Home Office: Great Bend, Kansas

P. O. Box 793 GLadstone 3-7903

Company Abercrombie Drilling, Inc. Lease & Well No. Dandliker #1

Elevation 1305 Kelly Bushings; Formation - Hunton Ticket Number 5984

Date March 3, '65 Sec. 23 Twp. 1-S Range 14e County Nemuha, State Kansas

Test Approved by Jack K. Wharton Western Representative Joe M. Fetterolf,Jr.

Formation Test No. 1 O.K. yes Misrun no Interval Tested From 2810' to 2830' Total Depth 2830'

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

Packer Depth 2805 Ft. Size 5 -1/2 Packer Depth 2810 Ft. Size 5 - 1/2

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

Packer Depth Ft Size

Tool Size 4 1/2 OD Tool Jt. Size 3 1/2 IF Anchor Length 20 Ft. Size 4 1/2 OD

RECORDERS Depth 2813 Ft Clock No. 4964 Depth 2816 Ft. Clock No. 132

Top Make Amerada Cap. 3150 No. 1562 Inside ~~Outside~~ Bottom Make Western Cap. 4000 No. 42 ~~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

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Time Set Packer 1:47 P M

Tool Open I.F.P. From 1:50 M to 1:55 M Hr. 5 Min. From (B) 15 P.S.I. To (C) 15 P.S.I.

Tool Closed I.C.I.P. From 1:55 M. to 2:25 M. Hr. 30 Min. (D) 840 P.S.I.

Tool Open F.F.P. From 2:25 M. to 3:25 M. 1 Hr. Min. From (E) 17 P.S.I. To (F) 20 P.S.I.

Tool Closed F.C.I.P. From 3:25 M. to 3:55 M. Hr. 30 Min. (G) 734 P.S.I.

Inital Hydrostatic Pressure (A) 1528 P.S.I. Final Hydrostatic Pressure (H) 1514 P.S.I.

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

BLOW -Very weak blow for three minutes. Bottom Choke Size 3/4 in.

Did Well Flow Yes no No Recovery Total Ft. 5 ft. of mud with few specks of heavy oil/

Mud

Reversed Out Yes no No Mud Type chem. Viscosity 37 Weight 10.3 Maximum Temp. 98 °F

EXTRA EQUIPMENT: Dual Packers yes Safety Joint no Jars: Size no Make Ser. No.

Type Circ. Sub. 3 1/2 I.F. Plug Did Tool Plug? no Where? Did Packer Hold? yes

Length Drill Pipe 1885 ft. I.D. Drill Pipe 3.8 in. Length Weight Pipe 847.55 ft. I.D. Weight Pipe 2.7 in. Length Drill Collars 54.88 ft.

I. D. Drill Collars 2.7 in. Length D. S. T. Tool 43 ft.

Remarks

Flushed tool at 2:40 P. M. & 3:10 P.M.

WESTERN TESTING CO., INC.
Pressure Data

Date March 3, 1965 Test Ticket No. 5984

Recorder No. 1562 Capacity 3150 Location 2813 Ft.

Clock No. 4964 Elevation 1305 Kelly Bushings Well Temperature 98 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1528 P.S.I.	Opened Tool	1:47 P M	
B First Initial Flow Pressure	15 P.S.I.	First Flow Pressure	5 Mins.	5 Mins.
C First Final Flow Pressure	15 P.S.I.	Initial Closed-in Pressure	30 Mins.	27 Mins.
D Initial Closed-in Pressure	840 P.S.I.	Second Flow Pressure	60 Mins.	60 Mins.
E Second Initial Flow Pressure	17 P.S.I.	Final Closed-in Pressure	30 Mins.	27 Mins.
F Second Final Flow Pressure	20 P.S.I.			
G Final Closed-in Pressure	734 P.S.I.			
H Final Hydrostatic Mud	1514 P.S.I.			

