TEST REPORT

CRUDE OIL TESTING INC.
(303) 473-6909
P.O. Box 2260
Colorado Springs, CO 80901

Test Ticket No. 2257

Company A. Scott Ritchie Date 9/11/82
Company Address 125 N. Market #950, Wichita, KS 67202 No. of Charts 5
Location: Sec. 3 Twp. 12S Rge. 22W Co. Trego State Kansas
Well Name And Number #1 Grecian "A" Tester Troy Leiker
Contractor Murfin Drlg. Rig No. 21 Co. Rep. George Dent

Formation Lansing Zone "A" Type of Test Conventional

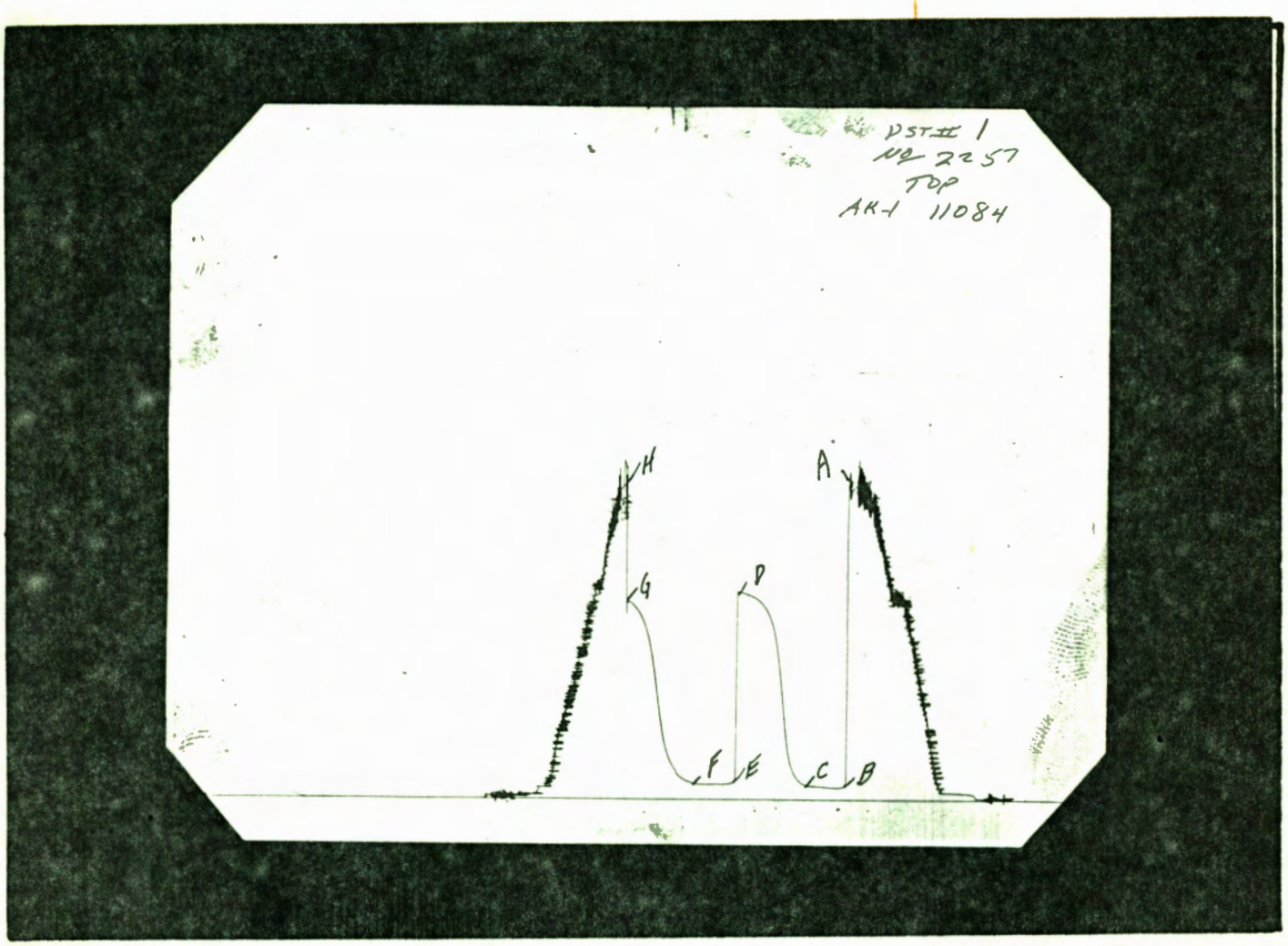
DST# 1 Interval 3,635 To 3,710 Total Depth 3,710
Open 30 Shut In 60 Open 30 Shut In 60
Packer(s) Set 9:13 AM A.M. P.M. Started off Bottom 12:15 PM A.M. P.M.
Blow 1st. Open: Weak Steady Blow ½" in Bucket
2nd. Open: Weak Steady Blow ½" in Bucket

Recovery
Total Feet 90'
Recovered 90 Ft. of Oil Cut Mud
Recovered Ft. of
Recovered Ft. of
Recovered Ft. of
Recovered Ft. of
Recovered Ft. of
Gravity (Oil) Corrected To Temp. Water Chlorides 49,000

Pressures & Temp. (Office Reading If Applicable)
Initial Hydrostatic Pressure 1,929 Final Hydrostatic Pressure 1,907
Initial Closed In Pressure 1,272 Final Closed In Pressure 1,228
Initial Flow Pressure 77 To 88 Final Flow Pressure 99 To 99
Test Area Temperature 112

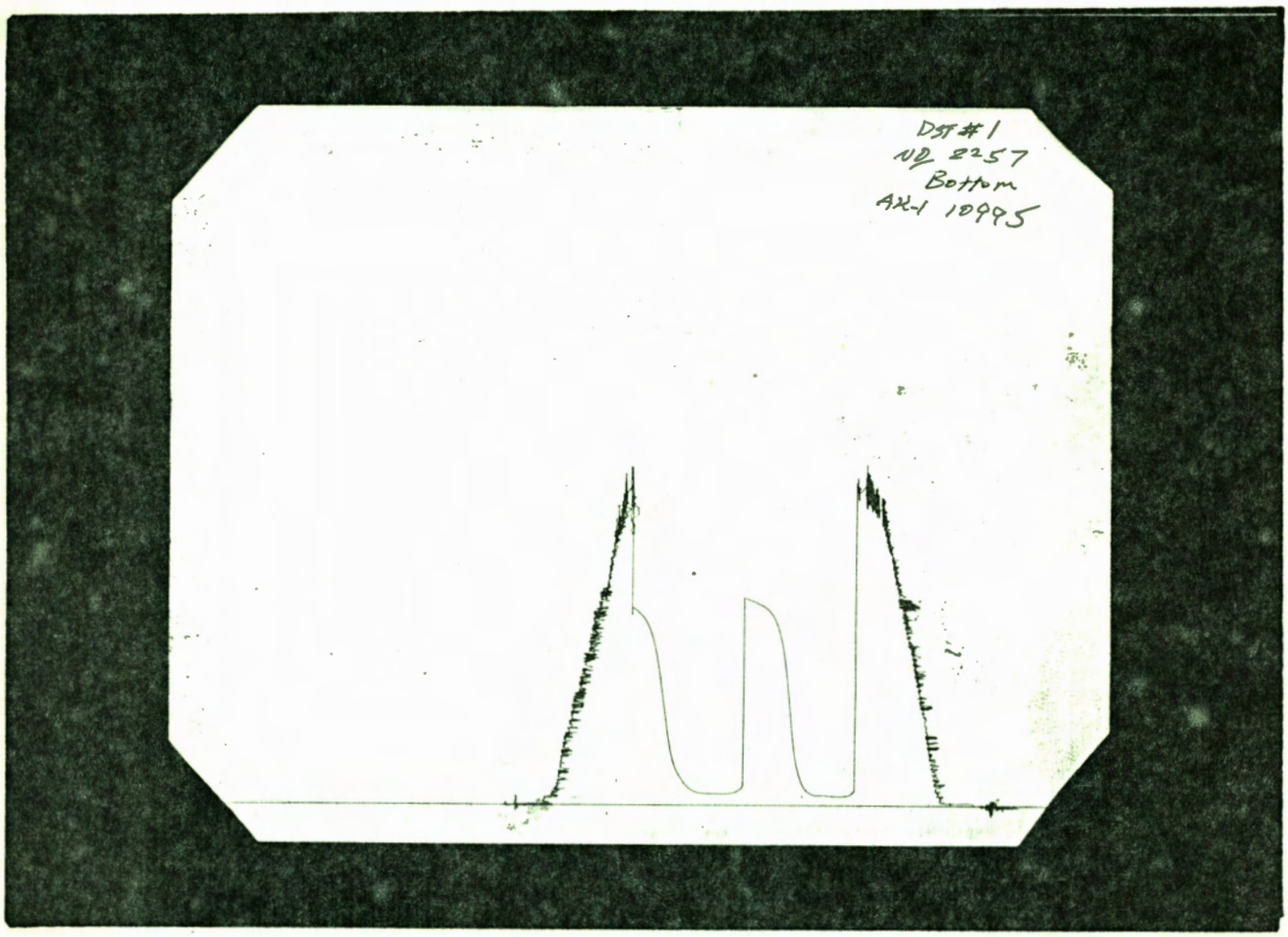
Engineering Date
Elevation 2,392 K.B.
Mud Viscosity 36 Mud Weight 9.4 Water Loss 8.4
Chlorides 46,000 P.P.M. Type of Mud Starch Anchor Length 25'
Hole Size 7 7/8 Casing Size 8 5/8 Surface Choke 3/4 Bottom Choke 3/4
Drill Pipe Length 3,308 I.D. 3.8 In. Weight Pipe Length I.D. In.
Drill Collar Length 60 I.D. 2.25 In.
Top Packer Depth. Bottom Packer Depth. 3,635 Packer Size 6 3/4
Test Tool Size 5½ In. Tool Joint Size 4½FH In.
Did Well Flow No Reversed Out No
Recorder Type and No. AK-1 11084 Clock Range No. 25111 12 Hr.
Recorder Type and No. AK-1 10995 Clock Range No. 25113 12 Hr.
Extra Equipment Single Conventional Packer, Chart Evaluation
Remarks Hit Bridge 1,450' Off Bottom (approx. 2260')

Price of Job



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	1,929	1,969	PSI
(B)	First Initial Flow Pressure	77	71	PSI
(C)	First Final Flow Pressure	88	85	PSI
(D)	Initial Closed-in Pressure	1,272	1,282	PSI
(E)	Second Initial Flow Pressure	99	87	PSI
(F)	Second Final Flow Pressure	99	93	PSI
(G)	Final Closed-in Pressure	1,228	1,226	PSI
(H)	Final Hydrostatic Mud	1,907	1,939	PSI



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

CRUDE OIL TESTING COMPANY

P.O. Box 2260
Colorado Springs, Colorado 80901
(303) 473-6909

Date 9/11/82 Test Ticket No. 2257

Recorder No. Kuster AK-1 #11084 Capacity 4,300 P.S.I. Location 3,700 Ft.

