

DRILL-STEM TEST DATA

Well Name <u>EKO FISK</u>		Test No. <u>SEVEN</u>
Well Number <u>2-4-2 X</u>		Zone Tested
Company <u>Phillips Petroleum Co, Norway</u>		Interval Perforated from: <u>10300 - 10330</u>
Comp. Rep. <u>Mr. J. Winget</u>	Tester <u>BJ Flaehr</u>	Date <u>May 17, 1970</u>

Type of Test Casing Hook Wall RFS Tool No. _____

Preflow _____ mins. ISI _____ mins. Flow _____ mins. FSI _____ mins.

Specify Inside or Outside	INA REC. No. <u>2758</u>	INS REC. No. <u>2759</u>	OUT REC. No. <u>2761</u>
	<u>10600</u> RANGE <u>72</u> HR. CLOCK	<u>10700</u> RANGE <u>72</u> HR. CLOCK	<u>10700</u> RANGE <u>72</u> HR. CLOCK
DEPTH	<u>10299</u>	<u>10304</u>	<u>10309</u>
Initial Hydro Mud Press			
Initial Shut-In Press			
Initial Flow Press			
Final Flow Press			
Final Shut-In Press			
Final Hydro Mud Press			

Mud Drop _____ Fluid Loss 4.2 Mud Weight 14.3
 Viscosity 45 Temperature °F 263 Nat Pay Tested _____
 Top Packer Depth 10229 Bottom Packer Depth _____ Total Depth 10410 Bridge Plug _____
 Drill Pipe Size 2 7/8 Eue Tubing Wt. 6.5 Drill Collar I.D. _____ Ft. Run _____
 Surface Choke Size Adjustable Bottom Choke Size _____ Main Hole Size 7" 29 # Casing
 Anchor Size 3 1/2 & 2 7/8" OD Rat Hole Size _____ Feet of Rat Hole _____
 Cushion Amount 58 BBLS Type Sea Water Rubber Size 5.812

Fluid Recovery Total Feet _____
 Recovered _____ Feet of _____
 Recovered _____ Feet of _____
 Recovered _____ Feet of _____
 Recovered _____ Feet of _____
 Recovered _____ Feet of _____

Gas Recovery How Measured _____ Riser size: _____
 _____ mins. _____ Temp. °F Press Rdg. _____ poi Orifice Size _____ MCF/Day
 _____ mins. _____ Temp. °F Press Rdg. _____ poi Orifice Size _____ MCF/Day
 _____ mins. _____ Temp. °F Press Rdg. _____ poi Orifice Size _____ MCF/Day
 _____ mins. _____ Temp. °F Press Rdg. _____ poi Orifice Size _____ MCF/Day
 _____ mins. _____ Temp. °F Press Rdg. _____ poi Orifice Size _____ MCF/Day
 _____ mins. _____ Temp. °F Press Rdg. _____ poi Orifice Size _____ MCF/Day

Bleed Off Time for Drill Pipe _____

REMARKS _____

Core Lab Gas Cont. No. _____ Chem - Geo. Lab Gas Cont. No. _____

DRILL STEM TEST NUMBER SEVEN

Baker Test Head		
Hydril Valve		
Tubing	281.69	
Otis Test Tree	27.00	
Tubing	9815.63	
Tubing	94.53	
Pup Joint	15.00	
Unloader	2.00	
F.F.C. Tool	6.15	Depth 10229
2 7/8" Tubing	31.52	
2 7/8" Perf Joint Tubing	31.52	
Recorder Hanger # 2758	1.00	Depth 10299
Recorder Case	4.00	
Recorder Hanger # 2759	1.00	Depth 10304
Recorder Case	4.00	
Recorder Hanger # 2761	1.00	Depth 10309
Recorder Case	4.00	
Bridge Plug		Depth 10410

DRILL STEM TEST NUMBER SEVEN

PRESSURE READINGS (PSI)

Point	Recorder # 2758	Recorder # 2759	Recorder # 2761
A	7596	7599	7636
B	4778	4792	4852
C	7011	7022	7060
D	4806	4805	4830
E	2804	2932	2934
F	2804	2932	2934
G	4130	4222	4246
H	3989	4081	4095
I	6947	6965	7003
J	8195	8212	8262
K	8095	8132	8144
L	8232	8254	8297
M	7542	7545	7587
N	8227	8244	8292
O	7742	7749	7790
P	7101	7108	7144
Q	6826	6848	6879
R	6989	7008	7046
S	6794	6802	6838
T	7005	7032	7068

It appears that recorder # 2761 may be reading some what too high. Although all necessary precautions were taken it is possible that there has been a shift in the base line as the recorder seems consistently high across the whole chart. It would appear that a minus factor of .016 could be applied, thereby lowering the readings by approximately 45 P.S.I. This can not be determined until the recorders are recalibrated. On the other hand the other recorders could be registering too low due to additional friction being applied by continuous service on high temperature tests.

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DRILL STEM TEST NUMBER SEVEN

TIME DEFLECTIONS (MINS)

	Recorder # 2758	Recorder # 2759	Recorder # 2761
Point B	10	10	10
Point B to C	135	138	135
Point C to D	15	15	15
Point D to E	90	95	95
Point E to F	95	90	90
Point F to G	145	140	140
Point G to H	375	370	380
Point H to I	705	685	690
Point I to J	20	20	30
Point J to K	10	10	5
Point K to L	10	10	5
Point L to M	10	10	12
Point M to N	25	23	23
Point N to O	25	22	25
Point O to P	190	185	182
Point P to Q	135	137	135
Point Q to R	125	125	128
Point R to S	705	700	700
Point S to T	705	695	660

The following is a comparison of the times from the charts and the times recorded at the surface.

Points	Surface	# 2758	# 2759	# 2761
B	10	10	10	10
B-C	150	135 (-15)	138 (-12)	135 (-15)
C-H	720	720	710 (-10)	720
H-I	720	705 (-15)	685 (-35)	690 (-30)
I-O	111	100 (-11)	95 (-16)	100 (-11)
O-P	187	190 (+3)	185 (-2)	182 (-5)
P-Q	140	135 (-10)	137 (-3)	135 (-10)
Q-R	120	125 (+5)	125 (+5)	128 (+8)
R-S	720	705 (-15)	700 (-20)	700 (-20)
S-T	720	705 (-15)	695 (-25)	660 (-60)

Some of the time loss and/or time log can be attributed to stylus drag in the recorder as well as a time loss between surface valve manipulation and bottom hole pressure response. The clock and recorder mechanisms are subject to extra friction due to the prolonged high temperature service on bottom. The most significant time loss occurred on rec. # 2761 on points S to T, the final shut-in period, although the pressures do not seem to be affected.

DRILL STEM TEST NUMBER SEVEN

Operation	Time		Length of Test		Choke Size	Wellhead						
	From	To	Hrs.	Mins		Press PSIA	Temp. F	Gas MMCFD	Oil BPD	Gor Cu. ft/STB	Water BPD	BHP PSIA
I.F.	0641	0651	0	10	1"	0	N.R.	0	0	0	972	4791
ISI	0651	0921	2	30	0	2380	48	0	0	0	0	7020
Unloading BJ Tank	0921	1019	0	58	1"	0	84	0	0	0	950	
Clean Up ✓	1019	1100	0	41	1"	1355	90	N.R.	N.R.	N.R.	N.R.	
Flow # 1	1100	2121	10	21	25/64	1665	90					4010
S.I. #1	2121	0921	12	00	0	4131	49					6958
Pump 45 gals acid	from 0922 to 0923 hrs. pumped 45 gals acid as per testing procedure											
Pump 4129 gals S.A.C.	from 0924 to 1035 hrs. pumped 4129 gals S.A.C. at a rate of 1.39 bpm & 4050 psig pressure											
Pump 4100 gals acid	from 1038 to 1058 hrs. pumped 4100 gals acid at a rate of 4.9 bpm & 4300 psig press											
Pump 65 BBLs Sea Water	from 1058 to 1113 hrs. displaced tubing w/sea water (65 BBLs) at 4.34 & 4300 psig press											
S.I.	1113	1420	3	07	0	2575	56	0	0	0	0	
	1420	1840	Well opened for flow rate # 2 & shut in @ 1640 hrs. due to leaks developed in connections									
Flow # 2	1840	0640	12	00	15/64	3958	90					6800
S.I. # 2	0640	1840	12	00	0	4170	48					7014

Recorder set @ 0045 hrs. May 17, 1970

Tool set @ 0637 hrs May 17, 1970

Test Started: 0641 hrs. May 17, 1970

Depth of Pressure Recorder:

2758 Depth 10300
 # 2759 Depth 10305
 # 2761 Depth 10310
 Top Packer Depth 10230

Recorder # 2758

I.H.P. 7593
 I.F. 4776
 I.S.I. 7005
 Flow # 1 3995
 S.I. # 1 6943
 Flow # 2 6785
 S.I. # 2 6999
 F.H.P. 7715

3995 ————— 6943
 6785 ————— 6999

DST PRESSURE INCREMENTS

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Date	INITIAL GIP				FINAL GIP			
	Time	Flow	T+S	Rate	Time	Flow	T+S	Rate
		Point A		7596		Point C to E		
					0			7011
1	0	Point B		4730	5			7231
2	5			4778	10			5743
3	10			4778	15	Point D		4806
4		Point B to C	135 Mins		20			4778
5	0	10	0	4778	25			4738
6	5			6674	30			4697
7	10			6950	35			4646
8	15			6974	40			4581
9	20	30	1.50	6981	45			4519
10	25			6989	50			4449
11	30			6995	55			4365
12	35			6997	60			4273
13	40	50	1.25	7000	65			4178
14	45			7003	70			4051
15	50			7005	75			3992
16	55			7005	80			3633
17	60	70	1.17	7008	85			3319
18	65	75	1.15	7008	90			3173
19	70	80	1.14	7008	95			3055
20	75	85	1.13	7008	100			2935
21	80	90	Completed	7011	105	Point E		2804
22		to 135	Mins					



DST PRESSURE INCREMENTS

Recorder No. 2758

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Points	INITIAL GIP				FINAL GIP			
	Time Off. "	T+G	$\frac{T+G}{6}$	PSIG	Time Off. "	T+G	$\frac{T+G}{6}$	PSIG
1	0	Point	E	2804	120			4916
2	5			3411	125			4849
3	10			3849	130			4730
4	15			4116	135			4562
5	20			4319	140			4476
6	25			4454	145			4373
7	30			4546	150			4295
8	35			4562	155			4233
9	40			4684	160			4206
10	45			4757	165			4187
11	50			4827	170			4157
12	55			4857	175			4130
13	60			4881	180			4124
14	65			4887	185			4119
15	70			4930	190			4116
16	75			4989	195			4116
17	80			5027	200			4111
18	85			5075	205			4106
19	90			5129	210			4097
20	95			5129	215			4097
21	100			5123	220			4103
22	105			5054	225			4111
23	110			5034	230			4119
24	115			4957	235			4130



DST PRESSURE INCREMENTS

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Points	Time Defl. "	INITIAL CIP			Time Defl. "	FINAL CIP		
		T + θ	$\frac{T + \theta}{\theta}$	PSIG		T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	240	Point	G	4130	360		4019	
2	245			4114	365		4027	
3	250			4076	370		4030	
4	255			4049	375		4038	
5	260			4033	380		4043	
6	265			4019	385		4054	
7	270			4011	390		4054	
8	275			4006	395		4057	
9	280			4003	400		4057	
10	285			4000	405	0	4060	
11	290			3997	410		4057	
12	295			3997	415		4049	
13	300			3997	420		4041	
14	305			4000	425		4038	
15	310			4000	430		4038	
16	315			4000	435		4038	
17	320			4000	440		4038	
18	325			4000	445		4038	
19	330			4014	450		4038	
20	335			4033	455		4033	
21	340			4033	460		4030	
22	345			4027	465		4022	
23	350			4022	470		4022	
24	355			4019	475		4022	



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Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	480			4019	600			3997
2	485			4019	605			3995
3	490			4016	610			3995
4	495			4016	615	Point	H	3989
5	500			4014				
6	505			4011				
7	510			4011				
8	515			4006				
9	520			4003				
10	525			4003				
11	530			4003				
12	535			4003				
13	540			4003				
14	545			4006				
15	550			4008				
16	555			4008				
17	560			4008				
18	565			4008				
19	570			4006				
20	575			4003				
21	580			4000				
22	585			4000				
23	590			4000				
24	595			3997				



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Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	0	715 Point II to I	0	3989	120			6794
2	5			4611	125			6802
3	10			5465	130			6808
4	15			6113	135			6810
5	20			6364	140	855	6.10	6813
6	25			6476	145			6818
7	30			6535	150			6824
8	35	750	21.4	6578	155			6829
9	40			6615	160			6832
10	45			6639	165			6834
11	50			6658	170			6837
12	55			6680	175	890	5.10	6840
13	60			6695	180			6843
14	65			6706	185			6845
15	70	785	11.2	6719	190			6848
16	75			6727	195			6851
17	80			6743	200			6853
18	85			6749	205			6856
19	90			6760	210	925	4.40	6859
20	95			6765	215			6861
21	100			6770	220			6864
22	105	820	7.80	6776	225			6867
23	110			6784	230			6869
24	115			6789	235			6872

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Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	240			6875	360			6906
2	245	960	4.00	6877	365			6909
3	250			6877	370			6909
4	255			6880	375			6912
5	260			6880	380			6912
6	265			6883	385	1100	2.86	6912
7	270			6885	390			6914
8	275			6888	395			6914
9	280	995	3.56	6888	400			6914
10	285			6891	405			6917
11	290			6891	410			6917
12	295			6893	415			6917
13	300			6893	420	1135	2.70	6920
14	305			6893	425			6920
15	310			6896	430			6920
16	315	1030	3.27	6896	435			6923
17	320			6898	440			6923
18	325			6898	445			6923
19	330			6901	450			6923
20	335			6901	455	1170	2.57	6925
21	340			6904	460			6925
22	345			6904	465			6925
23	350	1065	3.05	6906	470			6925
24	355			6906	475			6928

Handwritten annotations on the left and right sides of the table:

- Left side: Brackets grouping rows 1-3 (labeled '5'), 4-6 (labeled '2'), 7-9 (labeled '9'), 10-12 (labeled '7'), 13-15 (labeled '6'), 16-18 (labeled '4'), 19-21 (labeled '1'), 22-24 (labeled '3').
- Right side: Brackets grouping rows 1-3 (labeled '96'), 4-6 (labeled '93'), 7-9 (labeled '90'), 10-12 (labeled '88'), 13-15 (labeled '85'), 16-18 (labeled '82'), 19-21 (labeled '79'), 22-24 (labeled '77').



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Depth

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Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+0	$\frac{T+0}{0}$	PSIG	Time Defl. "	T+0	$\frac{T+0}{0}$	PSIG
1	480			6928	600			6941
2	485			6928	605			6941
3	490	1205	2.46	6928	610			6941
4	495			6928	615			6941
5	500			6931	620			6941
6	505			6931	625			6941
7	510			6931	630	1345	2.14	6944
8	515			6931	635			6944
9	520			6933	640			6944
10	525	1240	2.36	6933	645			6944
11	530			6933	650	1365	2.10	6944
12	535			6933	655			6944
13	540			6936	660			6947
14	545			6936	665			6947
15	550			6936	670	1385	2.07	6947
16	555			6936	675			6947
17	560	1275	2.28	6939	680			6947
18	565			6939	685	1400	2.04	6947
19	570			6939	690	1405	2.04	6947
20	575			6939	695	1410	2.03	6947
21	580			6936	700	1415	2.02	6947
22	585			6941	705	1420 Point	I 2.02	6947
23	590			6941				
24	595	1310	2.20	6941				

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Recorder No. 0758

Depth

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Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	0	Point I		6947	70			6971
2	20	Point J		8195	75			6974
3	30	Point K		8095	80			6976
4	40	Point L		8232	85			6976
5	50	Point M		7542	90			6981
6	75	Point N		8227	95			6981
7	100	Point O		7742	100			6984
8	90	Point P		7101	105			6984
9					110			6987
10	135	Point Q		6826	115			6987
11	0	Point Q - R		6826	120			6987
12	5			6893	125	Point R		6989
13	10			6909				
14	15			6920				
15	20			6928				
16	25			6936				
17	30			6941				
18	35			6947				
19	40			6952				
20	45			6955				
21	50			6960				
22	55			6966				
23	60			6966				
24	65			6968				



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Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	0	Point	R	6989	120			6867
2	5			6956	125			6864
3	10			6931	130			6864
4	15			6931	135			6861
5	20			6920	140			6861
6	25			6914	145			6859
7	30			6909	150			6859
8	35			6904	155			6856
9	40			6898	160			6856
10	45			6893	165			6853
11	50			6893	170			6853
12	55			6890	175			6851
13	60			6888	180			6851
14	65			6885	185			6848
15	70			6883	190			6845
16	75			6880	195			6845
17	80			6877	200			6845
18	85			6875	205			6843
19	90			6872	210			6843
20	95			6872	215			6840
21	100			6872	220			6840
22	105			6869	225			6840
23	110			6869	230			6840
24	115			6867	235			6837



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Points	INITIAL CIP			FINAL CIP				
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	240			6837	360			6821
2	245			6837	365			6818
3	250			6834	370			6816
4	255			6834	375			6816
5	260			6834	380			6816
6	265			6832	385			6816
7	270			6832	390			6816
8	275			6829	395			6816
9	280			6829	400			6916
10	285			6829	405			6916
11	290			6826	410			6816
12	295			6826	415			6813
13	300			6826	420			6813
14	305			6826	425			6813
15	310			6826	430			6813
16	315			6826	435			6813
17	320			6824	440			6813
18	325			6824	445			6813
19	330			6824	450			6813
20	335			6824	455			6810
21	340			6824	460			6810
22	345			6824	465			6810
23	350			6824	470			6810
24	355			6821	475			6810



DST PRESSURE INCREMENTS

Recorder No. 2758

Depth

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Points	INITIAL CIP			FINAL CIP				
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	480			6808	600			6800
2	485			6808	605			6800
3	490			6808	610			6800
4	495			6808	615			6800
5	500			6805	620			6800
6	505			6805	625			6797
7	510			6805	630			6797
8	515			6805	635			6797
9	520			6805	640			6797
10	525			6805	645			6797
11	530			6805	650			6797
12	535			6805	655			6797
13	540			6805	660			6797
14	545			6805	665			6797
15	550			6805	670			6797
16	555			6805	675			6797
17	560			6802	680			6794
18	565			6802	685			6794
19	570			6802	690			6794
20	575			6802	695			6794
21	580			6802	700			6794
22	585			6800	705	Point	S	6794
23	590			6800				
24	595			6800				



DST PRESSURE INCREMENTS

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Depth

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260
20
09
98
87
27
21
06
01
06
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8
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2
0
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1
9
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1
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5

Points	Time Def. "	INITIAL CIP			Time Def. "	FINAL CIP		
		T+θ	$\frac{T+\theta}{\theta}$	PSIG		T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	0	2140 Point S to T			120			6939
2	5			6834	125			6941
3	10			6845	130			6941
4	15			6856	135			6944
5	20			6867	140			6947
6	25			6877	145			6950
7	30			6883	150			6952
8	35			6888	155			6955
9	40			6893	160			6955
10	45			6898	165			6955
11	050			6904	170			6955
12	55			6906	175			6958
13	60			6909	180			6958
14	65			6912	185			6958
15	70			6914	190			6960
16	75			6920	195			6960
17	80			6923	200			6963
18	85			6925	205			6963
19	90			6925	210			6966
20	95			6928	215			6966
21	100			6931	220			6966
22	105			6933	225			6968
23	110			6936	230			6968
24	115			6939	235			6968

115
113
110
107
104
102
99
96
94
91
88
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Depth

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Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	240			6971	360			6984
2	245			6971	365			6984
3	250			6971	370			6987
4	255			6974	375			6987
5	260			6974	380			6987
6	265			6974	385			6987
7	270			6974	390			6987
8	275			6974	395			6989
9	280			6974	400			6989
10	285			6976	405			6989
11	290			6976	410			6989
12	295			6976	415			6989
13	300			6976	420			6989
14	305			6979	425			6989
15	310			6979	430			6989
16	315			6979	435			6992
17	320			6979	440			6992
18	325			6981	445			6992
19	330			6981	450			6992
20	335			6981	455			6992
21	340			6981	460			6992
22	345			6984	465			6992
23	350			6984	470			6992
24	355			6984	475			6995

70

67

65

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DST PRESSURE INCREMENTS

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Depth

Page 14

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	480			6995	600			7003
2	485			6995	605			7003
3	490			6995	610			7003
4	495			6995	615			7003
5	500			6995	620			7003
6	505			6995	625			7003
7	510			6997	630			7003
8	515			6997	635			7003
9	520			6997	640			7003
10	525			6997	645			7003
11	530			6997	650			7003
12	535			6997	655			7003
13	540			6997	660			7003
14	545			7000	665			7003
15	550			7000	670			7003
16	555			7000	675			7005
17	560			7000	680			7005
18	565			7000	685			7005
19	570			7000	690			7005
20	575			7000	695			7005
21	580			7000	700			7005
22	585			7003	705	Point	I	
23	590			7003				
24	595			7003				

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DST PRESSURE INCREMENTS

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Depth 10304

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Points	Time Defl. "	INITIAL CIP			Time Defl. "	FINAL CIP		
		T+0	$\frac{T+0}{0}$	PSIG		T+0	$\frac{T+0}{0}$	PSIG
1		Point A		7599	90			7022
2					95			7022
3	0	Point B		4730	100			7022
4	5			4792	105			7022
5	10			4792	110			7022
6					115			7022
7	0	Point B to C		4792	120			7022
8	5			6680	125			7022
9	10			6893	130			7022
10	15			6947	135			7022
11	20			6968	138	Point C		7022
12	25			6984	0	Point C to E		7022
13	30			6995	5			7022
14	35			7000	10			7022
15	40			7005	15	Point D		4805
16	45			7008	20			4805
17	50			7011	25			4805
18	55			7014	30			4805
19	60			7016	35			4805
20	65			7017	40			4805
21	70			7018	45			4805
22	75			7019	50			4805
23	80			7020	55			4805
24	85			7021	60			4805



DST PRESSURE INCREMENTS

Recorder No. 2759

Depth

Page 2

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+Θ	$\frac{T+\Theta}{\Theta}$	PSIG	Time Defl. "	T+Θ	$\frac{T+\Theta}{\Theta}$	PSIG
1	65			4216	70			5059
2	70			4124	75			5081
3	75			4984	80			5151
4	80			3816	85			5180
5	85			3546	90	Point F		5183
6	90			3249	95			5156
7	95			3151	100			5086
8	100			3108	105			5032
9	105			3065	110			4984
10	110	Point E		2932	115			4973
11	0	Point E to F		2932	120			4816
12	5			3421	125			4676
13	10			3876	130			4578
14	15			4238	135			4465
15	20			4465	140			4411
16	25			4584	145			4330
17	30			4633	150			4297
18	35			4746	155			4287
19	40			4816	160			4260
20	45			4881	165			4222
21	50			4919	170			4216
22	55			4946	175			4211
23	60			4946	180			4208
24	65			4989	185			4206



DST PRESSURE INCREMENTS

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Depth

Page 3

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	190			4200	310			4075
2	195			4192	315			4087
3	200			4186	320			4103
4	205			4184	325			4114
5	210			4195	330			4113
6	215			4206	335			4113
7	220			4209	340			4111
8	225			4222	345			4105
9	230	Point	G	4222	350			4108
10	235			4189	355			4113
11	240			4178	360			4127
12	245			4146	365			4130
13	250			4130	370			4141
14	255			4119	375			4141
15	260			4105	380			4141
16	265			4100	385			4141
17	270			4094	390			4141
18	275			4092	395			4141
19	280			4091	400			4132
20	285			4090	405			4124
21	290			4078	410			4127
22	295			4077	415			4119
23	300			4077	420			4119
24	305			4076	425			4119



DST PRESSURE INCREMENTS

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Points	INITIAL CIP			FINAL CIP				
	Time Defl. "	T+Θ	$\frac{T+\Theta}{\Theta}$	PSIG	Time Defl. "	T+Θ	$\frac{T+\Theta}{\Theta}$	PSIG
1	430			4119	550			4092
2	435			4118	555			4092
3	440			4117	560			4092
4	445			4116	565			4092
5	450			4116	570			4092
6	455			4115	575			4092
7	460			4113	580			4092
8	465			4111	585			4092
9	470			4108	590			4089
10	475			4107	595			4087
11	480			4106	600	Point	H	4081
12	485			4104				
13	490			4103				
14	495			4100				
15	500			4097				
16	505			4097				
17	510			4096				
18	515			4095				
19	520			4094				
20	525			4094				
21	530			4093				
22	535			4093				
23	540			4093				
24	545			4093				



DST PRESSURE INCREMENTS

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Depth

Page 5

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+@	$\frac{T+@}{@}$	PSIG	Time Defl. "	T+@	$\frac{T+@}{@}$	PSIG
1	0	Point	H to I	4081	120			6821
2	5			4178	125			6824
3	10			4789	130			6829
4	15			6198	135			6834
5	20			6487	140			6837
6	25			6556	145			6842
7	30			6596	150			6845
8	35			6631	155			6848
9	40			6655	160			6851
10	45			6674	165			6853
11	50			6695	170			6856
12	55			6711	175			6861
13	60			6727	180			6864
14	65			6738	185			6864
15	70			6749	190			6869
16	75			6757	195			6872
17	80			6768	200			6874
18	85			6776	205			6877
19	90			6784	210			6900
20	95			6792	215			6883
21	100			6797	220			6885
22	105			6802	225			6888
23	110			6810	230			6891
24	115			6815	235			6891



DST PRESSURE INCREMENTS

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Depth

Page 6

Points	INITIAL CIP			FINAL CIP				
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	240			6893	360			6928
2	245			6893	365			6928
3	250			6896	370			6928
4	255			6896	375			6931
5	260			6898	380			6931
6	265			6901	385			6931
7	270			6904	390			6933
8	275			6904	395			6933
9	280			6906	400			6936
10	285			6906	405			6936
11	290			6909	410			6936
12	295			6912	415			6936
13	300			6912	420			6939
14	305			6914	425			6939
15	310			6914	430			6939
16	315			6917	435			6941
17	320			6917	440			6941
18	325			6917	445			6941
19	330			6920	450			6941
20	335			6920	455			6944
21	340			6922	460			6944
22	345			6922	465			6944
23	350			6925	470			6944
24	355			6925	475			6947



DST PRESSURE INCREMENTS

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Depth

Page 7

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	480			6947	600			6963
2	485			6969	605			6963
3	490			6949	610			6963
4	495			6949	615			6963
5	500			6949	620			6963
6	505			6949	625			6963
7	510			6949	630			6963
8	515			6952	635			6963
9	520			6952	640			6963
10	525			6952	645			6965
11	530			6955	650			6965
12	535			6955	655			6965
13	540			6955	660			6965
14	545			6955	665			6965
15	550			6955	670			6965
16	555			6958	675			6965
17	560			6958	680			6965
18	565			6958	685	Point I		6965
19	570			6958				
20	575			6960				
21	580			6960				
22	585			6960				
23	590			6960				
24	595			6960				



DST PRESSURE INCREMENTS

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Depth

Page 8

Points	INITIAL CIP			FINAL CIP				
	Time Defl. "	T+Θ	$\frac{T+\Theta}{\Theta}$	PSIG	Time Defl. "	T+Θ	$\frac{T+\Theta}{\Theta}$	PSIG
1	0	Point	I	6965	65			6987
2	20	Point	J	8212	70			6989
3	30	Point	K	8132	75			6995
4	40	Point	L	8254	80			6997
5	50	Point	M	7545	85			7000
6	73	Point	N	8244	90			7003
7	95	Point	O	7749	95			7003
8	280	Point	P	7108	100			7005
9					105			7005
10	137	Point	Q	6848	110			7007
11					115			7007
12	0	Point	Q to R	6848	120			7008
13	5			6904	125	Point	R	7008
14	10			6922				
15	15			6936				
16	20			6947				
17	25			6952				
18	30			6960				
19	35			6965				
20	40			6971				
21	45			6980				
22	50			6979				
23	55			6981				
24	60			6984				



DST PRESSURE INCREMENTS

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Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	0	Point	R to S	7008	120			6871
2	5			6867	125			6869
3	10			6947	130			6868
4	15			6936	135			6867
5	20			6931	140			6866
6	25			6920	145			6864
7	30			6914	150			6863
8	35			6909	155			6861
9	40			6904	160			6860
10	45			6901	165			6859
11	50			6898	170			6858
12	55			6895	175			6857
13	60			6893	180			6856
14	65			6891	185			6855
15	70			6888	190			6853
16	75			6885	195			6852
17	80			6883	200			6851
18	85			6880	205			6850
19	90			6877	210			6848
20	95			6876	215			6847
21	100			6875	220			6846
22	105			6874	225			6845
23	110			6873	230			6845
24	115			6872	235			6845



DST PRESSURE INCREMENTS

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Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	240			6842	360			6827
2	245			6841	365			6827
3	250			6840	370			6826
4	255			6839	375			6826
5	260			6837	380			6825
6	265			6836	385			6825
7	270			6835	390			6825
8	275			6834	395			6824
9	280			6834	400			6824
10	285			6833	405			6823
11	290			6833	410			6823
12	295			6832	415			6823
13	300			6831	420			6822
14	305			6830	425			6821
15	310			6829	430			6820
16	315			6829	435			6820
17	320			6829	440			6819
18	325			6829	445			6819
19	330			6829	450			6818
20	335			6828	455			6818
21	340			6828	460			6817
22	345			6828	465			6816
23	350			6828	470			6815
24	355			6828	475			6814



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Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+e	$\frac{T+e}{e}$	PSIG	Time Defl. "	T+e	$\frac{T+e}{e}$	PSIG
1	480			6814	600			6807
2	485			6813	605			6807
3	490			6812	610			6807
4	495			6812	615			6806
5	500			6812	620			6806
6	505			6811	625			6805
7	510			6811	630			6805
8	515			6810	635			6804
9	520			6810	640			6804
10	525			6810	645			6803
11	530			6809	650			6803
12	535			6809	655			6803
13	540			6809	660			6802
14	545			6809	665			6802
15	550			6809	670			6802
16	555			6808	675			6802
17	560			6808	680			6802
18	565			6808	685			6802
19	570			6808	690			6802
20	575			6808	695			6802
21	580			6808	700	Point	S	6802
22	585			6808				
23	590			6808				
24	595			6808				



DST PRESSURE INCREMENTS

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Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	0	Point	S to T	6802	120			6963
2	5			6818	125			6965
3	10			6851	130			6964
4	15			6872	135			6968
5	20			6883	140			6969
6	25			6891	145			6971
7	30			6898	150			6972
8	35			6904	155			6974
9	40			6909	160			6976
10	45			6917	165			6979
11	50			6922	170			6980
12	55			6928	175			6981
13	60			6931	180			6982
14	65			6933	185			6983
15	70			6936	190			6984
16	75			6941	195			6986
17	80			6944	200			6987
18	85			6947	205			6988
19	90			6949	210			6989
20	95			6952	215			6990
21	100			6955	220			6991
22	105			6958	225			6993
23	110			6958	230			6994
24	115			6960	235			6995



DST PRESSURE INCREMENTS

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Depth

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Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	240			6995	360			7012
2	245			6996	365			7012
3	250			6997	370			7013
4	255			6997	375			7013
5	260			6998	380			7014
6	265			6998	385			7014
7	270			6999	390			7015
8	275			6999	395			7015
9	280			7000	400			7016
10	285			7000	405			7016
11	290			7001	410			7017
12	295			7002	415			7017
13	300			7003	420			7018
14	305			7004	425			7018
15	310			7005	430			7019
16	315			7005	435			7019
17	320			7006	440			7020
18	325			7007	445			7020
19	330			7008	450			7021
20	335			7009	455			7021
21	340			7010	460			7021
22	345			7011	465			7021
23	350			7011	470			7022
24	355			7012	475			7022