PRESSURE BREAKDOWN

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

Point Mins.	Press.
P 1 0	15
P 2 5	15
P 3	
P 4	
P 5	
P 6	
P 7	
P 8	
P 9	
P10	
P11	
P12	
P13	
P14	
P15	
P16	
P17	
P18	
P19	
P20	

Initial Shut-In
Breakdown: 9 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	15
3	58
6	256
9	454
12	579
15	686
18	750
21	792
24	826
27	840

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

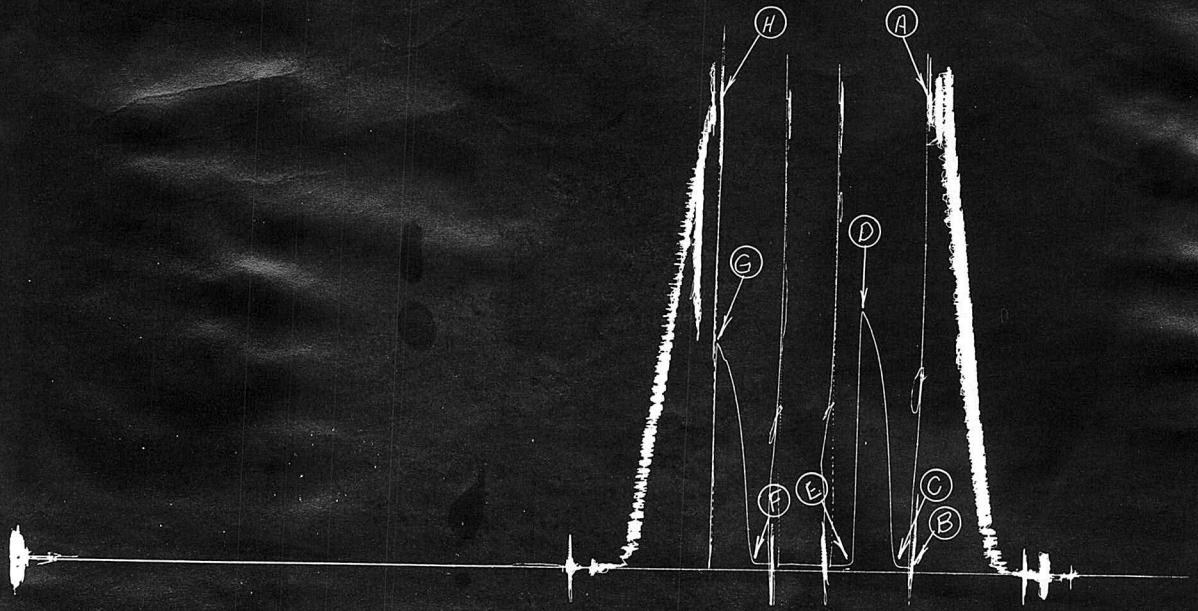
Point Minutes	Press.
0	17
5	17
10	17
15	17
20	17
25	17
30	17
35	17
40	17
45	17
50	20
55	20
60	20

Final Shut-In
Breakdown: 9 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	20
3	83
6	236
9	384
12	498
15	583
18	639
21	678
24	705
27	734

Abercrombie Drlg. Inc.
Dondliker #1

Test # 1
TKT # 5984



WESTERN TESTERS

Home Office: Great Bend, Kansas

P. O. Box 793 GLadstone 3-7903

Company Abercrombie Drilling, Inc. Lease & Well No. Dandliker #1

Elevation 1305 Kelly Bushings; Formation - Viola Ticket Number 5985

Date March 7, 1965 Sec. 23 Twp. 1-s Range 14e County Nemaha State Kansas

Test Approved by Jack K. Wharton Western Representative Joe M. Fetterolf, Jr.

Formation Test No. 2 O.K. yes Misrun no Interval Tested From 3536' to 3542' Total Depth 3542'

Size Main Hole 6 3/4 Rat Hole no Conv. x B.T. Damaged Yes no No Conv. x B.T. Damaged Yes no No

Packer Depth 3531 Ft. Size 5 1/8## Packer Depth 3536' Ft. Size 51/2

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

Packer Depth Ft Size

Tool Size 4 1/2 OD Tool Jt. Size 3 1/2 I.F. Anchor Length 6 Ft. Size 4 1/2 OD

RECORDERS Depth 3522 Ft Clock No. 4964 Depth 3525 Ft. Clock No. 132

Top Make Amerada Cap. 3150 No. 1562 Inside Outside Bottom Make Western Cap. 4000 No. 42 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

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Time Set Packer 6:58 A M

Tool Open I.F.P. From 7:00 M to 7:10 M Hr. 10 Min. From (B) 9 P.S.I. To (C) 9 P.S.I.

