

Formation Pressures



DEPTH		HYDROSTATIC MUD PRESSURE		FORMATION PRESSURE		COMMENTS
mRKB	TVDmMSL	before	after	(HP-gauge)		
		psia	psia	psia	bara	
RUN 2A						
1780.5	1762.5	4155.8	4155.5	-	-	Tight formation
1781.1	1763.1	4157.0	4157.8	3610.4	248.9	Low permeability
1805.9	1787.9	4214.4	4214.9	-	-	Lost seal
1809.6	1791.6	4224.4	4224.3	3649.0	251.6	Low permeability
2284.6	2266.6	5324.7	5325.3	5045.0	347.9	Good permeability
2286.1	2268.1	5327.8	5328.2	5047.5	348.0	V.good permeability
2287.0	2269.0	5329.6	5330.0	5048.8	348.1	Good permeability
2288.1	2270.1	5331.3	5331.8	5050.2	348.2	V.good permeability
2289.1	2271.1	5333.7	5334.2	5051.8	348.3	V.good permeability
2300.0	2272.0	5359.0	5359.4	5067.6	349.4	V.good permeability
2317.1	2299.1	5398.2	5398.7	5091.9	351.1	Good permeability
2326.0	2308.0	5419.0	5419.3	5104.8	352.0	V.good permeability
2340.6	2322.6	5452.5	5452.8	5125.5	353.4	Good permeability
2355.0	2337.0	5485.6	5485.3	5146.2	354.8	Good permeability
1779.1	1761.1	4158.7	4157.5	-	-	Tight formation
1778.0	1760.0	4153.9	4120.9	-	-	Tight formation
1780.5	1762.5	4155.7	4155.7	3609.4	248.9	Good permeability, segregated sample attempted
<p>Segregated sample attempted at 1781.8 and 1780.3 mRKB, nothing recovered due to tight formation.</p> <p>Sample attempted (1 gallon chamber) at 2284.5 mRKB, probe/flowline plugged while sampling.</p>						
RUN 2B						
2284.6	2266.6	Segregated sample attempted, probe/flowline plugged during sampling.				
RUN 2C						
2284.7	2266.7	5324.8	5324.3	5045.8	347.9	Segregated sample

REMARKS:

The pressures are temperature corrected

RKB: 18 m

Formation Fluid Samples



RUN NO.	DEPTH mRKB		2 3/4 gal chamber		1 gal chamber	
2A	1780.5	Opening pressure	:	0	psia	
		Gas	:	0	cuft	
		Oil	:	0	cc	
		Mud/water	:	1000	cc	
	2284.5	Opening pressure	:		0	psia
		Gas	:		0	cuft
		Oil	:		200	cc
		Mud/water	:		1150	cc

REMARKS: Segregated sample also attempted at 1781.8 and 1780.3 mRKB, nothing recovered due to tight formation, tool moved to 2284.5 mRKB, probe/flowline plugged while sampling 1 gallon chamber.

2B	2284.5	Opening pressure	:	0	psia
		Gas	:	0	cuft
		Oil	:	200	cc
		Mud/water	:	1300	cc

REMARKS: Probe/flowline plugged during sampling 2 3/4 gallon chamber.

2C	2284.6	Opening pressure	:	650	psia	725	psia
		Gas	:	1	cuft	0.2	cuft
		Oil	:	300	cc	40	cc
		Mud/water	:	10000	cc	2800	cc

