TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name & No. Krug #2 Test No. 1 Date 3/26/86

Company Jay Boy Oil, Inc. Zone Tested LKC 'C'

Address 8400 Killarney, Wichita, KS 67206 Elevation 3045 KB

Co. Rep./Geo. Steve Murphy Cont. Big Springs Rig 3 Est. Ft. of Pay

Location: Sec. 27 Twp. 10 Rge. 32 Co. Thomas State KS

Interval Tested 4065-4082 Drill Pipe Size 4½" XH

Anchor Length 17 Top Choke — 1"

Top Packer Depth 4060 Bottom Choke — ¾"

Bottom Packer Depth 4065 Hole Size — 7⅞"

Total Depth 4082 Rubber Size — 6¾"

Wt. Pipe I.D. — 2.7 ----- Ft. Run ----

Drill Collar — 2.25 ----- Ft. Run ----

Mud Wt. 9.3 lb./gal. Viscosity 43 Filtrate 6.0

Tool Open @ 12:23 AM Initial Blow very weak surface blow died in 10 minutes

Final Blow No blow

Recovery — Total Feet 5 Flush Tool?

Rec. 5 Feet of mud with few oil specks in tool

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 Clorides ppm System

(A) Initial Hydrostatic Mud 2057.3 PSI AK1 Recorder No. 13849 Range 4375

(B) First Initial Flow Pressure 33.3 PSI @ (depth) 4081 w/Clock No. 31152

(C) First Final Flow Pressure 42.2 PSI AK1 Recorder No. 13851 Range 4425

(D) Initial Shut-in Pressure 1048.7 PSI @ (depth) 4076 w/Clock No. 33181

(E) Second Initial Flow Pressure 42.2 PSI Initial Opening 30

(F) Second Final Flow Pressure 42.2 PSI Initial Shut-in 30

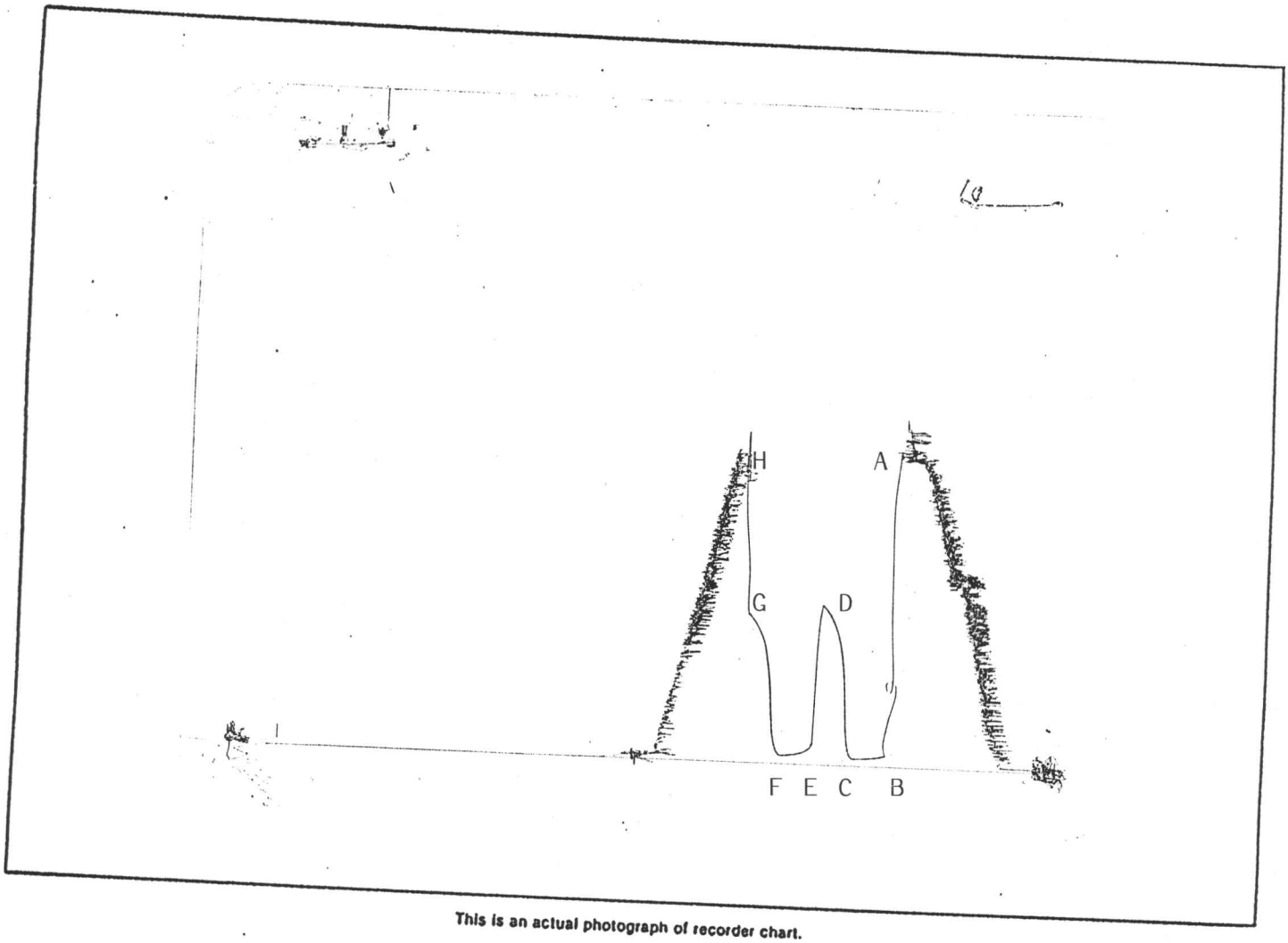
(G) Final Shut-in Pressure 984.6 PSI Final Flow 30

(H) Final Hydrostatic Mud 1979.4 PSI Final Shut-in 30

Our Representative Paul Simpson

TOTAL PRICE ..... $ 500

Printcraft Printers - Hays, KS



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	2037	2057.3	PSI
(B)	First Initial Flow Pressure	22	33.3	PSI
(C)	First Final Flow Pressure	33	42.2	PSI
(D)	Initial Closed-in Pressure	1040	1048.7	PSI
(E)	Second Initial Flow Pressure	33	42.2	PSI
(F)	Second Final Flow Pressure	33	42.2	PSI
(G)	Final Closed-in Pressure	951	984.6	PSI
(H)	Final Hydrostatic Mud	1961	1979.4	PSI

TRILOBITE TESTING COMPANY

P. O. Box 362 • Hays, Kansas 67601

TEST TICKET

№ 525

Well Name & No. Krug #2 Test No. 1 Date 3/26/86

Company Jay Bee Oil Inc Zone Tested LKC 'C'

Address 8400 K-Harney Wichita, Ks 67206 Elevation 3045 KB

Co. Rep./Geo. Steve Murphy Cont. Big Springs Rig 3 Est. Ft. of Pay

Location: Sec. 27 Twp. 10 Rge. 32 Co. Thomas State Ks

Interval Tested 4065-4082 Drill Pipe Size 4½ XH

Anchor Length 17 Top Choke — 1"

Top Packer Depth 4060 Bottom Choke — ¾"

Bottom Packer Depth 4065 Hole Size — 7⅞"

Total Depth 4082 Rubber Size — 6¾"

Wt. Pipe I.D. — 2.7 — Ft. Run —

Drill Collar — 2.25 — Ft. Run —

Mud Wt. 9.3 lb./gal. Viscosity 43 Filtrate 6.0

Tool Open @ 12:23AM Initial Blow w/ weak surface blow died in 10 minutes

Final Blow no blow

Recovery — Total Feet 5 Flush Tool?

Rec. 5 Feet of mud w/ few oil specks in tool

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 ppm System

(A) Initial Hydrostatic Mud	2037 PSI	AK1 Recorder No.	13849	Range	4375
(B) First Initial Flow Pressure	22 PSI	@ (depth)	4081	w/ Clock No.	31152
(C) First Final Flow Pressure	33 PSI	AK1 Recorder No.	13851	Range	4425
(D) Initial Shut-In Pressure	1040 PSI	@ (depth)	4076	w/ Clock No.	33181
(E) Second Initial Flow Pressure	33 PSI	Initial Opening	30		
(F) Second Final Flow Pressure	33 PSI	Initial Shut-In	30		
(G) Final Shut-In Pressure	951 PSI	Final Flow	30		
(H) Final Hydrostatic Mud	1961 PSI	Final Shut-In	30		

Approved by Steve Murphy

Our Representative Paul Simpson

Test ..... $ 500

Extra Equip .....

Extra Equip .....

TOTAL PRICE ..... $ 500

Printcraft Printers - Hays, KS

TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name & No. Krug #2 Test No. 2 Date 3/27/86

Company Jay Boy Oil Inc. Zone Tested LKC

Address 8400 Killarney, Wichita, KS 67206 Elevation

Co. Rep./Geo. Steve Murphy Cont. Big Springs Est. Ft. of Pay

Location: Sec. 27 Twp. 10 Rge. 32 Co. Thomas State KS

Interval Tested 4112-4125 Drill Pipe Size 4½" XH

Anchor Length 13' Top Choke — 1"

Top Packer Depth 4107 Bottom Choke — ¾"

Bottom Packer Depth 4112 Hole Size — 7⅞"

Total Depth 4125 Rubber Size — 6¾"

Wt. Pipe I.D. — 2.7 ----- Ft. Run ----

Drill Collar — 2.25 ------ Ft. Run -----

Mud Wt. 9.3 lb./gal. Viscosity 42 Filtrate 6.4

Tool Open @ 1:55 PM Initial Blow very weak surface blow died in 4 minutes

Final Blow

Recovery — Total Feet Flush Tool?

