

CRUDE OIL TESTING, INC.

DATE 4/18/84

TEST TICKET NO. 4138

Company: A. Scott Ritchie  
 Company Address: 125 N. Market Suite 950 Wichita KS 67202  
 Location: Sec. 20 Twp. 14S Range 20W Co. Ellis State KS  
 Well Name & Number: Weigel #1 Code E14

ENGINEERING DATA	Elevation	2122 KB	Drill Pipe Length	2628	ID 3.8 "
	Mud Viscosity	37	Weight Pipe Length	445	ID 2.76"
	Mud Weight	9.9	Drill Collar Length	304	ID 2.25"
	Water Loss	14.4	Top Packer Depth	3435	
	Type of Mud	Starch	Bottom Packer Depth	3439	
	Anchor Length	41	Tool Joint Size	4.5	FH
	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 #	10992	
	Extra Equipment		None		

REMARKS DST #1  
 Pit sample 61000 ppm.

FORMATION KC/Lans. Zone B C D Test Type Conventional  
 Interval 3439 To 3480 Total Depth 3480  
 Open 30 Shut In 45 Open 30 Shut In 45  
 Packer(s) Set 12:58AM Started Off Bottom 03:30AM  
 Blow 1st Opening Fair increasing blow to 9 inches in bucket.  
 2nd Opening Fair increasing blow to 7 inches in bucket.

RECOVERY Total Feet 340  
 Recovered 60 feet of Free gas in pipe  
 Recovered 280 feet of Slightly oil cut muddy water

CALCULATED RECOVERY Gas Oil 18 Water 187 Mud 75  
 Gravity (Oil) Test Water Chlorides 98,000 PPM  
 Test Area Temperature 114F Mud System Chlorides 60,000 PPM

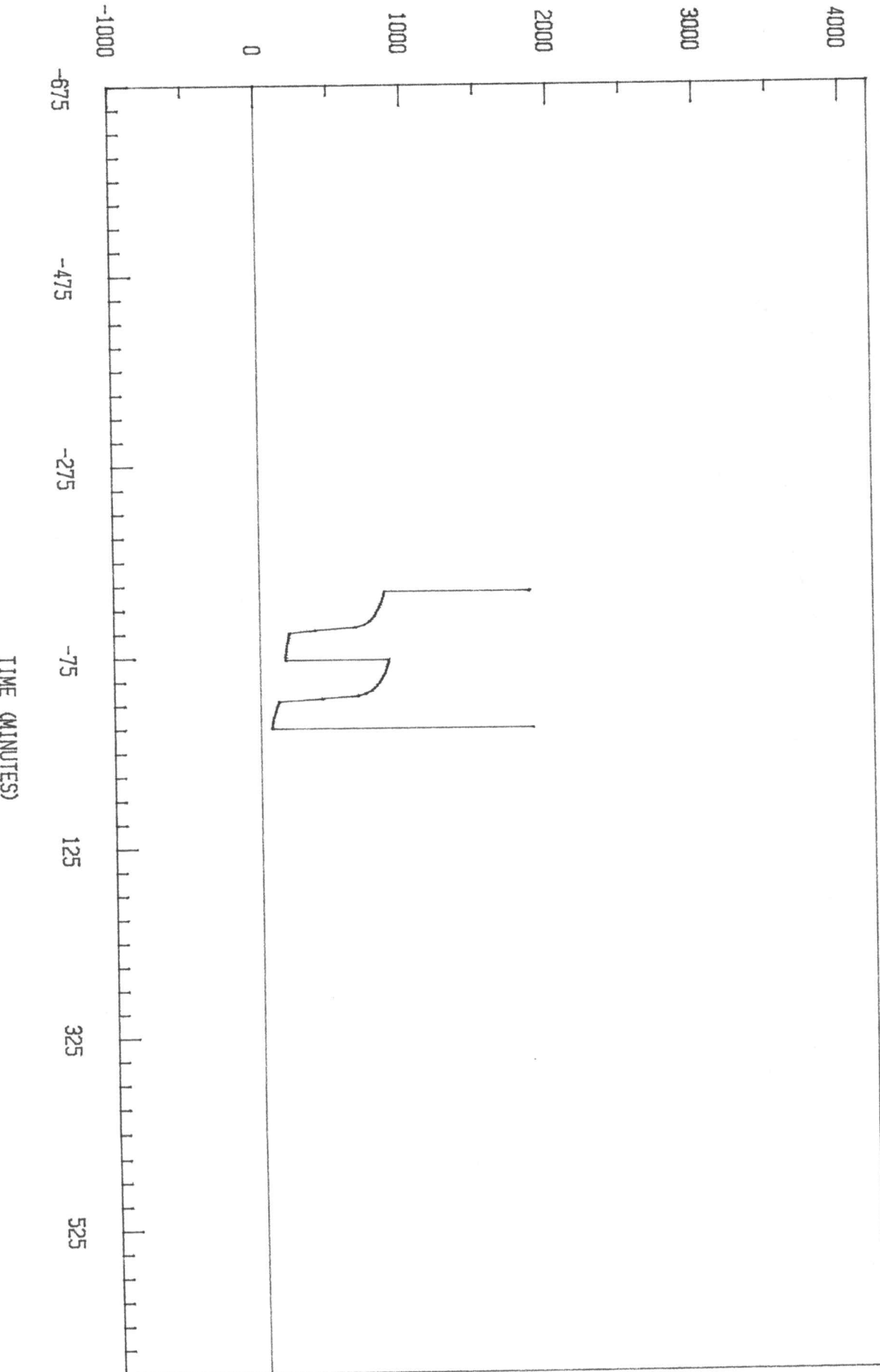
		FIELD READING	OFFICE READING	
PRESSURE	(A) Initial Hydrostatic Mud	1874	1861	PSI
	(B) First Initial Flow Pressure	66	72	PSI
	(C) First Final Flow Pressure	120	120	PSI
	(D) Initial Closed-In Pressure	869	877	PSI
	(E) Second Initial Flow Pressure	164	171	PSI
	(F) Second Final Flow Pressure	197	198	PSI
	(G) Final Closed-In Pressure	847	850	PSI
	(H) Final Hydrostatic Mud	1853	1844	PSI