REMARKS: 1 gallon chamber sent to Geco for PVT analysis

REMARKS: RKB: 18m

Well Test 34/7-18



Test no. 1 (1770-1783.5 mRBK); Pressure behaviour and well fluid gradient

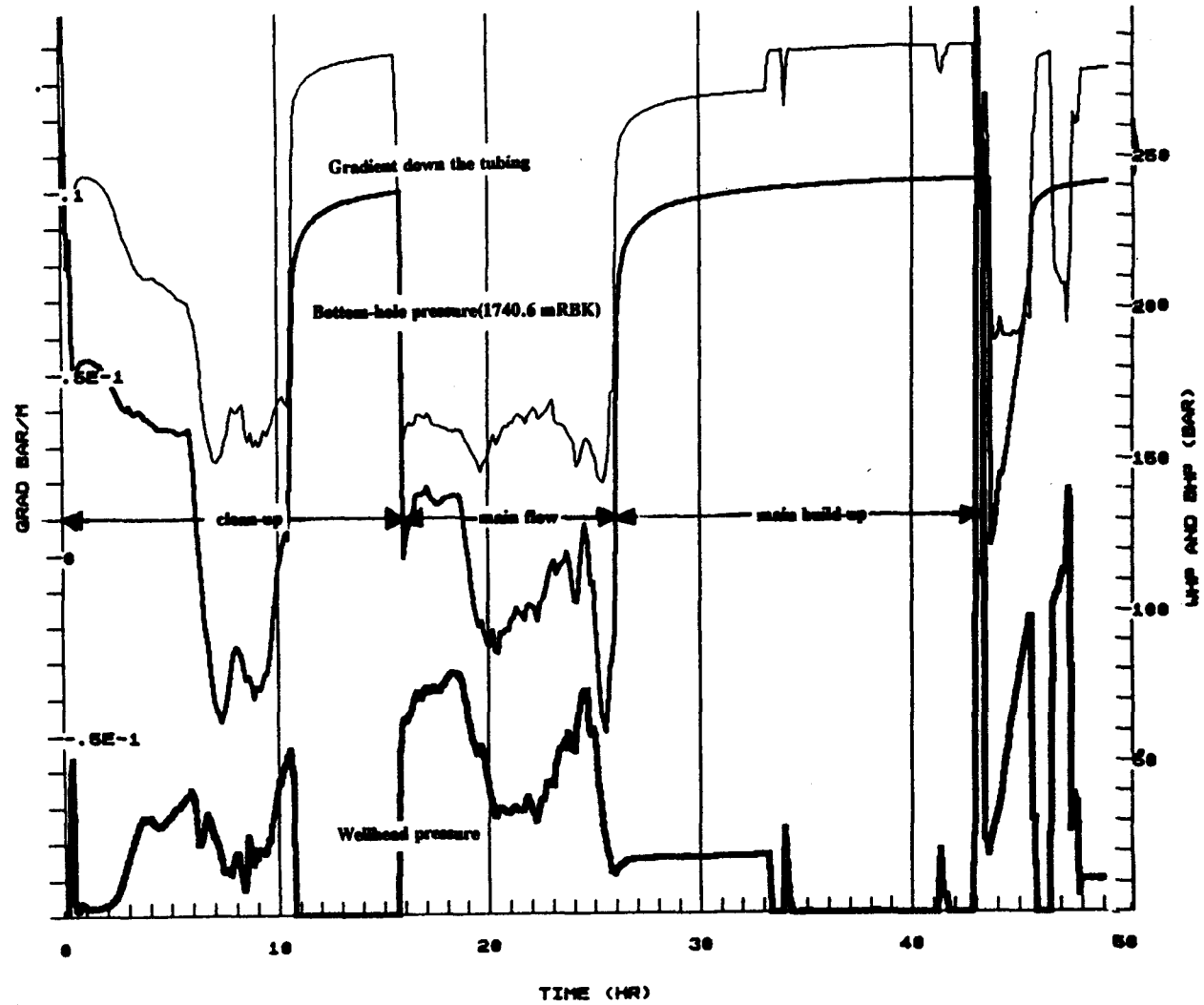


Figure 5.2 Test performance 34/7-18

Well Test 34/7-18



Clean-up flow

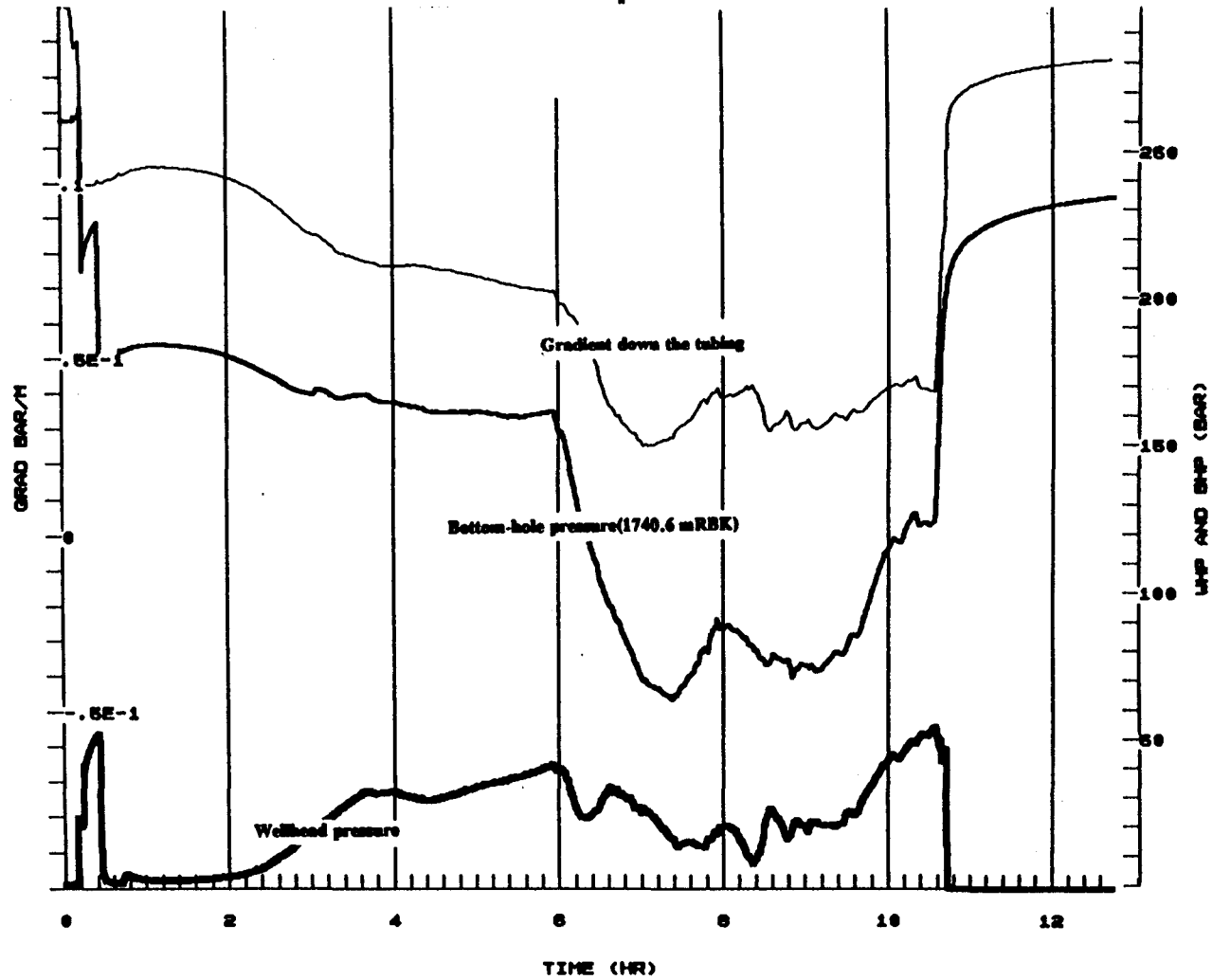