Clock No. 25111 Elevation 2,392 K.B. Well Temperature 112 °F

Point		Pressure			Field Time	Time Computed
A	Initial Hydrostatic Mud	1,969	P.S.I.	Open Tool	9:15 AM	
B	First Initial Flow Pressure	71	P.S.I.	First Flow Pressure	30 Mins.	Mins.
C	First Final Flow Pressure	85	P.S.I.	Initial Closed-in Pressure	60 Mins.	58 Mins.
D	Initial Closed-in Pressure	1,282	P.S.I.	Second Flow Pressure	30 Mins.	Mins.
E	Second Initial Flow Pressure	87	P.S.I.	Final Closed-in Pressure	60 Mins.	59 Mins.
F	Second Final Flow Pressure	93	P.S.I.			
G	Final Closed-in Pressure	1,226	P.S.I.			
H	Final Hydrostatic Mud	1,939	P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: 6 Inc. of 5 mins. and a final inc. of ____ Min.		Breakdown: 11 Inc. of 5 mins. and a final inc. of 3 Min.		Breakdown: 6 Inc. of 5 mins. and a final inc. of ____ Min.		Breakdown: 11 Inc. of 5 mins. and a final inc. of 4 Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
1 00	71	00	85	00	87	00	93
2 05	73	05	97	05	88	05	100
3 10	74	10	132	10	88	10	115
4 15	76	15	219	15	90	15	140
5 20	79	20	509	20	92	20	199
6 25	83	25	886	25	92	25	283
7 30	85	30	1,090	30	93	30	454
8		35	1,179			35	730
9		40	1,224			40	972
10		45	1,250			45	1,104
11		50	1,266			50	1.172
12		55	1,278			55	1,212
13		58	1,282			59	1,226
14							
15							
16							
17							
18							
19							
20							

DRILL STEM TEST RECOVERY ANALYSIS

(303) 473-6909
P.O. Box 2260
Colorado Springs, CO 80901

COMPANY: A. Scott Ritchie LEASE: #1 Gracian "A" DST# 1
SEC: 3 Twp: 12S Rge: 22W COUNTY: Trego STATE: Kansas

VISUAL DST RECOVERY: 90' Oil Cut Mud

CENTRIFUGE PERCENTAGE ANALYSIS

Sample #	Feet of FLUID	Percent of GAS	Percent of OIL	Percent of WATER	Percent of MUD
1	30	10	25	25	40
2	60	15	20	30	35

CALCULATED FLUID RECOVERY FROM PERCENTAGES

(Formula for Calculation)

Percent of individual fluid × Total footage represented in sample

SAMPLE #	TOTAL FOOTAGE	GAS %	×	Total	=	Feet	OIL %	×	Total	=	Feet	WATER %	×	Total	=	Feet	MUD %	×	Total	=	Feet
1	30	10	×	30	=	3	25	×	30	=	7.5	25	×	30	=	7.5	40	×	30	=	12
2	60	15	×	60	=	9	20	×	60	=	12	30	×	60	=	18	35	×	60	=	21
			×		=			×		=			×		=			×		=	
			×		=			×		=			×		=			×		=	
			×		=			×		=			×		=			×		=	
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			×		=			×		=			×		=			×		=	
			×		=			×		=			×		=			×		=	
Totals						12					19.5					25.5					33

CALCULATED DST RECOVERY =

CHLORIDES MUD SYSTEM 46,000
CHLORIDES DST WATER 49,000
GRAVITY OF OIL

GAS 12
OIL 19.5
WTR 25.5
MUD 33
TOTAL FLUID 90'

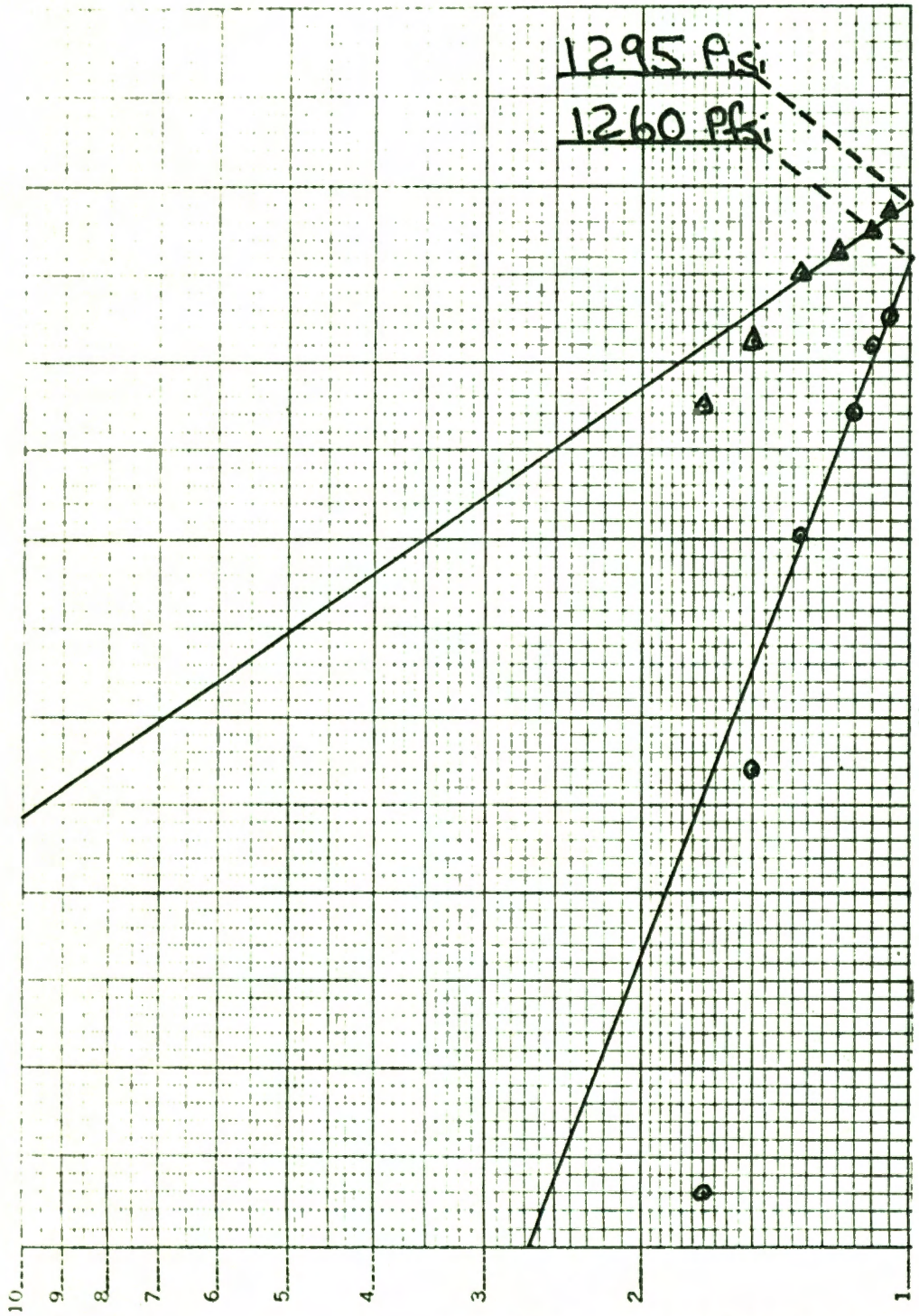
EVALUATION

(303) 473-6909
P.O. Box 2260
Colorado Springs, CO 80901

Company A. Scott Ritchie

Ticket No. 2257

Date 9/11/82



P.S.I. Slope Cycle

$$M = \frac{Psi - Pfsi}{\text{Log of } \frac{T + t}{t}}$$

19.55

Damage Ratio

$$DR = \frac{.183\ Ps - Pf}{M}$$

10.606

Effective Pay

$$\frac{Kh}{B} = \frac{162.6\ Q}{M}$$

54.56 Md. Ft.

Theoretical Potential With Damage Removed

$$Q_1 = Q\ DR$$

69.92 Bbls./Day

Production

$$Q = \frac{1440\ R}{T}$$

.273 Bbls./Hr.

6.56 Bbls./Day

Remarks

These calculations are based upon information furnished by you and taken from drill stem test pressure charts and are furnished for your information. In furnishing such calculations and evaluations, Crude Oil Testing Co., is merely expressing its opinion. You agree that the Testing Company makes no warranty as to the accuracy of such calculations or opinions and the Testing Company shall not be liable for any loss or damage, whether due to negligence or otherwise in

TEST REPORT

CRUDE OIL TESTING INC.
(303) 473-6909
P.O. Box 2260
Colorado Springs, CO 80901

Test Ticket No. 2258

Company A. Scott Ritchie Date 9/11/82
Company Address 125 N. Market #950, Wichita, KS 67202 No. of Charts 5
Location: Sec. 3 Twp. 12S Rge. 22W Co. Trego State Kansas
Well Name And Number #1 Gracian "A" Tester Troy L. Leiker
Contractor Murfin Drlg. Rig No. 21 Co. Rep. George Dent

Formation Lansing Zone 35' Type of Test Conventional

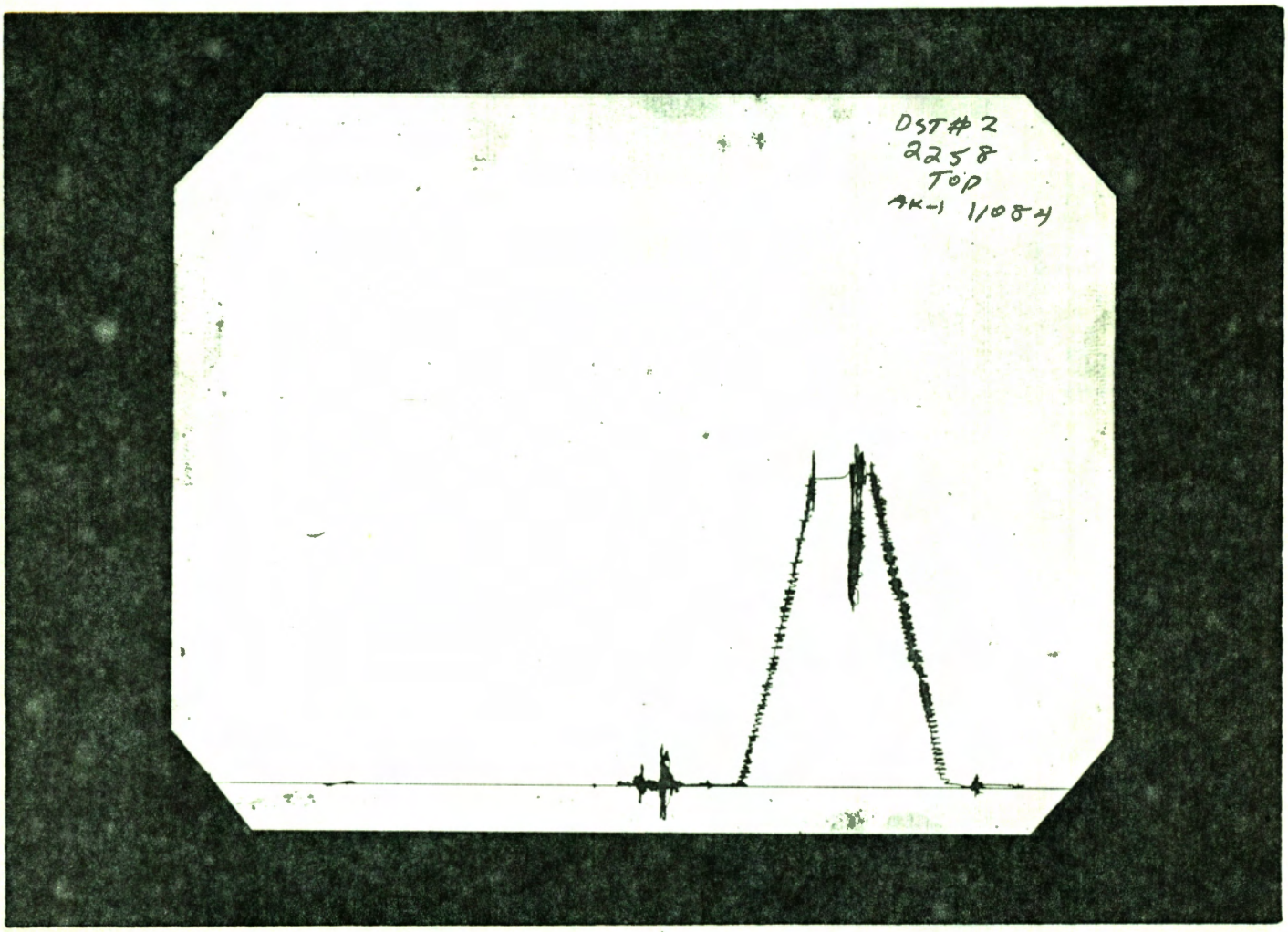
DST# 2
Interval 3,708 To 3,750 Total Depth 3,750
Open ____ Shut In ____ Open ____ Shut In ____
Packer(s) Set ____ A.M. P.M. Started off Bottom ____ A.M. P.M.
Blow
MISRUN PACKER FAILURE

Recovery
Total Feet 360
Recovered 360 Ft. of Rotary Mud
Recovered ____ Ft. of
Recovered ____ Ft. of
Recovered ____ Ft. of
Recovered ____ Ft. of MISRUN
Recovered ____ Ft. of
Gravity (Oil) ____ Corrected To Temp. ____ Water Chlorides ____

Pressures & Temp. (Office Reading If Applicable)
Initial Hydrostatic Pressure ____ Final Hydrostatic Pressure ____
Initial Closed In Pressure ____ Final Closed In Pressure ____
Initial Flow Pressure ____ To ____ Final Flow Pressure ____ To ____
Test Area Temperature ____