CRUDE OIL TESTING INC Test 4138 DST 1

FOR: A. Scott Ritchie

04/18/84

PRESSURE



PRESSURE BREAKDOWN

TEST TICKET NO. 4138

DST Number: 1 Recorder Number: 10992 Clock Number: 25108

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Mins.	Press.	Mins.	Press.	Mins.	Press.	Mins.	Press.
0	72	0	120	0	170	0	197
3	76	3	422	3	170	3	375
6	77	6	669	6	173	6	652
9	81	9	725	9	175	9	717
12	85	12	762	12	177	12	747
15	93	15	781	15	180	15	766
18	99	18	800	18	184	18	782
21	106	21	815	21	189	21	792
24	112	24	829	24	194	24	803
27	120	27	839	27	197	27	815
28	120	30	850	28	197	30	824
		33	857			33	831
		36	865			36	839
		39	871			39	845
		42	877			42	849
		44	877			44	850

EQUIPMENT DATA  
TOOL SEQUENCE REPORT

DST Number: 1

TEST TICKET NO. 4138

WELL NAME: Weigel #1

WELL LOCATION: 20-14S-20W

Tool #	Tool	Length	I.D.	O.D.
1	Drill Pipe - 4.5"	2628.00	3.826	4.50
3	Weight Pipe	445.00	2.760	4.50
4	Drill Collar - 6"	304.00	2.250	6.00
8	Circulating Sub	1.00	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	37.00	2.750	5.00
15	Recorder Carrier	1.00		5.00
16	Bull Plug	2.00		5.00
	Total Depth	3439.75		

### CALCULATED RECOVERY ANALYSIS

DST Number: 1

TEST TICKET NO. 4138

Sample #	Total Feet	***** Gas %	**** Feet	***** Oil %	**** Feet	***** Mud %	**** Feet
1	40	0.00	0.00	15.00	6.00	30.00	12.00
2	60	0.00	0.00	5.00	3.00	45.00	27.00
3	60	0.00	0.00	5.00	3.00	30.00	18.00
4	120	0.00	0.00	5.00	6.00	15.00	18.00
TOTAL	<u>280</u>	0.00	<u>0.00</u>	6.43	<u>18.00</u>	26.79	<u>75.00</u>

Sample #	**** Water %	*** Feet	Chlorides (PPM)	Resistivity (Ohms)	Temperature (Deg)
1	55.00	22.00	98,000		
2	50.00	30.00			
3	65.00	39.00			
4	80.00	96.00			
TOTAL	66.79	<u>187.00</u>			

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 Location: Sec. 20 Twp. 14S Range 20W Co. Ellis State KS  
 Well Name & Number: Weigel #1 Code E14

ENGINEERING DATA	Elevation	2122 KB	Drill Pipe Length	2739	ID 3.8 "
	Mud Viscosity	38	Weight Pipe Length	445	ID 2.76"
	Mud Weight	9.9	Drill Collar Length	304	ID 2.25"
	Water Loss	13.6	Top Packer Depth	3543	
	Type of Mud	Starch	Bottom Packer Depth	3548	
	Anchor Length	71	Tool Joint Size	4.5	FH
	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 #	10992	
	Extra Equipment		None		

REMARKS DST #2

FORMATION Kansas City Zone 140-180 Test Type Conventional  
 Interval 3548 To 3619 Total Depth 3619  
 Open 30 Shut In 30 Open 30 Shut In 30  
 Packer(s) Set 12:37AM Started Off Bottom 02:40AM  
 Blow 1st Opening Weak decreasing blow died in 18 min.  
 2nd Opening No blow, flushed tool, good surge, no help.