Rec. Feet of Misrun--tool wouldn't open

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 Clorides ppm System

(A) Initial Hydrostatic Mud PSI AK1 Recorder No. 13849 Range 4375

(B) First Initial Flow Pressure PSI @ (depth) 4124 w/Clock No.

(C) First Final Flow Pressure PSI AK1 Recorder No. 13851 Range 4425

(D) Initial Shut-in Pressure PSI @ (depth) 4119 w/Clock No.

(E) Second Initial Flow Pressure PSI Initial Opening

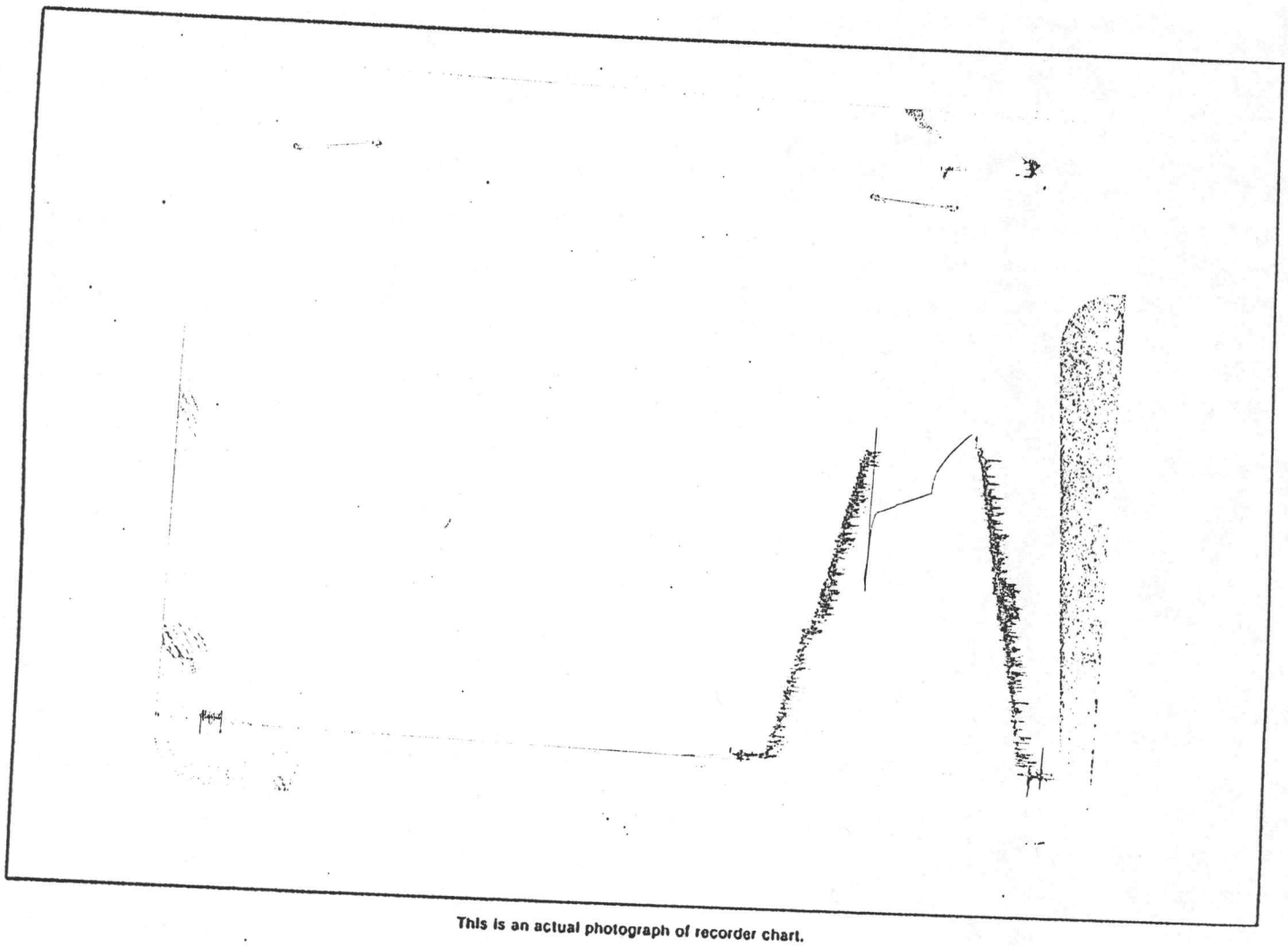
(F) Second Final Flow Pressure PSI Initial Shut-in

(G) Final Shut-in Pressure PSI Final Flow

(H) Final Hydrostatic Mud PSI Final Shut-in

Our Representative Paul Simpson TOTAL PRICE ..... $ N/C

Printcraft Printers - Hays, KS



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

TRILOBITE TESTING COMPANY

P. O. Box 362 • Hays, Kansas 67601

TEST TICKET

№ 526

Well Name & No. Krug #2 Test No. 2 Date 3/27/86

Company Jay Bee Oil Inc Zone Tested LKC

Address 2400 E. Murray Wichita Ks 67206 Elevation

Co. Rep./Geo. Steve Murphy Cont. Big Springs Rig 3 Est. Ft. of Pay

Location: Sec. 27 Twp. 10 Rge. 32 Co. Thomas State Ks

Interval Tested 4112-4125 Drill Pipe Size 4½ XH

Anchor Length 13' Top Choke — 1"

Top Packer Depth 4107 Bottom Choke — ¾"

Bottom Packer Depth 4112 Hole Size — 7⅞"

Total Depth 4125 Rubber Size — 6¾"

Wt. Pipe I.D. — 2.7 - Ft. Run -

Drill Collar — 2.25 - Ft. Run -

Mud Wt. 9.2 lb./gal. Viscosity 42 Filtrate 6.4

Tool Open @ 1:56 pm Initial Blow weak surface blow died in 4 minutes

Final Blow

Recovery — Total Feet Flush Tool?

Rec. Feet of Misrun - tool would not open

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 ppm System

(A) Initial Hydrostatic Mud PSI AK1 Recorder No. 13819 Range 4375

(B) First Initial Flow Pressure PSI @ (depth) 4124 w/Clock No.

(C) First Final Flow Pressure PSI AK1 Recorder No. 13851 Range 4425

(D) Initial Shut-In Pressure PSI @ (depth) 4119 w/Clock No.

(E) Second Initial Flow Pressure PSI Initial Opening

(F) Second Final Flow Pressure PSI Initial Shut-In

(G) Final Shut-In Pressure PSI Final Flow

(H) Final Hydrostatic Mud PSI Final Shut-In

Approved by Steve Murphy

Our Representative Paul Siphon

Test ..... $

Extra Equip .....

Extra Equip .....

TOTAL PRICE ..... $

Printcraft Printers - Hays, KS

TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name & No. Krug #2 Test No. 3 Date 3/27/86

Company Jay Boy Oil, Inc. Zone Tested LKC 'D'

Address 8400 Killarney, Wichita, KS 67206 Elevation 3045 KB

Co. Rep./Geo. Steve Murphy Cont. BigSprings Rig 3 Est. Ft. of Pay

Location: Sec. 27 Twp. 10 Rge. 32 Co. Thomas State KS

Interval Tested 4112-4125 Drill Pipe Size 4½" XH

Anchor Length 13 Top Choke — 1"

Top Packer Depth 4107 Bottom Choke — ¾"

Bottom Packer Depth 4112 Hole Size — 7⅞"

Total Depth 4125 Rubber Size — 6¾"

Wt. Pipe I.D. — 2.7 ---- Ft. Run -----

Drill Collar — 2.25 ---- Ft. Run ----

Mud Wt. 9.3 lb./gal. Viscosity 42 Filtrate 6.4

Tool Open @ 6:00 p.m. Initial Blow weak surface blow died in 9 minutes

Final Blow

Recovery — Total Feet 6' Flush Tool?