DST PRESSURE INCREMENTS

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Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+Θ	$\frac{T+\Theta}{\Theta}$	PSIG	Time Defl. "	T+Θ	$\frac{T+\Theta}{\Theta}$	PSIG
1	480			7022	600			7030
2	485			7023	605			7030
3	490			7023	610			7030
4	495			7023	615			7031
5	500			7024	620			7031
6	505			7024	625			7031
7	510			7025	630			7032
8	515			7025	635			7032
9	520			7025	640			7032
10	525			7026	645			7032
11	530			7026	650			7032
12	535			7026	655			7032
13	540			7027	660			7032
14	545			7027	665			7032
15	550			7027	670			7032
16	555			7027	675			7032
17	560			7028	680			7032
18	565			7028	685			7032
19	570			7028	690			7032
20	575			7028	695	Point	T	7032
21	580			7029				
22	585			7029				
23	590			7029				
24	595			7030				



DST PRESSURE INCREMENTS

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Depth

Page 1

Points	INITIAL CIP			FINAL CIP				
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1		Point A		7636	90			7058
2					95			7059
3	0	Point B		4775	100			7059
4	5			4808	105			7060
5	10			4852	110			7060
6					115			7060
7	0	Point B to C		4852	120			7060
8	5			5252	125			7060
9	10			6965	130			7060
10	15			7003	135	Point C		7060
11	20			7019	140	Point C to E		7060
12	25			7030	5			6879
13	30			7036	10			5484
14	35			7041	15	Point D		4830
15	40			7046	20			4800
16	45			7049	25			4764
17	50			7052	30			4709
18	55			7054	35			4649
19	60			7055	40			4588
20	65			7056	45			4511
21	70			7057	50			4441
22	75			7057	55			4360
23	80			7057	60			4268
24	85			7058	65			4162



DST PRESSURE INCREMENTS

Recorder No. 2761

Depth

Page 2

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T + Θ	$\frac{T + \Theta}{\Theta}$	PSIG	Time Defl. "	T + Θ	$\frac{T + \Theta}{\Theta}$	PSIG
1	70			4063	75			5100
2	75			3911	80			5117
3	80			3698	85			5189
4	85			3393	90	Point	F	5203
5	90			3198	95			5203
6	95			3126	100			5173
7	100			3071	105			5114
8	105			2934	110			5057
9	110	Point	E	2934	115			5003
10	0	Point	E to F	2934	120			4992
11	5			3503	125			4838
12	10			3901	130			4665
13	15			4257	135			4566
14	20			4451	140			4468
15	25			4563	145			4405
16	30			4654	150			4333
17	35			4676	155			4311
18	40			4781	160			4295
19	45			4874	165			4262
20	50			4938	170			4235
21	55			4968	175			4230
22	60			4971	180			4227
23	65			4987	185			4225
24	70			5019	190			4222



DST PRESSURE INCREMENTS

Recorder No. 2761

Depth

Page 3

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	195			4216	315			4095
2	200			4208	320			4117
3	205			4203	325			4127
4	210			4214	330			4138
5	215			4225	335			4135
6	220			4233	340			4130
7	225			4241	345			4127
8	230	Point G		4246	350			4125
9	235			4241	355			4127
10	240			4211	360			4135
11	245			4181	365			4144
12	250			4157	370			4149
13	255			4144	375			4157
14	260			4133	380			4160
15	265			4122	385			4160
16	270			4117	390			4160
17	275			4111	395			4160
18	280			4108	400			4160
19	285			4122	405			4154
20	290			4122	410			4147
21	295			4095	415			4138
22	300			4092	420			4138
23	305			4092	425			4138
24	310			4092	430			4144



DST PRESSURE INCREMENTS

Recorder No. 2761

Depth

Page 4

Points	INITIAL CIP			FINAL CIP				
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	435			4144	555			4114
2	440			4144	560			4113
3	445			4141	565			4111
4	450			4138	570			4111
5	455			4135	575			4110
6	460			4133	580			4110
7	465			4130	585			4109
8	470			4127	590			4108
9	475			4127	595			4107
10	480			4127	600			4106
11	485			4125	605			4103
12	490			4122	610	Point	H	4095
13	495			4119				
14	500			4117				
15	505			4117				
16	510			4116				
17	515			4116				
18	520			4116				
19	525			4116				
20	530			4116				
21	535			4116				
22	540			4116				
23	545			4116				
24	550			4116				



DST PRESSURE INCREMENTS

Recorder No. 2761

Depth

Page 5

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	0	Point	H to I	4095	120			6852
2	5			4306	125			6857
3	10			5998	130			6863
4	15			6330	135			6868
5	20			6473	140			6871
6	25			6550	145			6874
7	30			6599	150			6879
8	35			6640	155			6884
9	40			6671	160			6887
10	45			6698	165			6890
11	50			6715	170			6892
12	55			6734	175			6895
13	60			6748	180			6901
14	65			6761	185			6903
15	70			6775	190			6906
16	75			6786	195			6909
17	80			6797	200			6911
18	85			6805	205			6914
19	90			6814	210			6917
20	95			6819	215			6919
21	100			6827	220			6922
22	105			6836	225			6925
23	110			6841	230			6927
24	115			6847	235			6928



DST PRESSURE INCREMENTS

Recorder No. 2761

Depth

Page 6

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	240			6930	360			6965
2	245			6932	365			6965
3	250			6933	370			6965
4	255			6936	375			6967
5	260			6938	380			6968
6	265			6938	385			6969
7	270			6941	390			6970
8	275			6941	395			6971
9	280			6944	400			6971
10	285			6944	405			6971
11	290			6946	410			6972
12	295			6946	415			6973
13	300			6949	420			6974
14	305			6949	425			6976
15	310			6952	430			6976
16	315			6952	435			6977
17	320			6954	440			6977
18	325			6955	445			6978
19	330			6957	450			6979
20	335			6957	455			6980
21	340			6960	460			6981
22	345			6960	465			6982
23	350			6963	470			6982
24	355			6963	475			6983



DST PRESSURE INCREMENTS

Recorder No. 2761

Depth

Page 7

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	480			6983	6000			6998
2	485			6984	605			6998
3	490			6984	610			6998
4	495			6985	615			6998
5	500			6986	620			6999
6	505			6987	625			6999
7	510			6987	630			6999
8	515			6988	635			6999
9	520			6989	640			7000
10	525			6989	645			7000
11	530			6990	650			7001
12	535			6991	655			7001
13	540			6991	660			7002
14	545			6992	665			7002
15	550			6992	670			7003
16	555			6993	675			7003
17	560			6993	680			7003
18	565			6994	685			7003
19	570			6994	690	Point	I	7003
20	575			6995				
21	580			6996				
22	585			6997				
23	590			6997				
24	595			6998				



DST PRESSURE INCREMENTS

Recorder No. 2761

Depth

Page 8

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+Θ	$\frac{T+\Theta}{\Theta}$	PSIG	Time Defl. "	T+Θ	$\frac{T+\Theta}{\Theta}$	PSIG
1	0	Point I		7003	70			7025
2	30	Point J		8262	75			7027
3	35	Point K		8144	80			7030
4	40	Point L		8297	85			7033
5	52	Point M		7587	90			7036
6	75	Point N		8292	95			7038
7	100	Point O		7790	100			7039
8	282	Point P		7144	105			7041
9					110			7043
10	135	Point Q		6879	115			7044
11	0	Point Q to R		6879	120			7046
12	5			6933	125			7046
13	10			6955	128	Point R		7046
14	15			6968				
15	20			6976				
16	25			6984				
17	30			6992				
18	35			6998				
19	40			7003				
20	45			7009				
21	50			7011				
22	55			7014				
23	60			7019				
24	65			7022				



DST PRESSURE INCREMENTS

Recorder No. 2761

Depth

Page 9

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+Θ	$\frac{T+\Theta}{\Theta}$	PSIG	Time Defl. "	T+Θ	$\frac{T+\Theta}{\Theta}$	PSIG
1	0	Point	R to S	7046	120			6906
2	5			6901	125			6906
3	10			6871	130			6903
4	15			6976	135			6902
5	20			6971	140			6901
6	25			6957	145			6901
7	30			6952	150			6901
8	35			6946	155			6898
9	40			6944	160			6897
10	45			6938	165			6895
11	50			6936	170			6895
12	55			6933	175			6895
13	60			6930	180			6894
14	65			6927	185			6892
15	70			6925	190			6890
16	75			6922	195 200			6888 6886
17	80			6919	205			6884
18	85			6917	210			6884
19	90			6914	215			6884
20	95			6911	220			6883
21	100			6911	225			6883
22	105			6911	230			6882
23	110			6909	235			6881
24	115			6909				



DST PRESSURE INCREMENTS

Recorder No. 2761

Depth

Page 10

Points	INITIAL CIP			FINAL CIP				
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	240			6880	360			6860
2	245			6879	365			6860
3	250			6878	370			6859
4	255			6877	375			6859
5	260			6876	380			6859
6	265			6875	385			6858
7	270			6875	390			6858
8	275			6874	395			6858
9	280			6874	400			6857
10	285			6873	405			6857
11	290			6871	410			6857
12	295			6868	415			6857
13	300			6868	420			6857
14	305			6867	425			6856
15	310			6867	430			6856
16	315			6865	435			6856
17	320			6865	440			6856
18	325			6864	445			6856
19	330			6863	450			6856
20	335			6863	455			6855
21	340			6863	460			6855
22	345			6862	465			6854
23	350			6862	470			6853
24	355			6861	475			6853



DST PRESSURE INCREMENTS

Recorder No. 2761

Depth

Page 11

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	480			6852	600			6844
2	485			6851	605			6843
3	490			6851	610			6842
4	495			6850	615			6842
5	500			6850	620			6841
6	505			6850	625			6841
7	510			6249	630			6840
8	515			6249	635			6840
9	520			6249	640			6839
10	525			6248	645			6839
11	530			6248	650			6838
12	535			6248	655			6838
13	540			6247	660			6838
14	545			6247	665			6838
15	550			6247	670			6838
16	555			6247	675			6838
17	560			6846	680			6838
18	565			6846	685			6838
19	570			6846	690			6838
20	575			6846	695			6838
21	580			6845	700	Point	S	6838
22	585			6845				
23	590			6845				
24	595			6845				



DST PRESSURE INCREMENTS

Recorder No. 2761

Depth

Page 12

Points	INITIAL CIP			FINAL CIP				
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	0	Point	S to T	6838	120			7000
2	5			6874	125			7003
3	10			6890	130			7003
4	15			6909	135			7006
5	20			6919	140			7006
6	25			6928	145			7008
7	30			6938	150			7009
8	35			6944	155			7011
9	40			6949	160			7012
10	45			6955	165			7014
11	50			6960	170			7015
12	55			6965	175			7017
13	60			6968	180			7018
14	65			6971	185			7019
15	70			6973	190			7020
16	75			6976	195			7022
17	80			6979	200			7023
18	85			6982	205			7024
19	90			6984	210			7025
20	95			6987	215			7027
21	100			6990	220			7028
22	105			6992	225			7030
23	110			6995	230			7031
24	115			6998	235			7032



DST PRESSURE INCREMENTS

Recorder No. 2761

Depth

Page 13

Points	INITIAL CIP			FINAL CIP				
	Time Defl. "	T+Θ	$\frac{T+\Theta}{\Theta}$	PSIG	Time Defl. "	T+Θ	$\frac{T+\Theta}{\Theta}$	PSIG
1	240			7033	360			7046
2	245			7033	365			7047
3	250			7034	370			7048
4	255			7035	375			7048
5	260			7036	380			7049
6	265			7036	385			7049
7	270			7036	390			7050
8	275			7036	395			7050
9	280			7037	400			7051
10	285			7037	405			7051
11	290			7038	410			7052
12	295			7039	415			7052
13	300			7040	420			7053
14	305			7041	425			7053
15	310			7041	430			7053
16	315			7042	435			7054
17	320			7042	440			7054
18	325			7043	445			7055
19	330			7044	450			7055
20	335			7044	455			7056
21	340			7045	460			7056
22	345			7045	465			7056
23	350			7045	470			7057
24	355			7046	475			7057



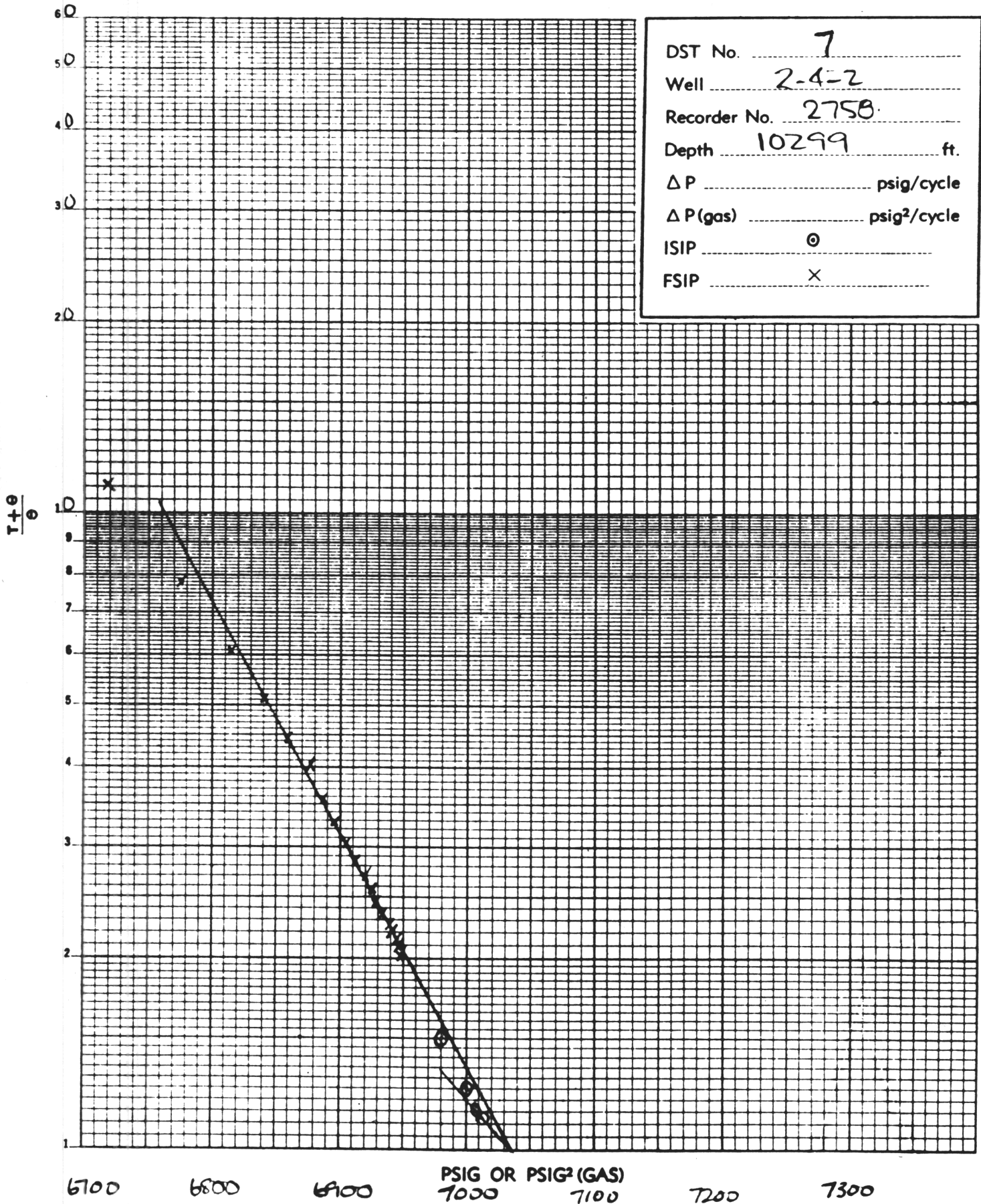
DST PRESSURE INCREMENTS

Recorder No. 2761

Depth

Points	INITIAL CIP			FINAL CIP				
	Time Defl. "	T + G	$\frac{T+G}{G}$	PSIG	Time Defl. "	T + G	$\frac{T+G}{G}$	PSIG
1	480			7057	600			7066
2	485			7058	605			7066
3	490			7058	610			7066
4	495			7059	615			7066
5	500			7060	620			7067
6	505			7060	625			7067
7	510			7061	630			7067
8	515			7061	635			7067
9	520			7061	640			7067
10	525			7062	645			7068
11	530			7062	650			7068
12	535			7063	655			7068
13	540			7063	660	Point	T	7068
14	545			7063				
15	550			7063				
16	555			7064				
17	560			7064				
18	565			7064				
19	570			7065				
20	575			7065				
21	580			7065				
22	585			7065				
23	590			7065				
24	595			7065				

DST No. 7
 Well 2-4-2
 Recorder No. 2758
 Depth 10299 ft.
 Δ P psig/cycle
 Δ P(gas) psig²/cycle
 ISIP ○
 FSIP ×





DRILL-STEM TEST DATA

Well Name <u>EKO FISK</u>		Test No. <u>EIGHT</u>
Well Number <u>2-4-2</u>		Zone Tested _____
Company <u>Phillips Petroleum Co. Norway</u>		Interval Perforated from: <u>10250 - 10350</u>
Comp. Rep <u>Mr. E. Seabourn</u>	Tester <u>BJ Flahr</u>	Date <u>May 20, 1970</u>

Type of Test Casing Hook Wall RFS Tool No. _____

Preflow _____ mins. ISI _____ mins. Flow _____ mins. FSI _____ mins.

Specify Inside or Outside	INS REC. No. <u>2758</u>	INS REC. No. <u>2759</u>	OUT REC. No. <u>2760</u>
	<u>10600</u> RANGE <u>72</u> HR. CLOCK	<u>10700</u> RANGE <u>72</u> HR. CLOCK	<u>10700</u> RANGE <u>72</u> HR. CLOCK
DEPTH	<u>10296</u>	<u>10301</u>	<u>10306</u>
Initial Hydro Mud Press			
Initial Shut-In Press			
Initial Flow Press			
Final Flow Press			
Final Shut-In Press			
Final Hydro Mud Press			

Mud Drop _____ Fluid Loss 4.2 Mud Weight 14.3
 Viscosity 45 Temperature °F 263 Net Pay Tested _____
 Top Packer Depth _____ Bottom Packer Depth 10227 Total Depth 10410 Bridge Plug _____
 Drill Pipe Size 2 7/8" Eue Tubing Dr. Collar I.D. 6.5 Ft. Run _____
 Surface Choke Size Adjustable Bottom Choke Size 5/8 Main Hole Size 7" 29 # Casing
 Anchor Size 3 1/2 & 2 7/8" OD Rat Hole Size _____ Feet of Rat Hole _____
 Cushion Amount 58 BBLs Type Sea Water Rubber Size 5.812

Fluid Recovery Total Feet _____
 Recovered _____ Feet of _____
 Recovered _____ Feet of _____
 Recovered _____ Feet of _____
 Recovered _____ Feet of _____
 Recovered _____ Feet of _____

Gas Recovery How Measured _____ Riser size: _____
 _____ mins. _____ Temp. °F Press Rdg. _____ psi Orifice Size _____ = _____ MCF/Day
 _____ mins. _____ Temp. °F Press Rdg. _____ psi Orifice Size _____ = _____ MCF/Day
 _____ mins. _____ Temp. °F Press Rdg. _____ psi Orifice Size _____ = _____ MCF/Day
 _____ mins. _____ Temp. °F Press Rdg. _____ psi Orifice Size _____ = _____ MCF/Day
 _____ mins. _____ Temp. °F Press Rdg. _____ psi Orifice Size _____ = _____ MCF/Day
 _____ mins. _____ Temp. °F Press Rdg. _____ psi Orifice Size _____ = _____ MCF/Day

Bleed Off Time for Drill Pipe _____

REMARKS: _____

Core Lab Gas Cont. No. _____ Chem - Geo. Lab Gas Cont. No. _____

DRILL STEM TEST NUMBER EIGHT

Baker Test Head		
Hydril Valve		
Tubing	281.69	
Otis Test Tree	27.00	
Tubing	9815.63	
X Over Sub	1.00	
Pump Out Sub	1.00	
X Over Sub	1.00	
3 Joints Tubing	94.53	
Swage & Collar	.70	
X Over Sub	1.00	
H.M.V. Tool	7.15	
X Over Sub	1.00	
Swage & Collar	.75	
Unloader	2.00	
BJ F.F.C. Tool	4.25	Depth 10227
2 7/8" Tubing	31.52	
2 7/8" Perf Joint Tubing	31.52	
Recorder Hanger # 2758	1.00	Depth 10296
Recorder Case	4.00	
Recorder Hanger # 2759	1.00	Depth 10301
Recorder Case	4.00	
Recorder Hanger # 2760	1.00	Depth 10306
Recorder Case	4.00	

DRILL STEM TEST NUMBER EIGHT

PRESSURE READINGS

Point	Recorder # 2758	Recorder # 2759	Recorder # 2760
A	7790	7816	7845
B	4822	4827	4859
C	6971	6979	7016
D	4784	4778	4815
E	2391	2440	2606
F	6701	6711	6754
G	2430	2424	2459
H	7798	7796	7861
I	2878	2880	2913
J	4865	4876	4919
K	2935	2935	2962
L	6294	6316	6348
M	2929	2935	2970
N	6885	6896	6941
O	5455	5460	5497
P	6904	6920	6968
Q	5000	5005	5051
R	5562	5575	5621
S	6861	6888	6931
T	2927	2929	3058

DRILL STEM TEST NUMBER EIGHT

TIME DEFLECTIONS IN MINUTES

Point	Recorder # 2758	Recorder # 2759	Recorder # 2760
A to B	10	10	10
B to C	130	130	130
C to D	15	15	15
D to E	155	160	158
E to F	65	66	60
F to G	100	105	105
G to H	0	5	0
H to I	65	70	65
I to J	10	0	5
J to K	20	25	25
K to L	30	35	25
L to M	542	550	552
M to N	820	815	815
N to O	10	10	15
O to P	395	410	400
P to Q	20	20	25
Q to R	340	349	340
R to S	340	341	340
S to T	358	369	235

DRILL STEM TEST NUMBER EIGHT

The following is a comparison of the times from the charts and the times recorded at the surface.

Points	Surface	Recorder # 2758	Recorder # 2759	Recorder # 2760
A to B	10	10	10	10
B to C	150	130	130	130
C to D	15	15	15	15
D to E	138	155	160	158
E to F	90	65	66	60
F to G	145	100	105	105
G to L	120	125	135	120
L to M	540	542	550	552
M to N	870	820	815	815
N to P	425	405	420	415
P to R	360	360	369	365
R to S	360	340	341	340
S to T	340	358	369	235

During the final flow period (S-T) recorder # 2760 shows a considerable time loss. Again we must attribute this slow down to high temperature and prolonged use. You will also note that there is a higher difference in the pressure readings for different recorders. At this time we cannot explain the sudden change, but the fact that these recorders have been used approximately two weeks at extremely high temperature and pressure may be causing this problem.

DRILL STEM TEST NUMBER EIGHT

Operation	Time		Length of Test		Choke Size	Wellhead		BHP PSIA
	From	To	Hrs.	Mins		Press PSIA	Temp F	
.F.	2247	2257	0	10	1"	0	N.R.	4839
.S.I.	2257	0127	2	30	0	2360	49	6990
Unloading BJ Tanks	0127	0142	0	15	1"	2361	49	
Clean up Flow	0142	0400	2	18	1"	315	88	
.I. due to low wellhead pressure	0400	0530	1	30	0	3890	60	
Clean up No. 2	0530	0655	1	25	1"	340	83	
Pumped Salt Water	0655	0730	0	35	Pumped 65 BBLs @ 28 BPM and max. pressure 4250			
Clean up no. 3	0730	0840	1	10	1"			
Replace burst plate in Separator	0840	0930	Went through separator from 0840 to 0910 - Well shut in from 0910 to 0930					
Flow No. 1	0930	1830	9	00	48/64 & 48/64	825	102	2947
.I. No. 1	1830	0900	14	30	0	After 12 hrs. WHP* 4065psia & T=44 @ 0900 hrs WHP = 4071 & T= 45		6916
.O.W.	0900	1605	While WOW bled off fluid from top test tree to avoid any unnecessary pressure build up on surface lines and connections WHP 4087 @ 1605					
Flow No. 2	1605	Opened Well			24/64			
	1615	2215	6	0	17/64	2845	83	5574
Shut In No. 2	2215	0415	6	0		4109		6871
Flow No. 3			6	0	1"	793	104	2942

Shut Well In @ 1015 Killed well 1025

.H.P.	7771	S.I. No. 1	6901	F.H.P.	7598
.F.	4824	Flow No. 2	5559		
.S.I.	6975	S.I. No. 2	6856		
Flow No. 1	2932	Flow No. 3	2927		

Test Started: 1047 hrs. May 20, 1970
 Test Completed: 1015 hrs. May 23, 1970
 Recorder # 2758 Depth 10296
 Recorder # 2759 Depth 10301
 Recorder # 2760 Depth 10307 Packer 10227



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Recorder No. 2758

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Page 1

Points	Time Defl. "	INITIAL CIP			Time Defl. "	FINAL CIP		
		T+θ	$\frac{T+\theta}{\theta}$	PSIG		T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	0	Point	A	7790	105	115	1.09	6976
2	5			4822	110			6976
3	10	Point	B	4822	115			6976
4	0	10 Point	B 0	4822	120			6976
5	5			6802	125	135	1.08	6976
6	10			6861	130	140 Point	C 1.08	6971
7	15			6883	0	Point	C	6971
8	20			6906	5			6236
9	25			6923	10			5358
10	30	40	1.34	6936	15	Point	D	4784
11	35			6941	20			5091
12	40			6947	25			4800
13	45			6950	30			4514
14	50			6955	35			4211
15	55			6958	40			3989
16	60			6960	45			3708
17	65	75	1.15	6963	50			3400
18	70			6963	55			3152
19	75			6968	60			3757
20	80			6968	65			4119
21	85	95	1.12	6968	70			3860
22	90			6971	75			3492
23	95			6974	80			3300
24	100			6974	85			3028

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Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	90			2815	35			6514
2	95			2707	40			6556
3	100			2623	45			6594
4	105			2592	50			6620
5	110			2565	55			6650
6	115			2565	60			6674
7	120			2560	65	Point	F	6701
8	125			2533	0	Point	F	6701
9	130			2536	5			5792
10	135			2541	10			5241
11	140			2546	15			4541
12	145			2546	20			3973
13	150			2500	25			3573
14	155			2489	30			3265
15	160			2449	35			3000
16	165			2435	40			2842
17	170	Point	E	2391	45			2723
18	0	Point	E	2391	50			2658
19	5			2853	55			2609
20	10			2554	60			2554
21	15			5920	65			2544
22	20			6214	70			2514
23	25			6369	75			2495
24	30			6444	80			2470



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Points	Time Defl. "	INITIAL CIP			Time Defl. "	FINAL CIP		
		T + θ	$\frac{T + \theta}{\theta}$	PSIG		T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	85			2454	95	Point	K	2935
2	90			2454	100			3497
3	95			2440	105			4043
4	100	Point	G	2430	110			4214
5	0	Point	G	2430	115			3946
6	0	Point	H	7798	120			6080
7	5			7628	125	Point	L	6294
8	10			7043	0	Point	L	6294
9	15			6022	5			5722
10	20			5428	10			5337
11	25			5075	15			4854
12	30			4887	20			4319
13	35			4654	25			3865
14	40			4389	30			3611
15	45			3968	35			3400
16	50			3622	40			3276
17	55			3265	45			3203
18	60			3022	50			3157
19	65	Point	I	2878	55	t	Cozt	3130
20	70			3854	60	o	-	3092
21	75	Point	J	4865	65		0,699	3087
22	80			3708	70		1,000	3076
23	85			3276	75		1,176	3073
24	90			3006	80		1,301	3068



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Points	INITIAL CIP			FINAL CIP				
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	85		1.340	3065	205		2.161	2984
2	90		1.477	3060	210		-	2984
3	95		1.544	3055	215		2.190	2981
4	100		1.602	3049	220		2.208	2978
5	105		1.653	3038	225		2.217	2975
6	110		1.699	3030	230		2.230	2973
7	115		1.740	3028	235		2.243	2970
8	120		1.778	3025	240		2.255	2967
9	125		1.813	3022	245		-	2967
10	130		1.845	3017	250		2.279	2962
11	135		1.875	3014	255		-	2962
12	140		-	3014	260		-	2962
13	145		1.929	3011	265		2.312	2965
14	150		1.954	3003	270		2.322	2970
15	155		-	3003	275		2.332	2967
16	160		-	3003	280		-	2967
17	165		-	3003	285		2.352	2962
18	170		2.041	3000	290		-	2962
19	175		2.061	2997	295		-	2962
20	180		2.079	2995	300		2.388	2959
21	185		2.097	2989	305		2.389	2956
22	190		2.114	2986	310		-	2956
23	195		-	2986	315		2.407	2954
24	200		-	2986	320		-	2954



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Points	Time Defl. "	INITIAL CIP			Time Defl. "	FINAL CIP		
		T+θ	$\frac{T+\theta}{\theta}$	PSIG		T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	325	265	2.423	2951	445		2.585	2927
2	330			2951	450		—	2927
3	335		—	2951	455		—	2927
4	340		2.447	2946	460		—	2927
5	345		—	2946	465		2.607	2929
6	350		2.462	2943	470		—	2929
7	355		—	2943	475		—	2929
8	360		2.477	2668	480		—	2929
9	365			2668	485		—	2929
10	370		2.491	2938	490		2.633	2932
11	375		—	2938	495		—	2032
12	380		—	2938	500		—	2932
13	385		—	2938	505		—	2932
14	390		—	2938	510		—	2932
15	395		—	2938	515		2.658	2929
16	400		—	2938	520			2929
17	405		2.538	2940	525			2929
18	410		2.544	2946	530			2929
19	415		2.550	2948	535			2929
20	420		—	2948	540			2929
21	425		2.562	2946	542	Point	M	2929
22	430		2.568	2943	0	707 Point	M 0	2929
23	435		2.574	2940	5		1.989	3222
24	440		2.580	2932	10		1.692	4130

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Points	Time Defl. "	INITIAL CIP			Time Defl. "	FINAL CIP		
		T+θ	$\frac{T+\theta}{\theta}$	PSIG		T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	15		1.520	5556	135			
2	20		1.400	5952	140	847	.660	6639
3	25		1.307	6096	145		.648 66106	6644
4	30		1.232	6193	150		.636	6653
5	35	742	1.169 1.172	6262	155		.625	6658
6	40		1.116	6316	160		.614	6663
7	45		1.069	6358	165		.603	6671
8	50		1.027	6391	170		.593	6677
9	55		0.990	6423	175	882	.584 1.575 1.106	6680
10	60		.956	6449	180		.575	6685
11	65		.925	6471	185		.566	6690
12	70	777	.897 1.111	6492	190		.557	6695
13	75		.871	6508	195		.549	6701
14	80		.847	6519	200		.541	6706
15	85		.824	6540	205		.533	6709
16	90		.803	6551	210	917	.525	6711
17	95		.783	6562	215		.518 1.111	6717
18	100		.765	6578	220		.511	6722
19	105	812	.747 1.111	6589	225		.504	6725
20	110		.731	6594	230		.497	6727
21	115		.715	6605	235		.491	6733
22	120		.700	6615	240		—	6733
23	125		.686	6623	245	952	.478	6738
24	130		.673	6631	250		.472 1.111	6741
							.467	6743

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Points	INITIAL CIP				FINAL CIP				
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	
14	255		.461	6746	375		.359	6802	188
8	260		.455	6752	380		—	6802	
36	265		.450	6754	385	1082	.353 .2182	6805	185
33	270		.445	6757	390		.349	6808	182
20	275		.440	6760	395		—	6808	
	280	987	.438	6760	400		.343	6810	180
5	285		.430	6765	405		.340	6813	177
	290		—	6765	410		—	6813	
2	295		.421	6768	415		—	6813	172
20	300		.416	6770	420	1127	.2468	6813	
17	305		.412	6773	425		.329	6818	169
4	310		.407	6776	430		—	6818	
2	315	1022	.403 .2124	6778	435		.324	6821	166
9	320		.399	6781	440		—	6821	
	325		—	6781	445		—	6821	164
36	330		.391	6784	450		.316	6824	
14	335		.387	6786	455	1162	.2155	6824	161
11	340		.383	6789	460		.311	6826	
8	345		.380	6792	465		.309	6829	158
6	350	1057	.378	6792	470		—	6829	
	355		.372	6794	475		—	6829	158
3	360		.369	6797	480		.302	6832	
	365		—	6797	485		—	6832	158
30	370		.362	6800	490	1197	.2144	6832	