Tool Closed I.C.I.P. From 7:10 M. to 7:40 M. Hr. 30 Min. (D) 9 P.S.I.

Tool Open F.F.P. From 7:40 M. to 8:40 M. 1 Hr. Min. From (E) 9 P.S.I. To (F) 9 P.S.I.

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

Inital Hydrostatic Pressure (A) ### 1932 P.S.I. Final Hydrostatic Pressure (H) 1896 P.S.I.

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

M.

M.

M.

BLOW Very weak blow for two minutes. Bottom Choke Size 3/4 In.

Did Well Flow Yes no No Recovery Total Ft. 1 ft. of very slightly oil specked mud

Mud

Reversed Out Yes no No Mud Type chem. Viscosity 53 Weight 10.4 Maximum Temp. 106 °F

EXTRA EQUIPMENT: Dual Packers yes Safety Joint no Jars: Size no Make Ser. No.

Type Circ. Sub. 31/2 I.F. plug Did Tool Plug? no ## Where? Did Packer Hold? yes

Length Drill Pipe 2604 ft. I.D. Drill Pipe 3.8 in. Length Weight Pipe 847.55 ft. I.D. Weight Pipe 2.7 in. Length Drill Collars 54.88 ft.

I. D. Drill Collars 2.7 in. Length D. S. T. Tool 36 ft.

Remarks Flushed tool at 8:10 A.M.

WESTERN TESTING CO., INC.
Pressure Data

Date March 7, 1965 — Test Ticket No. 5985

Recorder No. 1562 — Capacity 3150 — Location 3522 Ft.

Clock No. 4964 — Elevation 1305 Kelly Bushings — Well Temperature 106 °F

Point	Pressure		Time Given		Time Computed	
A Initial Hydrostatic Mud	1932	P.S.I.	Opened Tool	6:58 A	M	
B First Initial Flow Pressure	9	P.S.I.	First Flow Pressure	10	Mins.	10 Mins.
C First Final Flow Pressure	9	P.S.I.	Initial Closed-in Pressure	30	Mins.	27 Mins.
D Initial Closed-in Pressure	9	P.S.I.	Second Flow Pressure	60	Mins.	60 Mins.
E Second Initial Flow Pressure	9	P.S.I.	Final Closed-in Pressure	30	Mins.	∞ Mins.
F Second Final Flow Pressure	9	P.S.I.				
G Final Closed-in Pressure	∞	P.S.I.				
H Final Hydrostatic Mud	1896	P.S.I.				

PRESSURE BREAKDOWN

First Flow Press.
Breakdown: 2 Inc.
of 5 mins. and a
final inc. of 0 Min.