Rec. 6 Feet of oil specked mud

Rec. Feet of

Rec. Feet of

Rec. Feet of

Rec. Feet of

BHT 113 °F Gravity °API @ °F Corrected Gravity °API

RW .72 @ 66.5 °F Chlorides 9,000 ppm Recovery Clorides 9,000 ppm System

(A) Initial Hydrostatic Mud 2085.9 PSI AK1 Recorder No. 13849 Range 4375

(B) First Initial Flow Pressure 54.4 PSI @ (depth) 4124 w/Clock No. 31154

(C) First Final Flow Pressure 58.9 PSI AK1 Recorder No. 13851 Range 4425

(D) Initial Shut-in Pressure 1173.7 PSI @ (depth) 4119 w/Clock No. 33181

(E) Second Initial Flow Pressure 62.2 PSI Initial Opening 30

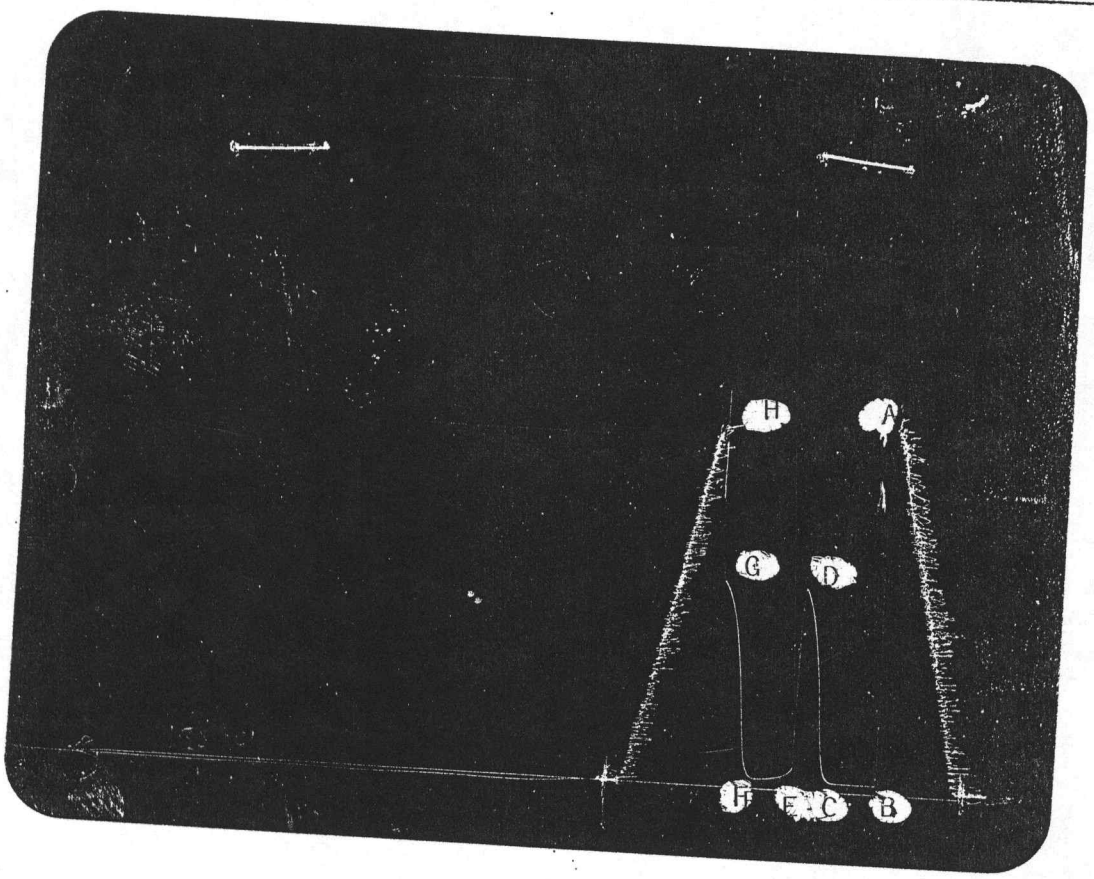
(F) Second Final Flow Pressure 62.2 PSI Initial Shut-In 30

(G) Final Shut-In Pressure 1189.2 PSI Final Flow 30

(H) Final Hydrostatic Mud 2051.8 PSI Final Shut-In 30

Our Representative Paul Simpson TOTAL PRICE ..... $ 500

Printcraft Printers - Hays, KS



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	2050	2085.9	PSI
(B)	First Initial Flow Pressure	43	54.4	PSI
(C)	First Final Flow Pressure	53	58.9	PSI
(D)	Initial Closed-in Pressure	1174	1173.7	PSI
(E)	Second Initial Flow Pressure	53	62.2	PSI
(F)	Second Final Flow Pressure	53	62.2	PSI
(G)	Final Closed-in Pressure	1142	1189.2	PSI
(H)	Final Hydrostatic Mud	1985	2051.8	PSI

TRILOBITE TESTING COMPANY

P. O. Box 362 • Hays, Kansas 67601

TEST TICKET

№ 527

Well Name & No. Krug #2 Test No. 3 Date 3/27/86

Company Jay Bee Oil Inc Zone Tested LKC D

Address 8400 Killarney, Wichita Ks 67206 Elevation 3044 KB

Co. Rep./Geo. Steve Murphy Cont. Big Springs Rig Est. Ft. of Pay

Location: Sec. 27 Twp. 10 Rge. 32 Co. Thomas State Ks

Interval Tested 4112 - 4125 Drill Pipe Size 4½ XH

Anchor Length 13 Top Choke — 1"

Top Packer Depth 4107 Bottom Choke — ¾"

Bottom Packer Depth 4112 Hole Size — 7⅞"

Total Depth 4125 Rubber Size — 6¾"

Wt. Pipe I.D. — 2.7 — Ft. Run

Drill Collar — 2.25 — Ft. Run

Mud Wt. 9³ lb./gal. Viscosity 42 Filtrate 6⁴

Tool Open @ 6:00 Initial Blow weak surface blow died in 9 minutes

Final Blow

Recovery — Total Feet 6' Flush Tool?

Rec. 6' Feet of oil specked mud

Rec. Feet of

Rec. Feet of

Rec. Feet of

Rec. Feet of

BHT 113° °F Gravity °API @ °F Corrected Gravity °API

RW .72 @ 66.5 °F Chlorides 9000 ppm Recovery Chlorides 9000 ppm System

(A) Initial Hydrostatic Mud 2050 PSI AK1 Recorder No. 13849 Range 4325

(B) First Initial Flow Pressure 43 PSI @ (depth) 4112 w/Clock No. 03154

(C) First Final Flow Pressure 53 PSI AK1 Recorder No. 13851 Range 4425

(D) Initial Shut-In Pressure 1174 PSI @ (depth) 4116 w/Clock No. 33181

(E) Second Initial Flow Pressure 53 PSI Initial Opening 30

(F) Second Final Flow Pressure 53 PSI Initial Shut-In 30

(G) Final Shut-In Pressure 1142 PSI Final Flow 30

(H) Final Hydrostatic Mud 1985 PSI Final Shut-In 30

Approved by Steve Murphy

Our Representative Paul Simpson

Test ..... $ 500

Extra Equip .....

Extra Equip .....

TOTAL PRICE ..... $ 500

Printcraft Printers - Hays, KS

TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name & No. Krug #2 Test No. 4 Date 3/28/86

Company Jay Boy Oil, Inc. Zone Tested LKC

Address 8400 Killarney, Wichita, KS 67206 Elevation 3045

Co. Rep./Geo. Steve Murphy Cont. Big Springs Rig 2 Est. Ft. of Pay 12

Location: Sec. 27 Twp. 10 Rge. 32 Co. Thomas State KS

Interval Tested 4185-4210 Drill Pipe Size 4½" XH

Anchor Length 25 Top Choke — 1" ____

Top Packer Depth 4180 Bottom Choke — ¾" ____

Bottom Packer Depth 4185 Hole Size — 7⅞" ____

Total Depth 4210 Rubber Size — 6¾" ____

Wt. Pipe I.D. — 2.7 ---- Ft. Run ----

Drill Collar — 2.25 ---- Ft. Run ----

Mud Wt. 9.3 lb./gal. Viscosity 65 Filtrate 7.2

Tool Open @ 9:35 AM Initial Blow 1/8" blow building to 5"

Final Blow surface blow building to 3"

