE	: KANSAS
		RANGE	: 4375
		CLOCK	: 12

INTERVAL FROM	: 2411	TO	: 2425	TOTAL DEPTH	: 2425
DEPTH OF SELECTIVE ZONE	:				
PACKER DEPTH	: 2406	SIZE	: 6 3/4		
PACKER DEPTH	: 2411	SIZE	: 6 3/4		
PACKER DEPTH	:	SIZE	:		
PACKER DEPTH	:	SIZE	:		

DRILLING CON.	: RANGE #2		
MUD TYPE	: CHEMICAL	VISCOSITY	: 40
WEIGHT	: 9.8	WATER LOSS (CC)	: 12.0
CHLORIDES (PPM)	: 2500		
JARS-MAKE	: -	SERIAL NUMBER	: -
DID WELL FLOW ?	: NO	REVERSED OUT ?	: NO

DRILL COLLAR LENGTH	: 205	FT	I.D. inch	: 2.25
WEIGHT PIPE LENGTH	: 0	FT	I.D. inch	: 0.00
DRILL PIPE LENGTH	: 2186	FT	I.D. inch	: 3.80
TEST TOOL LENGTH	: 20	FT	TOOL SIZE	: 5.50
ANCHOR LENGTH	: 14	FT	ANCHOR SIZE	: 5.50
SURFACE CHOKE SIZE	: .75	IN	BOTTOM CHOKE SIZE	: .75
MAIN HOLE SIZE	: 7.875	IN	TOOL JOINT SIZE	: 4.5

BLOW COMMENT #1 : STRONG BLOW THROUGHOUT TEST
 BLOW COMMENT #2 : GAS TO SURFACE ON FINAL FLOW PERIOD.
 BLOW COMMENT #3 : SEE ATTACHED SHEET FOR GAS MEASUREMENTS.
 BLOW COMMENT #4 :

RECOVERED	: 70	FT	OF: HEAVY GAS CUT MUD	0.34 Barrels
RECOVERED	: 120	FT	OF: MUDDY WATER	0.59 Barrels
RECOVERED	: 0	FT	OF: 0.00 Barrels	
RECOVERED	: 0	FT	OF: 0.00 Barrels	
RECOVERED	: 0	FT	OF: 0.00 Barrels	
RECOVERED	: 0	FT	OF: 0.00 Barrels	
RECOVERED	: 0	FT	OF: 0.00 Barrels	
RECOVERED	: 0	FT	OF: 0.00 Barrels	
RECOVERED	: 0	FT	OF: 0.00 Barrels	
Total Barrels =	0.9	Total Production =	14.9 Bpd	

REMARK 1 : 98000 PPM CHLORIDES
 REMARK 2 :
 REMARK 3 :
 REMARK 4 :

SET PACKER(S)	: 10:15	TIME STARTED OFF BOTTOM	: 1:15 PM
WELL TEMPERATURE	: 98		
INITIAL HYDROSTATIC PRESSURE		(A)	1291
INITIAL FLOW PERIOD	MIN: 30	(B)	79 PSI TO (C) : 85
INITIAL CLOSED IN PERIOD	MIN: 30	(D)	663
FINAL FLOW PERIOD	MIN: 60	(E)	97 PSI TO (F) : 106
FINAL CLOSED IN PERIOD	MIN: 60	(G)	742
FINAL HYDROSTATIC PRESSURE		(H)	1291

GAS FLOW REPORT

Date : 12-27-85 Ticket # : 8714
 Customer : RANGE OIL COMPANY INC. Lease : JIMMERSON "A"
 Well : #1 Test : 1 Geologist : McMAHON
 Elevation (KB) : 1150 Formation : PERRY SS
 Section : 27 Township : 34S
 Range : 3E County : COWLEY State : KANSAS
 Gauge SN # : 13521 Range : 4375 Clock : 12

TIME GAUGE (MIN)	TESTER TYPE	ORFICE SIZE	PRESSURE (PSI)	FLOW DESCRIPTION
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PRE FLOW

SECOND FLOW

15	MERLA	1/4	1.0" WTR	1680 CFPD
30	MERLA	1/4	4.0" WTR	3370
45	MERLA	1/4	1.0" WTR	1680
60	MERLA	1/4		NOT ABLE TO GAUGE

Gas Bottle SN # : 542
 Date Bottle Filled : 12-27-85
 Date to be Invoiced : 12-27-85

Pressure Transient Report

DATA FILE.....

COMPANY.....RANGE OIL COMPANY INC.

DATE OF TEST.....122785

FIELD NAME.....JIMMERSON "A"

WELL NAME.....#1

LOCATION.....COWLEY-KANSAS

JOB NUMBER.....8714

GAUGE NUMBER.....13521

GAUGE DEPTH.....2425

COMMENTS
98000 PPM CHLORIDES

START UP TIME	(mo/da/yr)	(hr:min:sec)
	12./27/85.	10.: 15.: 0.

COMPANY : RANGE OIL COMPANY INC.
WELL : #1 JOB # : 8714
GAUGE # : 13521 DEPTH : 2425
MON/DAY : 12/27

FIELD : JIMMERSON "A"

PAGE 1

REC#	REAL TIME HR:MIN:SEC	ELAPSE TIME MINS HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P (Po-Pi)	DP/DT Psi/hr
1	10:15: 0	0 0.000	79.00	98.0	0.00	0.00
2	10:20: 0	5 0.083	79.00	98.0	0.00	0.00
3	10:25: 0	10 0.167	79.00	98.0	0.00	0.00
4	10:30: 0	15 0.250	79.00	98.0	0.00	0.00
5	10:35: 0	20 0.333	79.00	98.0	0.00	0.00
6	10:40: 0	25 0.417	84.00	98.0	5.00	59.53
7	10:45: 0	30 0.500	85.00	98.0	6.00	12.05
8	10:48: 0	33 0.550	170.00	98.0	91.00	1706.67
9	10:51: 0	36 0.600	268.00	98.0	189.00	1967.69
10	10:54: 0	39 0.650	352.00	98.0	273.00	1654.15
11	10:57: 0	42 0.700	422.00	98.0	343.00	1405.49
12	11: 0: 0	45 0.750	478.00	98.0	399.00	1124.39
13	11: 3: 0	48 0.800	531.00	98.0	452.00	1064.16
14	11: 6: 0	51 0.850	575.00	98.0	496.00	883.45
15	11: 9: 0	54 0.900	619.00	98.0	540.00	866.46
16	11:12: 0	57 0.950	648.00	98.0	569.00	582.27
17	11:15: 0	60 1.000	663.00	98.0	584.00	301.18
18	11:16: 0	61 1.017	97.00	98.0	18.00	-34093.18
19	11:20: 0	65 1.083	97.00	98.0	18.00	0.00
20	11:25: 0	70 1.167	97.00	98.0	18.00	0.00
21	11:30: 0	75 1.250	97.00	98.0	18.00	0.00
22	11:35: 0	80 1.333	97.00	98.0	18.00	0.00
23	11:40: 0	85 1.417	97.00	98.0	18.00	0.00
24	11:45: 0	90 1.500	97.00	98.0	18.00	0.00
25	11:50: 0	95 1.583	98.00	98.0	19.00	12.05
26	11:55: 0	100 1.667	99.00	98.0	20.00	11.91
27	12: 0: 0	105 1.750	100.00	98.0	21.00	12.05
28	12: 5: 0	110 1.833	102.00	98.0	23.00	24.09
29	12:10: 0	115 1.917	104.00	98.0	25.00	23.81
30	12:15: 0	120 2.000	106.00	98.0	27.00	24.09
31	12:18: 0	123 2.050	177.00	98.0	98.00	1425.57
32	12:21: 0	126 2.100	272.00	98.0	193.00	1907.45
33	12:24: 0	129 2.150	351.00	98.0	272.00	1555.69
34	12:27: 0	132 2.200	418.00	98.0	339.00	1345.25
35	12:30: 0	135 2.250	469.00	98.0	390.00	1024.00
36	12:33: 0	138 2.300	504.00	98.0	425.00	702.75
37	12:36: 0	141 2.350	538.00	98.0	459.00	682.67
38	12:39: 0	144 2.400	566.00	98.0	487.00	551.38
39	12:42: 0	147 2.450	588.00	98.0	509.00	441.73
40	12:45: 0	150 2.500	612.00	98.0	533.00	481.88
41	12:48: 0	153 2.550	631.00	98.0	552.00	381.49
42	12:51: 0	156 2.600	649.00	98.0	570.00	361.41
43	12:54: 0	159 2.650	664.00	98.0	585.00	295.38
44	12:57: 0	162 2.700	679.00	98.0	600.00	301.18
45	13: 0: 0	165 2.750	696.00	98.0	617.00	341.33
46	13: 3: 0	168 2.800	707.00	98.0	628.00	220.86
47	13: 6: 0	171 2.850	717.00	98.0	638.00	200.78
48	13: 9: 0	174 2.900	726.00	98.0	647.00	177.23
49	13:12: 0	177 2.950	736.00	98.0	657.00	200.78

COMPANY : RANGE OIL COMPANY INC. FIELD : JIMMERSON "A"
WELL : #1 JOB # : 8714
GAUGE # : 13521 DEPTH : 2425
MON/DAY : 12/27

PAGE 2

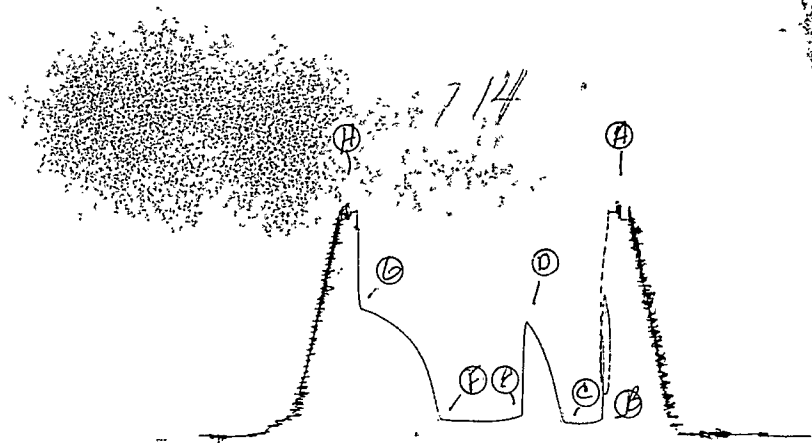
REC#	REAL TIME HR:MIN:SEC	ELAPSE TIME MINS HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P (Po-Pi)	DP/DT Psi/hr
50	13:15: 0	180 3.000	742.00	98.0	663.00	120.47

103

OK # 8714

O

13521 0521 TK#8714



1139 05+01 TK#8714

SK # 8714
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WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET NO 8715

P. O. BOX 1599 PHONE (316) 262-5861

Elevation 1150 KB Formation Layton Bff. Pay Ft.

WICHITA, KANSAS 67201

District Augusta

Date 12-28-85 Customer Order No.

COMPANY NAME RANGE Oil Co. INC.