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Points	Time Defl. "	INITIAL CIP			Time Defl. "	FINAL CIP		
		T+θ	$\frac{T+\theta}{\theta}$	PSIG		T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	495		.295	6834	615		—	6856
2	500		—	6834	620		—	6856
3	505		.291	6837	625		—	6856
4	510		.289	6840	630	1337	.247 242	6859
5	515		—	6840	635		—	6859
6	520		—	6840	640		.244	6861
7	525	1232	0.285	6840	645		—	6861
8	530		.281	6843	650		—	6861
9	535		—	6843	655		—	6861
10	540		—	6843	660		.238	6864
11	545		.275	6845	665	1372	240	6864
12	550		—	6845	670		—	6864
13	555		—	6845	675		—	6864
14	560	1267	.270 0.270	6848	680		—	6864
15	565		—	6848	685		—	6864
16	570		—	6848	690		—	6864
17	575		—	6848	695		.229	6867
18	580		.263	6851	700	1407	2107	6867
19	585		.261	6853	705		—	6867
20	590		—	6853	710		—	6867
21	595	1302	0.260	6853	715		.224	6872
22	600		—	6853	720		—	6872
23	605		.254	6856	725		—	6872
24	610		—	6856	730		—	6872

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Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+Θ	$\frac{T+\Theta}{\Theta}$	PSIG	Time Defl. "	T+Θ	$\frac{T+\Theta}{\Theta}$	PSIG
1	735	1442	2197	6872	30			6832
2	740		—	6872	35			6843
3	745		.217	6875	40			6851
4	750	1457	2195	6875	45			6856
5	755		—	6875	50			6859
6	760		—	6875	55			6861
7	765		—	6875	60			6867
8	770	1477	2192	6875	65			6867
9	775		.210	6877	70			6869
10	780		—	6877	75			6872
11	785		—	6877	80			6875
12	790	1497	2190	6877	85			6877
13	795		—	6877	90			6877
14	800		—	6877	95			6877
15	805		.204	6885	100			6880
16	810	1517	2187	6885	105			6880
17	815	1522	2187	6885	110			6880
18	820	1527 Point	N 2187	6885	115			6880
19	0	Point	N	6885	120			6883
20	5			6931	125			6885
21	10	Point	0	5455	130			6885
22	15			6741	135			6885
23	20			6794	140			6885
24	25			6818	145			6885



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Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	150			6888	270			6898
2	155			6888	275			6898
3	160			6888	280			6898
4	165			6888	285			6898
5	170			6888	290			6898
6	175			6888	295			6898
7	180			6890	300			6901
8	185			6890	305			6901
9	190			6890	310			6901
10	195			6893	315			6901
11	200			6893	320			6901
12	205			6893	325			6901
13	210			6893	330			6901
14	215			6893	335			6901
15	220			6896	340			6901
16	225			6896	345			6904
17	230			6896	350			6904
18	235			6896	355			6904
19	240			6896	360			6904
20	245			6896	365			6904
21	250			6898	370			6904
22	255			6898	375			6904
23	260			6898	380			6904
24	265			6898	385			6904



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Points	Time Defl. "	INITIAL CIP			Time Defl. "	FINAL CIP		
		T+θ	$\frac{T+\theta}{\theta}$	PSIG		T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	390			6904	100		1.544	5680
2	395			6904	105		1.602	5674
3	400			6904	110		1.653	5671
4	405	Point	P	6904	115		1.699	5669
5	0	Point	P	6904	120		1.740	5666
6	5			6080	125		1.778	5661
7	10			5572	130		1.813	5658
8	15			5203	135		—	5658
9	20	Point	Q	5000	140		1.875	5653
10	25			5123	145		1.903	5650
11	30			5361	150		1.929	5647
12	35			5487	155		1.954	5644
13	40			5583	160		1.978	5642
14	45			5610	165		2.000	5636
15	50			5615	170		—	5636
16	55			5636	175		2.041	5634
17	60	t	log t	5671	180		2.061	5631
18	65	0	—	5685	185		2.079	5628
19	70		0.699	5685	190		2.097	5626
20	75		1.000	5685	195		—	5626
21	80		1.176	5685	200		2.130	5623
22	85		1.301	5685	205		2.146	5620
23	90		1.346	5685	210		2.161	5618
24	95		1.477	5682	215		2.176	5615



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Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	220	—	—	5615	340	2.439	—	5564
2	225	—	2.204	5612	345	—	—	5564
3	230	—	2.217	5610	350	2.455	—	5562
4	235	—	2.230	5607	355	—	—	5562
5	240	—	—	5607	360	Point	R	5562
6	245	—	2.255	5605	0	Point	R	5562
7	250	—	2.267	5602	5	—	1.778	6218
8	255	—	2.279	5599	10	—	1.484	6412
9	260	—	—	5599	15	—	1.315	6498
10	265	—	2.301	5594	20	—	1.197	6545
11	270	—	—	5594	25	—	1.107	6578
12	275	—	—	5594	30	—	1.035	6607
13	280	—	—	5594	35	—	0.974	6628
14	285	—	2.342	5589	40	—	.923	6647
15	290	—	2.352	5583	45	—	.878	6666
16	295	—	—	5583	50	—	.839	6680
17	300	—	2.371	5581	55	—	.804	6690
18	305	—	2.380	5578	60	—	.772	6706
19	310	—	2.389	5575	65	—	.743	6711
20	315	—	2.398	5572	70	—	.717	6722
21	320	—	2.407	5570	75	—	.693	6730
22	325	—	—	5570	80	—	.671	6738
23	330	—	2.423	5567	85	—	.650	6743
24	335	—	—	5567	90	—	.631	6752

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Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	95		.613	6754	215		.375	6832
2	100		.597	6760	220		—	6832
3	105		.581	6768	225		.364	6834
4	110		.566	6770	230		—	6834
5	115		.552	6776	235		.353	6837
6	120		.539	6781	240		.348	6840
7	125		.526	6784	245		—	6840
8	130		.514	6786	250		—	6840
9	135		.503	6792	255		.334	6843
10	140		.492	6794	260		.329	6845
11	145		.482	6797	265		.325	6848
12	150		.472	6802	270		—	6848
13	155		—	6802	275		—	6848
14	160		.454	6808	280		—	6848
15	165		.445	6810	285		.309	6851
16	170		.437	6813	290		—	6851
17	175		.429	6816	295		.301	6853
18	180		—	6816	300		—	6853
19	185		—	6816	305		.294	6856
20	190		.407	6821	310		—	6856
21	195		.400	6824	315		.287	6859
22	200		—	6824	320		—	6859
23	205		.387	6827	325		.281	6861
24	210		.381	6829	330		—	6861

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157
155
152
149
146
144
141
138
136
133
130
128



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Points	Time Defl. "	INITIAL CIP			Time Defl. "	FINAL CIP		
		T+θ	$\frac{T+\theta}{\theta}$	PSIG		T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	335		—	6861	110			3122
2	340	Point	S —	6861	115			3109
3	0	Point	S	6861	120			3095
4	5			6257	125			3084
5	10			5770	130			3082
6	15			5129	135			3076
7	20			4757	140			3076
8	25			4297	145			3076
9	30			3924	150			3073
10	35			3673	155			3071
11	40			3530	160			3068
12	45			3443	165			3068
13	50			3387	170			3065
14	55			3335	175			3065
15	60			3292	180			3057
16	65			3265	185			3057
17	70			3238	190			3055
18	75			3225	195			3044
19	80			3211	200			3033
20	85			3197	205			3033
21	90			3179	210			3033
22	95			3163	215			3033
23	100			3146	220			3030
24	105			3130	225			3022



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Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	230			3017	350			2927
2	235			3008	355			2927
3	240			2995	358	Point	T	2927
4	245			2992				
5	250			2989				
6	255			2978				
7	260			2967				
8	265			2956				
9	270			2954				
10	275			2948				
11	280			2946				
12	285			2940				
13	290			2940				
14	295			2940				
15	300			2940				
16	305			2938				
17	310			2935				
18	315			2932				
19	320			2929				
20	325			2929				
21	330			2929				
22	335			2929				
23	340			2929				
24	345			2929				



DST PRESSURE INCREMENTS

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Depth

Page 1

Points	INITIAL CIP			FINAL CIP				
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	0	Point	A	7816	105			6987
2	5			4827	110			6987
3	10	Point	B	4827	115			6987
4	0	Point	B	4827	120			6989
5	5			6845	125			6989
6	10			6893	130	Point	C	6979
7	15			6920	0	Point	C	6979
8	20			6933	5			6530
9	25			6947	10			5674
10	30			6955	15	Point	D	4778
11	35			6963	20			4941
12	40			6968	25			5129
13	45			6974	30			4643
14	50			6974	35			4362
15	55			6976	40			4135
16	60			6979	45			3827
17	65			6981	50			3638
18	70			6979	55			3292
19	75			6979	60			3146
20	80			6981	65			3751
21	85			6984	70			4130
22	90			6984	75			3860
23	95			6987	80			3557
24	100			6987				



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Page 2

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	85			3271	20			6209
2	90			3028	25			6358
3	95			2821	30			6460
4	100			2696	35			6524
5	105			2652	40			6572
6	110			2614	45			6615
7	115			2587	50			6636
8	120			2565	55			6663
9	125			2565	60			6689
10	130			2554	65			6706
11	135			2538	66	Point	F	6711
12	140			2544	0	Point	F	6711
13	145			2544	5			6177
14	150			2541	10			5449
15	155			2500	15			4616
16	160			2489	20			4146
17	165			2451	25			3741
18	170			2440	30			3433
19	175	Point	E	2440	35			3217
20					40			2935
21	0	Point	E	2386	45			2793
22	5			2620	50			2712
23	10			3146	55			2652
24	15			5695	60			2590



DST PRESSURE INCREMENTS

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Depth

Page 3

Points	INITIAL CIP			FINAL CIP				
	Time Defl. "	T + Θ	$\frac{T + \Theta}{\Theta}$	PSIG	Time Defl. "	T + Θ	$\frac{T + \Theta}{\Theta}$	PSIG
1	65			2541	70	Point J		4876
2	70			2533	75			4081
3	75			2500	80			3746
4	80			2484	85			3352
5	85			2462	90			3122
6	90			2451	95	Point K		2935
7	95			2443	100			3238
8	100			2443	105			3811
9	105	Point G		2424	110			4227
10	0	Point G		2424	115			3941
11	5	Point H		7796	120			5321
12	10			6797	125			6171
13	15			6113	130	Point L		6316
14	20			5311	0	Point L		6316
15	25			5064	5			5626
16	30			4816	10			4908
17	35			4551	15			4314
18	40			4260	20			3946
19	45			3973	25			3676
20	50			3687	30			3503
21	55			3368	35			3357
22	60			3098	40			3260
23	65			2913	45			3190
24	70	Point I		2880	50			3157



DST PRESSURE INCREMENTS

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Page 4

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	55			3114	175			3008
2	60			3098	180			3006
3	65			3092	185			3003
4	70			3090	190			3003
5	75			3082	195			3000
6	80			3082	200			2997
7	85			3076	205			2997
8	90			3071	210			2995
9	95			3065	215			2992
10	100			3060	220			2989
11	105			3049	225			2989
12	110			3044	230			2984
13	115			3038	235			2984
14	120			3038	240			2981
15	125			3036	245			2981
16	130			3033	250			2978
17	135			3028	255			2975
18	140			3022	260			2973
19	145			3022	265			2973
20	150			3017	270			2973
21	155			3011	275			2973
22	160			3011	280			2973
23	165			3008	285			2973
24	170			3008	290			2973



DST PRESSURE INCREMENTS

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Page 5

Points	INITIAL CIP			FINAL CIP				
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	295			2973	415			2954
2	300			2973	420			2954
3	305			2973	425			2954
4	310			2970	430			2954
5	315			2970	435			2954
6	320			2967	440			2954
7	325			2967	445			2946
8	330			2962	450			2943
9	335			2962	455			2940
10	340			2959	460			2935
11	345			2959	465			2935
12	350			2956	470			2935
13	355			2956	475			2935
14	360			2956	480			2935
15	365			2954	485			2935
16	370			2954	490			2935
17	375			2954	495			2935
18	380			2954	500			2935
19	385			2954	505			2935
20	390			2954	510			2938
21	395			2954	515			2935
22	400			2954	520			2935
23	405			2954	525			2935
24	410			2954	530			2935



DST PRESSURE INCREMENTS

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Depth

Page 6

Points	INITIAL CIP				FINAL CIP			
	Time Def. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Def. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	535			2935	100			6594
2	540			2935	105			6605
3	545			2935	110			6610
4	550	Point	M	2935	115			6620
5	0	Point	M	2935	120			6631
6	5			3389	125			6636
7	10			4762	130			6647
8	15			5797	135			6653
9	20			6011	140			6661
10	25			6155	145			6669
11	30			6241	150			6674
12	35			6311	155			6680
13	40			6353	160			6685
14	45			6391	165			6690
15	50			6417	170			6695
16	55			6447	175			6701
17	60			6471	180			6706
18	65			6492	185			6711
19	70			6519	190			6717
20	75			6530	195			6722
21	80			6540	200			6725
22	85			6556	205			6727
23	90			6567	210			6733
24	95			6583	215			6735



DST PRESSURE INCREMENTS

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Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	220			6741	340			6802
2	225			6743	345			6805
3	230			6749	350			6805
4	235			6752	355			6805
5	240			6754	360			6813
6	245			6757	365			6813
7	250			6760	370			6813
8	255			6762	375			6816
9	260			6765	380			6818
10	265			6768	385			6818
11	270			6770	390			6821
12	275			6776	395			6821
13	280			6776	400			6824
14	285			6778	405			6824
15	290			6781	410			6826
16	295			6784	415			6826
17	300			6786	420			6832
18	305			6786	425			6832
19	310			6792	430			6834
20	315			6794	435			6834
21	320			6794	440			6837
22	325			6797	445			6837
23	330			6797	450			6837
24	335			6802	455			6837



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Page 8

Points	INITIAL CIP			FINAL CIP				
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	460			6840	575			6864
2	465			6843	580			6864
3	470			6843	585			6867
4	475			6845	590			6867
5	480			6845	595			6872
6	485			6845	600			6872
7	490			6847	605			6872
8	495			6845	610			6872
9	500			6851	615			6872
10	505			6851	620			6872
11	510			6853	625			6875
12	515			6853	630			6875
13	520			6856	635			6875
14	525			6856	640			6877
15	530			6856	645			6877
16	535			6856	650			6877
17	540			6859	655			6880
18	545			6859	660			6880
19	550			6859	665			6880
20	555			6861	670			6880
21	560			6861	675			6880
22	565			6861	680			6880
23	570			6864	685			6880
24					690			6883



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Points	Time Defl. "	INITIAL CIP			Time Defl. "	FINAL CIP		
		T+θ	$\frac{T+\theta}{\theta}$	PSIG		T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	695			6883	815	Point N	6896	
2	700			6883	0	Point N	6896	
3	705			6883	5		5941	
4	710			6883	10	Point 0	5460	
5	715			6883	15		6786	
6	720			6883	20		6813	
7	725			6885	25		6834	
8	730			6885	30		6848	
9	735			6888	35		6856	
10	740			6888	40		6861	
11	745			6888	45		6869	
12	7 50			6888	50		6875	
13	755			6890	55		6877	
14	760			6890	60		6880	
15	765			6890	65		6880	
16	770			6890	70		6885	
17	775			6893	75		6888	
18	780			6893	80		6888	
19	785			6893	85		6890	
20	790			6896	90		6890	
21	795			6896	95		6890	
22	800			6896	100		6893	
23	805			6896	105		6893	
24	810			6896	110		6893	



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Page 10

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	115			6893	235			6909
2	120			6898	240			6909
3	125			6901	245			6909
4	130			6901	250			6909
5	135			6901	255			6909
6	140			6901	260			6909
7	145			6901	265			6912
8	150			6901	270			6912
9	155			6901	275			6912
10	160			6904	280			6912
11	165			6904	285			6912
12	170			6904	290			6912
13	175			6904	295			6912
14	180			6904	300			6912
15	185			6904	305			6914
16	190			6904	310			6914
17	195			6904	315			6914
18	200			6904	320			6914
19	205			6904	325			6914
20	210			6904	330			6917
21	215			6904	335			6917
22	220			6904	340			6917
23	225			6904	345			6917
24	230			6904	350			6917



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Page 11

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	355			6920	50			5628
2	360			6920	55			5631
3	365			6920	60			5680
4	370			6920	65			5690
5	375			6920	70			5701
6	380			6920	75			5701
7	385			6920	80			5698
8	390			6920	85			5698
9	395			6920	90			5695
10	400			6920	95			5695
11	405			6920	100			5690
12	410			6920	105			5689
13	415			6920	110			5685
14	420	Point	P	6920	115			5680
15	0	Point	P	6920	120			5677
16	5			6049	125			5674
17	10			5572	130			5669
18	15			5201	135			5669
19	20	Point	Q	5005	140			5666
20	25			5134	145			5663
21	30			5294	150			5661
22	35			5436	155			5658
23	40			5589	160			5655
24	45			5620	165			5653



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Points	INITIAL CIP			FINAL CIP				
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	170			5647	290			5602
2	175			5647	295			5597
3	180			5644	300			5594
4	185			5642	305			5591
5	190			5639	310			5589
6	195			5636	315			5589
7	200			5636	320			5586
8	205			5634	325			5583
9	210			5631	330			5581
10	215			5628	335			5578
11	220			5626	340			5578
12	225			5623	345			5575
13	230			5623	350			5575
14	235			5620	355			5575
15	240			5618	360			5575
16	245			5618	365			5575
17	250			5615	369	Point	R	5575
18	255			5612	0	Point	R	5575
19	260			5610	5			6385
20	265			5610	10			6492
21	270			5607	15			6556
22	275			5605	20			6594
23	280			5602	25			6620
24	285			5602	30			6653

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Points	Time Defl. "	INITIAL CIP			Time Defl. "	FINAL CIP		
		T + θ	$\frac{T + \theta}{\theta}$	PSIG		T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	35			6669	155			6829
2	40			6690	160			6834
3	45			6706	165			6837
4	50			6714	170			6840
5	55			6727	175			6840
6	60			6741	180			6845
7	65			6749	185			6848
8	70			6751	190			6851
9	75			6759	195			6851
10	80			6762	200			6851
11	85			6770	205			6853
12	90			6778	210			6853
13	95			6783	215			6856
14	100			6788	220			6859
15	105			6797	225			6861
16	110			6799	230			6861
17	115			6802	235			6867
18	120			6807	240			6867
19	125			6810	245			6867
20	130			6813	250			6869
21	135			6818	255			6869
22	140			6824	260			6872
23	145			6824	265			6875
24	150			6829	270			6877



DST PRESSURE INCREMENTS

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Page 14

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	275			6877	45			3530
2	280			6877	50			3462
3	285			6877	55			3391
4	290			6880	60			3326
5	295			6880	65			3299
6	300			6883	70			3266
7	305			6883	75			3239
8	310			6883	80			3229
9	315			6885	85			3218
10	320			6885	90			3201
11	325			6888	95			3185
12	330			6888	100			3169
13	335			6888	105			3152
14	340			6888	110			3142
15	341	Point	S	6888	115			3128
16	o	Point	S	6888	120			3114
17	5			6316	125			3103
18	10			5989	130			3092
19	15			5316	135			3082
20	20			4927	140			3082
21	25			4506	145			3076
22	30			4114	150			3076
23	35			3832	155			3076
24	40			3647	160			3076



DST PRESSURE INCREMENTS

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Page 15

Points	INITIAL CIP			FINAL CIP				
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	165			3071	285			2951
2	170			3071	290			2948
3	175			3068	295			2943
4	180			2799	300			2940
5	185			2788	305			2940
6	190			2788	310			2940
7	195			2788	315			2938
8	200			2774	320			2935
9	205			2769	325			2932
10	210			3033	330			2929
11	215			3033	335			2929
12	220			3033	340			2929
13	225			3033	345			2929
14	230			3027	350			2929
15	235			3022	355			2929
16	240			3011	360			2929
17	245			3000	365			2929
18	250			2995	369	Point	T	2929
19	255			2995				
20	260			2989				
21	265			2978				
22	270			2962				
23	275			2956				
24	280			2951				



DST PRESSURE INCREMENTS

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Page 1

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	0	Point A		7845	105			7019
2	5			5059	110			7022
3	10	Point B		4859	115			7022
4	0	Point B		4859	120			7024
5	5			6872	125			7024
6	10			6914	130	Point C		7016
7	15			6947	0	Point C		7016
8	20			6958	5			6936
9	25			6974	10			5621
10	30			6979	15	Point D		4815
11	35			6989	20			5364
12	40			6995	25			4956
13	45			7000	30			4734
14	50			7005	35			4500
15	55			7005	40			4163
16	60			7008	45			3962
17	65			7008	50			3663
18	70			7014	55			3353
19	75			7014	60			3733
20	80			7014	65			4136
21	85			7016	70			4098
22	90			7019	75			3782
23	95			7019	80			3587
24	100			7019	85			3326



DST PRESSURE INCREMENTS

Recorder No 2760

Depth

Page 2

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	90			3114	30			6572
2	95			2967	35			6621
3	100			2897	40			6658
4	105			2848	45			6690
5	110			2826	50			6709
6	115			2799	55			6733
7	120			2788	60	Point F		6754
8	125			2770	0	Point F		6754
9	130			2766	5			6214
10	135			2761	10			5706
11	140			2777	15			4962
12	145			2766	20			4370
13	150			2658	25			3929
14	155			2712	30			3533
15	160			2668	35			3119
16	165			2641	40			2995
17	170			2614	45			2848
18	173	Point F		2606	50			2755
19	0	Point E		2606	55			2690
20	5			3229	60			2636
21	10			4962	65			2581
22	15			6230	70			2554
23	20			6428	75			2538
24	25			6498	80			2517



DST PRESSURE INCREMENTS

Recorder No. 2760

Depth

Page 3

Points	INITIAL CIP			FINAL CIP				
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	85			2495	80			3712
2	90			2484	85			3321
3	95			2481	90			3071
4	100			2478	95	Point	K	2962
5	105	Point	G	2459	100			3668
6	0	Point	G	2459	105			4266
7					110			4174
8	0	Point	H	7861	115			3975
9	5			7092	120	Point	L	6348
10	10			6433	0	Point	L	6348
11	15			5722	5			5877
12	20			5246	10			5605
13	25			5038	15			5107
14	30			4837	20			4690
15	35			4592	25			4234
16	40			4560	30			3886
17	45			3978	35			3631
18	50			3690	40			3451
19	55			3310	45			3312
20	60			3060	50			3256
21	65	Point	I	2913	55			3201
22	70	Point	J	4119	60			3169
23	75			4196	65			3142
24					70			3125



DST PRESSURE INCREMENTS

Recorder No. 2760

Depth

Page 4

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	75			3123	200			3028
2	80			3114	205			3028
3	85			3108	210			3028
4	90			3106	215			3025
5	95 100			3103 3099	220			3022
6	105			3092	225			3017
7	110			3082	230			3017
8	115			3074	235			3017
9	120			3068	240			3014
10	125			3065	245			3011
11	130			3063	250			3008
12	135			3060	255			3008
13	140			3057	260			3003
14	145			3055	265			3003
15	150			3049	270			3003
16	155			3047	275			3006
17	160			3041	280			3011
18	165			3041	285			3011
19	170			3041	290			3008
20	175			3041	295			3006
21	180			3041	300			3006
22	185			3038	305			3003
23	190			3033	310			3000
24	195			3030	315			3000



DST PRESSURE INCREMENTS

Recorder No. 2760

Depth

Page 5

Points	INITIAL CIP			FINAL CIP				
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	320			2997	440			2986
2	325			2997	445			2981
3	330			2997	450			2975
4	335			2995	455			2970
5	340			2992	460			2970
6	345			2989	465			2970
7	350			2989	470			2970
8	355			2986	475			2970
9	360			2986	480			2970
10	365			2984	485			2970
11	370			2984	490			2970
12	375			2984	495			2970
13	380			2984	500			2970
14	385			2984	505			2973
15	390			2984	510			2973
16	395			2981	515			2970
17	400			2981	520			2970
18	405			2981	525			2970
19	410			2984	530			2970
20	415			2986	535			2970
21	420			2986	540			2970
22	425			2986	545			2970
23	430			2986	550			2970
24	435			2986	552	Point	M	2970



DST PRESSURE INCREMENTS

Recorder No. 2760

Depth

Page 6

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	0	Point	M	2970	120			6685
2	5			3234	125			6690
3	10			5989	130			6701
4	15			6150	135			6706
5	20			6236	140			6711
6	25			6305	145			6717
7	30			6364	150			6725
8	35			6401	155			6730
9	40			6433	160			6735
10	45			6471	165			6743
11	50			6490	170			6743
12	55			6516	175			6751
13	60			6530	180			6756
14	65			6556	185			6759
15	70			6572	190			6764
16	75			6589	195			6770
17	80			6599	200			6772
18	85			6610	205			6778
19	90			6624	210			6780
20	95			6637	215			6786
21	100			6648	220			6791
22	105			6656	225			6791
23	110			6664	230			6797
24	115			6674	235			6799



DST PRESSURE INCREMENTS

Recorder No. 2760

Depth

Page 7

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	240			6802	360			6859
2	245			6805	365			6861
3	250			6807	370			6861
4	255			6813	375			6864
5	260			6813	380			6867
6	265			6818	385			6867
7	270			6821	390			6869
8	275			6824	395			6869
9	280			6824	400			6872
10	285			6826	405			6872
11	290			6829	410			6872
12	295			6832	415			6877
13	300			6834	420			6877
14	305			6834	425			6880
15	310			6840	430			6880
16	315			6840	435			6883
17	320			6845	440			6883
18	325			6845	445			6883
19	330			6848	450			6885
20	335			6851	455			6885
21	340			6851	460			6888
22	345			6853	465			6888
23	350			6856	470			6890
24	355			6856	475			6890



DST PRESSURE INCREMENTS

Recorder No. 2760

Depth

Page 8

Points	INITIAL CIP				FINAL CIP			
	Time Def. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Def. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	480			6893	600			6917
2	485			6893	605			6917
3	490			6893	610			6917
4	495			6893	615			6917
5	500			6896	620			6920
6	505			6898	625			6920
7	510			6898	630			6920
8	515			6898	635			6920
9	520			6901	640			6923
10	525			6904	645			6923
11	530			6904	650			6925
12	535			6904	655			6925
13	540			6904	660			6925
14	545			6904	665			6925
15	550			6906	670			6925
16	555			6909	675			6928
17	560			6909	680			6928
18	565			6909	685			6928
19	570			6909	690			6931
20	575			6912	695			6931
21	580			6912	700			6931
22	585			6912	705			6931
23	590			6914	710			6933
24	595			6914	715			6933



DST PRESSURE INCREMENTS

Recorder No. 2760

Depth

Page 9

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	720			6933	20			6867
2	725			6933	25			6888
3	730			6933	30			6898
4	735			6933	35			6909
5	740			6936	40			6914
6	745			6936	45			6917
7	750			6936	50			6923
8	755			6936	55			6925
9	760			6936	60			6928
10	765			6936	65			6931
11	770			6939	70			6931
12	775			6939	75			6933
13	780			6939	80			6933
14	785			6939	85			6936
15	790			6939	90			6936
16	795			6939	95			6939
17	800			6941	100			6941
18	805			6941	105			6941
19	810			6941	110			6941
20	815	Point	N	6941	115			6944
21	0	Point	N	6941	120			6944
22	5			6267	125			6944
23	10			5786	130			6947
24	15	Point	0	5497	135			6947



DST PRESSURE INCREMENTS

Recorder No. 2760

Depth

Page 10

Points	INITIAL CIP			FINAL CIP				
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	140			6947	260			6958
2	145			6947	265			6960
3	150			6950	270			6960
4	155			6950	275			6960
5	160			6950	280			6960
6	165			6952	285			6960
7	170			6952	290			6960
8	175			6952	295			6960
9	180			6952	300			6960
10	185			6952	305			6960
11	190			6952	310			6960
12	195			6952	315			6960
13	200			6952	320			6960
14	205			6952	325			6960
15	210			6955	330			6966
16	215			6955	335			6966
17	220			6955	340			6966
18	225			6958	345			6966
19	230			6958	350			6966
20	235			6958	355			6966
21	240			6958	360			6966
22	245			6958	365			6966
23	250			6958	370			6966
24	255			6958	375			6966



DST PRESSURE INCREMENTS

Recorder No. 2760

Depth

Page 11

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	380			6968	80			5752
2	385			6968	85			5749
3	390			6968	90			5749
4	395			6968	95			5743
5	400			6968	100			5738
6	405			6968	105			5735
7	410			6968	110			5733
8	415	Point	P	6968	115			5730
9	0	Point	P	6968	120			5727
10	5			6353	125			5722
11	10			5813	130			5717
12	15			5396	135			5714
13	20			5150	140			5711
14	25	Point	Q	5051	145			5711
15	30			5358	150			5706
16	35			5492	155			5706
17	40			5636	160			5701
18	45			5674	165			5698
19	50			5682	170			5695
20	55			5682	175			5695
21	60			5733	180			5693
22	65			5743	185			5690
23	70			5752	190			5690
24	75			5752	195			5687



DST PRESSURE INCREMENTS

Recorder No. 2760

Depth

Page 12

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	200			5685	320			5634
2	205			5685	325			5628
3	210			5680	330			5628
4	215			5677	335			5626
5	220			5674	340			5623
6	225			5671	345			5623
7	230			5669	350			5623
8	235			5666	355			5623
9	240			5666	360			5621
10	245			5663	365	Point	R	5621
11	250			5663	0	Point	R	5621
12	255			5661	5			6439
13	260			5658	10			6530
14	265			5658	15			6597
15	270			5655	20			6632
16	275			5655	25			6664
17	280			5653	30			6690
18	285			5650	35			6706
19	290			5647	40			6727
20	295			5642	45			6743
21	300			5642	50			6754
22	305			5636	55			6764
23	310			5636	60			6775
24	315			5634	65			6783



DST PRESSURE INCREMENTS

Recorder No. 2760

Depth

Page 13

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	70			6791	190			6888
2	75			6802	195			6890
3	80			6807	200			6893
4	85			6813	205			6896
5	90			6818	210			6898
6	95			6824	215			6898
7	100			6829	220			6898
8	105			6834	225			6901
9	110			6840	230			6904
10	115			6845	235			6904
11	120			6845	240			6906
12	125			6851	245			6909
13	130			6856	250			6909
14	135			6861	255			6912
15	140			6861	260			6912
16	145			6867	265			6914
17	150			6869	270			6914
18	155			6872	275			6917
19	160			6875	280			6917
20	165			6877	285			6917
21	170			6877	290			6920
22	175			6883	295			6923
23	180			6885	300			6923
24	185			6888	305			6923



DST PRESSURE INCREMENTS

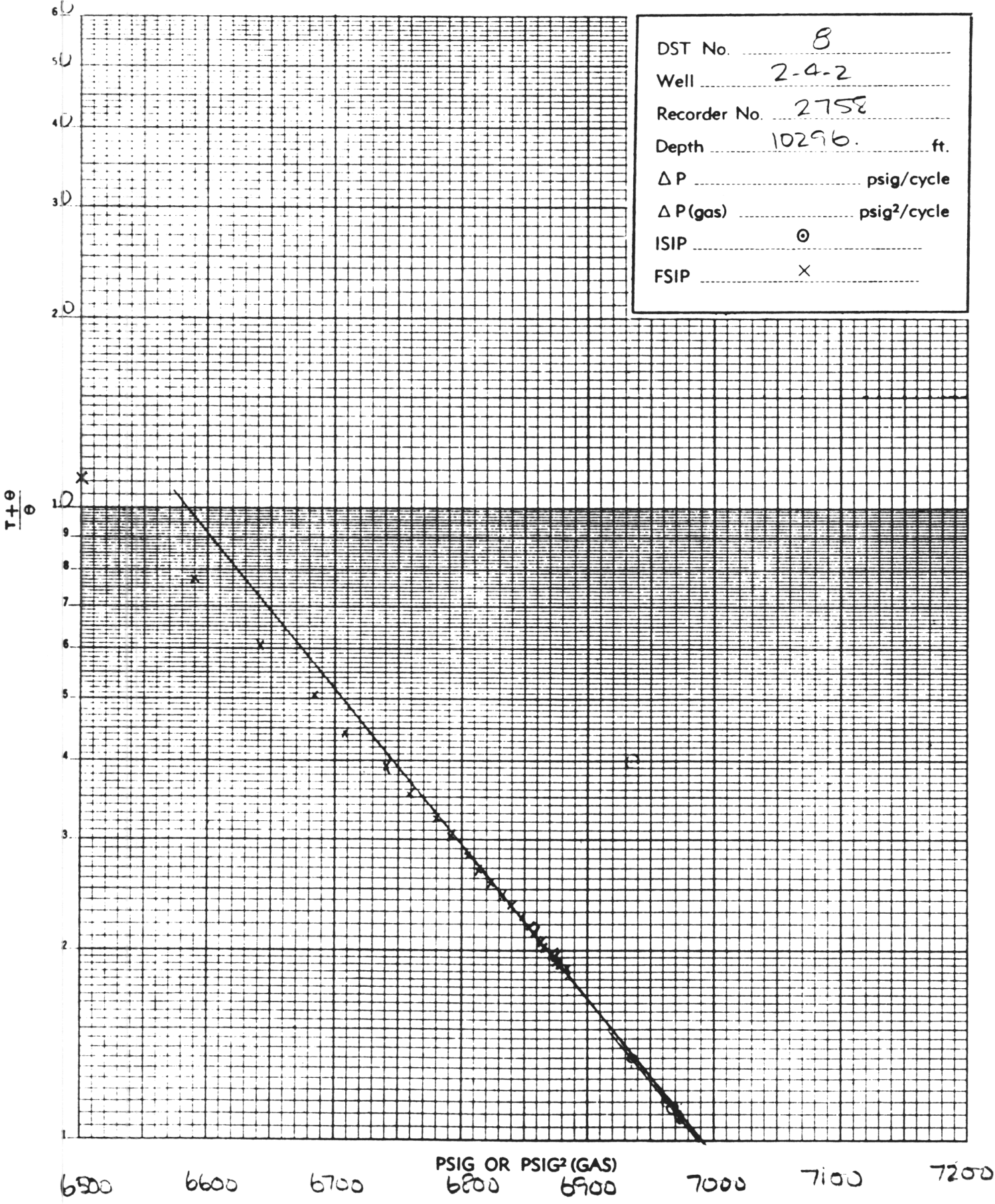
Recorder No. 2760

Depth

Page 14

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	310			6925	85			3250
2	315			6925	90			3239
3	320			6925	95			3218
4	325			6928	100			3207
5	330			6928	105			3190
6	335			6928	110			3179
7	340	Point	S	6931	115			3169
8	0	Point	S	6931	120			3152
9	5			6391	125			3142
10	10			6102	130			3131
11	15			6027	135			3125
12	20			5000	140			3123
13	25			4576	145			3120
14	30			4136	150			3120
15	35			3837	155			3120
16	40			3668	160			3114
17	45			3549	165			3112
18	50			3478	170			3112
19	55			3413	175			3112
20	60			3359	180			3112
21	65			3326	185			3101
22	70			3299	190			3101
23	75			3277	195			3101
24	80			3269	200			3092

DST No.	8
Well	2-4-2
Recorder No.	2758
Depth	10296. ft.
ΔP	psig/cycle
ΔP (gas)	psig ² /cycle
ISIP	⊙
FSIP	×





DRILL-STEM TEST DATA

Well Name <u>EKO FISK</u>		Test No. <u>NINE</u>
Well Number <u>2-4-2X</u>		Zone Tested <u>Perforated from:</u>
Company <u>Phillips Petroleum Co. Norway</u>		Interval <u>10480 - 10580</u> <u>10250 - 10350</u>
Comp. Rep. <u>Mr. B. Iverson</u>	Tester <u>BJ Flahr</u>	Date <u>May 25, 1970</u>

Type of Test Casing Hook Wall RFS Tool No. _____

Preflow _____ mins. ISI _____ mins. Flow _____ mins. FSI _____ mins.