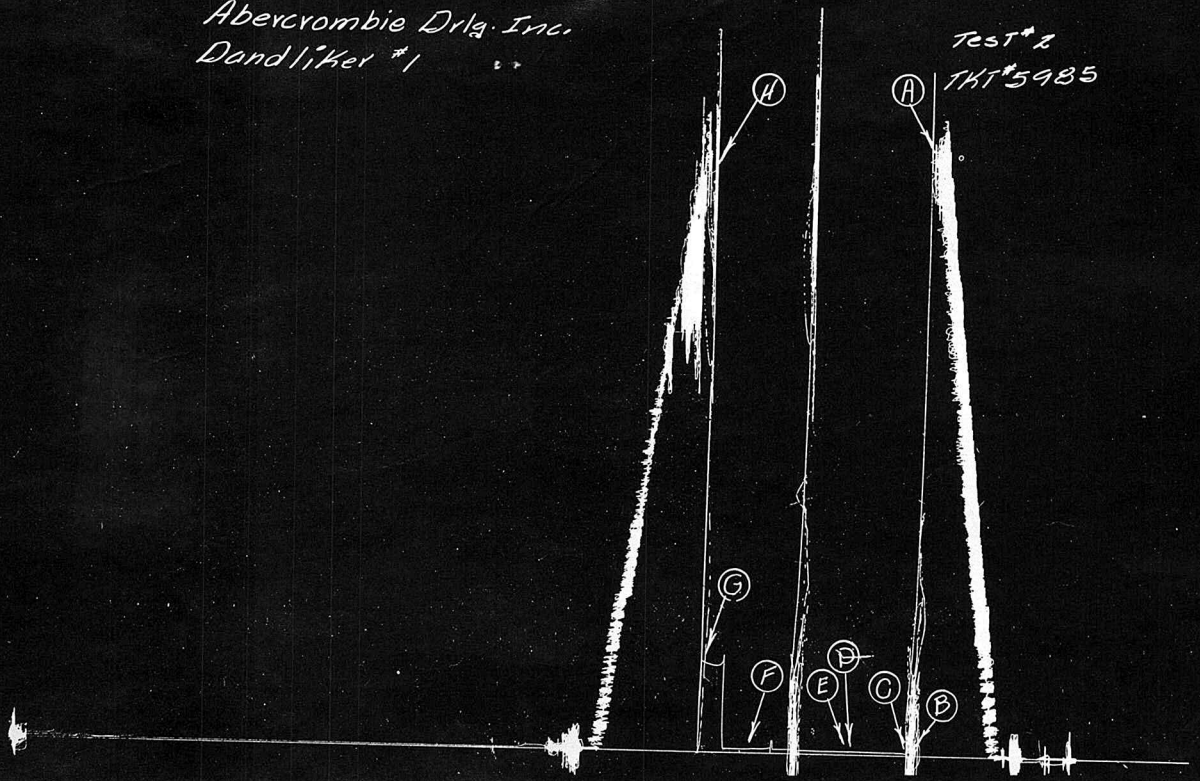
Initial Shut-In
Breakdown: 9 Inc.
of 3 mins. and a
final inc. of 0 Min.

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

Final Shut-In
Breakdown: ∞ Inc.
of _____ mins. and a
final inc. of ∞ Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	9	0	9	0	9		
P 2 5	9	3	9	5	9		
P 3 10	9	6	9	10	9		
P 4		9	9	15	9		
P 5		12	9	20	9		
P 6		15	9	25	9		
P 7		18	9	30	9		
P 8		21	9	35	9		
P 9		24	9	40	9		
P10		27	9	45	9		
P11				50	9		
P12				55	9		
P13				60	9		
P14							
P15							
P16							
P17							
P18							
P19							
P20							

Due to static exposer on final shut-in pressure is a false reading; therefore no breakdown was made at this point.


Abercrombie Drlg. Inc.
Dandliker #1
Test # 2
TKT # 5985
H
A
G
F
E
D
C
B

WESTERN TESTERS

Home Office: Great Bend, Kansas

P. O. Box 793 GLadstone 3-7903

Company Abercrombie Drilling, Inc. Lease & Well No. Dandliker #1

Elevation 1305 Kelly Bushings;Formation - Viola Ticket Number 5986

Date March 7, 1965 Sec. 23 Twp. 1s Range 14E County Nemaha State Kansas

Test Approved by Jack K. Wharton Western Representative Joe H. Fetterolf,Jr.

Formation Test No. 3 O.K. yes Misrun no Interval Tested From 3542' to 3552' Total Depth 3552'

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

Packer Depth 3537 Ft. Size 5½ Packer Depth 3542 Ft. Size 5½

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

Packer Depth Ft Size

Tool Size 4½ O D Tool Jt. Size 3½ IF Anchor Length 10 Ft. Size 4½ OD

RECORDERS Depth 3531 Ft Clock No. 4964 Depth 3546 Ft. Clock No. 132

Top Make Amerada Cap. 3150 No. 1562 Inside Outside Bottom Make Western Cap. 4000 No. 42 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

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Time Set Packer 6:47 P M

Tool Open I.F.P. From 6:50 M to 6:55 M Hr. 5 Min. From (B) 10 P.S.I. To (C) 10 P.S.I.