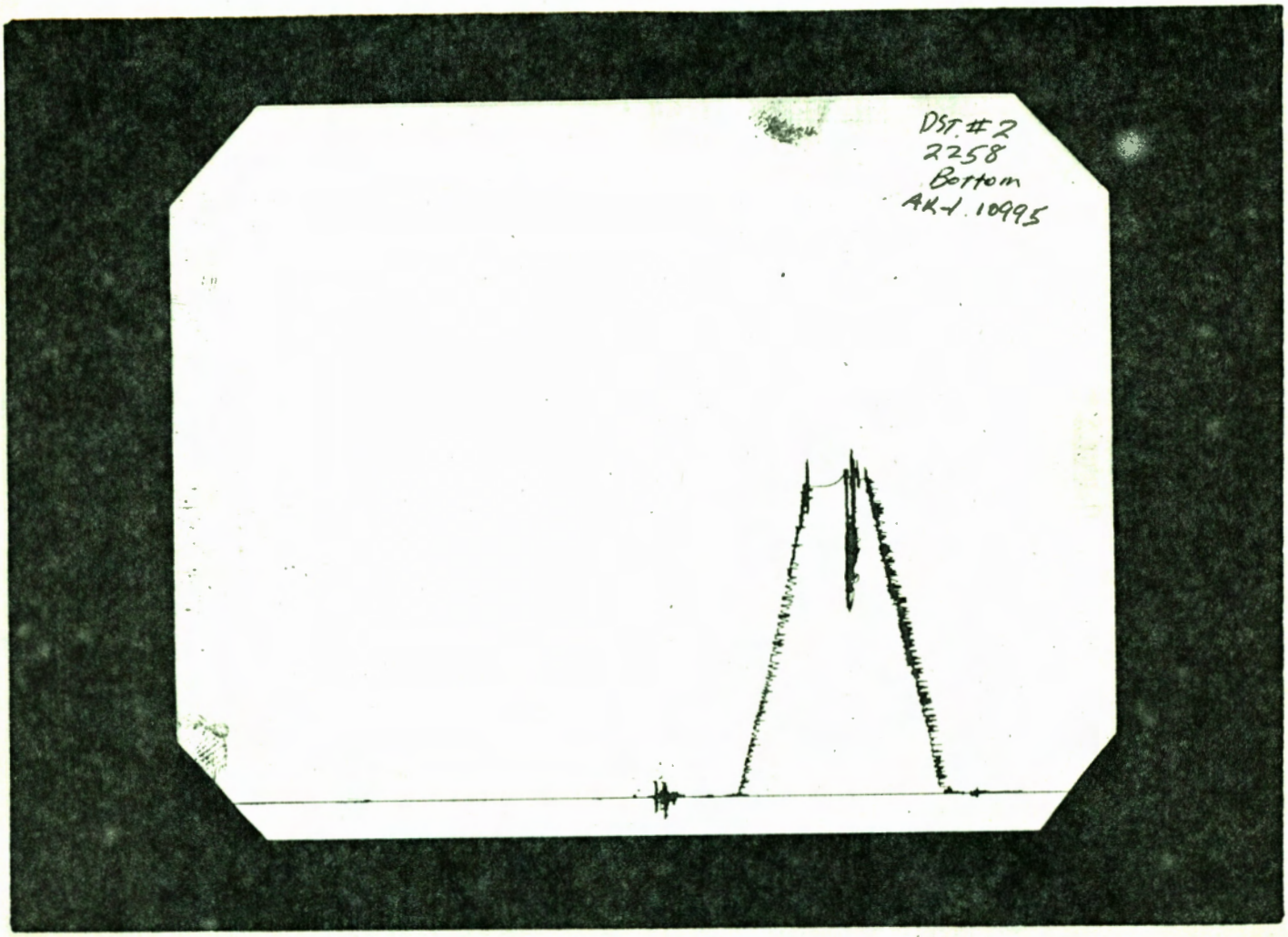
Engineering Date
Elevation 2,392 K.B.
Mud Viscosity 42 Mud Weight 9.6 Water Loss 15.6
Chlorides 44,000 P.P.M. Type of Mud Starch Anchor Length 42'
Hole Size 7 7/8 Casing Size 8 5/8 Surface Choke 3/4 Bottom Choke 3/4
Drill Pipe Length 3,371 I.D. 3.8 In. Weight Pipe Length ____ I.D. ____ In.
Drill Collar Length 60 I.D. 2.25 In.
Top Packer Depth. ____ Bottom Packer Depth. 3,708 Packer Size 6 3/4
Test Tool Size 5½ In. Tool Joint Size 4½FH In.
Did Well Flow No Reversed Out No
Recorder Type and No. AK-1 11084 Clock Range No. 25111 12 Hr.
Recorder Type and No. AK-1 10995 Clock Range No. 25113 12 Hr.
Extra Equipment Single Conventional Packer
Remarks
Misrun Packer Failure
Thank you

Price of Job ____



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



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

TEST REPORT

(303) 473-6909
P.O. Box 2260
Colorado Springs, CO 80901

CRUDE OIL TESTING INC.

Test Ticket No. 2259

Company A. Scott Ritchie Date 9/12/82
Company Address 125 N. Market #950, Wichita, KS 67202 No. of Charts 5
Location: Sec. 3 Twp. 12S Rge. 22W Co. Trego State Kansas
Well Name And Number #1 Gracian "A" Tester Troy Leiker
Contractor Murfin Drlg. Rig No. 21 Co. Rep. George Dent

Formation Lansing Zone 35' Type of Test Conventional

DST# 3 Interval 3,701 To 3,750 Total Depth 3,750
Open 30 Shut In 60 Open 30 Shut In 60
Packer(s) Set 7:13 AM A.M. P.M. Started off Bottom 10:15 AM A.M. P.M.
Blow 1st. Open: Strong Increasing Blow Off Bottom in 27 Min.
2nd. Open: Strong Blow Off Bottom in 6 Min.

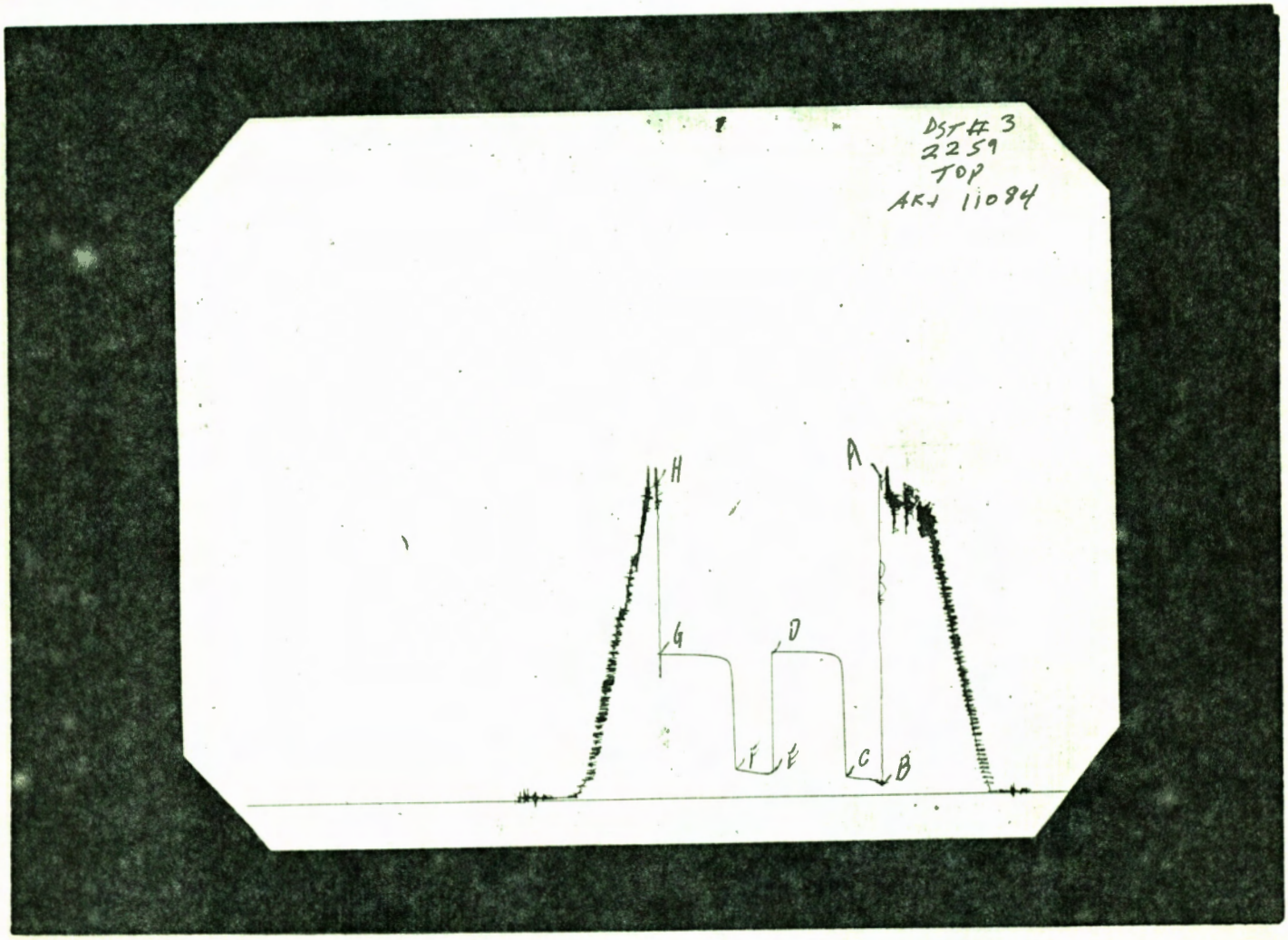
Recovery
Total Feet 270
Recovered 270 Ft. of Slightly Oil Specked Muddy Water
Recovered ____ Ft. of ____
Recovered ____ Ft. of ____
Recovered ____ Ft. of ____
Recovered ____ Ft. of ____
Recovered ____ Ft. of ____
Gravity (Oil) ____ Corrected To Temp. ____ Water Chlorides 89,000

Pressures & Temp. (Office Reading If Applicable)
Initial Hydrostatic Pressure 1,950 Final Hydrostatic Pressure 1,929
Initial Closed In Pressure 905 Final Closed In Pressure 894
Initial Flow Pressure 88 To 121 Final Flow Pressure 154 To 175
Test Area Temperature ____

Engineering Date
Elevation 2,392 K.B.
Mud Viscosity 42 Mud Weight 9.6 Water Loss 15.6
Chlorides 44,000 P.P.M. Type of Mud Starch Anchor Length 49'
Hole Size 7 7/8 Casing Size 8 5/8 Surface Choke 3/4 Bottom Choke 3/4
Drill Pipe Length 3,371 I.D. 3.8 In. Weight Pipe Length ____ I.D. ____ In.
Drill Collar Length 60 I.D. 2.25 In.
Top Packer Depth. ____ Bottom Packer Depth. 3,701 Packer Size 6 3/4
Test Tool Size 5½ In. Tool Joint Size 4½FH In.
Did Well Flow No Reversed Out No
Recorder Type and No. AK-1 11084 Clock Range No. 25111 12 Hr.
Recorder Type and No. AK-1 10995 Clock Range No. 25113 12 Hr.
Extra Equipment Single Conventional Packer
Remarks Was Bled Off On 2nd. Shut-in and Never Came Back

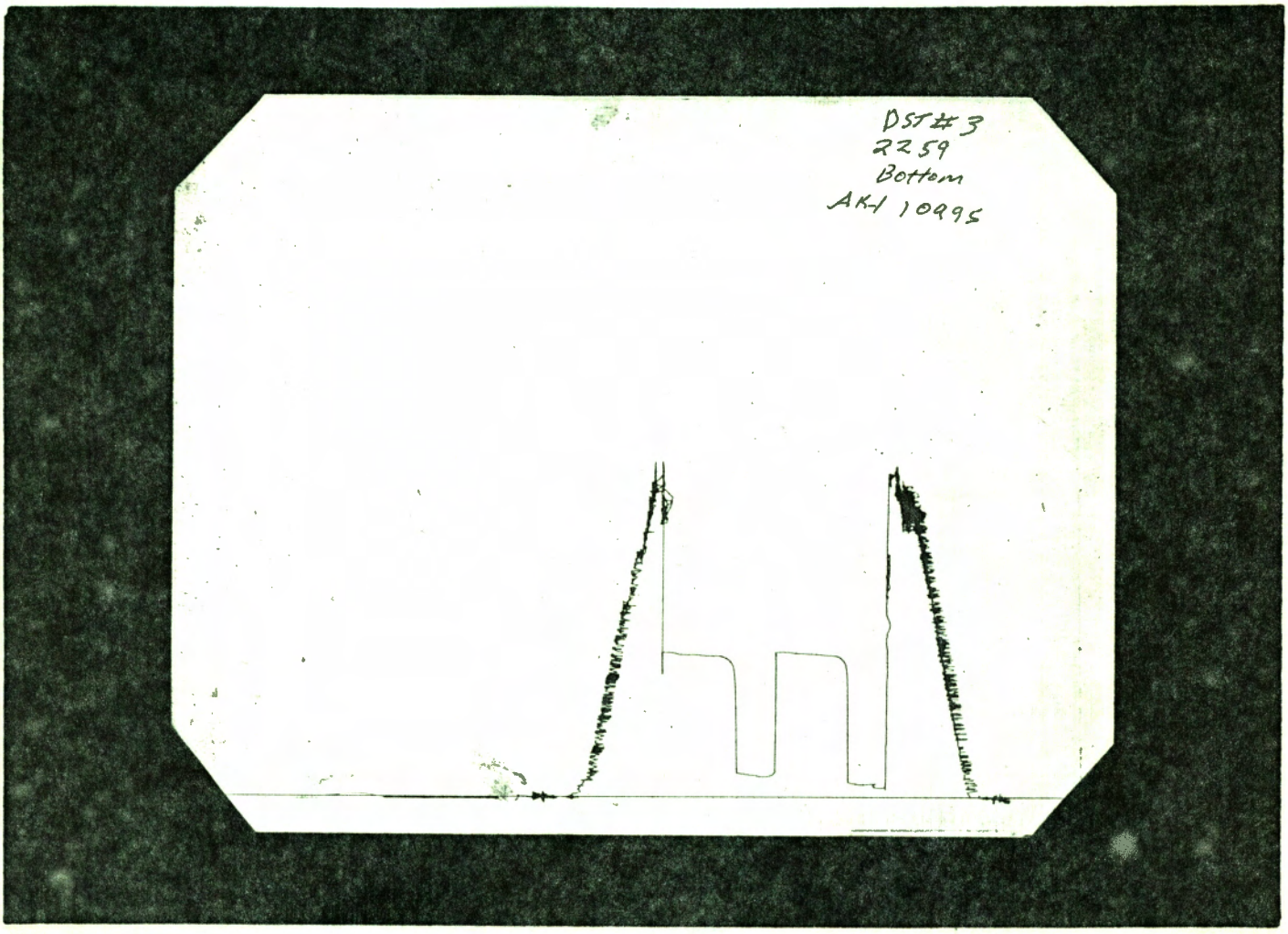
Thank you

Price of Job ____



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	1,950	1,977	PSI
(B)	First Initial Flow Pressure	88	72	PSI
(C)	First Final Flow Pressure	121	118	PSI
(D)	Initial Closed-in Pressure	905	907	PSI
(E)	Second Initial Flow Pressure	154	143	PSI
(F)	Second Final Flow Pressure	175	177	PSI
(G)	Final Closed-in Pressure	894	904	PSI
(H)	Final Hydrostatic Mud	1,929	1,974	PSI