Specify Inside or Outside	INS REC. No. <u>2758</u>	INS REC. No. <u>2759</u>	OUT REC. No. <u>2760</u>
	<u>10600</u> RANGE <u>72</u> HR. CLOCK	<u>10700</u> RANGE <u>72</u> HR. CLOCK	<u>10700</u> RANGE <u>72</u> HR. CLOCK
DEPTH	<u>10514</u>	<u>10519</u>	<u>10524</u>
Initial Hydro Mud Press			
Initial Shut-In Press		<u>Clock stopped</u>	
Initial Flow Press		<u>at beginning</u>	
Final Flow Press		<u>of operation</u>	
Final Shut-In Press			
Final Hydro Mud Press			

Mud Drop _____ Fluid Loss 4.2 Mud Weight 14.3
 Viscosity 45 Temperature °F 263 Net Pay Tested _____
 Top Packer Depth 10195 Bottom Packer Depth _____ Total Depth 10540
 Drill Pipe Size 2 7/8 Eue Tubing Wt. 6.5 Drill Collar I.D. _____ Ft. Run _____
 Surface Choke Size Adjustable Bottom Choke Size _____ Main Hole Size 7" 29 # Casing
 Anchor Size 3 1/2 & 2 7/8 Rat Hole Size _____ Feet of Rat Hole _____
 Cushion Amount 10186 Type Sea Water Rubber Size 5.812

Fluid Recovery Total Feet _____
 Recovered _____ Feet of _____
 Recovered _____ Feet of _____
 Recovered _____ Feet of _____
 Recovered _____ Feet of _____
 Recovered _____ Feet of _____

Gas Recovery How Measured Riser size: _____
 _____ mins. Temp. °F Press Rdg. _____ psi Orifice Size _____ = _____ MCF/Day
 _____ mins. Temp. °F Press Rdg. _____ psi Orifice Size _____ = _____ MCF/Day
 _____ mins. Temp. °F Press Rdg. _____ psi Orifice Size _____ = _____ MCF/Day
 _____ mins. Temp. °F Press Rdg. _____ psi Orifice Size _____ = _____ MCF/Day
 _____ mins. Temp. °F Press Rdg. _____ psi Orifice Size _____ = _____ MCF/Day
 _____ mins. Temp. °F Press Rdg. _____ psi Orifice Size _____ = _____ MCF/Day

Bleed Off Time for Drill Pipe _____

REMARKS: _____

Core Lab Gas Cont. No. _____ Chem - Geo. Lab Gas Cont. No. _____

DRILL STEM TEST NUMBER NINE

Baker Test Head

Hydril Valve

9 Joints Tubing 281.69

Otis Test Tree 27.00

315 Joints Tubing 9815.63

X - Over Sub 1.00

Pump Out Sub 1.00

X - Over Sub 1.00

2 7/8 Tubing 63.38

X - Over Sub .70

H.M.V. Tool 7.15

X Over Sub 1.00

Swage & Collar .75 Depth 10195

F.F.C. Tool & Unloader 6.24

9 Joints Tubing 280.72

Perf Joint Tubing 31.52

Recorder Hanger # 2758 1.00 Depth 10514

Recorder Case 4.00

Recorder Hanger # 2759 1.00 Depth 10519

Recorder Case 4.00

Recorder Hanger # 2760 1.00 Depth 10524

Recorder Case 1.00

Bottom of Tail Pipe Depth 10528

DRILL STEM TEST NUMBER NINE

Operation	Time		Length of Test		Choke Size	Wellhead		BHP PSIA
	From	To	Hrs.	Mins		Press PSIA	Temp F	
Unloading	0610	0620	0	10	1"	N.R.	N.R.	
Clean up Flow	0620	0720	1	00	1"	1204	114	
Flow #1	0720	1930	12	10	48/64 & 48/64	1207	143	5039
S.I. # 1	1930	0730	12	0	0	4095	49	7006

I.H.P. 7798
 Flow # 1 5024
 S.I. # 1 6991
 F.H.P. 7755

Test Started: 0610 hrs. May 25, 1970

Test Completed: 0730 hrs. May 26, 1970

Recorder # 2758 Depth 10514

Recorder # 2759 Depth 10519

Recorder # 2760 Depth 10524

Packer Set Depth 10195

DRILL STEM TEST NUMBER NINE

PRESSURE READINGS (PSI)

Point	Recorder # 2758	Recorder # 2759	Recorder # 2760
A	7798	Clock Stopped at start of operation	7798
B	5760		5760
C	4870		5289
D	5022		5241
E	6995		6992
F	7617		7616

TIME READINGS (MINS)

Point A to B	10	10
Point B to C	60	60
Point C to D	725	730
Point D to E	705	720
Point E to F	25	25

The following is a comparison of times recorded t surface and the times taken from the recorder charts.

Point	Recorder # 2758	Surface	Recorder # 2760
A to B	10	10	10
B to C	60	60	60
C to D	725 (-5)	730	730
D to E	705 (-15)	720	720
E to F	25	-	25



DST PRESSURE INCREMENTS

Recorder No. 2758

Depth 10514

Page 1

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1		Point A		7798	35			5171
2					40			5171
3	0	Point A to C		7798	45			5158
4	5			7197	50			5158
5	10	Point B		5760	55			5190
6	15			5922	60			5222
7	20			5818	65			5139
8	25			5757	70			5161
9	30			5628	75	t	lost	5158
10	35			5556	80	o	-	5113
11	40			5321	85		0.699	5107
12	45			5134	90		1.000	5113
13	50			5088	95			5118
14	55			5005	100			5123
15	60			4851	105			5126
16	65			4887	110			5129
17	70	Point C		4870	115			5120
18	0	Point C to D		4870	120			5113
19	5			5011	125			5115
20	10			5032	130			5107
21	15			5086	135			5110
22	20			5088	140			5115
23	25			5131	145			5123
24	30			5161	150			5118

PT/10



DST PRESSURE INCREMENTS

Recorder No. 2758

Depth

Page 2

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	155		1.875	5110	275			5052
2	160		1.903	5107	280	200		5054
3	165		1.929	5102	285			5054
4	170		1.954	5091	290			5054
5	175		1.978	5080	295			5052
6	180	100	2.000	5083	300			5045
7	185		2.021	5086	305			5043
8	190			5086	310			5045
9	195		2.061	5088	315			5049
10	200			5088	320			5049
11	205			5086	325			5047
12	210			5086	330			5047
13	215			5083	335			5043
14	220			5080	340			5043
15	225			5078	345			5043
16	230			5075	350			5047
17	235			5070	355			5043
18	240			5067	360			5043
19	245			5062	365			5067
20	250			5059	370		2.462	5070
21	255			5054	375			5070
22	260			5052	380	300		5070
23	265			5052	385		2.484	5064
24	270			5052	390		2.491	5059



DST PRESSURE INCREMENTS

Recorder No. 2758

Depth

Page 3

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	395	315	2,498	5054	515			5054
2	400			5054	520			5054
3	405			5054	525			5054
4	410			5054	530	450		5054
5	415			5054	535		2,658	5051
6	420			5054	540			5051
7	425	345	2,538	5056	545		2,667	5049
8	430			5056	550			5049
9	435		2,550	5059	555			5049
10	440			5059	560			5049
11	445			5059	565			5049
12	450		2,568	5056	570		2,690	5047
13	455		2,574	5054	575			5047
14	460			5054	580	500		5047
15	465			5054	585		2,703	5043
16	470			5054	590			5043
17	475			5054	595			5043
18	480	400		5054	600		2,716	5040
19	485			5054	605			5040
20	490			5054	610		2,724	5038
21	495			5054	615			5038
22	500			5054	620		2,732	5035
23	505			5054	625		2,736	5030
24	510			5054	630			5030



DST PRESSURE INCREMENTS

Recorder No.

Depth

Page 5

Points	Time Defl. "	INITIAL CIP			Time Defl. "	FINAL CIP		
		T+θ	$\frac{T+\theta}{\theta}$	PSIG		T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	0	795 Point	D to E ⁰	5022	120		.804	6867
2	5		2.114	5765	125		.790	6869
3	10		1.816	6484	130		.775	6872
4	15		1.643	6589	135		.762	6874
5	20		1.522	6642	140	935	.749 .749	6880
6	25		1.428	6680	145		.736	6883
7	30		1.352	6703	150		.724	6885
8	35	830	1.288 1.288	6722	155		.713	6888
9	40		1.234	6738	160		.702	6890
10	45		1.186	6757	165		.691	6893
11	50		1.143	6770	170		.681	6896
12	55		1.105	6781	175	970	.671 .671	6898
13	60		1.070	6792	180		.661	6901
14	65		1.038	6800	185		.652	6904
15	70	865	1.009 1.009	6808	190		.643	6906
16	75		0.982	6818	195		.634	6909
17	80		.957	6824	200		.626	6912
18	85		.934	6829	205		.618	6915
19	90		.912	6834	210	1005	.610 .610	6915
20	95		.892	6842	215		.602	6917
21	100		.872	6848	220		.595	6919
22	105	900	.854 .854	6851	225		.587	6920
23	110		.837	6856	230		.580	6922
24	115		.820	6861	235		—	6922

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DST PRESSURE INCREMENTS

Recorder No. 2758

Depth

Page 6

Points	INITIAL CIP				FINAL CIP				
	Time Defl.	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl.	T+θ	$\frac{T+\theta}{\theta}$	PSIG	
2 {	1	240	.567	6925	360	—	—	6953	124
	2	245	1040 .4189	6925	365	—	—	6953	
9 {	3	250	.554	6928	370	—	—	6953	1020
	4	255	—	6928	375	1175	.435	6957	
16 {	5	260	.542	6931	380	1175	.431 .4100	6958	119
4 {	6	265	.536	6933	385	—	.427	6960	117
	7	270	—	6933	390	—	—	6960	
1 {	8	275	1070 .524 .4100	6936	395	—	—	6960	115
	9	280	—	6936	400	—	.417	6962	
8 {	10	285	.514	6939	405	—	.414	6963	114
	11	290	—	6939	410	—	—	6963	
6 {	12	295	.503	6941	415	1210	.4100	6963	112
	13	300	—	6941	420	—	—	6963	
3 {	14	305	.493	6944	425	—	.401	6965	109
	15	310	1105 .4100	6944	430	—	—	6965	
0 {	16	315	.484	6947	435	—	—	6965	107
	17	320	—	6947	440	—	.392	6968	
	18	325	—	6947	445	—	—	6968	106
	19	330	.470	6949	450	1245	.4100	6968	
	20	335	—	6949	455	—	.383	6970	106
	21	340	—	6949	460	—	.381	6971	
5 {	22	345	1140 .458 .4100	6952	465	—	—	6971	104
	23	350	—	6952	470	—	—	6971	
	24	355	.450	6953	475	—	.373	6973	



DST PRESSURE INCREMENTS

Recorder No. 2758

Depth

Page 7

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	480		1.370	6974	600		1.317	6984
2	485	1280	2.164	6974	605		—	6984
3	490		—	6974	610		—	6984
4	495		—	6974	615		—	6984
5	500		—	6974	620		—	6984
6	505		—	6974	625	1420	2.121	6984
7	510		—	6974	630		1.306	6987
8	515		1.353	6976	635		—	6987
9	520	1315	2.181	6976	640		—	6987
10	525		—	6976	645		1.301	6989
11	530		—	6976	650		—	6989
12	535		—	6976	655		—	6989
13	540		—	6976	660	1455	2.120	6989
14	545		1.339	6979	665		—	6989
15	550		—	6979	670		1.293	6992
16	555	1350	2.180	6979	675		—	6992
17	560		—	6979	680		—	6992
18	565		—	6979	685		—	6992
19	570		—	6979	690		—	6992
20	575		—	6979	695	1490	2.124	6992
21	580		1.325	6981	700	1495	1.284 2.124	6995
22	585		—	6981	705	1500 Point E	—	6995
23	590	1385	2.124	6981				
24	595		—	6981	730	Point F		7617

93

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DST PRESSURE INCREMENTS

Recorder No. 2760

Depth 10524

Page 1

Points	INITIAL CIP			FINAL CIP				
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1		Point	A	7798	30			5486
2					35			5486
3	0	Point	A to C	7798	40			5470
4	5			6856	45			5465
5	10	Point	B	5760	50			5428
6	15			5864	55			5401
7	20			5864	60			5388
8	25			5818	65			5380
9	30			5760	70			5420
10	35			5599	75			5380
11	40			5407	80			5369
12	45			5348	85			5364
13	50			5289	90			5361
14	55			5198	95			5353
15	60			5214	100			5353
16	65			5302	105			5372
17	70	Point	C	5289	110			5374
18					115			5374
19	0	Point	C to D	5289	120			5374
20	5			5334	125			5372
21	10			5369	130			5369
22	15			5380	135			5369
23	20			5412	140			5377
24	25			5513	145			5377



DST PRESSURE INCREMENTS

Recorder No. 2760

Depth

Page 2

Points	INITIAL CIP			FINAL CIP				
	Time Defl. "	T + Θ	$\frac{T + \Theta}{\Theta}$	PSIG	Time Defl. "	T + Θ	$\frac{T + \Theta}{\Theta}$	PSIG
1	150			5380	270			5353
2	155			5385	275			5350
3	160			5391	280			5348
4	165			5385	285			5348
5	170			5377	290			5345
6	175			5372	295			5345
7	180			5372	300			5345
8	185			5369	305			5342
9	190			5366	310			5340
10	195			5366	315			5337
11	200			5366	320			5334
12	205			5364	325			5332
13	210			5364	330			5332
14	215			5361	335			5332
15	220			5361	340			5332
16	225			5361	345			5332
17	230			5361	350			5334
18	235			5361	355			5327
19	240			5361	360			5321
20	245			5361	365			5311
21	250			5361	370			5305
22	255			5358	375			5302
23	260			5358	380			5302
24	265			5356	385			5302



DST PRESSURE INCREMENTS

Recorder No. 2760

Depth

Page 3

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	390			5302	510			5275
2	395			5300	515			5275
3	400			5300	520			5273
4	405			5300	525			5273
5	410			5300	530			5270
6	415			5297	535			5270
7	420			5294	540			5267
8	425			5294	545			5265
9	430			5291	550			5265
10	435			5289	555			5265
11	440			5286	560			5265
12	445			5284	565			5265
13	450			5284	570			5262
14	455			5284	575			5262
15	460			5284	580			5259
16	465			5284	585			5259
17	470			5284	590			5259
18	475			5281	595			5257
19	480			5281	600			5257
20	485			5281	605			5257
21	490			5278	610			5257
22	495			5278	615			5257
23	500			5278	620			5254
24	505			5275	625			5254



DST PRESSURE INCREMENTS

Recorder No. 2760

Depth

Page 4

Points	INITIAL CIP			FINAL CIP				
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	630			5254	0	Point	D to E	5241
2	635			5254	5			6225
3	640			5252	10			6476
4	645			5252	15			6572
5	650			5252	20			6632
6	655			5252	25			6674
7	660			5249	30			6706
8	665			5249	35			6724
9	670			5249	40			6743
10	675			5249	45			6757
11	680			5249	50			6770
12	685			5249	55			6780
13	690			5246	60			6791
14	695			5246	65			6802
15	700			5246	70			6807
16	705			5243	75			6815
17	710			5243	80			6823
18	715			5241	85			6831
19	720			5241	90			6837
20	725			5241	95			6842
21	730	Point	D	5241	100			6845
22					105			6851
23					110			6856
24					115			6858



DST PRESSURE INCREMENTS

Recorder No. 2760

Depth

Page 5

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T + Θ	$\frac{T + \Theta}{\Theta}$	PSIG	Time Defl. "	T + Θ	$\frac{T + \Theta}{\Theta}$	PSIG
1	120			6864	240			6922
2	125			6867	245			6925
3	130			6869	250			6925
4	135			6872	255			6928
5	140			6874	260			6931
6	145			6877	265			6931
7	150			6883	270			6931
8	155			6885	275			6933
9	160			6888	280			6933
10	165			6890	285			6936
11	170			6893	290			6936
12	175			6896	295			6938
13	180			6898	300			6938
14	185			6901	305			6941
15	190			6904	310			6941
16	195			6906	315			6944
17	200			6909	320			6944
18	205			6909	325			6944
19	210			6912	330			6947
20	215			6914	335			6947
21	220			6917	340			6947
22	225			6917	345			6949
23	230			6920	350			6949
24	235			6922	355			6949



DST PRESSURE INCREMENTS

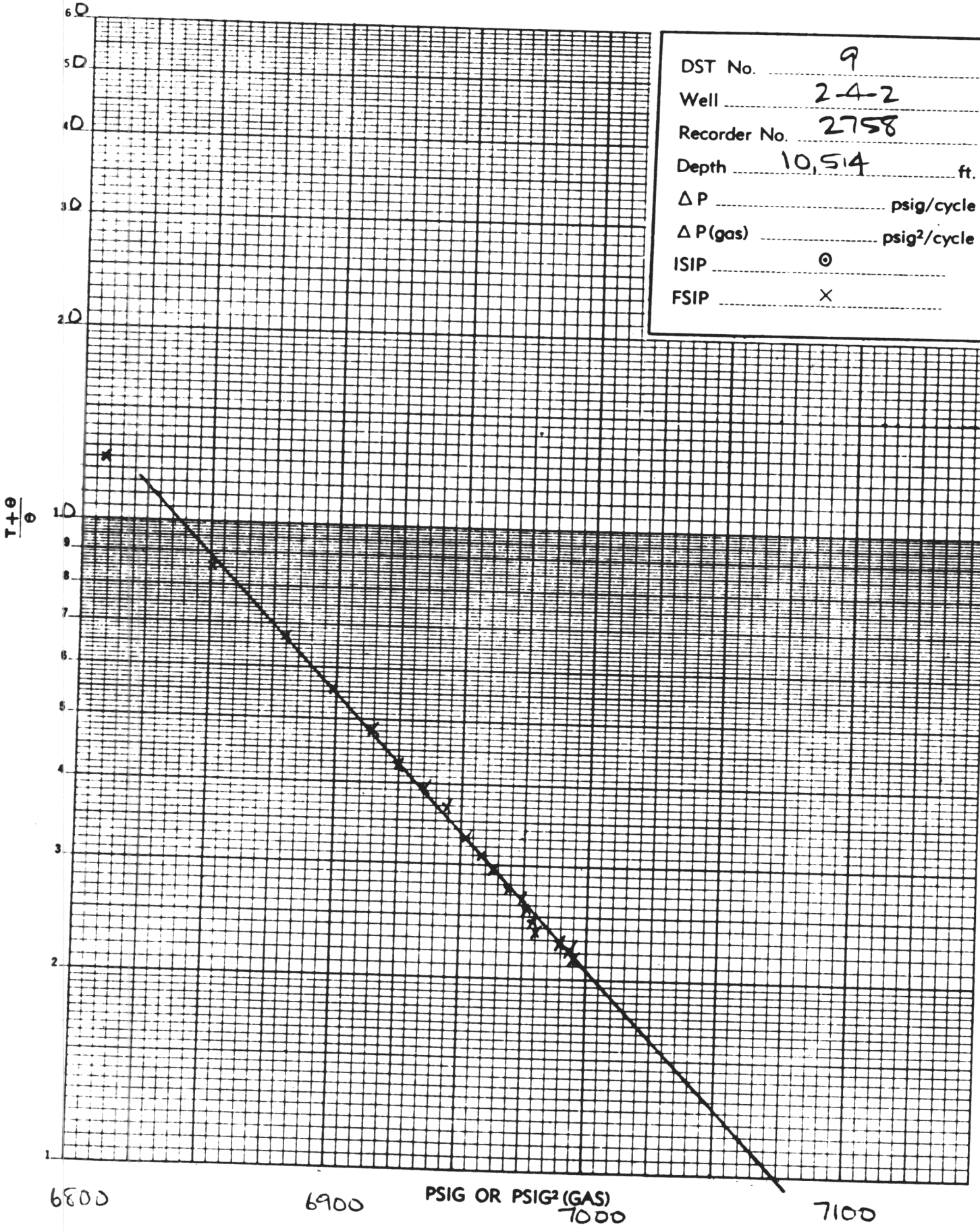
Page 6

Recorder No. 2760

Depth

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	360			6952	480			6971
2	365			6952	485			6971
3	370			6952	490			6971
4	375			6955	495			6971
5	380			6955	500			6971
6	385			6955	505			6971
7	390			6958	510			6974
8	395			6958	515			6974
9	400			6958	520			6974
10	405			6960	525			6974
11	410			6960	530			6976
12	415			6960	535			6976
13	420			6963	540			6976
14	425			6963	545			6976
15	430			6963	550			6976
16	435			6965	555			6979
17	440			6965	560			6979
18	445			6965	565			6979
19	450			6965	570			6979
20	455			6965	575			6979
21	460			6968	580			6981
22	465			6968	585			6981
23	470			6968	590			6981
24	475			6968	595			6981

DST No.	9
Well	2-4-2
Recorder No.	2758
Depth	10,514 ft.
ΔP	psig/cycle
$\Delta P(\text{gas})$	psig ² /cycle
ISIP	⊙
FSIP	×





DRILL-STEM TEST DATA

Well Name <u>EKO FISK</u>	Test No <u>TEN</u>
Well Number <u>2-4-2 X</u>	Zone Tested
Company <u>Phillips Petroleum Co. Norway</u>	Interval <u>Perforated from:</u> <u>9895 - 9920</u>
Comp. Rep. <u>Mr. O.C. Rolls</u>	Tester <u>BJ Flahr</u> Date <u>May 28, 1970</u>

Type of Test Casing Hook Wall RFS Tool No. _____

Preflow _____ mins. ISI _____ mins. Flow _____ mins. FSI _____ mins.

Specify Inside or Outside	INS REC. No. <u>2758</u>	INS REC. No. <u>2760</u>	OUT REC. No. <u>2761</u>
	<u>10600</u> RANGE _____ HR. CLOCK	<u>10700</u> RANGE <u>72</u> HR. CLOCK	<u>10700</u> RANGE <u>12</u> HR. CLOCK
DEPTH	<u>9891</u>	<u>9896</u>	<u>9901</u>
Initial Hydro Mud Press			
Initial Shut-In Press			
Initial Flow Press			
Final Flow Press			
Final Shut-In Press			
Final Hydro Mud Press			

Mud Drop _____ Fluid Loss 4.2 Mud Weight 14.3
 Viscosity 45 Temperature °F 253 Net Pay Tested _____
 Top Packer Depth 9821 Bottom Packer Depth _____ Total Depth Bridge Plug 9840
 Drill Pipe Size 2 7/8 Eue Tubing Wt. 6.5 Drill Collar I.D. _____ Ft. Run _____
 Surface Choke Size Adjustable Bottom Choke Size 5/8 Main Hole Size 7" 29# Casing
 Anchor Size 3 1/2 & 2 7/8 Rat Hole Size _____ Feet of Rat Hole _____
 Cushion Amount 9813 Type Sea Water Rubber Size 5.812

Fluid Recovery Total Feet _____
 Recovered _____ Feet of _____
 Recovered _____ Feet of _____
 Recovered _____ Feet of _____
 Recovered _____ Feet of _____
 Recovered _____ Feet of _____

Gas Recovery How Measured _____ Risers size: _____
 _____ mins. _____ Temp. °F Press Rdg. _____ psi Orifice Size _____ = _____ MCF/Day
 _____ mins. _____ Temp. °F Press Rdg. _____ psi Orifice Size _____ = _____ MCF/Day
 _____ mins. _____ Temp. °F Press Rdg. _____ psi Orifice Size _____ = _____ MCF/Day
 _____ mins. _____ Temp. °F Press Rdg. _____ psi Orifice Size _____ = _____ MCF/Day
 _____ mins. _____ Temp. °F Press Rdg. _____ psi Orifice Size _____ = _____ MCF/Day
 _____ mins. _____ Temp. °F Press Rdg. _____ psi Orifice Size _____ = _____ MCF/Day

Bleed Off Time for Drill Pipe _____

REMARKS: _____

Core Lab Gas Cont. No. _____ Chem - Geo. Lab Gas Cont. No. _____

DRILL STEM TEST NUMBER TEN

Baker Test Head		
Hydril Valve		
9 Joints Tubing	281.69	
Otis Test Tree	27.00	
302 Joints Tubing	9410.75	
X Over Sub	1.00	
Pump Out Sub	1.00	
X Over Sub	1.00	
3 Joints Tubing	94.52	
X Over Sub	.70	
H.M.V. Tool	7.15	
X Over Sub	1.00	
Swage & Collar	.75	
F.F.C. Tool Unloader	6.24	Depth 9821
2 7/8 Tubing	31.52	
2 7/8 Perf Joint	31.52	
Recorder Hanger # 2758	1.00	
Recorder Case	4.00	Depth 9892
Recorder Hanger # 2760	1.00	
Recorder Case	4.00	Depth 9897
Recorder Hanger # 2761	1.00	
Recorder Case	4.00	Depth 9902
Bridge Plug		Depth 9840

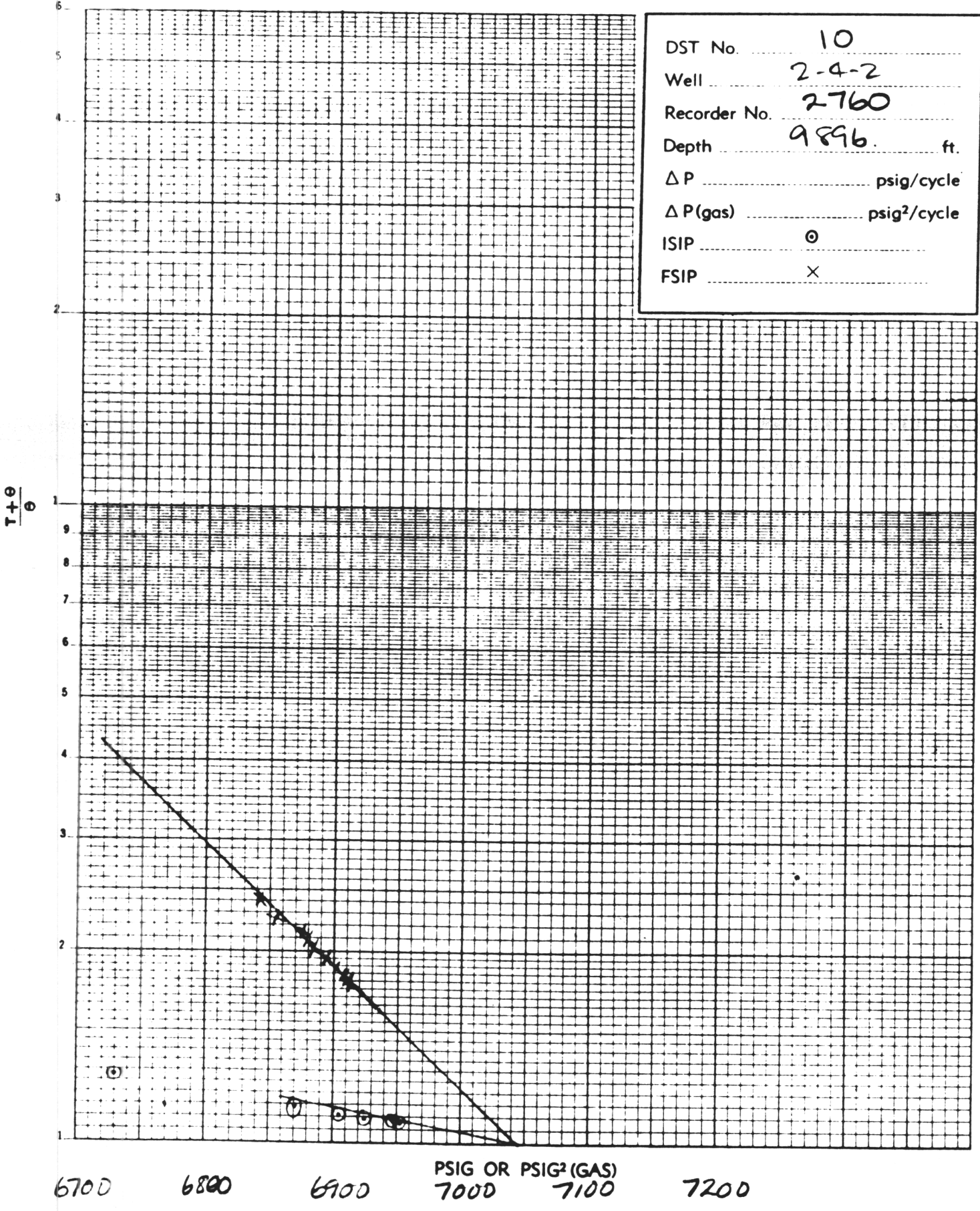
DRILL STEM TEST NUMBER TEN

Operation	Time		Length of Test		Choke Size	Wellhead	
	From	To	Hrs.	Mins		Press PSIA	Temp. F
I.F.	1002	1012	0	10	1"	0	50
I.S.I.	1012	1242	2	30	0	2452	50
F.F.	1242	1307	0	25	1"	0	50
	1307	1417	1	10	1"	0	50
	1417	1607	2	50	1"	0	50
	1607	2000	3	53	1"	0	50
F.S.I.	2000	0800	12	0		1045	47

Test Started: 1002 hrs. May 28, 1970

Test Completed: 0800 hrs. May 29, 1970

DST No.	10
Well	2-4-2
Recorder No.	2760
Depth	9896. ft.
ΔP	psig/cycle
$\Delta P(\text{gas})$	psig ² /cycle
ISIP	⊙
FSIP	×



DRILL STEM TEST NUMBER TEN

PRESSURE READINGS (P.S.I.)