Tool Closed I.C.I.P. From 6:55 M. to 7:25 M. Hr. 30 Min. (D) 42 P.S.I.

Tool Open F.F.P. From 7:25 M. to 8:25 M. 1 Hr. Min. From (E) 12 P.S.I. To (F) 12 P.S.I.

Tool Closed F.C.I.P. From 8:25 M. to 8:55 M. Hr. 30 Min. (G) 215 P.S.I.

Inital Hydrostatic Pressure (A) 1917 P.S.I. Final Hydrostatic Pressure (H) 1908 P.S.I.

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

M.

M.

M.

BLOW Very weak blow for one minute. Bottom Choke Size 3/4 in.

Did Well Flow Yes no No Recovery Total Ft. 2 ft. of drilling mud

Mud

Reversed Out Yes no No Mud Type chem. Viscosity 39 Weight 10.3 Maximum Temp. 106 °F

EXTRA EQUIPMENT: Dual Packers yes Safety Joint no Jars: Size no Make Ser. No.

Type Circ. Sub. 3½ I.F. Plug Did Tool Plug? no Where? Did Packer Hold? yes

Length Drill Pipe 2614 ft. I.D. Drill Pipe 3.8 in. Length Weight Pipe 847.55 ft. I.D. Weight Pipe 2.7 in. Length Drill Collars 54.88 ft.

I. D. Drill Collars 2.7 in. Length D. S. T. Tool 36 ft.

Remarks Flushed tool at 7:55 P.M.

WHELAN PRINTERS

WESTERN TESTING CO., INC.
Pressure Data

Date March 7, 1965 — Test Ticket No. 5986

Recorder No. 1562 — Capacity 3150 #### — Location 3531 Ft.

Clock No. 4964 — Elevation 1305 Kelly Bushings — Well Temperature 106 °F

Point		Pressure		Time Given	Time Computed
A	Initial Hydrostatic Mud	1917 P.S.I.	Opened Tool	6:47 PM	
B	First Initial Flow Pressure	10 P.S.I.	First Flow Pressure	5 Mins.	5 Mins.
C	First Final Flow Pressure	10 P.S.I.	Initial Closed-in Pressure	30 Mins.	30 Mins.
D	Initial Closed-in Pressure	42 P.S.I.	Second Flow Pressure	60 Mins.	60 Mins.
E	Second Initial Flow Pressure	12 P.S.I.	Final Closed-in Pressure	30 Mins.	27 Mins.
F	Second Final Flow Pressure	12 P.S.I.			
G	Final Closed-in Pressure	215 P.S.I.			
H	Final Hydrostatic Mud	1908 P.S.I.			

PRESSURE BREAKDOWN

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

Point Mins.	Press.
P 1 0	10
P 2 5	10
P 3	
P 4	
P 5	
P 6	
P 7	
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.

