

**DRILL-STEM TEST DATA**

**Well Name:** DUBBS #2-17  
**Company :** CASTELLI EXPLORATION INC  
**Location - Sec:** 17                      **Twp:** 16S                      **Rge:** 24W  
**County:** NESS                      **State:** KS  
**Date:** 06/24/95

TRILOBITE TESTING L.L.C.

OPERATOR : CASTELLI EXPLORATION INC  
 WELL NAME: DUBBS #2-17  
 LOCATION : 17-16S-24W, NESS COUNTY  
 INTERVAL : 4475.00 To 4514.00 ft

DATE 06/24/95

KB 2523.00 ft TICKET NO: 7938 DST #1  
 GR 0.00 ft FORMATION: MISSISSIPPIAN  
 TD 4514.00 ft TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 15 Rec.	AK-1	AK-1	AK-1			PF Fr. 15 to hr
SI 45 Range(Psi )	4000.0	4000.0	4375.0	0.0	0.0	IS Fr. 45 to hr
SF 60 Clock(hrs)	25810	25810	23858			SF Fr. to 1 hr
FS 120 Depth(ft )	4479.0	4479.0	4510.0	0.0	0.0	FS Fr. to 2 hr

	Field	1	2	3	4	
A. Init Hydro	2319.0	2310.0	0.0	0.0	0.0	T STARTED hr
B. First Flow	29.0	47.0	0.0	0.0	0.0	T ON BOTM hr
Bl. Final Flow	39.0	44.0	0.0	0.0	0.0	T OPEN 0342 hr
C. In Shut-in	877.0	882.0	0.0	0.0	0.0	T PULLED 0742 hr
D. Init Flow	59.0	79.0	0.0	0.0	0.0	T OUT hr
E. Final Flow	88.0	91.0	0.0	0.0	0.0	
F. Fl Shut-in	729.0	736.0	0.0	0.0	0.0	TOOL DATA-----
G. Final Hydro	2238.0	2229.0	0.0	0.0	0.0	Tool Wt. 0.00 lbs
Inside/Outside	I	I	O			Wt Set On Packer 0.00 lbs
						Wt Pulled Loose 0.00 lbs
						Initial Str Wt 0.00 lbs
						Unseated Str Wt 0.00 lbs
						Bot Choke 0.75 in
						Hole Size 7.88 in
						D Col. ID 0.00 in
						D. Pipe ID 3.80 in
						D.C. Length 0.00 ft
						D.P. Length 0.00 ft

RECOVERY

Tot Fluid 187.00 ft of 0.00 ft in DC and 187.00 ft in DP  
 240.00 ft of GAS IN PIPE  
 5.00 ft of MUD CUT OIL - 60% OIL, 40% MUD  
 62.00 ft of MUD CUT GASSY OIL - 20% GAS, 60% OIL, 20% MUD  
 120.00 ft of MUD CUT GASSY OIL - 40% GAS, 50% OIL, 10% MUD  
 0.00 ft of  
 0.00 ft of  
 0.00 ft of  
 0.00 ft of

SALINITY 0.00 P.P.M. A.P.I. Gravity 0.00

BLOW DESCRIPTION

INITIAL BLOW -  
 WEAK BUILDING TO FAIR, BOTTOM OF  
 BUCKET IN 15 MIN

FINAL BLOW -

WEAK BUILDING TO FAIR, BOTTOM OF  
 BUCKET IN 40 MIN

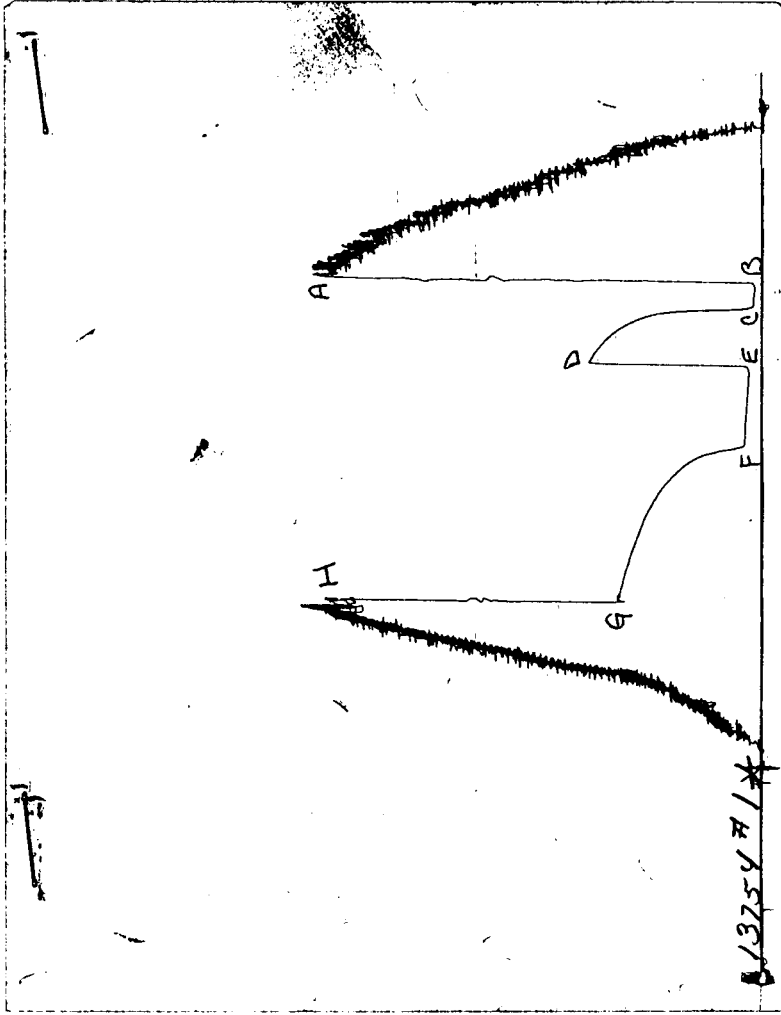
SAMPLES:

