99-13S-33W

CHENEY TESTING COMPANY

P. O. BOX 3 HILL CITY, KANSAS 67642

DRILL-STEM TEST DATA

Company	Abercrombie Drlg. Inc.	Test No.	1
Well Name & Number	Bertrand B-1	Zone Tested	Topeka
Company Address	Wichita, Ks.	Date	10-8-78
Comp. Rep.	Greg Cheney	Tester	Orman Bell
Contractor	CO.Tools	Elevation	
Location: Sec. 29 Twp. 13 Rge. 33W Co. Logan State Ks.		Est. Feet of Pay	

Recorder No. 6730 Type AK-1 Range 4200 PSI

Recorder Depth 3697

(A) Initial Hydrostatic Mud 1827 PSI

(B) First Initial Flow Pressure 21 PSI

(C) First Final Flow Pressure 21 PSI

(D) Initial Closed-in Pressure 1109 PSI

(E) Second Initial Flow Pressure 43 PSI

(F) Second Final Flow Pressure 43 PSI

(G) Final Closed-in Pressure 1035 PSI

(H) Final Hydrostatic Mud 1817 PSI

Temperature 106

Mud Weight 9.6 Viscosity 40

Fluid Loss 10.7

Interval Tested 3677-3700

Anchor Length 23'

Top Packer Depth 3672

Bottom Packer Depth 3677

Total Depth 3700

Drill Pipe Size 4½ X.H.

Wt. Pipe I. D. 2.7 Ft. Run 473

Recovery—Total Feet 120

Recovered 120 Feet Of water

Recovered Feet Of

Recovered Feet Of

Recovered Feet Of

Extra Equipment none

Recorder No. 10216 Type AK-1 Range 4200 PSI

Recorder Depth 3694

Tool Open Before I. S. I. 30 Mins.

Initial Shut-in 45 Mins.

Flow Period 60 Mins.

Final Shut-in 45 Mins.

Surface Choke Size 1"

Bottom Choke Size 3/4"

Main Hole Size 7 7/8"

Rubber Size 6 3/4"

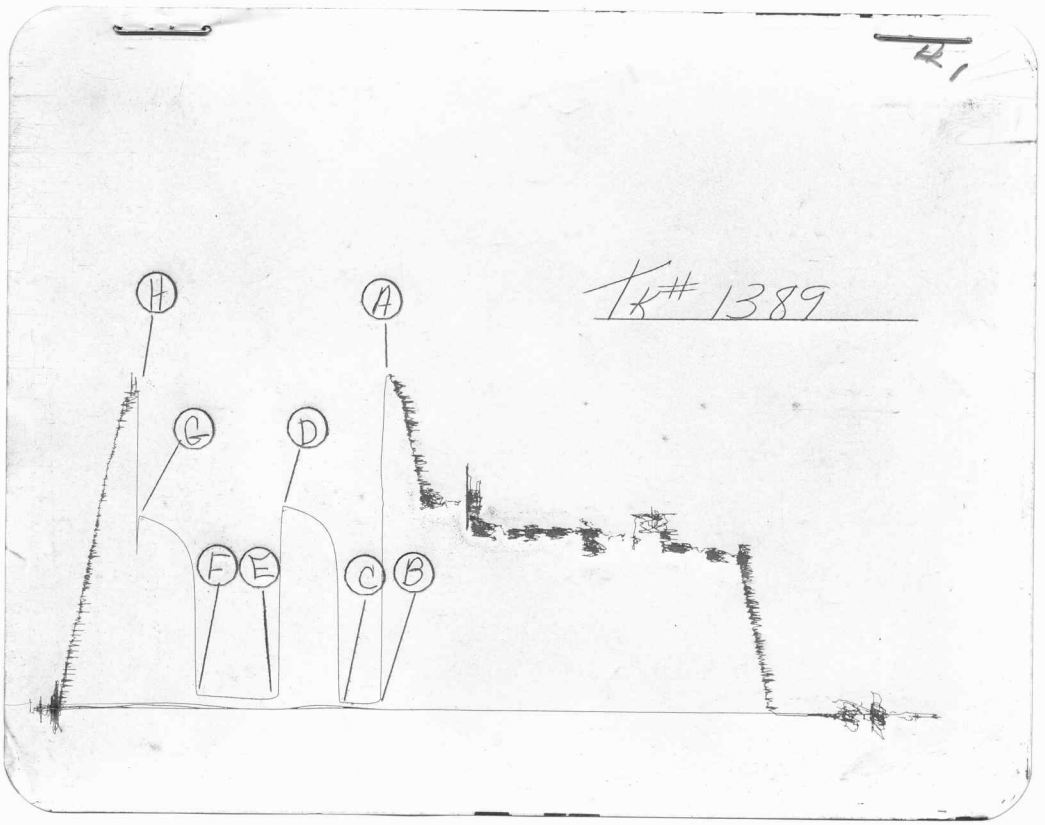
Tool Open @ 6:15 A.M.

Blow Weak blow.