Figure 5.3 Test performance 34/7-18, clean-up flow

Well Test 34/7-18



Main flow

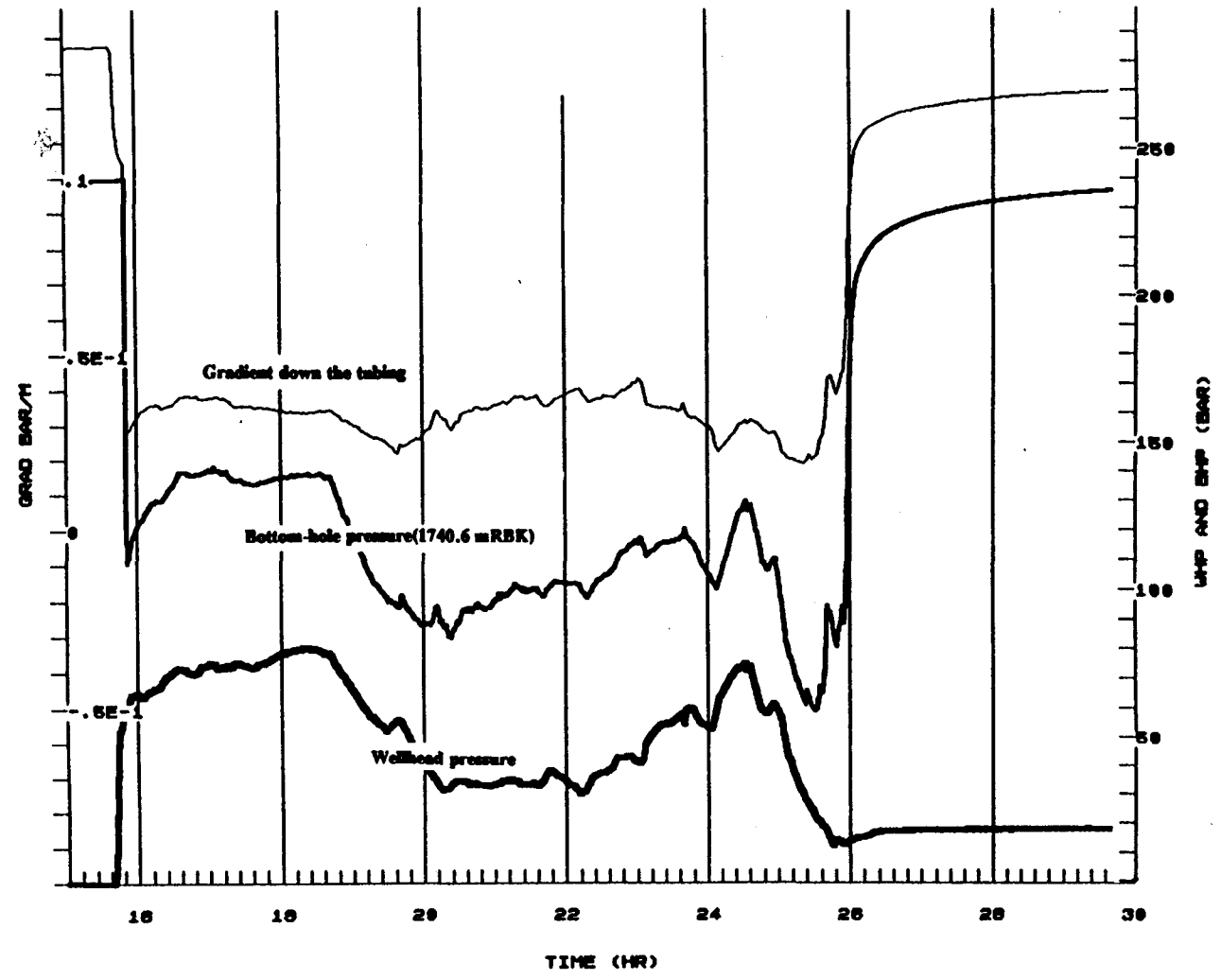