SENT TO:

MUD DATA-----  
 Mud Type CHEMICAL  
 Weight 9.30 lb/cf  
 Vis. 52.00 S/L  
 W.L. 10.80 in3  
 F.C. 0.00 in  
 Mud Drop  
 Amt. of fill 0.00 ft  
 Btm. H. Temp. 118.00 F  
 Hole Condition  
 % Porosity 0.00  
 Packer Size 6.75 in  
 No. of Packers 2  
 Cushion Amt. 0.00  
 Cushion Type  
 Reversed Out  
 Tool Chased  
 Tester DAN BANGLE  
 Co. Rep. DOUG BELLIS  
 Contr. DISCOVERY  
 Rig # 1  
 Unit #  
 Pump T.

Test Successful: Y

CHART PAGE



This is an actual photograph of an AK1 recorder chart



### INITIAL FLOW

DST # 1  
RECORDER 13754

<u>TIME(MIN)</u>	<u>PRESSURE</u>	<u>PRESSURE</u>
0	47.2	47.2
3	37.4	-9.8
6	37.4	0.0
9	39.4	2.0
12	41.3	2.0
15	42.3	1.0
18	44.3	2.0

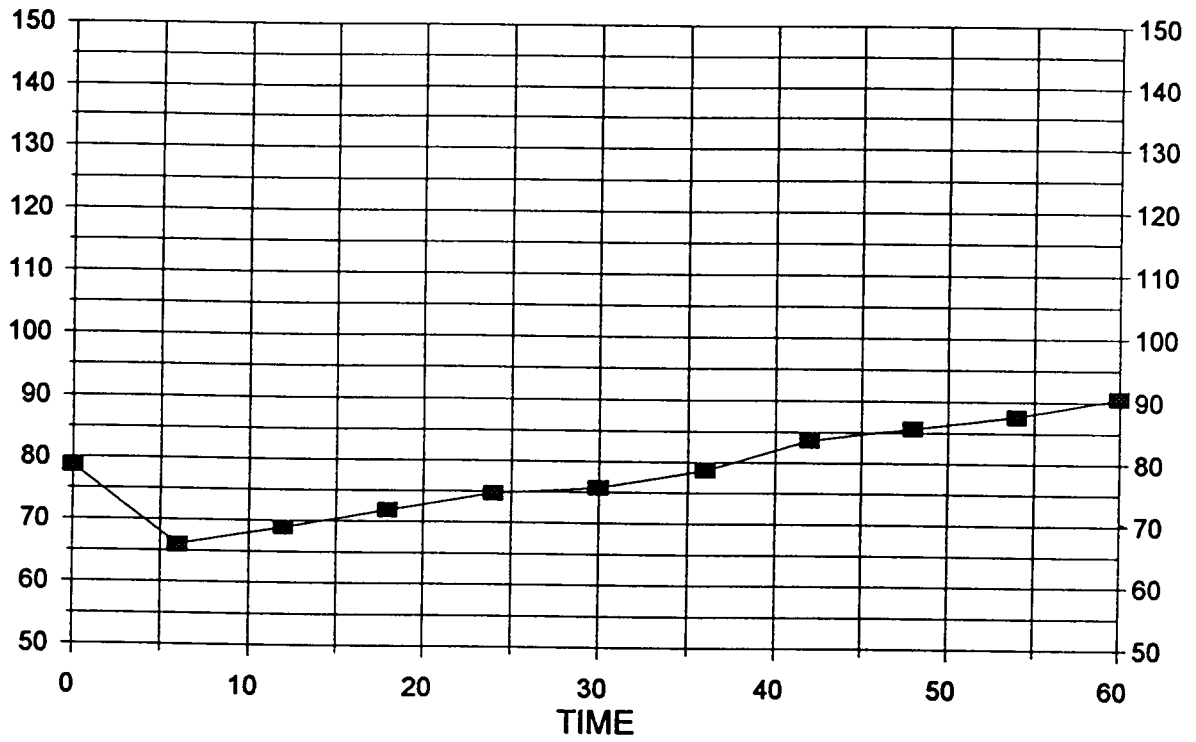
### FINAL FLOW

DST # 1  
RECORDER 13754

<u>TIME(MIN)</u>	<u>PRESSURE</u>	<u>PRESSURE</u>
0	78.7	78.7
6	65.9	-12.8
12	68.9	3.0
18	71.9	3.0
24	74.8	3.0
30	75.8	1.0
36	78.7	3.0
42	83.7	4.9
48	85.6	2.0
54	87.6	2.0
60	90.6	3.0