ADDRESS 240 Page Court 220 W Douglas Wichita Ks. 67202

LEASE AND WELL NO. Jimmerson 'A' #1 COUNTY Cowley STATE KS Sec. 27 Twp. 34S Rge. 3E

Mail Invoice To SAME Co. Name SAME #1 Jimmerson 'A' Address No. Copies Requested Reg

Mail Charts To SAME #1 Jimmerson 'A' Address No. Copies Requested Reg

Formation Test No. 2 Interval Tested From 2621 ft. to 2630 ft. Total Depth 2630 ft.

Packer Depth 2616 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Packer Depth 2621 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 2624 ft.

Recorder Number 1134 Cap. 4475

Bottom Recorder Depth (Outside) 2627 ft.

* Recorder Number 13521 Cap. 4375

Below Straddle Recorder Depth ft.

Recorder Number Cap.

Drilling Contractor RANGE DRIG Rig #2

Drill Collar Length 205 I. D. 2.25 in.

Mud Type Chemical Viscosity 54

Weight Pipe Length I. D. in.

Weight 10.0 Water Loss 12.0 cc.

Drill Pipe Length 2396 I. D. 3.8 in.

Chlorides 2600 P.P.M.

Test Tool Length 20 ft. Tool Size 5 1/2 O.D. in.

Jars: Make Serial Number

Anchor Length 9 ft. Size 5 1/2 O.D. in.

Did Well Flow? NO Reversed Out

Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 X H in.

Blow: FFP Weak Steady blow 4"

FFP Weak Steady blow 4"

Recovered 80 ft. of Mud with slight show of water

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Chlorides 74,000 P.P.M. Sample Jars used Remarks:

Read Outside Chart!

Time On Location 4:00 A.M. Time Pick Up Tool 4:30 A.M. Time Off Location A.M.

Time Set Packer(s) 5:35 A.M. Time Started Off Bottom 8:35 A.M. Maximum Temperature 110°F

Initial Hydrostatic Pressure (A) 1406 P.S.I.

Initial Flow Period Minutes 30 (B) 10 P.S.I. to (C) 10 P.S.I.

Initial Closed In Period Minutes 30 (D) 807 P.S.I.

Final Flow Period Minutes 60 (E) 54 P.S.I. to (F) 54 P.S.I.

Final Closed In Period Minutes 60 (G) 861 P.S.I.

Final Hydrostatic Pressure (H) 1383 P.S.I.

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.

All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By H.G. McMAHON, III
Signature of Customer or his authorized representative

Western Representative Kevin E Zimmerman

FIELD INVOICE

Open Hole Test \$550
Misrun \$
Straddle Test \$
Jars \$
Selective Zone \$
Safety Joint \$
Standby \$
Evaluation \$
Extra Packer \$
Circ. Sub. \$
Mileage \$
Fluid Sampler \$
Extra Charts \$
Insurance \$
Telecopier \$
TOTAL \$

WESTERN TESTING CO., INC.

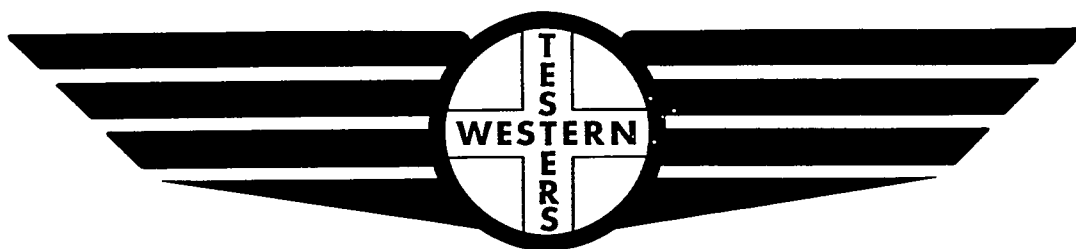
Pressure Data

Date 12-28-85 Test Ticket No. 8715
 Recorder No. 13521 Capacity 4375 Location _____ Ft. _____
 Clock No. _____ Elevation _____ Well Temperature 110 °F
 Point _____ Pressure _____ Time Given _____ Time Computed _____
 A Initial Hydrostatic Mud 1403 P.S.I. Open Tool 5:35 A 8:35 A
 B First Initial Flow Pressure 13 P.S.I. First Flow Pressure 30 Mins. 30 Mins.
 C First Final Flow Pressure 13 P.S.I. Initial Closed-in Pressure 30 Mins. 30 Mins.
 D Initial Closed-in Pressure 821 P.S.I. Second Flow Pressure 60 Mins. 60 Mins.
 E Second Initial Flow Pressure 38 P.S.I. Final Closed-in Pressure 60 Mins. 65 Mins.
 F Second Final Flow Pressure 47 P.S.I.
 G Final Closed-in Pressure 876 P.S.I.
 H Final Hydrostatic Mud 1461 P.S.I.

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.	
of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	<u>13</u>						
P 2 5		3	<u>14</u>	5	<u>38</u>	3	<u>55</u>
P 3 10		6	<u>30</u>	10	<u>1</u>	6	<u>80</u>
P 4 15		9	<u>35</u>	15	<u>1</u>	9	<u>132</u>
P 5 20		12	<u>84</u>	20	<u>38</u>	12	<u>235</u>
P 6 25		15	<u>328</u>	25	<u>39</u>	15	<u>414</u>
P 7 30	<u>13</u>	18	<u>489</u>	30	<u>41</u>	18	<u>586</u>
P 8 35		21	<u>670</u>	35	<u>43</u>	21	<u>681</u>
P 9 40		24	<u>737</u>	40	<u>45</u>	24	<u>737</u>
P 10 45		27	<u>798</u>	45	<u>47</u>	27	<u>770</u>
P 11 50		30	<u>821</u>	50	<u>1</u>	30	<u>794</u>
P 12 55		33		55	<u>1</u>	33	<u>814</u>
P 13 60		36		60	<u>47</u>	36	<u>857</u>
P 14 65		39		65		39	<u>837</u>
P 15 70		42		70		42	<u>844</u>
P 16 75		45		75		45	<u>850</u>
P 17 80		48		80		48	<u>856</u>
P 18 85		51		85		51	<u>861</u>
P 19 90		54		90		54	<u>867</u>
P 20 95		57		95		57	<u>870</u>
100		60		100		60	<u>873</u>
						<u>63</u>	<u>876</u>

FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

COMPANY RANGE OIL COMPANY, INC. LEASE & WELL NO. #1 JIMMERSON "A" SEC. 27 TWP. 34S RGE. 3E TEST NO. 2 DATE 12/28/85

SUBSURFACE PRESSURE SURVEY

DATE : 12-28-85 TICKET : 8715
 CUSTOMER : RANGE OIL COMPANY INC. LEASE : JIMMERSON "A"
 WELL : 1 TEST: 2 GEOLOGIST : MCMAHON
 ELEVATION : 1150 FORMATION : LAYTON
 SECTION : 27 TOWNSHIP : 34S
 RANGE : 3E COUNTY : COWLEY STATE : KANSAS
 GAUGE SN# : 13521 RANGE : 4375 CLOCK : 12

INTERVAL FROM : 2621 TO : 2630 TOTAL DEPTH : 2630
 DEPTH OF SELECTIVE ZONE :
 PACKER DEPTH : 2616 SIZE : 6.75
 PACKER DEPTH : 2621 SIZE : 6.75
 PACKER DEPTH : SIZE :
 PACKER DEPTH : SIZE :

DRILLING CON. : RANGE DRLG
 MUD TYPE : CHEMICAL VISCOSITY : 54
 WEIGHT : 10.0 WATER LOSS (CC) : 12.0
 CHLORIDES (PPM) : 2600
 JARS-MAKE : SERIAL NUMBER :
 DID WELL FLOW ? : NO REVERSED OUT ? :

DRILL COLLAR LENGTH : 205 FT I.D. inch : 2.25
 WEIGHT PIPE LENGTH : 0 FT I.D. inch : 0.00
 DRILL PIPE LENGTH : 2396 FT I.D. inch : 3.80
 TEST TOOL LENGTH : 20 FT TOOL SIZE : 5.50
 ANCHOR LENGTH : 9 FT ANCHOR SIZE : 5.50
 SURFACE CHOKE SIZE : .75 IN BOTTOM CHOKE SIZE : .75
 MAIN HOLE SIZE : 7 7/8 IN TOOL JOINT SIZE : 4.5 XH

BLOW COMMENT #1 : INITIAL FLOW PERIOD WEAK STEADY 4" BLOW.
 BLOW COMMENT #2 : FINAL FLOW PERIOD WEAK STEADY 4" BLOW.
 BLOW COMMENT #3 :
 BLOW COMMENT #4 :

RECOVERED : 80 FT OF: MUD W/ SLIGHT SHOW OF WATER. 0.39 Barrel
 RECOVERED : 0 FT OF: CHLORIDES 74000 PPM. 0.00 Barrels
 RECOVERED : 0 FT OF: 0.00 Barrels
 RECOVERED : 0 FT OF: 0.00 Barrels
 RECOVERED : 0 FT OF: 0.00 Barrels
 RECOVERED : 0 FT OF: 0.00 Barrels
 RECOVERED : 0 FT OF: 0.00 Barrels
 RECOVERED : 0 FT OF: 0.00 Barrels
 RECOVERED : 0 FT OF: 0.00 Barrels
 Total Barrels = 0.4 Total Production = 6.3 Bpd

REMARK 1 : READ OUTSIDE CHART.
 REMARK 2 :
 REMARK 3 :
 REMARK 4 :

SET PACKER(S) : 5:35 AM TIME STARTED OFF BOTTOM : 8:35 AM
 WELL TEMPERATURE : 110
 INITIAL HYDROSTATIC PRESSURE (A) 1403
 INITIAL FLOW PERIOD MIN: 30 (B) 13 PSI TO (C) : 13
 INITIAL CLOSED IN PERIOD MIN: 30 (D) 821
 FINAL FLOW PERIOD MIN: 60 (E) 38 PSI TO (F) : 47
 FINAL CLOSED IN PERIOD MIN: 63 (G) 876
 FINAL HYDROSTATIC PRESSURE (H) 1401

Pressure Transient Report

DATA FILE.....

COMPANY.....RANGE OIL COMPANY INC.

DATE OF TEST.....12-28-85

FIELD NAME.....JIMMERSON "A"

WELL NAME.....1

LOCATION.....COWLEY-KANSAS

JOB NUMBER.....8715

GAUGE NUMBER.....13521

GAUGE DEPTH.....2630

COMMENTS
READ OUTSIDE CHART.

START UP TIME	(mo/da/yr)	(hr:min:sec)
	12./28/85.	5.: 35.: 0.