Point	Recorder # 2758	Recorder # 2760	Recorder # 2761
A	7314	7303	7338
B	4335	4326	4338
C	6944	6952	6976
D	4813	4821	5014
E	6275	6284	6665
F	6901	6912	6933

All pressure readings are fairly close with a few exceptions. Point D, being the final flow period, is shown much higher on Rec. #2761. This being the "Outside" recorder, the higher reading is probably caused by (a) perforation restrictions, (b) a pressure drop over the perforations due to friction and turbulence during the flow.

The flow period from Point C to D was a continuous plugging and clearing situation, causing extensive surging which made it very difficult to define anything but an average flow pressure.

The shut-in period from Point D to E does not have any value as it appears that the tool was badly plugged, but did partially clear at times, causing a pressure reduction by allowing a leak of fluid into the drill string. This would not be the case if the drill string were closed on bottom rather than at surface. The period from Point E to F appears to be of value as the buildup is steady and this portion of the shut-in can be used. Consideration should be given to the time factor from Point D to E, as this is neither "flow" time or "shut-in" time.

DRILL STEM TEST NUMBER TEN

TIME DEFLECTIONS (MINS)

Point	Recorder # 2758	Recorder # 2760	Recorder # 2761
B	10	10	10
B to C	135	140	140
C to D	500	515	495
D to E	340	345	340
E to F	295	303	295

The following is a comparison of the times taken from the charts and the times recorded at the surface.

Point	Surface	Recorder # 2758	Recorder # 2760	Recorder #2761
B	10	10	10	10
B to C	150	135 (-15)	140 (-10)	140(-10)
C to D	498	500 (+2)	515 (+17)	495(-3)
D to F	720	635 (-45)	648 (-32)	635(-45)

The most significant time loss appears on Points D to F, the final shut-in period. The loss might be caused by either a slow down of the clocks due to prolonged high temperature service, or by misinterpretation as to where Point F actually does terminate. Point F was established as it appears to be the most obvious point on the charts but consideration could be given to the fact that much plugging existed and this could possibly shift the actual point.



DST PRESSURE INCREMENTS

Recorder No. 2758

Depth 9891

Page 1

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1		Point A		7314	105			6920
2					110			6922
3					115			6925
4	0	Point B to C		4335	120			6931
5	5			6150	125			6939
6	10			6404	130			6941
7	15			6537	135	Point C		6944
8	20			6620				
9	25			6674	0	Point C to D		6944
10	30			6714	5			6091
11	35			6743	10			5289
12	40			6770	15			4627
13	45			6792	20			4662
14	50			6813	25			4697
15	55			6829	30			4708
16	60			6840	35			4708
17	65			6853	40			4708
18	70			6869	45			4708
19	75			6880	50			4708
20	80			6885	55			4708
21	85			6893	60			4708
22	90			6901	65			4708
23	95			6907	70			4719
24	100			6914	75			4719



DST PRESSURE INCREMENTS

Recorder No. 2758

Depth

Page 2

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	80			4711	200			4665
2	85			4711	205			4664
3	90			4711	210			4654
4	95			4711	215			4654
5	100			4708	220			4654
6	105			4705	225			4654
7	110			4703	230			4654
8	115			4702	235			4654
9	120			4700	240			4654
10	125			4697	245			4654
11	130			4697	250			4654
12	135			4697	255			4654
13	140			4696	260			4654
14	145			4696	265			4654
15	150			4695	270			4654
16	155			4692	275			4654
17	160			4689	280			4654
18	165			4687	285			4654
19	170			4684	290			4654
20	175			4681	295			4643
21	180			4678	300			4643
22	185			4676	305			4643
23	190			4665	310			4643
24	195			4665	315			4643



DST PRESSURE INCREMENTS

Recorder No. 2758

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Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	320			4643	445			4687
2	325			4670	450			4687
3	330			4657	455			4687
4	335			4654	460			4687
5	340			4654	465			4813
6	345			4654	470			4813
7	350			4654	475			4813
8	355			4654	480			4813
9	360			4654	485			4813
10	365			4654	490			4813
11	370			4654	495			4813
12	375			4654	500	Point D		4813
13	380			4654				
14	385			4654				
15	390			4654				
16	395			4654				
17	400			4654				
18	405			4654				
19	410			4654				
20	415			4654				
21	420			4654				
22	425			4654				
23	430			4687				
24	435			4687				

440

4687



DST PRESSURE INCREMENTS

Recorder No. 2758

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Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+Θ	$\frac{T+\Theta}{\ominus}$	PSIG	Time Defl. "	T+Θ	$\frac{T+\Theta}{\ominus}$	PSIG
1	0	Point	D to F	4813	120			5514
2	5			5605	125			5511
3	10			5578	130			5559
4	15			5556	135			5572
5	20			5532	140			5580
6	25			5535	145			5589
7	30			5530	150			5602
8	35			5521	155			5615
9	40			5508	160			5642
10	45			5489	165			5642
11	50			5476	170			6155
12	55			5556	175			6153
13	60			5543	180			6150
14	65			5530	185			6139
15	70			5519	190			6131
16	75			5506	195			6120
17	80			5492	200			6104
18	85			5530	205			6088
19	90			5530	210			6075
20	95			5530	215			6064
21	100			5527	220			6104
22	105			5524	225			6104
23	110			5519	230			6107
24	115			5517	235			6110



DST PRESSURE INCREMENTS

Recorder No. 2758

Depth

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Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	240			6113	360			6818
2	245			6115	365			6821
3	250			6120	370			6824
4	255			6122	375			6826
5	260			6122	380			6829
6	265			6123	385			6832
7	270			6126	390			6834
8	275			6129	395			6837
9	280			6131	400			6840
10	285			6236	405			6842
11	290			6236	410			6845
12	295			6236	415			6847
13	300			6236	420			6848
14	305			6236	425			6850
15	310			6243	430			6851
16	315			6246	435			6853
17	320			6246	440			6853
18	325			6270	445			6856
19	330			6267	450			6856
20	335			6265	455			6859
21	340	Point	E	6553	460			6861
22	345			6553	465			6864
23	350			6778	470			6866
24	355			6813	475			6866



DST PRESSURE INCREMENTS

Recorder No. 2758

Depth

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Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+Θ	$\frac{T+\Theta}{\Theta}$	PSIG	Time Defl. "	T+Θ	$\frac{T+\Theta}{\Theta}$	PSIG
1	480			6867	600			6896
2	485			6867	605			6896
3	490			6869	610			6898
4	495			6869	615			6898
5	500			6871	620			6901
6	505			6872	625			6901
7	510			6874	630			6901
8	515			6877	635	Point	F	6901
9	520			6877				
10	525			6880				
11	530			6880				
12	535			6880				
13	540			6882				
14	545			6883				
15	550			6883				
16	555			6885				
17	560			6885				
18	565			6885				
19	570			6887				
20	575			6888				
21	580			6890				
22	585			6890				
23	590			6893				
24	595			6896				



DST PRESSURE INCREMENTS

Recorder No. 2760

Depth 9896

Page 1

Points	Time Defl. "	INITIAL CIP			Time Defl. "	FINAL CIP		
		T+Θ	$\frac{T+\Theta}{\Theta}$	PSIG		T+Θ	$\frac{T+\Theta}{\Theta}$	PSIG
1		Point A		7304	105			6920
2					110	120	1.09	6925
3					115			6931
4	0	10 Point B - C	0	4326	120			6936
5	5			5636	125			6941
6	10			6222	130	140	1.08	6947
7	15			6449	135			6949
8	20			6567	140	150 Point C	1.07	6952
9	25			6642				
10	30			6690	0	Point C - D		6952
11	35	45	1.28	6730	5			6342
12	40			6759	10			5529
13	45			6786	15			4696
14	50			6807	20			6697
15	55			6829	25			4701
16	60			6840	30			4707
17	65			6856	35			4712
18	70	80	1.14	6869	40			4712
19	75			6877	45			4712
20	80			6888	50			4712
21	85			6896	55			4712
22	90	100	1.11	6904	60			4717
23	95			6909	65			4718
24	100			6914	70			4726



DST PRESSURE INCREMENTS

Recorder No. 2760

Depth

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Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	75			4726	195			4663
2	80			4715	200			4660
3	85			4715	205			4658
4	90			4715	210			4658
5	95			4715	215			4658
6	100			4715	220			4658
7	105			4715	225			4658
8	110			4712	230			4658
9	115			4709	235			4658
10	120			4707	240			4658
11	125			4704	245			4658
12	130			4701	250			4658
13	135			4698	255			4658
14	140			4698	260			4658
15	145			4693	265			4658
16	150			4693	270			4658
17	155			4690	275			4658
18	160			4687	280			4658
19	165			4685	285			4658
20	170			4682	290			4658
21	175			4679	295			4658
22	180			4676	300			4658
23	185			4674	305			4658
24	190			4671	310			4658



DST PRESSURE INCREMENTS

Recorder No. 2760

Depth

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Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+Θ	$\frac{T+\Theta}{\Theta}$	PSIG	Time Defl. "	T+Θ	$\frac{T+\Theta}{\Theta}$	PSIG
1	315			4658	435			4658
2	320			4658	440			4658
3	325			4658	445			4658
4	330			4658	450			4658
5	335			4658	455			4658
6	340			4666	460			4687
7	345			4666	465			4687
8	350			4666	470			4687
9	355			4663	475			4687
10	360			4658	480			4788
11	365			4658	485			4788
12	370			4658	490			4788
13	375			4658	495			4788
14	380			4658	500			4788
15	385			4658	505			4807
16	390			4658	510			4821
17	395			4658	515	Point D		4821
18	400			4658				
19	405			4658				
20	410			4658				
21	415			4658				
22	420			4658				
23	425			4658				
24	430			4658				



DST PRESSURE INCREMENTS

Recorder No. 2760

Depth

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Points	INITIAL CIP			FINAL CIP				
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	0	525 Point D to F		4821	120			5518
2	5			5893	125			5518
3	10			5578	130			5518
4	15			5551	135			5578
5	20			5526	140			5583
6	25			5529	145			5594
7	30			5524	150			5605
8	35			5513	155			5610
9	40			5502	160			5636
10	45			5499	165			5642
11	50			5492	170			6158
12	55			5562	175			6155
13	60			5548	180			6150
14	65			5535	185			6137
15	70			5521	190			6134
16	75			5510	195			6120
17	80			5499	200			6107
18	85			5542	205			6096
19	90			5540	210			6080
20	95			5537	215			6096
21	100			5535	220			6059
22	105			5532	225			6102
23	110			5529	230			6107
24	115			5524	235			6110



DST PRESSURE INCREMENTS

Recorder No. 2760

Depth

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Peleto	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+Θ	$\frac{T+\Theta}{\Theta}$	PSIG	Time Defl. "	T+Θ	$\frac{T+\Theta}{\Theta}$	PSIG
1	240			6110	360			6826
2	245			6113	365			6834
3	250			6115	370			6837
4	255			6118	375			6840
5	260			6120	380	905	2.38	6842
6	265			6123	385			6843
7	270			6123	390			6845
8	275			6126	395			6848
9	280			6129	400			6851
10	285			6131	405			6853
11	290			6236	410			6855
12	295			6241	415	940	2.26	6856
13	300			6241	420			6858
14	305			6241	425			6858
15	310			6249	430			6861
16	315			6249	435			6861
17	320			6249	440			6864
18	325			6252	445			6864
19	330			6262	450	975	2.16	6867
20	335			6262	455			6869
21	340			6270	460			6869
22	345	870	2.52	6284	465			6872
		POINT	F					
23	350			6637	470			6874
24	355			6802	475			6877



DST PRESSURE INCREMENTS

Recorder No. 2760

Depth

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Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	480			6877	600			6904
2	485	1010	2.08	6880	605			6907
3	490			6880	610	1135	1.86	6907
4	495			6880	615			6907
5	500			6882	620			6909
6	505			6883	625	1150	1.84	6909
7	510			6883	630			6909
8	515			6883	635	1160	1.83	6912
9	520	1045	2.01	6885	640			6912
10	525			6888	645			6912
11	530			6890	648	1173 Point F	1.81	6912
12	535			6890				
13	540			6893				
14	545			6893				
15	550			6896				
16	555	1080	1.94	6896				
17	560			6898				
18	565			6898				
19	570			6898				
20	575			6898				
21	580			6901				
22	585			6901				
23	590	115	1.89	6901				
24	595			6904				



DST PRESSURE INCREMENTS

Recorder No. 2761

Depth 9901

Page 1

Points	INITIAL CIP			FINAL CIP				
	Time Defl. "	T+Θ	$\frac{T+\Theta}{\Theta}$	PSIG	Time Defl. "	T+Θ	$\frac{T+\Theta}{\Theta}$	PSIG
1		Point A		7338	105			6949
2					110			6955
3					115			6960
4	0	Point B - C		4338	120			6963
5	5			5655	125			6965
6	10			6090	130			6971
7	15			6451	135			6973
8	20			6580	140	Point C		6976
9	25			6660				
10	30			6712	0	Point C to D		6976
11	35			6753	5			5920
12	40			6783	10			5922
13	45			6808	15			4698
14	50			6830	20			4704
15	55			6857	25			4709
16	60			6868	30			4712
17	65			6882	35			4715
18	70			6892	40			4715
19	75			6903	45			4715
20	80			6911	50			4715
21	85			6920	55			4717
22	90			6930	60			5723
23	95			6938	65			4723
24	100			6944	70			4723



DST PRESSURE INCREMENTS

Recorder No. 2761

Depth

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Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	75			4715	195			4660
2	80			4715	200			4660
3	85			4715	205			4660
4	90			4715	210			4660
5	95			4715	215			4660
6	100			4715	220			4660
7	105			4712	225			4660
8	110			4709	230			4665
9	115			4706	235			4665
10	120			4704	240			4665
11	125			4704	245			4665
12	130			4701	250			4665
13	135			4695	255			4665
14	140			4695	260			4665
15	145			4695	265			4665
16	150			4693	270			4665
17	155			4687	275			4665
18	160			4687	280			4665
19	165			4684	285			4665
20	170			4682	290			4665
21	175			4679	295			4665
22	180			4676	300			4665
23	185			4673	305			4665
24	190			4660	310			4665



DST PRESSURE INCREMENTS

Recorder No. 2761

Depth

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Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	315			4665	435			5217
2	320			4665	440			5133
3	325			4665	445			5235
4	330			4665	450			5257
5	335			4665	455			5300
6	340			4665	460			5370
7	345			4665	465			5370
8	350			4665	470			5473
9	355			4665	475			5384
10	360			4665	480			5163
11	365			4665	485			5036
12	370			4665	490			5022
13	375			4665	495	Point D		5014
14	380			4665				
15	385			4665				
16	390			4852				
17	395			4887				
18	400			4914				
19	405			4938				
20	410			4965				
21	415			4965				
22	420			4965				
23	425			5144				
24	430			5149				



DST PRESSURE INCREMENTS

Recorder No. 2761

Depth

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Points	INITIAL CIP			FINAL CIP				
	Time Defl. "	T+Θ	$\frac{T+\Theta}{\Theta}$	PSIG	Time Defl. "	T+Θ	$\frac{T+\Theta}{\Theta}$	PSIG
1	0	Point D to F		5014	120			6030
2	5			5933	125			6068
3	10			6087	130			5587
4	15			6130	135			5601
5	20			6171	140			5612
6	25			6130	145			5625
7	30			6165	150			5633
8	35			6201	155			5652
9	40			6230	160			5663
10	45			6268	165			5922
11	50			5695	170			6181
12	55			5836	175			6190
13	60			5957	180			6198
14	65			6055	185			6252
15	70			6122	190			6295
16	75			6208	195			6368
17	80			5760	200			6433
18	85			5833	205			6484
19	90			5833	210			6511
20	95			5895	215			6550
21	100			5960	220			6130
22	105			6014	225			6133
23	110			6019	230			6136
24	115			6025	235			6138



DST PRESSURE INCREMENTS

Recorder No. 2761

Depth

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Points	INITIAL CIP			FINAL CIP				
	Time Defl. "	T + Θ	$\frac{T + \Theta}{\Theta}$	PSIG	Time Defl. "	T + Θ	$\frac{T + \Theta}{\Theta}$	PSIG
1	240			6141	360			6855
2	245			6144	365			6857
3	250			6146	370			6860
4	255			6149	375			6863
5	260			6152	380			6866
6	265			6154	385			6868
7	270			6157	390			6871
8	275			6160	395			6874
9	280			6599	400			6874
10	285			6503	405			6876
11	290			6481	410			6879
12	295			6585	415			6882
13	300			6698	420			6884
14	305			6602	425			6887
15	310			6605	430			6887
16	315			6610	435			6890
17	320			6654	440			6890
18	325			6682	445			6893
19	330			6720	450			6893
20	335			6759	455			6895
21	340	POINT E		6665	460			6895
22	345			6836	465			6898
23	350			6847	470			6898
24	355			6852	475			6901



DST PRESSURE INCREMENTS

Recorder No. 2761

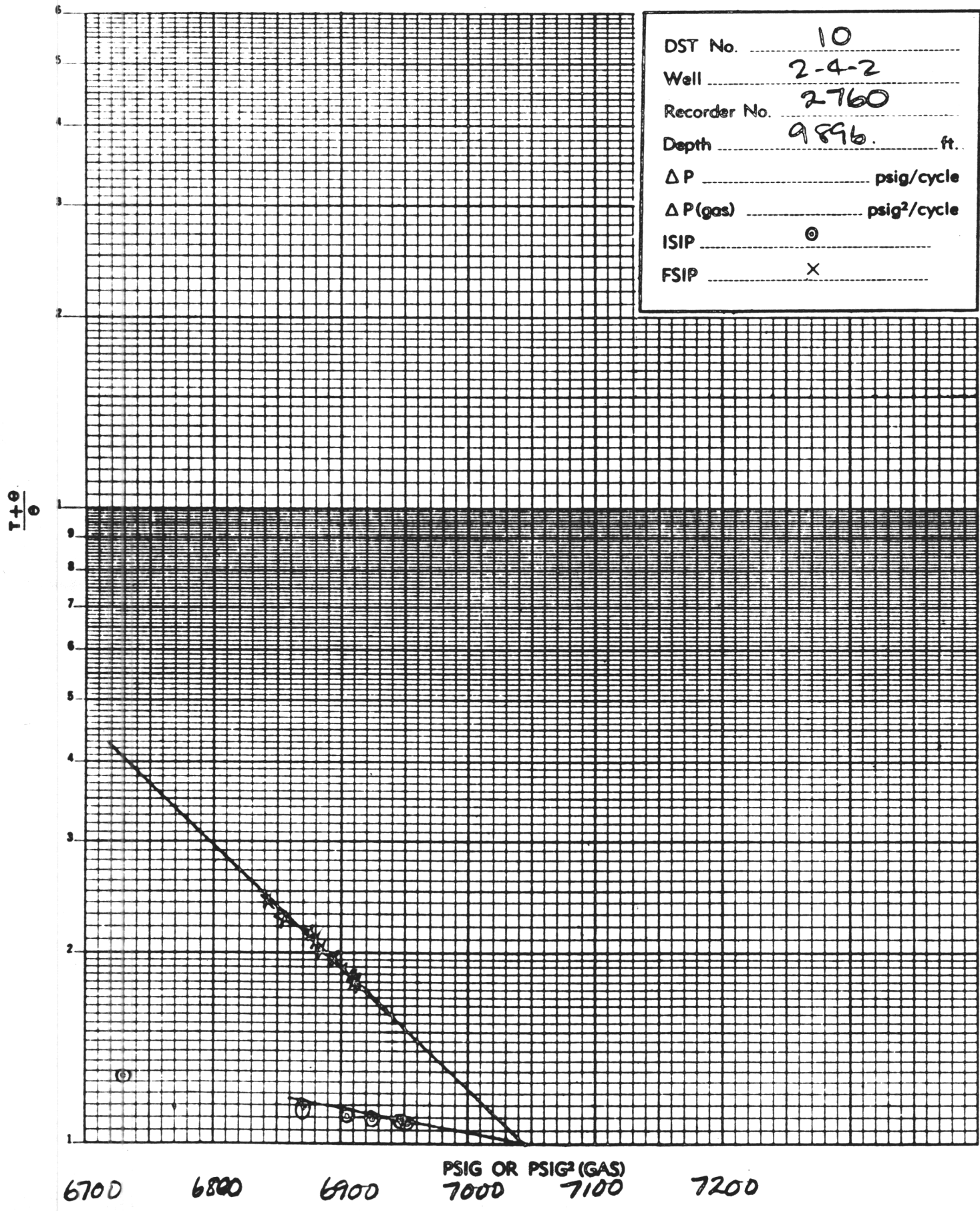
Depth

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Points	INITIAL CIP			FINAL CIP				
	Time Defl. "	T+Θ	$\frac{T+\Theta}{\Theta}$	PSIG	Time Defl. "	T+Θ	$\frac{T+\Theta}{\Theta}$	PSIG
1	480			6901	600			6930
2	485			6903	605			6930
3	490			6906	610			6930
4	495			6906	615			6933
5	500			6909	620			6933
6	505			6909	625			6933
7	510			6911	630			6933
8	515			6911	635	Point. F		6933
9	520			6911				
10	525			6914				
11	530			6914				
12	535			6914				
13	540			6917				
14	545			6917				
15	550			6917				
16	555			6920				
17	560			6920				
18	565			6922				
19	570			6922				
20	575			6925				
21	580			6925				
22	585			6928				
23	590			6928				
24	595			6928				



DST No. 10
Well 2-4-2
Recorder No. 2760
Depth 9896 ft.
 ΔP _____ psig/cycle
 $\Delta P(\text{gas})$ _____ psig²/cycle
ISIP \odot
FSIP \times





DRILL-STEM TEST DATA

Well Name EKO FISK		Test No FIVE
Well Number 2-4-2		Zone Tested
Company Phillips Petroleum Co. Norway		Interval Perforated from: 10610 - 10640
Comp Rep Mr. E.O. Seabourn	Tester BJ Flahr	Date April 22, 1970

Type of Test **Casing Hook Wall** RFS Tool No. _____

Preflow _____ mins. ISI _____ mins. Flow _____ mins. FSI _____ mins

Specify Inside or Outside	REC. No. <u>2758</u> RANGE <u>72</u> HR. CLOCK	REC. No. <u>2759</u> RANGE <u>72</u> HR. CLOCK	REC. No. <u>2761</u> RANGE <u>72</u> HR. CLOCK
DEPTH	<u>10606</u>	<u>10611</u>	<u>10616</u>
Initial Hydro Mud Press			
Initial Shut-In Press			
Initial Flow Press			
Final Flow Press			
Final Shut-In Press			
Final Hydro Mud Press			

Mud Drop _____ Fluid Loss 4.2 Mud Weight 14.3
 Viscosity 44 Temperature °F 271 Net Pay Tested _____
 Top Packer Depth 10539 Bottom Packer Depth _____ Total Depth 10690
 Drill Pipe Size 2 7/8 Eye Tubing Wt. 6.5 Drill Collar I.D. _____ Ft. Run _____
 Surface Choke Size Variable Bottom Choke Size 5/8" Main Hole Size 7" 29# Casing
 Anchor Size 3 1/2" & 2 7/8" Rat Hole Size _____ Feet of Rat Hole _____
 Cushion Amount 10685 Type Salt Water Rubber Size 5.812

Fluid Recovery Total Feet Pumped Out
 Recovered _____ Feet of Recovery information will be supplied by Phillips
 Recovered _____ Feet of Petroleum Co. Norway.
 Recovered _____ Feet of _____
 Recovered _____ Feet of _____
 Recovered _____ Feet of _____

Gas Recovery How Measured Riser size: _____

_____ mins.	Temp. °F	Press Rdg. _____ psi	Orifice Size _____	= _____ MCF/Day
_____ mins.	Temp. °F	Press Rdg. _____ psi	Orifice Size _____	= _____ MCF/Day
_____ mins.	Temp. °F	Press Rdg. _____ psi	Orifice Size _____	= _____ MCF/Day
_____ mins.	Temp. °F	Press Rdg. _____ psi	Orifice Size _____	= _____ MCF/Day
_____ mins.	Temp. °F	Press Rdg. _____ psi	Orifice Size _____	= _____ MCF/Day
_____ mins.	Temp. °F	Press Rdg. _____ psi	Orifice Size _____	= _____ MCF/Day

Bleed Off Time for Drill Pipe _____

REMARKS _____

Core Lab Gas Cont. No. _____ Chem - Geo. Lab Gas Cont. No. _____

DRILL STEM TEST NUMBER FIVE

PRESSURE READINGS

POINT	RECORDER # 2758	RECORDER # 2759	RECORDER # 2761
A	7861	7883	7895
B	4789	4784	4781
C	7104	7113	7125
D	4930	4919	4917
E	1277	1272	1280
F	2723	2712	2689
G	3606	3600	3594
H	2935	2897	2873
I	3006	3000	2989
J	2809	2788	2781
K	7045	7022	7055
L	4287	4260	4257
M	4687	4681	4668
N	4738	4716	4720

DRILL STEM TEST NUMBER FIVE

TIME DEFLECTIONS (MINS)

	Recorder # 2758	Recorder # 2759	Recorder # 2761
Point A to Point B	15	20	25
Point B to Point C	132	143	128
Point C to Point D	10	15	20
Point D to Point E	95	90	95
Point E to Point F	45	50	45
Point F to Point G	30	40	30
Point G to Point H	50	55	55
Point H to Point I	5	5	5
Point I to Point J	495	500	492
Point J to Point K	615	619	603
Point K to Point L	35	40	45
Point L to Point M	220	215	210
Point M to Point N	312	330	301

DRILL STEM TEST NUMBER FIVE

Baker Test Head		
Hydril Valve		
9 Joints 2 7/8" Tubing	281.69	
Otis Test Tree	27.00	
328 Joints 2 7/8 Tubing	10236.00	
X Over Sub	1.00	
Pump Out Sub	1.00	
X Over Sub	1.00	
2 7/8 Tubing	94.53	
Swage & Collar	.70	
X Over Sub	1.00	
BJ H.M.VV Valve	7.15	
XO Sub	1.00	
Swage & Collar	.75	
F.F.C. Tool (Short)	4.24	Depth 10539
2 7/8 Tubing	31.52	
2 7/8 Perf Tubing	31.52	
Recorder Hanger # 2758	1.00	Depth 10606
Recorder Case	4.00	
Recorder Hanger # 2759	1.00	Depth 10611
Recorder Case	4.00	
Recorder Hanger # 2760	1.00	Depth 10616
Recorder Case (Bullnose)	4.00	Depth 10621

DRILL STEM TEST NUMBER FIVE

TIME DEFLECTIONS (MINS)

	Recorder # 2758	Recorder # 2759	Recorder # 2761
Point A to Point B	15	20	25
Point B to Point C	132	143	128
Point C to Point D	10	15	20
Point D to Point E	95	90	95
Point E to Point F	45	50	45
Point F to Point G	35	40	30
Point G to Point H	50	55	55
Point H to Point I	5	5	5
Point I to Point J	495	500	492
Point J to Point K	615	619	603
Point K to Point L	35	40	45
Point L to Point M	220	215	210
Point M to Point N	312	330	301

The following is a comparison of times recorded at surface and those taken from the recorder charts.

Surface Report	# 2758	# 2759	# 2761
Point A to B 10 mins	+ 5 mins	+ 10 mins	+ 15 mins
Point B to C 143 mins	-11 mins	0 mins	- 15 mins
Point C to J 740 mins	- 5 mins	+ 10 mins	+ 2 mins
Point J to K 660 mins	-45 mins	- 41 mins	- 57 mins
Point K to N 600 mins	-33 mins	- 15 mins	- 44 mins

Prolonged service in elevated temperatures tend to slow the bottom hole recording mechanisms, this is being noted on the last part of the test. Wherever a plus quantity appears the cause is probably due to some lag in the recorder stylus as well as pressure reduction time between surface and bottom hole. Neither of the mentioned causes should affect the accuracy of the pressure readings.