# DELTA T DELTA P

FINAL FLOW / DST #1



INITIAL PRODUCTION CORRECTED TO PSEUDO STEADY FLOW STATE: 36.82525

**INITIAL SHUT-IN**

DUBBS 2-17

DST # 1

INITIAL FLOW TIME 15

SLOPE	861.1	PSI/CYCLE
P*	1073.44	PSI

	<u>TIME(MIN)</u>	<u>Pws (psi)</u>	<u>Log Horn T</u>	<u>&lt;&gt; PRESSURE</u>	<u>Horn T</u>
	3	224.4	1.041	224.4	6
	6	521.8	0.778	297.3	4
	9	600.8	0.637	79.0	3
	12	650.2	0.544	49.4	2
	15	693.7	0.477	43.5	2
	18	723.3	0.426	29.6	2
	21	751.0	0.385	27.7	2
	24	774.7	0.352	23.7	2
	27	797.4	0.325	22.7	2
Q	30	814.2	0.301	16.8	2
	33	832.0	0.281	17.8	1
	36	847.8	0.263	15.8	1
	39	861.7	0.248	13.8	1
	42	870.5	0.234	8.9	1
X	45	882.4	0.222	11.9	1

# FINAL SHUT-IN

DUBBS 2-17

DST # 1

TOTAL FLOW TIME 75

SLOPE

1023.4

PSI/CYCLE

P\*

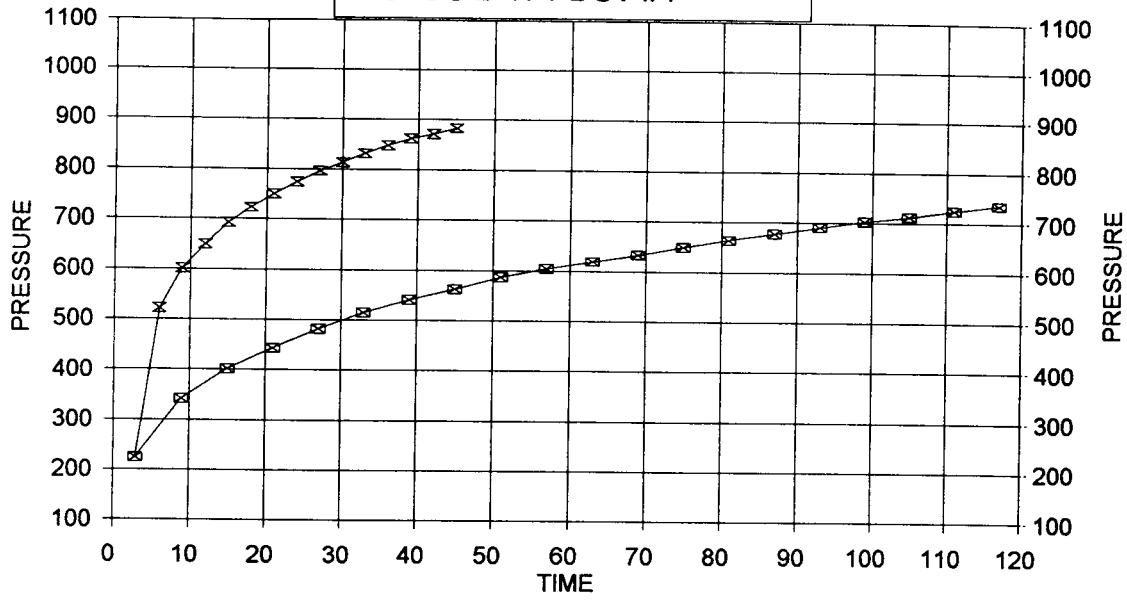
956.29

PSI

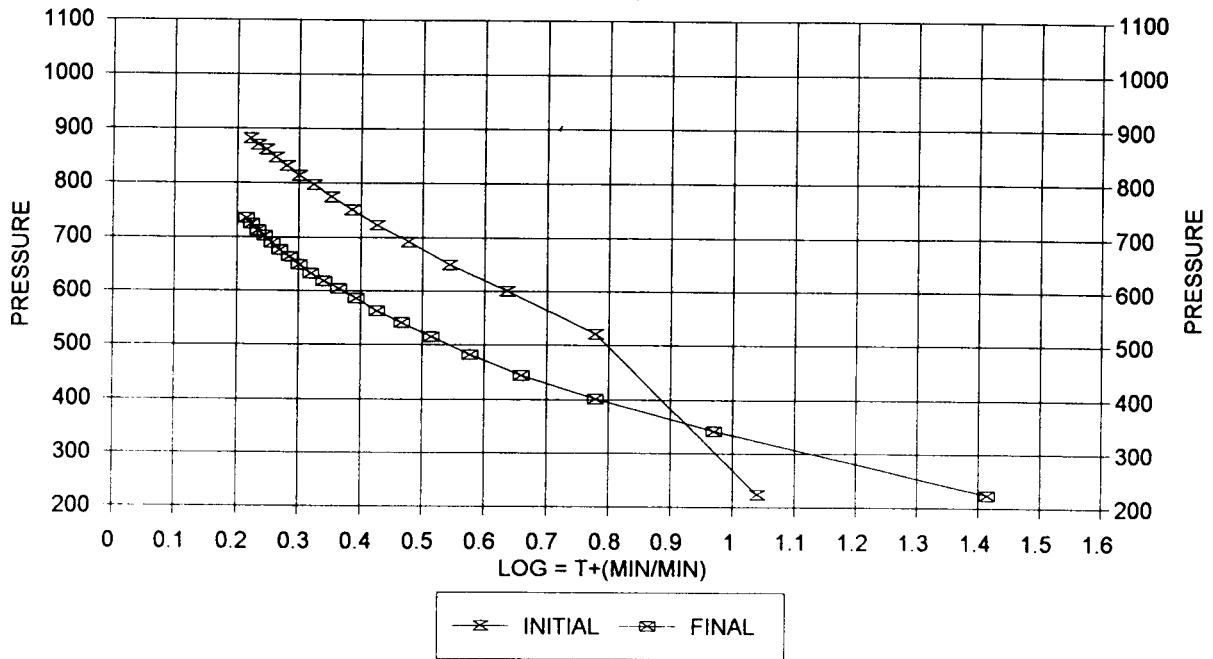
	<u>TIME(MIN)</u>	<u>Pws (psi)</u>	<u>Log Horn T</u>	<u>&lt;&gt; PRESSURE</u>	<u>Horn T</u>
	3	224.4	1.415	224.4	26
	9	342.5	0.970	118.1	9
	15	401.6	0.778	59.1	6
	21	443.9	0.660	42.3	5
	27	482.3	0.577	38.4	4
	33	515.8	0.515	33.5	3
	39	541.5	0.466	25.7	3
	45	563.2	0.426	21.7	3
	51	587.0	0.393	23.7	2
	57	604.7	0.365	17.8	2
	63	619.6	0.341	14.8	2
	69	633.4	0.320	13.8	2
	75	650.2	0.301	16.8	2
Q	81	665.0	0.285	14.8	2
	87	677.9	0.270	12.8	2
	93	690.7	0.257	12.8	2
	99	703.6	0.245	12.8	2
	105	712.4	0.234	8.9	2
	111	725.3	0.224	12.8	2
X	117	736.2	0.215	10.9	2

