P. O. BOX 1599 PHONE (316) 838-0601
WICHITA, KANSAS 67201

WESTERN TESTING CO., INC.

FORMATION TESTING

TICKET Nº 4851

Kelly Bushing.

Elevation 1416 KB Formation BARTLESVILLE Eff. Pay Ft.

District Augusta Date 11-24-80 Customer Order No.

COMPANY NAME Range Oil Co. Inc.

ADDRESS 240 Page ct. 220 W Douglas Wichita, Kansas 67202

LEASE AND WELL NO. #9 Hummel COUNTY Butler STATE Kans Sec 20 Twp 27S Rge 7E

Mail Invoice To Same No. Copies Requested 1
Co. Name Address

Mail Charts To Same No. Copies Requested 5
Address

Formation Test No. 1 Interval Tested from 2708 ft. to 2717 ft. Total Depth 2717 ft.

Packer Depth 2703 ft. Size 6 3/4 in. Packer Depth — ft. Size — in.

Packer Depth 2708 ft. Size 6 3/4 in. Packer Depth — ft. Size — in.

Depth of Selective Zone Set —

Top Recorder Depth (Inside) AP 2696 ft. Recorder Number 3354 Cap. 4200

Bottom Recorder Depth (Outside) 2712 ft. Recorder Number 10980 Cap. 4200

Below Straddle Recorder Depth — ft. Recorder Number — Cap. —

Drilling Contractor Range Drilling Rig #2 Drill Collar Length 196 I. D. 2 1/4 in.

Mud Type Chem Viscosity 37+g Weight Pipe Length — I. D. — in.

Weight 9.6 Water Loss 12.8 cc. Drill Pipe Length 2303 I. D. 3.8 in.

Chlorides 1800 P.P.M. Test Tool Length 23 ft. Tool Size OD. 4 1/2 in.

Jars: Make NO Serial Number — Anchor Length 9 ft. Size OD. 4 1/2 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 XH in.

Blow: Weak 35 min

Recovered 90 ft. of DRILL mud With VERY slight oil show (FEW oil spots on top of mud)

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks:

ON Loc 4:00 AM Pick up tool 4:45 AM Job complete 1200 pm

Time Set Packer(s) 7:00 A.M. Time Started Off Bottom 9:30 A.M. Maximum Temperature 105

Initial Hydrostatic Pressure			(A)	1392	P.S.I.	
Initial Flow Period	Minutes 30	(B)	21	P.S.I. to (C)	52	P.S.I.
Initial Closed In Period	Minutes 30	(D)	896	P.S.I.		
Final Flow Period	Minutes 30	(E)	84	P.S.I. to (F)	73	P.S.I.
Final Closed In Period	Minutes 60	(G)	854	P.S.I.		
Final Hydrostatic Pressure		(H)	1392	P.S.I.		

Weak 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.

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 Lee M Baker
Signature of Customer or his authorized representative

Western Representative Allen Edgington

RECEIVED NOV 25 1980

FIELD INVOICE

Open Hole Test	$ 550 00
Misrun	$
Straddle Test	$
Jars	$
Selective Zone	$
Safety Joint	$
Standby	$
Evaluation	$
Extra Packer	$
Circ. Sub.	$
Mileage 19	$ 14 25
Fluid Sampler	$
Extra Charts	$
TOTAL	$ 564 25

WESTERN TESTING CO., INC.
Pressure Data

Date 11-24-80 Test Ticket No. 4851

Recorder No. ~~3354~~ 10980 Capacity ~~4000~~ 4200 Location ~~2800~~ 2762 Ft.

Clock No. — Elevation 1416 KB Well Temperature 105 °F

Point		Pressure		Time Given	Time Computed
A	Initial Hydrostatic Mud	1402 P.S.I.	Open Tool	7:00 A M	
B	First Initial Flow Pressure	21 P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C	First Final Flow Pressure	53 P.S.I.	Initial Closed-in Pressure	30 Mins.	30 Mins.
D	Initial Closed-in Pressure	904 P.S.I.	Second Flow Pressure	30 Mins.	30 Mins.
E	Second Initial Flow Pressure	82 P.S.I.	Final Closed-in Pressure	60 Mins.	60 Mins.
F	Second Final Flow Pressure	69 P.S.I.			
G	Final Closed-in Pressure	864 P.S.I.			
H	Final Hydrostatic Mud	1400 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point	Mins.	Press.
P 1	0	21
P 2	5	45
P 3	10	51
P 4	15	54
P 5	20	52
P 6	25	53
P 7	30	53
P 8	35	
P 9	40	
P10	45	
P11	50	
P12	55	
P13	60	
P14		
P15		
P16		
P17		
P18		
P19		
P20		

Initial Shut-In
Breakdown: 10 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	53
3	186
6	437
9	615
12	717
15	777
18	818
21	843
24	868
27	885
30	904
33	
36	
39	
42	
45	
48	
51	
54	
57	
60	

Second Flow Pressure
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	82
5	73
10	69
15	
20	
25	
30	69
35	
40	
45	
50	
55	
60	
65	
70	
75	
80	
85	
90	

Final Shut-In
Breakdown: 20 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	69
3	126
6	265
9	432
12	557
15	644
18	689
21	722
24	746
27	767
30	782
33	797
36	808
39	817
42	825
45	834
48	843
51	848
54	854
57	860
60	864

