

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name HINEMAN #1 Test No. 1 Date 6/23/92
Company ARGENT ENERGY, INC. Zone LKC-'140-160
Address 110 S MAIN #550 WICHITA KS 67202 Elevation 2759
Co. Rep./Geo. SCOTT OATSDEAN Cont. MURFIN RIG #8 Est. Ft. of Pay _____
Location: Sec. 9 Twp. 19S Rge. 28W Co. LANE State KS

Interval Tested 4154-4230
Anchor Length 76
Top Packer Depth 4149
Bottom Packer Depth 4154
Total Depth 4230

Drill Pipe Size 4.5 XH
Wt. Pipe I.D. - 2.7 Ft. Run _____
Drill Collar - 2.25 Ft. Run _____
Mud Wt. 9.1 lb/Gal.
Viscosity 47 Filtrate 9.2

Tool Open @ 3:11 AM Initial Blow 1/2" BLOW BUILDING TO BOTTOM OF BUCKET
IN 25 MINUTES

Final Blow VERY WEAK SURFACE BLOW BUILDING TO BOTTOM OF BUCKET IN 36
MINUTES

Recovery - Total Feet 435 Flush Tool? NO

Rec. 75 Feet of MUD
Rec. 240 Feet of MUDDY WTR W/ FEW SPECKS
Rec. 120 Feet of SALT WATER
Rec. _____ Feet of _____
Rec. _____ Feet of _____

BHT 121 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW 0.217 @ 67.3 °F Chlorides 34000 ppm Recovery Chlorides 1500 ppm System

(A) Initial Hydrostatic Mud 2120.6 PSI AK1 Recorder No. 22150 Range 3925

(B) First Initial Flow Pressure 62.3 PSI @ (depth) 4157 w / Clock No. 19960

(C) First Final Flow Pressure 115.8 PSI AK1 Recorder No. 10248 Range 4400

(D) Initial Shut-in Pressure 1067.9 PSI @ (depth) 4224 w / Clock No. 27501

(E) Second Initial Flow Pressure 126.4 PSI AK1 Recorder No. _____ Range _____

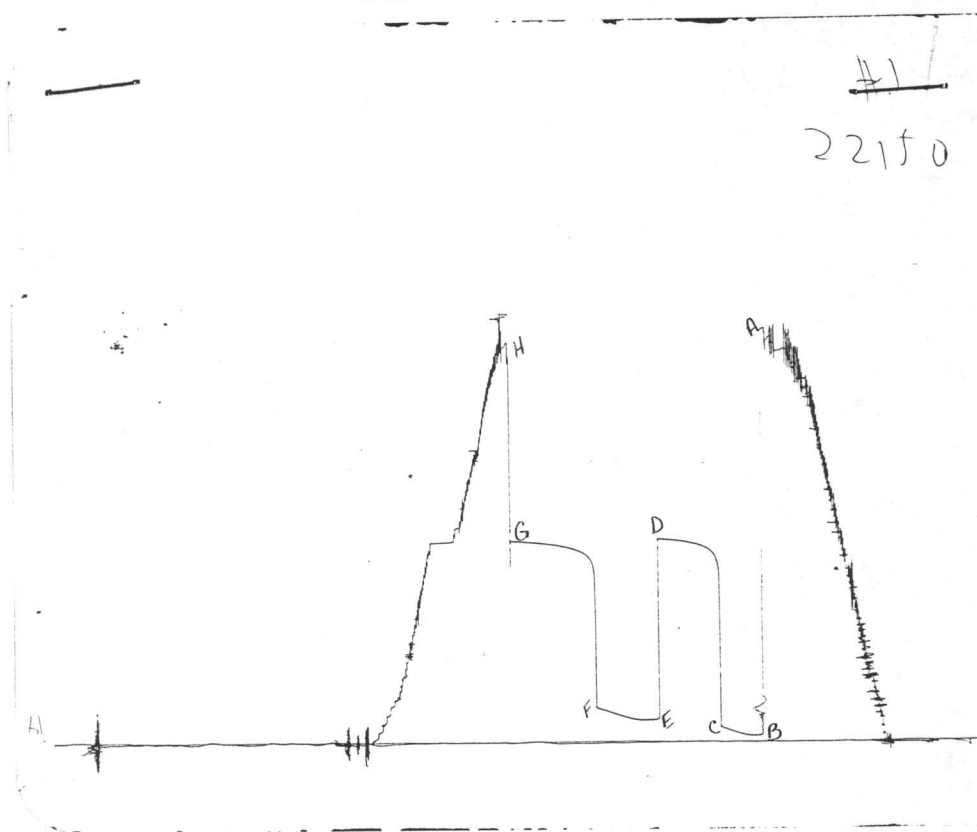
(F) Second Final Flow Pressure 220.5 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 1060.5 PSI Initial Opening 30 Final Flow 45

