

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name SHIRK #1-15 Test No. 1 Date 3/25/94
Company HUGOTON EXPLORATION Zone MORROW
Address 229 E WILLIAM #500 WICHITA KS 67202 Elevation 3310
Co. Rep./Geo. KARL OSTERBUHR Cont. DUKE DRLG RIG #1 Est. Ft. of Pay 20
Location: Sec. 15 Twp. 31S Rge. 40W Co. MORTON State KS

Interval Tested 5137-5241 Drill Pipe Size 4.5" XH
Anchor Length 104 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 5132 Drill Collar -- 2.25 Ft. Run 443 /H-90 XH
Bottom Packer Depth 5137 Mud Wt. 9.2 lb/Gal.
Total Depth 5241 Viscosity 55 Filtrate 7.8

Tool Open @ 6:40 PM Initial Blow WEAK BLOW BUILT TO 3"

Final Blow WEAK SURFACE BLOW BUILT TO 1"

Recovery - Total Feet 60 Flush Tool? NO

60 Feet of DRILLING MUD
____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____

BHT 122 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides _____ ppm System

(A) Initial Hydrostatic Mud 2469.3 PSI AK1 Recorder No. 13337 Range 3975

(B) First Initial Flow Pressure 66.2 PSI @ (depth) 5140 w / Clock No. 25810

(C) First Final Flow Pressure 45.4 PSI AK1 Recorder No. 10333 Range 4050

(D) Initial Shut-in Pressure 99.7 PSI @ (depth) 5238 w / Clock No. 14389

(E) Second Initial Flow Pressure 80.1 PSI AK1 Recorder No. _____ Range _____

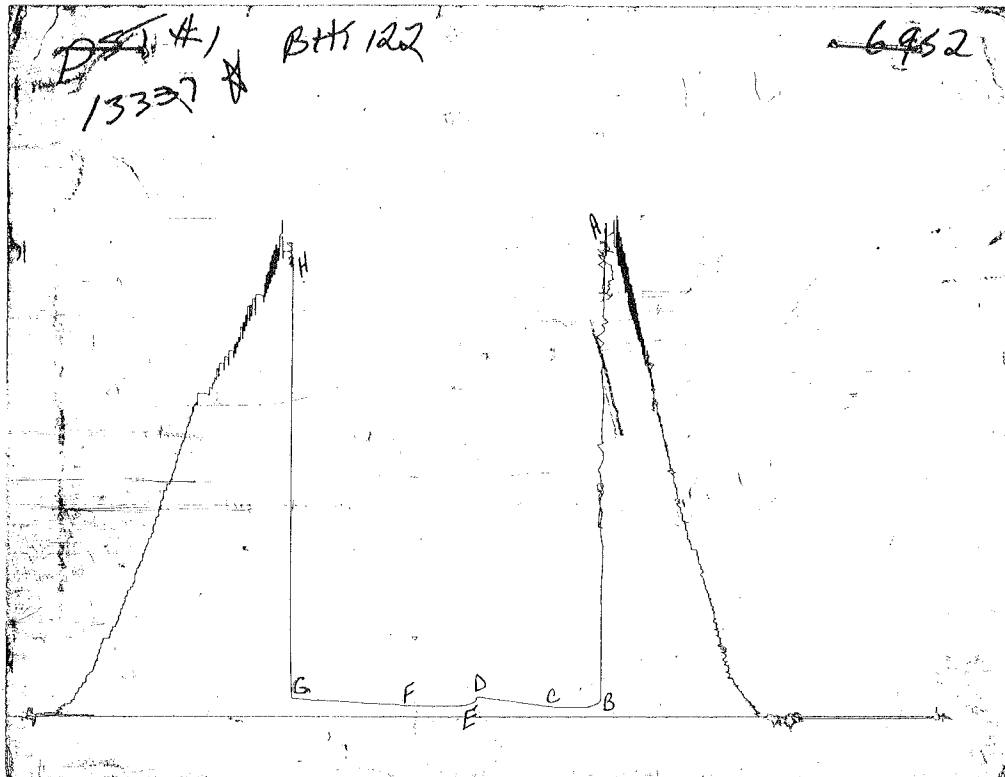
(F) Second Final Flow Pressure 53.3 PSI @ (depth) _____ w / Clock No. _____