Recovery — Total Feet 175 Flush Tool? ____

Rec. 3 Feet of free oil

Rec. 120 Feet of slightly oil specked muddy H2o; less than 2% oil

Rec. 52 Feet of muddy H2o

Rec. ____ Feet of ____

Rec. ____ Feet of ____

BHT 114 °F Gravity ____ °API @ ____ °F Corrected Gravity ____ °API

RW .08 @ 87.2 °F Chlorides 70,000 ppm Recovery Clorides 7,000 ppm System

(A) Initial Hydrostatic Mud 2128.9 PSI AK1 Recorder No. 13849 Range 4375

(B) First Initial Flow Pressure 76.7 PSI @ (depth) 4209 w/Clock No. 31154

(C) First Final Flow Pressure 85.6 PSI AK1 Recorder No. 13851 Range 4425

(D) Initial Shut-in Pressure 1253.3 PSI @ (depth) 4204 w/Clock No. 33181

(E) Second Initial Flow Pressure 146.7 PSI Initial Opening 45

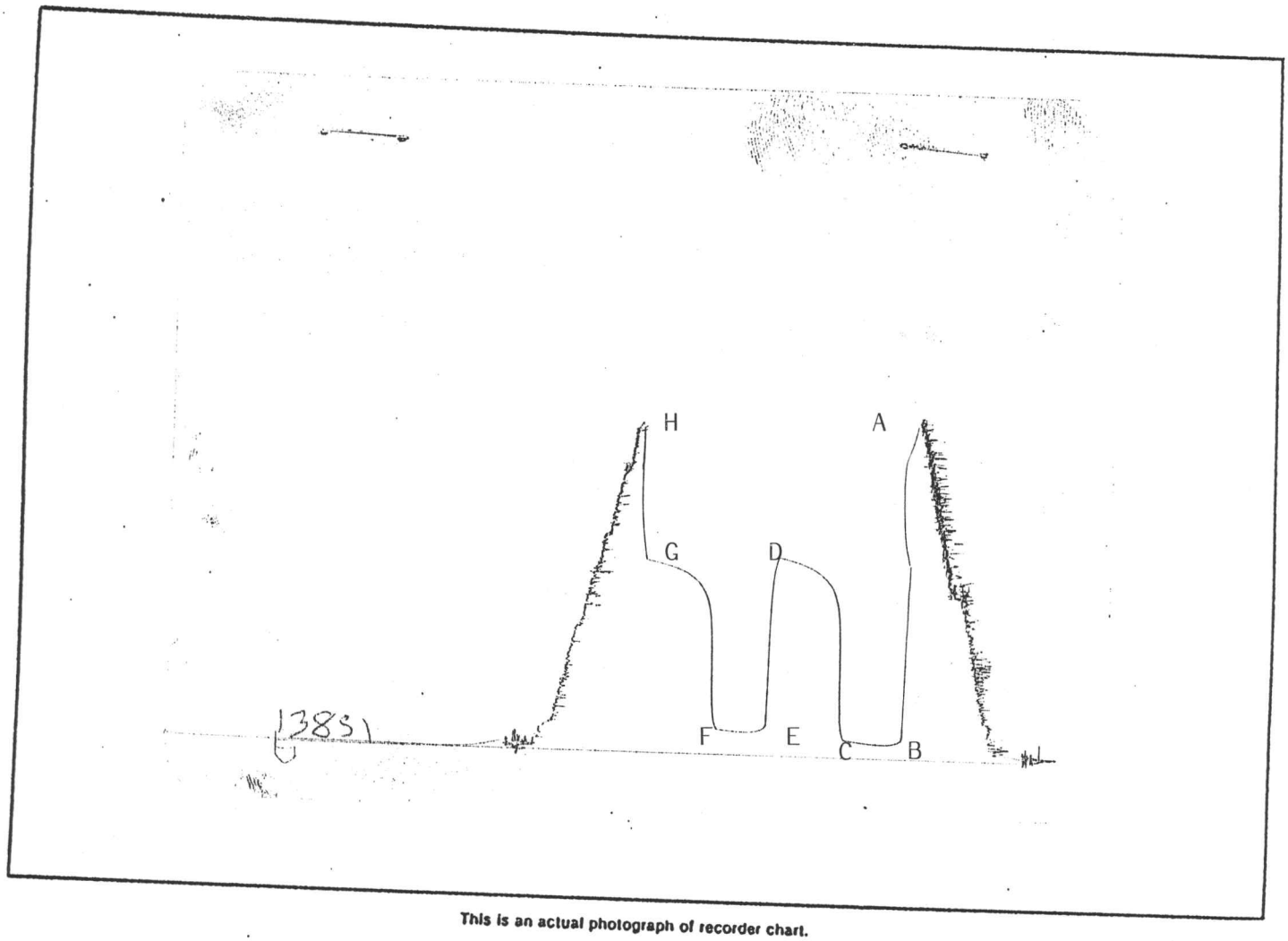
(F) Second Final Flow Pressure 138.9 PSI Initial Shut-in 60

(G) Final Shut-in Pressure 1216.8 PSI Final Flow 45

(H) Final Hydrostatic Mud 2066.1 PSI Final Shut-in 60

Our Representative Paul Simpson TOTAL PRICE ..... $ 500

Printcraft Printers - Hays, KS



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	2129	2128.9	PSI
(B)	First Initial Flow Pressure	100	76.7	PSI
(C)	First Final Flow Pressure	111	85.6	PSI
(D)	Initial Closed-in Pressure	1228	1253.3	PSI
(E)	Second Initial Flow Pressure	144	146.7	PSI
(F)	Second Final Flow Pressure	167	138.9	PSI
(G)	Final Closed-in Pressure	1224	1216.8	PSI
(H)	Final Hydrostatic Mud	2040	2066.1	PSI

COMPUTER EVALUATION BY TRILOBITE TESTING
JAY BOY OIL INC.
REPORT FOR DST#4FOR THE KRUG #2
SEC 27 10W 32S THOMAS KS

TEST PARAMETERS

ELEVATION:	3045 KB	EST. PAY:	12 FT
DATUM:	-1165	ZONE TESTED:	LKC
TEST INTERVAL:	4185-4210	TIME INTERVALS:	45-60-45-60
RECORDER DEPTH:	4209	VISCOSITY:	4 CP
BOTTOM HOLE TEMP:	114	HOLE SIZE:	7.875 IN

CALCULATIONS

TOTAL FEET OF RECOVERY:	175		
BARRELS IN DRILL PIPE:	2.485		
TOTAL BARRELS OF RECOVERY:	2.485	UNCORR. INIT. PROD.:	37.6674 BBL/D
API GRAVITY:	1	FLUID GRADIENT:	.45

INITIAL PRODUCTION CORRECTED TO PSEUDO STEADY FLOW STATE 35.510

INITIAL SHUT-IN VALUES:
THEORETICAL STATIC PRESSURE 1342.42
SLOPE 374.474

FINAL SHUT-IN VALUES
THEORETICAL STATIC PRESSURE 1329.81
SLOPE 286.019

TRANSMISSIBILITY	45.397 (MD.-FT./CP.)
PERMEABILITY	14.5833 (MD.)
INDICATED FLOW CAPACITY	181.588 (MD.FT)
PRODUCTIVITY INDEX	.0512986 (BARRELS/DAY/PSI)
DAMAGE RATIO	.743986
RADIUS OF INVESTIGATION	37.2211 (FT.)
POTENTIOMETRIC SURFACE	1919.83 (FT.)
DRAWDOWN FACTOR	.939348 (%)

RW .08 @ 87.2 =
75,948 PPM NACL
46,169 PPM CL
RW @ 114
0.06

Ok

INITIAL FLOW

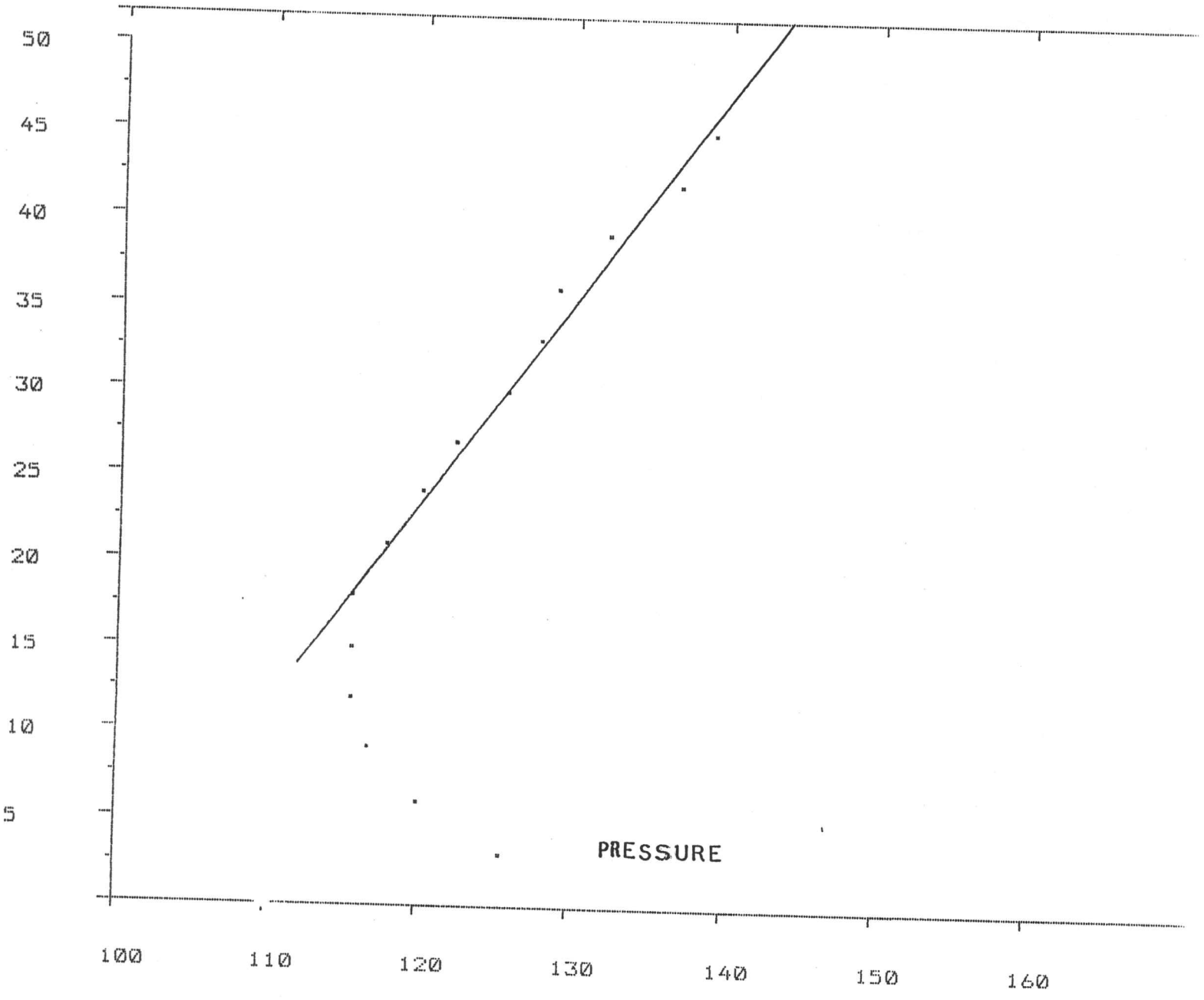
RECORDER # 13850

DT(MIN)	PRESSURE
0	76.7
3	63.3
6	56.7
9	52.2
12	55.6
15	54.4
18	56.7
21	58.9
24	61.1
27	64.4
30	65.6
33	68.9
36	71.1
39	74.4
42	75.6
45	78.9
48	83.3
51	85.6

FINAL FLOW

RECORDER # 13850

DT(MIN)	PRESSURE
0	146.7
3	125.6
6	120
9	116.7
12	115.6
15	115.6
18	115.6
21	117.8
24	120
27	122.2
30	125.6
33	127.8
36	128.9
39	132.2
42	136.7
45	138.9



