WESTERN TESTERS

Home Office: Great Bend, Kansas

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

Company A. L. Abercrombie Inc. Lease & Well No. Chambers #4

Elevation 2558 Kelly Bushings Formation Kansas City Effective Pay Ft. Ticket No. 17384

Date 4-10-73 Sec. 29 Twp. 1S Range 26W County Decatur State Kansas

Test Approved by Jack K. Wharton Western Representative Kenneth Cheney

Formation Test No. 1 O.K. X Misrun Interval Tested From 3350' to 3370' Total Depth 3370'

Size Main Hole 6 3/4" Rat Hole Conv. B.T. X Damaged Yes X No Conv. X B.T. Damaged Yes X No

Packer Depth 3345 Ft. Size 5 1/2" Packer Depth 3350 Ft. Size 5 1/2"

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

Packer Depth Ft. Size

Tool Size 4 1/2" O.D. Tool Jt. Size 4"F.H. & 4½"F.H. Anchor Length 20 Ft. Size 4 1/2" O.D.

RECORDERS Depth 3363 Ft. Clock No. 9727 Depth 3366 Ft. Clock No. 6893

Top Make Kuster Cap 4150 No. 2604 Inside Outside Bottom Make Kuster Cap 4150 No. 1567 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 6:48 AM

Tool Open I.F.P. From 6:50 M. to 6:55A. M. Hr. 5 Min. From (B) 17 P.S.I. To (C) 27 P.S.I.

Tool Closed I.C.I.P. From 6:55 M. to 7:40A. M. Hr. 45 Min. (D) 459 P.S.I.

Tool Open F.F.P. From 7:40 M. to 8:40A. M. Hr. 60 Min. From (E) 74 P.S.I. To (F) 132 P.S.I.

Tool Closed F.C.I.P. From 8:40 M. to 9:25A. M. Hr. 45 Min. (G) 437 P.S.I.

Initial Hydrostatic Pressure (A) 1780 P.S.I. Final Hydrostatic Pressure (H) 1760 P.S.I.

SURFACE INFORMATION	Size Choke 3/8 In.	Max. Press. P.S.I.	Time	Description of Flow
			M.	
			M.	
			M.	

BLOW Very good blow Bottom Choke Size 3/4 In.

Did Well Flow Yes X No Recovery Total Ft. 441 feet gas in pipe

200 feet clean oil

96 feet muddy oil

Reversed Out Yes X No Mud Type Chem. Viscosity 50 Weight 9.7 Water Loss 8 cc. Maximum Temp. 95 °F

Type Circ. Sub. Plug Safety Joint No Jars: Size Make Ser. No.

EXTRA EQUIPMENT: Dual Packers Yes Did Packer Hold? Yes Did Tool Plug? No Where?

Length Drill Pipe 1762 ft. I.D. Drill Pipe 3.8 in. Length Weight Pipe 1271 ft. I.D. Weight Pipe 2.7 in. Length Drill Collars 296 ft.

I.D. Drill Collars 2.7 in. Length D.S.T. Tool 41 ft.

Remarks 37.8 gravity

X7-15-26W

WESTERN TESTING CO., INC.
Pressure Data

Date 4-10-73 Test Ticket No. 17384

Recorder No. 2604 Capacity 4150 Location 3363 Ft.

Clock No. 9727 Elevation 2558 Kelly Bushings Well Temperature 95 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1780 P.S.I.	Open Tool	6:48 A. M	
B First Initial Flow Pressure	17 P.S.I.	First Flow Pressure	5 Mins.	5 Mins.
C First Final Flow Pressure	27 P.S.I.	Initial Closed-in Pressure	45 Mins.	45 Mins.
D Initial Closed-in Pressure	459 P.S.I.	Second Flow Pressure	60 Mins.	55 Mins.
E Second Initial Flow Pressure	74 P.S.I.	Final Closed-in Pressure	45 Mins.	45 Mins.
F Second Final Flow Pressure	132 P.S.I.			
G Final Closed-in Pressure	437 P.S.I.			
H Final Hydrostatic Mud	1760 P.S.I.			