Initial Shut-in Pressure 92.8 PSI Initial Opening 30 Final Flow 45

(H) Final Hydrostatic Mud 2415.0 PSI Initial Shut-in 60 Final Shut-in 90

Our Representative ROBERT COLLINS

CHART PAGE



This is an actual photograph of recorder chart #13337

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2466	2469.3
(B) FIRST INITIAL FLOW PRESSURE	49	66.2
(C) FIRST FINAL FLOW PRESSURE	49	45.4
(D) INITIAL CLOSED-IN PRESSURE	98	99.7
(E) SECOND INITIAL FLOW PRESSURE	59	80.1
(F) SECOND FINAL FLOW PRESSURE	59	53.3
(G) FINAL CLOSED-IN PRESSURE	98	92.8
(H) FINAL HYDROSTATIC MUD	2397	2415

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Drill-Stem Test Data

Well Name SHIRK #1-15 Test No. 2 Date 3/27/94
Company HUGOTON EXPLORATION Zone MORROW
Address 229 E WILLIAM #500 WICHITA KS 67202 Elevation 3310
Co. Rep./Geo. KARL OSTERBUHR Cont. DUKE DRLG RIG #1 Est. Ft. of Pay 10
Location: Sec. 15 Twp. 31S Rge. 40W Co. MORTON State KS

Interval Tested 5460-5480 Drill Pipe Size 4.5" XH
Anchor Length 20 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 5455 Drill Collar - 2.25 Ft. Run 531 /H-90 XH
Bottom Packer Depth 5460 Mud Wt. 9.1 lb/Gal.
Total Depth 5480 Viscosity 55 Filtrate 6.8

Tool Open @ _____ Initial Blow HIT BRIDGE @5000'

Final Blow _____

Recovery - Total Feet _____ Flush Tool? NO

Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____

BHT _____ °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 850 ppm System

(A) Initial Hydrostatic Mud _____ PSI AK1 Recorder No. 13337 Range 3975

(B) First Initial Flow Pressure _____ PSI @ (depth) 5463 w / Clock No. 25810

(C) First Final Flow Pressure _____ PSI AK1 Recorder No. 10333 Range 4050

(D) Initial Shut-in Pressure _____ PSI @ (depth) 5477 w / Clock No. 14389

(E) Second Initial Flow Pressure _____ PSI AK1 Recorder No. _____ Range _____

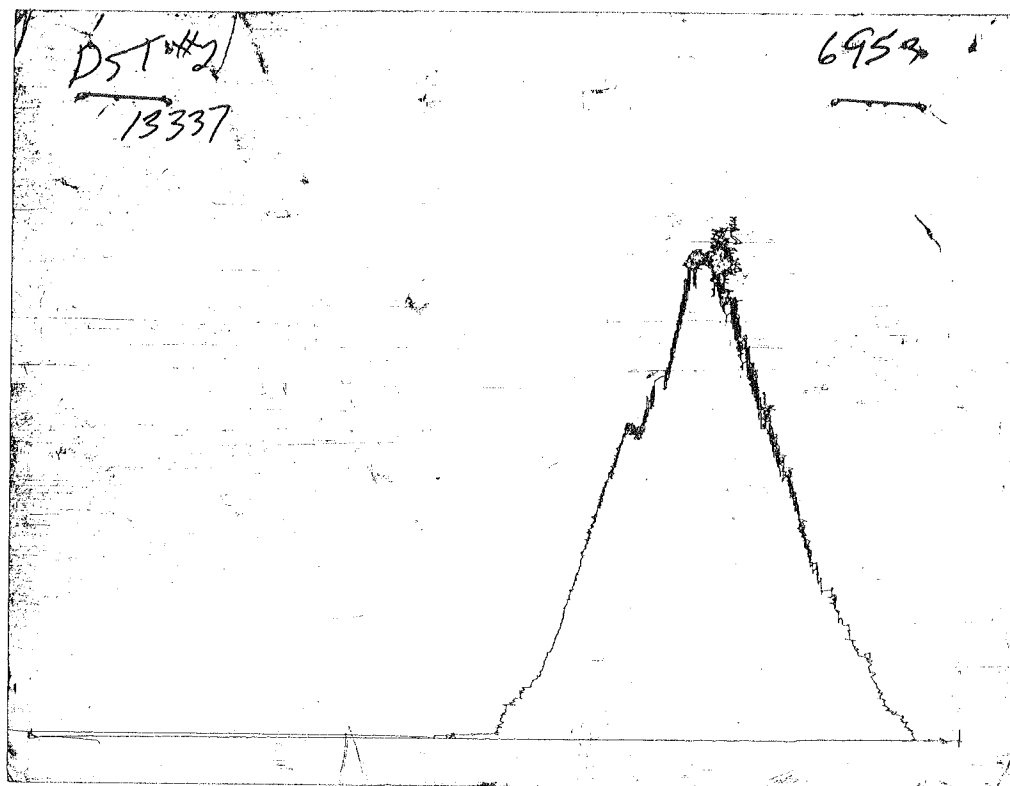
(F) Second Final Flow Pressure _____ PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure _____ PSI Initial Opening _____ Final Flow _____