# DELTA T DELTA P

## DUBBS 2-17 / DST #1



# HORNER PLOT



# CALCULATED RECOVERY ANALYSIS DRILL PIPE

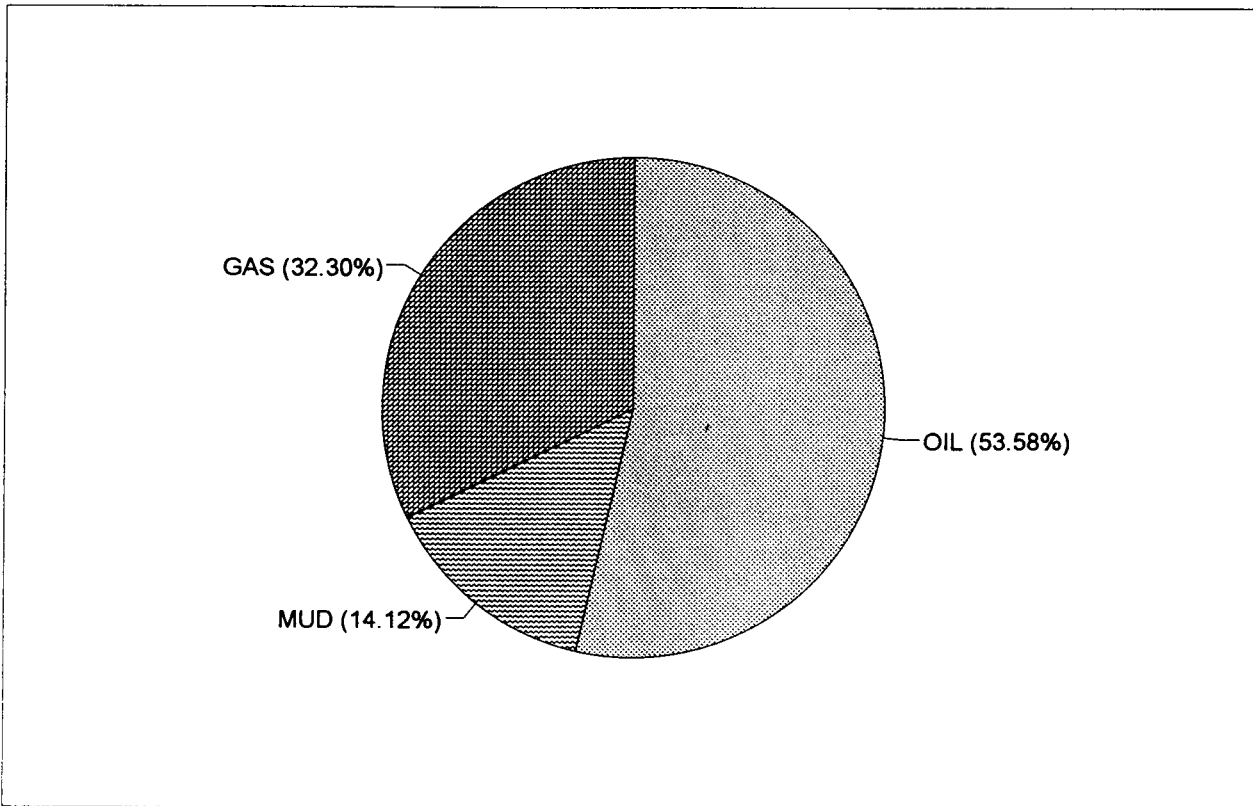
DST # 1

TICKET # 7938

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SAMPLE #	TOTAL FEET	GAS		OIL		WATER		MUD	
		%	FEET	%	FEET	%	FEET	%	FEET
1	5		0	60	3		0	40	2
2	62	20	12.4	60	37.2		0	20	12.4
3	120	40	48	50	60		0	10	12
4			0		0		0		0
5			0		0		0		0
6			0		0		0		0
<b>TOTAL</b>	<b>187</b>	<b>32.30</b>	<b>60.4</b>	<b>53.58</b>	<b>100.2</b>	<b>0</b>	<b>0</b>	<b>14.12</b>	<b>26.4</b>

			HRS OPEN	BBL/DAY
BBL OIL=	1.424844	*	1.25	27.36
BBL WATER=	0	*		0.00
BBL MUD=	0.375408			
BBL GAS	0.858888			



WELL NAME Dubbs 2-17 DST # 1 RECORDER # 13754

INIT. HYD. MUD. 2.320 2309.7 FINAL HYD. MUD 2.24 2228.7

INITIAL FLOW MINUTES	INITIAL SHUTIN MINUTES	FINAL FLOW MINUTES	FINAL SHUTIN MINUTES
INTERVAL <u>3</u>	INTERVAL <u>3</u>	INTERVAL <u>6</u>	INTERVAL <u>6</u>
.048	.1045	1 .080	.092
.038	.1228	2 .067	.228
.038	.530	3 .1070	.348
.040	.610	4 .1073	.408
.042	.660	5 .076	.451
.043	.704	6 .077	.490
.045	.734	7 .080	.524
	.762	8 .085	.550
	.786	9 .087	.572
	.809	10 .089	.596
	.826	11 .092	.604
	.844	12	.629
	.860	13	.643
	.874	14	.660
	.883	15	.675
	.895	16	.688
		17	.707
		18	. <del>700</del> 714
		19	.723
		20	.736
		21	.747
		22	
		23	
		24	
		25	
		26	
		27	

TRILOBITE TESTING L.L.C.

OPERATOR : CASTELLI EXPLORATION INC  