COMPANY : RANGE OIL COMPANY INC. . FIELD : JIMMERSON "A" . . .
WELL : 1 * * JOB # : 8715
GAUGE # : 13521 DEPTH : 2630
MON/DAY : 12/28

PAGE 1

REC#	REAL TIME HR:MIN:SEC	ELAPSE TIME MINS HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P (Po-Pi)	DP/DT Psi/hr
1	5:35: 0	0 0.000	13.00	110.0	0.00	0.00
2	5:40: 0	5 0.084	13.00	110.0	0.00	0.00
3	5:45: 0	10 0.167	13.00	110.0	0.00	0.00
4	5:50: 0	15 0.250	13.00	110.0	0.00	0.00
5	5:55: 0	20 0.334	13.00	110.0	0.00	0.00
6	6: 0: 0	25 0.417	13.00	110.0	0.00	0.00
7	6: 5: 0	30 0.500	13.00	110.0	0.00	0.00
8	6: 8: 0	33 0.551	14.00	110.0	1.00	19.69
9	6:11: 0	36 0.601	20.00	110.0	7.00	120.47
10	6:14: 0	39 0.650	35.00	110.0	22.00	301.18
11	6:17: 0	42 0.700	84.00	110.0	71.00	983.84
12	6:20: 0	45 0.750	228.00	110.0	215.00	2891.29
13	6:23: 0	48 0.801	489.00	110.0	476.00	5139.69
14	6:26: 0	51 0.851	670.00	110.0	657.00	3634.20
15	6:29: 0	54 0.900	737.00	110.0	724.00	1345.25
16	6:32: 0	57 0.950	790.00	110.0	777.00	1064.16
17	6:35: 0	60 1.000	821.00	110.0	808.00	622.43
18	6:36: 0	61 1.017	38.00	110.0	25.00	-47164.23
19	6:40: 0	65 1.084	38.00	110.0	25.00	0.00
20	6:45: 0	70 1.167	38.00	110.0	25.00	0.00
21	6:50: 0	75 1.250	38.00	110.0	25.00	0.00
22	6:55: 0	80 1.334	38.00	110.0	25.00	0.00
23	7: 0: 0	85 1.417	39.00	110.0	26.00	12.05
24	7: 5: 0	90 1.500	41.00	110.0	28.00	24.09
25	7:10: 0	95 1.584	43.00	110.0	30.00	23.81
26	7:15: 0	100 1.667	45.00	110.0	32.00	24.09
27	7:20: 0	105 1.750	47.00	110.0	34.00	24.09
28	7:25: 0	110 1.834	47.00	110.0	34.00	0.00
29	7:30: 0	115 1.917	47.00	110.0	34.00	0.00
30	7:35: 0	120 2.000	47.00	110.0	34.00	0.00
31	7:38: 0	123 2.051	55.00	110.0	42.00	157.54
32	7:41: 0	126 2.101	80.00	110.0	67.00	501.96
33	7:44: 0	129 2.150	133.00	110.0	120.00	1064.16
34	7:47: 0	132 2.200	235.00	110.0	222.00	2048.00
35	7:50: 0	135 2.250	414.00	110.0	401.00	3594.04
36	7:53: 0	138 2.301	586.00	110.0	573.00	3387.08
37	7:56: 0	141 2.351	681.00	110.0	668.00	1907.45
38	7:59: 0	144 2.400	737.00	110.0	724.00	1124.39
39	8: 2: 0	147 2.450	770.00	110.0	757.00	662.59
40	8: 5: 0	150 2.500	794.00	110.0	781.00	481.88
41	8: 8: 0	153 2.551	814.00	110.0	801.00	393.85
42	8:11: 0	156 2.601	827.00	110.0	814.00	261.02
43	8:14: 0	159 2.650	837.00	110.0	824.00	200.78
44	8:17: 0	162 2.700	844.00	110.0	831.00	140.55
45	8:20: 0	165 2.750	850.00	110.0	837.00	120.47
46	8:23: 0	168 2.801	856.00	110.0	843.00	118.15
47	8:26: 0	171 2.851	861.00	110.0	848.00	100.39
48	8:29: 0	174 2.900	867.00	110.0	854.00	120.47
49	8:32: 0	177 2.950	870.00	110.0	857.00	60.24

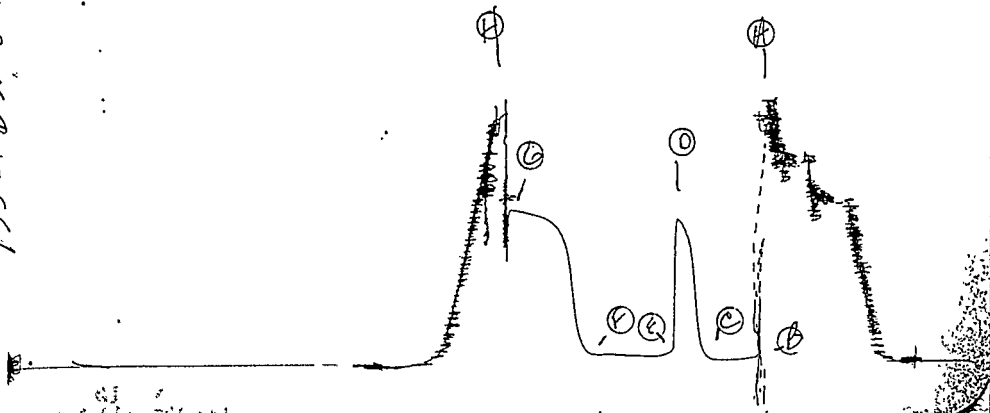
COMPANY : RANGE OIL COMPANY INC. FIELD : JIMMERSON "A"
WELL : 1 * JOB # : 8715
GAUGE # : 13521 DEPTH : 2630
MON/DAY : 12/28

PAGE 2

REC#	REAL TIME HR:MIN:SEC	ELAPSE TIME MINS HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P (Po-Pi)	DP/DT Psi/hr
50	8:35: 0	180 3.000	873.00	110.0	860.00	60.24
51	8:38: 0	183 3.051	876.00	110.0	863.00	59.08

1998

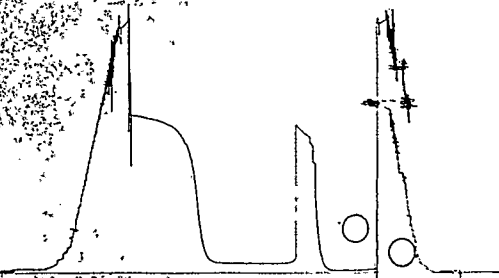
5



K # 8715

I

1134 DS#2 TK#8715





WESTERN TESTING CO., INC.
FORMATION TESTING

P. O. BOX 1599 PHONE (316) 262-5861

WICHITA, KANSAS 67201

Elevation 1150 KB

Formation

TICKET

Nº

8716

Eff. Pay Ft.

R040

District Augusta

Date 12-29-85

Customer Order No.

COMPANY NAME RANGE OIL CO., INC.

ADDRESS 240 PAGE COURT 220 W. Douglas WICHITA KS, 67202

LEASE AND WELL NO JIMMERSON A #1 COUNTY Cowley STATE KS Sec. 27 Twp. 34 Rge. 3E

Mail Invoice To SAME #1 JIMMERSON "A"

No. Copies Requested Reg

Co. Name

Address

Mail Charts To SAME

No. Copies Requested Reg

Address

Formation Test No. 3 Interval Tested From 2965 ft. to 2990 ft. Total Depth 2990 ft.

Packer Depth 2960 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Packer Depth 2965 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 2984 ft.

Recorder Number 1134 Cap. 4475

Bottom Recorder Depth (Outside) 2987 ft.

Recorder Number 13521 Cap. 4375

Below Straddle Recorder Depth ft.

Recorder Number Cap.

Drilling Contractor RANGE DRG Rig #2

Drill Collar Length 205 I. D. 2.25 in.

Mud Type Chemical Viscosity 45

Weight Pipe Length I. D. in.

Weight 10.0 Water Loss 12.0 cc.

Drill Pipe Length 2740 I. D. 3.8 in.

Chlorides 1400 P.P.M.

Test Tool Length 20 ft. Tool Size 5 1/2 O.D. in.

Jars: Make Serial Number

Anchor Length 25 ft. Size 5 1/2 O.D. in.

Did Well Flow? NO Reversed Out NO

Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 x H in.

Blow: JPP Fair Blow Off Bttm bucket 5 min

FFP Fair Blow Bttm 10 min

Recovered 300 ft. of GAS IN PIPE

Recovered 20 ft. of oil & GAS Cut Mud 2% O.I. 10% GAS 88% mud

Recovered 30 ft. of Gas Cut Mud 5% GAS 95% mud

Recovered ft. of

Recovered ft. of

Chlorides 1400 P.P.M. Sample Jars used 2 Remarks: Good Show oil on top of tool

Time On Location 10:45 A.M.

Time Pick Up Tool 12:20 A.M.

Time Off Location A.M.

Time Set Packer(s) 2:10 A.M.

Time Started Off Bottom 5:10 A.M.

Maximum Temperature 106°F

Initial Hydrostatic Pressure (A) 1561 P.S.I.

Initial Flow Period Minutes 30 (B) 43 P.S.I. to (C) 43 P.S.I.

Initial Closed In Period Minutes 30 (D) 130 P.S.I.

Final Flow Period JAN. 0.2.1986 Minutes 60 (E) 4.3 P.S.I. to (F) 43 P.S.I.

Final Closed In Period Minutes 60 (G) 206 P.S.I.

Final Hydrostatic Pressure (H) 1539 P.S.I.

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.

All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By H.G. McMAHON III
Signature of Customer or his authorized representative

Western Representative

FIELD INVOICE

Open Hole Test \$ 550.00
Misrun \$
Straddle Test \$
Jars \$
Selective Zone \$
Safety Joint \$
Standby \$
Evaluation \$
Extra Packer \$
Circ. Sub. \$
Mileage \$
Fluid Sampler \$
Extra Charts \$
Insurance \$
Telecopier \$
TOTAL \$ 550.00

Pressure Data

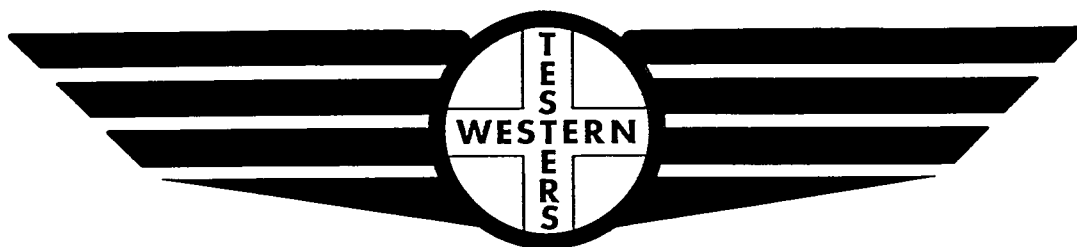
°F

Time Given	Time Computed
2:10 P.M.	5:10 P.M.
30 Mins.	30 Mins.
30 Mins.	30 Mins.
60 Mins.	60 Mins.
60 Mins.	63 Mins.