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

CRUDE OIL TESTING COMPANY

P.O. Box 2260
Colorado Springs, Colorado 80901
(303) 473-6909

Date 9/12/82 Test Ticket No. 2295

Recorder No. Kuster AK-1 #11084 Capacity 4,300 P.S.I. Location 3,740 Ft.

Clock No. 25111 Elevation 2,392 K.B. Well Temperature 114 °F

Point	Pressure		Field Time	Time Computed
A Initial Hydrostatic Mud	1,977 P.S.I.	Open Tool	7:15 AM	
B First Initial Flow Pressure	72 P.S.I.	First Flow Pressure	30 Mins.	Mins.
C First Final Flow Pressure	118 P.S.I.	Initial Closed-in Pressure	60 Mins.	58 Mins.
D Initial Closed-in Pressure	907 P.S.I.	Second Flow Pressure	30 Mins.	Mins.
E Second Initial Flow Pressure	143 P.S.I.	Final Closed-in Pressure	60 Mins.	Mins.
F Second Final Flow Pressure	177 P.S.I.			
G Final Closed-in Pressure	904 P.S.I.			
H Final Hydrostatic Mud	1,974 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: 6 Inc. of 5 mins. and a final inc. of ____ Min.		Breakdown: 11 Inc. of 5 mins. and a final inc. of 3 Min.		Breakdown: 6 Inc. of 5 mins. and a final inc. of ____ Min.		Breakdown: 12 Inc. of 5 mins. and a final inc. of ____ Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
1 00	72	00	118	00	143	00	177
2 05	89	05	866	05	144	05	863
3 10	96	10	884	10	146	10	879
4 15	101	15	891	15	152	15	885
5 20	105	20	897	20	161	20	890
6 25	111	25	900	25	168	25	893
7 30	118	30	901	30	177	30	896
8		35	902			35	899
9		40	903			40	900
10		45	905			45	901
11		50	906			50	902
12		55	907			55	903
13		58	907			60	904
14							
15							
16							
17							
18							
19							
20							

DRILL STEM TEST RECOVERY ANALYSIS

(303) 473-6909
P.O. Box 2260
Colorado Springs, CO 80901

COMPANY: A. Scott Ritchie LEASE: #1 Grecian "A" DST# 3
SEC: 3 Twp: 12S Rge: 22W COUNTY: Trego STATE: Kansas

VISUAL DST RECOVERY: 270' Slightly Oil Specked Muddy Water

CENTRIFUGE PERCENTAGE ANALYSIS

Sample #	Feet of FLUID	Percent of GAS	Percent of OIL	Percent of WATER	Percent of MUD
1	30		5	55	40
2	60		5	55	40
3	60		5	55	40
4	60		5	60	35
5	60		5	55	40

CALCULATED FLUID RECOVERY FROM PERCENTAGES

(Formula for Calculation)

Percent of individual fluid × Total footage represented in sample

SAMPLE #	TOTAL FOOTAGE	GAS %	×	Total	=	Feet	OIL %	×	Total	=	Feet	WATER %	×	Total	=	Feet	MUD %	×	Total	=	Feet
1	30		×		=		5	×	30	=	1.5	55	×	30	=	16.5	40	×	30	=	12
2	60		×		=		5	×	60	=	3	55	×	60	=	33	40	×	60	=	24
3	60		×		=		5	×	60	=	3	55	×	60	=	33	40	×	60	=	24
4	60		×		=		5	×	60	=	3	60	×	60	=	36	35	×	60	=	21
5	60		×		=		5	×	60	=	3	55	×	60	=	33	40	×	60	=	24
			×		=			×		=			×		=			×		=	
			×		=			×		=			×		=			×		=	
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			×		=			×		=			×		=			×		=	
			×		=			×		=			×		=			×		=	
Totals											13.5					151.5					105

CALCULATED DST RECOVERY =

CHLORIDES MUD SYSTEM 44,000
CHLORIDES DST WATER 89,000
GRAVITY OF OIL

GAS
OIL 13.5
WTR 151.5
MUD 105
TOTAL FLUID 270'

TEST REPORT

CRUDE OIL TESTING INC.
(303) 473-6909
P.O. Box 2260
Colorado Springs, CO 80901

Test Ticket No. 2260

Company A. Scott Ritchie Date 9/12/82
Company Address 125 N. Market #950, Wichita, KS 67202 No. of Charts 5
Location: Sec. 3 Twp. 12S Rge. 22W Co. Trego State Kansas
Well Name And Number #1 Gracian "A" Tester Troy L. Leiker
Contractor Murfin Drlg. Rig No. 21 Co. Rep. George Dent

Formation Lansing Zone 70' Type of Test Conventional

DST# 4 Interval 3,743 To 3,760 Total Depth 3,760
Open 30 Shut In 60 Open 30 Shut In 60
Packer(s) Set 7:28 PM A.M. P.M. Started off Bottom 10:30 PM A.M. P.M.
Blow 1st. Open: Very Strong Blow Off Bottom in 3 Min.
2nd. Open: Very Strong Blow Off Bottom in 3 Min.

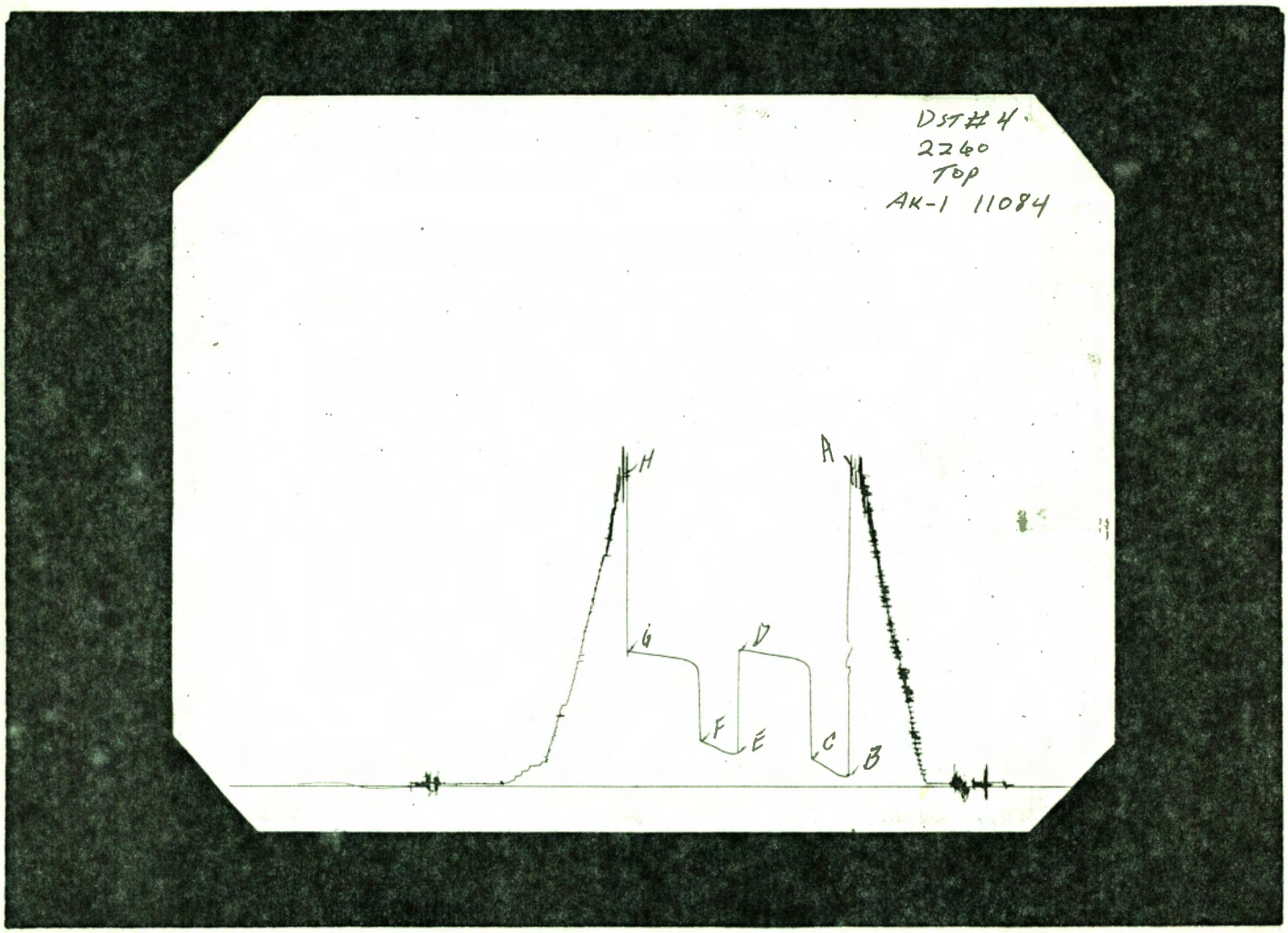
Recovery
Total Feet 630
Recovered 630 Ft. of Thick Gassy Oil
Recovered Ft. of
Recovered Ft. of
Recovered 1,800 Ft. of Gas in Pipe
Recovered Ft. of
Recovered Ft. of
Gravity (Oil) 37 Corrected To Temp. 60 Water Chlorides 97,000

Pressures & Temp. (Office Reading If Applicable)
Initial Hydrostatic Pressure 1,961 Final Hydrostatic Pressure 1,940
Initial Closed In Pressure 851 Final Closed In Pressure 840
Initial Flow Pressure 66 To 175 Final Flow Pressure 208 To 274
Test Area Temperature 114

Engineering Date
Elevation 2,392 K.B.
Mud Viscosity 43 Mud Weight 9.6 Water Loss 12
Chlorides 38,000 P.P.M. Type of Mud Starch Anchor Length 17
Hole Size 7 7/8 Casing Size 8 5/8 Surface Choke 3/4 Bottom Choke 3/4
Drill Pipe Length 3,371 I.D. 3.8 In. Weight Pipe Length I.D. In.
Drill Collar Length 60 I.D. 2.25 In.
Top Packer Depth. Bottom Packer Depth. 3,743 Packer Size 6 3/4
Test Tool Size 5½ In. Tool Joint Size 4½FH In.
Did Well Flow No Reversed Out No
Recorder Type and No. AK-1 11084 Clock Range No. 25111 12 Hr.
Recorder Type and No. AK-1 10995 Clock Range No. 25113 12 Hr.
Extra Equipment Single Conventional Packer
Remarks