 WELL NAME: DUBBS #2-17  
 LOCATION : 17-16S-24W, NESS COUNTY  
 INTERVAL : 4474.00 To 4519.00 ft

DATE 06/24/95  
 KB 2523.00 ft TICKET NO: 7939 DST #2  
 GR 0.00 ft FORMATION: MISSISSIPPIAN  
 TD 4519.00 ft TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins		Field	1	2	3	4	TIME DATA-----		
PF	0	Rec.	AK-1	AK-1	AK-1		PF Fr.	to	hr
SI	0	Range(Psi )	4000.0	4000.0	4375.0	0.0	IS Fr.	to	hr
SF	0	Clock(hrs)	25810	25810	23858		SF Fr.	to	hr
FS	0	Depth(ft )	4478.0	4478.0	4515.0	0.0	FS Fr.	to	hr

	Field	1	2	3	4			
A. Init Hydro	2444.0	2401.0	0.0	0.0	0.0	T STARTED		hr
B. First Flow	0.0	0.0	0.0	0.0	0.0	T ON BOTM		hr
B1. Final Flow	0.0	0.0	0.0	0.0	0.0	T OPEN	1810	hr
C. In Shut-in	0.0	0.0	0.0	0.0	0.0	T PULLED		hr
D. Init Flow	0.0	0.0	0.0	0.0	0.0	T OUT		hr
E. Final Flow	0.0	0.0	0.0	0.0	0.0			
F. Fl Shut-in	0.0	0.0	0.0	0.0	0.0			
G. Final Hydro	2312.0	2330.0	0.0	0.0	0.0			
Inside/Outside	I	I	O					

RECOVERY

Tot Fluid 180.00 ft of 0.00 ft in DC and 180.00 ft in DP  
 180.00 ft of DRILLING MUD  
 0.00 ft of  
 0.00 ft of  
 0.00 ft of  
 0.00 ft of  
 0.00 ft of  
 0.00 ft of  
 0.00 ft of

TOOL DATA-----  
 Tool Wt. 0.00 lbs  
 Wt Set On Packer 0.00 lbs  
 Wt Pulled Loose 0.00 lbs  
 Initial Str Wt 0.00 lbs  
 Unseated Str Wt 0.00 lbs  
 Bot Choke 0.75 in  
 Hole Size 7.88 in  
 D Col. ID 0.00 in  
 D. Pipe ID 3.80 in  
 D.C. Length 0.00 ft  
 D.P. Length 0.00 ft

