Ricketts Testing

Company RANGE OIL COMPANY, INC. Lease & Well No. HAMLIN #3

Elevation 1347 K.B. Formation KANSAS CITY Effective Pay ____ ft. Ticket No. 1587

Date 6-24-91 Sec. 27 Twp. 29 Range 5E County BUTLER State KANSAS

Test Approved by TIM J. LAUER Ricketts Representative JIM RICKETTS

Formation Test No. 1 Interval Tested from 2217 ft. to 2232 ft. Total Depth 2232 ft.

Packer Depth 2217 ft. Size 6 3/4 in. Packer Depth ____ ft. Size ____ in.

Packer Depth 2214 ft. Size 6 3/4 in. Packer Depth ____ ft. Size ____ in.

Depth of Selective Zone Set ____

Top Recorder Depth (Inside) 2222 ft. Recorder Number 13307 Cap. 4650

Bottom Recorder Depth (Outside) 2225 ft. Recorder Number 13306 Cap. 4625

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

Drilling Contractor Red Tiger Drilling Rig #3 Drill Collar Length 120 I.D. 2.25 in.

Mud Type Chemical Viscosity 53 Weight Pipe Length 612 I.D. 3.00 in.

Weight 9.5 Water Loss 12.0 cc. Drill Pipe Length 1465 I.D. 3.25 in.

Chlorides 1,500 P.P.M. Test Tool Length 20 ft. Tool Size 5½ in.

Jars: Make ____ Serial Number ____ Anchor Length 15 ft. Size 5½ 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 blow bulding to 4" in water Initial Flow Period.

Weak blow building to a strong blow in 20 minutes Final Flow Period.

Recovered 30 ft. of Oil cut mud. 4% Oil

Recovered 240 ft. of Gas in pipe.

Recovered ____ ft. of ____

Recovered ____ ft. of ____

Recovered ____ ft. of ____

Remarks: ____

Time Set Packer (s) 9:36 ~~A~~ P.M. Time Started Off Bottom 12:36 A.M. ~~P~~ Maximum Temperature 96°

Initial Hydrostatic Pressure		(A)	1179	P.S.I.
Initial Flow Period	Minutes 30	(B)	22	P.S.I. to
		(C)	40	P.S.I.
Initial Closed In Period	Minutes 27	(D)	106	P.S.I.
Final Flow Period	Minutes 60	(E)	40	P.S.I. to
		(F)	40	P.S.I.
Final Closed In Period	Minutes 60	(G)	143	P.S.I.
Final Hydrostatic Pressure		(H)	1164	P.S.I.

RICKETTS TESTING
Pressure Data

Date 6-24-91 Test Ticket No. 1587

Recorder No. 13307 Capacity 4650 Location 2222 Ft.

Clock No. Elevation 1347 K.B. Well Temperature 96 °F

Point		Pressure	
A	Initial Hydrostatic Mud	1179	P.S.I.
B	First Initial Flow Pressure	22	P.S.I.
C	First Final Flow Pressure	40	P.S.I.
D	Initial Closed-in Pressure	106	P.S.I.
E	Second Initial Flow Pressure	40	P.S.I.
F	Second Final Flow Pressure	40	P.S.I.
G	Final Closed-in Pressure	143	P.S.I.
H	Final Hydrostatic Mud	1164	P.S.I.

	Time Given	Time Computed
Open Tool	9:36 P M	
First Flow Pressure	30 Mins.	30 Mins.
Initial Closed-in Pressure	30 Mins.	27 Mins.
Second Flow Pressure	60 Mins.	60 Mins.
Final Closed-in Pressure	60 Mins.	60 Mins.

PRESSURE BREAKDOWN

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

Point	Mins.	Press.
P 1	0	22
P 2	5	31
P 3	10	37
P 4	15	38
P 5	20	49
P 6	25	40
P 7	30	40
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	

Initial Shut-In
Breakdown: 9 Inc.
of 3 mins. and a
final inc. of Min.