INITIAL PRODUCTION CORRECTED TO PSEUDO STEADY FLOW STATE 35.5105 BBL/DAY

INITIAL SHUT-IN BUILDUP

RECORDER # 13850

INITIAL FLOW TIME (MIN.): 50

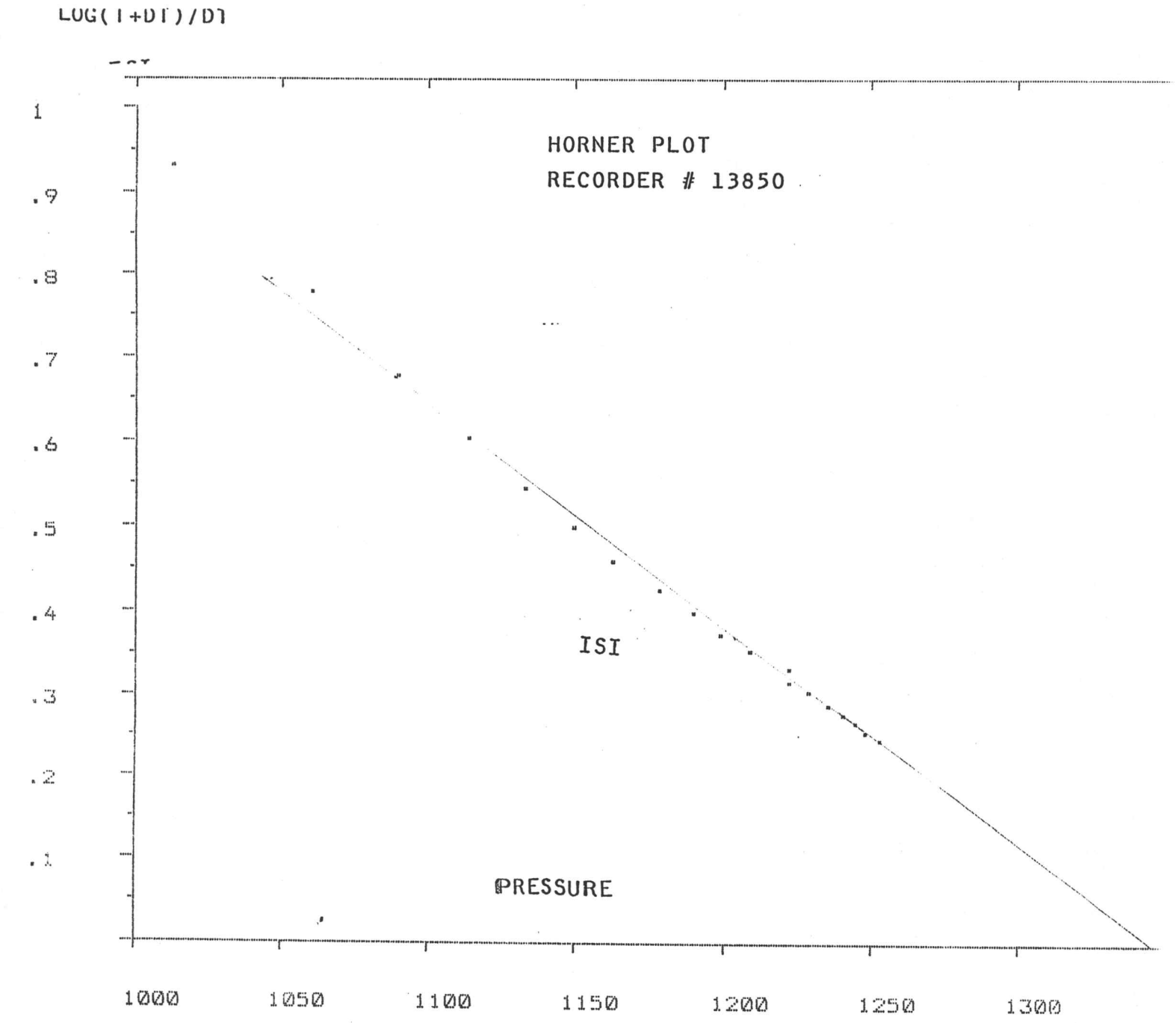
MIN	LOG(T+MIN/MIN)	PRESSURE
0	0	85.6
3	1.24693	870
6	.969862	1013.3
9	.816462	1060.8
12	.713082	1089.6
15	.636707	1113.9
18	.577132	1132.7
21	.528944	1149.3
24	.488932	1162.6
27	.455045	1178.1
30	.425892	1189.2
33	.400492	1199.1
36	.378128	1209.1
39	.358261	1221.9
42	.340477	1224.2
45	.324453	1228.9
48	.309929	1235.6
51	.296698	1240
54	.284588	1244.5
57	.27346	1247.8
60	.263194	1253.3

FINAL SHUT-IN BUILDUP

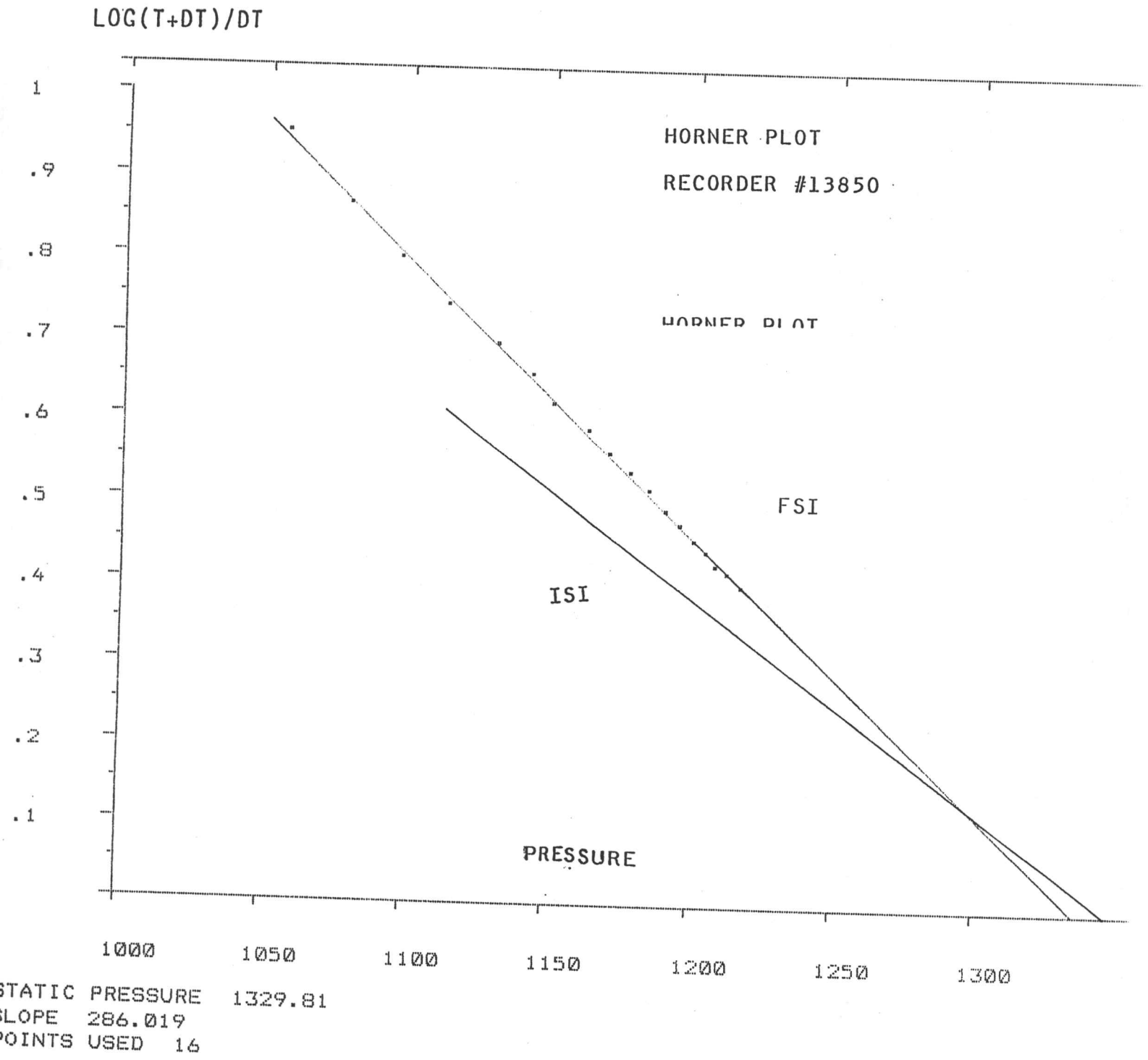
RECORDER # 13850

TOTAL FLOW TIME (MIN.): 95

MIN	LOG(T+MIN/MIN)	PRESSURE
0	0	138.9
3	1.51383	897.6
6	1.22595	982.4
9	1.0626	1024.3
12	.950031	1056.4
15	.865146	1078.5
18	.797662	1097.4
21	.742105	1113.9
24	.69521	1131.6
27	.654878	1143.8
30	.619677	1151.5
33	.58859	1163.7
36	.560868	1171.5
39	.535944	1178.1
42	.513379	1184.7
45	.492827	1190.3
48	.474009	1195.8
51	.4567	1200.2
54	.440713	1204.7
57	.425892	1208
60	.412106	1212.4
63	.399245	1216.8



STATIC PRESSURE 1342.42
SLOPE 374.474
POINTS USED 18



STATIC PRESSURE 1329.81
SLOPE 286.019
POINTS USED 16

TRILOBITE TESTING COMPANY

P. O. Box 362 • Hays, Kansas 67601

TEST TICKET

No 528

Well Name & No. Krug #2 Test No. 4 Date 3/28/86

Company Jay Boy Oil Inc Zone Tested LKC

Address 8400 Killarney Wichita Ks 67206 Elevation 3045

Co. Rep./Geo. Steve Murphy Cont. B. Spicer Rig 2 Est. Ft. of Pay 121

Location: Sec. 27 Twp. 10 Rge. 32 Co. Thomas State Ks

Interval Tested 4185 - 4210 Drill Pipe Size 4½ XH

Anchor Length 25 Top Choke — 1"

Top Packer Depth 4180 Bottom Choke — ¾"

Bottom Packer Depth 4185 Hole Size — 7⅞"

Total Depth 4210 Rubber Size — 6¾"

Wt. Pipe I.D. — 2.7 - Ft. Run -

Drill Collar — 2.25 - Ft. Run

Mud Wt. 9.3 lb./gal. Viscosity 65 Filtrate 7.2

Tool Open @ 9:25 AM Initial Blow ½" blow building to 5"

Final Blow surface blow building to 3"

Recovery — Total Feet 175' Flush Tool?