Figure 5.4 Test performance 34/7-18, main flow

Well Test 34/7-18



After main build-up

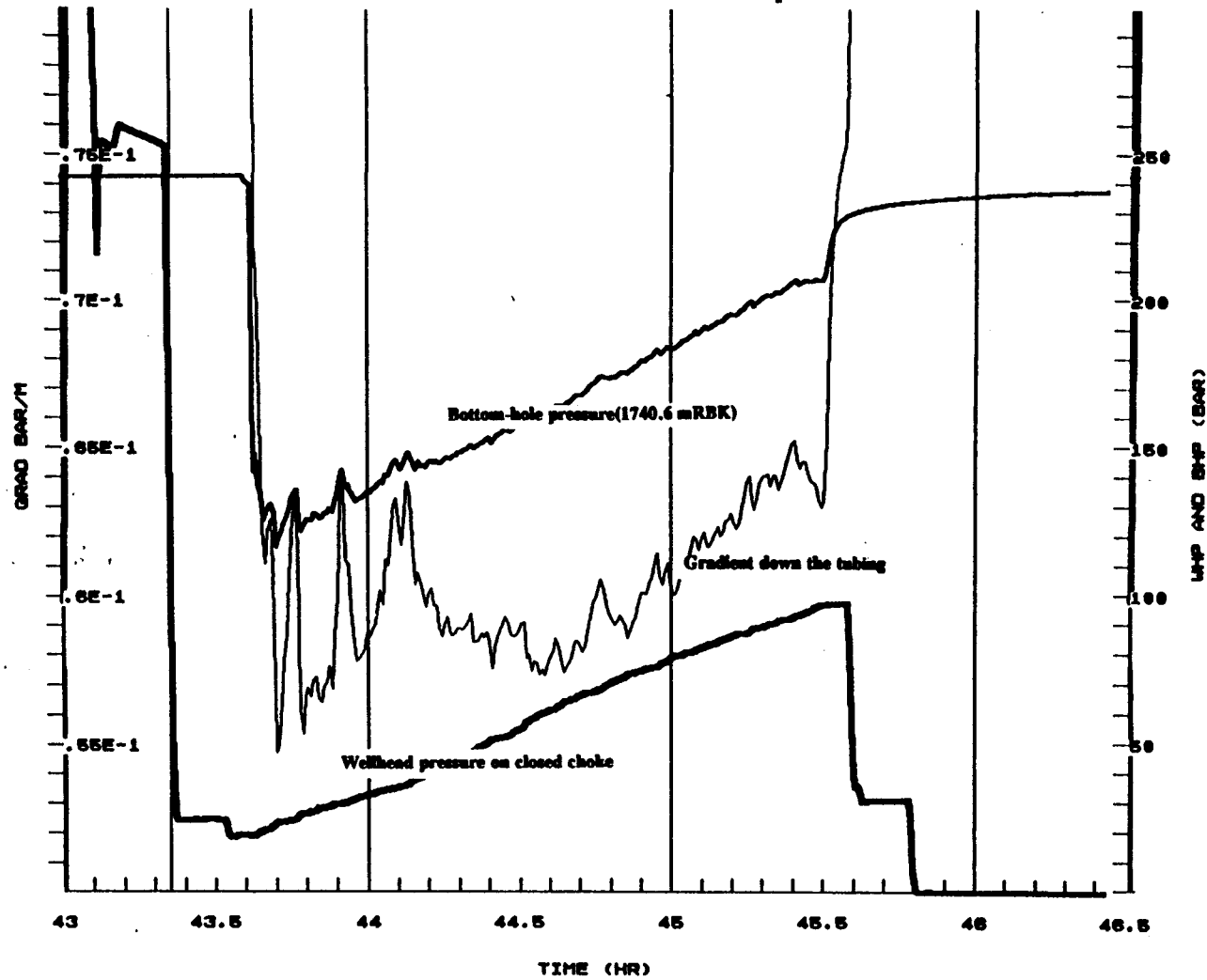
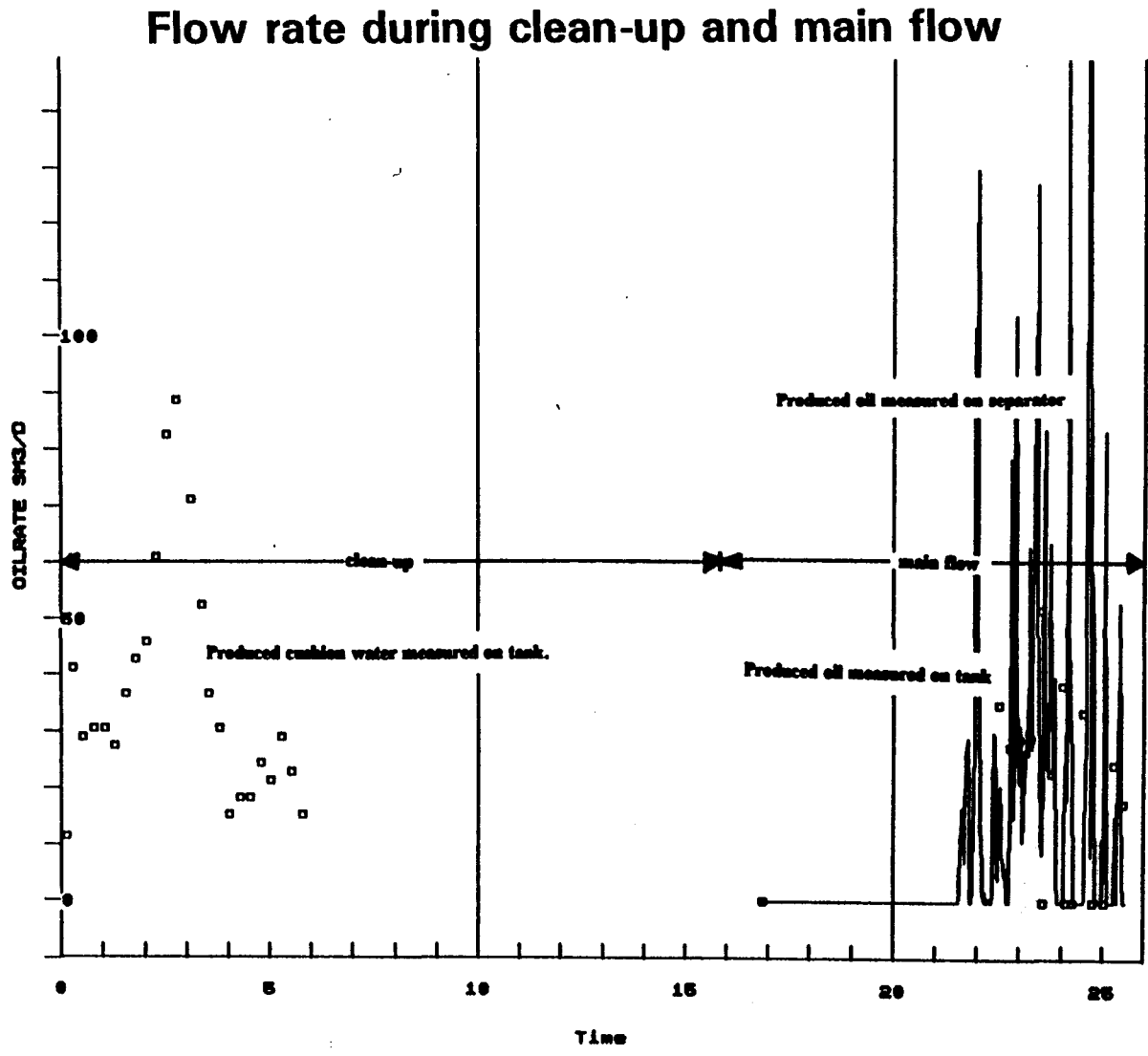


