SAGA PETROLEUM a.s. PAGE: 1 OF 1

WELL: 6406/2-3 T2 FMT WELLSITE WORKSHEET WITNESSED BY: GSm

PRESSURE UNITS: BARA RIG: Transocean Arctic DATE: 11.11.96

KB (M): 24

RUN #: 1A	DEPTH MD	DEPTH TVD	IN. HYDROST. PRESSURE		FORMATION PRESSURE		FIN. HYDROST. PRESSURE		TEMP	MOB. INDEX	REMARKS
TEST #	RKB	RKB	EMW	HP	EMW	HP	EMW	HP	degC	mD/cP	
1	4383,00	4381,20	1,80	774,50					118,00		No seal
2	4383,50	4381,70	1,80	774,90					120,50		No seal
3	4389,00	4387,20	1,80	775,78					121,80		No seal
4	4389,50	4387,70	1,80	775,81					122,50		No seal
5	4394,00	4392,20	1,80	776,64					123,10		No seal
6	4393,50	4391,70	1,80	776,52					123,70		No seal
7	4400,00	4398,20	1,80	777,74					124,40		No seal
8	4405,50	4403,70	1,80	778,75					125,40		No seal
9	3562,00	3560,30	1,81	631,50	1,60	557,45	1,81	631,60	115,70	1,20	Tight
10	3552,50	3550,80	1,81	629,86					114,20		No seal
11	3552,00	3550,30	1,81	629,84	1,59	555,30	1,81	629,90	113,60	1,80	Mod. pressure point
12	3571,50	3569,80	1,81	633,63					113,00		No seal
13	3572,00	3570,30	1,81	633,68					112,80		No seal
14	3573,50	3571,80	1,81	633,92					112,10		No seal
15	3438,50	3436,90	1,81	609,60					111,20		No seal
16	3436,00	3434,40	1,81	609,32					110,90		No seal
17	3435,00	3433,40	1,81	609,27	1,61	541,10	1,81	609,35	110,20	9,10	Mod. pressure point
18	3432,50	3430,90	1,81	609,10					110,00		No seal
19	3430,00	3414,00	1,82	608,56					109,70		No seal
20	4383,00	4381,20	1,80	775,40					124,00		No seal
21	4389,00	4387,20	1,80	776,46					127,60		No seal
22	4393,00	4391,20	1,80	777,20					128,80		No seal
23	4400,00	4398,20	1,80	778,50					129,40		No seal
24	4405,00	4403,70	1,80	779,56					130,20		No seal
25	4401,00	4399,20	1,80	778,70					132,00		Leaking back to hydrostatic.
26	4403,00	4401,20	1,80	779,20					132,50		No seal
27	4399,50	4397,70	1,80	778,39					132,80		No seal
28	4395,50	4393,70	1,80	777,61					133,40		No seal
29	4390,00	4388,20	1,80	776,56					133,50		No seal
30	4401,00	4399,20	1,80	778,70					133,90		No seal

Table 5.4

SAGA PETROLEUM a.s. PAGE: 1 OF 1

WELL: 6406/2-3 T2 FMT WELLSITE WORKSHEET WITNESSED BY: EiS

PRESSURE UNITS: BARA RIG: Transocean Arctic DATE: 21.11.96

KB (M): 24

RUN #: 2C / TEST #	DEPTH MD RKB	DEPTH TVD RKB	IN. HYDROST. PRESSURE EMW	IN. HYDROST. PRESSURE HP	FORMATION PRESSURE EMW	FORMATION PRESSURE HP	FIN. HYDROST. PRESSURE EMW	FIN. HYDROST. PRESSURE HP	TEMP degC	MOB. INDEX mD/cP	REMARKS
1	4627,00	4624,20	2,00	908,70			2,00	908,60	134,0		Tight, aborted after 5 min
2	4627,00	4625,20	2,00	908,90			2,00	908,70	136,7		Tight, aborted after 10 min
3	4628,00	4626,20	2,00	908,90			2,00	908,70	137,9		Tight, aborted after 3 min
4	4628,80	4627,00	2,00	908,90			2,00	908,80	138,4		Tight, aborted after 15 min, increasing with 1 bar/min
5	4628,80	4627,00	2,00	908,90			2,00	908,80			Reset pad, thight, aborted after 5 min, incresing with 3 bar/min
6											
7											Stuck at 4619 m MD. Was unable to pass 4619 m MD
8											with top of tool string.
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
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25											
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27											
28											
29											
30											