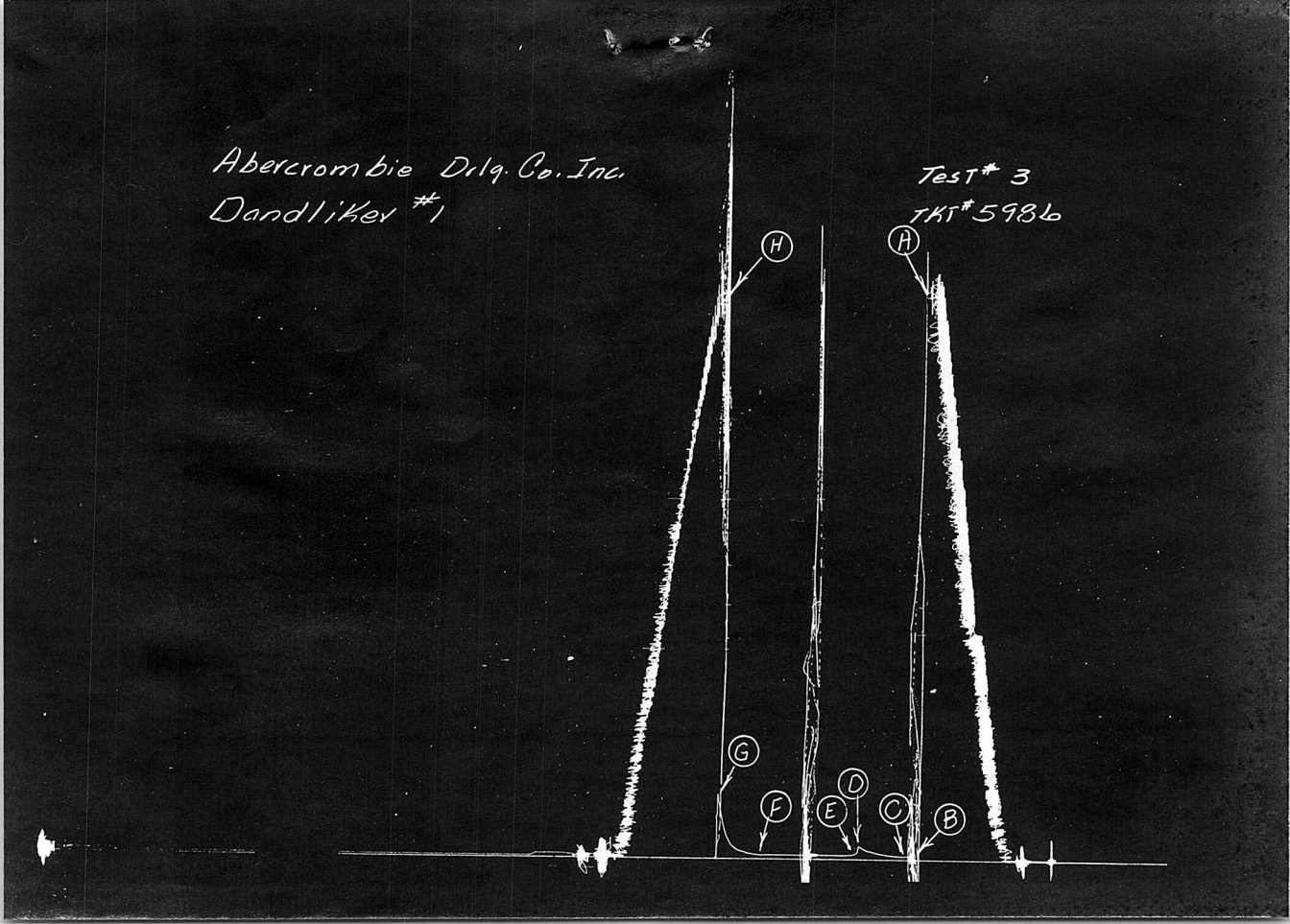
Point Minutes	Press.
0	10
3	10
6	10
9	12
12	14
15	17
18	20
21	25
24	28
27	32
30	42

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

Point Minutes	Press.
0	12
5	12
10	12
15	12
20	12
25	12
30	12
35	12
40	12
45	12
50	12
55	12
60	12

Final Shut-In
Breakdown: 9 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	12
3	12
6	15
9	20
12	26
15	31
18	43
21	80
24	139
27	215


Abercrombie Drlg. Co. Inc.
Dandliker #1
Test # 3
TKT # 5986
H
A
G
F
E
D
C
B

WESTERN TESTERS

Home Office: Great Bend, Kansas

P. O. Box 793 GLadstone 3-7903

Company Abercrombie Drilling, Inc. Lease & Well No. Dandliker #1

Elevation 1305 Kelly Bushings; Formation - Viola Ticket Number 5987

Date March 8, 1965 Sec. 23 Twp. 1s Range 14e County Nemaha State Kansas

Test Approved by Jack K. Wharton Western Representative Joe M. Fetterolf, Jr.