Rec. 3 Feet of FO (free oil)

Rec. 120 Feet of Slightly oil spotted muddy H2O <2% oil

Rec. 52 Feet of muddy H2O

Rec. Feet of

Rec. Feet of

BHT 114° °F Gravity °API @ °F Corrected Gravity °API

RW .08 @ 87.2 °F Chlorides 70,000 ppm Recovery Chlorides 2,000 ppm System

(A) Initial Hydrostatic Mud 2129 PSI AK1 Recorder No. 13644 Range 4335

(B) First Initial Flow Pressure 100 PSI @ (depth) 4209 w/Clock No. 31154

(C) First Final Flow Pressure 111 PSI AK1 Recorder No. 13561 Range 4425

(D) Initial Shut-In Pressure 1228 PSI @ (depth) 4204 w/Clock No. 33181

(E) Second Initial Flow Pressure 144 PSI Initial Opening 45

(F) Second Final Flow Pressure 167 PSI Initial Shut-In 60

(G) Final Shut-In Pressure 1224 PSI Final Flow 45

(H) Final Hydrostatic Mud 2010 PSI Final Shut-In 60

Approved by Steve Murphy

Our Representative Paul Simpson

Test ..... $ 500

Extra Equip .....

Extra Equip .....

TOTAL PRICE ..... $ 500

Printcraft Printers - Hays, KS

TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name & No. Krug #2 Test No. 5 Date 3/28/86

Company Jay Boy Oil, Inc. n Zone Tested LKC

Address 8400 Killarney, Wichita, KS 67206 Elevation 3045

Co. Rep./Geo. Steve Murphy Cont. Big Springs Rig 2 Est. Ft. of Pay

Location: Sec. 27 Twp. 10 Rge. 32 Co. Thomas State KS

Interval Tested 4219-4235 Drill Pipe Size 4½" XH

Anchor Length 16 Top Choke — 1"

Top Packer Depth 4214 Bottom Choke — ¾"

Bottom Packer Depth 4219 Hole Size — 7⅞"

Total Depth 4235 Rubber Size — 6¾"

Wt. Pipe I.D. — 2.7 ---- Ft. Run ----

Drill Collar — 2.25 ---- Ft. Run ----

Mud Wt. 9.4 lb./gal. Viscosity 43 Filtrate 7.2

Tool Open @ 12:27 AM Initial Blow very weak surface blow died in 2 minutes

Final Blow No blow

Recovery — Total Feet 1 Flush Tool?

Rec. 1 Feet of mud

Rec. Feet of

Rec. Feet of

Rec. Feet of

Rec. Feet of

BHT °F Gravity °API @ °F Corrected Gravity °API

RW .9 @ 58.5 °F Chlorides 9,000 ppm Recovery Clorides 7,000 ppm System

(A) Initial Hydrostatic Mud 2153.1 PSI AK1 Recorder No. 13849 Range 4375

(B) First Initial Flow Pressure 10 PSI @ (depth) 4234 w/Clock No. 31152

(C) First Final Flow Pressure 10 PSI AK1 Recorder No. 13850 Range 4325

(D) Initial Shut-in Pressure 10 PSI @ (depth) 4229 w/Clock No. 31154

(E) Second Initial Flow Pressure 10 PSI Initial Opening 30

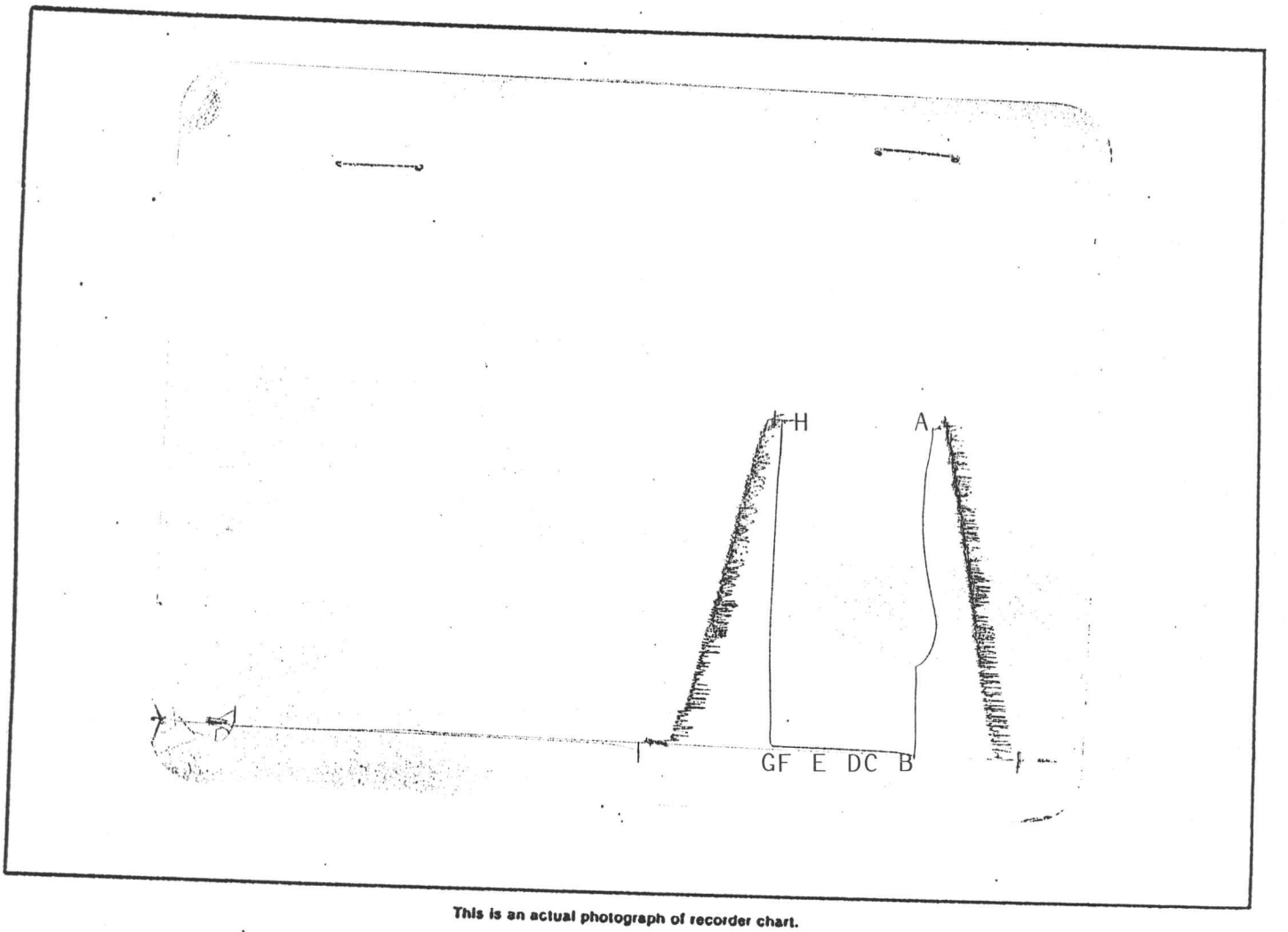
(F) Second Final Flow Pressure 10 PSI Initial Shut-in 30

(G) Final Shut-in Pressure 10 PSI Final Flow 30

(H) Final Hydrostatic Mud 2137.7 PSI Final Shut-in 30

Our Representative Paul Simpson TOTAL PRICE ..... $ 500

Printcraft Printers - Hays, KS



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	2094	2153.1	PSI
(B)	First Initial Flow Pressure	0	10	PSI
(C)	First Final Flow Pressure	11	10	PSI
(D)	Initial Closed-in Pressure	11	10	PSI
(E)	Second Initial Flow Pressure	11	10	PSI
(F)	Second Final Flow Pressure	11	10	PSI
(G)	Final Closed-in Pressure	11	10	PSI
(H)	Final Hydrostatic Mud	2085	2137.7	PSI

TRILOBITE TESTING COMPANY

P. O. Box 362 • Hays, Kansas 67601

TEST TICKET

No. 529

Well Name & No. Krug #2 Test No. 5 Date 3/28/86

Company Say Bay Oil Inc Zone Tested LKC

Address 8400 Killarney Wichita Ks 67206 Elevation 3045

Co. Rep./Geo. Steve Murphy Cont. Big Springs Rig 2 Est. Ft. of Pay

Location: Sec. 27 Twp. 10 Rge. 32 Co. Thomas State Ks

Interval Tested 4219 - 4235 Drill Pipe Size 4½ XH

Anchor Length 16 Top Choke — 1"

Top Packer Depth 4214 Bottom Choke — ¾"

Bottom Packer Depth 4219 Hole Size — 7⅞"

Total Depth 4235 Rubber Size — 6¾"

Wt. Pipe I.D. — 2.7 - Ft. Run

Drill Collar — 2.25 - Ft. Run

Mud Wt. 9.3+ lb./gal. Viscosity 43 Filtrate 12

Tool Open @ 12:27 AM Initial Blow w/ weak surface blow died in 2 minutes

Final Blow no blow

Recovery — Total Feet 1 Flush Tool?