Remarks

Drill Collar I. D. Ft. Run

Price of Job $400.00



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	1827		PSI
(B)	First Initial Flow Pressure	21		PSI
(C)	First Final Flow Pressure	21		PSI
(D)	Initial Closed-in Pressure	1109		PSI
(E)	Second Initial Flow Pressure	43		PSI
(F)	Second Final Flow Pressure	43		PSI
(G)	Final Closed-in Pressure	1035		PSI
(H)	Final Hydrostatic Mud	1817		PSI

COMPANY ABERCROMBIE DRLG. INC. LEASE AND WELL NO. BERTRAND B -1 SEC. 29 TWP. 13 RGE. 33 TEST NO. 1 DATE 10-8-78

CHENEY TESTING COMPANY

P. O. BOX 3 HILL CITY, KANSAS 67642

DRILL-STEM TEST DATA

29-13S-33W

Company	Abercrombie Drlg. Inc.	Test No.	2
Well Name & Number	Bertrand B-1	Zone Tested	Toronto
Company Address	Wichita, Ks.	Date	10-9-78
Comp. Rep.	Greg Cheney	Tester	Orman Bell
Contractor	Co. Tools	Elevation	
Location: Sec. 29 Twp. 13 Rge. 33W Co. Logan State Ks,		Est. Feet of Pay	

Recorder No. 6730 Type AK-1 Range 4200 PSI

Recorder Depth 3782

(A) Initial Hydrostatic Mud 1890 PSI

(B) First Initial Flow Pressure 32 PSI

(C) First Final Flow Pressure 53 PSI

(D) Initial Closed-in Pressure 845 PSI

(E) Second Initial Flow Pressure 75 PSI

(F) Second Final Flow Pressure 107 PSI

(G) Final Closed-in Pressure 783 PSI

(H) Final Hydrostatic Mud 1880 PSI

Temperature 108

Mud Weight 9.2 Viscosity 44

Fluid Loss 31.2

Interval Tested 3768-3785

Anchor Length 17

Top Packer Depth 3763

Bottom Packer Depth 3768

Total Depth 3785

Drill Pipe Size 4½ X.H.

Wt. Pipe I. D. 2.7 Ft. Run 473

Recovery—Total Feet 180

Recovered 180 Feet Of water

Recovered Feet Of

Recovered Feet Of

Recovered Feet Of

Extra Equipment none

Recorder No. 10216 Type AK-1 Range 4200 PSI

Recorder Depth

Tool Open Before I. S. I. 30 Mins.

Initial Shut-in 45 Mins.

Flow Period 60 Mins.

Final Shut-in 45 Mins.

Surface Choke Size 1"

Bottom Choke Size 3/4"

Main Hole Size 7 7/8"

Rubber Size 6 3/4"

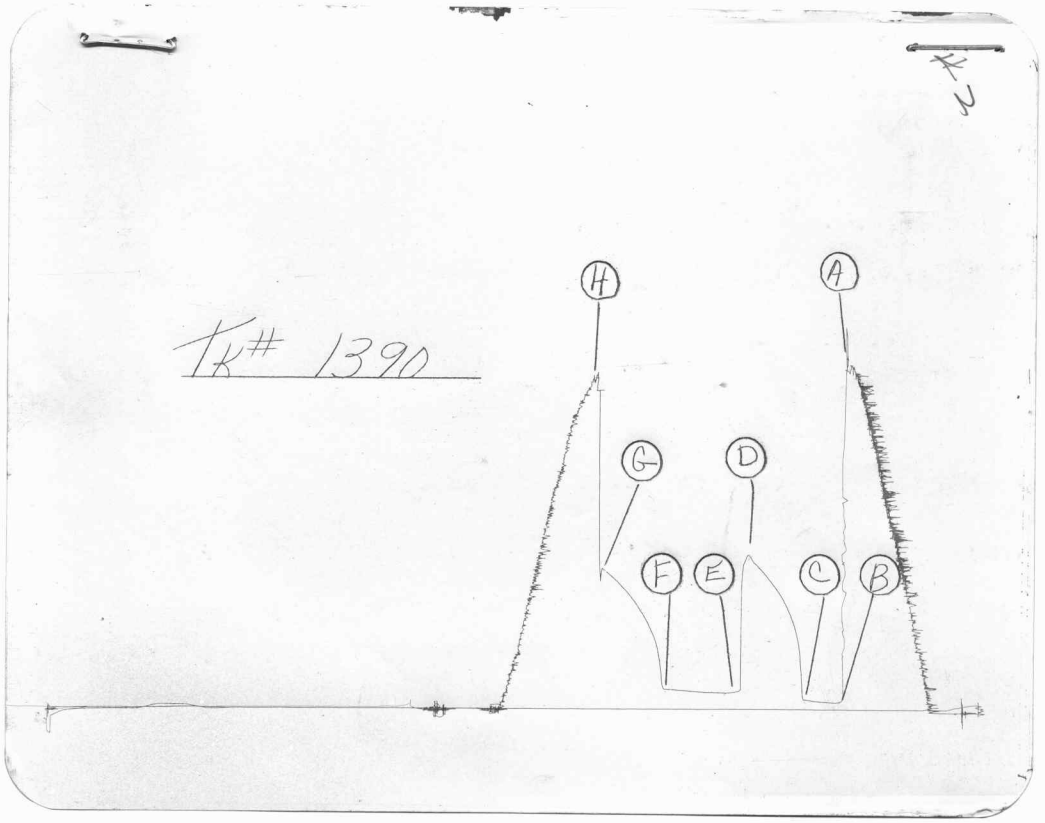
Tool Open @ 1:00 A.M.

