FORMATION TEST REPORT

HOME OFFICE: GREAT BEND, KANSAS

P. O. BOX 793 PHONE 793-7903

COMPANY Lee Banks-W.R. Atkingon-Beacon Res. LEASE AND WELL NO. Freeman A # 1 SEC. 18 TWP. 33s RGE. 33w TEST NO. 1 DATE. 2-1

WESTERN TESTERS

Home Office: Great Bend, Kansas

P. O. Box 793 (316) 793-7903

Company LeeBanks-W.R. Atkinson-Beacon Resources Lease & Well No. Freeman A # 1

Elevation 2877 Kelly Bushing Formation Toronto Effective Pay Ft. Ticket No. 12676

Date 2-13-70 Sec. 18 Twp. 33s Range 33w County Seward State Kansas

Test Approved by W.R. Atkingon Western Representative Leon Elmore

Formation Test No. 1 O.K. x Misrun Interval Tested From 4247' to 4255' Total Depth 4255'

Size Main Hole 7 7/8 Rat Hole Conv. x B.T. Damaged Yes x No Conv. B.T. x Damaged Yes x No

Packer Depth 4233 Ft. Size 6 3/4 Packer Depth 4248 Ft. Size 6 3/4

Straddle Yes No x Conv. B.T. Damaged Yes No

Packer Depth Ft. Size

Tool Size 5½"OD Tool Jt. Size 4½"FH Anchor Length 8 Ft. Size 5½"OD

RECORDERS Depth 4249 Ft. Clock No. 6866 Depth 4252 Ft. Clock No. 8377

Top Make Kuster Cap. 4500 No. 3085 Inside ~~Outside~~ Bottom Make Kuster Cap. 4400 No. 2603 ~~Inside~~ Outside

Below Straddle: Depth Clock No. Inside Outside Depth Ft. Clock No. Inside Outside

Top Make Cap. No. Inside Outside Bottom Make Cap. No. Inside Outside

Time Set Packer 7:53P M

Tool Open I.F.P. From 8:55 M. to 8:40P M. Hr. 45 Min. From (B) 17 P.S.I. To (C) 50 P.S.I.

Tool Closed I.C.I.P. From 8:40 M. to 9:10P M. Hr. 30 Min. (D) 1117 P.S.I.

Tool Open F.F.P. From 9:10 M. to 10:10P M. Hr. 60 Min. From (E) 66 P.S.I. To (F) 107 P.S.I.

Tool Closed F.C.I.P. From 10:10 M. to 10:55P M. Hr. 45 Min. (G) 1140 P.S.I.

Initial Hydrostatic Pressure (A) 2028 P.S.I. Final Hydrostatic Pressure (H) 2018 P.S.I.

SURFACE INFORMATION	Size Choke 3/4 In.	Max. Press. P.S.I.	Time	Description of Flow
			M.	
			M.	
			M.	

BLOW Weak to fair Bottom Choke Size 3.4 In.

Did Well Flow Yes x No Recovery Total Ft. 20 feet very slight oil cut mud-- 172 feet muddy salt water

Reversed Out Yes x No Mud Type starch Viscosity 37 Weight 8.9 Water Loss 9.8 cc. Maximum Temp. 109 °F

Type Circ. Sub plug Did Tool Plug? no Jars: Size 4½"OD Make WTC Ser. No. 411

EXTRA EQUIPMENT: Dual Packers yes Safety Joint yes Did Packer Hold? yes Where?

Length Drill Pip 2890 ft. I.D. Drill Pipe 3.8 in. Length Weight Pipe 1025 ft. I.D. Weight Pipe 2.7 in. Length Drill Collars ft.

I. D. Drill Collars 2¼ in. Length D.S.T. Tool 45 ft.

Remarks

WESTERN TESTING CO., INC.
Pressure Data

Date 2-13-70 Test Ticket No. 12676

Recorder No. 3085 Capacity 4500 Location 4249 Ft.