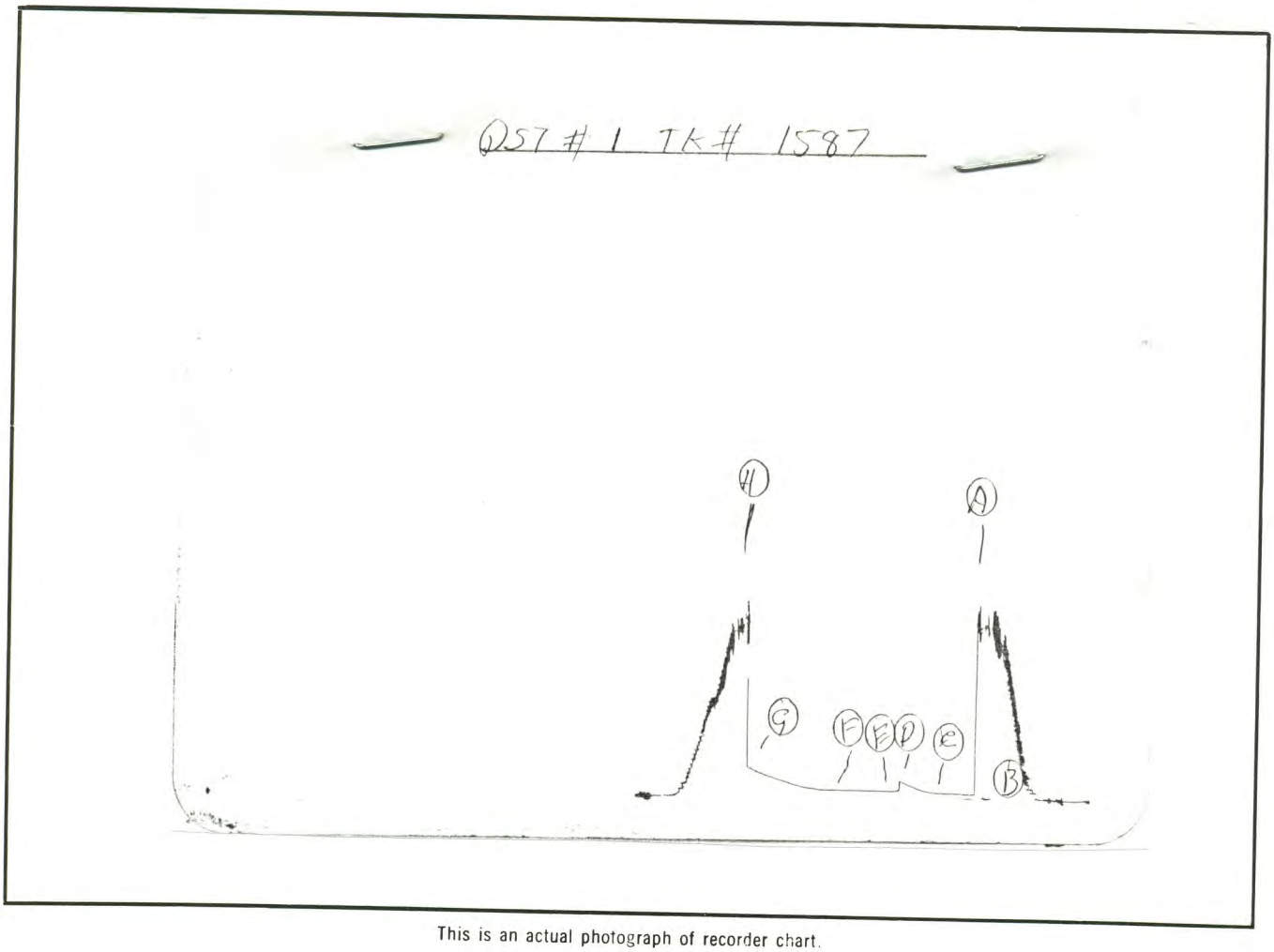
Point Minutes	Press.
0	40
3	46
6	50
9	58
12	65
15	73
18	78
21	89
24	97
27	106
30	
33	
36	
39	
42	
45	
48	
51	
54	
57	
60	

Second Flow Pressure
Breakdown: 12 Inc.
of 5 mins. and a
final inc. of Min.

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

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

Point Minutes	Press.
0	40
3	40
6	40
9	41
12	44
15	48
18	50
21	52
24	54
27	56
30	58
33	65
36	72
39	76
42	83
45	90
48	102
51	112
54	120
57	132
60	143



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	1182	1179	PSI
(B)	First Initial Flow Pressure	20	22	PSI
(C)	First Final Flow Pressure	30	40	PSI
(D)	Initial Closed-in Pressure	86	106	PSI
(E)	Second Initial Flow Pressure	30	40	PSI
(F)	Second Final Flow Pressure	30	40	PSI
(G)	Final Closed-in Pressure	177	143	PSI
(H)	Final Hydrostatic Mud	1158	1164	PSI

COMPANY RANGE OIL COMPANY, INC. LEASE AND WELL NO. HAMLIN #3 SEC. 27 TWP. 29 RGE. 5E TEST NO. 1 DATE 6-2

Ricketts Testing

Company RANGE OIL COMPANY, INC. Lease & Well No. HAMLIN #3

Elevation 1347 K.B. Formation BARTLESON SAND Effective Pay ____ ft. Ticket No. 1588

Date 6-27-91 Sec. 27 Twp. 29 Range 5E County BUTLER State KANSAS

Test Approved by TIM J. LAUER Ricketts Representative JIM RICKETTS

Formation Test No. 2 Interval Tested from 2854 ft. to 2861 ft. Total Depth 2861 ft.