Blow Weak blow.

Remarks

Drill Collar I. D. Ft. Run

Price of Job $400.00



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	1890		PSI
(B)	First Initial Flow Pressure	32		PSI
(C)	First Final Flow Pressure	53		PSI
(D)	Initial Closed-in Pressure	845		PSI
(E)	Second Initial Flow Pressure	75		PSI
(F)	Second Final Flow Pressure	107		PSI
(G)	Final Closed-in Pressure	783		PSI
(H)	Final Hydrostatic Mud	1880		PSI

COMPANY ABERCROMBIE DRLG. INC. LEASE AND WELL NO. BERTRAND B-1 SEC. 29 TWP. 13 RGE. 33 TEST NO. 2 DATE 10-9-78

29-13S-33W

CHENEY TESTING COMPANY

P. O. BOX 3 HILL CITY, KANSAS 67642

DRILL-STEM TEST DATA

Company	Abercrombie Drlg Inc.	Test No.	3
Well Name & Number	Bertrand B-1	Zone Tested	K.C.
Company Address	Wichita, Ks.	Date	10-8-78
Comp. Rep.	Greg Cheney	Tester	Orman Bell
Contractor	CO.Tools.	Elevation	
Location: Sec. 29 Twp. 13 Rge. 33W Co. Logan State Ks.		Est. Feet of Pay	

Recorder No. 6730 Type AK-1 Range 4200 PSI

Recorder Depth 3857

(A) Initial Hydrostatic Mud 1995 PSI

(B) First Initial Flow Pressure 53 PSI

(C) First Final Flow Pressure 161 PSI

(D) Initial Closed-in Pressure 1204 PSI

(E) Second Initial Flow Pressure 193 PSI

(F) Second Final Flow Pressure 323 PSI

(G) Final Closed-in Pressure 1172 PSI

(H) Final Hydrostatic Mud 1985 PSI

Temperature 108

Mud Weight 9.1 Viscosity 35

Fluid Loss 35.2

Interval Tested 3837-3860

Anchor Length 23

Top Packer Depth 3832

Bottom Packer Depth 3837

Total Depth 3860

Drill Pipe Size 4½ X.H.

Wt. Pipe I. D. 2.7 Ft. Run 473

Recovery—Total Feet 730

Recovered 730 Feet Of water.

Recovered Feet Of

Recovered Feet Of

Recovered Feet Of

Extra Equipment none

Recorder No. 10216 Type AK-1 Range 4200 PSI

Recorder Depth 3854

Tool Open Before I. S. I. 30 Mins.

Initial Shut-in 45 Mins.

Flow Period 60 Mins.

Final Shut-in 45 Mins.

Surface Choke Size 1"

Bottom Choke Size 3/4"

Main Hole Size 7 7/8"

Rubber Size 6 3/4"

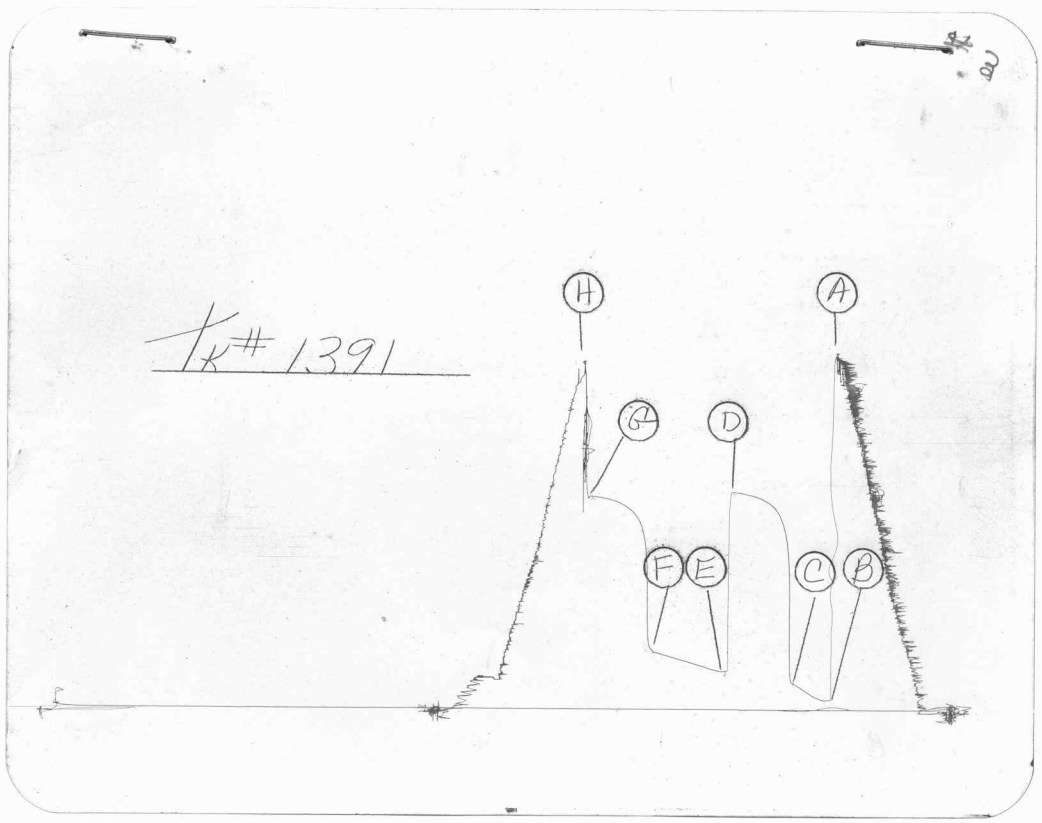
Tool Open @ 6:30 P.M.