(H) Final Hydrostatic Mud 2055.3 PSI Initial Shut-in 45 Final Shut-in 60

Our Representative PAUL SIMPSON

CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2118	2120.6
(B) FIRST INITIAL FLOW PRESSURE	57	62.3
(C) FIRST FINAL FLOW PRESSURE	114	115.8
(D) INITIAL CLOSED-IN PRESSURE	1067	1067.9
(E) SECOND INITIAL FLOW PRESSURE	125	126.4
(F) SECOND FINAL FLOW PRESSURE	216	220.5
(G) FINAL CLOSED-IN PRESSURE	1056	1060.5
(H) FINAL HYDROSTATIC MUD	2052	2055.3

Test Ticket

No 4917

Well Name & No. <u>Hineman #1</u>	Test No. <u>1</u>	Date <u>6-23-92</u>
Company <u>Arco Energy, Inc</u>	Zone Tested <u>LKC 140-160'</u>	
Address <u>1105 Main St. Wichita, KS 67202</u>	Elevation <u>2759</u>	
Co. Rep./Geo. <u>Scott Osterman</u>	Cont. <u>Murfin #8</u>	Est. Ft. of Pay
Location: Sec. <u>9</u> Twp. <u>19S</u> Rge. <u>28W</u> Co. <u>Lane</u> State <u>KS</u>		
No. of Copies <u>5</u> Distribution Sheet <u>Yes</u> <u>Y</u> No <u>Turnkey</u> <u>Yes</u> <u>Y</u> No <u>Evaluation</u>		

Interval Tested <u>4154-4230</u>	Drill Pipe Size <u>4 1/2 XA</u>
Anchor Length <u>76</u>	Top Choke — 1" Bottom Choke — 1/4"
Top Packer Depth <u>4149</u>	Hole Size — 7 7/8" Rubber Size — 6 3/4"
Bottom Packer Depth <u>4154</u>	Wt. Pipe I.D. — 2.7 Ft. Run
Total Depth <u>4230</u>	Drill Collar — 2.25 Ft. Run
Mud Wt. <u>9.1</u> lb/gal. Viscosity <u>47</u> Filtrate <u>9.2</u>	
Tool Open @ <u>3:11 AM</u> Initial Blow <u>1/2" blow building to bottom of bucket</u>	
<u>in 25 minutes</u>	
Final Blow <u>very weak surface blow building to bottom of bucket in 36</u>	
<u>minutes</u>	

Recovery — Total Feet <u>435</u>	Feet of Gas in Pipe	Flush Tool?
Rec. <u>75</u> Feet Of <u>Mud</u>	%gas	%oil
Rec. <u>240</u> Feet Of <u>Muddy water w/few specks</u>	%gas	%oil
Rec. <u>120</u> Feet Of <u>salt water</u>	%gas	%oil
Rec. _____ Feet Of _____	%gas	%oil
Rec. _____ Feet Of _____	%gas	%oil

BHT <u>121</u> °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW: <u>.217</u> @ <u>67.3</u> °F Chlorides <u>34,000</u> ppm Recovery Chlorides <u>1500</u> ppm System

(A) Initial Hydrostatic Mud <u>2118</u> PSI	AK1 Recorder No. <u>221050</u>	Range <u>3925</u>
(B) First Initial Flow Pressure <u>57</u> PSI	@ (depth) <u>4157</u>	w/Clock No. <u>19960</u>
(C) First Final Flow Pressure <u>114</u> PSI	AK1 Recorder No. <u>10248</u>	Range <u>4400</u>
(D) Initial Shut-In Pressure <u>1067</u> PSI	@ (depth) <u>4224</u>	w/Clock No. <u>27561</u>
(E) Second Initial Flow Pressure <u>125</u> PSI	AK1 Recorder No. _____	Range _____
(F) Second Final Flow Pressure <u>216</u> PSI	@ (depth) _____	w/Clock No. _____
(G) Final Shut-In Pressure <u>1056</u> PSI	Initial Opening <u>30</u>	Test <u>Y</u>
(H) Final Hydrostatic Mud <u>2052</u> PSI	Initial Shut-In <u>45</u>	Jars <u>Y</u>