PRESSURE BREAKDOWN

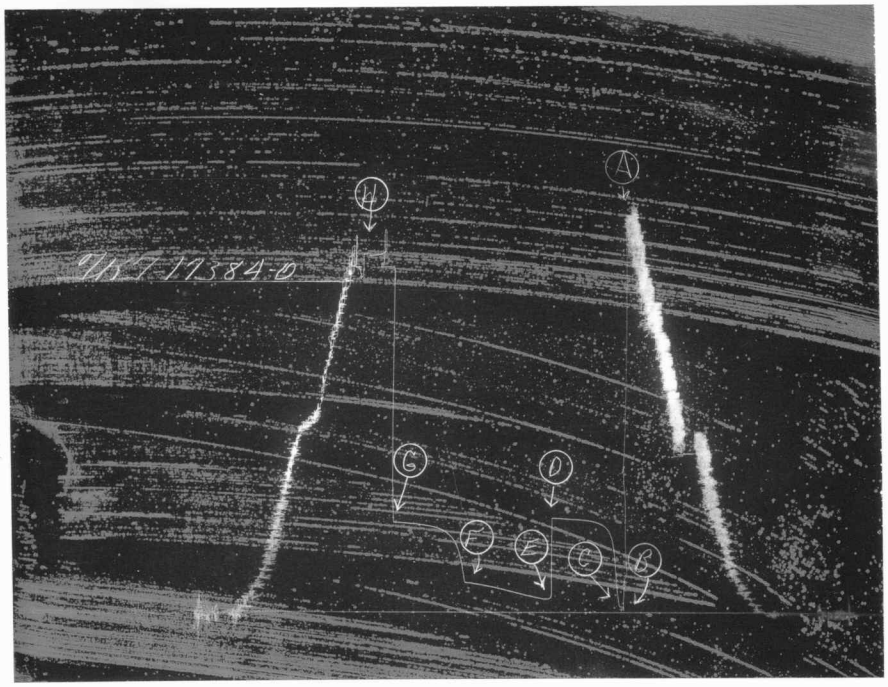
First Flow Pressure
Breakdown: 1 Inc. of 5 mins. and a final inc. of 0 Min.

Initial Shut-In
Breakdown: 15 Inc. of 3 mins. and a final inc. of 0 Min.

Second Flow Pressure
Breakdown: 11 Inc. of 5 mins. and a final inc. of 0 Min.

Final Shut-In
Breakdown: 15 Inc. of 3 mins. and a final inc. of 0 Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	17	0	27	0	74	0	132
P 2 5	27	3	230	5	63	3	221
P 3		6	358	10	66	6	298
P 4		9	401	15	72	9	343
P 5		12	420	20	80	12	371
P 6		15	431	25	89	15	388
P 7		18	440	30	97	18	401
P 8		21	444	35	106	21	410
P 9		24	448	40	113	24	416
P10		27	450	45	121	27	420
P11		30	452	50	125	30	427
P12		33	454	55	132	33	429
P13		36	456			36	431
P14		39	458			39	433
P15		42	459			42	435
P16		45	459			45	437
P17							
P18							
P19							
P20							



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	1789	1780	PSI
(B)	First Initial Flow Pressure	10	17	PSI
(C)	First Final Flow Pressure	21	27	PSI
(D)	Initial Closed-in Pressure	465	459	PSI
(E)	Second Initial Flow Pressure	74	74	PSI
(F)	Second Final Flow Pressure	134	132	PSI
(G)	Final Closed-in Pressure	437	437	PSI
(H)	Final Hydrostatic Mud	1758	1760	PSI

COMPANY A.L. Abercrombie, Inc. LEASE AND WELL NO. Chambers #4 SEC. 29 TWP. 1S RGE. 26W TEST NO. 1 DATE 4-10-73

