

CRUDE OIL TESTING, INC.

DATE 1/7/88

TEST TICKET NO. 5822

Company: Ritchie Exploration, Inc.  
 Company Address: 125 N. Market, #1000, Wichita, KS 67202  
 Location: Sec. 31 Twp. 6S Range 20W Co. Rooks State KS  
 Well Name & Number: #1 Lunney - Schuck Code E20

ENGINEERING DATA	Elevation	2245 KB	Drill Pipe Length	2845	ID 3.8 "
	Mud Viscosity	47	Weight Pipe Length	572	ID 2.76"
	Mud Weight	9.3	Drill Collar Length		
	Water Loss	10	Top Packer Depth	3435	
	Type of Mud Chemical		Bottom Packer Depth	3440	
	Anchor Length	54	Tool Joint Size	4.5	XH
	Hole Size	7 7/8	Test Tool Size	5 1/2	
	Casing Size	8 5/8	Packer Size	6 3/4	
	Surface Choke	3/4	Reversed Out	No	
	Bottom Choke	3/4	Recorder #	10993	

REMARKS DST # 1

FORMATION	Toronto-Lans Zone A		Test Type Conventional	
	Interval 3440	To 3494	Total Depth 3494	
	Open 45	Shut In 60	Open 45	Shut In 60
	Packer(s) Set	12:01AM	Started Off Bottom 03:31AM	
	Blow 1st Opening Weak blow building to 2 inches. 2nd Opening Weak blow thru/out			

RECOVERY	Total Feet	30
	Recovered	30 feet of Drilling mud (oil specks on top)

CALCULATED RECOVERY	Gas	Oil	Water	Mud	30
	Gravity (Oil)		Test Water Chlorides		PPM
	Test Area Temperature 102F		Mud System Chlorides		4,000 PPM

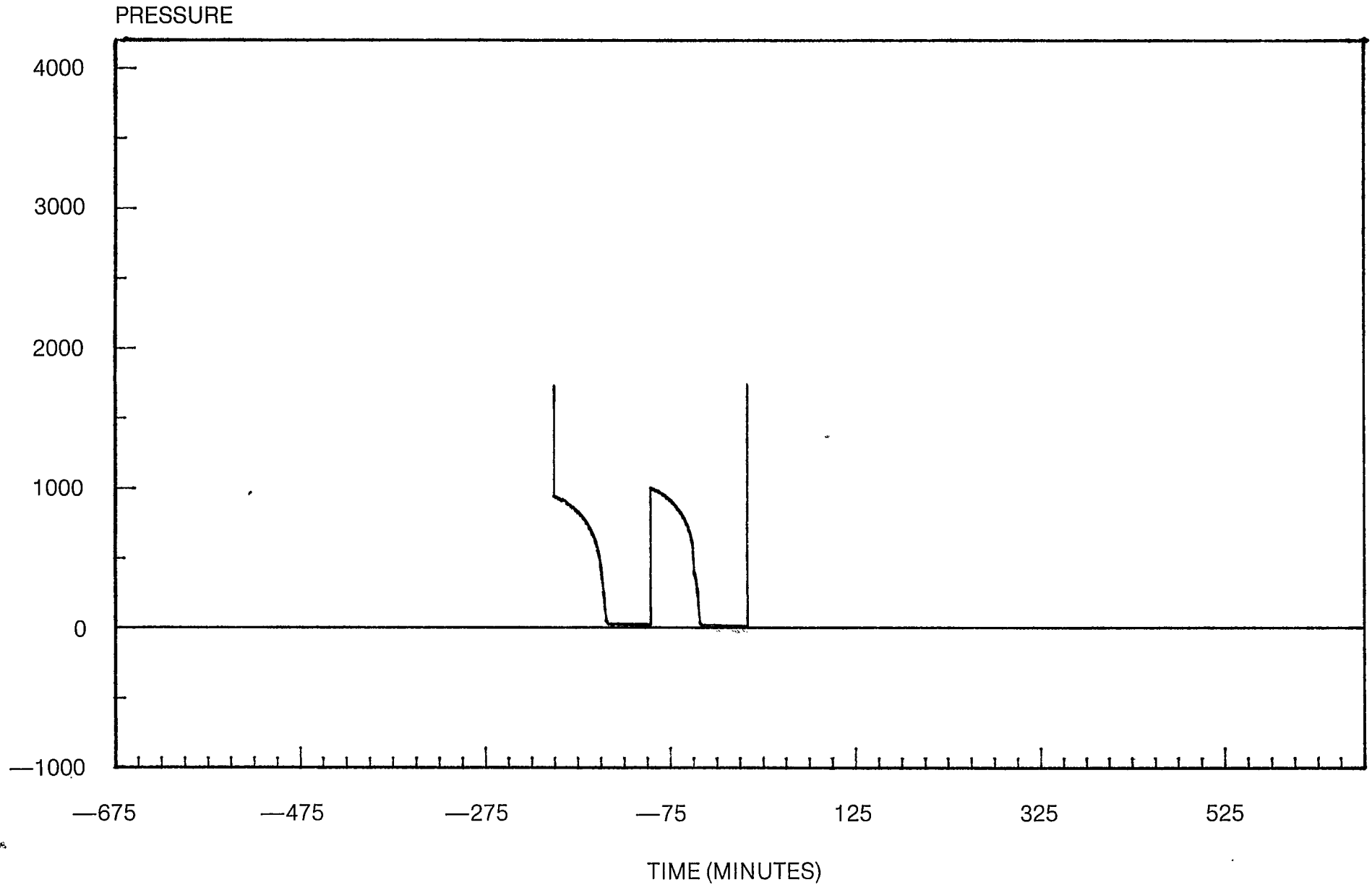
		FIELD READING	OFFICE READING	
PRESSURE	(A) Initial Hydrostatic Mud	1747	1781	PSI
	(B) First Initial Flow Pressure	43	52	PSI
	(C) First Final Flow Pressure	54	57	PSI
	(D) Initial Closed-In Pressure	1060	1045	PSI
	(E) Second Initial Flow Pressure	65	68	PSI
	(F) Second Final Flow Pressure	76	69	PSI
	(G) Final Closed-In Pressure	985	986	PSI
	(H) Final Hydrostatic Mud	1747	1772	PSI