SALINITY 0.00 P.P.M. A.P.I. Gravity 0.00

BLOW DESCRIPTION

PACKER FAILURE - RESET PACKERS, NO HELP

MUD DATA-----  
 Mud Type CHEMICAL  
 Weight 9.30 lb/cf  
 Vis. 52.00 S/L  
 W.L. 10.80 in3  
 F.C. 0.00 in  
 Mud Drop  
 Amt. of fill 0.00 ft  
 Btm. H. Temp. 0.00 F  
 Hole Condition  
 % Porosity 0.00  
 Packer Size 6.75 in  
 No. of Packers 2  
 Cushion Amt. 0.00  
 Cushion Type  
 Reversed Out  
 Tool Chased  
 Tester DAN BANGLE  
 Co. Rep. DOUG BELLIS  
 Contr. DISCOVERY  
 Rig # 1  
 Unit #  
 Pump T.

SAMPLES:  
 SENT TO:

Test Successful: N

CHART PAGE



This is an actual photograph of an AK1 recorder chart

TRILOBITE TESTING L.L.C.

OPERATOR : CASTELLI EXPLORATION INC DATE 06/24/95  
 WELL NAME: DUBBS #2-17 KB 2523.00 ft TICKET NO: 7941 DST #3  
 LOCATION : 17-16S-24W, NESS COUNTY GR 0.00 ft FORMATION: MISSISSIPPIAN  
 INTERVAL : 4445.00 To 4519.00 ft TD 4519.00 ft TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 30 Rec.	AK-1	AK-1	AK-1			PF Fr. 30 to hr
SI 60 Range(Psi )	4000.0	4000.0	4375.0	0.0	0.0	IS Fr. to 1 hr
SF 90 Clock(hrs)	25810	25810	23858			SF Fr. to 1.5 hr
FS 180 Depth(ft )	4449.0	4449.0	4515.0	0.0	0.0	FS Fr. to 2.5 hr

	Field	1	2	3	4	
A. Init Hydro	2380.0	2359.0	0.0	0.0	0.0	T STARTED hr
B. First Flow	39.0	52.0	0.0	0.0	0.0	T ON BOTM hr
B1. Final Flow	49.0	54.0	0.0	0.0	0.0	T OPEN 2240 hr
C. In Shut-in	719.0	714.0	0.0	0.0	0.0	T PULLED 0410 hr
D. Init Flow	78.0	88.0	0.0	0.0	0.0	T OUT hr
E. Final Flow	98.0	110.0	0.0	0.0	0.0	
F. Fl Shut-in	660.0	663.0	0.0	0.0	0.0	TOOL DATA-----
G. Final Hydro	2238.0	2236.0	0.0	0.0	0.0	Tool Wt. 0.00 lbs
Inside/Outside	I	I	O			Wt Set On Packer 0.00 lbs
						Wt Pulled Loose 0.00 lbs
						Initial Str Wt 0.00 lbs
						Unseated Str Wt 0.00 lbs
						Bot Choke 0.75 in
						Hole Size 7.88 in
						D Col. ID 0.00 in
						D. Pipe ID 3.80 in
						D.C. Length 0.00 ft
						D.P. Length 0.00 ft

RECOVERY

Tot Fluid 216.00 ft of 0.00 ft in DC and 216.00 ft in DP  
 216.00 ft of GAS IN PIPE  
 30.00 ft of OIL CUT MUD - 40% OIL, 60% MUD  
 124.00 ft of OIL & GAS CUT MUD - 10% GAS, 30% OIL, 60% MUD  
 62.00 ft of OIL & GAS CUT MUD - 30% GAS, 30% OIL, 40% MUD  
 0.00 ft of  
 0.00 ft of  
 0.00 ft of  
 0.00 ft of

SALINITY 0.00 P.P.M. A.P.I. Gravity 0.00

BLOW DESCRIPTION

INITIAL BLOW -  
 WEAK BUILDING TO FAIR, BOTTOM OF  
 BUCKET IN 23 MIN

FINAL BLOW -

WEAK BUILDING TO FAIR, BOTTOM OF  
 BUCKET IN 70 MIN

SAMPLES:

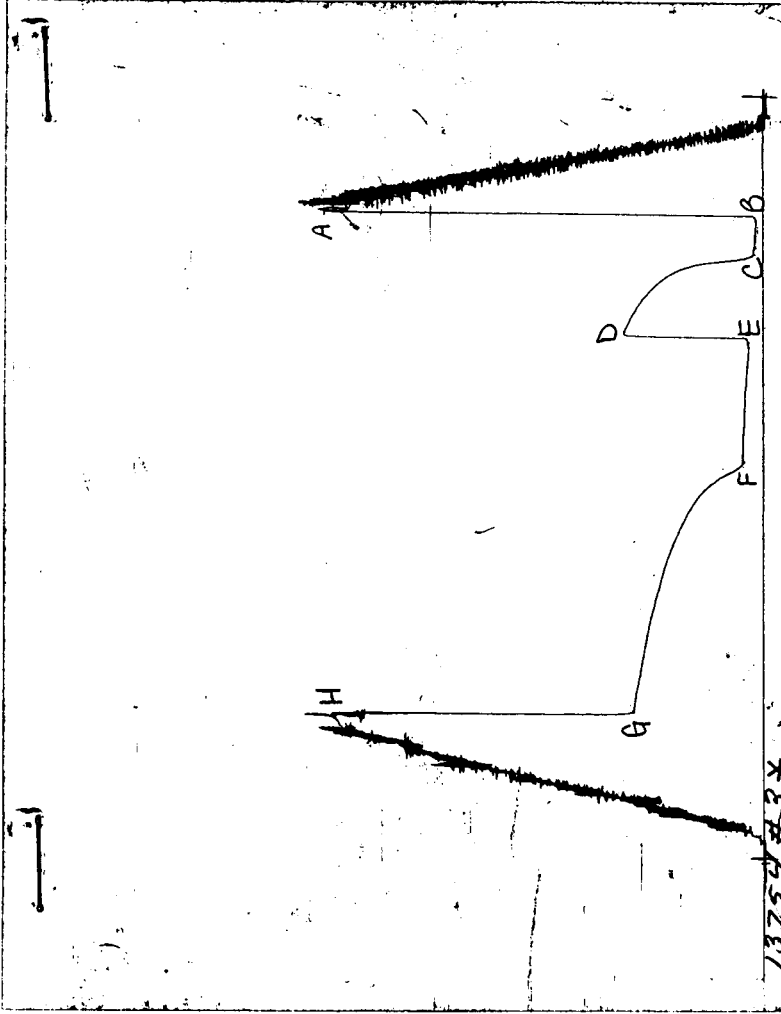
SENT TO:

MUD DATA-----

Mud Type	CHEMICAL
Weight	9.20 lb/cf
Vis.	52.00 S/L
W.L.	8.40 in3
F.C.	0.00 in
Mud Drop	
Amt. of fill	0.00 ft
Btm. H. Temp.	121.00 F
Hole Condition	
% Porosity	0.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00
Cushion Type	
Reversed Out	
Tool Chased	
Tester	DAN BANGLE
Co. Rep.	DOUG BELLIS
Contr.	DISCOVERY
Rig #	1
Unit #	
Pump T.	

Test Successful: Y

CHART PAGE



This is an actual photograph of an AK1 recorder chart

# INITIAL SHUT-IN

DUBBS 2-17

DST # 3

INITIAL FLOW TIME 30

SLOPE

1034.8

PSI/CYCLE

P\*

896.63

PSI

	<u>TIME(MIN)</u>	<u>Pws (psi)</u>	<u>Log Horn T</u>	<u>&lt;&gt; PRESSURE</u>	<u>Horn T</u>
	3	107.3	1.041	107.3	11
	6	293.3	0.778	186.0	6
	9	391.7	0.637	98.4	4
	12	452.8	0.544	61.0	4
	15	486.2	0.477	33.5	3
	18	511.9	0.426	25.7	3
	21	539.5	0.385	27.7	2
	24	561.3	0.352	21.7	2
	27	582.0	0.325	20.8	2
	30	596.8	0.301	14.8	2
	33	618.6	0.281	21.7	2
	36	632.4	0.263	13.8	2
	39	644.3	0.248	11.9	2
	42	656.1	0.234	11.9	2
	45	670.0	0.222	13.8	2
	48	678.8	0.211	8.9	2
Q	51	688.7	0.201	9.9	2
	54	698.6	0.192	9.9	2
	57	708.5	0.184	9.9	2
X	60	714.4	0.176	5.9	2