(H) Final Hydrostatic Mud _____ PSI Initial Shut-in _____ Final Shut-in _____

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CHART PAGE



This is an actual photograph of recorder chart #13337

FIELD
READING

OFFICE
READING

- (A) INITIAL HYDROSTATIC MUD
- (B) FIRST INITIAL FLOW PRESSURE
- (C) FIRST FINAL FLOW PRESSURE
- (D) INITIAL CLOSED-IN PRESSURE
- (E) SECOND INITIAL FLOW PRESSURE
- (F) SECOND FINAL FLOW PRESSURE
- (G) FINAL CLOSED-IN PRESSURE
- (H) FINAL HYDROSTATIC MUD

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Drill-Stem Test Data

Well Name SHIRK #1-15 Test No. 3 Date 3/28/94
Company HUGOTON EXPLORATION Zone MORROW
Address 229 E WILLIAM #500 WICHITA KS 67202 Elevation 3310
Co. Rep./Geo. KARL OSTERBUHR Cont. DUKE DRLG RIG #1 Est. Ft. of Pay 10
Location: Sec. 15 Twp. 31S Rge. 40W Co. MORTON State KS

Interval Tested 5460-5480 Drill Pipe Size 4.5" XH
Anchor Length 20 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 5455 Drill Collar - 2.25 Ft. Run 174 /H-90 XH
Bottom Packer Depth 5460 Mud Wt. 9.1 lb/Gal.
Total Depth 5480 Viscosity 55 Filtrate 6.8

Tool Open @ 7:25 AM Initial Blow VERY WEAK SURFACE BLOW BUILT TO 1"