RECOVERY Total Feet 65  
 Recovered 65 feet of Drilling mud

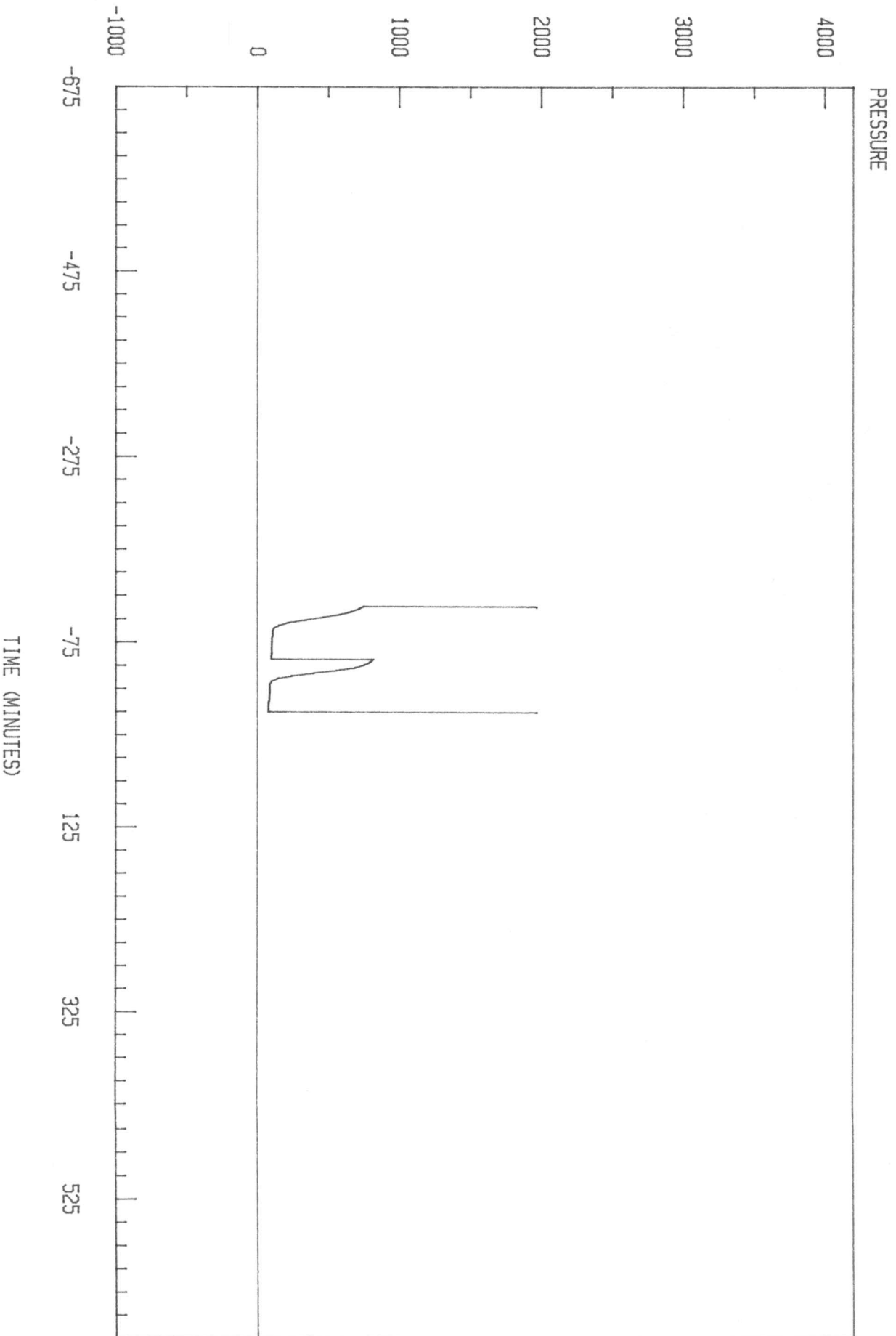
CALCULATED RECOVERY Gas Oil Water Mud 65  
 Gravity (Oil) Test Water Chlorides PPM  
 Test Area Temperature 114F Mud System Chlorides 64,000 PPM