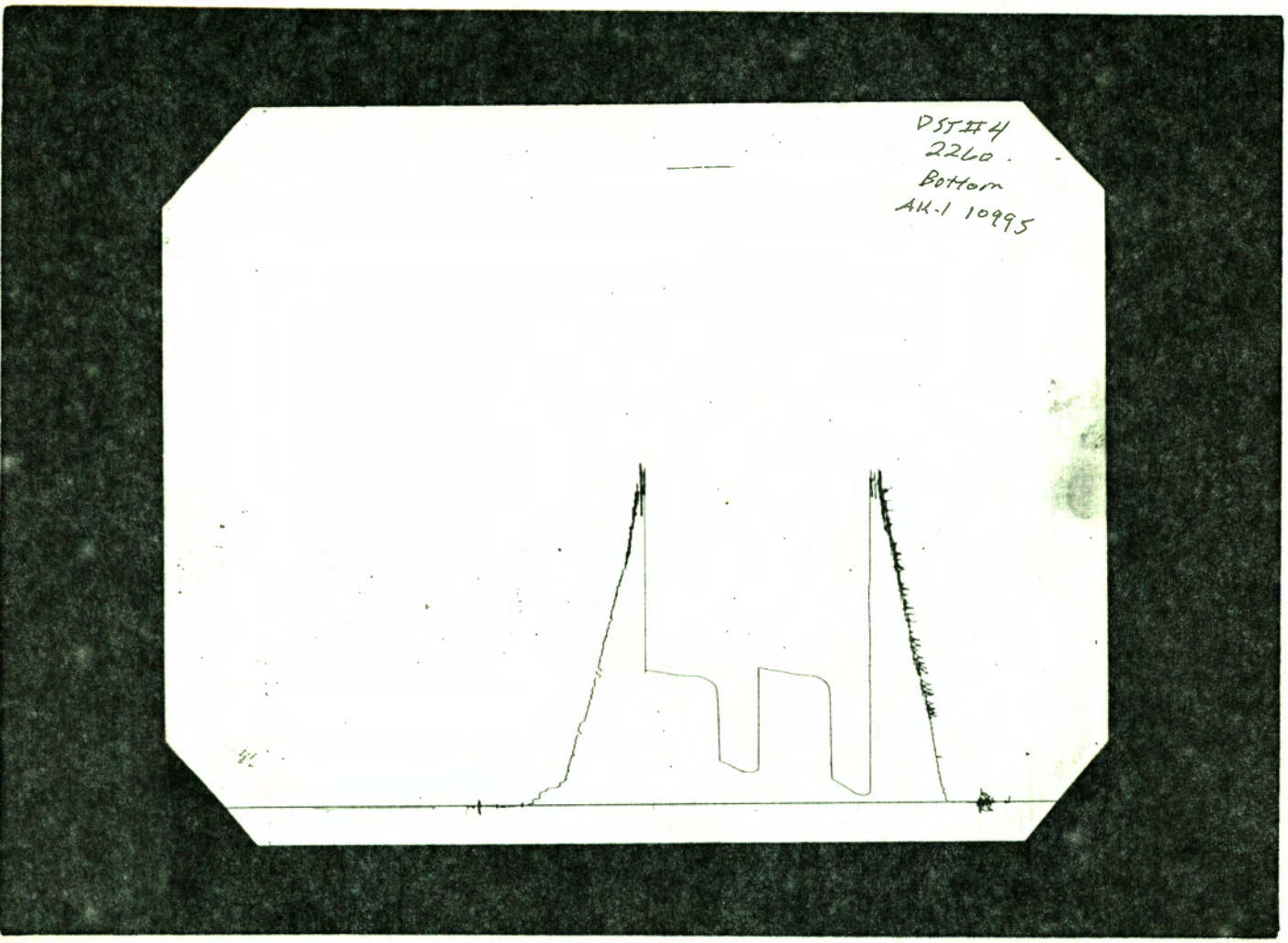
Thank you

Price of Job



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	1,961	1,965	PSI
(B)	First Initial Flow Pressure	66	62	PSI
(C)	First Final Flow Pressure	175	173	PSI
(D)	Initial Closed-in Pressure	851	853	PSI
(E)	Second Initial Flow Pressure	208	204	PSI
(F)	Second Final Flow Pressure	274	288	PSI
(G)	Final Closed-in Pressure	840	846	PSI
(H)	Final Hydrostatic Mud	1,940	1,941	PSI



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

CRUDE OIL TESTING COMPANY

P.O. Box 2260
Colorado Springs, Colorado 80901
(303) 473-6909

Date 9/12/82 Test Ticket No. 2260

Recorder No. Kuster AK-1 #11084 Capacity 4,300 P.S.I. Location 3,750 Ft.

Clock No. 25111 Elevation 2,392 K.B. Well Temperature 114 °F

Point		Pressure			Field Time	Time Computed
A	Initial Hydrostatic Mud	1,965 P.S.I.		Open Tool	7:30 P M	
B	First Initial Flow Pressure	62 P.S.I.		First Flow Pressure	30 Mins.	Mins.
C	First Final Flow Pressure	173 P.S.I.		Initial Closed-in Pressure	60 Mins.	58 Mins.
D	Initial Closed-in Pressure	853 P.S.I.		Second Flow Pressure	30 Mins.	Mins.
E	Second Initial Flow Pressure	204 P.S.I.		Final Closed-in Pressure	60 Mins.	Mins.
F	Second Final Flow Pressure	288 P.S.I.				
G	Final Closed-in Pressure	846 P.S.I.				
H	Final Hydrostatic Mud	1,941 P.S.I.				

PRESSURE BREAKDOWN

	First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
	Breakdown: 6 Inc. of 5 mins. and a final inc. of ____ Min.		Breakdown: 11 Inc. of 5 mins. and a final inc. of 3 Min.		Breakdown: 6 Inc. of 5 mins. and a final inc. of ____ Min.		Breakdown: 12 Inc. of 5 mins. and a final inc. of ____ Min.	
	Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
1	00	62	00	173	00	204	00	288
2	05	65	05	771	05	206	05	764
3	10	79	10	788	10	215	10	785
4	15	106	15	800	15	232	15	796
5	20	129	20	808	20	254	20	803
6	25	153	25	814	25	271	25	807
7	30	173	30	820	30	288	30	814
8			35	825			35	820
9			40	833			40	824
10			45	839			45	830
11			50	847			50	835
12			55	852			55	841
13			58	853			60	846
14								
15								
16								
17								
18								
19								
20								

DRILL STEM TEST
RECOVERY ANALYSIS

(303) 473-6909
P.O. Box 2260
Colorado Springs, CO 80901

COMPANY: A. Scott Ritchie LEASE: #1 Grecian "A" DST# 4
SEC: 3 Twp: 12S Rge: 22W COUNTY: Trego STATE: Kansas

VISUAL DST RECOVERY: 630' Thick Gassy Oil
1,800' Gas in Pipe

CENTRIFUGE PERCENTAGE ANALYSIS

Sample #	Feet of FLUID	Percent of GAS	Percent of OIL	Percent of WATER	Percent of MUD
1	30	5	88	2	5
2	60	5	95		
3	60	45	55		
4	60	15	85		
5	60	30	70		
6	60	30	70		
7	60	20	80		
8	60	20	80		
9	60	15	35	40	10
10	60		5	75	20
11	60		5	90	5

CALCULATED FLUID RECOVERY FROM PERCENTAGES

(Formula for Calculation)
Percent of individual fluid × Total footage represented in sample

SAMPLE #	TOTAL FOOTAGE	GAS %	×	Total	=	Feet	OIL %	×	Total	=	Feet	WATER %	×	Total	=	Feet	MUD %	×	Total	=	Feet
1	30	5	×	30	=	1.5	88	×	30	=	26.4	2	×	30	=	.6	5	×	30	=	1.5
2	60	5	×	60	=	3	95	×	60	=	57		×		=			×		=	
3	60	45	×	60	=	27	55	×	60	=	33		×		=			×		=	
4	60	15	×	60	=	9	85	×	60	=	51		×		=			×		=	
5	60	30	×	60	=	18	70	×	60	=	42		×		=			×		=	
6	60	30	×	60	=	18	70	×	60	=	42		×		=			×		=	
7	60	20	×	60	=	12	80	×	60	=	48		×		=			×		=	
8	60	20	×	60	=	12	80	×	60	=	48		×		=			×		=	
9	60	15	×	60	=	9	35	×	60	=	21	40	×	60	=	24	24	×	60	=	6
10	60		×		=		5	×	60	=	3	75	×	60	=	45	20	×	60	=	12
11	60		×		=		5	×	60	=	3	90	×	60	=	54	5	×	60	=	3
			×		=			×		=			×		=			×		=	
			×		=			×		=			×		=			×		=	
			×		=			×		=			×		=			×		=	
Totals						109.5					374.4					123.6					22.5

CALCULATED DST RECOVERY =

CHLORIDES MUD SYSTEM 38,000
CHLORIDES DST WATER 97,000
GRAVITY OF OIL 37

GAS 109.5
OIL 374.4
WTR 123.6
MUD 22.5
TOTAL FLUID 630'

TEST REPORT

CRUDE OIL TESTING INC.
(303) 473-6909
P.O. Box 2260
Colorado Springs, CO 80901

Test Ticket No. 2261

Company A. Scott Ritchie Date 9/13/82
Company Address 125 N. Market #950, Wichita, KS 67202 No. of Charts 5
Location: Sec. 3 Twp. 12S Rge. 22W Co. Trego State Kansas
Well Name And Number #1 Gracian "A" Tester Troy Leiker
Contractor Murfin Drlg. Rig No. 21 Co. Rep. George Dent

Formation Lansing Zone 90' Type of Test Conventional

DST# 5 Interval 3,755 To 3,773 Total Depth 3,773
Open 30 Shut In 60 Open 30 Shut In 60
Packer(s) Set 10:13 AM A.M. P.M. Started off Bottom 1:15 PM A.M. P.M.
Blow 1st. Open: Strong Blow Off Bottom of Bucket in 3 Min.
2nd. Open: Strong Blow Off Bottom of Bucket in 5 Min.

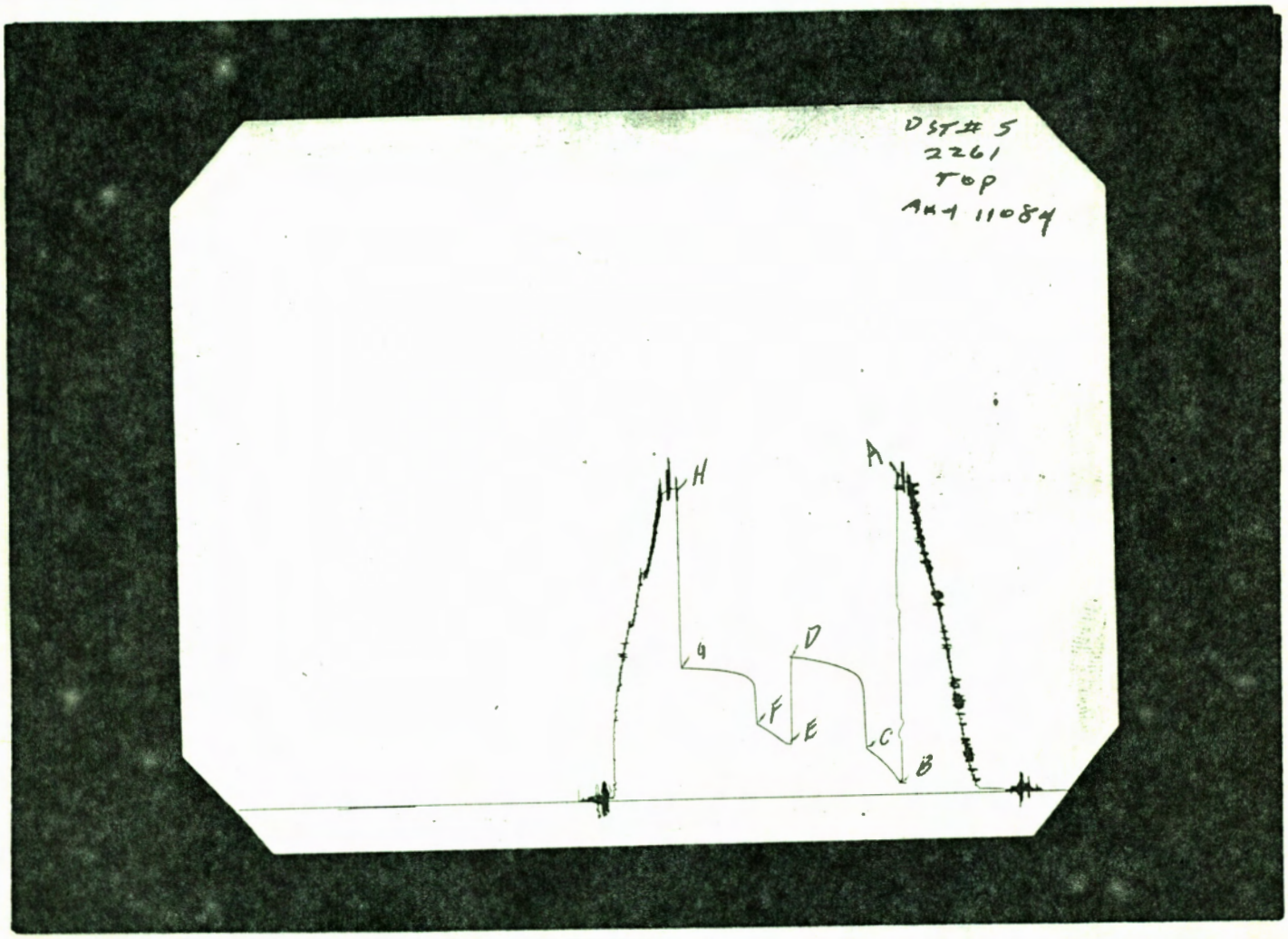
Recovery
Total Feet 990
Recovered 990 Ft. of Gassy Oil Cut Salt Water
Recovered _____ Ft. of _____
Recovered _____ Ft. of _____
Recovered 180 Ft. of Gas in Pipe
Recovered _____ Ft. of _____
Recovered _____ Ft. of _____
Gravity (Oil) _____ Corrected To Temp. _____ Water Chlorides 95,000