# CRUDE OIL TESTING INC.

FOR: Ritchie Exploration, Inc. TEST 5822

DST 1

01/07/88



PRESSURE BREAKDOWN

TEST TICKET NO. 5822

DST Number: 1 Recorder Number: 10993 Clock Number: 19124

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Mins.	Press.	Mins.	Press.	Mins.	Press.	Mins.	Press.
0	51	0	57	0	65	0	69
3	51	3	59	3	65	3	99
6	51	6	75	6	65	6	296
9	52	9	323	9	65	9	481
12	52	12	434	12	65	12	595
15	52	15	668	15	65	15	671
18	53	18	740	18	66	18	719
21	53	21	791	21	66	21	761
24	53	24	833	24	66	24	795
27	54	27	866	27	67	27	825
30	54	30	890	30	67	30	848
33	54	33	916	33	67	33	870
36	56	36	940	36	69	36	888
39	56	39	958	39	69	39	904
42	56	42	974	42	69	42	919
45	57	45	991	45	69	45	933
		48	1005			48	967
		51	1020			51	967
		54	1028			54	967
		57	1037			57	977
		60	1044			60	985

EQUIPMENT DATA  
TOOL SEQUENCE REPORT

DST Number: 1

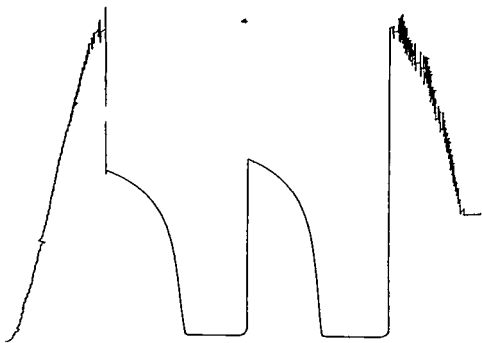
TEST TICKET NO. 5822

WELL NAME: #1 Lunney-Schuck

WELL LOCATION: 31-6s-20w

Tool #	Tool	Length	I.D.	O.D.
1	Drill Pipe - 4.5"	2845.00	3.826	4.50
3	Weight Pipe	572.00	2.760	4.50
8	Circulating Sub	1.00	3.000	5.00
7	Changeover Sub	2.00	3.000	5.00
9	Shut-In Tool	5.45	0.870	5.00
10	Hydraulic Tool	5.60	1.000	5.00
14	Packer	5.35	1.530	6.75
14	Packer	5.35	1.530	6.75
6	Anchor	50.00	2.750	5.00
15	Recorder Carrier	1.00		5.00
16	Bull Plug	2.00		5.00
	Total Depth	3494.75		

10993  
Top  
DST#1  
5822

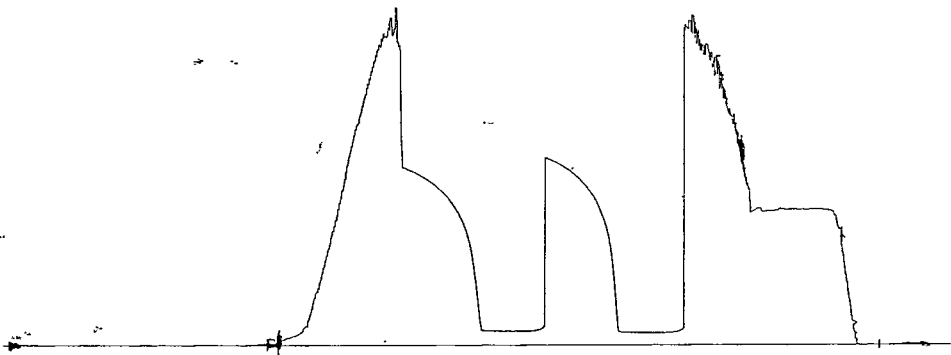


10992.

Bottom

DST #1

5822



CRUDE OIL TESTING, INC.

DATE 1/7/88

TEST TICKET NO. 5823

Company: Ritchie Exploration, Inc.  
 Company Address: Wichita, KS  
 Location: Sec. 31 Twp. 6S Range 20W Co. Rooks State KS  
 Well Name & Number: #1 Lunny-Schuck Code E20

ENGINEERING DATA	Elevation	2245 KB	Drill Pipe Length	2903	ID 3.8 "
	Mud Viscosity	43	Weight Pipe Length	572	ID 2.76"
	Mud Weight	9.5	Drill Collar Length		
	Water Loss	6.4	Top Packer Depth	3493	
	Type of Mud Chemical		Bottom Packer Depth	3498	
	Anchor Length	46	Tool Joint Size	4.5	XH
	Hole Size	7 7/8	Test Tool Size	5 1/2	
	Casing Size	8 5/8	Packer Size	6 3/4	
	Surface Choke	3/4	Reversed Out	No	
	Bottom Choke	3/4	Recorder #	10993	

REMARKS DST # 2

FORMATION	Lansing	Zone C-D	Test Type	Conventional
	Interval	3498 To 3544	Total Depth	3544
	Open	45	Shut In	45
	Packer(s) Set	04:00PM	Started Off Bottom	07:00PM
	Blow 1st Opening Weak building to 7 inches			
	2nd Opening Weak blow thru/out			

RECOVERY Total Feet 154  
 Recovered 154 feet of Water cut mud with oil spots

CALCULATED RECOVERY	Gas	Oil	Water	68.78	Mud	85.22
	Gravity (Oil)		Test Water Chlorides	22,000	PPM	
	Test Area Temperature	102F	Mud System Chlorides	4,000	PPM	

		FIELD READING	OFFICE READING	
PRESSURE	(A) Initial Hydrostatic Mud	1800	1813	PSI
	(B) First Initial Flow Pressure	43	50	PSI
	(C) First Final Flow Pressure	76	74	PSI
	(D) Initial Closed-In Pressure	1167	1172	PSI
	(E) Second Initial Flow Pressure	87	90	PSI
	(F) Second Final Flow Pressure	120	119	PSI
	(G) Final Closed-In Pressure	1157	1164	PSI
	(H) Final Hydrostatic Mud	1758	1773	PSI