Blow Strong blow.

Remarks

Drill Collar I. D. Ft. Run

Price of Job $400.00



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	1995		PSI
(B)	First Initial Flow Pressure	53		PSI
(C)	First Final Flow Pressure	161		PSI
(D)	Initial Closed-in Pressure	1204		PSI
(E)	Second Initial Flow Pressure	193		PSI
(F)	Second Final Flow Pressure	323		PSI
(G)	Final Closed-in Pressure	1172		PSI
(H)	Final Hydrostatic Mud	1985		PSI

COMPANY ABERCROMBIE DRLG. INC. LEASE AND WELL NO. BERTRAND B-1 SEC. 29 TWP. 13 RGE. 33 TEST NO. 3 DATE 10-9-78

CHENEY TESTING COMPANY

P. O. BOX 3 HILL CITY, KANSAS 67642

29-13S-33W

DRILL-STEM TEST DATA

Company	Abercrombie Drlg. Inc.	Test No.	4
Well Name & Number	Bertrand B-1	Zone Tested	K.C.
Company Address	Wichita, Ks.	Date	10-10-78
Comp. Rep.	Greg Cheney	Tester	Orman Bell
Contractor	Co. Tools	Elevation	
Location: Sec. 29 Twp. 13 Rge. 33W Co. Logan State Ks.		Est. Feet of Pay	

Recorder No. 6730 Type AK-1 Range 4200 PSI

Recorder Depth 3902

(A) Initial Hydrostatic Mud 1932 PSI

(B) First Initial Flow Pressure 21 PSI

(C) First Final Flow Pressure 21 PSI

(D) Initial Closed-in Pressure 961 PSI

(E) Second Initial Flow Pressure 43 PSI

(F) Second Final Flow Pressure 43 PSI

(G) Final Closed-in Pressure 845 PSI

(H) Final Hydrostatic Mud 1922 PSI

Temperature 110

Mud Weight 9.3 Viscosity 40

Fluid Loss 32.7

Interval Tested 3987

Anchor Length 18

Top Packer Depth 3882

Bottom Packer Depth 3887

Total Depth 3905

Drill Pipe Size 4½ X.H.

Wt. Pipe I. D. 2.7 Ft. Run 473

Recovery—Total Feet 120

Recovered 120 Feet Of oil spotted muddy water.

Recovered Feet Of

Recovered Feet Of

Recovered Feet Of

Extra Equipment none

Recorder No. 10216 Type AK-1 Range 4200 PSI

Recorder Depth 3899

Tool Open Before I. S. I. 30 Mins.

Initial Shut-in 30 Mins.

Flow Period 30 Mins.

Final Shut-in 30 Mins.

Surface Choke Size 1"

Bottom Choke Size 3/4"

Main Hole Size 7 7/8"

Rubber Size 6 3/4"

Tool Open @ 10:15 A.M.