DRILL STEM TEST NUMBER FIVE

Test Started 1342 hrs. April 22, 1970

Test Completed 0135 hrs. April 24, 1970

Recorder # 2758 Depth 10606'

Recorder # 2759 Depth 10611'

Recorder # 2761 Depth 10539

Operation	Time		Length of Test		Choke Size	Wellhead Press PSIA	Temp. F
	From	To	Hrs.	Mins			
IF	1342	1352	-	10	1"	0	N.R.
ISI	1352	1615	2	23	0	2341	47
Unloading	1615	1700	-	45	1"	N.R.	78
Clean Up	1700	1835	1	35	1"	640	66
Flow Period 1	1835	0435	10	-	$\frac{3}{4}$ "	660	70
Shut in Period 1	0435	1535	11	-	0	4052	49
Flow Period 2	1535	0135	10	-	$\frac{1}{4}$ "	2014	57



5 MIN DST PRESSURE INCREMENTS Point B to C (132 MINS)

Recorder No. 2758

Depth 10606

Page 1 of 1

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+Θ	$\frac{T+\Theta}{\Theta}$	PSIG	Time Defl. "	T+Θ	$\frac{T+\Theta}{\Theta}$	PSIG
1	0	15 Point B	0	4789	120	135	1.12	7104
2	5	20	4.00	7027	125	140	1.12	7104
3	10	25		7059	130	145	1.11	7104
4	15	30		7075	132	147 Point C	1.11	7104
5	20	35	1.75	7080				
6	25	40		7085				
7	30	45		7090				
8	35	50	1.43	7090				
9	40	55		7093				
10	45	60	1.33	7096				
11	50	65		7096				
12	55	70	1.27	7098				
13	60	75		7101				
14	65	80	1.23	7101				
15	70	85		7101				
16	75	90	1.20	7101				
17	80	95		7104				
18	85	100	1.18	7104				
19	90	105		7104				
20	95	110	1.16	7104				
21	100	115		7104				
22	105	120	1.14	7104				
23	110	125	1.13	7104				
24	115	130	1.13	7104				



5 MIN DST PRESSURE INCREMENTS Point C to J (735 MINS)

Recorder No. 2758

Depth 10606

Page 1 of 4

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+Θ	$\frac{T+\Theta}{\Theta}$	PSIG	Time Defl. "	T+Θ	$\frac{T+\Theta}{\Theta}$	PSIG
1	0	Point C		7104	120			2266
2	5			5583	125			2266
3	10	Point D		4930	130			2826
4	15			4919	135			2620
5	20			4881	140			2734
6	25			4822	145			2745
7	30			4741	150	Point F		2723
8	35			4649	155			2804
9	40			4389	160			3033
10	45			4416	165			3303
11	50			4530	170			3368
12	55			4249	175			3481
13	60			4011	180			3551
14	65			3687	185	Point G		3606
15	70			3389	190			3541
16	75			2897	195			3443
17	80			2511	200			3379
18	85			2239	205			3341
19	90			2017	210			3227
20	95			1761	215			3146
21	100			1375	220			3065
22	105	Point E		1277	225			3011
23	110			1527	230			2978
24	115			1332	235	Point H		2935



5 MIN DST PRESSURE INCREMENTS Point C to J

Page 2 of 4

Recorder No. 2758

Depth 10606

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+0	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+0	$\frac{T+\theta}{\theta}$	PSIG
1	240	Point	I	3006	360		2.021	2946
2	245			3006	365		2.041	2943
3	250	t		2989	370		2.061	2940
4	255	o	log t	2973	375		2.079	2935
5	260	s	0.699	2962	380		2.097	2932
6	265		1.000	2965	385		2.114	2932
7	270		1.176	2965	390		2.130	2932
8	275		1.301	2965	395		2.146	2927
9	280		1.340	2967	400		2.161	2924
10	285		1.477	2970	405		2.176	2919
11	290		1.544	2962	410		2.190	2919
12	295		1.602	2959	415		2.204	2913
13	300		1.653	2946	420		2.217	2913
14	305		1.699	2946	425		2.230	2908
15	310		1.740	2951	430		2.243	2908
16	315		1.778	2956	435		2.255	2902
17	320		1.813	2962	440		2.267	2902
18	325		1.845	2962	445		2.279	2899
19	330		1.875	2962	450		2.290	2897
20	335		1.903	2962	455		2.301	2894
21	340		1.929	2959	460		2.312	2891
22	345		1.954	2956	465		2.322	2886
23	350		1.978	2956	470		2.332	2886
24	355		2.000	2951	475		2.342	2880



5 MIN DST PRESSURE INCREMENTS Point C to J

Recorder No. 2758

Depth 10606

Page 3 of 4

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	480		2.352	2878	600		2.538	2837
2	485		2.362	2878	605	350	2.544	2837
3	490		2.371	2875	610		2.550	2834
4	495		2.380	2872	615		2.556	2829
5	500		2.389	2869	620			2829
6	505		2.398	2869	625			2829
7	510		2.407	2867	630			2829
8	515		2.415	2864	635			2829
9	520		2.423	2864	640		2.585	2829
10	525		2.431	2859	645		2.591	2821
11	530			2859	650			2821
12	535			2859	655	400		2821
13	540		2.455	2859	660			2821
14	545		2.462	2856	665		2.613	2821
15	550		2.470	2856	670		2.618	2818
16	555	300	2.477	2853	675		2.623	2818
17	560		2.484	2853	680		2.628	2815
18	565		2.491	2851	685		2.633	2813
19	570		2.498	2848	690			2813
20	575		2.505	2845	695		2.643	2813
21	580		2.512	2845	700		2.648	2809
22	585		2.519	2842	705			2809
23	590			2842	710			2809
24	595		2.531	2842	715			2809



5 MIN DST PRESSURE INCREMENTS Point J to K (615 MINS)

Recorder No. 2758

Depth 10606

Page 1 of 3

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	0	750	0	2804	120	870	.699	6914
2	5	755	1.987	2799	125	875	.685	6925
3	10	760	1.690	4027	130	880	.671	6928
4	15	765	1.519	4092	135	885	.659	6936
5	20	770	1.398	5545	140	890	.646	6936
6	25	775	1.305	6262	145	895	.635	6941
7	30	780	1.230	6455	150	900	.623	6947
8	35	785	1.678	6583	155	905	.612	6952
9	40	790	1.114	6647	160	910	.602	6955
10	45	795	1.067	6695	165	915	.592	6958
11	50	800	1.025	6727	170	920	.582	6963
12	55	805	0.988	6760	175	925	.573	6963
13	60	810	.954	6786	180	930	.564	6968
14	65	815	.923	6802	185	935	.556	6968
15	70	820	.895	6818	190	940	.547	6974
16	75	825	.869	6834	195	945	.539	6974
17	80	830	.845	6845	200	950	.531	6976
18	85	835	.823	6861	205	955	.524	6981
19	90	840	.802	6872	210	960	.517	6984
20	95	845	.782	6883	215	965	.510	6984
21	100	850	.763	6888	220	970	.503	6987
22	105	855	.746	6896	225	975	.496	6989
23	110	860	.729	6904	230	980	.490	6989
24	115	865	.714	6909	235	985	.483	6992



5 MIN DST PRESSURE INCREMENTS Point J to K

Page 2 of 3

Recorder No. 2758

Depth 10606

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	240	990	.477	6995	360	1110		7022
2	245	995	.471	6995	365	1115		7022
3	250	1000	.465	6995	370	1120	.361	7022
4	255	1005	.460	7000	375	1125	.358 WAWA	7024
5	260	1010	.454	7000	380	1130		7024
6	265	1015	.449	7000	385	1135	.352	7024
7	270	1020	.444 WAWA	7005	390	1140	.348	7027
8	275	1025	.439	7005	395	1145		7027
9	280	1030	.434	7005	400	1150		7027
10	285	1035	.429	7005	405	1155	.339	7027
11	290	1040	.424	7005	410	1160	.337 WAWA	7030
12	295	1045	.419	7008	415	1165		7030
13	300	1050	.415	7011	420	1170	.331	7030
14	305	1055	.411 WAWA	7011	425	1175	.328	7032
15	310	1060	.406	7011	430	1180		7032
16	315	1065	.402	7014	435	1185		7032
17	320	1070	.398	7014	440	1190	.320	7032
18	325	1075	.394	7016	445	1195	.318 WAWA	7035
19	330	1080		7016	450	1200		7035
20	335	1085	.386	7016	455	1205		7035
21	340	1090	.382 WAWA	7019	460	1210		7035
22	345	1095	.379	7019	465	1215		7035
23	350	1100	.375	7022	470	1220		7035
24	355	1105		7022	475	1225		7035



5 MIN DST PRESSURE INCREMENTS Points J to K

Recorder No. 2758

Depth 10606

Page 3 of 3

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	480	1230	301 299	7035	600	1350	7045	7045
2	485	1235	299	7037	605	1355	7045	7045
3	490	1240		7037	610	1360	7045	7045
4	495	1245		7037	615	Point K 1365	251 7045	7045
5	5000	1250		7037				
6	505	1255		7037				
7	510	1260	7037	7037				
8	515	1265		7037				
9	520	1270		7037				
10	525	1275	282	7037				
11	530	1280	280	7040				
12	535	1285		7040				
13	540	1290		7040				
14	545	1295	7040	7040				
15	550	1300	272	7040				
16	555	1305	271	7043				
17	560	1310		7043				
18	565	1315		7043				
19	570	1320		7043				
20	575	1325		7043				
21	580	1330	262 7043	7043				
22	585	1335	260 7045	7045				
23	590	1340	7045	7045				
24	595	1345	7045	7045				



5 MIN DST PRESSURE INCREMENTS Point K to N (567 MINS)

Recorder No 2758

Depth 10606

Page 1 of 3

Points	INITIAL CIP			FINAL CIP				
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	0	Point K		7045	120			4881
2	5			5802	125			4876
3	10			5289	130			4870
4	15			4876	135			4860
5	20			4692	140			4854
6	25			4492	145			4843
7	30			4346	150			4833
8	35	Point L		4287	155			4827
9	40			4465	160			4814
10	45			4600	165			4806
11	50			4697	170			4800
12	55			4768	175			4795
13	60			4822	180			4784
14	65			4854	185			4778
15	70			4876	190			4768
16	75			4887	195			4762
17	80			4887	200			4757
18	85			4889	205			4741
19	90			4889	210			4735
20	95			4889	215			4730
21	100			4889	220			4724
22	105			4889	225			4716
23	110			4889	230			4714
24	115			4887	235			4706



5 MINDST PRESSURE INCREMENTS Point K to N

Recorder No. 2758

Depth 10606

Page 2 of 3

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	240			4703	360			4924
2	245			4697	365			4919
3	250			4689	370			4914
4	255	Point	M	4687	375			5177
5	260			4838	380			4905
6	265			4897	385			4903
7	270			4941	390			4897
8	275			4962	395			4895
9	280			4973	400			4892
10	285			4984	405			4889
11	290			4989	410			4887
12	295			4989	415			4881
13	300			4989	420			4876
14	305			4989	425			4873
15	310			4989	430			4868
16	315			4987	435			4865
17	320			4976	440			4860
18	325			4968	445			4857
19	330			4957	450			4851
20	335			4949	455			4849
21	340			4941	460			4843
22	345			4935	465			4838
23	350			4933	470			4835
24	355			4927	475			4830



5 MIN DST PRESSURE INCREMENTS Point B to C (143 MINS)

Recorder No. 2759

Depth 10611

Page 1 of 1

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	0	Point B		4784	120			7113
2	5			4838	125			7113
3	10			4897	130			7113
4	15			7065	135			7113
5	20			7078	140			7113
6	25			7086	143	Point C		7113
7	30			7092				
8	35			7097				
9	40			7102				
10	45			7102				
11	50			7105				
12	55			7108				
13	60			7108				
14	65			7108				
15	70			7108				
16	75			7110				
17	80			7110				
18	85			7110				
19	90			7110				
20	95			7113				
21	100			7113				
22	105			7113				
23	110			7113				
24	115			7113				



5 MIN DST PRESSURE INCREMENTS Points C to J (750 MINS)

Recorder No 2759

Depth 10611

Page 1 of 4

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	0	Point C		7113	120			1500
2	5			5812	125			2261
3	10			5124	130			2261
4	15	Point D		4919	135			2723
5	20			4903	140			2755
6	25			4908	145			2793
7	30			4795	150			2755
8	35			4692	155	Point F		2712
9	40			4568	160			2908
10	45			4465	165			3108
11	50			4411	170			3260
12	55			4373	175			3389
13	60			3989	180			3492
14	65			3795	185			3557
15	70			3314	190	Point G		3600
16	75			2902	195			3800
17	80			2489	200			3427
18	85			2250	205			3319
19	90			2055	210			3297
20	95			1620	215			3184
21	100			1527	220			3103
22	105	Point E		1272	225			3043
23	110			1386	230			2989
24	115			1313	235			2951



5 MIN DST PRESSURE INCREMENTS Points C to J

Recorder No 2759

Depth 10611

Page 2 of 4

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	240			2924	360			2943
2	245	Point H		2897	365			2940
3	250	Point I		3000	370			2935
4	255			2978	375			2935
5	260			2973	380			2929
6	265			2962	385			2924
7	270			2962	390			2924
8	275			2962	395			2921
9	280			2962	400			2919
10	285			2962	405			2913
11	290			2962	410			2913
12	295			2956	415			2913
13	300			2956	420			2908
14	305			2946	425			2902
15	310			2940	430			2899
16	315			2946	435			2897
17	320			2951	440			2897
18	325			2949	445			2894
19	330			2953	450			2891
20	335			2953	455			2891
21	340			2951	460			2886
22	345			2951	465			2883
23	350			2951	470			2880
24	355			2944	475			2878



5 MIN DST PRESSURE INCREMENTS Point C to J

Recorder No 2759

Depth 10611

Page 3 of 4

Points	INITIAL CIP			FINAL CIP				
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	480			2875	600			2829
2	485			2869	605			2829
3	490			2869	610			2826
4	495			2864	615			2824
5	500			2865	620			2824
6	505			2861	625			2821
7	510			2859	630			2818
8	515			2859	635			2815
9	520			2859	640			2815
10	525			2853	645			2815
11	530			2853	650			2815
12	535			2848	655			2810
13	540			2848	660			2810
14	545			2848	665			2810
15	550			2848	670			2810
16	555			2848	675			2804
17	560			2842	680			2804
18	565			2842	685			2804
19	570			2840	690			2804
20	575			2837	695			2802
21	580			2837	700			2799
22	585			2834	705			2796
23	590			2832	710			2796
24	595			2832	715			2796



5 MIN DST PRESSURE INCREMENTS Points J to K (619 MTNS)

Recorder No. 2759

Depth 10611

Page 1 of 3

Points	INITIAL CIP			FINAL CIP				
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	0	Point	J	2788	120			6920
2	5			3384	125			6928
3	10			3822	130			6931
4	15			5344	135			6936
5	20			6171	140			6941
6	25			6417	145			6952
7	30			6562	150			6952
8	35			6636	155			6955
9	40			6690	160			6958
10	45			6727	165			6960
11	50			6749	170			6966
12	55			6776	175			6974
13	60			6797	180			6974
14	65			6813	185			6974
15	70			6829	190			6974
16	75			6848	195			6976
17	80			6856	200			6979
18	85			6867	205			6979
19	90			6877	210			6984
20	95			6888	215			6989
21	100			6893	220			6989
22	105			6904	225			6991
23	110			6909	230			6991
24	115			6914	235			6991



5 MIN DST PRESSURE INCREMENTS Points J to K

Recorder No. 2759

Depth 10611

Page 2 of 3

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	240			6995	360			7024
2	245			7003	365			7030
3	250			7003	370			7030
4	255			7003	375			7030
5	260			7003	380			7030
6	265			7005	385			7030
7	270			7008	390			7030
8	275			7008	395			7030
9	280			7008	400			7030
10	285			7011	405			7030
11	290			7011	410			7030
12	295			7011	415			7030
13	300			7011	420			7032
14	305			7011	425			7032
15	310			7016	430			7032
16	315			7016	435			7032
17	320			7019	440			7032
18	325			7019	445			7032
19	330			7022	450			7035
20	335			7022	455			7035
21	340			7022	460			7035
22	345			7022	465			7035
23	350			7022	470			7035
24	355			7022	475			7035



5 MIN DST PRESSURE INCREMENTS Points J to K

Recorder No. 759

Depth 10611

Page 3 of 3

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T + θ	T \pm θ e	PSIG	Time Defl. "	T + θ	T \pm θ e	PSIG
1	480			7038	600			7027
2	485			7038	605			7027
3	490			7041	610			7027
4	495			7041	615			7027
5	500			7041				7027
6	505			7041				
7	510			7041				
8	515			7043				
9	520			7043				
10	525			7043				
11	530			7043				
12	535			7043				
13	540			7043				
14	545			7043				
15	550			7043				
16	555			7043				
17	560			7043				
18	565			7046				
19	570			7046				
20	575			7046				
21	580			7046				
22	585			7046				
23	590			7046				
24	595			7038				



5 MIN DST PRESSURE INCREMENTS Points K to N (485 MINS)

Recorder No 2759

Depth 10611

Page 1 of 3

Points	INITIAL CIP				FINAL CIP			
	Time Defl.	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl.	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	0	Point K		7022	120		4865	
2	5			6781	125		4865	
3	10			6054	130		4849	
4	15			5377	135		4843	
5	20			5038	140		4843	
6	25			4784	145		4832	
7	30			4573	150		4822	
8	35			4438	155		4822	
9	40	Point L		4260	160		4822	
10	45			4341	165		4811	
11	50			4476	170		4800	
12	55			4600	175		4795	
13	60			4708	180		4784	
14	65			4778	185		4778	
15	70			4816	190		4770	
16	75			4849	195		4762	
17	80			4865	200		4757	
18	85			4870	205		4746	
19	90			4876	210		4741	
20	95			4878	215		4730	
21	100			4878	220		4724	
22	105			4868	225		4716	
23	110			4865	230		4714	
24	115			4865	235		4703	



5 MIN DST PRESSURE INCREMENTS Points K to N

Recorder No 2759

Depth 10611

Page 2 of 3

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	240			4697	360			4914
2	245			4692	365			4914
3	250			4687	370			4897
4	255	Point M		4681	375			4897
5	260			4746	380			4897
6	265			4827	385			4892
7	270			4924	390			4887
8	275			4951	395			4887
9	280			4968	400			4881
10	285			4973	405			4876
11	290			4973	410			4870
12	295			4973	415			4870
13	300			4973	420			4870
14	305			4973	425			4865
15	310			4973	430			4857
16	315			4973	435			4851
17	320			4973	440			4851
18	325			4951	445			4851
19	330			4951	450			4651
20	335			4951	455			4832
21	340			4924	460			4832
22	345			4924	465			4832
23	350			4924	470			4824
24	355			4914	475			4822



5 MIN DST PRESSURE INCREMENTS Points B to C (128 MINS)

Recorder No. 2761

Depth 10616

Page 1 of 1

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T + \ominus	$\frac{T + \ominus}{\ominus}$	PSIG	Time Defl. "	T + \ominus	$\frac{T + \ominus}{\ominus}$	PSIG
1	0	Point	B	4781	120			7125
2	5			4884	125			7125
3	10			7095	128	Point	C	7125
4	15			7100				
5	20			7106				
6	25			7111				
7	30			7111				
8	35			7111				
9	40			7114				
10	45			7114				
11	50			7117				
12	55			7119				
13	60			7119				
14	65			7119				
15	70			7119				
16	75			7122				
17	80			7122				
18	85			7125				
19	90			7125				
20	95			7125				
21	100			7125				
22	105			7125				
23	110			7125				
24	115			7125				



5 MIN DST PRESSURE INCREMENTS Points C to J (742 MINS)

Recorder No. 2761

Depth 10616

Page 1 of 4

Points	Time Defl. "	INITIAL CIP			Time Defl. "	FINAL CIP		
		T+Θ	$\frac{T+\Theta}{\Theta}$	PSIG		T+Θ	$\frac{T+\Theta}{\Theta}$	PSIG
1	0	Point	C	7125	120			1440
2	5			6392	125			2257
3	10			5906	130			2257
4	15			5338	135			2289
5	20	Point	D	4917	140			2586
6	25			4911	145			2901
7	30			4884	150			2754
8	35			4803	155			2694
9	40			4720	160	Point	F	2689
10	45			4621	165			3027
11	50			4489	170			3198
12	55			4457	175			3330
13	60			4403	180			3456
14	65			4133	185			3533
15	70			3803	190	Point	G	3594
16	75			3302	195			3555
17	80			2923	200			3473
18	85			2495	205			3357
19	90			2289	210			3330
20	95			2084	215			3198
21	100			1733	220			3110
22	105			1631	225			3033
23	110			1401	230			2994
24	115	Point	E	1280	235			2950



5 MIN DST PRESSURE INCREMENTS Points C to J

Page 2 of 4

Recorder No. 2761

Depth 10616

Points	Time Defl. "	INITIAL CIP			Time Defl. "	FINAL CIP		
		T+Θ	$\frac{T+\Theta}{\Theta}$	PSIG		T+Θ	$\frac{T+\Theta}{\Theta}$	PSIG
1	240			2912	360		2928	
2	245			2873	365		2923	
3	250			2989	370		2920	
4	255			2967	375		2917	
5	260			2956	380		2912	
6	265			2945	385		2909	
7	270			2942	390		2906	
8	275			2942	395		2906	
9	280			2942	400		2901	
10	285			2950	405		2901	
11	290			2950	410		2898	
12	295			2939	415		2895	
13	300			2945	420		2890	
14	305			2934	425		2890	
15	310			2923	430		2884	
16	315			2934	435		2881	
17	320			2934	440		2879	
18	325			2939	445		2879	
19	330			2942	450		2873	
20	335			2942	455		2873	
21	340			2939	460		2870	
22	345			2934	465		2868	
23	350			2934	470		2862	
24	355			2931	475		2862	



5 MIN DST PRESSURE INCREMENTS Points C to J

Recorder No. 2761

Depth 10616

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	480			2859	600			2813
2	485			2854	605			2813
3	490			2851	610			2808
4	495			2848	615			2808
5	500			2848	620			2808
6	505			2846	625			2802
7	510			2843	630			2802
8	515			2843	635			2800
9	520			2838	640			2800
10	525			2838	645			2800
11	530			2835	650			2800
12	535			2832	655			2794
13	540			2832	660			2794
14	545			2832	665			2794
15	550			2829	670			2794
16	555			2829	675			2792
17	560			2829	680			2792
18	565			2824	685			2786
19	570			2824	690			2786
20	575			2821	695			2781
21	580			2819	700			2781
22	585			2819	705			2781
23	590			2816	710			2781
24	595			2813	715			2781



5 MIN DST PRESSURE INCREMENTS Point J to K (603 MINS)

Recorder No. 2761

Depth 10616

Page 1 of 3

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+Θ	$\frac{T+\Theta}{\Theta}$	PSIG	Time Defl. "	T+Θ	$\frac{T+\Theta}{\Theta}$	PSIG
1	0	Point J		2781	120			6938
2	5			3368	125			6944
3	10			6117	130			6952
4	15			6473	135			6957
5	20			6566	140			6955
6	25			6643	145			6965
7	30			6704	150			6965
8	35			6737	155			6965
9	40			6764	160			6971
10	45			6786	165			6976
11	50			6808	170			6979
12	55			6836	175			6982
13	60			6847	180			6982
14	65			6852	185			6987
15	70			6874	190			6987
16	75			6879	195			6987
17	80			6884	200			6992
18	85			6890	205			6998
19	90			6901	210			7001
20	95			6911	215			7001
21	100			6917	220			7001
22	105			6928	225			7001
23	110			6930	230			7001
24	115			6936	235			7006



5 MIN DST PRESSURE INCREMENTS Points J to K

Page 2 of 3

Recorder No 2761

Depth 10616

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	240			7009	360			7033
2	245			7009	365			7033
3	250			7009	370			7033
4	255			7011	375			7033
5	260			7011	380			7033
6	265			7014	385			7036
7	270			7014	390			7038
8	275			7017	395			7038
9	280			7017	400			7038
10	285			7019	405			7038
11	290			7019	410			7038
12	295			7019	415			7038
13	300			7022	420			7038
14	305			7022	425			7038
15	310			7025	430			7041
16	315			7025	435			7041
17	320			7025	440			7044
18	325			7025	445			7044
19	330			7028	450			7044
20	335			7028	455			7044
21	340			7028	460			7044
22	345			7028	465			7044
23	350			7028	470			7044
24	355			7030	475			7044



5 MIN DST PRESSURE INCREMENTS Points J to K

Recorder No 2761

Depth 10616

Page 3 of 3

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	480			7049	600			7055
2	485			7049	603	Point	K	7055
3	490			7049				
4	495			7049				
5	500			7049				
6	505			7049				
7	510			7049				
8	515			7049				
9	520			7049				
10	525			7049				
11	530			7049				
12	535			7052				
13	540			7052				
14	545			7052				
15	550			7052				
16	555			7052				
17	560			7052				
18	565			7052				
19	570			7052				
20	575			7052				
21	580			7055				
22	585			7055				
23	590			7055				
24	595			7055				



5 MIN DST PRESSURE INCREMENTS Point K to N (556 MINS)

Recorder No 2761

Depth 10616

Page 1 of 3

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	0	Point K		7055	120			4874
2	5			6446	125			4866
3	10			5911	130			4860
4	15			5430	135			4852
5	20			5149	140			4852
6	25			4868	145			4847
7	30			4638	150			4830
8	35			4457	155			4819
9	40			4316	160			4808
10	45	Point L		4257	165			4797
11	50			4424	170			4789
12	55			4566	175			4783
13	60			4693	180			4775
14	65			4759	185			4777
15	70			4819	190			4759
16	75			4847	195			4748
17	80			4863	200			4737
18	85			4879	205			4726
19	90			4879	210			4726
20	95			4879	215			4720
21	100			4879	220			4715
22	105			4879	225			4706
23	110			4879	230			4698
24	115			4876	235			4690



5 MIN DST PRESSURE INCREMENTS Points K to N

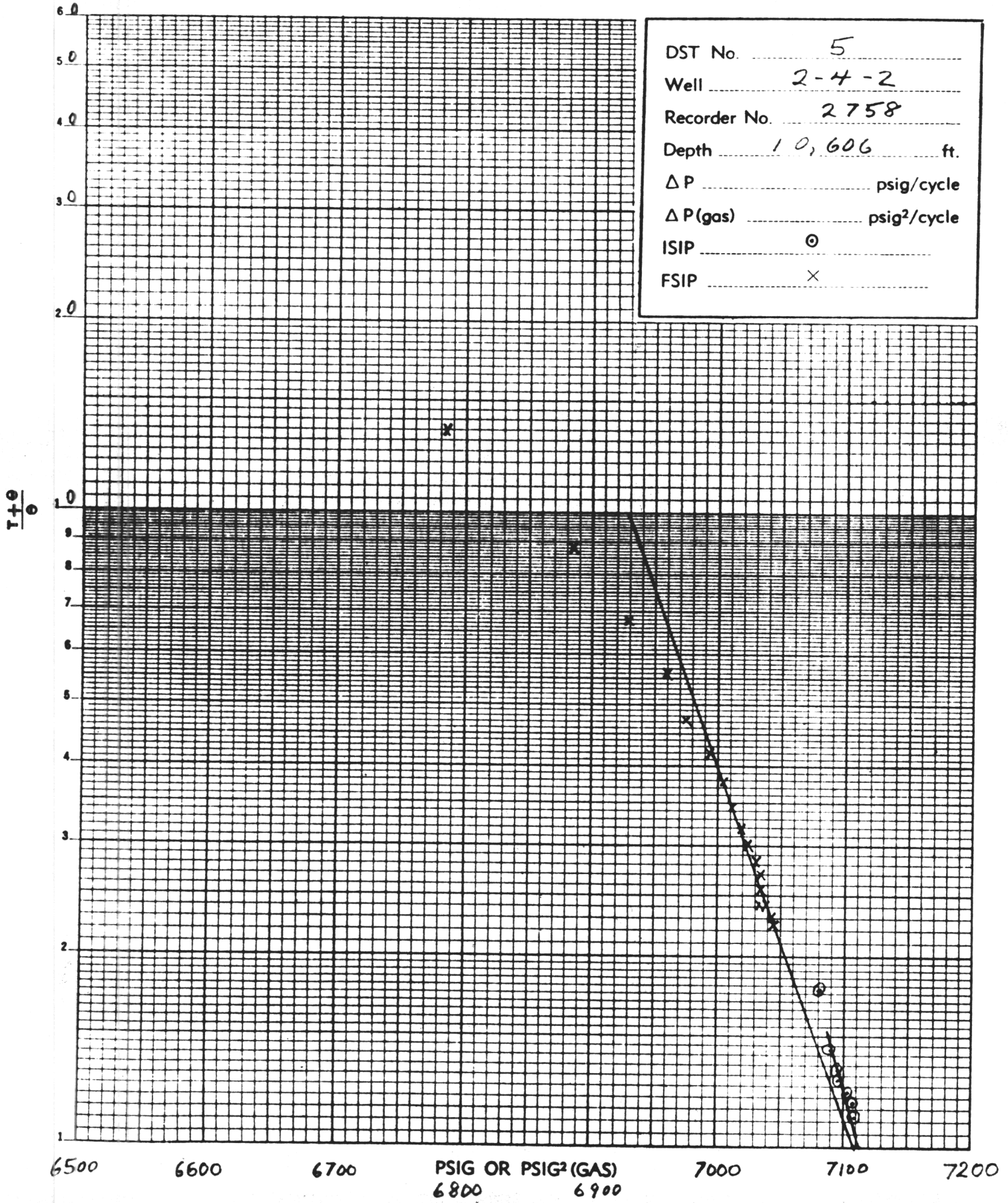
Recorder No. 2761

Depth 10611

Page 2 of 3

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	240			4687	360			4909
2	245			4676	365			4909
3	250			4671	370			4909
4	255	Point	M	4668	375			4909
5	260			4739	380			4895
6	265			4871	385			4890
7	270			4933	390			4887
8	275			4960	395			4874
9	280			4971	400			4868
10	285			4976	405			4868
11	290			4979	410			4868
12	295			4979	415			4868
13	300			4979	420			4852
14	305			4979	425			4847
15	310			4979	430			4844
16	315			4944	435			4838
17	320			4944	440			4836
18	325			4944	445			4836
19	330			4928	450			4830
20	335			4928	455			4825
21	340			4928	460			4819
22	345			4925	465			4814
23	350			4925	470			4814
24	355			4909	475			4808

DST No.	5
Well	2-4-2
Recorder No.	2758
Depth	10,606 ft.
ΔP	psig/cycle
$\Delta P(\text{gas})$	psig ² /cycle
ISIP	⊙
FSIP	×





DRILL-STEM TEST DATA

Well Name EKO FISK	Test No SIX B
Well Number 2-4-2	Zone Tested
Company Phillips Petroleum Co. Norway	Interval Perforated from: 10480 -10580
Comp Rep Mr. J.K. Fetters	Tester BJ Flahr
	Date April 27, 1970

Type of Test Casing Hook Wall RFS Tool No. _____

Preflow _____ mins. ISI _____ mins Flow _____ mins FSI _____ mins

Specify Inside or Outside	INS REC. No. <u>2758</u> RANGE <u>72</u> HR. CLOCK	INS REC. No. <u>2759</u> RANGE <u>72</u> HR. CLOCK	OUT REC. No. <u>2761</u> RANGE <u>72</u> HR. CLOCK
DEPTH	<u>10501</u>	<u>10506</u>	<u>10511</u>
Initial Hydro Mud Press			
Initial Shut-In Press			
Initial Flow Press			
Final Flow Press			
Final Shut-In Press			
Final Hydro Mud Press			

Mud Drop _____ Fluid Loss 4.2 Mud Weight 14.3
 Viscosity 43 Temperature °F 267 Net Pay Tested _____
 Top Packer Depth 10431 Bottom Packer Depth _____ Total Depth 10592
 Drill Pipe Size 2 7/8 Eue Tubing Wt. 6.5 Drill Collar I.D. _____ Ft. Run _____
 Surface Choke Size Variable Bottom Choke Size 2 5/16 Main Hole Size 7" 29# Casing
 Anchor Size 3 1/2" & 2 7/8" Rat Hole Size _____ Feet of Rat Hole _____
 Cushion Amount 10431 Type Sea Water Rubber Size 5.812

Fluid Recovery Total Feet _____
 Recovered _____ Feet of Will be supplied by Phillips Petroleum Co., Norway.
 Recovered _____ Feet of _____
 Recovered _____ Feet of _____
 Recovered _____ Feet of _____
 Recovered _____ Feet of _____

Gas Recovery How Measured _____ Riser size: _____

_____ mins	Temp. °F	Press Rdg. _____ psi	Orifice Size _____	=	_____ MCF/Day
_____ mins	Temp. °F	Press Rdg. _____ psi	Orifice Size _____	=	_____ MCF/Day
_____ mins	Temp. °F	Press Rdg. _____ psi	Orifice Size _____	=	_____ MCF/Day
_____ mins	Temp. °F	Press Rdg. _____ psi	Orifice Size _____	=	_____ MCF/Day
_____ mins	Temp. °F	Press Rdg. _____ psi	Orifice Size _____	=	_____ MCF/Day
_____ mins	Temp. °F	Press Rdg. _____ psi	Orifice Size _____	=	_____ MCF/Day

Bleed Off Time for Drill Pipe _____

REMARKS _____

Core Lab Gas Cont. No _____ Chem - Geo. Lab Gas Cont. No _____

DRILL STEM TEST NUMBER SIX B

Baker Test Head		
Hydril Valve		
9 Joints Tubing	281.69	
Otis Test Tree	27.00	
322 Joints Tubing	10034.03	
BJ Unloader	2.00	
BJ F.F.C. Tool	7.15	
2 7/8 Tubing	31.52	
2 7/8 Perf Tubing	31.52	
Recorder Hanger # 2758	1.00	Depth 10501
Recorder Case	4.00	
Recorder Hanger # 2759	1.00	Depth 10506
Recorder Case	4.00	
Recorder Hanger # 2761	1.00	Depth 10511
Recorder Case	4.00	
Bottom Of Tail Pipe		Depth 10515

DRILL STEM TEST NUMBER SIX B

PRESSURE READINGS

	Recorder # 2758	Recorder # 2759	Recorder # 2761
Point A	7622	7632	7636
Point B	5091	5092	5095
Point C	7098	7107	7111
Point D	4768	4795	4803
Point E	7075	7081	7084
Point F	5267	5264	5262
Point G	6596	6605	6605
Point H	7069	7073	7084
Point I	6687	6685	6687
Point J	6685	6690	6692
Point K	7824	7831	7844

DRILL STEM TEST NUMBER SIX B

Test Started 0300 Hr. April 27, 1970

Test Completed 1837 Hr. April 27, 1970

Recorder Number 2758 10502'

Recorder Number 2759 10507'

Recorder Number 2761 10431'

Operation	Time		Length of Test		Choke Size	Wellhead Press PSIA	Temp. F
	From	To	Hrs.	Min.			
IF	0300	0305		05	1"	65	N.R.
ISI	0305	0630	3	25	0	2502	N.R.
Clean Up Flow	0630	0700	0	30	1"	N.R.	N.R.
Shut-In	0700	1030	3	30	0	4082	N.R.
Flow No. 1	1030	1135	1	05	1/4"	3625	60
Shut-In	1135	1545	4	10	0	4143	41
Flow No. 2	1545	1837	2	52	1/4"	3660	56
Killing Well	1837	1909		32	1"	Initial 4150 Final 1000	w/14.3ppg Mud

**DRILL STEM TEST NUMBER SIX B
TIME DEFLECTIONS (MINS)**

	Recorder # 2758	Recorder # 2759	Recorder # 2761
Point A to Point B	5	5	5
Point B to Point C	205	205	195
Point C to Point D	20	20	25
Point D to Point E	225	225	200
Point E to Point F	15	15	20
Point F to Point G	45	45	50
Point G to Point H	250	250	45
Point H to Point I	0	0	0
Point I to Point J	170	170	165
Point J to Point K	30	30	25

The following is a comparison of times recorded at surface and times taken from the recorder charts.