Formation Test No. 4 O.K. yes Misrun no Interval Tested From 3552' to 3567' Total Depth 3567'

Size Main Hole 6¾ Rat Hole no Conv. X B.T. Damaged Yes no No Conv. X B.T. Damaged Yes no No

Packer Depth 3547 Ft. Size 5½ Packer Depth 3552 Ft. Size 5½

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

Packer Depth Ft Size

Tool Size 4½ OD Tool Jt. Size 3½ IF & 4FH Anchor Length 15 Ft. Size 4½ OD

RECORDERS Depth 3541 Ft Clock No. 4964 Depth 3561 Ft. Clock No. 132

Top Make Amerada Cap. 3150 No. 1562 Inside Outside Bottom Make Western Cap. 4000 No. 42 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

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Time Set Packer 6:07 A M

Tool Open I.F.P. From 6:10 M to 6:15 M Hr. 5 Min. From (B) 36 P.S.I. To (C) 555 P.S.I.

Tool Closed I.C.I.P. From 6:15 M. to 6:45 M. Hr. 30 Min. (D) 1302 P.S.I.

Tool Open F.F.P. From 6:45 M. to 7:45 M. 1 Hr. Min. From (E) 602 P.S.I. To (F) 1302 P.S.I.

Tool Closed F.C.I.P. From 7:45 M. to 8:15 M. Hr. 30 Min. (G) 1302 P.S.I.

Inital Hydrostatic Pressure (A) 1921 P.S.I. Final Hydrostatic Pressure (H) 1908 P.S.I.

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

M.

M.

M.

BLOW Strong blow for 47 minutes and weak blow for 13 minutes. Bottom Choke Size 3/4 in.

Did Well Flow Yes no No Recovery Total Ft. 450 ft. of muddy water and 2577 ft. of clear water

Mud

Reversed Out Yes no No Mud Type chem. Viscosity 39 Weight 10.3 Maximum Temp. 113 °F

EXTRA EQUIPMENT: Dual Packers yes Safety Joint no Jars: Size no Make Ser. No.

Type Circ. Sub. 3½ IF plug Did Tool Plug? no Where? Did Packer Hold? yes

Length Drill Pipe 2624 ft. I.D. Drill Pipe 3.8 in. Length Weight Pipe 847.55 ft. I.D. Weight Pipe 2.7 in. Length Drill Collars 54.88 ft.

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

Remarks

WHELAN PRINTERS

WESTERN TESTING CO., INC.
Pressure Data

Date March 8, 1965 — Test Ticket No. 5987

Recorder No. 1562 — Capacity 3150 — Location 3541 Ft.

Clock No. 4964 — Elevation 1305 Kelly Bushings — Well Temperature 113 °F

Point		Pressure		Time Given	Time Computed
A	Initial Hydrostatic Mud	1921 P.S.I.	Opened Tool	6:07 A M	
B	First initial Flow Pressure	36 P.S.I.	First Flow Pressure	5 Mins.	5 Mins.
C	First Final Flow Pressure	555 P.S.I.	Initial Closed-in Pressure	30 Mins.	27 Mins.
D	Initial Closed-in Pressure	1302 P.S.I.	Second Flow Pressure	60 Mins.	60 Mins.
E	Second Initial Flow Pressure	602 P.S.I.	Final Closed-in Pressure	30 Mins.	30 Mins.
F	Second Final Flow Pressure	1302 P.S.I.			
G	Final Closed-in Pressure	1302 P.S.I.			
H	Final Hydrostatic Mud	1908 P.S.I.			

PRESSURE BREAKDOWN

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

Point Mins.	Press.
P 1 0	36
P 2 5	555
P 3	
P 4	
P 5	
P 6	
P 7	
P 8	
P 9	
P10	
P11	
P12	
P13	
P14	
P15	
P16	
P17	
P18	
P19	
P20	

Initial Shut-In
Breakdown: 9 Inc. of 3 mins. and a final inc. of 0 Min.

Point Minutes	Press.
0	555
3	1294
6	1299
9	1300
12	1300
15	1301
18	1301
21	1302
24	1302
27	1302

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

Point Minutes	Press.
0	602
5	820
10	1007
15	1131
20	1212
25	1261
30	1285
35	1296
40	1300
45	1302
50	1302
55	1302
60	1302

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

Point Minutes	Press.
0	1302
3	1302
6	1302
9	1302
12	1302
15	1302
18	1302
21	1302
24	1302
27	1302
30	1302

Abercrombie Drlg. Inc.
Dandliker #1

Test #4
IKH 5987