

Formation Pressure Worksheet

Well no 7228/9-1	RKB-MSL 23.5 m	Witnessed/ by Dons/Eide	Page 2 of 3
Pressure units Bar A	Rig Ross Rigg		Date 05.02.90

Run no./ Test no.	Depth (MD) m RKB	IHP (bar)	FP (bar)	FHP (bar)	Permability remarks
4B/1	1277.5	155.09	137.24	155.07	Good
4B/2	1321.0	160.28	141.94	160.24	Fair
4B/3	1329.0	161.25	142.97	161.22	Fair
4B/4	1396.0	169.22	150.70	169.26	Fair
4B/5	1410.0	171.00	152.38	170.97	Fair
4B/6	1436.0	174.14	155.33	174.06	Good
4B/7	1451.0	175.90	157.05	-	Mistest
4B/7A	1451.0	175.89	157.09	175.90	Very good
4B/8	1464.0	177.47	158.55	177.44	Very good
4B/9	1529.5	185.40	-	185.32	Nil
4B/10	1604.0	194.38	172.22	194.34	Moderate
4B/11	1607.0	194.69	172.53	194.68	Moderate
4B/12	1638.0	198.52	= 179 ?	198.50	Very poor
4B/13	1642.5	199.04	178.92	199.02	Moderate ?
4B/14	1677.0	203.24	-	203.20	Moderate ?
4B/15	1751.0	212.20	-	-	Retracted too soon
4B/16	1751.0	212.12	188.65	212.07	Very poor
4B/17	1808.0	219.07	-	218.97	-
4B/18	1847.0	223.74	201.78	223.64	Very poor
4B/19	1863.0	225.59	-	225.56	Dry test
4B/20	1885.0	228.27	-	228.17	Dry test
4B/21	2096.5	253.69	-	253.64	Dry test
4B/22	2138.0	258.72	-	-	Seal failure
4B/23	2138.5	258.61	-	258.65	Dry test
4B/24	2167.0	262.17	-	262.17	Dry test
4B/25	2212.0	267.53	-	267.52	Dry test
4B/26	2223.0	268.88	228.82	268.88	Poor
4B/27	2274.0	275.16	-	275.04	Dry test
4B/28	2403.0	290.46	-	290.49	Dry test

HYDRO

Formation Fluid Sampling		Well No.: 7228/9-1		Date: 04 - 05.02.90	
Pretest No.: 5 + 24		Sample depth: 1091,5 m		Witnesses: Dons/Eide	
Run No.: 2 A	Sample No.: 2A	1 st Chamber	2nd Chamber	3rd Chamber	
Chamber volume (gals./litres)		6 GAL = 22,7 l	1 Gal = 3,75 l	-	
Chamber No.			RFS 1051		
Filling time (mins)		28 min	6 min		
Shut in pressure (BAR)/T °C		115,804 / 37°	115,803 / 37,5°	/	
Chamber pressure (surface BAR)/T °C		No Pressure / *1	Sealed /	/	
Gas volume (SCF/Sm ³)		10 cm ³			
Oil volume (litres)		0 *2			
Oil gravity (AAPI/gm/cc)		-			
Water/Filtrate (litres)		20 l			
Water/Filtrate PPM C1 K ⁺ = 11500		120 000			
Water filtrate pH/pF/Ca ⁺⁺ PPM		6,4 / 0 / 40	/ /	/ /	
Mud filtrate PPM C1 [*]		37 000	/ /	/ /	
Mud filtrate pH/pF/Ca ⁺⁺ K ⁺ = 42000		8,8 / 0,11 / 400			
Gas composition % C1 PPM		10894 , 10315			
C2		246 , 302			
C3		249 , 0			
IC4		142 , 0			
NC4		0 , 0			
H2S		None *3			
CO2		-			

Remarks: Chokes used: 4 x 0,020" - 30 min filling time for 6 gal.

Draw down pressure: 111,96 bar on 6 gal

112,87 bar on 1 gal

*1 No pressure on surface when opening 6 gal chamber.

Only 10 cc gass collected in ballon in front of water when draining 6 gal.

*2 Possible 1 micron thick film of "oil" floating on water, but may well be contamination.