Pressures & Temp. (Office Reading If Applicable)
Initial Hydrostatic Pressure 1,907 Final Hydrostatic Pressure 1,886
Initial Closed In Pressure 872 Final Closed In Pressure 829
Initial Flow Pressure 99 To 274 Final Flow Pressure 340 To 450
Test Area Temperature 117

Engineering Date
Elevation 2,392 K.B.
Mud Viscosity 43 Mud Weight 9.6 Water Loss 12
Chlorides 48,000 P.P.M. Type of Mud Starch Anchor Length 18'
Hole Size 7 7/8 Casing Size 8 5/8 Surface Choke 3/4 Bottom Choke 3/4
Drill Pipe Length 3,371 I.D. 3.8 In. Weight Pipe Length _____ I.D. _____ In.
Drill Collar Length 60 I.D. 2.25 In.
Top Packer Depth. _____ Bottom Packer Depth. 3,755 Packer Size 6 3/4
Test Tool Size 5½ In. Tool Joint Size 4½FH In.
Did Well Flow No Reversed Out No
Recorder Type and No. AK-1 11084 Clock Range No. 25111 12 Hr.
Recorder Type and No. AK-1 10995 Clock Range No. 25113 12 Hr.
Extra Equipment Single Conventional Packer
Remarks Came Back Blowing on Both Shut-ins

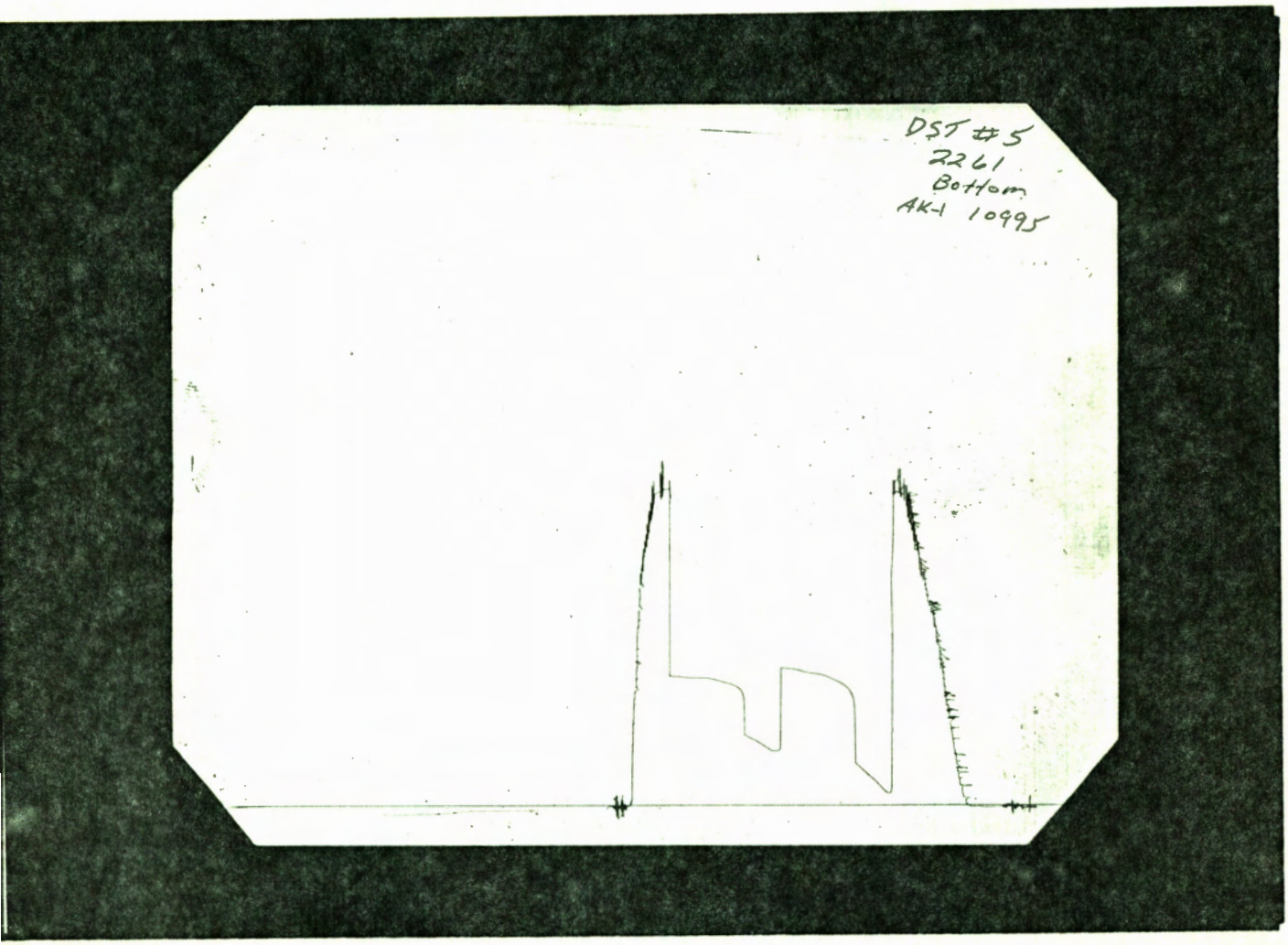
Thank you

Price of Job _____



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	1,907	1,966	PSI
(B)	First Initial Flow Pressure	99	73	PSI
(C)	First Final Flow Pressure	274	296	PSI
(D)	Initial Closed-in Pressure	872	880	PSI
(E)	Second Initial Flow Pressure	340	335	PSI
(F)	Second Final Flow Pressure	450	464	PSI
(G)	Final Closed-in Pressure	829	827	PSI
(H)	Final Hydrostatic Mud	1,886	1,932	PSI



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

CRUDE OIL TESTING COMPANY

P.O. Box 2260
Colorado Springs, Colorado 80901
(303) 473-6909

Date 9/13/82 Test Ticket No. 2261

Recorder No. Kuster AK-1 #11084 Capacity 4,300 P.S.I. Location 3,763 Ft.

Clock No. 25111 Elevation 2,392 K.B. Well Temperature 117 °F

Point		Pressure			Field Time	Time Computed
A	Initial Hydrostatic Mud	1,966	P.S.I.	Open Tool	10:15 AM	
B	First Initial Flow Pressure	73	P.S.I.	First Flow Pressure	30 Mins.	29 Mins.
C	First Final Flow Pressure	296	P.S.I.	Initial Closed-in Pressure	60 Mins.	Mins.
D	Initial Closed-in Pressure	880	P.S.I.	Second Flow Pressure	30 Mins.	29 Mins.
E	Second Initial Flow Pressure	335	P.S.I.	Final Closed-in Pressure	60 Mins.	Mins.
F	Second Final Flow Pressure	464	P.S.I.			
G	Final Closed-in Pressure	827	P.S.I.			
H	Final Hydrostatic Mud	1,932	P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: 5 Inc.		Breakdown: 12 Inc.		Breakdown: 5 Inc.		Breakdown: 12 Inc.	
of 5 mins. and a		of 5 mins. and a		of 5 mins. and a		of 5 mins. and a	
final inc. of 4 Min.		final inc. of Min.		final inc. of 4 Min.		final inc. of Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 00	73	00	296	00	335	00	464
P 2 05	109	05	747	05	340	05	751
P 3 10	158	10	777	10	367	10	774
P 4 15	202	15	795	15	399	15	787
P 5 20	243	20	812	20	426	20	796
P 6 25	272	25	825	25	451	25	803
P 7 29	296	30	837	29	464	30	809
P 8		35	846			35	813
P 9		40	855			40	817
P10		45	864			45	820
P11		50	872			50	823
P12		55	877			55	827
P13		60	880			60	827
14							
15							
16							
17							
18							
19							
20							

DRILL STEM TEST RECOVERY ANALYSIS

(303) 473-6909
P.O. Box 2260
Colorado Springs, CO 80901

COMPANY: A. Scott Ritchie LEASE: #1 Gracian "A" DST# 5
SEC: 3 Twp: 12S Rge: 22W COUNTY: Trego STATE: Kansas

VISUAL DST RECOVERY:

990' Gassy Oil Cut Salt Water
180' Gas in Pipe

CENTRIFUGE PERCENTAGE ANALYSIS

Sample #	Feet of FLUID	Percent of GAS	Percent of OIL	Percent of WATER	Percent of MUD
1	30	30	15	30	25
2	60	25	30	35	10
3	60	25	30	35	10
4	60	30	20	45	5
5	60	25	30	43	2
6	120	20	35	45	
7	120	20	30	50	
8	120	25	25	50	
9	120	10	45	45	
10	120	30	25	45	
11			1	95	4

CALCULATED FLUID RECOVERY FROM PERCENTAGES

(Formula for Calculation)
Percent of individual fluid × Total footage represented in sample

SAMPLE #	TOTAL FOOTAGE	GAS %	×	Total	=	Feet	OIL %	×	Total	=	Feet	WATER %	×	Total	=	Feet	MUD %	×	Total	=	Feet
1	30	30	×	30	=	9	15	×	30	=	4.5	30	×	30	=	9	25	×	30	=	7.5
2	60	25	×	60	=	15	30	×	60	=	18	35	×	60	=	21	10	×	60	=	6
3	60	25	×	60	=	15	30	×	60	=	18	35	×	60	=	21	10	×	60	=	6
4	60	30	×	60	=	18	20	×	60	=	12	45	×	60	=	27	5	×	60	=	3
5	60	25	×	60	=	15	30	×	60	=	18	43	×	60	=	25.8	2	×	60	=	1.2
6	120	20	×	120	=	24	35	×	120	=	42	45	×	120	=	54		×		=	
7	120	20	×	120	=	24	30	×	120	=	36	50	×	120	=	60		×		=	
8	120	25	×	120	=	30	25	×	120	=	30	50	×	120	=	60		×		=	
9	120	10	×	120	=	12	45	×	120	=	54	45	×	120	=	54		×		=	
10	120	30	×	120	=	36	25	×	120	=	30	45	×	120	=	54		×		=	
11	120		×		=		1	×	120	=	1.2	95	×	120	=	114	4	×	120	=	4.8
			×		=			×		=			×		=			×		=	
			×		=			×		=			×		=			×		=	
			×		=			×		=			×		=			×		=	
Totals		198					236.7					499.8					28.5				

CALCULATED DST RECOVERY =

CHLORIDES MUD SYSTEM 38,000
CHLORIDES DST WATER 95,000
GRAVITY OF OIL

GAS 198
OIL 236.7
WTR 499.8
MUD 28.5
TOTAL FLUID 990'

TEST REPORT

CRUDE OIL TESTING INC.
(303) 473-6909
P.O. Box 2260
Colorado Springs, CO 80901

Test Ticket No. 2262

Company A. Scott Ritchie Date 9/14/82
Company Address 125 N. Market #950, Wichita, KS 67202 No. of Charts 5
Location: Sec. 3 Twp. 12S Rge. 22W Co. Trego State Kansas
Well Name And Number #1 Gracian "A" Tester Troy L. Leiker
Contractor Murfin Drlg. Rig No. 21 Co. Rep. George Dent

Formation Lansing Zone 140;160;180;200;220 Type of Test Conventional

DST# 6 Interval 3,797 To 3,930 Total Depth 3,930
Open 30 Shut In 30 Open 30 Shut In 30
Packer(s) Set 3:28 PM A.M. P.M. Started off Bottom 5:30 PM A.M. P.M.
Blow 1st. Open: Very Weak Blow Decreased from ½" to ¼" in Bucket
2nd. Open: Very Weak Blow Died in 15 Min.