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.	
of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>39</u>						
P 2 <u>5</u>		<u>3</u>	<u>42</u>	<u>5</u>	<u>48</u>	<u>3</u>	<u>54</u>
P 3 <u>10</u>		<u>6</u>	<u>48</u>	<u>10</u>	<u>48</u>	<u>6</u>	<u>60</u>
P 4 <u>15</u>		<u>9</u>	<u>54</u>	<u>15</u>	<u>48</u>	<u>9</u>	<u>64</u>
P 5 <u>20</u>		<u>12</u>	<u>62</u>	<u>20</u>	<u>5</u>	<u>12</u>	<u>71</u>
P 6 <u>25</u>		<u>15</u>	<u>72</u>	<u>25</u>	<u>5</u>	<u>15</u>	<u>78</u>
P 7 <u>30</u>	<u>39</u>	<u>18</u>	<u>83</u>	<u>30</u>	<u>48</u>	<u>18</u>	<u>86</u>
P 8 <u>35</u>		<u>21</u>	<u>96</u>	<u>35</u>	<u>5</u>	<u>21</u>	<u>96</u>
P 9 <u>40</u>		<u>24</u>	<u>108</u>	<u>40</u>	<u>5</u>	<u>24</u>	<u>105</u>
P10 <u>45</u>		<u>27</u>	<u>121</u>	<u>45</u>	<u>48</u>	<u>27</u>	<u>114</u>
P11 <u>50</u>		<u>30</u>	<u>136</u>	<u>50</u>	<u>49</u>	<u>30</u>	<u>123</u>
P12 <u>55</u>		<u>33</u>		<u>55</u>	<u>49</u>	<u>33</u>	<u>132</u>
P13 <u>60</u>		<u>36</u>		<u>60</u>	<u>49</u>	<u>36</u>	<u>142</u>
P14 <u>65</u>		<u>39</u>		<u>65</u>		<u>39</u>	<u>151</u>
P15 <u>70</u>		<u>42</u>		<u>70</u>		<u>42</u>	<u>160</u>
P16 <u>75</u>		<u>45</u>		<u>75</u>		<u>45</u>	<u>168</u>
P17 <u>80</u>		<u>48</u>		<u>80</u>		<u>48</u>	<u>177</u>
P18 <u>85</u>		<u>51</u>		<u>85</u>		<u>51</u>	<u>186</u>
P19 <u>90</u>		<u>54</u>		<u>90</u>		<u>54</u>	<u>195</u>
P20 <u>95</u>		<u>57</u>		<u>95</u>		<u>57</u>	<u>203</u>
<u>100</u>		<u>60</u>		<u>100</u>		<u>60</u>	<u>212</u>
						<u>63</u>	<u>217</u>

FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

COMPANY RANGE OIL COMPANY, INC. LEASE & WELL NO. #1 JIMMERSON "A" SEC. 27 TWP. 34S RGE. 3E TEST NO. 3 DATE 12/29/85

SUBSURFACE PRESSURE SURVEY

DATE : 12/29/85 TICKET : 8716
 CUSTOMER : RANGE OIL COMPANY INC. LEASE : JIMMERSON "A"
 WELL : 1 TEST: 3 GEOLOGIST : MCMAHON
 ELEVATION : 1150 FORMATION : CLEVELAND SAND
 SECTION : 27 TOWNSHIP : 34S
 RANGE : 3E COUNTY : COWLEY STATE : KANSAS
 GAUGE SN# : 1134 RANGE : 4475 CLOCK : 12

INTERVAL FROM : 2965 TO : 2990 TOTAL DEPTH : 2990
 DEPTH OF SELECTIVE ZONE :
 PACKER DEPTH : 2960 SIZE : 6.75
 PACKER DEPTH : 2965 SIZE : 6.75
 PACKER DEPTH : SIZE :
 PACKER DEPTH : SIZE :

DRILLING CON. : RANGE
 MUD TYPE : CHEMICAL VISCOSITY : 45
 WEIGHT : 10.0 WATER LOSS (CC) : 12.0
 CHLORIDES (PPM) : 1600
 JARS-MAKE : SERIAL NUMBER :
 DID WELL FLOW ? : NO REVERSED OUT ? : NO

DRILL COLLAR LENGTH : 205 FT I.D. inch : 2.25
 WEIGHT PIPE LENGTH : 0 FT I.D. inch : 0.00
 DRILL PIPE LENGTH : 2740 FT I.D. inch : 3.80
 TEST TOOL LENGTH : 20 FT TOOL SIZE : 5.50
 ANCHOR LENGTH : 25 FT ANCHOR SIZE : 5.50
 SURFACE CHOKE SIZE : .75 IN BOTTOM CHOKE SIZE : .75
 MAIN HOLE SIZE : 7.875 IN TOOL JOINT SIZE : 4.5XH

BLOW COMMENT #1 : INITIAL FLOW PERIOD FAIR BLOW-OFF BOTTOM OF
 BLOW COMMENT #2 : BUCKET IN 5 MINUTES.
 BLOW COMMENT #3 : FINAL FLOW PERIOD FAIR BLOW-OFF BOTTOM OF
 BLOW COMMENT #4 : BUCKET IN 10 MINUTES.

RECOVERED : 20 FT OF: OIL & GAS CUT MUD 0.10 Barrels
 RECOVERED : 0 FT OF: 2% OIL; 10% GAS; 88% MUD 0.00 Barrels
 RECOVERED : 30 FT OF: GAS CUT MUD 0.15 Barrels
 RECOVERED : 0 FT OF: 5% GAS; 95% MUD 0.00 Barrels
 RECOVERED : 0 FT OF: 0.00 Barrels
 RECOVERED : 0 FT OF: CHLORIDES 1800 PPM 0.00 Barrels
 RECOVERED : 0 FT OF: 0.00 Barrels
 RECOVERED : 0 FT OF: 0.00 Barrels
 RECOVERED : 0 FT OF: 0.00 Barrels
 Total Barrels = 0.2 Total Production = 3.9 Bpd

REMARK 1 : 300 FEET OF GAS ABOVE FLUID
 REMARK 2 :
 REMARK 3 : GOOD SHOW OIL ON TOP OF TOOL.
 REMARK 4 :

SET PACKER(S) : 2:10 PM TIME STARTED OFF BOTTOM : 5:10 PM
 WELL TEMPERATURE : 106
 INITIAL HYDROSTATIC PRESSURE (A) 1577
 INITIAL FLOW PERIOD MIN: 30 (B) 39 PSI TO (C) : 39
 INITIAL CLOSED IN PERIOD MIN: 30 (D) 136
 FINAL FLOW PERIOD MIN: 60 (E) 48 PSI TO (F) : 49
 FINAL CLOSED IN PERIOD MIN: 63 (G) 217
 FINAL HYDROSTATIC PRESSURE (H) 1547

Pressure Transient Report

DATA FILE.....

COMPANY.....RANGE OIL COMPANY INC.

DATE OF TEST.....12/29/85

FIELD NAME.....JIMMERSON "A"

WELL NAME.....1

LOCATION.....COWLEY-KANSAS

JOB NUMBER.....8716

GAUGE NUMBER.....1134

GAUGE DEPTH.....2990

COMMENTS

300 FEET OF GAS ABOVE FLUID

GOOD SHOW OIL ON TOP OF TOOL.

START UP TIME	(mo/da/yr)	(hr:min:sec)
	12./29/85.	2.: 10.: 0.

COMPANY : RANGE OIL COMPANY INC. FIELD : JIMMERSON "A"
WELL : 1 JOB # : 8716
GAUGE # : 1194 DEPTH : 2990
MON/DAY : 12/29

PAGE 1

REC#	REAL TIME HR:MIN:SEC	ELAPSE TIME * MINS HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P (Po-Pi)	DP/DT Psi/hr
1	2:10: 0	0 0.000	39.00	106.0	0.00	20.08
2	2:15: 0	5 0.083	39.00	106.0	0.00	0.00
3	2:20: 0	10 0.166	39.00	106.0	0.00	0.00
4	2:25: 0	15 0.250	39.00	106.0	0.00	0.00
5	2:30: 0	20 0.333	39.00	106.0	0.00	0.00
6	2:35: 0	25 0.416	39.00	106.0	0.00	0.00
7	2:40: 0	30 0.500	39.00	106.0	0.00	0.00
8	2:43: 0	33 0.550	42.00	106.0	3.00	60.24
9	2:46: 0	36 0.600	48.00	106.0	9.00	120.47
10	2:49: 0	39 0.649	54.00	106.0	15.00	120.47
11	2:52: 0	42 0.699	62.00	106.0	23.00	160.63
12	2:55: 0	45 0.750	72.00	106.0	33.00	196.92
13	2:58: 0	48 0.800	83.00	106.0	44.00	220.86
14	3: 1: 0	51 0.850	96.00	106.0	57.00	261.02
15	3: 4: 0	54 0.899	108.00	106.0	69.00	240.94
16	3: 7: 0	57 0.949	121.00	106.0	82.00	261.02
17	3:10: 0	60 1.000	136.00	106.0	97.00	295.38
18	3:11: 0	61 1.017	48.00	106.0	9.00	-5300.71
19	3:15: 0	65 1.083	48.00	106.0	9.00	0.00
20	3:20: 0	70 1.166	48.00	106.0	9.00	0.00
21	3:25: 0	75 1.250	48.00	106.0	9.00	0.00
22	3:30: 0	80 1.333	48.00	106.0	9.00	0.00
23	3:35: 0	85 1.416	48.00	106.0	9.00	0.00
24	3:40: 0	90 1.500	48.00	106.0	9.00	0.00
25	3:45: 0	95 1.583	48.00	106.0	9.00	0.00
26	3:50: 0	100 1.666	48.00	106.0	9.00	0.00
27	3:55: 0	105 1.750	48.00	106.0	9.00	0.00
28	4: 0: 0	110 1.833	49.00	106.0	10.00	12.05
29	4: 5: 0	115 1.916	49.00	106.0	10.00	0.00
30	4:10: 0	120 2.000	49.00	106.0	10.00	0.00
31	4:13: 0	123 2.050	54.00	106.0	15.00	100.39
32	4:16: 0	126 2.100	60.00	106.0	21.00	120.47
33	4:19: 0	129 2.149	64.00	106.0	25.00	80.31
34	4:22: 0	132 2.199	71.00	106.0	32.00	140.55
35	4:25: 0	135 2.250	78.00	106.0	39.00	137.85
36	4:28: 0	138 2.300	86.00	106.0	47.00	160.63
37	4:31: 0	141 2.350	96.00	106.0	57.00	200.78
38	4:34: 0	144 2.399	105.00	106.0	66.00	180.71
39	4:37: 0	147 2.449	114.00	106.0	75.00	180.71
40	4:40: 0	150 2.500	123.00	106.0	84.00	177.23
41	4:43: 0	153 2.550	132.00	106.0	93.00	180.71
42	4:46: 0	156 2.600	142.00	106.0	103.00	200.78
43	4:49: 0	159 2.649	151.00	106.0	112.00	180.71
44	4:52: 0	162 2.699	160.00	106.0	121.00	180.71
45	4:55: 0	165 2.750	168.00	106.0	129.00	157.54
46	4:58: 0	168 2.800	177.00	106.0	138.00	180.71
47	5: 1: 0	171 2.850	186.00	106.0	147.00	180.71
48	5: 4: 0	174 2.899	195.00	106.0	156.00	180.71
49	5: 7: 0	177 2.949	203.00	106.0	164.00	160.63

COMPANY : RANGE OIL COMPANY INC. FIELD : JIMMERSON "A"
WELL : 1 JOB # : 8716
GAUGE # : 1134 DEPTH : 2990
MON/DAY : 12/29

PAGE 2

REC#	REAL TIME HR:MIN:SEC	ELAPSE TIME MINS HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P (Po-Pi)	DP/DT Psi/hr
50	5:10: 0	180 3.000	212.00	106.0	173.00	177.23
51	5:13: 0	183 3.050	217.00	106.0	178.00	100.39

TKT # 8716

0

13536 25#3 TKT#8716

TKT # 8716

T

11391 DSH # 3 TKT # 8716



H

A

G

F

E

D

C

B



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET N° 8717

P. O. BOX 1599 PHONE (316) 262-5861
WICHITA, KANSAS 67201

Elevation 1150 KB Formation Pawnee + Ft. Scott Eff. Pay Ft.