TRILOBITE TESTING L.L.C. SHALL NOT BE LIABLE FOR DAMAGE OF ANY KIND OF THE PROPERTY OR PERSONNEL OF THE ONE FOR WHOM A TEST IS MADE, OR FOR ANY LOSS SUFFERED OR SUSTAINED, DIRECTLY OR INDIRECTLY, THROUGH THE USE OF ITS EQUIPMENT, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS LOST OR DAMAGED IN THE HOLE SHALL BE PAID FOR AT COST BY THE PARTY FOR WHOM THE TEST IS MADE.

Approved By Scott A. OstermanOur Representative Paul SimpsonFinal Flow 45 Safety Joint XFinal Shut-In 60 Straddle _____

Circ. Sub _____

Sampler _____

Extra Packer _____

Other _____

TOTAL PRICE \$ 800.00

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name HINEMAN #1 Test No. 2 Date 6/23/92
Company ARGENT ENERGY, INC. Zone LKC-160'
Address 110 S MAIN #550 WICHITA KS 67202 Elevation 2759
Co. Rep./Geo. SCOTT OATSDEAN Cont. MURFIN RIG #8 Est. Ft. of Pay _____
Location: Sec. 9 Twp. 19S Rge. 28W Co. LANE State KS

Interval Tested 4196-4230
Anchor Length 34
Top Packer Depth 4191
Bottom Packer Depth 4196
Total Depth 4230

Drill Pipe Size 4.5 XH
Wt. Pipe I.D. - 2.7 Ft. Run _____
Drill Collar - 2.25 Ft. Run _____
Mud Wt. 9.2 lb/Gal.
Viscosity 50 Filtrate 10.8

Tool Open @ 12:35 PM Initial Blow WEAK 1/2" BLOW THROUGHOUT - DECREASING
TO 1/4"

Final Blow NO BLOW

Recovery - Total Feet 15 Flush Tool? NO

Rec. 15 Feet of MUD W/ WATER IN TOOL & OIL SPECKS
Rec. _____ Feet of _____
Rec. _____ Feet of 0
Rec. _____ Feet of _____
Rec. _____ Feet of _____

BHT 119 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides _____ ppm System