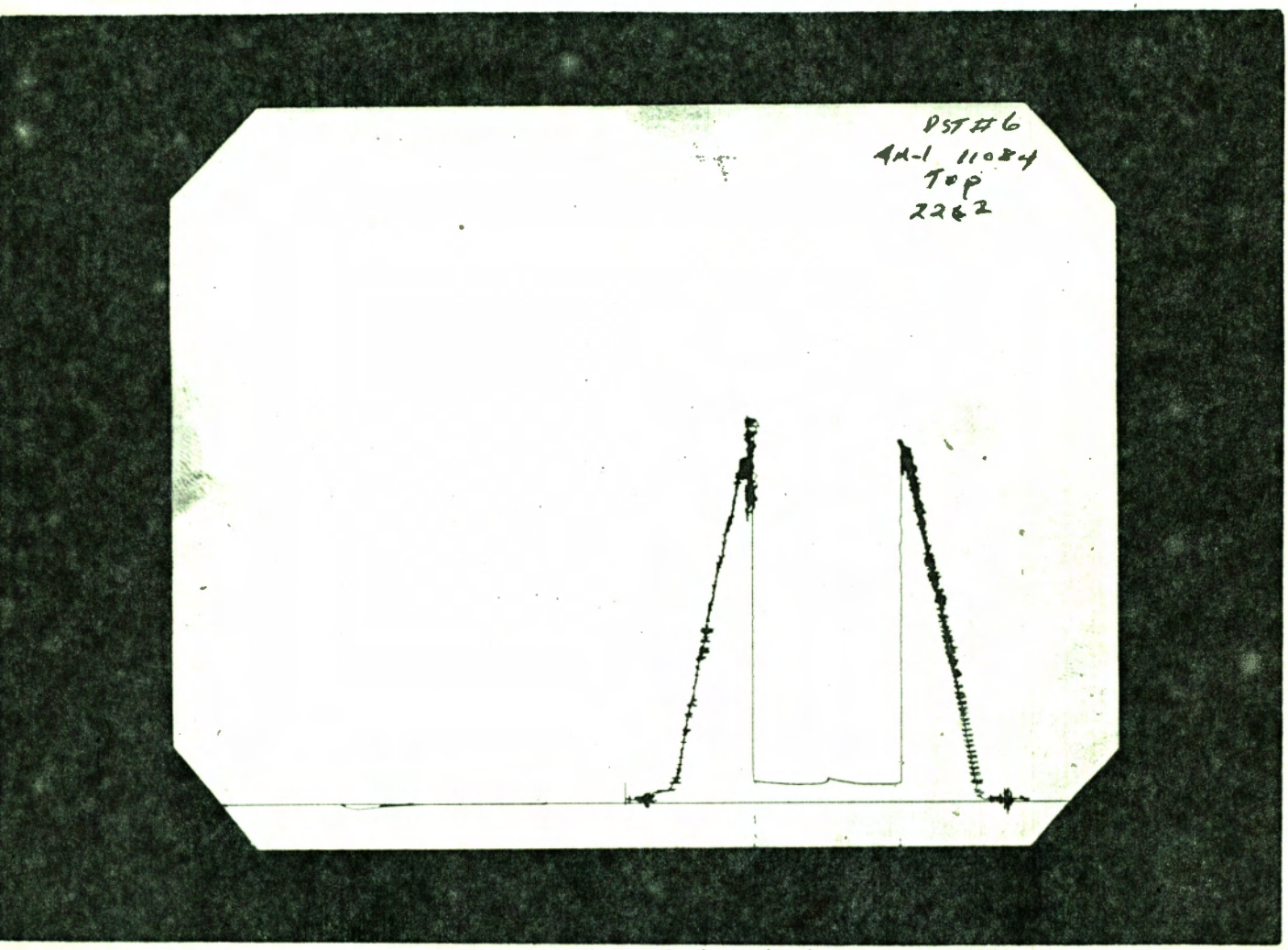
Recovery
Total Feet 10
Recovered 10 Ft. of Drilling Mud
Recovered ____ Ft. of ____
Recovered ____ Ft. of No Show of Oil
Recovered ____ Ft. of ____
Recovered ____ Ft. of ____
Recovered ____ Ft. of ____
Gravity (Oil) ____ Corrected To Temp. ____ Water Chlorides 41,000

Pressures & Temp. (Office Reading If Applicable)
Initial Hydrostatic Pressure 2,091 Final Hydrostatic Pressure 2,069
Initial Closed In Pressure 154 Final Closed In Pressure 143
Initial Flow Pressure 110 To 110 Final Flow Pressure 122 To 122
Test Area Temperature 117

Engineering Date
Elevation 2,392 K.B.
Mud Viscosity 43 Mud Weight 9.7 Water Loss 14.6
Chlorides 42,000 P.P.M. Type of Mud Starch Anchor Length 133'
Hole Size 7 7/8 Casing Size 8 5/8 Surface Choke 3/4 Bottom Choke 3/4
Drill Pipe Length 3,526 I.D. 3.8 In. Weight Pipe Length ____ I.D. ____ In.
Drill Collar Length 60 I.D. 2.25 In.
Top Packer Depth. ____ Bottom Packer Depth. 3,797 Packer Size 6 3/4
Test Tool Size 5½ In. Tool Joint Size 4½FH In.
Did Well Flow No Reversed Out No
Recorder Type and No. Kuster AK-1 11084 Clock Range No. 25111 12 Hr.
Recorder Type and No. Kuster AK-1 10995 Clock Range No. 25113 12 Hr.
Extra Equipment Single Conventional Packer
Remarks

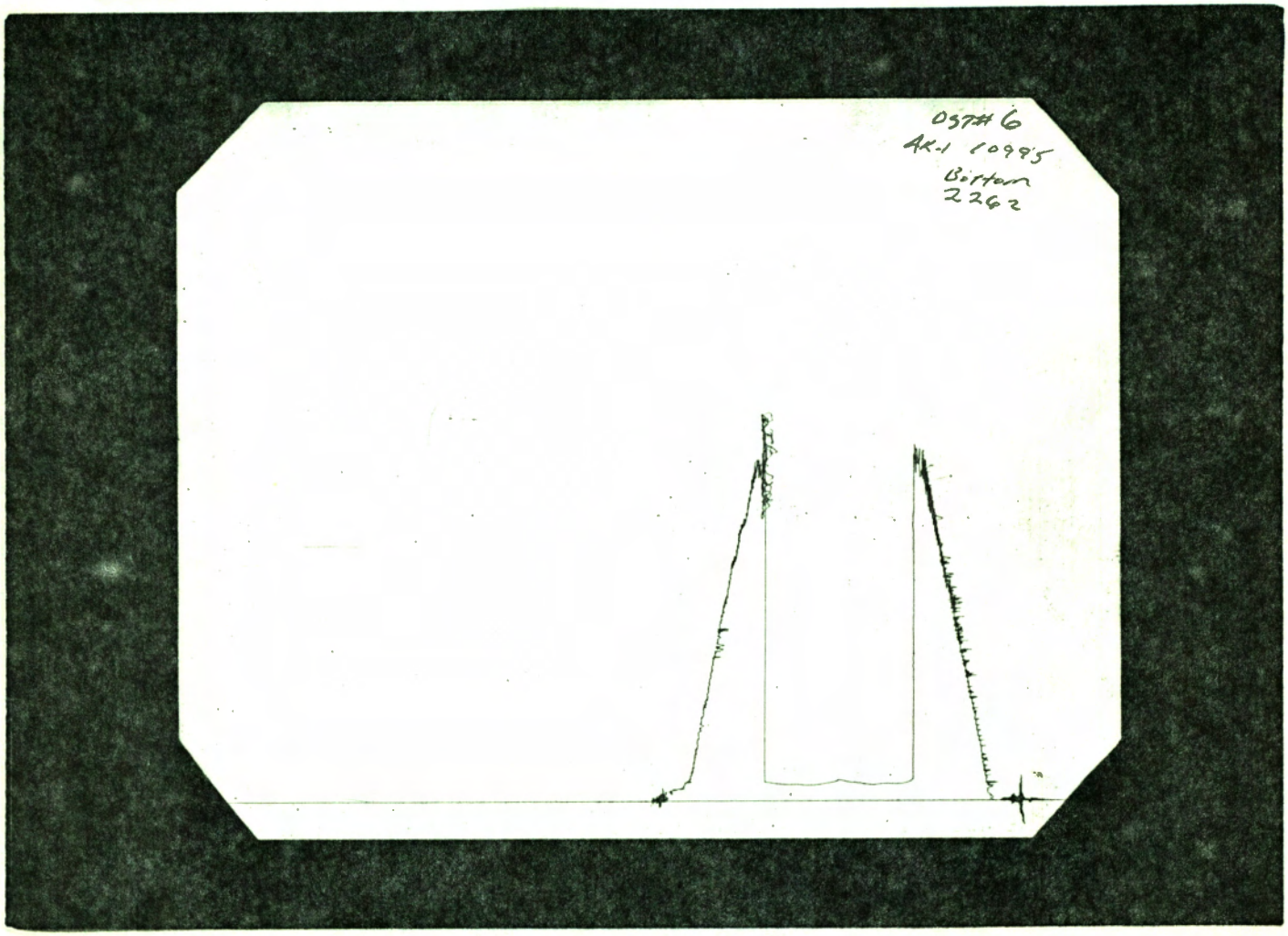
Thank you

Price of Job



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	2,091		PSI
(B)	First Initial Flow Pressure	110		PSI
(C)	First Final Flow Pressure	110		PSI
(D)	Initial Closed-in Pressure	154		PSI
(E)	Second Initial Flow Pressure	122		PSI
(F)	Second Final Flow Pressure	122		PSI
(G)	Final Closed-in Pressure	143		PSI
(H)	Final Hydrostatic Mud	2,069		PSI



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	PRESSURE 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

DRILL STEM TEST RECOVERY ANALYSIS

CRUDE OIL TESTING INC
(303) 473-6909
P.O. Box 2260
Colorado Springs, CO 80901

COMPANY: A. Scott Ritchie LEASE: #1 Grecian "A" DST# 6
SEC: 3 Twp: 12S Rge: 22W COUNTY: Trego STATE: Kansas

VISUAL DST RECOVERY: 10' Rotary Mud
(No Show of Oil)

CENTRIFUGE PERCENTAGE ANALYSIS

Sample #	Feet of FLUID	Percent of GAS	Percent of OIL	Percent of WATER	Percent of MUD
1	10			10	90

CALCULATED FLUID RECOVERY FROM PERCENTAGES

(Formula for Calculation)
Percent of individual fluid × Total footage represented in sample

SAMPLE #	TOTAL FOOTAGE	GAS %	×	Total	=	Feet	OIL %	×	Total	=	Feet	WATER %	×	Total	=	Feet	MUD %	×	Total	=	Feet
1	10		×		=			×		=		10	×	10	=	1	90	×	10	=	9
			×		=			×		=			×		=			×		=	
			×		=			×		=			×		=			×		=	
			×		=			×		=			×		=			×		=	
			×		=			×		=			×		=			×		=	
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			×		=			×		=			×		=			×		=	
			×		=			×		=			×		=			×		=	
Totals																1					9

CALCULATED DST RECOVERY =

CHLORIDES MUD SYSTEM 42,000
CHLORIDES DST WATER 41,000
GRAVITY OF OIL

GAS
OIL
WTR 1
MUD 9
TOTAL FLUID 10'

TEST REPORT

CRUDE OIL TESTING INC.
(303) 473-6909
P.O. Box 2260
Colorado Springs, CO 80901

Test Ticket No. 2263

Company A. Scott Ritchie Date 9/15/82
Company Address 125 N. Market #950, Wichita, KS 67202 No. of Charts 5
Location: Sec. 3 Twp. 12S Rge. 22W Co. Trego State Kansas
Well Name And Number #1 Grecian "A" Tester Troy Leiker
Contractor Murfin Drlg. Rig No. 21 Co. Rep. George Dent