	Surface Record	# 2758	# 2759	# 2761
Point A to Point B	5 mins	ok	ok	ok
Point B to Point C	205 mins	ok	ok	-10 mins
Point C to Point E	240 mins	+ 5 mins	+ 5	-20 mins
Point E to Point H	315 mins	- 5 mins	-15 mins	ok
Point H to Point J	172 mins	- 2 mins	- 2 mins	- 7 mins
Point J to Point K	32 mins	- 2 mins	- 2 mins	- 7 mins



5 MIN DST PRESSURE INCREMENTS on Points B to C (205 MINS)

Recorder No. 2758

Depth 10501

Page 1 of 1

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+Θ	$\frac{T+\Theta}{\Theta}$	PSIG	Time Defl. "	T+Θ	$\frac{T+\Theta}{\Theta}$	PSIG
1	0	5	0	5583	120			7098
2	5			7037	125			7098
3	10			7059	130			7098
4	15			7066	135			7098
5	20	25	1.25	7071	140			7098
6	25			7075	145			7098
7	30			7077	150			7098
8	35			7080	155			7098
9	40	45	1.13	7083	160			7098
10	45			7085	165			7098
11	50			7088	170			7098
12	55			7090	175			7098
13	60	65	1.08	7092	180			7098
14	65			7094	185			7098
15	70			7096	190			7098
16	75			7096	195			7098
17	80	85	1.06	7097	200			7098
18	85			7098	205	Point	C	7098
19	90			7098				
20	95			7098				
21	100			7098				
22	105			7098				
23	110			7098				
24	115			7098				



5 MIN DST PRESSURE INCREMENTS Points C to K

Recorder No. 2758

Depth 10501

Page 1 of 4

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T + Ⓣ	$\frac{T + \text{Ⓣ}}{\text{Ⓣ}}$	PSIG	Time Defl. "	T + Ⓣ	$\frac{T + \text{Ⓣ}}{\text{Ⓣ}}$	PSIG
1	0	Point C		7098	95			7050
2	5			6016	100			7053
3	10			5428	105	130	1.24	7055
4	15			5171	110			7057
5	20	Point D		4768	115			7059
6	0	25	0	4768	120			7061
7	5			5155	125	150	1.20	7063
8	10			5968	130			7064
9	15			6680	135			7065
10	20			6851	140			7067
11	25			6920	145	170	1.17	7068
12	30			6947	150			7069
13	35	60	1.72	6974	155			7070
14	40			6992	160			7072
15	45			7003	165	190	1.15	7073
16	50			7011	170			7074
17	55			7019	175			7075
18	60			7024	180			7075
19	65			7028	185			7075
20	70	95	1.36	7035	190	215	1.13	7075
21	75			7040	195			7075
22	80			7044	200			7075
23	85			7048	205	230	1.12	7075
24	90			7048	210			7075



5 MIN DST PRESSURE INCREMENTS Points C to K

Recorder No. 2758

Depth 10501

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+@	$\frac{T+@}{@}$	PSIG	Time Defl. "	T+@	$\frac{T+@}{@}$	PSIG
1	215	240	1.12	7075	40			7016
2	220	245	1.11	7075	45			7022
3	225	250 Point E	1.11	7075	50			7027
4	5			5706	55			7030
5	10			5321	60			7032
6	15	Point F		5267	65			7035
7	0			5267	70			7037
8	5			5401	75			7040
9	10			6134	80			7043
10	15			6498	85			7045
11	20			6551	90			7046
12	25			6578	95			7048
13	30			6583	100			7049
14	35			6589	105			7051
15	40			6594	110			7052
16	45	Point G		6596	115			7053
17	0	100		6596	120			7054
18	5			6931	125			7055
19	10			6960	130			7056
20	15			6981	135			7057
21	20			6992	140			7058
22	25			7000	145			7059
23	30			7005	150			7060
24	35			7011	155			7060



5 MIN DST PRESSURE INCREMENTS Points C to K

Recorder No. 2758

Depth 10501

Page 3 of 4

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+0	$\frac{T+0}{0}$	PSIG	Time Defl. "	T+0	$\frac{T+0}{0}$	PSIG
1	160			7061	25			6738
2	165			7062	30			6727
3	170			7063	35			6722
4	175			7064	40			6717
5	180			7064	45			6714
6	185			7065	50			6711
7	190			7066	55			6708
8	195			7067	60			6706
9	200			7068	65			6703
10	205			7068	70			6701
11	210			7069	75			6700
12	215			7069	80			6700
13	220			7069	85			6699
14	225			7069	90			6698
15	230			7069	95			6697
16	235			7069	100			6696
17	240			7069	105			6695
18	245			7069	110			6694
19	250		Point H	7069	115			6693
20	0		Point I	6687	120			6692
21	5			6786	125			6691
22	10			6781	130			6690
23	15			6776	135			6689
24	20			6754	140			6688



5 MIN DST PRESSURE INCREMENTS Points C to K

Recorder No. 2759

Depth 10506

Page 1 of 4

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+0	$\frac{T+0}{0}$	PSIG	Time Defl. "	T+0	$\frac{T+0}{0}$	PSIG
1	0	Point	C	7107	95			7059
2	5			5586	100			7062
3	10			5242	105			7065
4	15			5049	110			7067
5	20	Point	D	4795	115			7068
6	0			4795	120			7070
7	5			4935	125			7071
8	10			5097	130			7073
9	15			5963	135			7075
10	20			6883	140			7076
11	25			6955	145			7076
12	30			6981	150			7077
13	35			6992	155			7077
14	40			7005	160			7078
15	45			7013	165			7079
16	50			7022	170			7080
17	55			7032	175			7081
18	60			7036	180			7081
19	65			7039	185			7081
20	70			7043	190			7081
21	75			7046	195			7081
22	80			7049	200			7081
23	85			7054	205			7081
24	90			7057	210			7081



5 MIN DST PRESSURE INCREMENTS Points C to K

Recorder No2759

Depth 10506

Points	INITIAL CIP				FINAL CIP			
	Time Def. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Def. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	215			7081	40			7024
2	220			7081	45			7030
3	225	Point	E	7081	50			7035
4	5			5759	55			7037
5	10			5382	60			7038
6	15	Point	F	5264	65			7040
7	0			5264	70			7043
8	5			5489	75			7046
9	10			6123	80			7049
10	15			6487	85			7051
11	20			6567	90			7052
12	25			6583	95			7054
13	30			6594	100			7057
14	35			6599	105			7059
15	40			6602	110			7060
16	45	Point	G	6605	115			7062
17	0			6605	120			7063
18	5			6936	125			7064
19	10			6968	130			7065
20	15			6987	135			7065
21	20			6997	140			7066
22	25			7008	145			7066
23	30			7011	150			7067
24	35			7019	155			7068



5 MIN DST PRESSURE INCREMENTS Points C to K

Recorder No. 2759

Depth 10506

Page 3 of 4

Points	Time Defl. "	INITIAL CIP			Time Defl. "	FINAL CIP		
		T+0	$\frac{T+0}{0}$	PSIG		T+0	$\frac{T+0}{0}$	PSIG
1	160			7069	25			6754
2	165			7070	30			6741
3	170			7070	35			6730
4	175			7071	40			6722
5	180			7071	45			6714
6	185			7072	50			6711
7	190			7072	55			6711
8	195			7073	60			6709
9	200			7073	65			6708
10	205			7073	70			6707
11	210			7073	75			6706
12	215			7073	80			6704
13	220			7073	85			6703
14	225			7073	90			6701
15	230			7073	95			6700
16	235			7073	100			6699
17	240			7073	105			6698
18	245			7073	110			6697
19	250	Point	H	7073	115			6696
20	0	Point	I	6685	120			6695
21	5			6792	125			6695
22	10			6784	130			6695
23	15			6781	135			6695
24	20			6770	140			6695



5 MIN DST PRESSURE INCREMENTS Points C to K

Recorder No. 2761

Depth 10511

Page 1 of 4

Points	Time Defl. "	INITIAL CIP			Time Defl. "	FINAL CIP		
		T+θ	$\frac{T+\theta}{\theta}$	PSIG		T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	0	Point C		7111	95			7068
2	5			5733	100			7071
3	10			5419	105			7073
4	15			5149	110			7074
5	20			4914	115			7075
6	25	Point D		4803	120			7076
7	0			4803	125			7077
8	5			5192	130			7078
9	10			5806	135			7079
10	15			6957	140			7079
11	20			6992	145			7080
12	25			7003	150			7081
13	30			7011	155			7083
14	35			7019	160			7084
15	40			7030	165			7084
16	45			7036	170			7084
17	50			7041	175			7084
18	55			7046	180			7084
19	60			7049	185			7084
20	65			7052	190			7084
21	70			7055	195			7084
22	75			7057	200	Point E		7084
23	80			7060	5			6539
24	85 90			7063 7066	10			5884



5 MIN DST PRESSURE INCREMENTS Points C to K

Recorder No. 2761

Depth 10511

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+@	$\frac{T+@}{@}$	PSIG	Time Defl. "	T+@	$\frac{T+@}{@}$	PSIG
1	15			5536	55			7046
2	20	Point	F	5262	60			7049
3	0			5262	65			7052
4	5			5262	70			7055
5	10			6073	75			7057
6	15			6144	80			7060
7	20			6533	85			7063
8	25			6561	90			7066
9	30			6580	95			7068
10	35			6591	100			7069
11	40			6596	105			7071
12	45			6607	110			7072
13	50	Point	G	6608	115			7073
14	0			6608	120			7074
15	5			6960	125			7075
16	10			6987	130			7076
17	15			7009	135			7077
18	20			7019	140			7078
19	25			7025	145			7079
20	30			7030	150			7079
21	35			7033	155			7079
22	40			7036	160			7080
23	45			7041	165			7081
24	50			7044	170			7082



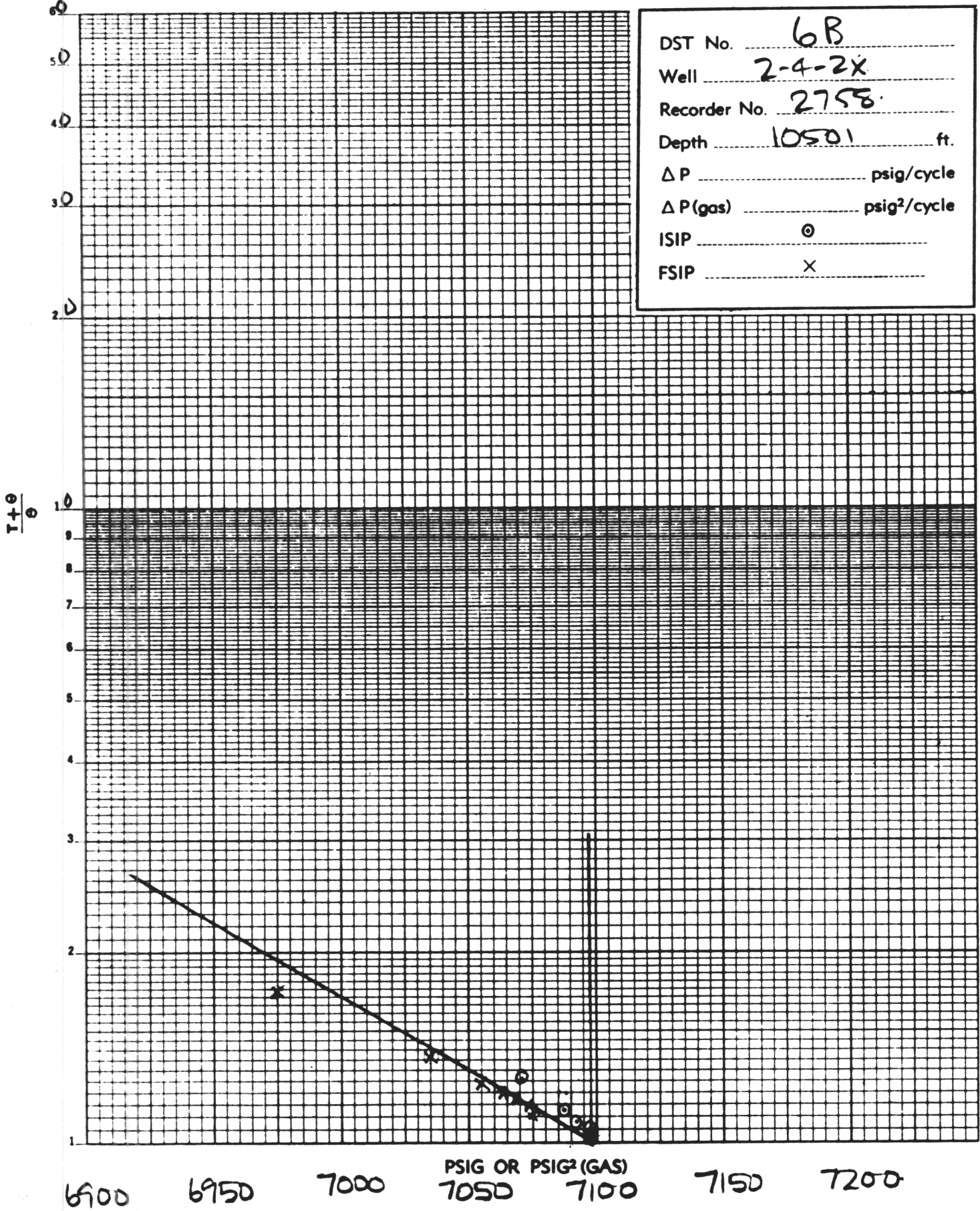
5 MIN DST PRESSURE INCREMENTS Points C to K

Recorder No. 2761

Depth 10511

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+Θ	$\frac{T+\Theta}{\Theta}$	PSIG	Time Defl. "	T+Θ	$\frac{T+\Theta}{\Theta}$	PSIG
1	175			7082	50			6720
2	180			7083	55			6717
3	185			7083	60			6715
4	190			7083	65			6714
5	195			7083	70			6711
6	200			7083	75			6709
7	205			7084	80			6707
8	210			7084	85			6706
9	215			7084	90			6704
10	220			7084	95			6704
11	225			7084	100			6703
12	230			7084	105			6702
13	235			7084	110			6700
14	240			7084	115			6699
15	245	Point	H	7084	120			6698
16	0	Point	I	6687	125			6698
17	5			6786	130			6698
18	10			6786	135			6697
19	15			6775	140			6695
20	20			6759	145			6694
21	25			6748	150			6693
22	30			6734	155			6693
23	35			6731	160			6692
24	40 45			6728 6726	165	Point	J	6692

DST No. 6B
 Well 2-4-2X
 Recorder No. 2758
 Depth 10501 ft.
 ΔP psig/cycle
 ΔP (gas) psig²/cycle
 ISIP \odot
 FSIP \times





DRILL-STEM TEST DATA

Well Name	EKO FISK	Test No	SIX C
Well Number	2-4-2X	Zone Tested	
Company	Phillips Petroleum Co. Norway	Interval	Perforated from: 10480 - 10580
Comp Rep.	Mr. J. Winget	Tester	BJ Flahr
		Date	May 5, 1970

Type of Test Casing Hook Wall RFS Tool No. _____

Preflow _____ mins. ISI _____ mins. Flow _____ mins. FSI _____ mins.

Specify Inside or Outside	INS REC. No. 2758	INS REC. No. 2759	OUT REC. No. 2760
	RANGE 72 HR. CLOCK	RANGE 72 HR. CLOCK	RANGE 72 HR. CLOCK
DEPTH	10512	10517	10522
Initial Hydro Mud Press			
Initial Shut-In Press			
Initial Flow Press			
Final Flow Press			
Final Shut-In Press			
Final Hydro Mud Press			

Mud Drop _____ Fluid Loss 4.4 Mud Weight 14.3
 Viscosity 42 Temperature °F 267 Net Pay Tested _____
 Top Packer Depth 10445 Bottom Packer Depth _____ Total Depth 10592
 Drill Pipe Size 2 7/8 Eue Tubing Drill Collar I.D. _____ Ft. Run _____
 Surface Choke Size _____ Bottom Choke Size 5/8" Main Hole Size 7" 29# Casing
 Anchor Size 3/8 & 2 7/8" Rat Hole Size _____ Feet of Rat Hole _____
 Cushion Amount 10440 Type Sea Water Rubber Size 5.812

Fluid Recovery Total Feet Pumped in to Kill
 Recovered _____ Feet of _____
 Recovered _____ Feet of Will be supplied by Phillips Petroleum Co. Norway
 Recovered _____ Feet of _____
 Recovered _____ Feet of _____
 Recovered _____ Feet of _____

Gas Recovery How Measured _____ Riser size: _____
 _____ mins. Temp. °F Press Rdg. _____ psi Orifice Size _____ = _____ MCF/Day
 _____ mins. Temp. °F Press Rdg. _____ psi Orifice Size _____ = _____ MCF/Day
 _____ mins. Temp. °F Press Rdg. _____ psi Orifice Size _____ = _____ MCF/Day
 _____ mins. Temp. °F Press Rdg. _____ psi Orifice Size _____ = _____ MCF/Day
 _____ mins. Temp. °F Press Rdg. _____ psi Orifice Size _____ = _____ MCF/Day
 _____ mins. Temp. °F Press Rdg. _____ psi Orifice Size _____ = _____ MCF/Day

Bleed Off Time for Drill Pipe _____

REMARKS: Opened well for 12 Hrs, 52 mins flow, gas to surface in 22 mins, Clean up flow 52 min, through separator. Shut in for 12 hrs. Run Isochronal tests.

Core Lab Gas Cont. No. _____ Chem - Geo. Lab Gas Cont. No. _____

DRILL STEM TEST NUMBER SIX C

Baker Test Head		
Hydril Valve		
2 7/8 Tubing	281.69	
Otis Test Tree	27.00	
2 7/8 Tubing	10034.03	
X Over Sub	1.00	
Pump Out Sub	1.00	
X Over Sub	1.00	
2 7/8 Tubing	94.53	
Swage & Collar	.70	
X Over Sub	1.00	
H.M.V. Tool	7.15	
X Over Sub	1.00	
Swage & Collar	.75	
F.F.C. Tool	4.15	
2 7/8 Tubing	31.52	
2 7/8 Perf Joint Tubing	31.52	
Recorder Hanger # 2758	1.00	Depth 10512
Recorder Case	4.00	
Recorder Hanger # 2759	1.00	Depth 10517
Recorder Case	4.00	
Recorder Hanger # 2760	1.00	Depth 10522
Recorder Case	4.00	
Bottom Of Tail Pipe		Depth 10527



5 MIN DST PRESSURE INCREMENTS Points B to E (773 MINS)

Recorder No. 2758

Depth 10512

Page 1 of 4

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+ θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+ θ	$\frac{T+\theta}{\theta}$	PSIG
1	0	Point B		5647	120			5808
2	5			5947	125			5738
3	10			5680	130			5642
4	15			5567	135			5583
5	20			5433	140			5524
6	25			5551	145			5487
7	30			5374	150			5460
8	35			5316	155			5423
9	40			5155	160	\pm	$\log t$	5401
10	45	Point C		5027	165	0	—	5358
11	50			6016	170	5	0,699	5358
12	55			6198	175			5358
13	60			6241	180			5358
14	65			6246	185			5358
15	70			6257	190	25	0,8101	5358
16	75	Point D		6257	195	30	1,477	5353
17	80			6118	200	35	1,544	5345
18	85			6123	205	40	1,602	5337
19	90			6171	210	45	1,653	5327
20	95			6070	215	50	1,699	5329
21	100			5989	220			5329
22	105			5979	225			5329
23	110			5974	230	45	1,8101	5329
24	115			5888	235	70	1,845	5327



5 MIN DST PRESSURE INCREMENTS Points B to E

Recorder No. 2758

Depth 10512

Page 2 of 4

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	240	75	1,875	5321	360			5289
2	245	80	1,903	5316	365			5289
3	250	85	1,929	5311	370			5289
4	255			5311	375			5289
5	260	280	1,929	5311	380			5289
6	265	100	2,000	5308	385			5289
7	270	105	2,021	5305	390			5289
8	275			5305	395			5289
9	280	110	2,021	5305	400			5289
10	285	120	2,079	5300	405			5289
11	290			5300	410			5289
12	295			5300	415	110	2,079	5289
13	300			5300	420	255	2,407	5286
14	305			5300	425			5286
15	310			5300	430			5286
16	315	110	2,079	5300	435			5286
17	320	155	2,190	5297	440			5286
18	325	160	2,204	5294	445			5286
19	330	160	2,204	5294	450			5286
20	335	170	2,230	5292	455			5286
21	340	175	2,243	5289	460			5286
22	345			5289	465			5286
23	350			5289	470			5286
24	355			5289	475			5286



5 MIN DST PRESSURE INCREMENTS Points B to E

Recorder No. 2758

Depth 10512

Page 3 of 4

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	480			5286	600	435	2.638	5262
2	485	420	2.505	5286	605			5262
3	490	325	2.512	5284	610	485	2.648	5262
4	495	330	2.519	5281	615	450	2.653	5257
5	500			5281	620			5257
6	505			5281	625			5257
7	510			5281	630			5257
8	515			5281	635			5257
9	520			5281	640			5257
10	525	360	2.556	5281	645	488	2.681	5257
11	530	365	2.562	5278	650	485	2.686	5254
12	535	370	2.568	5278	655			5254
13	540	375	2.574	5275	660			5254
14	545	380	2.580	5273	665			5254
15	550	385	2.585	5270	670			5254
16	555			5270	675			5254
17	560			5270	680			5254
18	565			5270	685	528	2.706	5254
19	570			5270	690	525	2.720	5252
20	575	410	2.613	5270	695			5252
21	580	415	2.618	5267	700			5252
22	585	420	2.623	5267	705			5252
23	590	425	2.628	5265	710			5252
24	595	430	2.633	5265	715			5252



5 MIN DST PRESSURE INCREMENTS Points E to F (723 MINS)

Recorder No. 2758

Depth 10512

Points	Time Defl. "	INITIAL CIP			Time Defl. "	FINAL CIP		
		T+θ	$\frac{T+\theta}{\theta}$	PSIG		T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	0	Point 781	E 0	5244	120	901	781	6877
2	5		2.058	6423	125		.768	6883
3	10			6556	130		.754	6888
4	15			6620	135			6888
5	20			6653	140		.728	6893
6	25			6690	145		.715	6896
7	30			6717	150		.704	6898
8	35			6733	155		.692	6901
9	40	821	2045	6749	160	941	.681 941	6906
10	45			6765	165		.670	6909
11	50			6778	170			6909
12	55			6792	175		.651	6912
13	60		1.047	6802	180		.641	6917
14	65		1.015	6813	185		.632	6920
15	70		0.986	6821	190			6920
16	75		.959	6829	195		.615	6923
17	80	861	.943 2045	6834	200	981	2045	6923
18	85		.911	6845	205		.598	6925
19	90		.890	6851	210		.591	6931
20	95		.869	6856	215			6931
21	100		.850	6861	220			6931
22	105		.832	6867	225		.568	6933
23	110		.815	6872	230		.562	6936
24	115		.798	6877	235		.555	6939

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5 MIN DST PRESSURE INCREMENTS Points E to F

Recorder No. 2758

Depth 10512

Page 2 of 4

Points	INITIAL CIP				FINAL CIP				
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	
35 { 1	240	1021	1128	6939	360	1141	1128 .430 1128	6968	106
2	245		.542	6941	365			6968	
33 { 3	250			6941	370		.422	6971	103
0 { 4	255		.529	6944	375			6971	
5 { 5	260			6944	380			6971	
7 { 6	265		.518	6947	385		.411	6974	100
4 { 7	270		.512	6950	390			6974	
8	275			6950	395			6974	98
2 { 9	280	1061	1.501 1060	6952	400	1181	1.401 1175	6976	
10	285			6952	405			6976	
11	290			6952	410			6976	95
1 { 12	295		.486	6955	415		.392	6979	
13	300			6955	420			6979	93
14	305		.476	6958	425			6979	
15	310			6958	430		.383	6981	
16	315			6958	435			6981	90
17	320	1101	1.101	6958	440	1221	1.101	6981	
18	325		.458	6960	445		.374	6984	87
19	330		.454	6963	450			6984	
20	335		.449	6966	455			6984	
21	340			6966	460			6984	87
22	345			6966	465			6984	
23	350			6966	470		.361	6987	87
24	355			6966	475			6987	



5 MIN DST PRESSURE INCREMENTS Points E to F

Recorder No. 2758

Depth 10512

Page 3 of 4

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	480	1261	2162	6987	600			7000
2	485		1.353	6989	605			7000
3	490			6989	610		1.300	7003
4	495			6989	615	1396	2.222	7003
5	500			6989	620			7003
6	505		1.343	6992	625			7003
7	510	1291	2.692	6992	630	1411	1.293 2.692	7005
8	515			6992	635			7005
9	520			6992	640			7005
10	525			6992	645	1426	2.622	7005
11	530			6992	650			7005
12	535			6992	655			7005
13	540	1321	1.328 2.622	6995	660	1441	2.118	7005
14	545			6995	665			7005
15	550			6995	670		1.280	7008
16	555			6995	675	1456	2.118	7008
17	560		1.319	6997	680			7008
18	565			6997	685			7008
19	570	1351	2.122	6997	690	1471	2.118	7008
20	575			6997	695			7008
21	580		1.311	7000	700			7008
22	585			7000	705	1486	2.122	7008
23	590			7000	710			7008
24	595			7000	715			7008

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+ 2 (8 min)



5 MIN DST PRESSURE INCREMENTS Points E to F

Recorder No2758

Depth 10512

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	720	1501	2.08	7008				
2	723	1502 Point. F	2.08	7008				
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5 MIN DST PRESSURE INCREMENTS Points F to G (361 MINS)

Recorder No. 2758

Depth 10512

Page 1 of 2

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	0	Point F		7008	120		1.929	6455
2	5			6669	125		1.954	6452
3	10			6626	130		1.978	6449
4	15			6599	135			6449
5	20			6687	140		2.021	6447
6	25			6572	145			6447
7	30	t	log t	6545	150		2.061	6444
8	35	0	-	6532	155			6444
9	40		0.699	6532	160			6444
10	45		1.000	6532	165		2.114	6439
11	50		1.176	6532	170			6439
12	55		1.301	6524	175			6439
13	60		1.380	6522	180			6439
14	65		1.477	6514	185			6439
15	70		1.544	6514	190		2.190	6436
16	75		1.602	6511	195			6436
17	80		1.653	6511	200		2.217	6433
18	85		1.699	6511	205			6433
19	90		1.740	6508	210		2.243	6431
20	95		1.778	6476	215		2.255	6428
21	100		1.813	6465	220			6428
22	105		1.845	6460	225			6428
23	110			6460	230			6428
24	115		1.903	6457	235		2.301	6425



5 MIN DST PRESSURE INCREMENTS Points F to G

Recorder No. 2758

Depth 10512

Page 2 of 2

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	240			6425	360		2.556	6417
2	245			6425	361	Point	G	6417
3	250		2.332	6423				
4	255			6423				
5	260			6423				
6	265			6423				
7	270			6423				
8	275			6423				
9	280			6423				
10	285	250	2.398	6420				
11	290			6420				
12	295			6420				
13	300			6420				
14	305			6420				
15	310			6420				
16	315			6420				
17	320			6420				
18	325			6420				
19	330			6420				
20	335	300		6420				
21	340		2.484	6417				
22	345			6417				
23	350			6417				
24	355			6417				



5 MIN DST PRESSURE INCREMENTS Points G to H (359 MINS)

Recorder No. 2758

Depth 10512

Page 1 of 2

Points	INITIAL CIP				FINAL CIP			
	Time Defl.	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl.	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	0	Point Point G		6417	120			6968
2	5		1.820	6770	125		1.556	6971
3	10		1.525	6834	130		1.544	6974
4	15		1.355	6861	135			6974
5	20		1.237	6877	140		1.521	6976
6	25		1.146	6893	145		1.511	6979
7	30		1.073	6901	150			6979
8	35		1.012	6909	155		1.497	6979
9	40		0.960	6920	160		1.482	6981
10	45		0.915	6925	165		1.473	6984
11	50		0.875	6931	170			6984
12	55		0.839	6936	175			6984
13	60		0.807	6939	180			6984
14	65		0.778	6941	185			6984
15	70		0.751	6947	190			6984
16	75		0.727	6952	195		1.426	6989
17	80			6952	200		1.419	6992
18	85		0.683	6958	205			6992
19	90			6958	210			6992
20	95			6958	215			6992
21	100		0.628	6963	220		1.394	6995
22	105		0.612	6966	225			6995
23	110		0.597	6968	230			6995
24	115			6968	235			6995

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5 MIN DST PRESSURE INCREMENTS Points G to H

Recorder No 2758

Depth 10512

Page 2 of 2

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	240		1	6995	359	Point. H		7008
2	245		1.267	6995				
3	250		1.362	6997				
4	255			6997				
5	260			6997				
6	265			6997				
7	270		1.273	6997				
8	275		1.339	7000				
9	280			7000				
10	285			7000				
11	290			7000				
12	295		1.303	7000				
13	300		1.319	7003				
14	305		1.315	7003				
15	310		1.311	7005				
16	315			7005				
17	320			7005				
18	325			7005				
19	330			7005				
20	335		1.294	7008				
21	340			7008				
22	345			7008				
23	350			7008				
24	355			7008				



5 MIN DST PRESSURE INCREMENTS Points H to I (362 MINS)

Recorder No. 2758

Depth 10512

Page 1 of 2

Points	Time Defl. "	INITIAL CIP			Time Defl. "	FINAL CIP		
		T+θ	$\frac{T+\theta}{\theta}$	PSIG		T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	0	Point	H	7008	120			5914
2	5			6663	125		1.954	5909
3	10			6369	130			5909
4	15			6236	135		2.000	5904
5	20			6171	140			5904
6	25			6107	145		2.041	5901
7	30	t	log t	6043	150			5901
8	35	θ	-	6016	155		2.079	5898
9	40		0.699	5995	160		2.087	5896
10	45		1.000	5984	165		2.114	5893
11	50		1.176	5976	170			5893
12	55		1.301	5963	175		2.146	5890
13	60		1.340	5952	180			5890
14	65		1.477	5941	185			5890
15	70		1.544	5939	190		2.190	5888
16	75			5939	195			5888
17	80		1.653	5936	200		2.217	5885
18	85			5936	205			5885
19	90		1.740	5931	210			5885
20	95		1.778	5928	215			5885
21	100		1.813	5925	220		2.267	5883
22	105		1.845	5920	225			5883
23	110			5920	230		2.290	5877
24	115		1.903	5914	235			5877