TH # 4851

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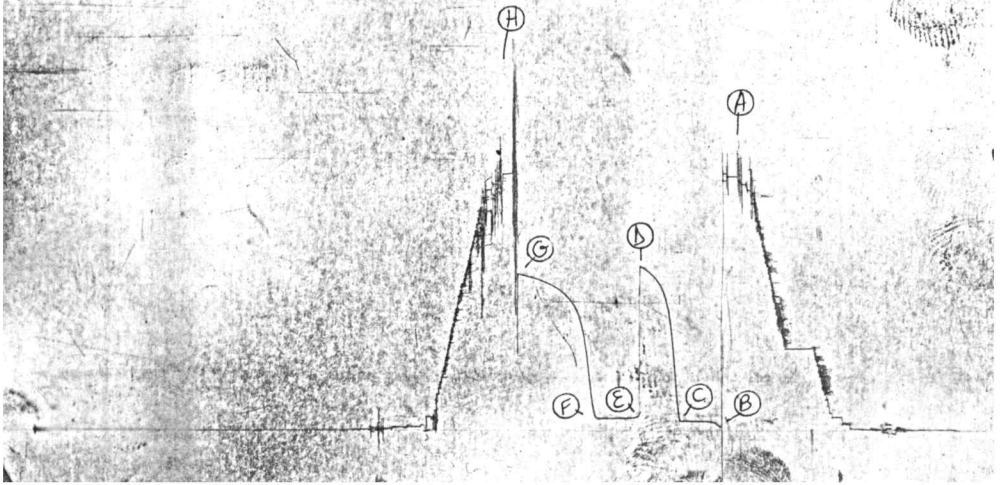

Company Range Oil Company, Inc. Lease & Well No. Hummel #1

Elevation 1416 Kelly Bushing Formation Bartlesville Effective Pay -- Ft. Ticket No. 4851

Date 11/24/80 Sec. 20 Twp. 27S Range 7E County Butler State Kansas

Test Approved by Joe M. Baker Western Representative Allen Edgington

Formation Test No. 1 Interval Tested from 2708 ft. to 2717 ft. Total Depth 2717 ft.

Packer Depth 2703 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Packer Depth 2708 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 2696 ft. Recorder Number 3354 Cap. 4200

Bottom Recorder Depth (Outside) 2712 ft. Recorder Number 10980 Cap. 4200

Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Range Drilling Rig #2 Drill Collar Length 196 I. D. 2¼ in.

Mud Type chemical Viscosity 37 Weight Pipe Length - I. D. - in.

Weight 9.6 Water Loss 12.8 cc. Drill Pipe Length 2303 I. D. 3.8 in.

Chlorides 1,800 P.P.M. Test Tool Length 23 ft. Tool Size 4½OD in.

Jars: Make No Serial Number - Anchor Length 9 ft. Size 4½OD 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 4½XH in.

Blow: Weak thirty-five minutes.

Recovered 90 ft. of drilling mud with very slight oil show (few oil spots on top

Recovered ft. of of mud)

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks: READ OUTSIDE CHART

Time Set Packer(s) 7:00 A.M. ~~P.M.~~ Time Started Off Bottom 9:30 A.M. ~~P.M.~~ Maximum Temperature 105°

Initial Hydrostatic Pressure		(A) 1402 P.S.I.		
Initial Flow Period	Minutes 30	(B) 21 P.S.I.	to (C) 53 P.S.I.	
Initial Closed In Period	Minutes 30	(D) 904 P.S.I.		
Final Flow Period	Minutes 30	(E) 82 P.S.I.	to (F) 69 P.S.I.	
Final Closed In Period	Minutes 60	(G) 864 P.S.I.		
Final Hydrostatic Pressure		(H) 1400 P.S.I.		

WESTERN TESTING CO., INC.
Pressure Data

Date 11/24/80 Test Ticket No. 4851

Recorder No. 10980 Capacity 4200 Location 2712 Ft.

Clock No. ---- Elevation 1416 Kelly Bushing Well Temperature 105° °F

Point		Pressure			Time Given	Time Computed
A	Initial Hydrostatic Mud	1402 P.S.I.		Open Tool	7:00A M	
B	First Initial Flow Pressure	21 P.S.I.		First Flow Pressure	30 Mins.	30 Mins.
C	First Final Flow Pressure	53 P.S.I.		Initial Closed-in Pressure	30 Mins.	30 Mins.
D	Initial Closed-in Pressure	904 P.S.I.		Second Flow Pressure	30 Mins.	30 Mins.
E	Second Initial Flow Pressure	82 P.S.I.		Final Closed-in Pressure	60 Mins.	60 Mins.
F	Second Final Flow Pressure	69 P.S.I.				
G	Final Closed-in Pressure	864 P.S.I.				
H	Final Hydrostatic Mud	1400 P.S.I.				

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 6 Inc. of 5 mins. and a final inc. of 0 Min.

Point	Mins.	Press.
P 1	0	21
P 2	5	45
P 3	10	51
P 4	15	51
P 5	20	52
P 6	25	53
P 7	30	53
P 8		
P 9		
P10		
P11		
P12		
P13		
P14		
P15		
P16		
P17		
P18		
P19		
P20		

Initial Shut-In
Breakdown: 10 Inc. of 3 mins. and a final inc. of 0 Min.

Point	Minutes	Press.
	0	53
	3	186
	6	437
	9	615
	12	717
	15	777
	18	818
	21	843
	24	868
	27	885
	30	904

Second Flow Pressure
Breakdown: 6 Inc. of 5 mins. and a final inc. of 0 Min.

Point	Minutes	Press.
	0	82
	5	73
	10	69
	15	69
	20	69
	25	69
	30	69

Final Shut-In
Breakdown: 20 Inc. of 3 mins. and a final inc. of 0 Min.

Point	Minutes	Press.
	0	69
	3	126
	6	265
	9	432
	12	557
	15	644
	18	689
	21	722
	24	746
	27	767
	30	782
	33	797
	36	808
	39	817
	42	825
	45	834
	48	843
	51	848
	54	854
	57	860
	60	864