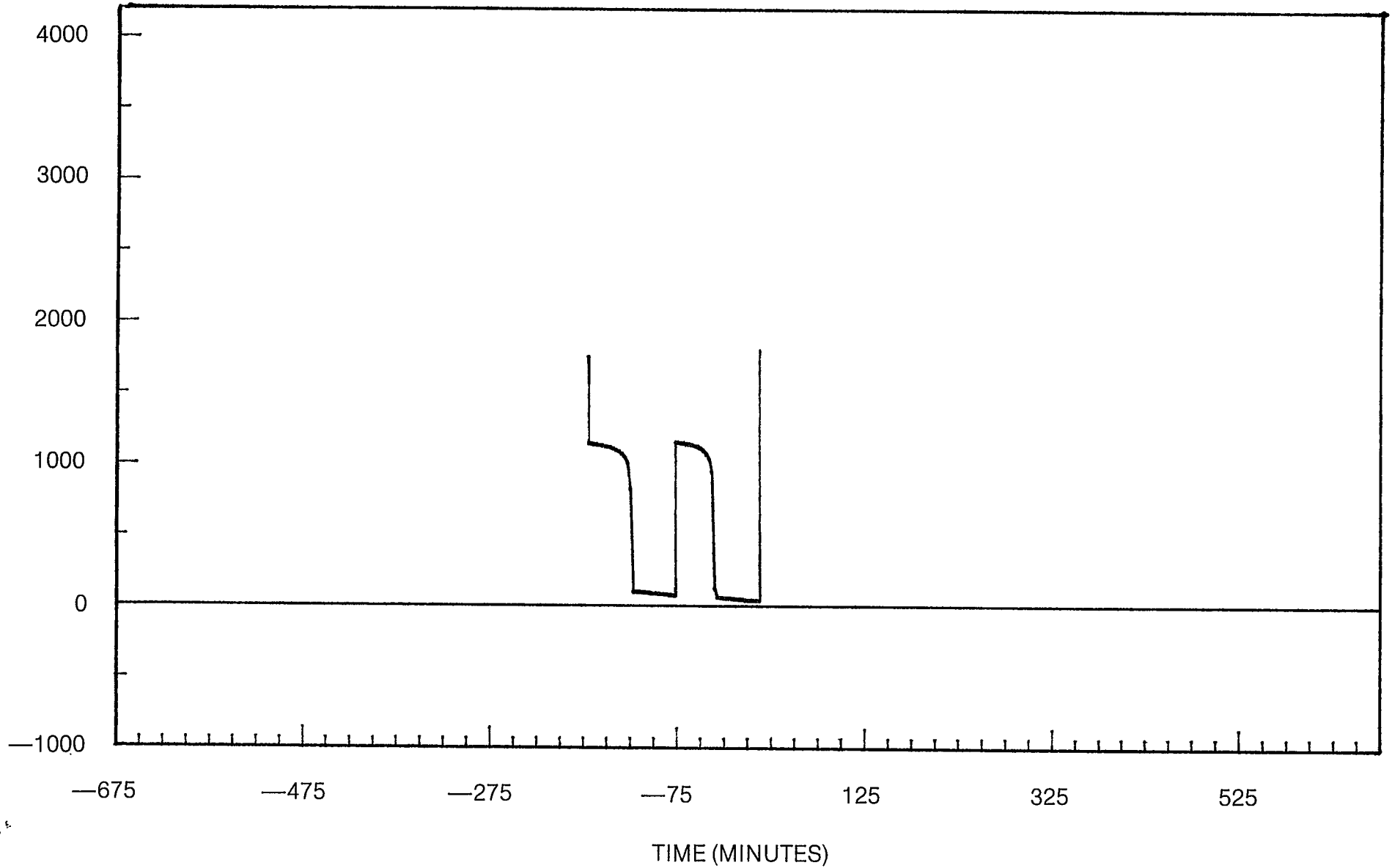
# CRUDE OIL TESTING INC.