*3 Good smell of "rotten eggs" from 6 gal water, but no H₂S registered on H₂S meter.

- Water resistivity measured by Schlumberger to 0.059 ohmm @ 15°C

Depth (m RKB)	Res.press. (bars)	Res.temp. (°C)	Resistiv. ohmm (at 20 °C)	Density (g/cc)
1091.5	115.8	37.5	0.0505	1.142

Content of Cations and Anions (mg/l)		
Sodium	:	79143
Potassium	:	5640
Calcium	:	1690
Magnesium	:	1040
Strontium	:	53
Barium	:	39
Iron	:	4
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Chloride	:	130500
Sulfate	:	897

RFT run no. 3A

Depth (m RKB)	Res.press. (bars)	Res.temp. (°C)	Resistiv. ohmm (at 20 °C)	Density (g/cc)
1607.0	171.05	37.5	0.0505	1.142

Content of Cations and Anions (mg/l)		
Sodium	:	7330.0
Potassium	:	31700.0
Calcium	:	167.0
Magnesium	:	109.0
Strontium	:	8.0
Barium	:	1.4
Iron	:	30.0
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Chloride	:	39680.0
Sulfate	:	500.0
Bicarbonate	:	640.0

RFT run no. 4B

Depth (m RKB)	Res.press. (bars)	Res.temp. (°C)	Gas/water ratio (Sm ³ /Sm ³)	Gas gravity (air= 1)
1607.0	171.05	53.3	0.701	0.57

Fraction	Weight (%)	Mole (%)
N	3.727	2.242
CO2	1.159	0.443
C1	91.335	95.658
C2	1.916	1.071
C3	0.980	0.373
i-C4	0.199	0.058
n-C4	0.239	0.069
i-C5	0.099	0.023
n-C5	0.074	0.017
C6	0.084	0.017
C7	0.100	0.018
C8	0.065	0.010
C9	0.012	0.002
C10	0.000	0.000