R040 District Augusta Date 12-30-85 Customer Order No.
COMPANY NAME RANGE OIL CO. INC.
ADDRESS 240 Page Court 220 W Douglas Wichita Ks., 67202
LEASE AND WELL NO. JIMMERSON A #1 COUNTY Cowley STATE KS Sec. 27 Twp. 34 Rge. 3 E
Mail Invoice To SAME #1 JIMMERSON "A" No. Copies Requested Reg
Co. Name SAME Address No. Copies Requested Reg
Mail Charts To SAME Address No. Copies Requested Reg

Formation Test No. 4 Interval Tested From 3070 ft. to 3115 ft. Total Depth 3115 ft.
Packer Depth 3065 ft. Size 6 3/4 in. Packer Depth ft. Size in.
Packer Depth 3070 ft. Size 6 3/4 in. Packer Depth ft. Size in.
Depth of Selective Zone Set
Top Recorder Depth (Inside) 3097 ft. Recorder Number 1134 Cap. 4475
Bottom Recorder Depth (Outside) 3100 ft. Recorder Number 13521 Cap. 4375
Below Straddle Recorder Depth ft. Recorder Number Cap.
Drilling Contractor RANGE OIL Rig #2 Drill Collar Length 205 I. D. 2.25 in.
Mud Type Chemical Viscosity 51 Weight Pipe Length I. D. in.
Weight 10.0 Water Loss 10.8 cc. Drill Pipe Length 2845 I. D. 3.8 in.
Chlorides 2500 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 0.1 in.
Jars: Make Serial Number Anchor Length 45 ft. Size 5 1/2 0.1 in.
Did Well Flow? NO Reversed Out NO Surface Choke Size 3 1/4 in. Bottom Choke Size 3 1/4 in.
Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 x 1 1/2 in.

Blow: STRONG Blow with Gas to Surface at 30min
F.F.P. Gas to Surface

Recovered 65 ft. of Mud
Recovered ft. of
Recovered ft. of
Recovered ft. of
Recovered ft. of
Chlorides P.P.M. Sample Jars used Remarks: Gas Flow Report # 4453 Sample Sent
12-68

Time On Location 6:30 A.M. Time Pick Up Tool 7:10 A.M. Time Off Location A.M.
Time Set Packer(s) 10:10 A.M. Time Started Off Bottom 1:20 A.M. Maximum Temperature 105°F
Initial Hydrostatic Pressure (A) 1650 P.S.I.
Initial Flow Period Minutes 30 (B) 86 P.S.I. to (C) 86 P.S.I.
Initial Closed In Period Minutes 30 (D) 1305 P.S.I.
Final Flow Period Minutes 20 (E) 76 P.S.I. to (F) 76 P.S.I.
Final Closed In Period Minutes 60 (G) 1305 P.S.I.
Final Hydrostatic Pressure (H) 1639 P.S.I.

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.

All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By: [Signature] H.G. KPMAN, III
Signature of Customer or his authorized representative

Western Representative: Kevin E Zimmerman 2625

FIELD INVOICE

Open Hole Test \$ 550.00
Misrun \$
Straddle Test \$
Jars \$
Selective Zone \$
Safety Joint \$
Standby \$
Evaluation \$
Extra Packer \$
Circ. Sub. \$
Mileage \$
Fluid Sampler \$
Extra Charts \$
Insurance \$
Telecopier \$
TOTAL \$ 550.00



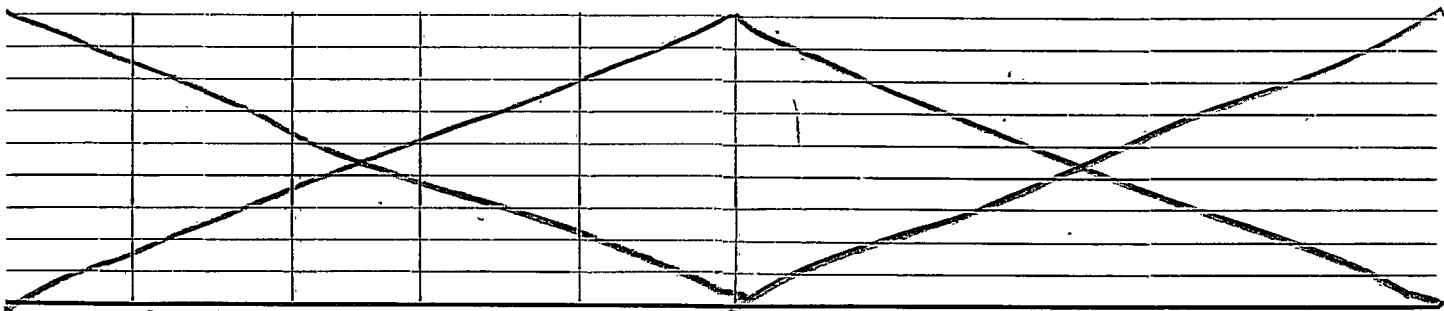
GAS FLOW REPORT

No 4453

Date 12-30-85 Ticket 8717 Company Range Oil Co. Inc
 Well Name and No. Jimmerson "A" #1 Dst No. 4 Interval Tested 3070-3115
 County Cowley State Ks. Sec. 27 Twp. 34 Rg. 3

Time Gauge in Min.	P.S.I. on Merla-Orifice Well Tester	Size of Orifice	P.S.I. on Pitot Tester	P.S.I. on Side Static Tester	Description of Flow
--------------------	-------------------------------------	-----------------	------------------------	------------------------------	---------------------

PRE FLOW



SECOND FLOW

15	2	1"		51,600	CFPD
15	4	1"		51,600	CFPD
15	5 1/2	1"		60,500	CFPD
15	6	1"		63,300	CFPD
10	6.5	1"		65,800	CFPD

GAS BOTTLE

Serial No. 12-68 Date Bottle Filled 12-30-85 Date to be Invoiced 1-30-86

Requisition and Provisions for high pressure stainless steel gas bottles. Western Testing Co., Inc. shall not be liable for damage of any kind to property or personnel of the one whom gas bottle is filled or for any loss suffered or sustained directly or indirectly through the use of these bottles. By signing of this ticket showing receipt of a gas testing bottle, the undersigned agrees for himself and as agent for operator, to return this bottle to Western Testing Co., Inc. within thirty (30) days free of charge, or be invoiced in the amount of \$75.00 (total charge). Should valve or seal plug be missing or damaged beyond repair, operator shall be invoiced for repairs at our invoiced price.

All charges subject to 1 1/2% per month, equal to 18% interest per annum after 30 days from date of invoice. Any expense incurred for collection will be added to the original amount.

COMPANY'S NAME

Range Oil Co. Inc

Authorized by

Pressure Data

Date 12 30

Recorder No. 1157

Capacity 1112

Test Ticket No. 8111

Clock No. _____ Elevation _____

Well Temperature 70.5 °F

Point	Pressure
A Initial Hydrostatic Mud	1634 P.S.I.
B First Initial Flow Pressure	85 P.S.I.
C First Final Flow Pressure	91 P.S.I.
D Initial Closed-in Pressure	1328 P.S.I.
E Second Initial Flow Pressure	63 P.S.I.
F Second Final Flow Pressure	64 P.S.I.
G Final Closed-in Pressure	1297 P.S.I.
H Final Hydrostatic Mud	1617 P.S.I.

Open Tool

First Flow Pressure

Initial Closed-in Pressure

Second Flow Pressure

Final Closed-in Pressure

Time Given	Time Computed
10:10 A.M.	1:20 P.M.
30 Mins.	30 Mins.
30 Mins.	33 Mins.
70 Mins.	70 Mins.
60 Mins.	63 Mins.

PRESSURE BREAKDOWN

First Flow Pressure

Breakdown:_____Inc.

of 5 mins. and a

final inc. of 0 Min.

Initial Shut-In

Breakdown: _____ Inc.

of 3 mins. and a

final inc. of 0 Min.

Second Flow Pressure

Breakdown:_____Inc.

of 5 mins. and a

final inc. of 0 Min.

Final Shut-In

Breakdown:_____Inc.

of 3 mins. and a

final inc. of 0 Min.

Point Mins.	Press.
P 1 0	85
P 2 5	5
P 3 10	
P 4 15	85
P 5 20	87
P 6 25	89
P 7 30	91
P 8 35	
P 9 40	
P10 45	
P11 50	
P12 55	
P13 60	
P14 65	
P15 70	
P16 75	
P17 80	
P18 85	
P19 90	
P20 95	
100	

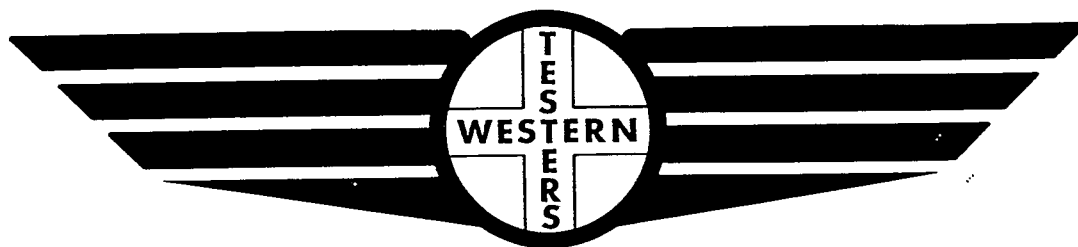
Point Minutes	Press.
3	588
6	945
9	1151
12	1237
15	1272
18	1292
21	1305
24	1314
27	1321
30	1326
33	1328
36	
39	
42	
45	
48	
51	
54	
57	
60	

Point Minutes	Press.
5	63
10	
15	
20	
25	
30	
35	
40	
45	
50	
55	
60	63
65	64
70	64
75	
80	
85	
90	
95	
100	

Point Minutes	Press.
3	640
6	932
9	1079
12	1146
15	1177
18	1205
21	1223
24	1237
27	1248
30	1257
33	1265
36	1270
39	1275
42	1280
45	1285
48	1287
51	1289
54	1291
57	1293
60	1295