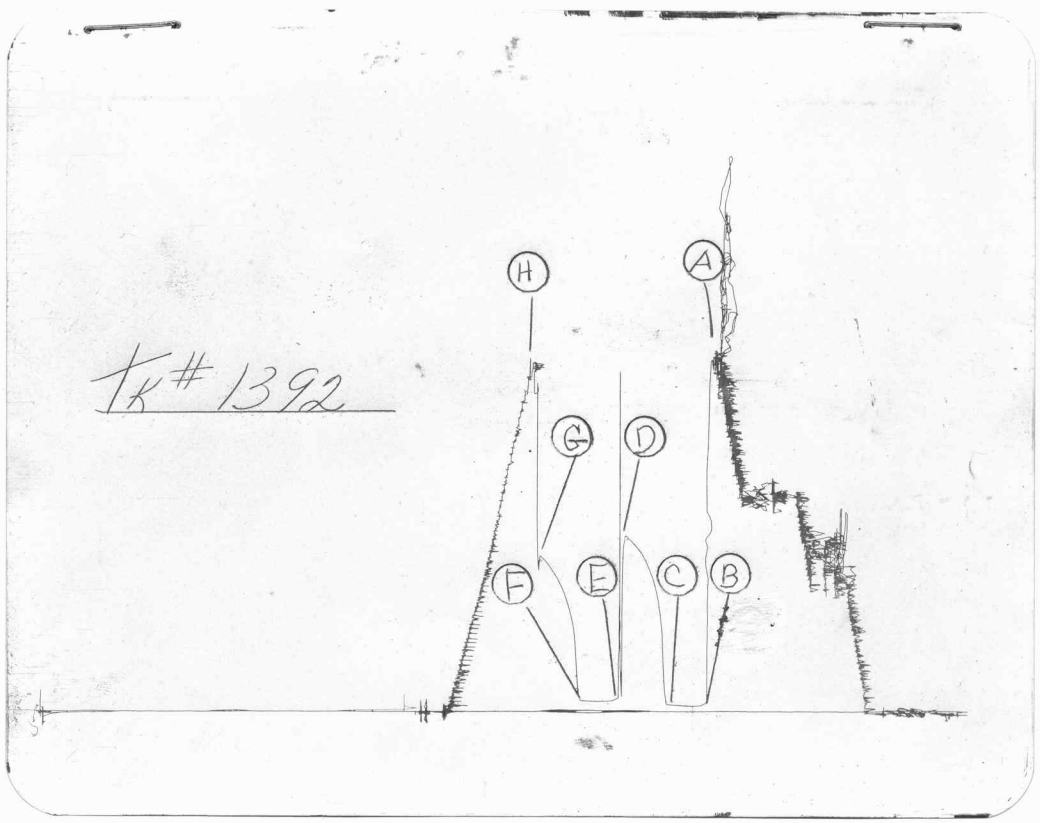
Blow Very weak blow.

Remarks Blow died in 5 minutes on 1st opening.

Flush tool 2nd opening.

Drill Collar I. D. Ft. Run

Price of Job $400.00



Tk # 1392

This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	1932		PSI
(B)	First Initial Flow Pressure	21		PSI
(C)	First Final Flow Pressure	21		PSI
(D)	Initial Closed-in Pressure	961		PSI
(E)	Second Initial Flow Pressure	43		PSI
(F)	Second Final Flow Pressure	43		PSI
(G)	Final Closed-in Pressure	845		PSI
(H)	Final Hydrostatic Mud	1922		PSI

COMPANY ABERCROMBIE DRLG. INC. LEASE AND WELL NO. BERTRAND B-1 SEC. 29 TWP. 13 RGE. 33 TEST NO. 4 DATE 10-10-78

CHENEY TESTING COMPANY

P. O. BOX 3 HILL CITY, KANSAS 67642

DRILL-STEM TEST DATA

29-13S-33W

Company	Abercrombie Drlg. Inc.	Test No.	5
Well Name & Number	Bertrand B-1	Zone Tested	K.C.
Company Address	Wichita, Ks.	Date	10-11-78
Comp. Rep.	Greg Cheney	Tester	Orman Bell
Contractor	Co. Tools	Elevation	
Location: Sec. 29 Twp. 13 Rge. 33 Co. Logan State Ks.		Est. Feet of Pay	

Recorder No. 6730 Type AK-1 Range 4200 PSI

Recorder Depth 4032

(A) Initial Hydrostatic Mud 1964 PSI

(B) First Initial Flow Pressure 21 PSI

(C) First Final Flow Pressure 21 PSI

(D) Initial Closed-in Pressure 1267 PSI

(E) Second Initial Flow Pressure 21 PSI

(F) Second Final Flow Pressure 21 PSI

(G) Final Closed-in Pressure 1236 PSI

(H) Final Hydrostatic Mud 1954 PSI

Temperature 112

Mud Weight 9.2 Viscosity 45

Fluid Loss 24.4

Interval Tested 4009-4035

Anchor Length 26

Top Packer Depth 4004

Bottom Packer Depth 4009

Total Depth 4035

Drill Pipe Size 4½ X.H.

Wt. Pipe I. D. 2.7 Ft. Run 473

Recovery—Total Feet 50

Recorder No. 10216 Type AK-1 Range 4200 PSI

Recorder Depth 4029

Tool Open Before I. S. I. 30 Mins.

Initial Shut-in 45 Mins.

Flow Period 30 Mins.

Final Shut-in 45 Mins.

Surface Choke Size 1"

Bottom Choke Size 3/4"

Main Hole Size 7 7/8"

Rubber Size 6 3/4"

Tool Open @ 9:00 A.M.

Blow Very weak.

Remarks Dead on second open flush tool after ~~10 minutes~~.