Rec. 1 Feet of mud

Rec. Feet of

Rec. Feet of

Rec. Feet of

Rec. Feet of

BHT °F Gravity °API @ °F Corrected Gravity °API

RW .19 @ 58.5 °F Chlorides 9,000 ppm Recovery Chlorides 7000 ppm System

(A) Initial Hydrostatic Mud 2094 PSI AK1 Recorder No. 13899 Range 4375

(B) First Initial Flow Pressure 0 PSI @ (depth) 4234 w/Clock No. 31152

(C) First Final Flow Pressure 11 PSI AK1 Recorder No. 13850 Range 4325

(D) Initial Shut-In Pressure 11 PSI @ (depth) 4229 w/Clock No. 31154

(E) Second Initial Flow Pressure 11 PSI Initial Opening 30

(F) Second Final Flow Pressure 11 PSI Initial Shut-In 30

(G) Final Shut-In Pressure 11 PSI Final Flow 30

(H) Final Hydrostatic Mud 2085 PSI Final Shut-In 30

Approved by Steve Murphy

Our Representative Paul Simpson

Test ..... $ 500

Extra Equip .....

Extra Equip .....

TOTAL PRICE ..... $ 500

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TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name & No. Krug #2 Test No. 6 Date 3/29/86

Company Jay Boy Oil, Inc. Zone Tested LKC 'K'

Address 8400 Killarney, Wichita, KS 67206 Elevation 3045 KB

Co. Rep./Geo. Steve Murphy Cont. Big Springs Rig 2 Est. Ft. of Pay

Location: Sec. 27 Twp. 10 Rge. 32 Co. Thomas State KS

Interval Tested 4257-4290 Drill Pipe Size 4½" XH

Anchor Length 33 Top Choke — 1"

Top Packer Depth 4252 Bottom Choke — ¾"

Bottom Packer Depth 4257 Hole Size — 7⅞"

Total Depth 4290 Rubber Size — 6¾"

Wt. Pipe I.D. — 2.7 --- Ft. Run ----

Drill Collar — 2.25 --- Ft. Run ----

Mud Wt. 9.3 lb./gal. Viscosity 41 Filtrate 7.2

Tool Open @ 3:45 PM Initial Blow surface blow building to 1/8" throughout first opening

Final Blow No blow

Recovery — Total Feet 55 Flush Tool?

Rec. 55 Feet of mud with oil specks in tool

Rec. Feet of

Rec. Feet of

Rec. Feet of

Rec. Feet of

BHT 114 °F Gravity °API @ °F Corrected Gravity °API

RW .63 @ 71 °F Chlorides 9,000 ppm Recovery Clorides 7,000 ppm System

(A) Initial Hydrostatic Mud 2117.9 PSI AK1 Recorder No. 13850 Range 4325

(B) First Initial Flow Pressure 59.8 PSI @ (depth) 4289 w/Clock No. 31152

(C) First Final Flow Pressure 62 PSI AK1 Recorder No. 13849 Range 4375

(D) Initial Shut-in Pressure 810.6 PSI @ (depth) 4284 w/Clock No. 31154

(E) Second Initial Flow Pressure 72.6 PSI Initial Opening 45

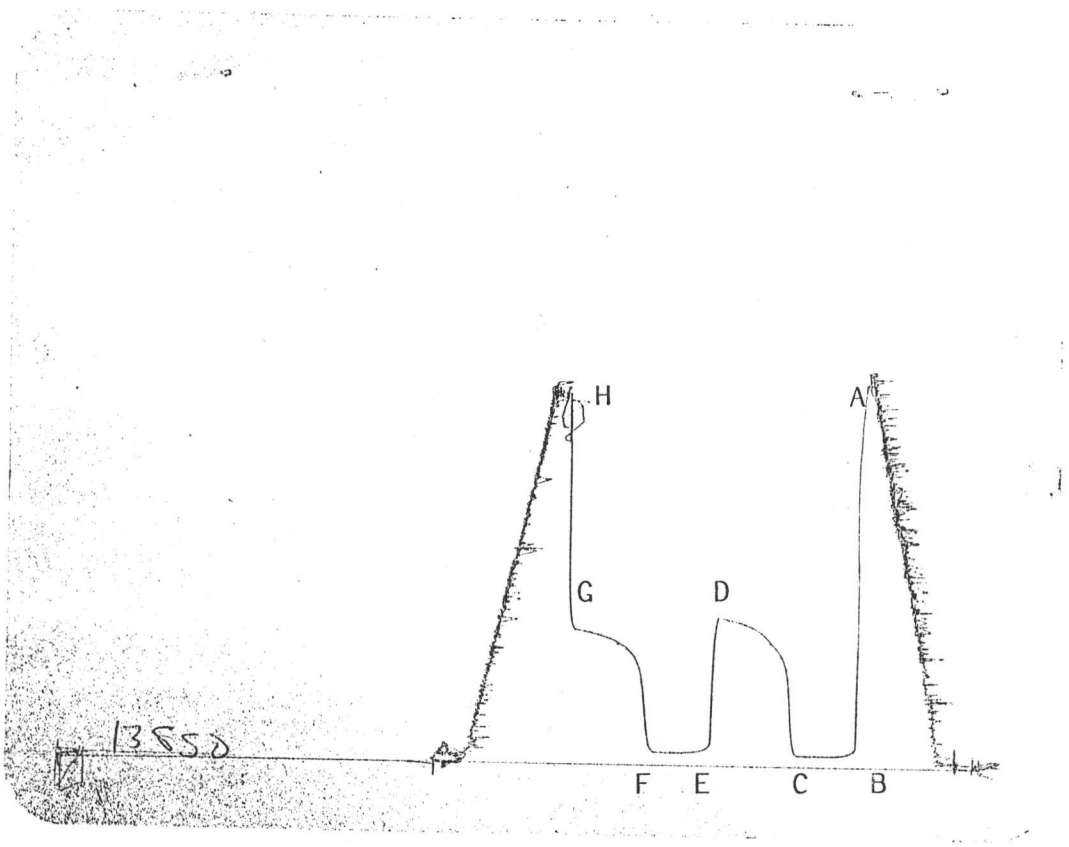
(F) Second Final Flow Pressure 72.6 PSI Initial Shut-in 60

(G) Final Shut-in Pressure 736.2 PSI Final Flow 45

(H) Final Hydrostatic Mud 2040.4 PSI Final Shut-in 60

Our Representative Paul Simpson TOTAL PRICE ..... $ 500

Printcraft Printers - Hays, KS



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	2105.9	2117.9	PSI
(B)	First Initial Flow Pressure	53	59.8	PSI
(C)	First Final Flow Pressure	53	62	PSI
(D)	Initial Closed-in Pressure	800	810.6	PSI
(E)	Second Initial Flow Pressure	64	72.6	PSI
(F)	Second Final Flow Pressure	64	72.6	PSI
(G)	Final Closed-in Pressure	736	736.2	PSI
(H)	Final Hydrostatic Mud	2061	2040.4	PSI

TRILOBITE TESTING COMPANY

P. O. Box 362 • Hays, Kansas 67601

TEST TICKET

No 530

Well Name & No. Krug #2 Test No. 6 Date 3/29/86

Company Jay Bay Oil Inc Zone Tested LKC K

Address 8400 Killarney Wichita Ks 67206 Elevation 3045 KB

Co. Rep./Geo. Steve Murphy Cont. Big Springs Rig 2 Est. Ft. of Pay

Location: Sec. 27 Twp. 10 Rge. 32 Co. Thomas State Ks

Interval Tested 4257 - 4290 Drill Pipe Size 4½ XH

Anchor Length 33 Top Choke — 1"

Top Packer Depth 4252 Bottom Choke — ¾"

Bottom Packer Depth 4257 Hole Size — 7⅞"

Total Depth 4290 Rubber Size — 6¾"

Wt. Pipe I.D. — 2.7 - Ft. Run

Drill Collar — 2.25 - Ft. Run

Mud Wt. 9.3 lb./gal. Viscosity 41 Filtrate >2

Tool Open @ 3:45 PM Initial Blow Surface blow building to ½" throughout 1st opening

Final Blow No blow

Recovery — Total Feet 55 Flush Tool?

Rec. 55 Feet of mud w/ oil specks in tool

Rec. Feet of

Rec. Feet of

Rec. Feet of

Rec. Feet of

BHT 114° °F Gravity °API @ °F Corrected Gravity °API

RW .63 @ 71° °F Chlorides 9,000 ppm Recovery Chlorides 7000 ppm System

(A) Initial Hydrostatic Mud 2105 PSI AK1 Recorder No. 13850 Range 4325

(B) First Initial Flow Pressure 53 PSI @ (depth) 4289 w/ Clock No. 31152

(C) First Final Flow Pressure 53 PSI AK1 Recorder No. 13849 Range 4375

(D) Initial Shut-In Pressure 800 PSI @ (depth) 4284 w/ Clock No. 31154

(E) Second Initial Flow Pressure 64 PSI Initial Opening ~~30~~ 45

(F) Second Final Flow Pressure 64 PSI Initial Shut-In ~~45~~ 60

(G) Final Shut-In Pressure 736 PSI Final Flow 45

(H) Final Hydrostatic Mud 2061 PSI Final Shut-In 60

Approved by Steve Murphy

Our Representative Paul Simpson

Test ..... $ 500

Extra Equip .....