TABLE B-10

((((ooo) ----- Norsk Hydro		Daily mud properties															Data 5/11-1990								
		System : BORE																							
		Well: 7228/9-1																							
		Mud Contractor: PROMUD																							
		Data: "Mid depth" from table 3, otherwise from table 14.															14.								
Date	Mid. depth m,MD	Mud Dens. (SG)	PV cp	YP Pa	GEL 0 Pa	GEL 10 Pa	pH	100 psi (cc)	HP/HT (cc)	Cl- inn/out mg/l	Alkalinity			Ca++ inn/out mg/l	Oil %	Sol %	H2O %	V.G meter at 115 gr. F					Mud Type		
											Pf	Pm	Mf					600 rpm	300 rpm	200 rpm	100 rpm	6 rpm		3 rpm	
891221	301	1.46	27	9														73	46	36	23	7	5	SPUD	
891222	363	1.20	1	1																					SPUD
891223	366	1.20	7	40														97	90	87	83	69	57	SPUD	
891224	366	1.20	8	39														98	90	88	85	70	58	SPUD	
891225	377	1.20	7	37														92	85	83	78	60	47	SPUD	
891226	780	1.05	6	40														96	90	87	85	68	55	SPUD	
891227	964	1.20	4	36				18.0										82	78	72	70	54	51	SPUD	
891228	964	1.20	3	36														81	78	71	68	53	51	SPUD	
891229	964	1.20	3	36														82	79	71	69	53	50	SPUD	
891230	964	1.20	2	36														80	78	70	67	52	48	SPUD	
891231	964	1.13	2	35														77	75	67	64	50	45	SPUD	
900101	964	1.10	2	36														78	76	67	65	50	44	SPUD	
900102	964	1.05	8	39														98	90	87	83	70	57	SPUD	
900103	302	1.05	10	42														107	97	93	85	68	59	SPUD	
900104	379	1.05	9	42														105	96	92	89	67	60	SPUD	
900105	379	1.05	8	43														106	98	93	89	68	61	SPUD	
900106	435	1.50	10	43														109	97	99				SPUD	
900107	302	1.50	11	42														110	99	94	86	67	62	SPUD	
900108	430	1.50	12	43			9.5			40/								114	102	97	88	69	64	SPUD	
900109	430	1.50	10	45			9.5			40/								114	104	98	89	70	65	SPUD	
900110	430	1.50	11	44			9.5			40/								114	103	98	88	70	64	SPUD	
900111	430	1.50	12	43			9.5			40/								114	102	98	87	70	64	SPUD	
900112	430	1.50	11	44			9.5			40/								114	103	98	88	70	64	SPUD	
900113	430	1.50	11	44			9.5			40000/								114	103	98	88	70	64	SPUD	
900114	430	1.50	11	44			9.5			40000/								114	103	98	88	70	64	SPUD	
900115	430	1.03	10	42			9.5											107	97	93	85	68	59	SPUD	
900116	780	1.03	10	42			9.5											107	97	93	85	68	59	CMC	
900117	864	1.03	10	43			9.0											109	99	97	88	68	58	CMC	
900118	965	1.03	9	42			8.6											105	96	93	84	62	54	CMC	
900119	965	1.03	21	28			8.0											100	79	64	49	9	7	PAC	
900120	965	1.03	29	40			8.0											142	113	97	70	14	11	POLYMER	
900121	965	1.03	31	36			8.0											138	107	89	66	13	11	POLYMER	
900122	965	1.05	16	9	1	2	9.0	6.0		44/	0.10	0.20	0.30	40/		4		50	34	26	18	5	3	KCL/POLYMER	
900123	965	1.05	16	9	1	2	9.0	6.0		44000/	0.10	0.20	0.30	40/		4		50	34	26	18	5	3	KCL/POLYMER	
900124	965	1.05	16	9	1	2	9.0	6.0		44000/	0.10	0.20	0.30	40/		4		50	34	26	18	5	3	KCL/POLYMER	
900125	965	1.17	17	9	1	2	9.6	6.0		43000/	0.10	0.20	0.30	40/		5		52	35	27	17	5	3	KCL/POLYMER	
900126	965	1.17	17	8	1	2	9.6	6.0		43000/	0.10	0.20	0.30	40/		5		51	34	26	17	4	3	KCL/POLYMER	
900127	965	1.17	17	8	1	2	9.6	6.0		42000/	0.10	0.20	0.30	40/		5		51	34	26	16	4	3	KCL/POLYMER	
900128	968	1.17	17	8	1	2	9.6	6.0		42000/	0.10	0.20	0.30	40/		5		50	33	25	25	4	3	KCL/POLYMER	
900129	1043	1.17	16	8	1	1	9.5	5.4		39000/	0.10	0.20	0.30	200/		5		48	32	24	15	3	2	KCL/POLYMER	
900130	1052	1.17	16	8	1	2	9.3	4.7		42000/	0.10	0.20	0.30	200/		6		48	32	26	15	3	2	KCL/POLYMER	
900131	1095	1.17	18	10	1	2	9.0	4.2		42000/	0.10	0.10	0.40	280/		6		56	38	29	19	4	3	KCL/POLYMER	
900201	1146	1.17	18	9	1	2	9.0	4.3		43000/	0.10	0.10	0.50	280/		4		55	37	29	18	4	3	KCL/POLYMER	
900202	1146	1.18	17	8	1	2	9.0	4.3		42000/	0.10	0.10	0.50	280/		4		50	33	26	16	4	3	KCL/POLYMER	

Daily mud properties

Date
5/11-1990

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System : BORE

Norsk
Hydro

Well: 7228/9-1
Mud Contractor: PROMUD
Data: "Mid depth" from table 3, otherwise from table 14.

14.