63 1297

FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

COMPANY RANGE OIL COMPANY, INC. LEASE & WELL NO. #1 JIMMERSON "A" SEC. 27 TWP. 34S RGE. 3E TEST NO. 4 DATE 12/30/85

SUBSURFACE PRESSURE SURVEY

DATE : 12/30/85 TICKET : 8717
 CUSTOMER : RANGE OIL COMPANY INC. LEASE : JIMMERSON "A"
 WELL : 1 TEST: 4 GEOLOGIST : MCMAHON
 ELEVATION : 1150 FORMATION : PAW. & FT SCOT
 SECTION : 27 TOWNSHIP : 34S
 RANGE : 3E COUNTY : COWLEY STATE : KANSAS
 GAUGE SN# : 1134 RANGE : 4475 CLOCK : 12

INTERVAL FROM : 3070 TO : 3115 TOTAL DEPTH : 3115
 DEPTH OF SELECTIVE ZONE :
 PACKER DEPTH : 3065 SIZE : 6.75
 PACKER DEPTH : 3070 SIZE : 6.75
 PACKER DEPTH : SIZE :
 PACKER DEPTH : SIZE :

DRILLING CON. : RANGE
 MUD TYPE : CHEMICAL VISCOSITY : 51
 WEIGHT : 10.0 WATER LOSS (CC) : 10.8
 CHLORIDES (PPM) : 2500
 JARS-MAKE : SERIAL NUMBER :
 DID WELL FLOW ? : NO REVERSED OUT ? : NO

DRILL COLLAR LENGTH : 205 FT I.D. inch : 2.25
 WEIGHT PIPE LENGTH : 0 FT I.D. inch : 0.00
 DRILL PIPE LENGTH : 2845 FT I.D. inch : 3.80
 TEST TOOL LENGTH : 20 FT TOOL SIZE : 5.50
 ANCHOR LENGTH : 45 FT ANCHOR SIZE : 5.50
 SURFACE CHOKE SIZE : .75 IN BOTTOM CHOKE SIZE : .75
 MAIN HOLE SIZE : 7.875 IN TOOL JOINT SIZE : 4.5XH

BLOW COMMENT #1 : INITIAL FLOW PERIOD STRONG BLOW WITH GAS TO
 BLOW COMMENT #2 : SURFACE IN 30 MINUTES.
 BLOW COMMENT #3 : FINAL FLOW PERIOD GAS TO SURFACE.
 BLOW COMMENT #4 :

RECOVERED : 65 FT OF: MUD 0.32 Barrels
 RECOVERED : 0 FT OF: 0.00 Barrels
 RECOVERED : 0 FT OF: 0.00 Barrels
 RECOVERED : 0 FT OF: 0.00 Barrels
 RECOVERED : 0 FT OF: 0.00 Barrels
 RECOVERED : 0 FT OF: 0.00 Barrels
 RECOVERED : 0 FT OF: 0.00 Barrels
 RECOVERED : 0 FT OF: 0.00 Barrels
 RECOVERED : 0 FT OF: 0.00 Barrels

Total Barrels = 0.3 Total Production = 4.6 Bpd

REMARK 1 : SEE GAS SHEET ATTACHED
 REMARK 2 :
 REMARK 3 :
 REMARK 4 :

SET PACKER(S) : 10:10 AM TIME STARTED OFF BOTTOM : 1:20 PM
 WELL TEMPERATURE : 105
 INITIAL HYDROSTATIC PRESSURE (A) 1634
 INITIAL FLOW PERIOD MIN: 30 (B) 85 PSI TO (C) : 91
 INITIAL CLOSED IN PERIOD MIN: 33 (D) 1328
 FINAL FLOW PERIOD MIN: 70 (E) 63 PSI TO (F) : 64
 FINAL CLOSED IN PERIOD MIN: 63 (G) 1297
 FINAL HYDROSTATIC PRESSURE (H) 1617

Pressure Transient Report

DATA FILE.....

COMPANY.....RANGE OIL COMPANY INC.

DATE OF TEST.....12/30/85

FIELD NAME.....JIMMERSON "A"

WELL NAME.....1

LOCATION.....COWLEY-KANSAS

JOB NUMBER.....8717

GAUGE NUMBER.....1134

GAUGE DEPTH.....3115

COMMENTS
SEE GAS SHEET ATTACHED

START UP TIME	(mo/da/yr)	(hr:min:sec)
	12./30/85.	10.: 10.: 0.

COMPANY : RANGE OIL COMPANY INC.
WELL : 1 JOB # : 8717
GAUGE # : 1134 DEPTH : 3115
MON/DAY : 12/30

FIELD : JIMMERSON "A"

PAGE 1

REC#	REAL TIME HR:MIN:SEC	ELAPSE TIME MINS	HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P (Po-Pi)	DP/DT Psi/hr
1	10:10: 0	0	0.000	85.00	105.0	0.00	140.55
2	10:15: 0	5	0.083	85.00	105.0	0.00	0.00
3	10:20: 0	10	0.166	85.00	105.0	0.00	0.00
4	10:25: 0	15	0.250	85.00	105.0	0.00	0.00
5	10:30: 0	20	0.333	87.00	105.0	2.00	24.09
6	10:35: 0	25	0.416	89.00	105.0	4.00	24.09
7	10:40: 0	30	0.500	91.00	105.0	6.00	23.81
8	10:43: 0	33	0.550	588.00	105.0	503.00	9978.98
9	10:46: 0	36	0.600	945.00	105.0	860.00	7168.00
10	10:49: 0	39	0.649	1151.00	105.0	1066.00	4136.16
11	10:52: 0	42	0.699	1237.00	105.0	1152.00	1726.75
12	10:55: 0	45	0.750	1272.00	105.0	1187.00	689.23
13	10:58: 0	48	0.800	1292.00	105.0	1207.00	401.57
14	11: 1: 0	51	0.850	1305.00	105.0	1220.00	261.02
15	11: 4: 0	54	0.899	1314.00	105.0	1229.00	180.71
16	11: 7: 0	57	0.949	1321.00	105.0	1236.00	140.55
17	11:10: 0	60	1.000	1326.00	105.0	1241.00	98.46
18	11:13: 0	63	1.050	1328.00	105.0	1243.00	40.16
19	11:14: 0	64	1.066	63.00	105.0	22.00	-76197.65
20	11:18: 0	68	1.133	63.00	105.0	22.00	0.00
21	11:23: 0	73	1.217	63.00	105.0	22.00	0.00
22	11:28: 0	78	1.300	63.00	105.0	22.00	0.00
23	11:33: 0	83	1.383	63.00	105.0	22.00	0.00
24	11:38: 0	88	1.467	63.00	105.0	22.00	0.00
25	11:43: 0	93	1.550	63.00	105.0	22.00	0.00
26	11:48: 0	98	1.633	63.00	105.0	22.00	0.00
27	11:53: 0	103	1.717	63.00	105.0	22.00	0.00
28	11:58: 0	108	1.800	63.00	105.0	22.00	0.00
29	12: 3: 0	113	1.883	63.00	105.0	22.00	0.00
30	12: 8: 0	118	1.967	63.00	105.0	22.00	0.00
31	12:13: 0	123	2.050	63.00	105.0	22.00	0.00
32	12:18: 0	128	2.133	64.00	105.0	21.00	12.05
33	12:23: 0	133	2.217	64.00	105.0	21.00	0.00
34	12:26: 0	136	2.267	640.00	105.0	555.00	11565.18
35	12:29: 0	139	2.316	932.00	105.0	847.00	5862.90
36	12:32: 0	142	2.366	1079.00	105.0	994.00	2951.53
37	12:35: 0	145	2.416	1146.00	105.0	1061.00	1345.25
38	12:38: 0	148	2.467	1177.00	105.0	1092.00	610.46
39	12:41: 0	151	2.517	1205.00	105.0	1120.00	562.20
40	12:44: 0	154	2.566	1223.00	105.0	1138.00	361.41
41	12:47: 0	157	2.616	1237.00	105.0	1152.00	281.10
42	12:50: 0	160	2.666	1248.00	105.0	1163.00	220.86
43	12:53: 0	163	2.717	1257.00	105.0	1172.00	177.23
44	12:56: 0	166	2.767	1265.00	105.0	1180.00	160.63
45	12:59: 0	169	2.816	1270.00	105.0	1185.00	100.39
46	13: 2: 0	172	2.866	1275.00	105.0	1190.00	100.39
47	13: 5: 0	175	2.916	1280.00	105.0	1195.00	100.39
48	13: 8: 0	178	2.967	1285.00	105.0	1200.00	98.46
49	13:11: 0	181	3.017	1287.00	105.0	1202.00	40.16

COMPANY : RANGE OIL COMPANY INC. FIELD : JIMMERSON "A"
WELL : 1 JOB # : 8717
GAUGE # : 1134 DEPTH : 3115
MON/DAY : 12/30

PAGE 2

REC#	REAL TIME HR:MIN:SEC	ELAPSE TIME MINS HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P (Po-Pi)	DP/DT Psi/hr
50	13:14: 0	184 3.066	1289.00	105.0	1204.00	40.16
51	13:17: 0	187 3.116	1291.00	105.0	1206.00	40.16
52	13:20: 0	190 3.166	1293.00	105.0	1208.00	40.16
53	13:23: 0	193 3.217	1295.00	105.0	1210.00	39.38
54	13:26: 0	196 3.267	1297.00	105.0	1212.00	40.16

GAS FLOW REPORT

Date : 12/30/85
Customer : RANGE OIL COMPANY INC.

Ticket # : 8717
Lease : JIMMERSON "A"

Well : 1 Test : 4

Geologist : MCMAHON

Elevation (KB) : 1150 Formation : PAW & FT SCOTT

Section : 27 Township : 34S

Range : 3E County : COWLEY State : KANSAS

Gauge SN # : 1134 Range : 4475 Clock : 12

TIME GAUGE (MIN)	TESTER TYPE	ORFICE SIZE	PRESSURE (PSI)	FLOW DESCRIPTION
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PRE FLOW

SECOND FLOW

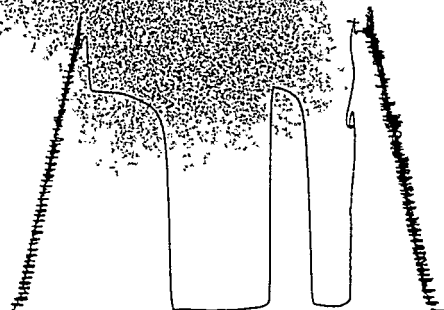
15	MERLA	1	4" WTR	51600 CFPD
15		1	4" WTR	51600 CFPD
15		1	5.5" WTR	60500 CFPD
15		1	6" WTR	63300 CFPD
10		1	6.5 WTR	65800 CFPD

Gas Bottle SN # : 1268
Date Bottle Filled : 12/30/85
Date to be Invoiced : 12/30/85

TKT # 8717

O

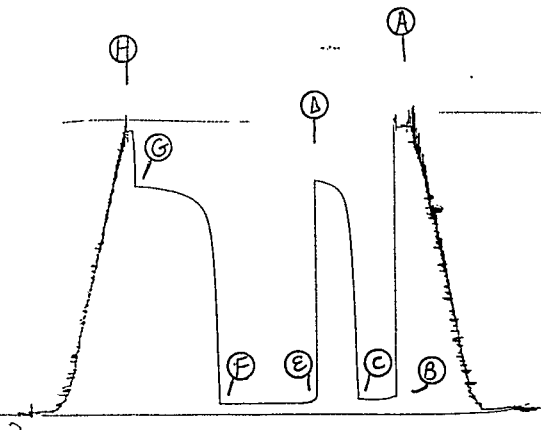
1354K 051# 111# 8717



TKT # 8717

I

1134 D54#4 TKT#8717





WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET N° 8718

P. O. BOX 1599 PHONE (316) 262-5861

Elevation 1150 KB Formation Miss Eff. Pay Ft.