Drill Collar I. D. Ft. Run

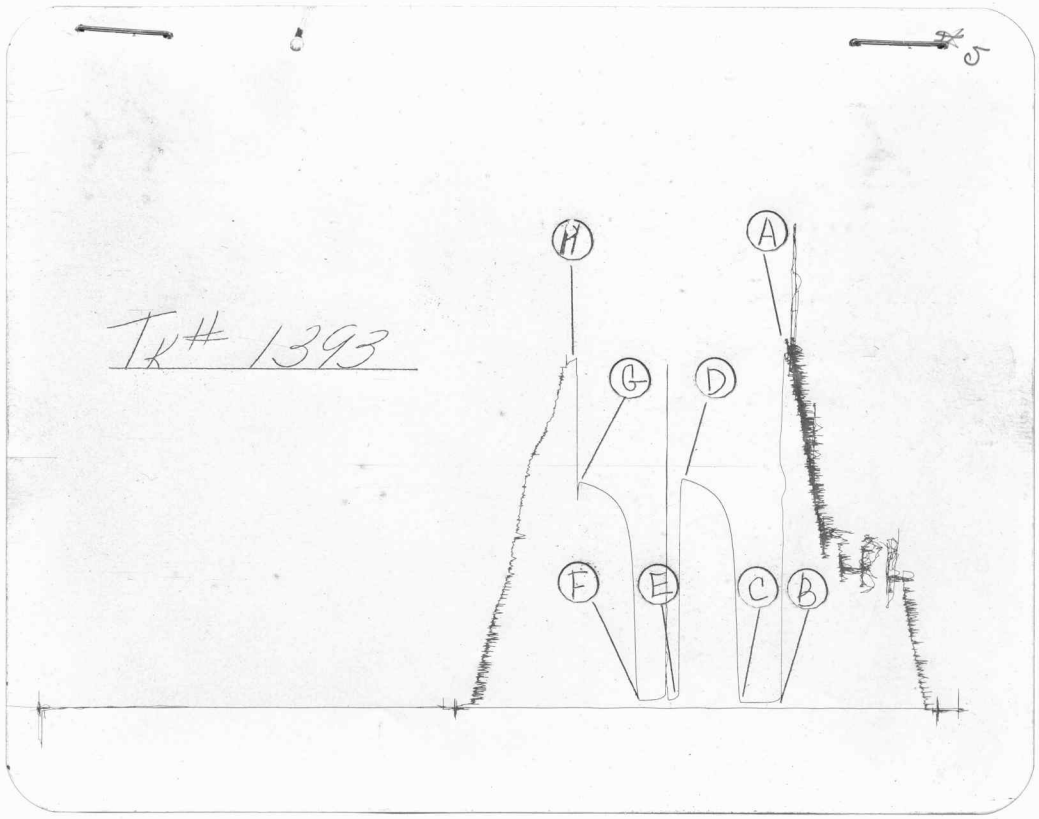
Recovered 50 Feet Of thin oil spotted mud.

Recovered Feet Of

Recovered Feet Of

Recovered Feet Of

Extra Equipment none Price of Job $440.00



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	1964		PSI
(B)	First Initial Flow Pressure	21		PSI
(C)	First Final Flow Pressure	21		PSI
(D)	Initial Closed-in Pressure	1267		PSI
(E)	Second Initial Flow Pressure	21		PSI
(F)	Second Final Flow Pressure	21		PSI
(G)	Final Closed-in Pressure	1236		PSI
(H)	Final Hydrostatic Mud	1954		PSI

COMPANY ABERCROMBIE DRLG. INC. LEASE AND WELL NO. BERTRAND B-1 SEC. 29 TWP. 13 RGE. 33 TEST NO. 5 DATE 10-11-78

29-13S-33W

CHENEY TESTING COMPANY

P. O. BOX 3 HILL CITY, KANSAS 67642

DRILL-STEM TEST DATA

Company	Abercrombie Drlg. Inc.	Test No.	6
Well Name & Number	Bertrand B-1	Zone Tested	K.C.
Company Address	Wichita, Ks.	Date	10-12-78
Comp. Rep.	Greg Cheney	Tester	Orman Bell
Contractor	Co. Tools	Elevation	
Location: Sec. 29 Twp. 13 Rge. 33W Co. Logan State Ks.		Est. Feet of Pay	

Recorder No. 6730 Type AK-1 Range 4200 PSI

Recorder Depth 4053

(A) Initial Hydrostatic Mud _____ PSI

(B) First Initial Flow Pressure _____ PSI

(C) First Final Flow Pressure _____ PSI

(D) Initial Closed-in Pressure _____ PSI

(E) Second Initial Flow Pressure _____ PSI

(F) Second Final Flow Pressure _____ PSI

(G) Final Closed-in Pressure _____ PSI

(H) Final Hydrostatic Mud _____ PSI

Temperature _____

Mud Weight 9.6 Viscosity 41

Fluid Loss 22.1

Interval Tested 4036-4056

Anchor Length 18

Top Packer Depth 4033

Bottom Packer Depth 4038

Total Depth 4056

Drill Pipe Size 4½ X.H.

Wt. Pipe I. D. 2.7 Ft. Run 473

Recovery—Total Feet _____

Recovered _____ Feet Of _____

Recovered _____ Feet Of _____

Recovered _____ Feet Of _____

Recovered _____ Feet Of _____

Extra Equipment none

Recorder No. 10216 Type AK-1 Range 4200 PSI

Recorder Depth 4050

Tool Open Before I. S. I. _____ Mins.

Initial Shut-in _____ Mins.

Flow Period _____ Mins.

Final Shut-in _____ Mins.