Packer Depth 2854 ft. Size 6 3/4 in. Packer Depth ____ ft. Size ____ in.

Packer Depth 2861 ft. Size 6 3/4 in. Packer Depth ____ ft. Size ____ in.

Depth of Selective Zone Set ____

Top Recorder Depth (Inside) 2842 A/P ft. Recorder Number 13307 Cap. 4650

Bottom Recorder Depth (Outside) 2858 ft. Recorder Number 13306 Cap. 4625

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

Drilling Contractor Red Tiger Drilling Rig #3 Drill Collar Length ____ I.D. ____ in.

Mud Type Chemical Viscosity 44 Weight Pipe Length 312 I.D. 3.0 in.

Weight 9.7 Water Loss 10 cc. Drill Pipe Length 2522 I.D. 3.25 in.

Chlorides 1,600 P.P.M. Test Tool Length 20 ft. Tool Size 5½ in.

Jars: Make ____ Serial Number ____ Anchor Length 7 ft. Size 5½ 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 blow building to 10" in water Initial Flow Period.

Weak blow building to a strong blow in 30 minutes Final Flow Period.

Recovered 30 ft. of Oil cut mud. 10% Oil 10% Water

Recovered 60 ft. of Slightly oil cut water. Trace of oil.

Recovered 450 ft. of Gas in pipe.

Recovered ____ ft. of ____

Recovered ____ ft. of ____

Remarks: 5' cuttings in bottom of hole. DST Fluid Chlorides 68,000 PPM

Time Set Packer (s) 12:18 A.M. ~~P.M.~~ Time Started Off Bottom 3:18 ~~A.M.~~ P.M. Maximum Temperature 99°

Initial Hydrostatic Pressure		(A)	1496	P.S.I.
Initial Flow Period	Minutes 30	(B)	39	P.S.I. to
		(C)	39	P.S.I.
Initial Closed In Period	Minutes 30	(D)	775	P.S.I.
Final Flow Period	Minutes 60	(E)	49	P.S.I. to
		(F)	49	P.S.I.
Final Closed In Period	Minutes 60	(G)	751	P.S.I.
Final Hydrostatic Pressure		(H)	1473	P.S.I.

RICKETTS TESTING
Pressure Data

Date 6-27-91 Test Ticket No. 1588

Recorder No. 13307 Capacity 4650 Location 2842 Ft.

Clock No. Elevation 1347 K.B. Well Temperature 99 °F

Point		Pressure	
A	Initial Hydrostatic Mud	1496	P.S.I.
B	First Initial Flow Pressure	39	P.S.I.
C	First Final Flow Pressure	39	P.S.I.
D	Initial Closed-in Pressure	775	P.S.I.
E	Second Initial Flow Pressure	49	P.S.I.
F	Second Final Flow Pressure	49	P.S.I.
G	Final Closed-in Pressure	751	P.S.I.
H	Final Hydrostatic Mud	1473	P.S.I.

	Time Given	Time Computed
Open Tool	12:18 A M	
First Flow Pressure	30 Mins.	30 Mins.
Initial Closed-in Pressure	30 Mins.	30 Mins.
Second Flow Pressure	60 Mins.	60 Mins.
Final Closed-in Pressure	60 Mins.	60 Mins.

PRESSURE BREAKDOWN

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

Point	Mins.	Press.
P 1	0	39
P 2	5	39
P 3	10	39
P 4	15	39
P 5	20	39
P 6	25	39
P 7	30	39
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	