FOR: Ritchie Exploration, Inc. TEST 5823

DST 2

01/07/88

PRESSURE



PRESSURE BREAKDOWN

TEST TICKET NO. 5823

DST Number: 2 Recorder Number: 10993 Clock Number: 19124

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Mins.	Press.	Mins.	Press.	Mins.	Press.	Mins.	Press.
0	49	0	74	0	89	0	118
3	49	3	138	3	89	3	842
6	49	6	960	6	91	6	1028
9	49	9	1053	9	94	9	1067
12	51	12	1089	12	96	12	1090
15	54	15	1112	15	98	15	1105
18	57	18	1126	18	100	18	1116
21	59	21	1137	21	102	21	1126
24	60	24	1143	24	104	24	1134
27	61	27	1149	27	107	27	1139
30	63	30	1154	30	109	30	1143
33	65	33	1157	33	111	33	1148
36	67	36	1162	36	113	36	1152
39	70	39	1165	39	115	39	1155
42	72	42	1168	42	116	42	1159
45	74	45	1171	45	118	45	1162
						48	1164

EQUIPMENT DATA  
TOOL SEQUENCE REPORT

DST Number: 2

TEST TICKET NO. 5823

WELL NAME: #1 Lunney-Schuck

WELL LOCATION: 31-6s-20w

Tool #	Tool	Length	I.D.	O.D.
1	Drill Pipe - 4.5"	2903.00	3.826	4.50
3	Weight Pipe	572.00	2.760	4.50
8	Circulating Sub	1.00	3.000	5.00
7	Changeover Sub	2.00	3.000	5.00
9	Shut-In Tool	5.45	0.870	5.00
10	Hydraulic Tool	5.60	1.000	5.00
14	Packer	5.35	1.530	6.75
14	Packer	5.35	1.530	6.75
6	Anchor	42.00	2.750	5.00
15	Recorder Carrier	1.00		5.00
16	Bull Plug	2.00		5.00
	Total Depth	3544.75		

CALCULATED RECOVERY ANALYSIS

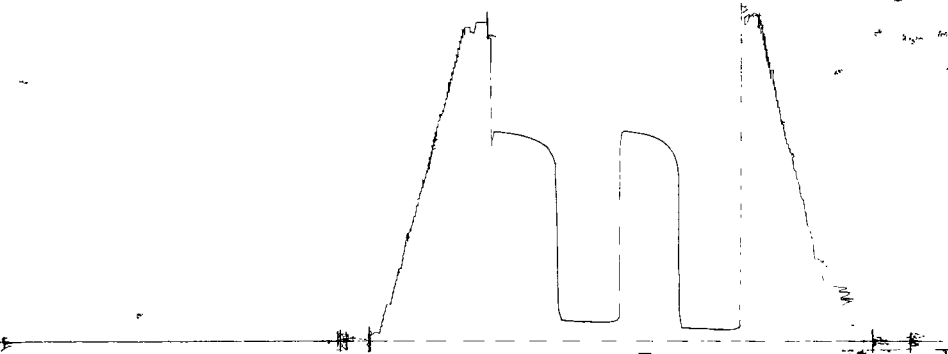
DST Number: 2

TEST TICKET NO. 5823

Sample #	Total Feet	***** Gas %	***** Gas Feet	***** Oil %	***** Oil Feet	***** Mud %	***** Mud Feet
1	30	0.00	0.00	0.00	0.00	65.00	19.50
2	62	0.00	0.00	0.00	0.00	56.00	34.72
3	62	0.00	0.00	0.00	0.00	50.00	31.00
TOTAL	<u>154</u>	0.00	<u>0.00</u>	0.00	<u>0.00</u>	55.34	<u>85.22</u>

Sample #	**** Water %	*** Water Feet	Chlorides (PPM)	Resistivity (Ohms)	Temperature (Deg)
1	35.00	10.50			
2	44.00	27.28			
3	50.00	31.00	22,000		
TOTAL	44.66	<u>68.78</u>			

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Bottom  
5742  
8823



JAN 28 8-10

28 2

28 2

28 2

28

28

28

28

10993

TOP  
DST#2  
5823



CRUDE OIL TESTING, INC.