Surface Choke Size 1"

Bottom Choke Size 3/4"

Main Hole Size 7 7/8"

Rubber Size 6 3/4"

Tool Open @ _____

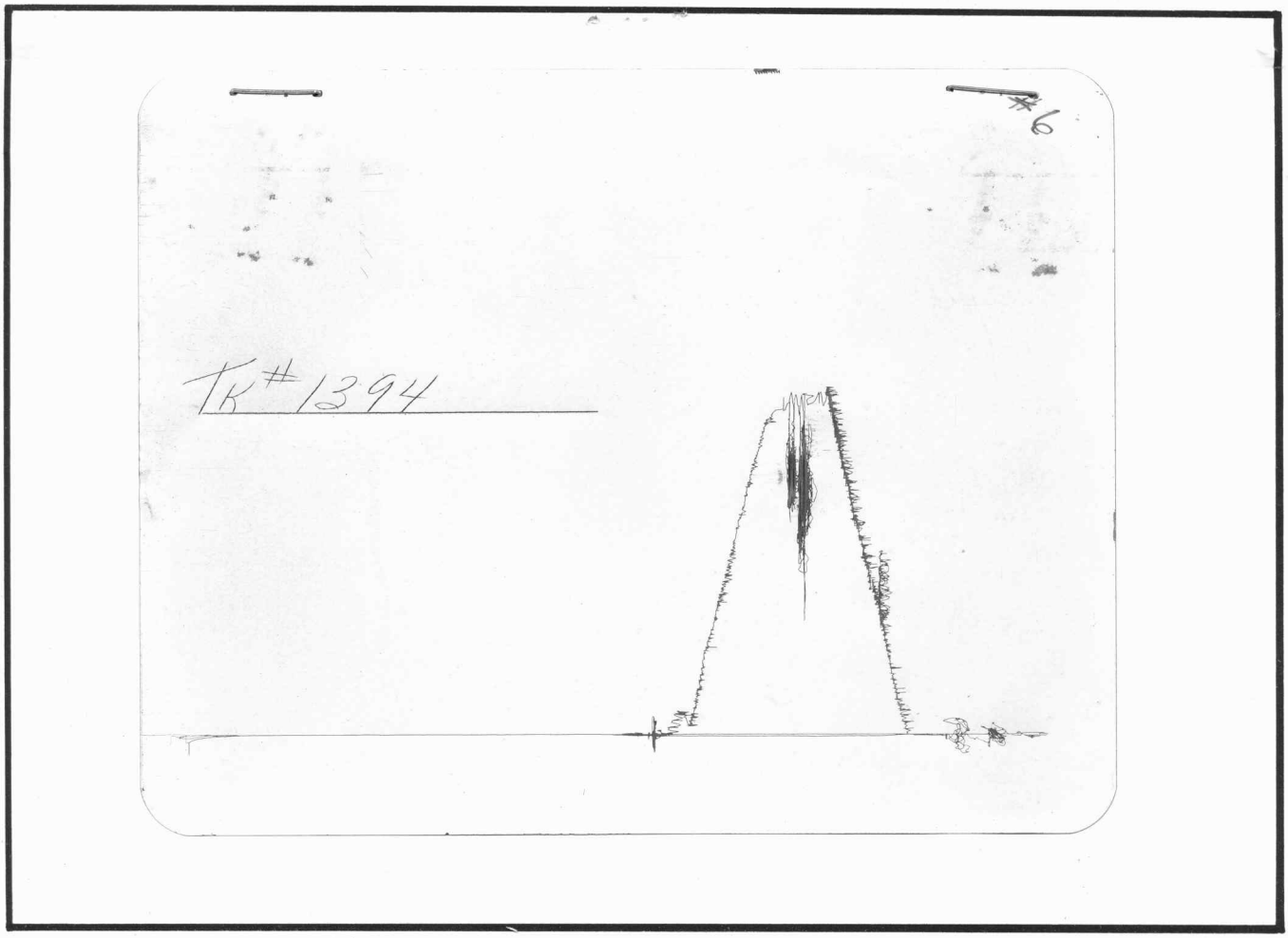
Blow _____

Remarks Misrun.

Packer failure.

Drill Collar I. D. _____ Ft. Run _____

Price of Job $200.00



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading
(A)	Initial Hydrostatic Mud		PSI
(B)	First Initial Flow Pressure		PSI
(C)	First Final Flow Pressure		PSI
(D)	Initial Closed-in Pressure		PSI
(E)	Second Initial Flow Pressure		PSI
(F)	Second Final Flow Pressure		PSI
(G)	Final Closed-in Pressure		PSI
(H)	Final Hydrostatic Mud		PSI

COMPANY ABERCROMBIE DRLG. INC. LEASE AND WELL NO. BERTRAND B-1 SEC. 29 TWP. 13 RGE. 33 TEST NO. 6 DATE 10-12-78

CHENEY TESTING COMPANY

P. O. BOX 3 HILL CITY, KANSAS 67642

DRILL-STEM TEST DATA

99-13S-33W

Company	Abercrombie Drlg. Inc.	Test No.	7
Well Name & Number	Bertrand B-1	Zone Tested	K.C.
Company Address	Wichita, Kan.	Date	10-12-78
Comp. Rep.	Greg Cheney	Tester	Orman Bell
Contractor	Co. Tools	Elevation	
Location: Sec. 29 Twp. 13 Rge. 33 Co. Logan State Kan		Est. Feet of Pay	