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

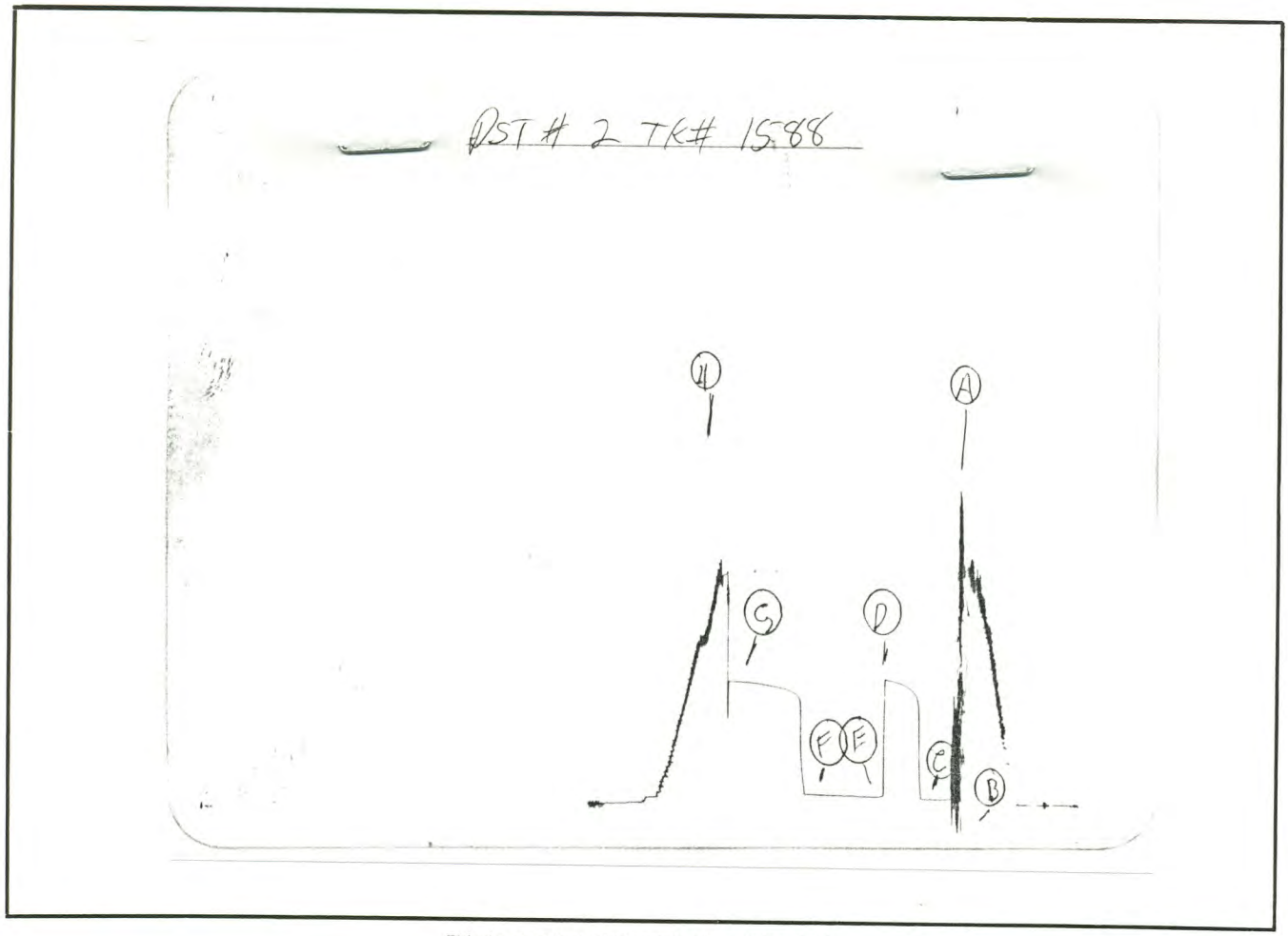
Point Minutes	Press.
0	39
3	591
6	687
9	714
12	731
15	743
18	750
21	762
24	766
27	770
30	775
33	
36	
39	
42	
45	
48	
51	
54	
57	
60	

Second Flow Pressure
Breakdown: 12 Inc.
of 5 mins. and a
final inc. of ____ Min.

Point Minutes	Press.
0	49
5	49
10	49
15	49
20	49
25	49
30	49
35	49
40	49
45	49
50	49
55	49
60	49
65	
70	
75	
80	
85	
90	

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

Point Minutes	Press.
0	49
3	280
6	661
9	684
12	696
15	705
18	713
21	717
24	726
27	729
30	732
33	735
36	738
39	740
42	742
45	744
48	746
51	748
54	749
57	750
60	751



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	1481	1496	PSI
(B)	First Initial Flow Pressure	35	39	PSI
(C)	First Final Flow Pressure	35	39	PSI
(D)	Initial Closed-in Pressure	754	775	PSI
(E)	Second Initial Flow Pressure	46	49	PSI
(F)	Second Final Flow Pressure	46	49	PSI
(G)	Final Closed-in Pressure	754	751	PSI
(H)	Final Hydrostatic Mud	1470	1473	PSI

COMPANY RANGE OIL COMPANY, INC. LEASE AND WELL NO. HAMLIN #3 SEC. 27 TWP. 29 RGE. 5E TEST NO. 2 DATE 6-27-