DATE 1/8/88

TEST TICKET NO. 5824

Company: Ritchie Exploration, Inc.  
 Company Address: Wichita, KS  
 Location: Sec. 31 Twp. 6S Range 20W Co. Rooks State KS  
 Well Name & Number: #1 Lunny-Schuck Code E20

ENGINEERING DATA	Elevation	2245 KB	Drill Pipe Length	2991	ID 3.8 "
	Mud Viscosity	43	Weight Pipe Length	572	ID 2.76 "
	Mud Weight	9.6	Drill Collar Length		
	Water Loss	8.2	Top Packer Depth	3481	
	Type of Mud Chemical		Bottom Packer Depth	3586	
	Anchor Length	93	Tool Joint Size	4.5	XH
	Hole Size	7 7/8	Test Tool Size	5 1/2	
	Casing Size	8 5/8	Packer Size	6 3/4	
	Surface Choke	3/4	Reversed Out	No	
	Bottom Choke	3/4	Recorder #	10993	

REMARKS DST # 3

FORMATION Lansing Zone H - L Test Type Conventional  
 Interval 3586 To 3679 Total Depth 3679  
 Open 30 Shut In 30 Open 30 Shut In 30  
 Packer(s) Set 11:40PM Started Off Bottom 01:40AM  
 Blow 1st Opening Weak died in 28 min.  
 2nd Opening No blow - flushed tool

RECOVERY Total Feet 15  
 Recovered 15 feet of Drilling mud

CALCULATED RECOVERY	Gas	Oil	Water	Mud	15
	Gravity (Oil)		Test Water Chlorides		PPM
	Test Area Temperature	103F	Mud System Chlorides	4,000	PPM

		FIELD READING	OFFICE READING	
PRESSURE	(A) Initial Hydrostatic Mud	1865	1859	PSI
	(B) First Initial Flow Pressure	65	67	PSI
	(C) First Final Flow Pressure	65	67	PSI
	(D) Initial Closed-In Pressure	239	223	PSI
	(E) Second Initial Flow Pressure	76	71	PSI
	(F) Second Final Flow Pressure	76	71	PSI
	(G) Final Closed-In Pressure	239	234	PSI
	(H) Final Hydrostatic Mud	1811	1831	PSI

EQUIPMENT DATA  
TOOL SEQUENCE REPORT

DST Number: 3

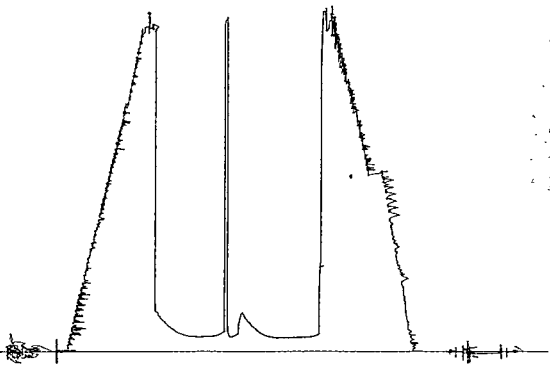
TEST TICKET NO. 5824

WELL NAME: #1 Lunney-Schuck

WELL LOCATION: 31-6s-20w

Tool #	Tool	Length	I.D.	O.D.
1	Drill Pipe - 4.5"	2991.00	3.826	4.50
3	Weight Pipe	572.00	2.760	4.50
8	Circulating Sub	1.00	3.000	5.00
7	Changeover Sub	2.00	3.000	5.00
9	Shut-In Tool	5.45	0.870	5.00
10	Hydraulic Tool	5.60	1.000	5.00
14	Packer	5.35	1.530	6.75
14	Packer	5.35	1.530	6.75
6	Anchor	89.00	2.750	5.00
15	Recorder Carrier	1.00		5.00
16	Bull Plug	2.00		5.00
	Total Depth	3679.75		

10992  
DST #3  
Bottom  
5824



10993  
DST#3  
Top  
5824