# FINAL SHUT-IN

DUBBS 2-17

DST # 3

TOTAL FLOW TIME 120

SLOPE

1075.0

PSI/CYCL

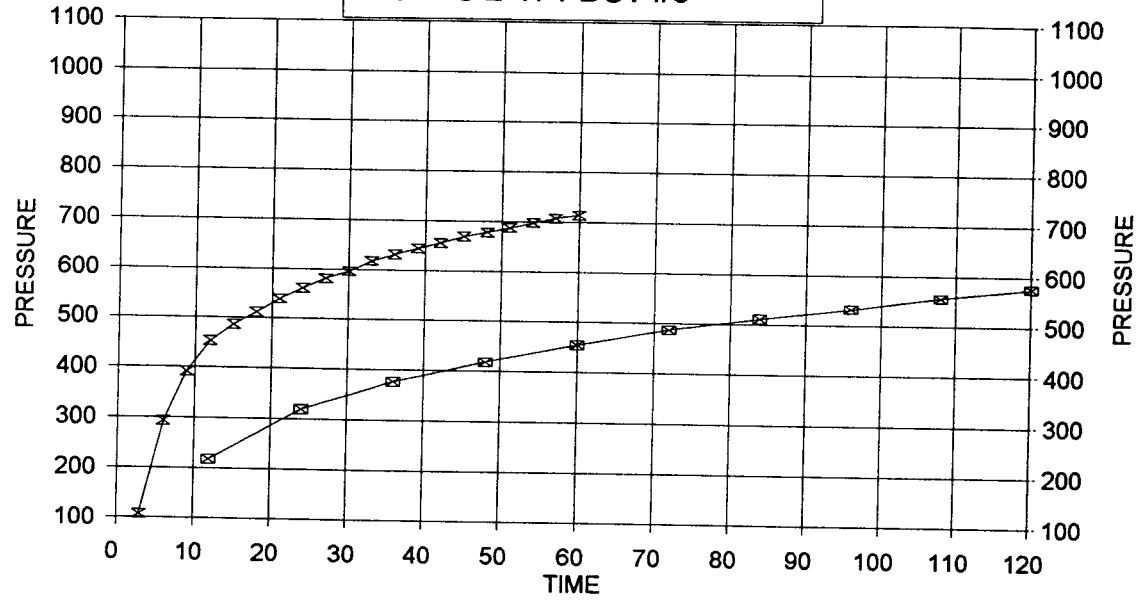
P\*

889.71

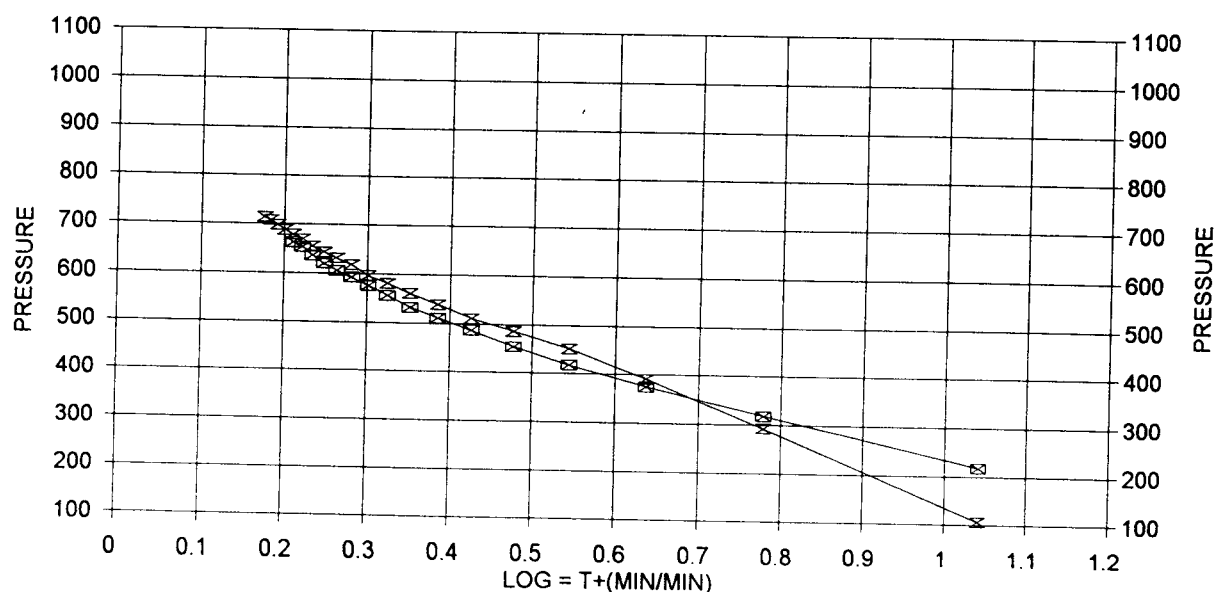
PSI

	<u>TIME(MIN)</u>	<u>Pws (psi)</u>	<u>Log Horn T</u>	<u>&lt;&gt; PRESSURE</u>	<u>Horn T</u>
	12	218.5	1.041	218.5	11
	24	318.9	0.778	100.4	6
	36	376.0	0.637	57.1	4
	48	418.3	0.544	42.3	4
	60	454.7	0.477	36.4	3
	72	487.2	0.426	32.5	3
	84	511.9	0.385	24.7	2
	96	532.6	0.352	20.7	2
	108	556.3	0.325	23.7	2
	120	576.1	0.301	19.8	2
	132	592.9	0.281	16.8	2
Q	144	606.7	0.263	13.8	2
	156	620.5	0.248	13.8	2
	168	637.3	0.234	16.8	2
	180	654.1	0.222	16.8	2
X	192	663.0	0.211	8.9	2

### DELTA T DELTA P DUBBS 2-17 / DST #3



### HORNER PLOT



—x— INITIAL    —□— FINAL

# CALCULATED RECOVERY ANALYSIS DRILL PIPE

DST # 3

TICKET # 7941

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SAMPLE #	TOTAL FEET	GAS		OIL		WATER		MUD	
		%	FEET	%	FEET	%	FEET	%	FEET
1	216	100	216		0		0		0
2	30		0	40	12		0	60	18
3	124	10	12.4	30	37.2		0	60	74.4
4	62	30	18.6	30	18.6		0	40	24.8
5			0		0		0		0
6			0		0		0		0
<b>TOTAL</b>	<b>432</b>	<b>57.18</b>	<b>247</b>	<b>15.69</b>	<b>67.8</b>	<b>0</b>	<b>0</b>	<b>27.13</b>	<b>117.2</b>

		HRS OPEN	BBL/DAY
BBL OIL=	0.964116	* 2.00	11.57
BBL WATER=	0	*	0.00
BBL MUD=	1.666584		
BBL GAS	3.51234		