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Date	Mid. depth m, MD	Mud Dens. (SG)	PV cp	YP Pa	GEL 0 Pa	GEL 10 Pa	pH	100 psi (cc)	HP/HT (cc)	Cl- inn/out mg/l	Alkalinity			Ca++ inn/out mg/l	Oil %	Sol %	H2O %	V.G 600 rpm	meter 300 rpm	at 200 rpm	115 100 rpm	gr. 6 rpm	F 3 rpm	Mud Type
											Pf	Pm	Mf											
900203	1277	1.17	16	8	1	2	9.0	4.6		40000/	0.10	0.10	0.70	280/		5		48	32	25	15	4	3	KCL/POLYMER
900204	1305	1.17	18	9	1	2	8.8	4.2		38000/	0.10	0.10	0.70	400/		7		54	36	28	18	4	3	KCL/POLYMER
900205	1330	1.17	17	9	1	2	8.7	4.4		39000/38500	0.10	0.10	0.70	200/		7		53	36	21	18	4	3	KCL/POLYMER
900206	1349	1.17	17	9	1	2	8.8	4.1		40000/40000	0.10	0.10	0.50	240/		7		52	35	27	18	4	3	KCL/POLYMER
900207	1353	1.17	17	8	1	2	8.6		13.8	40000/39000	0.10	0.10	0.70	240/		7		50	33	28	17	4	3	KCL/POLYMER
900208	1556	1.17	15	8	1	2	8.5		13.8	47000/47000	0.10	0.10	0.70	220/		7		46	31	20	13	4	3	KCL/POLYMER
900209	1700	1.17	14	7	1	2	8.3	3.1	13.6	46000/46000	0.05	0.10	0.65	360/		7		47	28	18	12	3	2	KCL/POLYMER
900210	1796	1.22	15	7	1	2	8.4	3.0	13.6	46000/45500	0.10	0.10	0.70	340/		12		47	29	21	15	3	0	KCL/POLYMER
900211	1919	1.22	17	9	1	2	8.4	4.0	14.0	42000/42000	0.10	0.10	0.70	380/		12		52	35	25	16	4	3	KCL/POLYMER
900212	2026	1.22	16	9	1	2	8.4	4.0	14.0	46000/	0.10	0.10	0.80	400/		12		50	34	26	20	5	4	KCL/POLYMER
900213	2055	1.22	16	9	3	5	8.4	4.0	14.0	42000/	0.10	0.10	0.80	400/		12		50	34	25	19	5	4	KCL/POLYMER
900214	2130	1.22	15	9	2	4	8.4	4.0		40000/	0.10	0.10	0.80	380/		12		47	32	24	11	3	2	KCL/POLYMER
900215	2263	1.22	14	8	2	4	8.4	4.4		43500/	0.10	0.10	0.80	300/		12		44	30	25	17	5	3	KCL/POLYMER
900216	2300	1.22	16	9	2	5	8.4	4.4		42000/	0.10	0.10	0.80	300/		12		50	34	25	17	5	3	KCL/POLYMER
900217	2351	1.22	16	9	2	5	8.4	4.8		44000/	0.10	0.10	0.80	320/		12		50	34	26	17	5	3	KCL/POLYMER
900218	2386	1.22	14	10	2	5	8.4	4.3		43000/	0.10	0.10	0.80	300/		12		48	34	27	19	6	5	KCL/POLYMER
900219	2431	1.22	15	10	2	4	8.4	4.4		43500/	0.10	0.10	0.80	300/		12		49	34	24	18	6	4	KCL/POLYMER
900220	2489	1.22	16	9	2	4	8.3	4.6		44000/	0.10	0.10	0.80	300/		12		49	33	22	17	6	4	KCL/POLYMER
900221	2534	1.22	15	9	2	4	8.6	4.4		44000/	0.10	0.10	0.80	200/		12		48	33	22	16	6	4	KCL/POLYMER
900222	2574	1.22	17	9	2	4	8.4	4.4		44000/	0.10	0.10	0.60	200/		12		53	36	25	17	5	3	KCL/POLYMER