WESTERN TESTERS

Home Office: Great Bend, Kansas
P. O. Box 793 (316) 793-7903

Company A. L. Abercrombie Inc. Lease & Well No. Chambers #4

Elevation 2558 Kelly Bushings Formation Kansas City Effective Pay Ft. Ticket No. 17385

Date 4-10-73 Sec. 29 Twp. 1S Range 26W County Decatur State Kansas

Test Approved by Jack K. Wharton Western Representative Kenneth Cheney

Formation Test No. 2 O.K. X Misrun Interval Tested From 3368' to 3425' Total Depth 3425'

Size Main Hole 6 3/4" Rat Hole Conv. B.T. X Damaged Yes X No Conv. X B.T. Damaged Yes X No

Packer Depth 3363 Ft. Size 5 1/2" Packer Depth 2368 Ft. Size 5 1/2"

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

Packer Depth Ft. Size

Tool Size 4 1/2" O.D. Tool Jt. Size 4" & 4½" F.H. Anchor Length 57 Ft. Size 4 1/2" O.D.

RECORDERS Depth 3381 Ft. Clock No. 9727 Depth 3384 Ft. Clock No. 6893

Top Make Kuster Cap 4150 No. 2604 Inside ~~Outside~~ Bottom Make Kuster Cap 4150 No. 1567 ~~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 11:48 P. M

Tool Open I.F.P. From 11:50 M. to 12:10A M. Hr. 20 Min. From (B) 40 P.S.I. To (C) 78 P.S.I.

Tool Closed I.C.I.P. From 12:10 M. to 12:50A M. Hr. 45 Min. (D) 964 P.S.I.

Tool Open F.F.P. From 12:50 M. to 1:50A. M. 1 Hr. Min. From (E) 108 P.S.I. To (F) 199 P.S.I.

Tool Closed F.C.I.P. From 1:50 M. to 2:35A. M. Hr. 45 Min. (G) 784 P.S.I.

Initial Hydrostatic Pressure (A) 1826 P.S.I. Final Hydrostatic Pressure (H) 1775 P.S.I.

SURFACE INFORMATION	Size Choke 3/8 In.	Max. Press. P.S.I.	Time	Description of Flow
			M.	
			M.	
			M.	

BLOW Weak for 20 min. on final flow - then fair after flush Bottom Choke Size 3/4 In.

Did Well Flow Yes X No Recovery Total Ft. 426 feet oil cut mud

Reversed Out Yes X No Mud Type Chem. Viscosity 62 Weight 10.1 Water Loss 9.6 cc. Maximum Temp. 95 °F

Type Circ. Sub. Plug Safety Joint No Jars: Size Make Ser. No.

EXTRA EQUIPMENT: Dual Packers Yes Did Packer Hold? Yes Did Tool Plug? No Where?

Length Drill Pipe 1615 ft. I.D. Drill Pipe 3.8 in. Length Weight Pipe 1271 ft. I.D. Weight Pipe 2.7 in. Length Drill Collars 266 ft.

I.D. Drill Collars 2.7 in. Length D.S.T. Tool 78 ft.

Remarks Flush tool 25 min. on final flow

WESTERN TESTING CO., INC.
Pressure Data

Date 4-10-73 Test Ticket No. 17385

Recorder No. 2604 Capacity 4150 Location 3381 Ft.

Clock No. 9727 Elevation 2558 Kelly Bushings Well Temperature 95 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1826 P.S.I.	Open Tool	11:48 AM P.	
B First Initial Flow Pressure	40 P.S.I.	First Flow Pressure	20 Mins.	20 Mins.
C First Final Flow Pressure	78 P.S.I.	Initial Closed-in Pressure	45 Mins.	45 Mins.
D Initial Closed-in Pressure	964 P.S.I.	Second Flow Pressure	60 Mins.	60 Mins.
E Second Initial Flow Pressure	108 P.S.I.	Final Closed-in Pressure	45 Mins.	44 Mins.
F Second Final Flow Pressure	199 P.S.I.			
G Final Closed-in Pressure	784 P.S.I.			
H Final Hydrostatic Mud	1775 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 4 Inc. of 5 mins. and a final inc. of 0 Min.