(A) Initial Hydrostatic Mud 2140.6 PSI AK1 Recorder No. 22150 Range 3925

(B) First Initial Flow Pressure 25.8 PSI @ (depth) 4199 w / Clock No. 19960

(C) First Final Flow Pressure 25.8 PSI AK1 Recorder No. 10248 Range 4400

(D) Initial Shut-in Pressure 630.1 PSI @ (depth) 4229 w / Clock No. 27501

(E) Second Initial Flow Pressure 25.8 PSI AK1 Recorder No. _____ Range _____

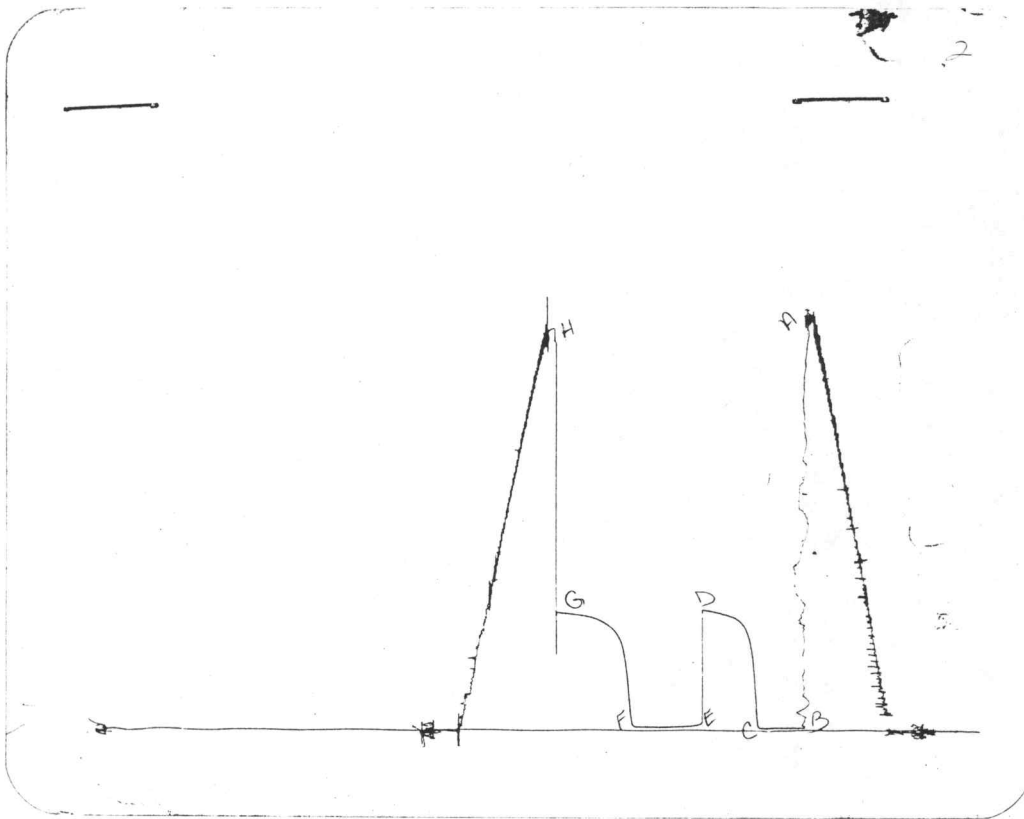
(F) Second Final Flow Pressure 25.8 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 621.3 PSI Initial Opening 30 Final Flow 45

(H) Final Hydrostatic Mud 2054.2 PSI Initial Shut-in 45 Final Shut-in 60

Our Representative PAUL SIMPSON

CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2140	2140.6
(B) FIRST INITIAL FLOW PRESSURE	23	25.8
(C) FIRST FINAL FLOW PRESSURE	23	25.8
(D) INITIAL CLOSED-IN PRESSURE	628	630.1
(E) SECOND INITIAL FLOW PRESSURE	23	25.8
(F) SECOND FINAL FLOW PRESSURE	23	25.8
(G) FINAL CLOSED-IN PRESSURE	617	621.3
(H) FINAL HYDROSTATIC MUD	2051	2054.2

Test Ticket

N2 4918

Well Name & No. <u>H. in. Men</u>	Test No. <u>2</u>	Date <u>6-23-92</u>
Company <u>Argent Energy, Inc</u>	Zone Tested <u>LKC 160</u>	
Address _____	Elevation <u>2759</u>	
Co. Rep./Geo. <u>Scott Oatsdon</u>	Cont. <u>Murphy A8</u>	Est. Ft. of Pay _____
Location: Sec. <u>9</u> Twp. <u>19S</u> Rge. <u>28W</u> Co. <u>Lone</u> State <u>Ks</u>		
No. of Copies <u>5</u> Distribution Sheet _____ Yes <u>X</u> No _____ Turnkey _____ Yes <u>X</u> No _____ Evaluation _____		

Interval Tested 4196-4230 Drill Pipe Size 4 1/2 XH
 Anchor Length 34 Top Choke — 1" Bottom Choke — 3/4"
 Top Packer Depth 4191 Hole Size — 77/8" Rubber Size — 6 3/4"
 Bottom Packer Depth 4196 Wt. Pipe I.D. — 2.7 Ft. Run
 Total Depth 4230 Drill Collar — 2.25 Ft. Run
 Mud Wt. 9.2 lb/gal. Viscosity 50 Filtrate 10.8
 Tool Open @ 12:25 PM Initial Blow weak 1/2" blow throughout decreasing
20 1/4"
 Final Blow no blow

Recovery — Total Feet	Feet of Gas in Pipe	Flush Tool?
Rec. <u>15</u> Feet Of <u>mud w/ water in tool</u>	% gas	% oil
Rec. _____ Feet Of <u>& oil specks</u>	% gas	% oil
Rec. _____ Feet Of _____	% gas	% oil
Rec. _____ Feet Of _____	% gas	% oil
Rec. _____ Feet Of _____	% gas	% oil