Formation Marmaton Zone _____ Type of Test Conventional

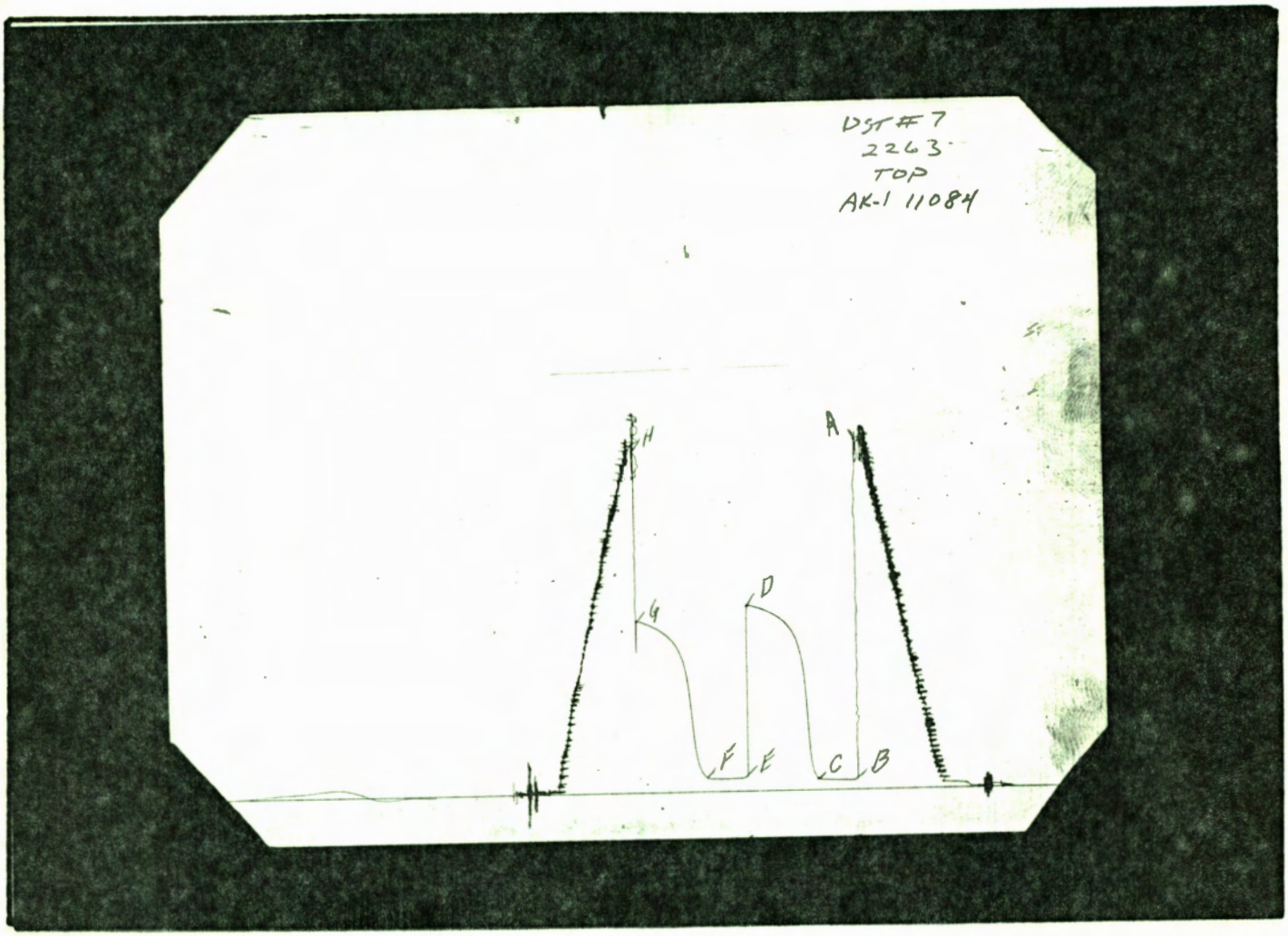
DST# 7 Interval 4,004 To 4,050 Total Depth 4,050
Open 30 Shut In 60 Open 30 Shut In 60
Packer(s) Set 1:13 PM A.M. P.M. Started off Bottom 4:15 PM A.M. P.M.
Blow 1st. Open: Weak Blow Increased Slowly to 1½" in Bucket
2nd. Open: Weak Blow Decreased Slowly to ½" in Bucket

Recovery
Total Feet 63
Recovered 3 Ft. of Watery Mud Cut Oil
Recovered 60 Ft. of Watery Oil Cut Mud
Recovered _____ Ft. of _____
Recovered _____ Ft. of _____
Recovered _____ Ft. of _____
Recovered _____ Ft. of _____
Gravity (Oil) _____ Corrected To Temp. _____ Water Chlorides 43,000

Pressures & Temp. (Office Reading If Applicable)
Initial Hydrostatic Pressure 2,155 Final Hydrostatic Pressure 2,134
Initial Closed In Pressure 1,153 Final Closed In Pressure 1,067
Initial Flow Pressure 66 To 66 Final Flow Pressure 88 To 88
Test Area Temperature 117

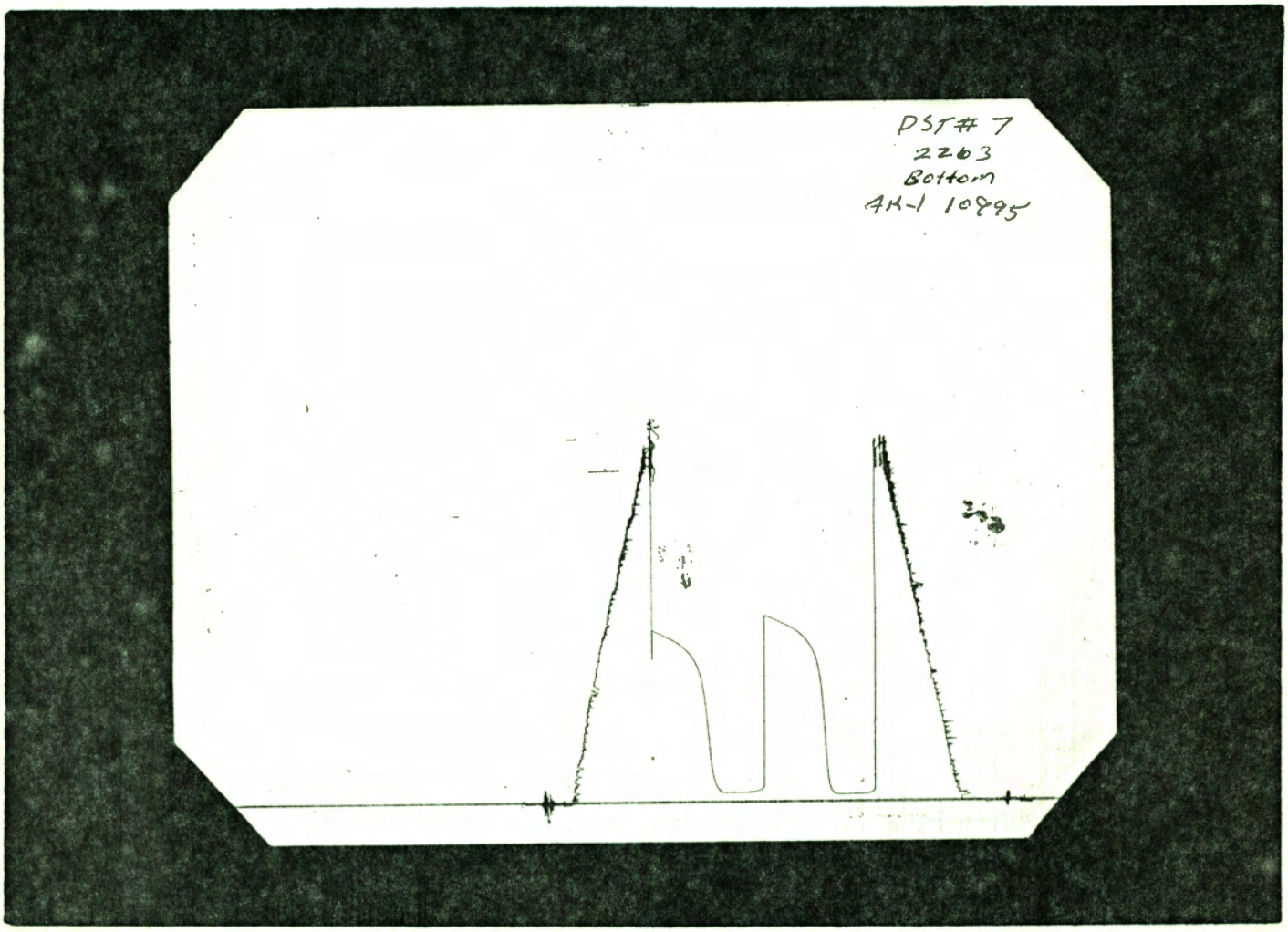
Engineering Date
Elevation 2,392 K.B.
Mud Viscosity 43 Mud Weight 9.7 Water Loss 14.6
Chlorides 42,000 P.P.M. Type of Mud Starch Anchor Length 46
Hole Size 7 7/8 Casing Size 8 5/8 Surface Choke 3/4 Bottom Choke 3/4
Drill Pipe Length 3,562 I.D. 3.8 In. Weight Pipe Length _____ I.D. _____ In.
Drill Collar Length 60 I.D. 2.25 In.
Top Packer Depth. _____ Bottom Packer Depth. 4,004 Packer Size 6 3/4
Test Tool Size 5½ In. Tool Joint Size 4½FH In.
Did Well Flow No Reversed Out No
Recorder Type and No. AK-1 11084 Clock Range No. 25111 12 Hr.
Recorder Type and No. AK-1 10995 Clock Range No. 25113 12 Hr.
Extra Equipment Single Conventional Packer
Remarks
Thank you

Price of Job _____



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	2,155	2,199	PSI
(B)	First Initial Flow Pressure	66	57	PSI
(C)	First Final Flow Pressure	66	66	PSI
(D)	Initial Closed-in Pressure	1,153	1,162	PSI
(E)	Second Initial Flow Pressure	88	74	PSI
(F)	Second Final Flow Pressure	88	81	PSI
(G)	Final Closed-in Pressure	1,067	1,075	PSI
(H)	Final Hydrostatic Mud	2,134	2,165	PSI



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

CRUDE OIL TESTING COMPANY

P.O. Box 2260
Colorado Springs, Colorado 80901
(303) 473-6909

Date 9/15/82 Test Ticket No. 2263

Recorder No. Kuster AK-1 11084 Capacity 4,300 P.S.I. Location 4,040 Ft.

Clock No. 25111 Elevation 2,392 K.B. Well Temperature 117 °F

Point		Pressure			Field Time	Time Computed
A	Initial Hydrostatic Mud	2,179	P.S.I.	Open Tool	1:15 P M	
B	First Initial Flow Pressure	45	P.S.I.	First Flow Pressure	30 Mins.	Mins.
C	First Final Flow Pressure	66	P.S.I.	Initial Closed-in Pressure	60 Mins.	59 Mins.
D	Initial Closed-in Pressure	1,162	P.S.I.	Second Flow Pressure	30 Mins.	Mins.
E	Second Initial Flow Pressure	74	P.S.I.	Final Closed-in Pressure	60 Mins.	Mins.
F	Second Final Flow Pressure	81	P.S.I.			
G	Final Closed-in Pressure	1,075	P.S.I.			
H	Final Hydrostatic Mud	2,165	P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 6 Inc. of 5 mins. and a final inc. of ____ Min.

Initial Shut-In
Breakdown: 11 Inc. of 5 mins. and a final inc. of 4 Min.

Second Flow Pressure
Breakdown: 6 Inc. of 5 mins. and a final inc. of ____ Min.

Final Shut-In
Breakdown: 12 Inc. of 5 mins. and a final inc. of ____ Min.

Point	First Flow Pressure Mins.	Press.	Initial Shut-In Minutes	Press.	Second Flow Pressure Minutes	Press.	Final Shut-In Minutes	Press.
P 1	00	57	00	66	00	74	00	81
P 2	05	59	05	114	05	76	05	99
P 3	10	60	10	556	10	77	10	188
P 4	15	61	15	879	15	77	15	557
P 5	20	62	20	987	20	78	20	795
P 6	25	64	25	1,036	25	79	25	891
P 7	30	66	30	1,074	30	81	30	949
P 8			35	1,099			35	984
P 9			40	1,118			40	1,013
P10			45	1,135			45	1,033
P11			50	1,148			50	1,051
P12			55	1,160			55	1,067
P13			59	1,162			60	1,075
P14								
P15								
P16								
P17								
P18								
P19								
20								

DRILL STEM TEST RECOVERY ANALYSIS

(303) 473-6909
P.O. Box 2260
Colorado Springs, CO 80901

COMPANY: A. Scott Ritchie LEASE: #1 Grecian "A" DST# 7
SEC: 3 Twp: 12S Rge: 22W COUNTY: Trego STATE: Kansas

VISUAL DST RECOVERY:

3' Watery Mud Cut Oil
60' Watery Oil Cut Mud

CENTRIFUGE PERCENTAGE ANALYSIS

Sample #	Feet of FLUID	Percent of GAS	Percent of OIL	Percent of WATER	Percent of MUD
1	3	5	45	20	30
2	60	5	15	30	50

CALCULATED FLUID RECOVERY FROM PERCENTAGES

(Formula for Calculation)

Percent of individual fluid × Total footage represented in sample

SAMPLE #	TOTAL FOOTAGE	GAS %	×	Total	=	Feet	OIL %	×	Total	=	Feet	WATER %	×	Total	=	Feet	MUD %	×	Total	=	Feet
1	3	5	×	3	=	.15	45	×	3	=	1.35	20	×	3	=	.6	30	×	3	=	.9
2	60	5	×	60	=	3	15	×	60	=	9	30	×	60	=	18	50	×	60	=	30
			×		=			×		=			×		=			×		=	
			×		=			×		=			×		=			×		=	
			×		=			×		=			×		=			×		=	
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			×		=			×		=			×		=			×		=	
			×		=			×		=			×		=			×		=	
Totals						3.15					10.35					18.6					30.9

CALCULATED DST RECOVERY =

GAS	3.15
OIL	10.35
WTR	18.60
MUD	30.90
TOTAL FLUID	63'

CHLORIDES MUD SYSTEM 42,000
CHLORIDES DST WATER 43,000
GRAVITY OF OIL