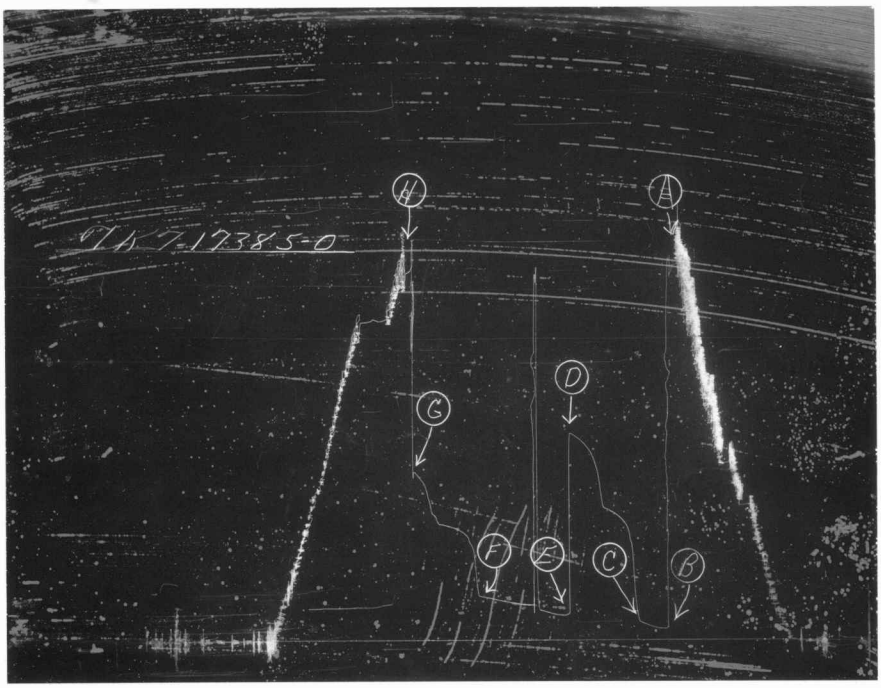
Initial Shut-In
Breakdown: 15 Inc. of 3 mins. and a final inc. of 0 Min.

Second Flow Pressure
Breakdown: 12 Inc. of 5 mins. and a final inc. of 0 Min.

Final Shut-In
Breakdown: 14 Inc. of 3 mins. and a final inc. of 2 Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	40	0	78	0	108	0	199
P 2 5	44	3	262	5	110	3	367
P 3 10	53	6	455	10	119	6	440
P 4 15	68	9	533	15	132	9	480
P 5 20	78	12	564	20	140	12	502
P 6		15	581	25	149	15	514
P 7		18	596	30	151	18	522
P 8		21	606	35	161	21	529
P 9		24	648	40	170	24	535
P10		27	784	45	176	27	539
P11		30	859	50	185	30	581
P12		33	897	55	193	33	640
P13		36	920	60	199	36	717
P14		39	941			39	752
P15		42	953			42	769
P16		45	964			44	784
P17							
P18							
P19							
P20							

COMPANY A. L. Abercrombie Inc. LEASE AND WELL NO. Chambers #4 SEC. 29 TWP. 1S RGE. 26W TEST NO. 2 DATE 4-10-73



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	1831	1826	PSI
(B)	First Initial Flow Pressure	42	40	PSI
(C)	First Final Flow Pressure	74	78	PSI
(D)	Initial Closed-in Pressure	972	964	PSI
(E)	Second Initial Flow Pressure	106	108	PSI
(F)	Second Final Flow Pressure	191	199	PSI
(G)	Final Closed-in Pressure	784	784	PSI
(H)	Final Hydrostatic Mud	1768	1775	PSI