BHT 119 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API

RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides _____ ppm System

(A) Initial Hydrostatic Mud <u>2140</u>	PSI	AK1 Recorder No. <u>22150</u>	Range <u>3925</u>
(B) First Initial Flow Pressure <u>23</u>	PSI	@ (depth) <u>4199</u>	w/Clock No. <u>19960</u>
(C) First Final Flow Pressure <u>23</u>	PSI	AK1 Recorder No. <u>10248</u>	Range <u>4400</u>
(D) Initial Shut-In Pressure <u>628</u>	PSI	@ (depth) <u>4229</u>	w/Clock No. <u>27501</u>
(E) Second Initial Flow Pressure <u>23</u>	PSI	AK1 Recorder No. _____	Range _____
(F) Second Final Flow Pressure <u>23</u>	PSI	@ (depth) _____	w/Clock No. _____
(G) Final Shut-In Pressure <u>617</u>	PSI	Initial Opening <u>30</u>	Test _____
(H) Final Hydrostatic Mud <u>2051</u>	PSI	Initial Shut-In <u>45</u>	Jars _____

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Final Flow 45 Safety Joint _____
 Final Shut-In 60 Straddle _____

Approved By Scott A. Oatsdon

Our Representative Paul Simpson

Sampler _____

Extra Packer _____

Other _____

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name HINEMAN #1 Test No. 3 Date 6/24/92
Company ARGENT ENERGY, INC. Zone LKC-220'
Address 110 S MAIN #550 WICHITA KS 67202 Elevation 2759
Co. Rep./Geo. SCOTT OATSDEAN Cont. MURFIN RIG #8 Est. Ft. of Pay 6
Location: Sec. 9 Twp. 19S Rge. 28W Co. LANE State KS

Interval Tested 4296-4310 Drill Pipe Size 4.5 XH
Anchor Length 14 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 4291 Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth 4296 Mud Wt. N/A lb/Gal. _____
Total Depth 4310 Viscosity N/A Filtrate N/A

Tool Open @ 10:35 AM Initial Blow VERY STRONG - BOTTOM OF BUCKET IN 20 SECONDS
(BLOW BACK BUILT TO BOTTOM OF BUCKET IN 12 MINUTES)
Final Blow VERY WEAK SURFACE BLOW

Recovery - Total Feet 2650 Flush Tool? NO

Rec. 850 Feet of GAS IN PIPE
Rec. 2590 Feet of GASSY OIL-30%GAS/70%OIL
Rec. 60 Feet of OIL CUT MUD-10%OIL/90%MUD
Rec. _____ Feet of _____
Rec. _____ Feet of _____

BHT 121 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides _____ ppm System