Extra Equip .....

TOTAL PRICE ..... $ 500

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Drill-Stem Test Data

Well Name & No. Krug #2 Test No. 7 Date 3/31/86

Company Jay Boy Oil, Inc. Zone Tested Mississippian

Address 8400 Killarney, Wichita, KS 67206 Elevation 3045 KB

Co. Rep./Geo. Steve Murphy Cont. Big Springs Rig 2 Est. Ft. of Pay

Location: Sec. 27 Twp. 10 Rge. 32 Co. Thomas State KS

Interval Tested 4648-4677 Drill Pipe Size 4½" XH

Anchor Length 29 Top Choke — 1"

Top Packer Depth 4643 Bottom Choke — ¾"

Bottom Packer Depth 4648 Hole Size — 7⅞"

Total Depth 4677 Rubber Size — 6¾"

Wt. Pipe I.D. — 2.7 ---- Ft. Run ----

Drill Collar — 2.25 ----- Ft. Run ----

Mud Wt. 9.6 lb./gal. Viscosity 43 Filtrate 8.0

Tool Open @ 2:08 PM Initial Blow surface blow building to ¼"

Final Blow No blow

Recovery — Total Feet 60 Flush Tool?

Rec. 60 Feet of watery mud

Rec. Feet of

Rec. Feet of

Rec. Feet of

Rec. Feet of

BHT 116 °F Gravity °API @ °F Corrected Gravity °API

RW .64 @ 65.8 °F Chlorides 9,500 ppm Recovery Clorides 3,000 ppm System

(A) Initial Hydrostatic Mud 2485.81 PSI AK1 Recorder No. 13850 Range 4325

(B) First Initial Flow Pressure 29.91 PSI @ (depth) 4676 w/Clock No. 31152

(C) First Final Flow Pressure 17.09 PSI AK1 Recorder No. 13849 Range 4375

(D) Initial Shut-in Pressure 1088.36 PSI @ (depth) 4671 w/Clock No. 31154

(E) Second Initial Flow Pressure 38.46 PSI Initial Opening 45

(F) Second Final Flow Pressure 35.26 PSI Initial Shut-In 60

(G) Final Shut-In Pressure 1052.80 PSI Final Flow 45

(H) Final Hydrostatic Mud 2366.81 PSI Final Shut-In 60

Our Representative Paul Simpson TOTAL PRICE ..... $ 500

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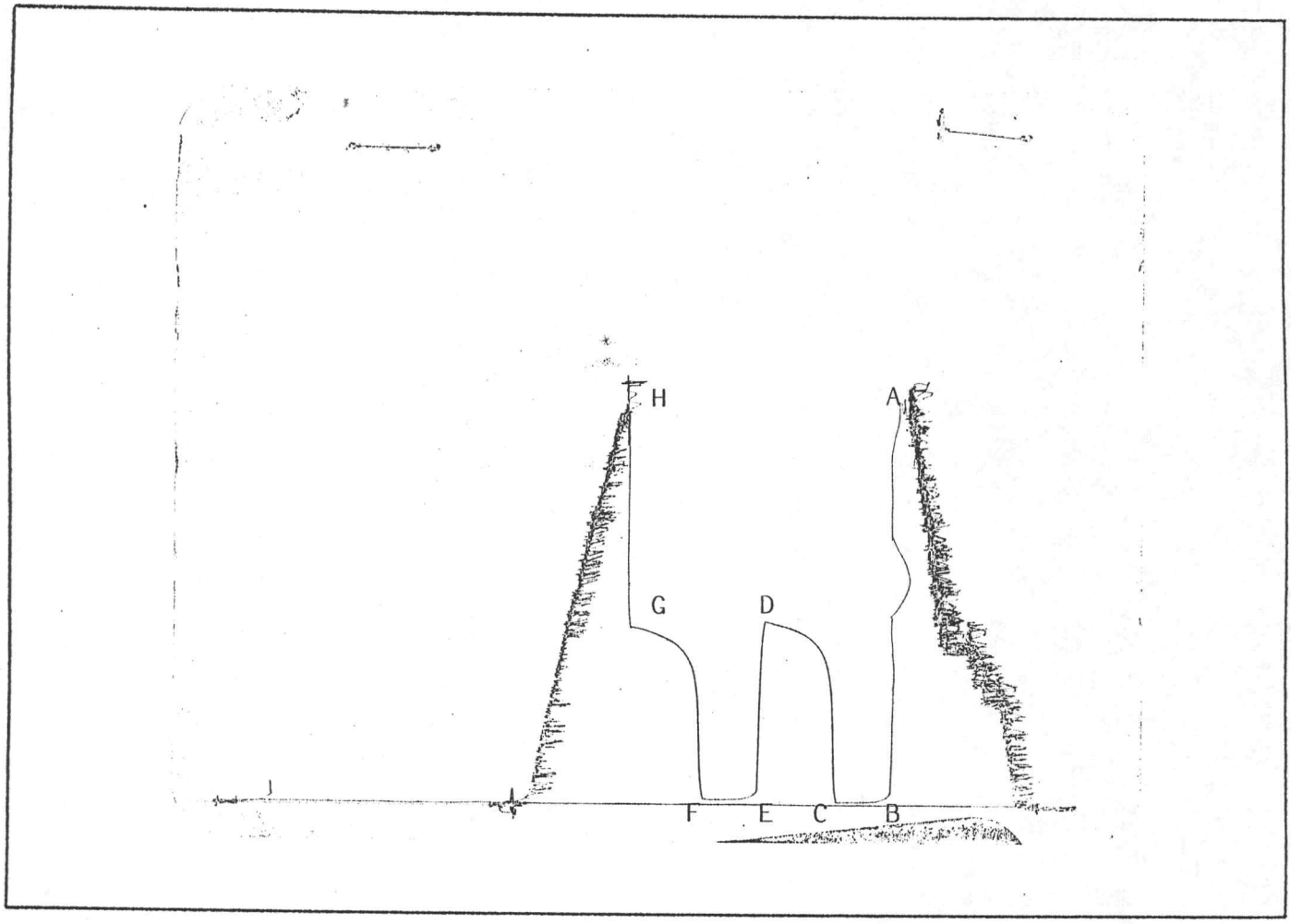

This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	2421	2485.81	PSI
(B)	First Initial Flow Pressure	21	29.91	PSI
(C)	First Final Flow Pressure	21	17.09	PSI
(D)	Initial Closed-in Pressure	1088	1088.36	PSI
(E)	Second Initial Flow Pressure	32	38.46	PSI
(F)	Second Final Flow Pressure	32	35.26	PSI
(G)	Final Closed-in Pressure	1045	1052.80	PSI
(H)	Final Hydrostatic Mud	2385	2366.81	PSI

TRILOBITE TESTING COMPANY

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TEST TICKET

No. 531

Well Name & No. Kray #2 Test No. 7 Date 3/31/86

Company Jay Bay Oil Inc Zone Tested Mississippian

Address 8400 Killarney Wichita, Ks 67206 Elevation 3045 KB

Co. Rep./Geo. Steve Murphy Cont. Big Springs Rig 2 Est. Ft. of Pay

Location: Sec. 27 Twp. 10 Rge. 32 Co. Thomas State Ks

Interval Tested 4648-4677 Drill Pipe Size 4½ XH

Anchor Length 29 Top Choke — 1"

Top Packer Depth 4643 Bottom Choke — ¾"

Bottom Packer Depth 4648 Hole Size — 7⅞"

Total Depth 4677 Rubber Size — 6¾"

Wt. Pipe I.D. — 2.7 Ft. Run

Drill Collar — 2.25 Ft. Run

Mud Wt. 9.6 lb./gal. Viscosity 43 Filtrate 8.0

Tool Open @ 2:08 PM Initial Blow Surface blow building to 4"

Final Blow No blow

Recovery — Total Feet 60 Flush Tool?

Rec. 60 Feet of watery Mud

Rec. Feet of

Rec. Feet of

Rec. Feet of

Rec. Feet of

BHT 116° °F Gravity °API @ °F Corrected Gravity °API

RW .164 @ 65.8 °F Chlorides 9,500 ppm Recovery Chlorides 3000 ppm System

(A) Initial Hydrostatic Mud 2421 PSI AK1 Recorder No. 13850 Range 4325

(B) First Initial Flow Pressure 21 PSI @ (depth) 4676 w/Clock No. 31152

(C) First Final Flow Pressure 21 PSI AK1 Recorder No. 13849 Range 4325

(D) Initial Shut-In Pressure 1088 PSI @ (depth) 4671 w/Clock No. 31154

(E) Second Initial Flow Pressure 32 PSI Initial Opening 45

(F) Second Final Flow Pressure 32 PSI Initial Shut-In 60

(G) Final Shut-In Pressure 1045 PSI Final Flow 45

(H) Final Hydrostatic Mud 2385 PSI Final Shut-In 60

Approved by Steve Murphy

Our Representative Paul Simpson

Test ..... $ 500

Extra Equip .....

Extra Equip .....

TOTAL PRICE ..... $ 500

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