5 MIN DST PRESSURE INCREMENTS Points H to I

Recorder No. 2758

Depth 10512

Page 2 of 2

Points	INITIAL CIP			FINAL CIP				
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	240			5877	360			5859
2	245			5877	362	Point. I		5859
3	250			5877				
4	255			5877				
5	260			5877				
6	265		2.362	5875				
7	270		2.371	5872				
8	275			5872				
9	280			5872				
10	285			5872				
11	290		2.407	5869				
12	295	260		5869				
13	300		2.423	5867				
14	305			5867				
15	310		2.439	5864				
16	315			5864				
17	320			5864				
18	325	290	2.462	5861				
19	330			5861				
20	335	300		5861				
21	340			5861				
22	345			5861				
23	350			5861				
24	355		2.505	5859				



5 MIN DST PRESSURE INCREMENTS Points I to J (347 MINS)

Recorder No. 2758

Depth 10512

Page 1 of 2

Points	Time Defl. "	INITIAL CIP			Time Defl. "	FINAL CIP			
		T+θ	$\frac{T+\theta}{\theta}$	PSIG		T+θ	$\frac{T+\theta}{\theta}$	PSIG	
81 51 50 3 26 9 13 7 Y 0 5 7 9 3 3 7 2 7 6 4 1 8	0	NEED Point.	I	5859	120		.569	6917	123
	5		1.820	6589	125		.556	6920	120
	10		1.525	6690	130		.544	6923	117
	15		1.355	6727	135		.532	6925	115
	20		1.237	6754	140			6925	
	25		1.146	6781	145		.511	6931	109
	30		1.073	6797	150			6931	
	35		1.012	6813	155		.491	6933	107
	40		0.960	6826	160		.482	6936	104
	45		.915	6840	165			6936	
	50		.875	6845	170		.464	6939	101
	55		.839	6853	175		.456	6941	99
	60		.807	6861	180			6941	
	65		.778	6867	185		.440	6944	96
	70		.751	6877	190		.433	6947	93
	75		.727	6883	195			6947	
	80		.704	6893	200		.419	6950	90
	85			6893	205			6950	
	90			6893	210		.406	6952	88
	95		.646	6898	215		.400	6955	85
	100		.628	6904	220			6955	
	105		.612	6906	225			6955	82
	110		.597	6909	230		.383	6958	
	115		.583	6912	235		.377	6960	80



5 MIN DST PRESSURE INCREMENTS Points I to J

Recorder No. 2758

Depth 10512

Page 2 of 2

Points	Time Defl. "	INITIAL CIP			Time Defl. "	FINAL CIP		
		T+θ	$\frac{T+\theta}{\theta}$	PSIG		T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	240			6960				
2	245			6960				
3	250			6960				
4	255			6960				
5	260			6960				
6	265		1.348	6966				
7	270			6966				
8	275			6966				
9	280		1.330	6966				
10	285		1.330	6968				
11	290			6968				
12	295		1.323	6971				
13	300			6971				
14	305		1.315	6974				
15	310			6974				
16	315			6974				
17	320		1.304	6976				
18	325			6976				
19	330			6976				
20	335			6976				
21	340			6976				
22	345		1.288	6979				
23	347	Point	J	6979				
24								



5 MINS DST PRESSURE INCREMENTS Points J to K (360 MINS)

Recorder No. 2758

Depth 10512

Page 1 of 2

Points	INITIAL CIP			FINAL CIP				
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	0			6979	120			4957
2	5			6492	125			4954
3	10			6267	130			4946
4	15			5963	135			4941
5	20			5786	140			4941
6	25			5701	145			4935
7	30			5636	150			4930
8	35			5540	155			4924
9	40			5482	160			4919
10	45			5423	165			4914
11	50			5369	170			4914
12	55			5316	175			4903
13	60			5284	180			4897
14	65			5278	185			4892
15	70			5252	190			4887
16	75			5209	195			4881
17	80			5070	200			4878
18	85			5070	205			4870
19	90			5043	210			4870
20	95			5035	215			4865
21	100			5011	220			4865
22	105			4995	225			4865
23	110			4984	230			4859
24	115			4968	235			4854



5 MIN DST PRESSURE INCREMENTS Point J to K

Recorder No. 2758

Depth 10512

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	240			4851	360	Point	K	4814
2	245			4849				
3	250			4849				
4	255			4843				
5	260			4843				
6	265			4838				
7	270			4835				
8	275			4833				
9	280			4833				
10	285			4833				
11	290			4827				
12	295			4827				
13	300			4824				
14	305			4824				
15	310			4822				
16	315			4822				
17	320			4819				
18	325			4819				
19	330			4819				
20	335			4819				
21	340			4819				
22	345			4814				
23	350			4814				
24	355			4814				



5 MIN DST PRESSURE INCREMENTS Points B to E (735 MINS)

Recorder No. 2759

Depth 10517

Page 1 of 4

Points	Time Defl. "	INITIAL CIP			Time Defl. "	FINAL CIP		
		T + θ	$\frac{T + \theta}{\theta}$	PSIG		T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	0			5646	120			5791
2	5			5989	125			5699
3	10			5780	130			5608
4	15			5640	135			5570
5	20			5516	140			5522
6	25			5619	145			5479
7	30			5447	150			5436
8	35			5361	155			5415
9	40			5269	160			5374
10	45			5097	165			5374
11	50	Point C		5041	170			5371
12	55			6129	175			5369
13	60			6225	180			5369
14	65			6249	185			5369
15	70			6257	190			5355
16	75	Point D		6262	195			5350
17	80			6129	200			5339
18	85			6129	205			5331
19	90			6174	210			5331
20	95			6091	215			5331
21	100			5989	220			5331
22	105			5979	225			5331
23	110			5920	230			5328
24	115			5855	235			5322



5 MIN DST PRESSURE INCREMENTS Points B to E

Recorder No. 2759

Depth 10517

Page 2 of 4

Points	INITIAL CIP			FINAL CIP				
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	240			5317	360			5296
2	245			5317	365			5296
3	250			5317	370			5296
4	255			5315	375			5296
5	260			5312	380			5296
6	265			5312	385			5296
7	270			5309	390			5296
8	275			5307	395			5296
9	280			5307	400			5296
10	285			5307	405			5296
11	290			5307	410			5296
12	295			5309	415			5296
13	300			5307	420			5296
14	305			5304	425			5296
15	310			5304	430			5296
16	315			5301	435			5296
17	320			5301	440			5296
18	325			5299	445			5296
19	330			5296	450			5296
20	335			5296	455			5296
21	340			5296	460			5290
22	345			5296	465			5290
23	350			5296	470			5290
24	355			5296	475			5290



5 MIN DST PRESSURE INCREMENTS Points B to E

Recorder No. 2759

Depth 10517

Page 3 of 4

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T + Θ	$\frac{T + \Theta}{\Theta}$	PSIG	Time Defl. "	T + Θ	$\frac{T + \Theta}{\Theta}$	PSIG
1	480			5290	600			5267
2	485			5290	605			5267
3	490			5290	610			5267
4	495			5288	615			5267
5	500			5288	620			5267
6	505			5285	625			5267
7	510			5285	630			5267
8	515			5285	635			5267
9	520			5280	640			5267
10	525			5280	645			5267
11	530			5277	650			5267
12	535			5275	655			5267
13	540			5275	660			5267
14	545			5275	665			5267
15	550			5275	670			5264
16	555			5275	675			5264
17	560			5275	680			5264
18	565			5272	685			5264
19	570			5272	690			5261
20	575			5272	695			5261
21	580			5269	700			5258
22	585			5269	705			5258
23	590			5269	710			5256
24	595			5267	715			5256



5 MIN DST PRESSURE INCREMENTS Points E to F (690 MINS)

Recorder No. 2759

Depth 10517

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Points	INITIAL CIP			FINAL CIP				
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	0	Point	E	5256	120			6888
2	5			6444	125			6893
3	10			6594	130			6898
4	15			6647	135			6901
5	20			6680	140			6904
6	25			6706	145			6906
7	30			6733	150			6909
8	35			6754	155			6914
9	40			6770	160			6917
10	45			6784	165			6917
11	50			6792	170			6920
12	55			6808	175			6923
13	60			6818	180			6925
14	65			6826	185			6931
15	70			6834	190			6931
16	75			6840	195			6933
17	80			6851	200			6936
18	85			6856	205			6936
19	90			6861	210			6939
20	95			6867	215			6941
21	100			6872	220			6944
22	105			6877	225			6947
23	110			6883	230			6947
24	115			6888	235			6950



5 MIN DST PRESSURE INCREMENTS Points E to F

Recorder No. 2759

Depth 10517

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Points	INITIAL CIP			FINAL CIP				
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	240			6950	360			6981
2	245			6952	365			6979
3	250			6952	370			6981
4	255			6955	375			6981
5	260			6958	380			6984
6	265			6958	385			6984
7	270			6960	390			6984
8	275			6960	395			6984
9	280			6963	400			6984
10	285			6963	405			6987
11	290			6963	410			6989
12	295			6966	415			6989
13	300			6968	420			6989
14	305			6968	425			6989
15	310			6968	430			6992
16	315			6971	435			6992
17	320			6971	440			6992
18	325			6974	445			6992
19	330			6974	450			6992
20	335			6974	455			6995
21	340			6974	460			6995
22	345			6979	465			6995
23	350			6979	470			6995
24	355			6979	475			6997



5 MIN DST PRESSURE INCREMENTS Points E to F

Recorder No 2759

Depth 10517

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	480			6997	600			7015
2	485			7000	605			7015
3	490			7000	610			7015
4	495			7000	615			7015
5	500			7000	620			7015
6	505			7000	625			7015
7	510			7003	630			7015
8	515			7003	635			7015
9	520			7005	640			7015
10	525			7005	645			7019
11	530			7005	650			7019
12	535			7005	655			7019
13	540			7005	660			7019
14	545			7005	665			7019
15	550			7005	670			7019
16	555			7008	675			7019
17	560			7008	680			7019
18	565			7008	685			7019
19	570			7008	690	Point	F	7019
20	575			7008				
21	580			7008				
22	585			7008				
23	590			7008				
24	595			7015				



5 MIN DST PRESSURE INCREMENTS Points F to G (346 MINS)

Recorder No. 2759

Depth 10517

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Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	0			7019	120			6457
2	5			6626	125			6455
3	10			6610	130			6452
4	15			6695	135			6449
5	20			6594	140			6449
6	25			6562	145			6447
7	30			6540	150			6447
8	35			6535	155			6444
9	40			6535	160			6444
10	45			6535	165			6441
11	50			6532	170			6441
12	55			6527	175			6439
13	60			6522	180			6439
14	65			6519	185			6439
15	70			6516	190			6436
16	75			6514	195			6436
17	80			6514	200			6433
18	85			6514	205			6433
19	90			6482	210			6433
20	95			6471	215			6433
21	100			6471	220			6433
22	105			6466	225			6433
23	110			6463	230			6433
24	115			6460	235			6431



5 MIN DST PRESSURE INCREMENTS Points G to H (343 MINS)

Recorder No. 2759

Depth 10517

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Points	INITIAL CIP			FINAL CIP				
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	0			6420	120			6981
2	5			6792	125			6984
3	10			6845	130			6989
4	15			6872	135			6989
5	20			6888	140			6989
6	25			6904	145			6989
7	30			6914	150			6989
8	35			6923	155			6992
9	40			6931	160			6995
10	45			6936	165			6995
11	50			6941	170			6995
12	55			6947	175			6999
13	60			6950	180			6999
14	65			6955	185			6999
15	70			6958	190			6999
16	75			6963	195			7000
17	80			6966	200			7000
18	85			6966	205			7003
19	90			6968	210			7003
20	95			6974	215			7003
21	100			6974	220			7005
22	105			6976	225			7005
23	110			6979	230			7005
24	115			6979	235			7005



5 MIN DST PRESSURE INCREMENTS Points H to I (350 MINS)

Recorder No. 2759

Depth 10517

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Points	INITIAL CIP			FINAL CIP				
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	0			7019	120			5914
2	5			6572	125			5909
3	10			6332	130			5909
4	15			6203	135			5906
5	20			6161	140			5904
6	25			6086	145			5904
7	30			6038	150			5901
8	35			6011	155			5898
9	40			5989	160			5896
10	45			5979	165			5893
11	50			5968	170			5893
12	55			5952	175			5890
13	60			5947	180			5887
14	65			5941	185			5885
15	70			5941	190			5885
16	75			5939	195			5885
17	80			5936	200			5882
18	85			5933	205			5882
19	90			5931	210			5882
20	95			5928	215			5882
21	100			5925	220			5879
22	105			5920	225			5879
23	110			5920	230			5877
24	115			5917	235			5877



5 MIN DST PRESSURE INCREMENTS Points I to J (335 MINS)

Recorder No. 2759

Depth 10517

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Points	INITIAL CIP			FINAL CIP				
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	0			5858	120			6931
2	5			6631	125			6933
3	10			6711	130			6936
4	15			6760	135			6939
5	20			6786	140			6941
6	25			6802	145			6944
7	30			6824	150			6947
8	35			6837	155			6947
9	40			6845	160			6950
10	45			6856	165			6952
11	50			6864	170			6952
12	55			6872	175			6955
13	60			6883	180			6958
14	65			6888	185			6958
15	70			6893	190			6960
16	75			6896	195			6963
17	80			6901	200			6963
18	85			6904	205			6963
19	90			6909	210			6966
20	95			6914	215			6968
21	100			6918	220			6968
22	105			6922	225			6968
23	110			6925	230			6971
24	115			6928	235			6974



5 MIN DST PRESSURE INCREMENTS Points J to K (358 MINS)

Recorder No. 2759

Depth 10517

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	0	Point	J	6992	120			4960
2	5			6615	125			4946
3	10			6262	130			4943
4	15			6059	135			4943
5	20			5909	140			4935
6	25			5721	145			4930
7	30			5646	150			4924
8	35			5560	155			4919
9	40			5500	160			4916
10	45			5447	165			4914
11	50			5377	170			4908
12	55			5323	175			4903
13	60			5296	180			4897
14	65			5280	185			4892
15	70			5258	190			4887
16	75			5199	195			4881
17	80			5118	200			4876
18	85			5070	205			4870
19	90			5049	210			4870
20	95			5032	215			4865
21	100			5005	220			4865
22	105			4989	225			4889
23	110			4978	230			4857
24	115			4968	235			4854



5 MIN DST PRESSURE INCREMENTS Points J to K

Recorder No 2759

Depth 10517

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Points	INITIAL CIP			FINAL CIP				
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	240			4854	358	Point K		4816
2	245			4851				
3	250			4849				
4	255			4846				
5	260			4843				
6	265			4838				
7	270			4838				
8	275			4832				
9	280			4832				
10	285			4832				
11	290			4830				
12	295			4830				
13	300			4830				
14	305			4827				
15	310			4827				
16	315			4824				
17	320			4822				
18	325			4822				
19	330			4819				
20	335			4816				
21	340			4816				
22	345			4816				
23	350			4816				
24	355			4816				



5 MIN DST PRESSURE INCREMENTS Points C to E (758 MINS)

Recorder No. 2760

Depth 10522

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Points	INITIAL CIP			FINAL CIP				
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	0	Point B		5658	120			5877
2	5			6011	125			5797
3	10			5808	130			5716
4	15			5684	135			5658
5	20			5529	140			5621
6	25			5674	145			5562
7	30			5540	150			5529
8	35			5470	155			5492
9	40			5374	160			5476
10	45			5220	165			5465
11	50	Point C		5161	170			5460
12	55			5134	175			5444
13	60			6273	180			5439
14	65			6289	185			5433
15	70			6294	190			5433
16	75	Point D		6300	195			5423
17	80			6166	200			5412
18	85			6177	205			5407
19	90			6214	210			5401
20	95			6123	215			5401
21	100			6054	220			5401
22	105			6043	225			5401
23	110			5984	230			5396
24	115			5958	235			5396



5 MIN DST PRESSURE INCREMENTS Points C to E

Recorder No. 2760

Depth 10522

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Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	240			5391	360			5350
2	245			5385	365			5350
3	250			5385	370			5350
4	255			5380	375			5350
5	260			5380	380			5350
6	265			5380	385			5350
7	270			5380	390			5348
8	275			5378	395			5348
9	280			5374	400			5348
10	285			5374	405			5345
11	290			5364	410			5342
12	295			5364	415			5342
13	300			5364	420			5342
14	305			5364	425			5342
15	310			5364	430			5342
16	315			5364	435			5342
17	320			5364	440			5340
18	325			5358	445			5340
19	330			5353	450			5340
20	335			5353	455			5337
21	340			5353	460			5337
22	345			5353	465			5337
23	350			5350	470			5337
24	355			5350	475			5337



5 MIN DST PRESSURE INCREMENTS Point C to E

Recorder No. 2760

Depth 10522

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Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	480			5337	600			5313
2	485			5334	605			5313
3	490			5334	610			5313
4	495			5334	615			5313
5	500			5334	620			5313
6	505			5334	625			5313
7	510			5331	630			5313
8	515			5331	635			5313
9	520			5331	640			5313
10	525			5329	645			5313
11	530			5327	650			5313
12	535			5327	655			5313
13	540			5327	660			5313
14	545			5327	665			5312
15	550			5324	670			5312
16	555			5324	675			5308
17	560			5324	680			5308
18	565			5324	685			5308
19	570			5324	690			5308
20	575			5321	695			5308
21	580			5321	700			5305
22	585			5318	705			5305
23	590			5318	710			5305
24	595			5316	715			5302



5 MIN DST PRESSURE INCREMENTS Points E to F (702 MINS)

Recorder No. 2760

Depth 10522

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Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	0	Point	C	5294	120			6885
2	5			6514	125			6890
3	10			6616	130			6893
4	15			6664	135			6898
5	20			6690	140			6898
6	25			6717	145			6904
7	30			6743	150			6906
8	35			6759	155			6909
9	40			6772	160			6912
10	45			6786	165			6914
11	50			6797	170			6920
12	55			6807	175			6920
13	60			6818	180			6923
14	65			6824	185			6925
15	70			6834	190			6928
16	75			6842	195			6931
17	80			6845	200			6931
18	85			6851	205			6933
19	90			6861	210			6936
20	95			6869	215			6939
21	100			6872	220			6941
22	105			6872	225			6941
23	110			6877	230			6944
24	115			6883	235			6947



5 MIN DST PRESSURE INCREMENTS Points E to F

Recorder No. 2760

Depth 10522

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Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	240			6947	360			6976
2	245			6950	365			6976
3	250			6950	370			6976
4	255			6952	375			6979
5	260			6952	380			6979
6	265			6955	385			6979
7	270			6955	390			6981
8	275			6958	395			6981
9	280			6958	400			6984
10	285			6958	405			6984
11	290			6960	410			6984
12	295			6963	415			6987
13	300			6963	420			6987
14	305			6963	425			6987
15	310			6963	430			6987
16	315			6966	435			6989
17	320			6966	440			6989
18	325			6968	445			6989
19	330			6968	450			6989
20	335			6971	455			6989
21	340			6971	460			6992
22	345			6974	465			6992
23	350			6974	470			6992
24	355			6974	475			6992



5 MIN DST PRESSURE INCREMENTS Points E to F

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Recorder No. 2760

Depth 10522

Points	INITIAL CIP			FINAL CIP				
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	480			6995	600			7008
2	485			6995	605			7008
3	490			6995	610			7008
4	495			6995	615			7008
5	500			6995	620			7008
6	505			6997	625			7008
7	510			6997	630			7008
8	515			6997	635			7008
9	520			7000	640			7011
10	525			7000	645			7011
11	530			7000	650			7011
12	535			7000	655			7011
13	540			7000	660			7011
14	545			7000	665			7011
15	550			7003	670			7014
16	555			7003	675			7014
17	560			7003	680			7014
18	565			7003	685			7014
19	570			7003	690			7014
20	575			7005	695			7014
21	580			7005	700			7014
22	585			7005	702	Point	F	7014
23	590			7005				
24	595			7008				



5 MIN DST PRESSURE INCREMENTS Points F to G (355 MINS)

Recorder No. 2760

Depth 10522

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Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	0	Point	F	7014	120			6449
2	5			6616	125			6449
3	10			6605	130			6447
4	15			6690	135			6444
5	20			6616	140			6444
6	25			6567	145			6441
7	30			6543	150			6439
8	35			6530	155			6439
9	40			6530	160			6439
10	45			6530	165			6439
11	50			6524	170			6433
12	55			6519	175			6433
13	60			6514	180			6433
14	65			6508	185			6433
15	70			6508	190			6433
16	75			6508	195			6431
17	80			6508	200			6431
18	85			6506	205			6428
19	90			6506	210			6428
20	95			6476	215			6428
21	100			6460	220			6428
22	105			6460	225			6428
23	110			6457	230			6428
24	115			6455	235			6423



5 MIN DST PRESSURE INCREMENTS Points F to G

Recorder No. 2760

Depth 10522

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Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	240			6423				
2	245			6423				
3	250			6423				
4	255			6423				
5	260			6423				
6	265			6423				
7	270			6423				
8	275			6423				
9	280			6423				
10	285			6420				
11	290			6420				
12	295			6417				
13	300			6417				
14	305			6417				
15	310			6417				
16	315			6417				
17	320			6417				
18	325			6415				
19	330			6415				
20	335			6415				
21	340			6415				
22	345			6415				
23	350			6415				
24	355	Point	G	6415				



5 MIN DST PRESSURE INCREMENTS Points G to H (350 MINS)

Recorder No. 2760

Depth 10522

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Points	INITIAL CIP			FINAL CIP				
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	0			6415	120			6979
2	5			6818	125			6984
3	10			6856	130			6984
4	15			6877	135			6984
5	20			6893	140			6984
6	25			6904	145			6987
7	30			6914	150			6989
8	35			6923	155			6989
9	40			6928	160			6992
10	45			6933	165			6992
11	50			6939	170			6992
12	55			6941	175			6995
13	60			6949	180			6995
14	65			6952	185			6997
15	70			6958	190			6997
16	75			6960	195			6997
17	80			6963	200			6997
18	85			6966	205			7000
19	90			6968	210			7000
20	95			6968	215			7000
21	100			6974	220			7003
22	105			6974	225			7003
23	110			6976	230			7003
24	115			6976	235			7005



5 MINDST PRESSURE INCREMENTS Points H to I (355 MINS)

Recorder No 2760

Depth 10522

Page 1 of 2

Points	INITIAL CIP			FINAL CIP				
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	0	Point	H	7016	120			5909
2	5			6958	125			5909
3	10			6958	130			5906
4	15			6958	135			5904
5	20			6958	140			5904
6	25			6086	145			5904
7	30			6038	150			5904
8	35			6011	155			5904
9	40			6000	160			5893
10	45			5979	165			5893
11	50			5968	170			5893
12	55			5958	175			5890
13	60			5952	180			5888
14	65			5941	185			5888
15	70			5941	190			5888
16	75			5936	195			5888
17	80			5936	200			6885
18	85			5931	205			6885
19	90			5931	210			6885
20	95			5925	215			5883
21	100			5925	220			5883
22	105			5920	225			5877
23	110			5914	230			5877
24	115			5914	235			5877



5 MINDST PRESSURE INCREMENTS Points H to I

Recorder No. 2760

Depth 10522

Points	INITIAL CIP			FINAL CIP				
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	240			5877				
2	245			5877				
3	250			5875				
4	255			5875				
5	260			5875				
6	265			5872				
7	270			5872				
8	275			5869				
9	280			5869				
10	285			5869				
11	290			5867				
12	295			5867				
13	300			5867				
14	305			5864				
15	310			5864				
16	315			5864				
17	320			5864				
18	325			5864				
19	330			5864				
20	335			5861				
21	340			5861				
22	345			5861				
23	350			5861				
24	355	Point	I	5861				



5 MIN DST PRESSURE INCREMENTS Points I to J (336 MINS)

Recorder No. 2760

Depth 10522

Page 1 of 2

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	0			5861	120			6931
2	5			6594	125			6933
3	10			6791	130			6939
4	15			6797	135			6939
5	20			6797	140			6939
6	25			6797	145			6947
7	30			6807	150			6947
8	35			6824	155			6947
9	40			6837	160			6950
10	45			6845	165			6952
11	50			6856	170			6952
12	55			6888	175			6958
13	60			6888	180			6958
14	65			6888	185			6958
15	70			6888	190			6958
16	75			6898	195			6963
17	80			6906	200			6963
18	85			6906	205			6963
19	90			6906	210			6966
20	95			6909	215			6968
21	100			6912	220			6968
22	105			6920	225			6968
23	110			6928	230			6968
24	115			6931	235			6971



5 MIN DST PRESSURE INCREMENTS Points J to K (373 MINS)

Recorder No. 2760

Depth 10522

Page 1 of 2

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	0	Point	J	6989	120			5005
2	5			6780	125			4989
3	10			6155	130			4981
4	15			6150	135			4973
5	20			6150	140			4967
6	25			6043	145			4962
7	30			5845	150			4956
8	35			5682	155			4951
9	40			5647	160			4946
10	45			5567	165			4940
11	50			5535	170			4935
12	55			5492	175			4932
13	60			5407	180			4927
14	65			5353	185			4924
15	70			5327	190			4913
16	75			5300	195			4908
17	80			5294	200			4902
18	85			5273	205			4899
19	90			5161	210			4897
20	95			5107	215			4891
21	100			5075	220			4888
22	105			5059	225			4883
23	110			5038	230			4883
24	115			5016	235			4880



5 MIN DST PRESSURE INCREMENTS Points J to K

Recorder No. 2760

Depth 10522

Page 2 of 2

Points	INITIAL CIP				FINAL CIP			
	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG	Time Defl. "	T + θ	$\frac{T + \theta}{\theta}$	PSIG
1	240			4878	360			4832
2	245			4872	365			4832
3	250			4869	370			4832
4	255			4869	373	Point K		4832
5	260			4869				
6	265			4864				
7	270			4861				
8	275			4859				
9	280			4853				
10	285			4853				
11	290			4851				
12	295			4848				
13	300			4848				
14	305			4848				
15	310			4845				
16	315			4842				
17	320			4842				
18	325			4842				
19	330			4842				
20	335			4840				
21	340			4837				
22	345			4837				
23	350			4834				
24	355			4834				

DRILL STEM TEST NUMBER SIX C

PRESSURE READINGS

Point	Recorder # 2758	Recorder # 2759	Recorder # 2760
A	7878	7867	7871
B	5647	5646	5658
C	5027	5041	5161
D	6257	6262	6300
E	5244	5256	5294
F	7008	7019	7014
G	6417	6420	6415
H	7008	7019	7016
I	5859	5858	5861
J	6979	6992	6989
K	4814	4816	4832

DRILL STEM TEST NUMBER SIX C

	Recorder # 2758	Recorder # 2759	Recorder # 2760
Point A to Point B	8	8	8
Point B to Point C	45	50	50
Point C to Point D	25	25	25
Point D to Point E	698	660	683
Point E to Point F	723	690	702
Point F to Point G	361	346	355
Point G to Point H	359	343	350
Point H to Point I	362	350	355
Point I to Point J	347	335	336
Point J to Point K	360	358	373

The following is a comparison of the times from the charts and the times recorded at the surface.

	Surface	# 2758	# 2759	# 2760
Point A to C	48 min	53 min	58 min	58 min
Point C to E	720 min	723 min	685 min	708 min
Point E to F	720 min	723 min	690 min	702 min
Point F to G	360 min	361 min	346 min	355 min
Point G to H	360 min	359 min	343 min	350 min
Point H to I	360 min	362 min	350 min	355 min
Point J to K	360 min	347 min	335 min	336 min
Point K to L	360 min	360 min	358 min	373 min

DRILL STEM TEST NUMBER SIX C

Test Started 1754 Hrs. May 13, 1970

Test Completed 0042 Hrs. May 16, 1970

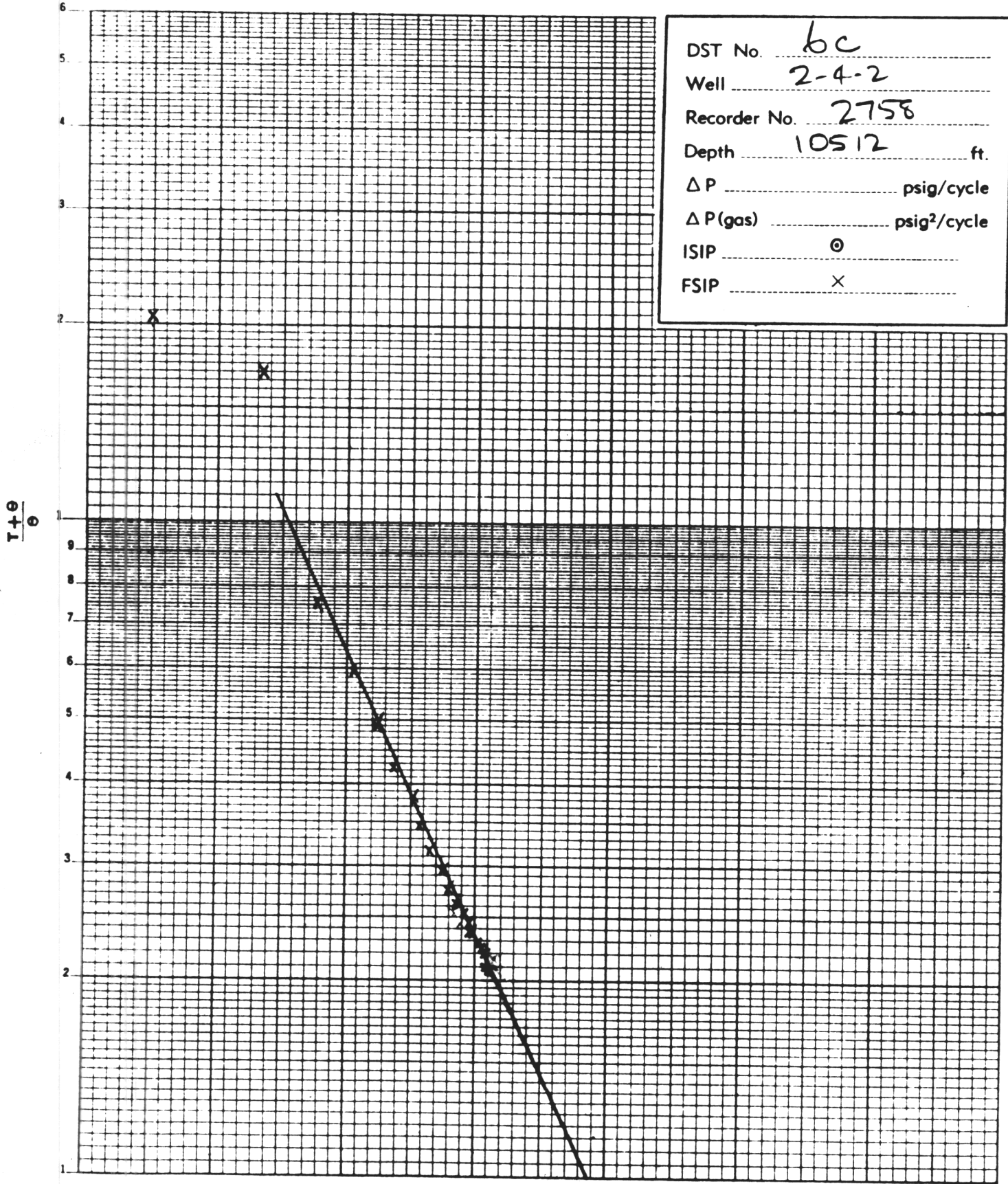
Recorder Number 2758 10512'

Recorder Number 2759 10517'

Recorder Number 2769 10522'

Operation	Time		Length of Test		Choke Size	Wellhead	
	From	To	Hrs.	Mins.		Press PSIA	Temp. F
Clean Up	1754	1842		48			
Flow No. 1	1842	0642	12		40/64	1875	128
Shut-in No. 1	0642	1842	12		None	4071	
Flow No. 2	1842	0042	6		18/64	3390	92
Shut-in No. 2	0042	0642	6		None	4099	
Flow No. 3	0642	1242	6		28/64	2615	122
Shut-in No. 3	1242	1842	6		None	4047	
Flow No. 4	1842	0042	6		2 48/64 ^m	1205	140

DST No. bc
 Well 2-4-2
 Recorder No. 2758
 Depth 10512 ft.
 ΔP psig/cycle
 ΔP (gas) psig²/cycle
 ISIP \odot
 FSIP \times



6700 6800 6900 7000 7100 7200 7200 7300