900223	2588	1.22	18	8	2	4	8.5	4.6	13.2	43000/	0.10	0.10	0.70	160/		12		52	34	26	16	5	3	KCL/POLYMER
900224	2605	1.22	18	10	2	4	8.8	4.7		42000/	0.10	0.10	0.70	120/		12		56	38	29	19	6	4	KCL/POLYMER
900225	2614	1.22	17	8	2	4	8.7	4.5		42000/	0.10	0.10	0.70	120/		12		50	33	24	15	5	3	KCL/POLYMER
900226	2614	1.22	18	9	2	3	8.6	4.4		43000/	0.10	0.10	0.60	120/		12		54	36	26	16	4	3	KCL/POLYMER
900227	2614	1.22	18	9	2	3	8.6	4.2		43000/	0.10	0.10	0.60	120/		12		54	36	26	16	4	3	KCL/POLYMER
900228	2614	1.22	18	9	2	3	8.5	4.3		43000/	0.10	0.10	0.60	120/		12		55	37	26	16	4	3	KCL/POLYMER
900301	2614	1.22	18	8	2	4	8.6	4.4	13.8	42000/	0.10	0.10	0.70	200/		12		52	34	26	17	5	3	KCL/POLYMER
900302	2614	1.22	18	9	2	4	8.7	4.3		42000/	0.10	0.10	0.70	200/		12		54	36	27	17	5	3	KCL/POLYMER
900303	2614	1.22	17	8	2	3	8.8	4.1		42000/	0.10	0.10	0.60	120/		12		50	33	24	15	4	3	KCL/POLYMER
900304	2644	1.22	20	9	2	4	10.9	4.5		42000/	0.70	1.20	1.50	80/		12		58	38	28	17	5	3	KCL/POLYMER
900305	2664	1.22	18	8	2	4	10.3	4.1	18.4	43000/	0.60	1.00	1.40	80/		12		52	34	26	16	4	3	KCL/POLYMER
900306	2668	1.22	18	9	2	4	10.1	4.0		43000/	0.40	0.90	1.20	100/		12		54	36	27	17	5	3	KCL/POLYMER
900307	2717	1.22	20	8	2	4	9.8	4.1		44000/	0.30	0.60	0.90	80/		12		57	37	28	18	4	3	KCL/POLYMER
900308	2796	1.22	18	9	4	8	9.3	3.9	18.8	45000/	0.20	0.40	0.80	100/		12		53	35	25	17	5	3	KCL/POLYMER
900309	2865	1.22	21	8	4	8	9.0	4.0	18.4	45000/	0.10	0.20	0.70	120/		12		58	37	27	18	5	3	KCL/PAC/PAH
900310	2880	1.22	19	8	4	8	9.0	3.9	18.4	45000/	0.10	0.20	0.70	160/		12		55	36	26	18	5	3	KCL/POLYMER
900311	2906	1.22	17	7	4	8	9.2	3.9	18.9	45000/	0.10	0.20	0.70	120/		12		48	31	23	14		3	KCL/POLYMER
900312	2979	1.22	18	9	4	8	9.1	4.0	17.6	45000/	0.10	0.20	0.70	160/		12		53	35	26	16	5	4	KCL/POLYMER
900313	3054	1.22	21	9	4	8	9.1	3.5	17.2	48000/	0.10	0.20	0.60	160/		12		61	40	30	21	6	4	KCL/POLYMER
900314	3130	1.22	21	8	4	8	9.1	3.8	17.6	48000/	0.10	0.20	0.60	120/		12		59	38	28	18	5	4	KCL/POLYMER
900315	3197	1.22	20	8	2		9.2	3.6	17.0	46500/	0.10	0.20	0.60	120/		12		56	36	27	18	5	4	KCL/POLYMER
900316	3286	1.22	20	8	4	8	9.2	3.5	17.4	47000/	0.10	0.20	0.60	120/		12		56	36	27	17	5	4	KCL/POLYMER
900317	3364	1.22	20	8	4	8	9.0	3.3	17.2	48000/	0.10	0.10	0.60	120/		12		56	36	27	17	5	3	KCL/POLYMER