WICHITA, KANSAS 67201

COMPANY NAME RANGE OIL Co. INC. District Augusta Date 12-31-85 Customer Order No.

ADDRESS 240 PAGE COURT 220 W. Douglas Wichita Ks, 67202

LEASE AND WELL NO. Timmerman A #1 COUNTY Cowley STATE KS Sec. 27 Twp. 34 Rge. 3E

Mail Invoice To SAME Co. Name SAME Address No. Copies Requested Reg

Mail Charts To SAME Address No. Copies Requested Reg

Formation Test No. 5 Interval Tested From 3377 ft. to 3390 ft. Total Depth 3390 ft.

Packer Depth 3374 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Packer Depth 3377 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 3387 ft. Recorder Number 1134 Cap. 4475

Bottom Recorder Depth (Outside) 3387 ft. Recorder Number 13521 Cap. 4375

Below Straddle Recorder Depth* ft. Recorder Number Cap.

Drilling Contractor RANGE OIL Co. Dig #2 Drill Collar Length 205 I. D. 2.25 in.

Mud Type Chemical Viscosity 58 Weight Pipe Length I. D. in.

Weight 10.1 Water Loss 10.8 cc. Drill Pipe Length 3052 I. D. 3.8 in.

Chlorides 2500 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 0.10 in.

Jars: Make Serial Number Anchor Length 13 ft. Size 5 1/2 0.10 in.

Did Well Flow? NO Reversed Out NO Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 X 4 in.

Blow: FFP Strong Blow throughout

FFP Gas to Surface

Recovered 340 ft. of Clean Gassy Oil 36° gravity

Recovered 120 ft. of Gassy Oil & Water Cut Mud 40% Gas 25% oil, 2% water 33% mud

Recovered ft. of

Recovered ft. of

Recovered ft. of

Chlorides 55000 P.P.M. Sample Jars used 5 Remarks: Gas Flow Report 4454

Time On Location 8:00 A.M. Time Pick Up Tool 10:00 A.M. Time Off Location A.M.

Time Set Packer(s) 11:50 P.M. Time Started Off Bottom 2:50 P.M. Maximum Temperature 120°F

Initial Hydrostatic Pressure (A) 1838 P.S.I.

Initial Flow Period Minutes 30 (B) 43 P.S.I. to (C) 76 P.S.I.

Initial Closed In Period Minutes 30 (D) 1073 P.S.I.

Final Flow Period Minutes 60 (E) 97 P.S.I. to (F) 152 P.S.I.

Final Closed In Period Minutes 60 (G) 1037 P.S.I.

Final Hydrostatic Pressure (H) 1794 P.S.I. (1134)

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.

All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By [Signature] H.G. McManis, III
Signature of Customer or his authorized representative

Western Representative [Signature] Kevin E. Zimmerman

FIELD INVOICE

Open Hole Test \$ 550 -
Misrun \$
Straddle Test \$
Jars \$
Selective Zone \$
Safety Joint \$
Standby \$
Evaluation \$
Extra Packer \$
Circ. Sub. \$
Mileage \$
Fluid Sampler \$
Extra Charts \$
Insurance \$
Telecopier \$
TOTAL \$

2625



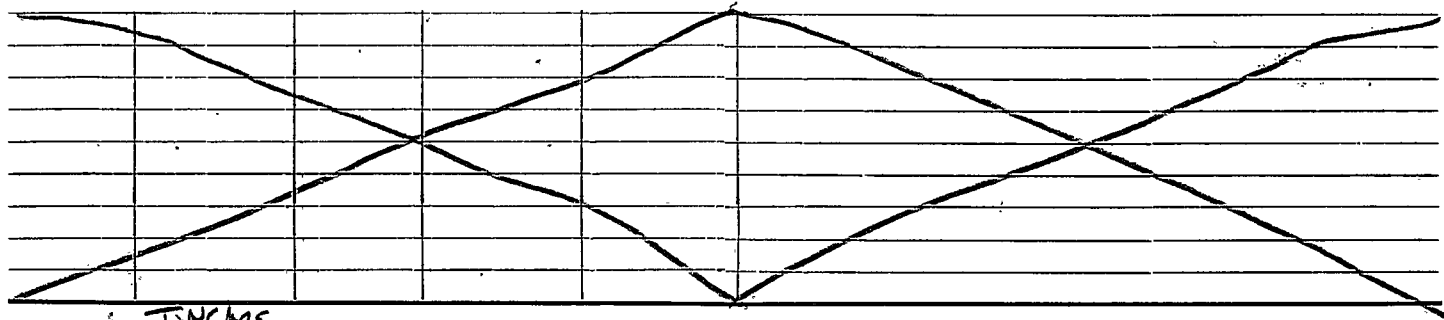
Nº 4454

GAS FLOW REPORT

Date 12-31-85 Ticket 8718 Company Range Oil Co., Inc.
 Well Name and No. Jimerson "A" #1 Dst No. 5 Interval Tested 3377-3390
 County Cowley State Ks Sec. 27 Twp. 34S Rg. 3E

Time Gauge in Min.	P.S.I. on Merla Orifice Well Tester	Size of Orifice	P.S.I. on Pitot Tester	P.S.I. on Side Static Tester	Description of Flow
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PRE FLOW



SECOND FLOW

10	20	1/2"		28.000	C.F.P.D.
20	9	1/2"		18.800	C.F.P.D.
30	6	1/2"		15.400	C.F.P.D.
40	6	1/2"		15.000	C.F.P.D.
50	4.5	1/2"		13.300	C.F.P.D.
60	4.5	1/2"		13.300	C.F.P.D.

GAS BOTTLE

Serial No. _____ Date Bottle Filled 12-31-85 Date to be Invoiced 1-31-86

Requisition and Provisions for high pressure stainless steel gas bottles. Western Testing Co., Inc. shall not be liable for damage of any kind to property or personnel of the one whom gas bottle is filled or for any loss suffered or sustained directly or indirectly through the use of these bottles. By signing of this ticket showing receipt of a gas testing bottle, the undersigned agrees for himself and as agent for operator, to return this bottle to Western Testing Co., Inc. within thirty (30) days free of charge, or be invoiced in the amount of \$75.00 (total charge). Should valve or seal plug be missing or damaged beyond repair, operator shall be invoiced for repairs at our invoiced price.

All charges subject to 1 1/2% per month, equal to 18% interest per annum after 30 days from date of invoice. Any expense incurred for collection will be added to the original amount.

COMPANY'S NAME

Range Oil Co. Inc.
 Authorized by [Signature]

WESTERN TESTING CO., INC.
Pressure Data

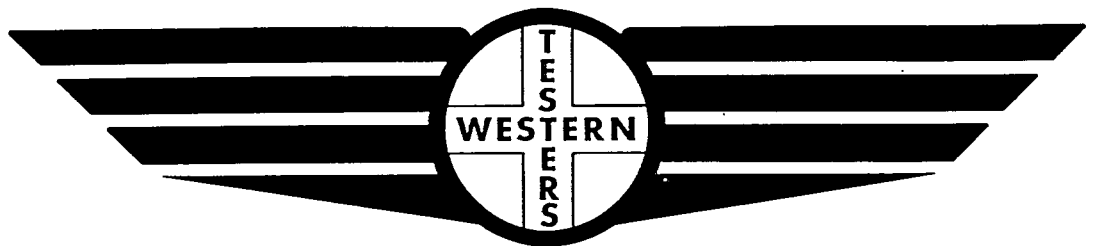
Date 12-31-85 Test Ticket No. 8718
 Recorder No. 1134 Capacity 4475 Location 3324 Ft.
 Clock No. _____ Elevation 1150 K.B. Well Temperature 120 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1812</u> P.S.I.	Open Tool	<u>11:50</u> M	
B First Initial Flow Pressure	<u>78</u> P.S.I.	First Flow Pressure	Mins. <u>30</u>	Mins.
C First Final Flow Pressure	<u>78</u> P.S.I.	Initial Closed-in Pressure	Mins. <u>30</u>	Mins.
D Initial Closed-in Pressure	<u>1094</u> P.S.I.	Second Flow Pressure	Mins. <u>60</u>	Mins.
E Second Initial Flow Pressure	<u>102</u> P.S.I.	Final Closed-in Pressure	Mins. <u>60</u>	Mins.
F Second Final Flow Pressure	<u>152</u> P.S.I.			
G Final Closed-in Pressure	<u>1045</u> P.S.I.			
H Final Hydrostatic Mud	<u>1783</u> P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.	
of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	<u>78</u>						
P 2 5	<u>57</u>	3	<u>485</u>	5	<u>102</u>	3	<u>500</u>
P 3 10	<u>60</u>	6	<u>803</u>	10	<u>102</u>	6	<u>137</u>
P 4 15	<u>62</u>	9	<u>943</u>	15	<u>102</u>	9	<u>833</u>
P 5 20	<u>66</u>	12	<u>993</u>	20	<u>104</u>	12	<u>884</u>
P 6 25	<u>72</u>	15	<u>1023</u>	25	<u>108</u>	15	<u>911</u>
P 7 30	<u>78</u>	18	<u>1044</u>	30	<u>115</u>	18	<u>935</u>
P 8 35		21	<u>1058</u>	35	<u>126</u>	21	<u>950</u>
P 9 40		24	<u>1071</u>	40	<u>133</u>	24	<u>963</u>
P10 45		27	<u>1083</u>	45	<u>138</u>	27	<u>971</u>
P11 50		30	<u>1094</u>	50	<u>143</u>	30	<u>982</u>
P12 55		33		55	<u>148</u>	33	<u>991</u>
P13 60		36		60	<u>152</u>	36	<u>999</u>
P14 65		39		65		39	<u>1007</u>
P15 70		42		70		42	<u>1013</u>
P16 75		45		75		45	<u>1018</u>
P17 80		48		80		48	<u>1025</u>
P18 85		51		85		51	<u>1032</u>
P19 90		54		90		54	<u>1039</u>
P20 95		57		95		57	<u>1042</u>
100		60		100		60	<u>1045</u>

FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

COMPANY RANGE OIL COMPANY, INC. LEASE & WELL NO. #1 JIMMERSON "A" SEC. 27 TWP. 34S RGE. 3E TEST NO. 5 DATE 12/31/85

SUBSURFACE PRESSURE SURVEY

DATE	:	12-31-85	TICKET	:	8718
CUSTOMER	:	RANGE OIL COMPANY INC.	LEASE	:	JIMMERSON "A"
WELL	:	1	TEST:	:	5
ELEVATION	:	1150	GEOLOGIST	:	MCMAHON
SECTION	:	27	FORMATION	:	MISSISSIPPI
RANGE	:	3E	COUNTY	:	COWLEY
GAUGE SN#	:	1134	RANGE	:	4475
			STATE	:	KANSAS
			CLOCK	:	12

INTERVAL FROM	:	3377	TO	:	3390	TOTAL DEPTH	:	3390
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DEPTH OF SELECTIVE ZONE :

PACKER DEPTH : 3374 SIZE : 6.75

PACKER DEPTH : 3377 SIZE : 6.75

PACKER DEPTH : SIZE :

PACKER DEPTH : SIZE :

DRILLING CON. : RANGE DRLG

MUD TYPE : CHEMICAL VISCOSITY : 58

WEIGHT : 10.1 WATER LOSS (CC) : 10.8

CHLORIDES (PPM) : 2500

JARS-MAKE : SERIAL NUMBER :

DID WELL FLOW ? : NO REVERSED OUT ? : NO

DRILL COLLAR LENGTH : 205 FT I.D. inch : 2.25

WEIGHT PIPE LENGTH : 0 FT I.D. inch : 0.00

DRILL PIPE LENGTH : 3152 FT I.D. inch : 3.80

TEST TOOL LENGTH : 20 FT TOOL SIZE : 5.50

ANCHOR LENGTH : 13 FT ANCHOR SIZE : 5.50

SURFACE CHOKE SIZE : .75 IN BOTTOM CHOKE SIZE : .75

MAIN HOLE SIZE : 7.875 IN TOOL JOINT SIZE : 4.5 XH

BLOW COMMENT #1 : STRONG BLOW THROUGHOUT TEST. GAS TO SURFACE

BLOW COMMENT #2 : IN 10 MINUTES ON THE FINAL FLOW PERIOD. SEE

BLOW COMMENT #3 : ATTACHED SHEET FOR GAS MEASUREMENTS.

BLOW COMMENT #4 :

RECOVERED : 340 FT OF: CLEAN GASSY OIL. 3.39 Barrels

RECOVERED : 0 FT OF: (GRAVITY 36). 0.00 Barrels

RECOVERED : 120 FT OF: GASSY OIL & WTR CUT MUD. 1.20 Barrels

RECOVERED : 0 FT OF: (40%GAS; 25%OIL; 2%WTR; 33%MUD). 0.00 Ba

rrels

RECOVERED : 0 FT OF: CHLORIDES 55000 PPM. 0.00 Barrels

RECOVERED : 0 FT OF: 0.00 Barrels

RECOVERED : 0 FT OF: 0.00 Barrels

RECOVERED : 0 FT OF: 0.00 Barrels

RECOVERED : 0 FT OF: 0.00 Barrels

Total Barrels = 4.6 Total Production = 73.4 Bpd

REMARK 1 :

REMARK 2 :

REMARK 3 :

REMARK 4 :

SET PACKER(S) : 11:50 AM

TIME STARTED OFF BOTTOM : 2:50 PM

WELL TEMPERATURE : 120

INITIAL HYDROSTATIC PRESSURE (A) 1812

INITIAL FLOW PERIOD MIN: 30 (B) 78 PSI TO (C) : 78

INITIAL CLOSED IN PERIOD MIN: 30 (D) 1094

FINAL FLOW PERIOD MIN: 60 (E) 102 PSI TO (F) : 152

FINAL CLOSED IN PERIOD MIN: 60 (G) 1045

FINAL HYDROSTATIC PRESSURE (H) 1783

GAS FLOW REPORT

Date : 12-31-85 Ticket # : 8718
 Customer : RANGE OIL COMPANY INC. Lease : JIMMERSON "A"
 Well : 1 Test : 5 Geologist : MCMAHON
 Elevation (KB) : 1150 Formation : MISSISSIPPI
 Section : 27 Township : 34S
 Range : 3E County : COWLEY State : KANSAS
 Gauge SN # : 1134 Range : 4475 Clock : 12

TIME GAUGE (MIN)	TESTER TYPE	ORFICE SIZE	PRESSURE (PSI)	FLOW DESCRIPTION
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PRE FLOW

SECOND FLOW

10	MERLA	1/2	20" WTR	28000 CFPD
20			9	18800
30			6	15400
40			6	15400
50			4.5	13300
60			4.5	13300

Gas Bottle SN # :
 Date Bottle Filled :
 Date to be Invoiced :

Pressure Transient Report

DATA FILE.....

COMPANY.....RANGE OIL COMPANY INC.

DATE OF TEST.....12-31-85

FIELD NAME.....JIMMERSON "A"

WELL NAME.....1

LOCATION.....COWLEY-KANSAS

JOB NUMBER.....8718

GAUGE NUMBER.....1134

GAUGE DEPTH.....3390

COMMENTS

START UP TIME	(mo/da/yr)	(hr:min:sec)
	12./31/85.	11.: 50.: 0.

COMPANY : RANGE OIL COMPANY INC.

FIELD : JIMMERSON "A"

WELL : 1 JOB # : 8718

GAUGE # : 1134 DEPTH : 3390

MON/DAY : 12/31

PAGE 1

REC#	REAL TIME HR:MIN:SEC	ELAPSE TIME MINS HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P (Po-Pi)	DP/DT Psi/hr
1	11:50: 0	0 0.000	78.00	120.0	0.00	39.38
2	11:55: 0	5 0.084	57.00	120.0	21.00	-250.05
3	12: 0: 0	10 0.167	60.00	120.0	18.00	36.14
4	12: 5: 0	15 0.250	62.00	120.0	16.00	24.09
5	12:10: 0	20 0.334	66.00	120.0	12.00	47.63
6	12:15: 0	25 0.417	72.00	120.0	6.00	72.28
7	12:20: 0	30 0.500	78.00	120.0	0.00	72.28
8	12:23: 0	33 0.551	485.00	120.0	407.00	8014.77
9	12:26: 0	36 0.601	803.00	120.0	725.00	6384.94
10	12:29: 0	39 0.650	943.00	120.0	865.00	2810.98
11	12:32: 0	42 0.700	993.00	120.0	915.00	1003.92
12	12:35: 0	45 0.750	1023.00	120.0	945.00	602.35
13	12:38: 0	48 0.801	1044.00	120.0	966.00	413.54
14	12:41: 0	51 0.851	1058.00	120.0	980.00	281.10
15	12:44: 0	54 0.900	1071.00	120.0	993.00	261.02
16	12:47: 0	57 0.950	1083.00	120.0	1005.00	240.94
17	12:50: 0	60 1.000	1094.00	120.0	1016.00	220.86
18	12:51: 0	61 1.017	102.00	120.0	24.00	-59753.41
19	12:55: 0	65 1.084	102.00	120.0	24.00	0.00
20	13: 0: 0	70 1.167	102.00	120.0	24.00	0.00
21	13: 5: 0	75 1.250	102.00	120.0	24.00	0.00
22	13:10: 0	80 1.334	104.00	120.0	26.00	23.81
23	13:15: 0	85 1.417	108.00	120.0	30.00	48.19
24	13:20: 0	90 1.500	115.00	120.0	37.00	84.33
25	13:25: 0	95 1.584	126.00	120.0	48.00	130.98
26	13:30: 0	100 1.667	133.00	120.0	55.00	84.33
27	13:35: 0	105 1.750	138.00	120.0	60.00	60.24
28	13:40: 0	110 1.834	143.00	120.0	65.00	59.53
29	13:45: 0	115 1.917	148.00	120.0	70.00	60.24
30	13:50: 0	120 2.000	152.00	120.0	74.00	48.19
31	13:53: 0	123 2.051	500.00	120.0	422.00	6852.92
32	13:56: 0	126 2.101	737.00	120.0	659.00	4758.59
33	13:59: 0	129 2.150	833.00	120.0	755.00	1927.53
34	14: 2: 0	132 2.200	884.00	120.0	806.00	1024.00
35	14: 5: 0	135 2.250	911.00	120.0	833.00	542.12
36	14: 8: 0	138 2.301	935.00	120.0	857.00	472.62
37	14:11: 0	141 2.351	950.00	120.0	872.00	301.18
38	14:14: 0	144 2.400	963.00	120.0	885.00	261.02
39	14:17: 0	147 2.450	971.00	120.0	893.00	160.63
40	14:20: 0	150 2.500	982.00	120.0	904.00	220.86
41	14:23: 0	153 2.551	991.00	120.0	913.00	177.23
42	14:26: 0	156 2.601	999.00	120.0	921.00	160.63
43	14:29: 0	159 2.650	1007.00	120.0	929.00	160.63
44	14:32: 0	162 2.700	1013.00	120.0	935.00	120.47
45	14:35: 0	165 2.750	1018.00	120.0	940.00	100.39
46	14:38: 0	168 2.801	1025.00	120.0	947.00	137.85
47	14:41: 0	171 2.851	1032.00	120.0	954.00	140.55
48	14:44: 0	174 2.900	1039.00	120.0	961.00	140.55
49	14:47: 0	177 2.950	1042.00	120.0	964.00	60.24

COMPANY : RANGE OIL COMPANY INC. FIELD : JIMMERSON "A"

WELL : 1 JOB # : 8718

GAUGE # : 1134 DEPTH : 3390

MON/DAY : 12/31

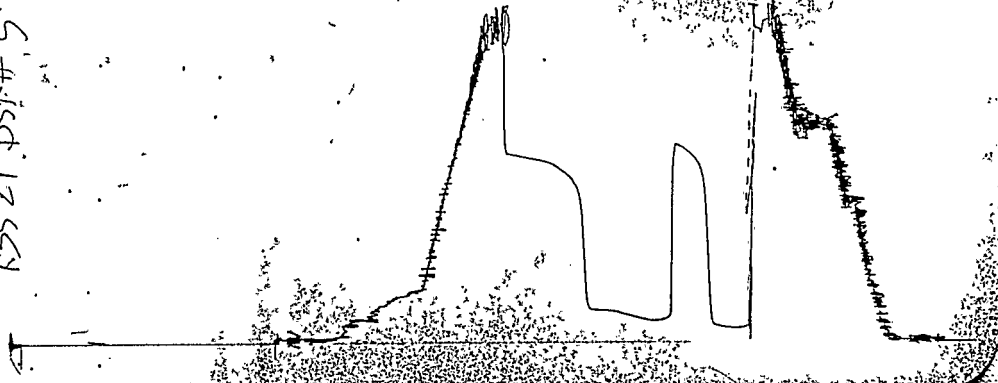
PAGE 2

REC#	REAL TIME HR:MIN:SEC	ELAPSE TIME MINS HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P (Po-Pi)	DP/DT Psi/hr
50	14:50: 0	180 3.000	1045.00	120.0	967.00	60.24

TKT # 8718



13521 DSI # 5 TKT # 8718



TKT # 8718

I

1139 D5145TK#8718