(A) Initial Hydrostatic Mud 2155.3 PSI AK1 Recorder No. 22150 Range 3925

(B) First Initial Flow Pressure 937.8 PSI @ (depth) 4300 w / Clock No. 19960

(C) First Final Flow Pressure 978.3 PSI AK1 Recorder No. 10248 Range 4400

(D) Initial Shut-in Pressure 980.5 PSI @ (depth) 4309 w / Clock No. 27501

(E) Second Initial Flow Pressure 980.5 PSI AK1 Recorder No. _____ Range _____

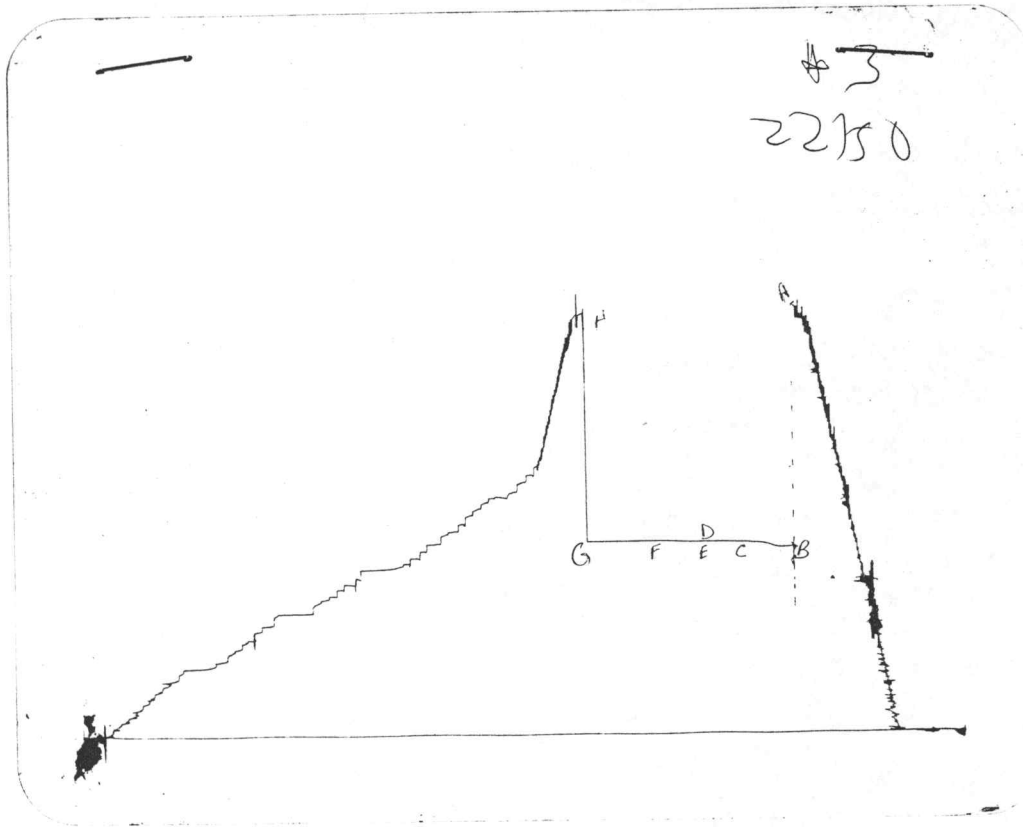
(F) Second Final Flow Pressure 980.5 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 980.5 PSI Initial Opening 30 Final Flow 15

(H) Final Hydrostatic Mud 2139.7 PSI Initial Shut-in 45 Final Shut-in 60

Our Representative PAUL SIMPSON

CHART PAGE

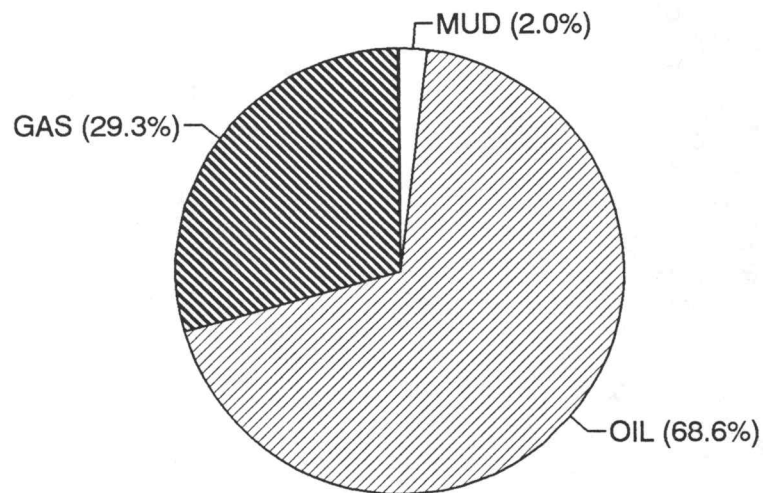


This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2151	2155.3
(B) FIRST INITIAL FLOW PRESSURE	935	937.8
(C) FIRST FINAL FLOW PRESSURE	968	978.3
(D) INITIAL CLOSED-IN PRESSURE	968	980.5
(E) SECOND INITIAL FLOW PRESSURE	968	980.5
(F) SECOND FINAL FLOW PRESSURE	968	980.5
(G) FINAL CLOSED-IN PRESSURE	968	980.5
(H) FINAL HYDROSTATIC MUD	2140	2139.7

CALCULATED RECOVERY ANALYSIS						DRILL	PIPE			
DST #	3	TICKET				4919				
SAMPLE	TOTAL	GAS		OIL		WATER		MUD		
#	FEET	%	FEET	%	FEET	%	FEET	%	FEET	
1	2590	30	777	70	1813	0	0	0	0	
2	60	0	0	10	6	0	0	90	54	
3			0		0		0		0	
4			0		0		0		0	
5			0		0		0		0	
TOTAL	2650	29.320755	777	68.6	1819	0	0	2.04	54	