Daily mud properties

Date
5/11-1990

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System : BORE

Well: 7228/9-1
Mud Contractor: PROMUD
Data: "Mid depth" from table 3, otherwise from table 14.

14. 4

Date	Mid. depth m,MD	Mud Dens. (SG)	PV cp	YP Pa	GEL 0 Pa	GEL 10 Pa	pH	100 psi (cc)	HP/HT (cc)	Cl- inn/out mg/l	Alkalinity			Ca++ inn/out mg/l	O11 %	Sol %	H2O %	V.G. 600 rpm	meter at 115 gr. F				Mud Type	
											Pf	Pm	Mf						300 rpm	200 rpm	100 rpm	6 rpm		3 rpm
900318	3403	1.22	19	7	4	9	8.9	3.5	17.2	48000/	0.10	0.10	0.60	160/		12		52	33	25	15	6	4	KCL/POLYMER
900319	3423	1.22	17	8	4	8	8.9	3.5	17.2	48000/	0.10	0.10	0.60	160/		12		50	33	23	17	4	3	KCL/POLYMER
900320	3560	1.25	21	8	2	4	9.1	3.4	17.2	48000/	0.10	0.10	0.70	160/		13		57	36	25	16	4	3	KCL/POLYMER
900321	3660	1.25	20	7	1	2	9.1	3.4		48000/	0.10	0.10	0.70	160/	1	12	87	54	34	23	14	4	3	KCL/POLYMER
900322	3686	1.25	20	7	1	2	9.0	3.4		48000/	0.10	0.10	0.70	160/	1	12	87	34	34	24	15	4	3	KCL/POLYMER
900323	3727	1.25	20	7	1	3	8.7	3.6	15.4	49000/	0.10	0.10	0.80	120/		13		54	34	25	15	3	2	KCL/POLYMER
900324	3756	1.25	20	7	1	2	8.7	3.6	14.6	49000/	0.10	0.10	0.70	120/		13		54	34	25	15	3	2	KCL/POLYMER
900325	3874	1.25	18	8	1	3	8.7	4.1	14.4	49000/	0.10	0.10	1.00	120/		13		52	34	25	16	4	2	KCL/POLYMER
900326	3929	1.25	18	7	1	3	8.7	3.9	15.4	49000/	0.10	0.10	1.00	120/	1	13	86	50	32	25	15	3	2	KCL/POLYMER
900327	3943	1.25	18	7	2	5	8.6	4.2		49000/	0.10	0.10	1.10	120/	1	13	86	50	32	25	16	5	4	KCL/POLYMER
900328	3987	1.25	17	7	2	6	9.0	4.3	16.2	49000/	0.10	0.20	1.10	80/	1	13	86	48	31	24	16	5	4	KCL/POLYMER
900329	3995	1.25	17	7	3	7	8.9	4.1		49000/	0.10	0.20	1.10	80/	1	13	86	49	32	24	16	6	5	KCL/POLYMER
900330	3996	1.25	18	7	2	7	8.9	4.0	16.6	49000/	0.10	0.20	1.10	80/	1	15	84	50	32	25	16	6	5	KCL/POLYMER
900331	4000	1.25	17	7	2	7	9.0	9.2		49000/	0.10	0.20	1.30	80/	1	13	86	48	31	24	16	6	5	KCL/POLYMER
900401	4010	1.25	18	7	3	7	8.9	4.1	1.4	49000/	0.10	0.20	1.30	80/	1	13	86	51	33	25	17	6	5	KCL/POLYMER
900402	4018	1.25	17	7	2	6	8.7	4.1	16.8	49000/	0.10	0.20	1.30	70/	1	13	86	49	32	24	16	5	4	KCL/POLYMER
900403	4042	1.25	19	7	2	7	9.0	3.6		49000/	0.10	0.30	1.40	80/	1	13	86	53	34	26	17	5	4	KCL/POLYMER
900404	4052	1.25	19	7	3	7	9.0	3.5		49000/	0.20	0.30	1.40	80/	1	13	86	52	33	25	17	5	4	KCL/POLYMER
900405	4080	1.25	18	7	2	6	8.7	3.4		48000/	0.10	0.20	1.30	100/		13		50	32	25	15	5	3	KCL/POLYMER