Figure 5.5 Test performance 34/7-18, after main build-up.

Well Test 34/7-18



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Figure 5.6 Oil rate measured during flow periods.

Well Test 34/7-18



Measured gas rate during main flow

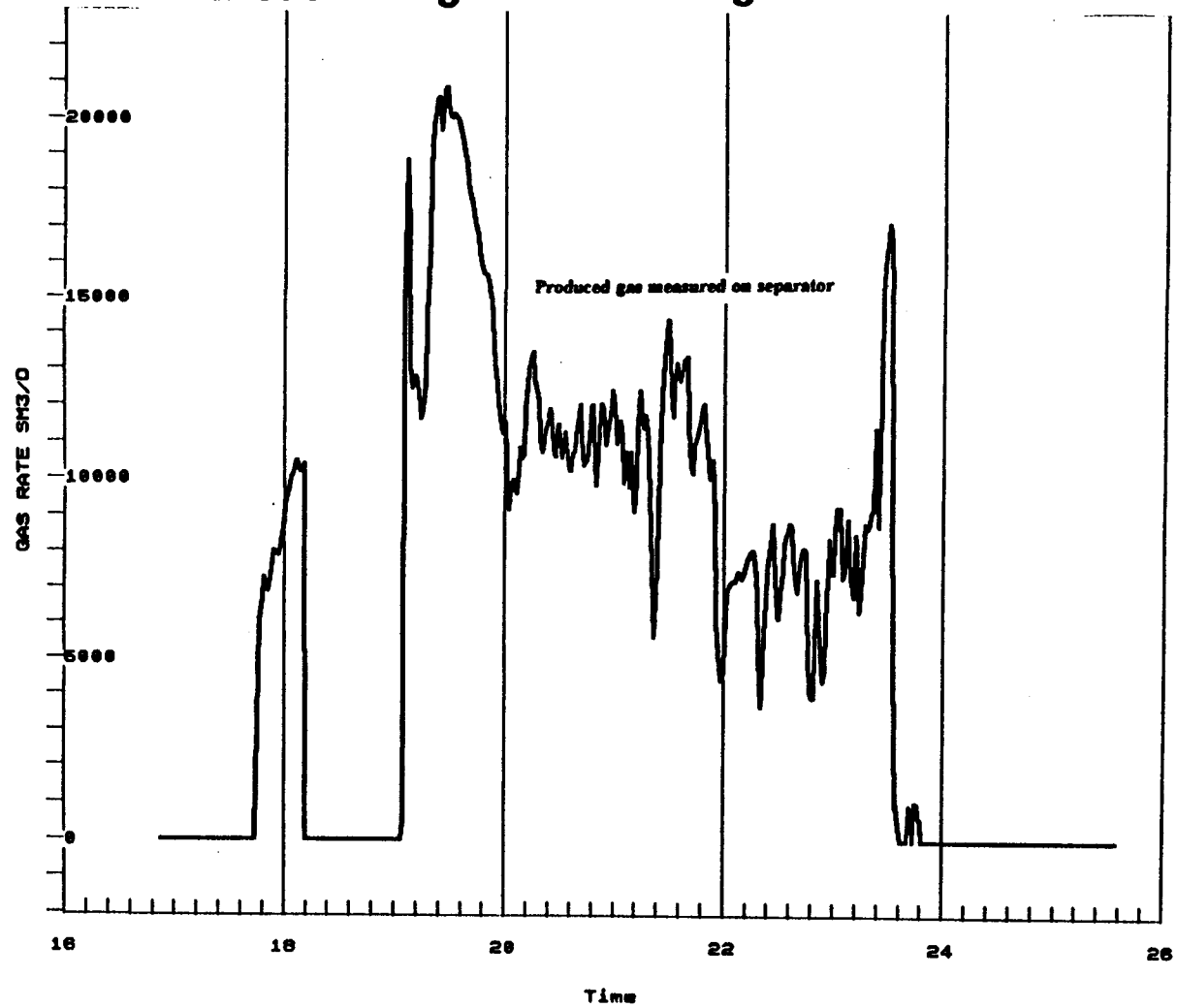
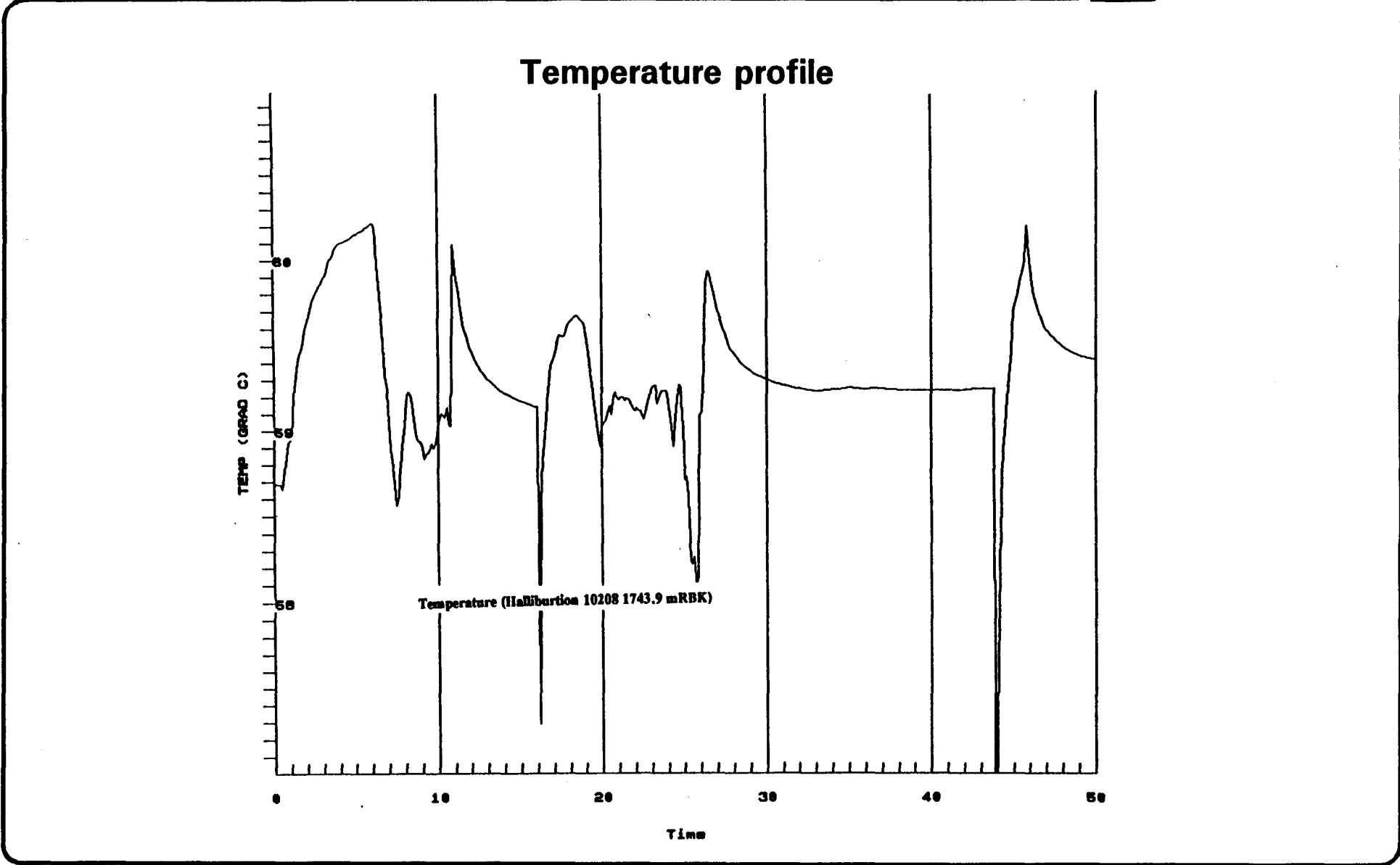


Figure 5.7 Gas rate measured during main flow period.