		FIELD READING	OFFICE READING	
PRESSURE	(A) Initial Hydrostatic Mud	2013	1966	PSI
	(B) First Initial Flow Pressure	76	72	PSI
	(C) First Final Flow Pressure	76	82	PSI
	(D) Initial Closed-In Pressure	815	812	PSI
	(E) Second Initial Flow Pressure	98	94	PSI
	(F) Second Final Flow Pressure	98	104	PSI
	(G) Final Closed-In Pressure	750	747	PSI
	(H) Final Hydrostatic Mud	1991	1966	PSI

CRUDE OIL TESTING INC Test 4139 DST 2

FOR: A. Scott Ritchie

04/18/84



PRESSURE BREAKDOWN

TEST TICKET NO. 4139

DST Number: 2 Recorder Number: 10992 Clock Number: 25108

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Mins.	Press.	Mins.	Press.	Mins.	Press.	Mins.	Press.
0	72	0	82	0	94	0	104
3	73	3	97	3	94	3	114
6	73	6	141	6	95	6	151
9	74	9	239	9	96	9	215
12	77	12	395	12	96	12	343
15	79	15	558	15	97	15	466
18	79	18	688	18	97	18	583
21	81	21	752	21	99	21	663
24	82	24	792	24	102	24	715
27	82	27	812	27	104	27	746
30	82			30	104		

EQUIPMENT DATA  
TOOL SEQUENCE REPORT

DST Number: 2

TEST TICKET NO. 4139

WELL NAME: Weigel #1

WELL LOCATION: 20-14S-20W

Tool #	Tool	Length	I.D.	O.D.
1	Drill Pipe - 4.5"	2739.00	3.826	4.50
3	Weight Pipe	445.00	2.760	4.50
4	Drill Collar - 6"	304.00	2.250	6.00
8	Circulating Sub	1.00	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	67.00	2.750	5.00
15	Recorder Carrier	1.00		5.00
16	Bull Plug	2.00		5.00
	Total Depth	3580.75		

CRUDE OIL TESTING, INC.

DATE 4/19/84

TEST TICKET NO. 4140

Company: A. Scott Ritchie  
 Company Address: 125 N. Market Suite 950 Wichita KS 67202  
 Location: Sec. 20 Twp. 14S Range 20W Co. Ellis State KS  
 Well Name & Number: Weigel #1 Code E14

ENGINEERING DATA	Elevation	2122 KB	Drill Pipe Length	2944	ID 3.8 "
	Mud Viscosity	43	Weight Pipe Length	445	ID 2.76"
	Mud Weight	10.1	Drill Collar Length	304	ID 2.25"
	Water Loss	16.6	Top Packer Depth		
	Type of Mud	Starch	Bottom Packer Depth	3742	
	Anchor Length	32	Tool Joint Size	4.5	FH
	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 #	10992	
	Extra Equipment		None		

REMARKS DST #3

FORMATION Marmaton Zone Test Type Conventional  
 Interval 3742 To 3774 Total Depth 3774  
 Open 30 Shut In 30 Open 30 Shut In 30  
 Packer(s) Set 09:27PM Started Off Bottom 11:30PM  
 Blow 1st Opening Weak decreasing blow died in 11 min.  
 2nd Opening No blow, flushed tool, good surge, no help.

RECOVERY Total Feet 15  
 Recovered 15 feet of Drilling mud

CALCULATED RECOVERY Gas Oil Water Mud  
 Gravity (Oil) Test Water Chlorides PPM  
 Test Area Temperature 120F Mud System Chlorides 62,000 PPM

		FIELD READING	OFFICE READING	
PRESSURE	(A) Initial Hydrostatic Mud	2161		PSI
	(B) First Initial Flow Pressure	44		PSI
	(C) First Final Flow Pressure	44		PSI
	(D) Initial Closed-In Pressure	76		PSI
	(E) Second Initial Flow Pressure	44		PSI
	(F) Second Final Flow Pressure	44		PSI
	(G) Final Closed-In Pressure	66		PSI
	(H) Final Hydrostatic Mud	2140		PSI

EQUIPMENT DATA  
TOOL SEQUENCE REPORT

DST Number: 3

TEST TICKET NO. 4140

WELL NAME: Weigel #1

WELL LOCATION: 20-14S-20W

Tool #	Tool	Length	I.D.	O.D.
1	Drill Pipe - 4.5"	2944.00	3.826	4.50
3	Weight Pipe	445.00	2.760	4.50
4	Drill Collar - 6"	304.00	2.250	6.00
8	Circulating Sub	1.00	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
6	Anchor	28.00	2.750	5.00
15	Recorder Carrier	1.00		5.00
16	Bull Plug	2.00		5.00
	Total Depth	3741.40		