900406	4099	1.25	19	7	3	6	8.9	3.5		49000/	0.10	0.20	1.30	100/		13		52	33	25	46	5	3	KCL/POLYMER
900407	4109	1.25	19	7	2	6	9.1	3.4	16.4	47000/	0.10	0.30	1.30	120/		13		53	34	26	16	5	4	KCL/POLYMER
900408	4146	1.25	18	7	2	5	8.9	3.4	17.6	48000/	0.10	0.20	1.10	126/		13		51	33	24	15	5	3	KCL/POLYMER
900409	4162	1.25	18	7	2	5	8.8	3.3	17.4	48000/	0.10	0.20	1.10	100/		13		51	33	24	15	5	3	KCL/POLYMER
900410	4192	1.25	20	7	2	6	8.9	3.0	17.0	49000/	0.10	0.20	1.20	100/		13		55	35	26	15	5	3	KCL/POLYMER
900411	4192	1.25	20	7	2	5	8.8	3.2	16.6	48000/	0.10	0.30	1.10	80/		13		54	34	25	14	4	3	KCL/POLYMER
900412	4192	1.25	21	7	2	5	8.8	3.4	16.2	48000/	0.10	0.20	1.00	100/		13		56	35	26	16	4	3	KCL/POLYMER
900413	4192	1.25	20	7	2	5	8.7	3.2	17.6	48000/	0.10	0.20	1.00	100/		13		53	33	24	14	4	2	KCL/POLYMER
900414	4192	1.25	23	7	2	5	8.7	3.1	17.2	48000/	0.10	0.20	1.00	80/		13		60	37	28	17	5	3	KCL/POLYMER
900415	4192	1.25	24	7	2	6	8.7	3.4	17.6	47000/	0.10	0.20	1.10	120/		13		62	38	29	17	4	3	KCL/POLYMER
900416	4192	1.25	23	7	2	5	8.6	3.6	18.2	46000/	0.10	0.20	1.10	120/		13		60	37	27	16	4	3	KCL/POLYMER
900417	4193	1.25	20	7	2	7	8.6	4.4	20.4	46000/	0.50	1.00	2.70	60/		13		53	33	24	14	5	3	KCL/POLYMER
900418	4241	1.25	18	7	2	6	9.6	3.6	21.6	49000/	0.50	1.00	3.00	40/		13		49	31	23	14	5	3	KCL/POLYMER
900419	4269	1.25	21	7	2	6	9.6	3.6	22.2	49000/49000	0.40	0.80	2.80	40/40		13		56	35	26	16	5	3	KCL/POLYMER
900420	4300	1.25	23	7	2	5	9.5	3.6	21.0	48000/	0.40	0.70	2.50	40/		13		58	36	25	15	5	3	KCL/POLYMER
900421	4319	1.25	21	6	2	5	9.5	3.4	20.0	48000/	0.40	0.60	2.50	40/		13		54	33	26	15	5	3	KCL/POLYMER
900422	4325	1.25	19	7	2	5	9.3	3.4	23.0	48000/	0.30	0.40	2.40	40/		13		52	33	25	16	5	4	KCL/POLYMER
900423	4368	1.25	21	8	2	6	9.0	3.0	22.0	48000/	0.20	0.30	2.00	40/		13		58	37	28	17	5	4	KCL/POLYMER
900424	4375	1.25	21	6	2	5	8.9	2.9	22.0	48000/	0.20	0.30	2.00	60/		13		54	33	26	16	5	3	KCL/POLYMER
900425	4418	1.25	21	6	2	5	8.5	3.4	23.0	51000/	0.10	0.20	1.50	680/		13		54	33	24	14	5	3	KCL/POLYMER
900426	4445	1.25	20	6	2	5	9.0	3.1		48000/	0.10	0.20	1.40	800/		13		52	32	23	14	4	3	KCL/POLYMER
900427	4458	1.38	19	4	1	2	9.0	2.4	27.4	188000/	0.10	0.20	1.10	800/		20		46	27	19	11	2	2	KCL/POLYMER
900428	4491	1.38	18	4	1	2	8.7	2.5	28.0	192000/	0.10	0.20	1.10	880/		20		44	26	19	11	2	2	KCL/POLYMER
900429	4600	1.38	21	5	1	2	9.2	2.3		192000/	0.10	0.30	1.00	880/		20		53	32	22	12	3	2	KCL/POLYMER