Home Office: Great Bend, Kansas
P. O. Box 793 (316) 793-7903

Company A. L. Abercrombie Inc. Lease & Well No. Chambers #4

Elevation 2558 Kelly Bushings Formation Kansas City Effective Pay Ft. Ticket No. 17386

Date 4-11-73 Sec. 21 Twp. 1S Range 26W County Decatur State Kansas

Test Approved by Jack K. Wharton Western Representative Kenneth Cheney

Formation Test No. 3 O.K. X Misrun Interval Tested From 3389' to 3425' Total Depth 3425'

Size Main Hole 6 3/4" Rat Hole Conv. B.T. X Damaged Yes X No Conv. X B.T. Damaged Yes X No

Packer Depth 3384 Ft. Size 5 1/2" Packer Depth 3389 Ft. Size 5 1/2"

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

Packer Depth Ft. Size

Tool Size 4 1/2" O.D. Tool Jt. Size 4 & 4½"F.H. Anchor Length 36 Ft. Size 4 1/2" O.D.

RECORDERS Depth 3418 Ft. Clock No. 9727 Depth 3421 Ft. Clock No. 6893

Top Make Kuster Cap 4150 No. 2604 Inside Outside Bottom Make Kuster Cap 4150 No. 1567 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 7:42 A.M

Tool Open I.F.P. From 7:45 M. to 8:05A. M. Hr. 20 Min. From (B) 30 P.S.I. To (C) 42 P.S.I.

Tool Closed I.C.I.P. From 8:05 M. to 8:50A. M. Hr. 45 Min. (D) 986 P.S.I.

Tool Open F.F.P. From 8:50 M. to 9:50A. M. 1 Hr. Min. From (E) 72 P.S.I. To (F) 125 P.S.I.

Tool Closed F.C.I.P. From 9:50 M. to 10:35A. M. Hr. 45 Min. (G) 880 P.S.I.

Initial Hydrostatic Pressure (A) 1812 P.S.I. Final Hydrostatic Pressure (H) 1768 P.S.I.

SURFACE INFORMATION	Size Choke 3/8 In.	Max. Press. P.S.I.	Time	Description of Flow
			M.	
			M.	
			M.	

BLOW Weak blow through out test Bottom Choke Size 3/4 In.

Did Well Flow Yes X No Recovery Total Ft. 236 feet muddy water (slightly oil cut)

Reversed Out Yes X No Mud Type Chem. Viscosity 62 Weight 10.1 Water Loss 9.6 cc. Maximum Temp. 95 °F

Type Circ. Sub. Plug Safety Joint No Jars: Size Make Ser. No.

EXTRA EQUIPMENT: Dual Packers Yes Did Packer Hold? Yes Did Tool Plug? No Where?

Length Drill Pipe 1501 ft. I.D. Drill Pipe 3.8 in. Length Weight Pipe 1271 ft. I.D. Weight Pipe 2.7 in. Length Drill Collars 296 ft.

I.D. Drill Collars 2.7 in. Length D.S.T. Tool 57 ft.

Remarks

WESTERN TESTING CO., INC.
Pressure Data

Date 4-11-73

Recorder No. 2604 Capacity 4150 Test Ticket No. 17386

Clock No. 9727 Elevation 2558 Kelly Bushings Location 3418 Ft.

Well Temperature 95 °F

Point		Pressure	
A	Initial Hydrostatic Mud	1812	P.S.I.
B	First Initial Flow Pressure	30	P.S.I.
C	First Final Flow Pressure	42	P.S.I.
D	Initial Closed-in Pressure	986	P.S.I.
E	Second Initial Flow Pressure	72	P.S.I.
F	Second Final Flow Pressure	125	P.S.I.
G	Final Closed-in Pressure	880	P.S.I.
H	Final Hydrostatic Mud	1768	P.S.I.