Well Test 34/7-18



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Figure 5.8 Temperature profile during test 34/7-18

Well: 34/7-18

Date	Hole size	Hole depth	Mud weight	PV	YP	Gel strength	pH	Alkalinity Pf /Mf	Ca++ mg/l	Cl- mg/l	Sand %	Solids %	Mudtype
910716	PSPUD					/		/					WATER BASED
910717	PSPUD					/		/					WATER BASED
910718	PSPUD					/		/					WATER BASED
910719	PSPUD					/		/					WATER BASED
910720	36"	361.0	1.05			/		/					SPUD MUD
910721	9 7/8"	386.0	1.05			/		/					SPUD MUD
910722	9 7/8"	1115.0	1.05			/		/					SPUD MUD
910723	26"	1115.0	1.05			/		/					SPUD MUD
910724	26"	1115.0	1.20			/		/					SPUD MUD
910725	26"	1115.0	1.20			/		/					SPUD MUD
910726	26"	1115.0	1.30			/		/					KCL MUD
910727	17 1/2"	1115.0	1.30	34.0	26.0	5/9	8.0	/ .2	160	45000		7.4	KCL MUD
910728	17 1/2"	1121.0	1.30	23.0	17.0	3/5	8.4	.0/.2	200	45000		6.5	KCL MUD
910729	17 1/2"	1359.0	1.36	28.0	19.0	3/5	8.1	.0/.5	640	46000		10.7	KCL MUD
910730	17 1/2"	1404.0	1.47	24.0	20.0	4/6	8.0	.0/1.0	640	51000		13.6	KCL MUD
910731	17 1/2"	1409.0	1.45	28.0	20.0	4/	8.2	.0/1.0	560	55000		13.4	KCL MUD
910801	17 1/2"	1423.0	1.30	28.0	21.0	4/8	8.5	.0/1.0	540	55000		8.7	KCL MUD
910802	17 1/2"	1611.0	1.30	28.0	26.0	5/8	8.1	.0/1.0	560	54000		8.2	KCL MUD
910803	17 1/2"	1681.0	1.35	31.0	26.0	5/8	8.1	.0/1.0	540	56000		7.7	KCL MUD
910804	17 1/2"	1681.0	1.35	30.0	25.0	5/7	8.4	.0/1.0	580	56000		9.6	KCL MUD
910805	17 1/2"	1770.0	1.44	29.0	24.0	5/7	9.5	.1/.9	900	54000		12.9	KCL MUD
910806	17 1/2"	1730.0	1.40	35.0	25.0	6/10	11.5	.1/.8	1160	51000		12.3	KCL MUD
910807	17 1/2"	1730.0	1.44	31.0	23.0	5/8	12.1	.2/.8	1120	51000		13.1	KCL MUD
910808	17 1/2"	1730.0	1.44	21.0	23.0	5/8	12.1	.2/.8	1120	51000		13.1	KCL MUD
910809	17 1/2"	1730.0	1.44	21.0	23.0	5/8	12.1	.2/.8	1120	51000		13.1	KCL MUD
910810	17 1/2"	1730.0	1.44	30.0	22.0	5/7	8.5	.1/1.2	400	51000		13.1	KCL MUD
910811	12 1/4"	1730.0	1.45	31.0	22.0	6/8	9.8	.2/1.3	360	51000		13.6	KCL MUD