			HRS	BBL/DAY
BBL OIL=	25.86618	*	0.75	827.72
BBL WATER=	0	*		0
BBL MUD=	0.76788			
BBL GAS	11.04894			



HINEMAN #1
INITIAL

DST #3
SHUTIN

30 TOTAL FL

TIME

Slope

144.58

psi/cycle

P *

1230

psi

Log

<>

TIME(MIN)

Pws (psi)

Horn T

PRESSURE

Horn T

15

949.6

0.477

949.6

3

30

952.5

0.301

2.9

2

45

952.5

0.222

0.0

2

INITIAL FLOW

RECORDER #

10248

DST # 3

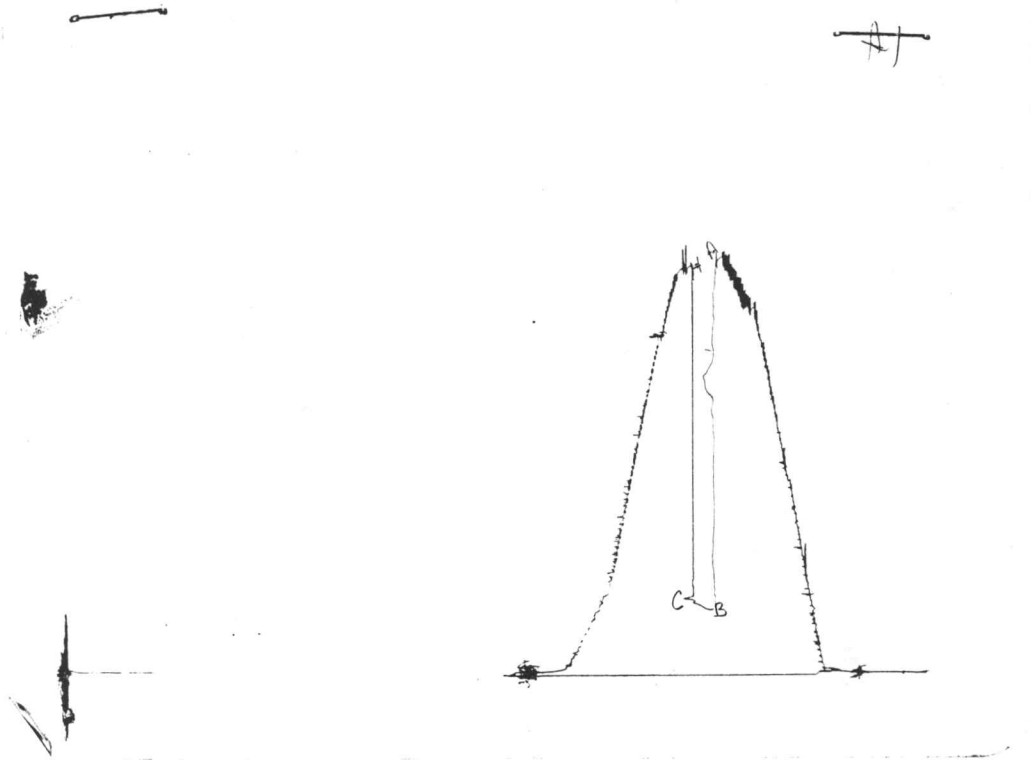
TIME(MIN)

PRESSURE

<> PRESSURE

0	937.8	937.8
3	938.9	1.1
6	942.2	3.3
9	950.9	8.7
12	960.8	9.9
15	968.4	7.6
18	973.9	5.5
21	975	1.1
24	976.1	1.1
27	977.2	1.1
30	978.3	1.1

CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2128	2133.6
(B) FIRST INITIAL FLOW PRESSURE	323	325.7
(C) FIRST FINAL FLOW PRESSURE	369	371.2
(D) INITIAL CLOSED-IN PRESSURE		
(E) SECOND INITIAL FLOW PRESSURE		
(F) SECOND FINAL FLOW PRESSURE		
(G) FINAL CLOSED-IN PRESSURE		
(H) FINAL HYDROSTATIC MUD	2050	2051.7