Clock No. 6866 Elevation 2877 Kelly Bushing Well Temperature 109 °F

Point		Pressure			Time Given	Time Computed
A	Initial Hydrostatic Mud	2028 P.S.I.	Open Tool		7:53P M	
B	First Initial Flow Pressure	17 P.S.I.	First Flow Pressure		45 Mins.	45 Mins.
C	First Final Flow Pressure	50 P.S.I.	Initial Closed-in Pressure		30 Mins.	30 Mins.
D	Initial Closed-in Pressure	1117 P.S.I.	Second Flow Pressure		60 Mins.	60 Mins.
E	Second Initial Flow Pressure	66 P.S.I.	Final Closed-in Pressure		45 Mins.	45 Mins.
F	Second Final Flow Pressure	107 P.S.I.				
G	Final Closed-in Pressure	1140 P.S.I.				
H	Final Hydrostatic Mud	2018 P.S.I.				

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 9 Inc.
of 5 mins. and a
final inc. of ____ Min.

Point Mins.	Press.
P 1 0	17
P 2 5	19
P 3 10	22
P 4 15	26
P 5 20	29
P 6 25	33
P 7 30	39
P 8 35	41
P 9 40	46
P10 45	50
P11	
P12	
P13	
P14	
P15	
P16	
P17	
P18	
P19	
P20	

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

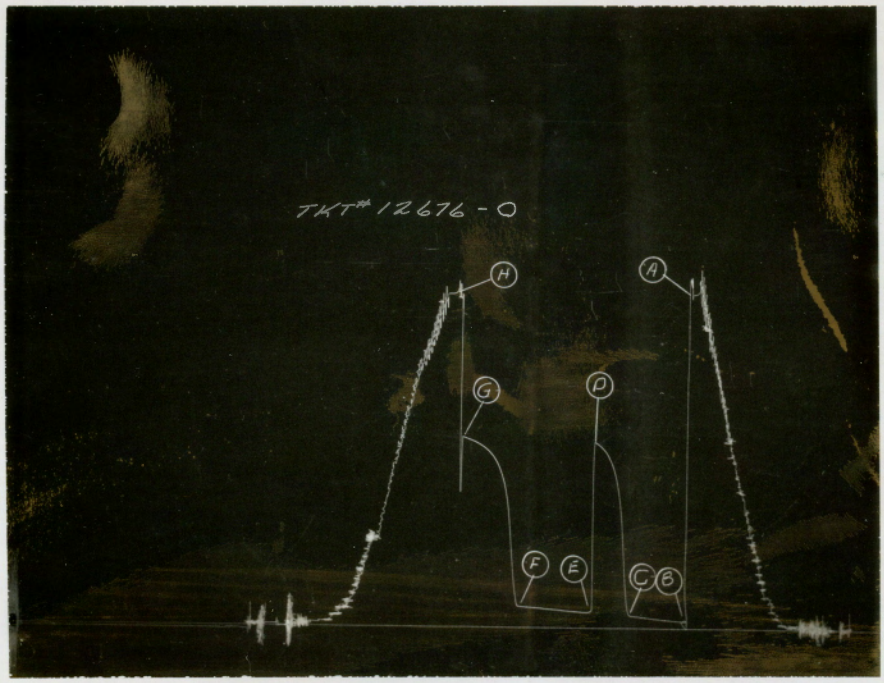
Point Minutes	Press.
0	50
3	150
6	548
9	780
12	909
15	950
18	1025
21	1060
24	1083
27	1106
30	1117

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

Point Minutes	Press.
0	66
5	66
10	72
15	75
20	78
25	82
30	87
35	90
40	93
45	97
50	101
55	103
60	107

Final Shut-In
Breakdown: 15 Inc.
of 3 mins. and a
final inc. of ____ Min.

Point Minutes	Press.
0	107
3	295
6	467
9	717
12	846
15	925
18	979
21	1014
24	1043
27	1066
30	1087
33	1102
36	1115
39	1122
42	1132
45	1140



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	2115	2028	PSI
(B)	First Initial Flow Pressure	11	17	PSI
(C)	First Final Flow Pressure	47	50	PSI
(D)	Initial Closed-in Pressure	1117	1117	PSI
(E)	Second Initial Flow Pressure	71	66	PSI
(F)	Second Final Flow Pressure	107	107	PSI
(G)	Final Closed-in Pressure	1140	1140	PSI
(H)	Final Hydrostatic Mud	2098	2018	PSI

COMPANY Lee Banks-W.R. Atkinson-Beacon Hes. LEASE AND WELL NO. Freeman A # 1 SEC. 18 TWP. 33s RGE. 33w TEST NO. 1 DATE 2-1