Well: 34/7-18

Date	Hole size	Hole depth	Mud weight	PV	YP	Gel strength	pH	Alkalinity Pf /Mf	Ca++ mg/l	Cl- mg/l	Sand %	Solids %	Mudtype
910812	12 1/4"	1775.0	1.50	29.0	17.0	5/8	12.4	1.2/2.5	480	50000		14.1	KCL MUD
910813	12 1/4"	1775.0	1.51	29.0	18.0	5/9	11.2	.4/1.5	800	50000	.8	15.8	KCL MUD
910814	12 1/4"	1782.0	1.50	29.0	18.0	5/9	11.2	.4/1.5	800	50000	.8	15.8	KCL MUD
910815	12 1/4"	1782.0	1.51	29.0	19.0	5/14	12.0	.5/2.7	640	49000	1.2	15.8	KCL MUD
910816	12 1/4"	1782.0	1.51	23.0	19.0	5/8	12.3	.7/3.2	520	49000	1.0	15.8	KCL MUD
910817	12 1/4"	1782.0	1.50	21.0	18.0	5/8	12.3	.7/3.7	480	47000	.8	15.8	KCL MUD
910818	12 1/4"	1879.0	1.56	24.0	21.0	6/14	11.6	.3/3.0	600	52000	.5	17.8	KCL MUD
910819	12 1/4"	2110.0	1.62	29.0	26.0	9/30	8.5	.2/2.6	520	60000	.3	20.4	KCL MUD
910820	12 1/4"	2179.0	1.65	31.0	21.0	10/30	8.5	.1/2.5	560	6200		21.0	KCL MUD
910821	12 1/4"	2285.0	1.65	29.0	17.0	8/27	8.3	.1/1.7	600	58000		21.4	KCL MUD
910822	12 1/4"	2286.0	1.65	29.0	18.0	8/25	8.3	.1/1.6	600	58000		21.4	KCL MUD
910823	12 1/4"	2286.0	1.65	29.0	16.0	5/15	8.4	.1/2.7	600	56000		21.6	KCL MUD
910824	12 1/4"	2286.0	1.65	30.0	20.0	5/13	8.4	.1/2.8	600	57000		21.4	KCL MUD
910825	12 1/4"	2286.0	1.65	37.0	24.0	6/13	8.3	.1/2.9	660	60000		21.3	KCL MUD
910826	12 1/4"	2286.0	1.65	37.0	24.0	6/13	8.3	.1/2.9	660	60000		21.3	KCL MUD
910827	12 1/4"	2286.0	1.65	37.0	24.0	6/13	8.3	.1/2.9	660	60000	.5	21.3	KCL MUD
910828	12 1/4"	2286.0	1.65	32.0	18.0	5/9	8.3	.1/2.5	640	59000		21.4	KCL MUD
910829	12 1/4"	2233.0	1.65	31.0	18.0	4/9	8.5	.1/2.5	680	54000		21.4	KCL MUD
910830	12 1/4"	2237.0	1.65	30.0	17.0	4/8	9.5	.1/2.6	720	59000		21.4	KCL MUD
910831	8 1/2"	2237.0	1.55	24.0	17.0	3/7	9.5	.1/2.5	720	59000		17.7	KCL MUD
910901	DST#1	2237.0	1.55	26.0	30.0	7/25	9.5	.1/2.5	720	59000		17.7	KCL MUD
910902	DST#1	2237.0	1.55	26.0	30.0	7/25	9.5	.1/2.5	720	59000		17.7	KCL MUD
910903	DST#1	2237.0	1.55	26.0	30.0	7/25	9.5	.1/2.5	720	59000		17.7	KCL MUD
910904	DST#1	2237.0	1.55	26.0	30.0	7/25	9.5	.1/2.5	720	59000		17.7	KCL MUD
910905	DST#1	2237.0	1.55	26.0	30.0	7/25	9.5	.1/2.5	720	59000		17.7	KCL MUD
910906	DST#1	2237.0	1.55	26.0	30.0	7/25	9.5	.1/2.5	720	59000		17.7	KCL MUD
910907	DST#1	2237.0	1.55	26.0	27.0	6/15	9.0	.1/2.6	720	59000		17.7	KCL MUD

Well: 34/7-18

Date	Hole size	Hole depth	Mud weight	PV	YP	Gel strength	pH	Alkalinity Pf /Mf	Ca++ mg/l	Cl- mg/l	Sand %	Solids %	Mudtype
910908	DST#1	2237.0	1.55	26.0	27.0	6/15	9.0	.1/2.5	720	59000		17.7	KCL MUD
910909	P&A	2237.0	1.55	26.0	27.0	6/15	9.0	.1/2.5	720	59000		17.7	KCL MUD
910910	P&A	2237.0	1.55	26.0	24.0	5/12	10.2	.1/2.4	860	59000		17.7	KCL MUD
910911	P&A	2237.0	1.54	27.0	25.0	6/16	10.5	.1/2.5	860	59000		17.7	KCL MUD
910912	P&A					/		/					KCL MUD
910913	P&A					/		/					KCL MUD
910914	P&A					/		/					KCL MUD
910915	P&A					/		/					KCL MUD
910916	P&A					/		/					KCL MUD
910917	P&A					/		/					KCL MUD

Final Well Report 34/7-18

Materials	Unit	36" Hole	26" Hole	17 1/2" Hole	12 1/4" Hole	Total
ANTISOL FL 3000	25 kg	-	-	1	42	43
Antisol FL 30	25 kg	-	-	468	123	591
BARITE	M/T	-	137	485	457	1079
BENTONITE SXS.	50 k	23	32	-	-	55
Barascav-D	25 kg	-	-	51	24	75
CAUSTIC SODA	25 k	15	22	-	105	142
Citric Acid	25 kg	-	-	141	-	141
Condet	55 gal	-	-	1	3	4
EZ Mud DP	25 kg	-	-	110	98	208
KCL - sxs	25 kg	-	-	200	500	700
KCl Brine	m3	-	-	389	86	475
Liquid Casing	25 lbs	-	-	103	-	103
MICA C/F	SXS	-	5	28	-	33
Nut plug F/M/C	25 kg	-	20	31	-	51
POT. BICARBONAT	50 kg	-	-	172	-	172
Pot. Bicarbonat	25 kg	-	-	-	237	237
SODA ASH	50 k	15	26	-	-	41
Therma-Thin	25 kg	-	-	-	2	2
XC-POLYMER	25 kg	-	-	-	36	36

Table 6.2.2 Mud Materials Used