Recorder No. 6730 Type AK-1 Range 4200 PSI

Recorder Depth 4053

(A) Initial Hydrostatic Mud 2016 PSI

(B) First Initial Flow Pressure 21 PSI

(C) First Final Flow Pressure 21 PSI

(D) Initial Closed-in Pressure 64 PSI

(E) Second Initial Flow Pressure 21 PSI

(F) Second Final Flow Pressure 21 PSI

(G) Final Closed-in Pressure 53 PSI

(H) Final Hydrostatic Mud 2006 PSI

Temperature 112

Mud Weight 9.6 Viscosity 41

Fluid Loss 22.1 cc

Interval Tested 4031-4056

Anchor Length 25

Top Packer Depth 4026

Bottom Packer Depth 4031

Total Depth 4056

Drill Pipe Size 4½ EX.H.

Wt. Pipe I. D. 2.7 Ft. Run 473

Recovery—Total Feet 10

Recovered 10 Feet Of Thin Mud

Recovered Feet Of

Recovered Feet Of

Recovered Feet Of

Extra Equipment None

Recorder No. 10216 Type AK-1 Range 4200 PSI

Recorder Depth 4050

Tool Open Before I. S. I. 30 Mins.

Initial Shut-in 30 Mins.

Flow Period 30 Mins.

Final Shut-in 30 Mins.

Surface Choke Size 1"

Bottom Choke Size 3/4"

Main Hole Size 7 7/8"

Rubber Size 6 3/4"

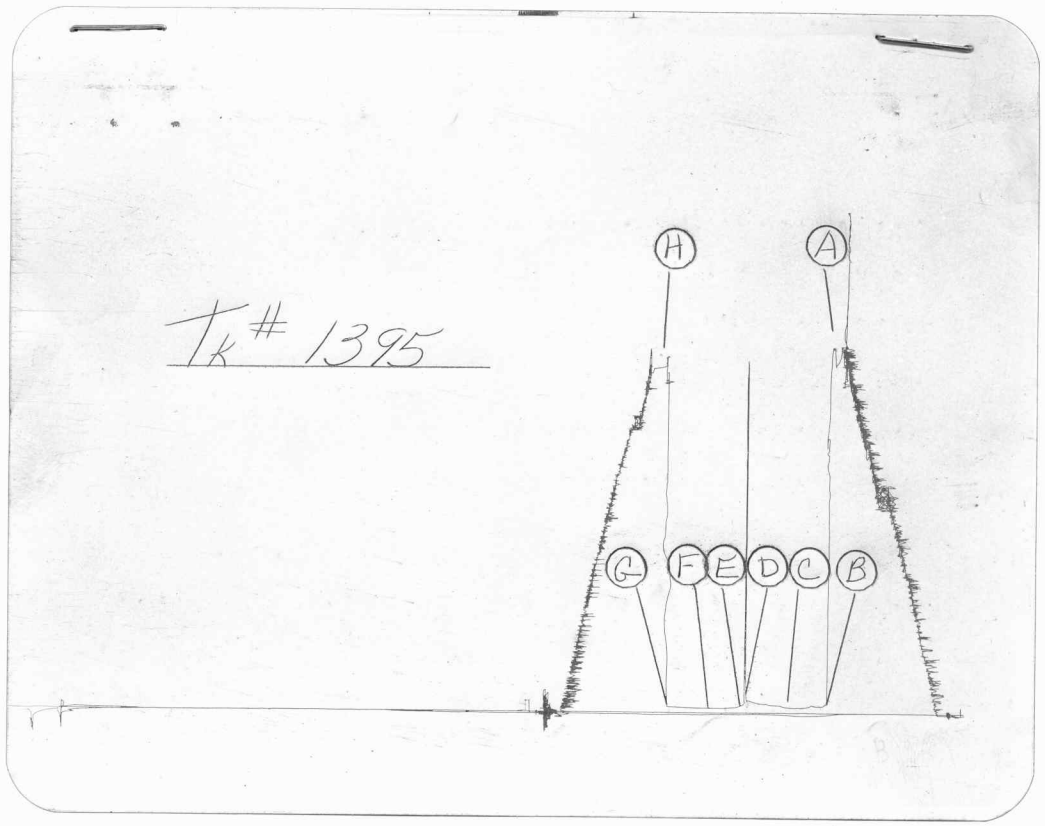
Tool Open @ 4:45 A.M.

Blow Very weak blow, died in 11 min.

Remarks on first opening. Flushed tool on second open.

Drill Collar I. D. Ft. Run

Price of Job $440.00



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	2016		PSI
(B)	First Initial Flow Pressure	21		PSI
(C)	First Final Flow Pressure	21		PSI
(D)	Initial Closed-in Pressure	64		PSI
(E)	Second Initial Flow Pressure	21		PSI
(F)	Second Final Flow Pressure	21		PSI
(G)	Final Closed-in Pressure	53		PSI
(H)	Final Hydrostatic Mud	2006		PSI

COMPANY ABERCROMBIE DRLG. INC. LEASE AND WELL NO. BERTRAND B-1 SEC. 29 TWP. 13 RGE. 33 TEST NO. 7 DATE 10-1278