	Time Given	Time Computed
Open Tool	7:42 A. M	
First Flow Pressure	20 Mins.	20 Mins.
Initial Closed-in Pressure	45 Mins.	45 Mins.
Second Flow Pressure	60 Mins.	60 Mins.
Final Closed-in Pressure	45 Mins.	45 Mins.

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 4 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point	Mins.	Press.
P 1	0	30
P 2	5	31
P 3	10	32
P 4	15	37
P 5	20	42
P 6		
P 7		
P 8		
P 9		
P10		
P11		
P12		
P13		
P14		
P15		
P16		
P17		
P18		
P19		
P20		

Initial Shut-In
Breakdown: 15 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	42
3	314
6	631
9	746
12	805
15	840
18	872
21	890
24	909
27	922
30	939
33	947
36	955
39	966
42	976
45	986

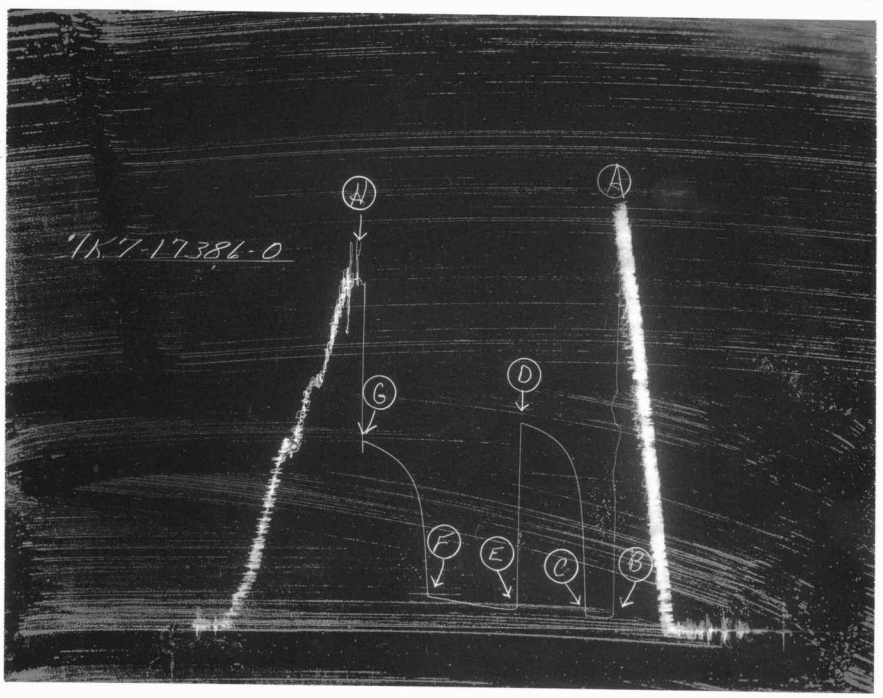
Second Flow Pressure
Breakdown: 12 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	72
5	66
10	68
15	71
20	75
25	80
30	85
35	90
40	97
45	105
50	112
55	119
60	125

Final Shut-In
Breakdown: 15 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	125
3	348
6	543
9	637
12	690
15	727
18	752
21	777
24	798
27	814
30	826
33	840
36	851
39	863
42	869
45	880

COMPANY A. L. Abercrombie Inc. LEASE AND WELL NO. Chambers #4 SEC. 21 TWP. 1S RGE. 26W TEST NO. 3 DATE 4-11-73



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	1660	1812	PSI
(B)	First Initial Flow Pressure	31	30	PSI
(C)	First Final Flow Pressure	42	42	PSI
(D)	Initial Closed-in Pressure	983	986	PSI
(E)	Second Initial Flow Pressure	85	72	PSI
(F)	Second Final Flow Pressure	127	125	PSI
(G)	Final Closed-in Pressure	888	880	PSI
(H)	Final Hydrostatic Mud	1650	1768	PSI