Final Blow WEAK SURFACE BLOW THROUGHOUT

Recovery - Total Feet 65 Flush Tool? NO

65 Feet of DRILLING MUD
____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____

BHT 120 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 850 ppm System

(A) Initial Hydrostatic Mud 2525.6 PSI AK1 Recorder No. 13337 Range 3975

(B) First Initial Flow Pressure 51.8 PSI @ (depth) 5463 w / Clock No. 25810

(C) First Final Flow Pressure 47.7 PSI AK1 Recorder No. 10333 Range 4050

(D) Initial Shut-in Pressure 84.3 PSI @ (depth) 5477 w / Clock No. 14389

(E) Second Initial Flow Pressure 42.6 PSI AK1 Recorder No. _____ Range _____

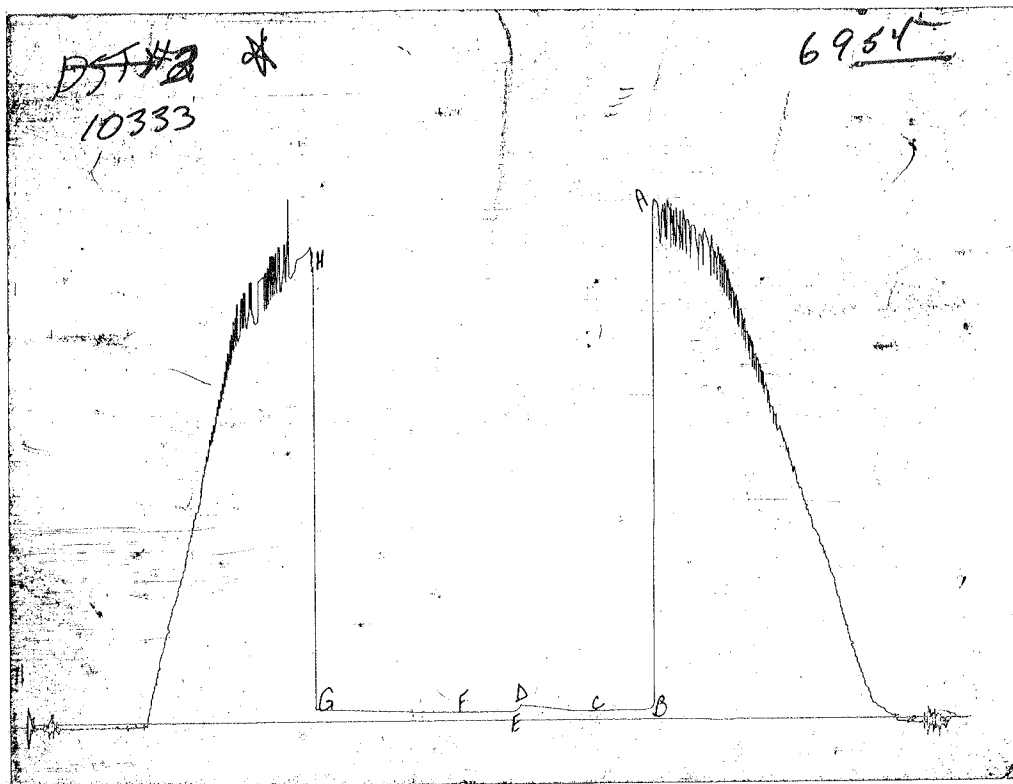
(F) Second Final Flow Pressure 42.6 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 60.9 PSI Initial Opening 35 Final Flow 45

(H) Final Hydrostatic Mud 2484.9 PSI Initial Shut-in 60 Final Shut-in 90

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CHART PAGE



This is an actual photograph of recorder chart #10333

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2538	2525.6
(B) FIRST INITIAL FLOW PRESSURE	50	51.8
(C) FIRST FINAL FLOW PRESSURE	50	47.7
(D) INITIAL CLOSED-IN PRESSURE	71	84.3
(E) SECOND INITIAL FLOW PRESSURE	50	42.6
(F) SECOND FINAL FLOW PRESSURE	50	42.6
(G) FINAL CLOSED-IN PRESSURE	71	60.9
(H) FINAL HYDROSTATIC MUD	2508	2484.9

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Drill-Stem Test Data

Well Name SHIRK #1-15 Test No. 4 Date 3/29/94
HUGOTON EXPLORATION
Company 229 E WILLIAM #500 WICHITA KS 67202 Zone MORROW
Address KARL OSTERBUHR Elevation _____
Co. Rep./Geo. 15 Cont. DUKE DRLG RIG #1 Est. Ft. of Pay _____
Location: Sec. 31S Twp. 40W Co. MORTON State KS

Interval Tested 5523-5593 Drill Pipe Size 4.5" XH
Anchor Length 70 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 5518 Drill Collar - 2.25 Ft. Run 473 /H-90 XH
Bottom Packer Depth 5523 Mud Wt. 9 lb/Gal.
Total Depth 5593 Viscosity 57 Filtrate 8.4

Tool Open @ 4:40 PM Initial Blow WEAK SURFACE BLOW BUILT TO 1/2"