((((ooo)	Daily mud properties	Date 5/11-1990
System : BORE		
Well: 7228/9-1		
Mud Contractor: PROMOD		
Data: "Mid depth" from table 3, otherwise from table 14.		
Norsk Hydro	14.	4

Date	Mid. depth m, MD	Mud Dens. (SG)	PV cp	YP Pa	GEL 0 Pa	GEL 10 Pa	pH	100 psi (cc)	HP/HT (cc)	Cl- inn/out mg/l	Alkalinity			Ca++ inn/out mg/l	Oil %	Sol %	H2O %	V.G. meter at 115 gr. F				Mud Type		
											Pf	Pm	Mf					600 rpm	300 rpm	200 rpm	100 rpm		6 rpm	3 rpm
900430	4600	1.38	20	5	1	2	9.1	2.2		192000/	0.10	0.30	1.00	880/		20		51	31	22	12	3	2	KCL/POLYMER
900501	4600	1.38	21	5	1	2	9.0	2.2		192000/	0.10	0.20	1.00	880/		20		52	31	23	12	3	2	KCL/POLYMER
900502	4600	1.38	20	4	1	2	9.0	2.2		192000/	0.10	0.20	1.00	880/		20		49	29	19	11	3	2	KCL/POLYMER
900503	4005	1.38	20	4	1	2	10.0	2.2		192000/				880/		20		49	29	19	11	3	2	KCL/POLYMER
900504	4005	1.38	19	3	1	2	9.8	2.4		192000/	0.10	0.20	1.20	880/		20		47	28	18	10	3	2	KCL/POLYMER
900505	330	1.38	19	4	1	2	9.8	2.4		192000/	0.10	0.20	1.20	880/		20		47	28	18	10	3	2	KCL/POLYMER
900506	330	1.38	19	4	1	2	9.8	3.4		192000/	0.10	0.20	1.20	880/		20		47	28	18	10	3	2	KCL/POLYMER

TABLE B-11

((((ooo) ----- Norsk Hydro	M u d c o n s u m p t i o n ----- System : BORE	Date 5/11-1990
	Well: 7228/9-1 Mud company: PROMUD	13

Actual used

Drilling of 36 " hole

BARITE	Kg	492000
BENTONITE	Kg	135000
CAUSTIC SODA	Kg	950
CMC HI VIS	Kg	6125
KWIC SEAL	Kg	1524
MICA	Kg	2050
PAC POLYMER REG	Kg	2175
POTASSIUM BRINE	Kg	284000
POTASSIUM CL	Kg	10425
PROCAP	Kg	2100
SODA ASH	Kg	1025
WALNUT	Kg	1700
XANTAN POLYMER	Kg	275
BACTERIOCID	l	100

Drilling of 26 " hole

BARITE	Kg	64000
BENTONITE	Kg	4000
CAUSTIC SODA	Kg	250
CMC HI VIS	Kg	5000
PAC POLYMER REG	Kg	7025
POTASSIUM BRINE	Kg	112000
PROCAP	Kg	700
SODA ASH	Kg	100
BACTERIOCID	l	100

Drilling of 17 1/2" hole

BARITE	Kg	152000
BENTONITE	Kg	3000
CAUSTIC SODA	Kg	800
PAC POLYMER REG	Kg	11800
PAC POLYMER S	Kg	825
POTASSIUM BRINE	Kg	365000
POTASSIUM CL	Kg	1250
PROCAP	Kg	8650
SODA ASH	Kg	1675
XANTAN POLYMER	Kg	550
XC POLYMER	Kg	125
BACTERIOCID	l	725

Drilling of 12 1/4" hole

BARITE	Kg	86000
CAUSTIC SODA	Kg	1525
LUBRICANT	Kg	4164

((((ooo) Norsk Hydro	M u d c o n s u m p t i o n		Date
	----- System : BORE		5/11-1990
	Well: 7228/9-1 Mud company: PROMUD		13

		Actual used

PAC POLYMER REG	Kg	4975
PAC POLYMER S	Kg	4825
PAC POLYMER SL	Kg	675
POTASSIUM BRINE	Kg	273000
POTASSIUM CL	Kg	2500
PROCAP	Kg	6650
SODA ASH	Kg	575
SODIUM BICARB	Kg	150
SODIUMBICARB	Kg	1600
THERMOPOL	Kg	5064
BACTERIOCID	l	725
LIQUID DEFOAMER	l	50

Drilling of 8 1/2" hole

BARITE	Kg	33000
CAUSTIC SODA	Kg	775
PAC POLYMER REG	Kg	850
PAC POLYMER S	Kg	350
POTASSIUM CL	Kg	5000
PROCAP	Kg	775
PRODEFOAM	Kg	75
PROPOL REG	Kg	200
SODA ASH	Kg	600
SODIUM BICARB	Kg	1575
SODIUM CHLORIDE	Kg	80000
THERMOPOL	Kg	1563
WALLNUT	Kg	100
LIQUID DEFOAMER	l	100

Plug and Abandon

BACTERIOCID	l	100