Final Blow NO BLOW

Recovery - Total Feet 10 Flush Tool? NO

10 Feet of DRILLING MUD
Feet of _____
Rec. Feet of _____
Rec. Feet of _____
Rec. Feet of _____

BHT 130 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 1300 ppm System

(A) Initial Hydrostatic Mud 2623.2 PSI AK1 Recorder No. 13337 Range 3975

(B) First Initial Flow Pressure 46.4 PSI @ (depth) 5526 w / Clock No. 25810

(C) First Final Flow Pressure 41.4 PSI AK1 Recorder No. 10333 Range 4050

(D) Initial Shut-in Pressure 61.2 PSI @ (depth) 5590 w / Clock No. 14389

(E) Second Initial Flow Pressure 49.4 PSI AK1 Recorder No. _____ Range _____

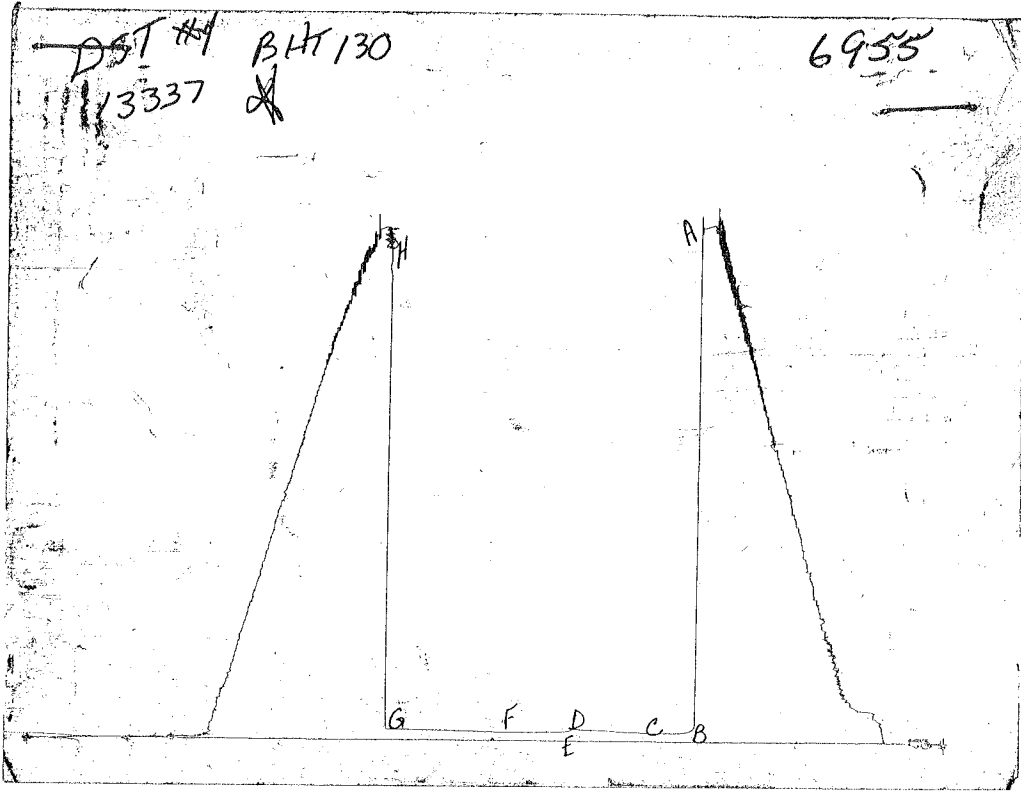
(F) Second Final Flow Pressure 44.4 PSI @ (depth) _____ w / Clock No. _____

Initial Shut-in Pressure 53.3 PSI Initial Opening 30 Final Flow 45

(H) Final Hydrostatic Mud 2613.5 PSI Initial Shut-in 60 Final Shut-in 90

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CHART PAGE



This is an actual photograph of recorder chart #10333

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2633	2623.2
(B) FIRST INITIAL FLOW PRESSURE	49	46.4
(C) FIRST FINAL FLOW PRESSURE	49	41.4
(D) INITIAL CLOSED-IN PRESSURE	59	61.2
(E) SECOND INITIAL FLOW PRESSURE	49	49.4
(F) SECOND FINAL FLOW PRESSURE	49	44.4
(G) FINAL CLOSED-IN PRESSURE	49	53.3
(H) FINAL HYDROSTATIC MUD	2584	2613.5