Table 5.5

SAGA PETROLEUM a.s. — PAGE: 1 OF 1

WELL: **6406/2-3 T3** — FMT WELLSITE WORKSHEET — WITNESSED BY: GSm

PRESSURE UNITS: BARA — RIG: Transocean Arctic — DATE: 19.12.96

KB (M): 24

RUN #: 1A	DEPTH MD	DEPTH TVD	IN. HYDROST. PRESSURE		FORMATION PRESSURE		FIN. HYDROST. PRESSURE		TEMP	MOB. INDEX	REMARKS
TEST #	RKB	RKB	EMW	HP	EMW	HP	EMW	HP	degC	mD/cP	
1	4629,50	4627,70	2,02	918,13		-	2,02	918,01	131,0	-	Tight, abandon test
2	4630,60	4628,80	2,02	918,46	1,97	894,91	2,02	918,47	134,0	8,49	Normal pretest
3	4635,10	4633,30	2,02	919,44	1,97	895,11	2,02	919,47	136,4	189,51	Normal pretest
4	4639,00	4637,20	2,02	920,36	1,97	895,25	2,02	920,33	137,0	74,48	Normal pretest
5	4642,60	4640,80	2,02	920,98		-	2,02	921,00	138,0	-	No seal
6	4645,20	4643,40	2,02	921,57	1,97	895,54	2,02	921,58	139,8	12,29	Normal pretest
7	4649,20	4647,40	2,02	922,27	1,96	895,72	2,02	922,32	141,3	6,02	Normal pretest
8	4651,90	4650,10	2,02	923,04		-	2,02	922,99	143,3	-	Tight, abandon test
9	4651,40	4649,60	2,02	922,91		-	2,02	922,99	144,0	-	Tight, abandon test
10	4641,20	4639,40	2,02	920,28	1,97	895,42	2,02	920,20	144,0	2,57	Normal pretest
11	4637,40	4635,60	2,02	919,61	1,97	895,29	2,02	919,63	145,0	33,57	Normal pretest
12	4634,90	4633,10	2,02	919,38	1,97	894,90	2,02	919,42	143,5	1,89	Normal pretest
13	4635,00	4633,20	2,02	919,42	1,97	894,85	2,02	919,45	143,1	1,02	Normal pretest
14	4635,20	4633,40	2,02	919,49	1,97	895,03	2,02	919,42	143,0	1,63	Normal pretest
15	4634,50	4632,70	2,02	919,64		-	2,02	919,50	142,0	-	Tight, abandon test
16	4635,60	4633,80	2,02	919,65	1,97	895,00	2,02	919,80	141,0	75,15	Sample point
17											4 min 30 sec filling time for 10 l tank
18											1 min 40 sec filling time for 4 l tank
19											Both tanks had 895 bara shut-in pressure
20											
21											
22											
23											
24											
25											
26											
27											
28											
29											
30											

Table 5.6

SAGA PETROLEUM ASA

WELL: **6406/2-3T3** | FMT WELLSITE WORKSHEET | PAGE: 1 OF 1

PRESSURE UNITS: BARA | RIG: **Transocean Arctic** | WITNESSED BY: Kjetil Gran

KB (M): 24 | DATE: 12.01.97

RUN #: 2B	DEPTH MD	DEPTH TVD	IN. HYDROST. PRESSURE		FORMATION PRESSURE		FIN. HYDROST. PRESSURE		TEMP	MOB. INDEX	REMARKS
TEST #	RKB	RKB	EMW	HP	EMW	HP	EMW	HP	degC	mD/cP	
1	4634,5	4632,7	2,09	948,64	1,97	895,16	2,09	948,68	134,7	76,99	Normal pretest
2	4651,6	4649,8	2,09	952,03	1,96	896,15	2,09	952,06	136,8	1,19	Tight
3	4661,0	4659,2	2,09	954,01	1,96	896,35	2,09	954,07	138,0	1,82	Normal pretest
4	4672,0	4670,2	2,09	956,31		-	2,09	956,30	138,9	-	Tight. Aborted
5	4684,1	4682,3	2,09	958,70	1,95	897,38	2,09	959,24	139,7	2,92	Normal pretest
6	4692,1	4690,3	2,09	960,30	1,95	897,85	2,09	960,41	140,8	1,24	Normal pretest
7	4764,5	4762,6	2,09	974,96	1,95	909,36	2,09	975,08	144,2	1,05	Tight
8	4770,6	4768,7	2,09	976,33	1,94	909,53	2,09	976,38	145,5	1,16	Tight
9	4779,4	4777,5	2,09	978,11	1,95	911,60	2,09	978,23	146,5	1,25	Tight. Unstable ?
10	4802,9	4801,0	2,09	983,03	1,93	911,01	2,09	983,09	147,6	1457,50	Normal pretest
11	4807,0	4805,1	2,09	983,91	1,93	911,19	2,09	984,04	148,3	2689,30	Normal pretest
12	4811,9	4810,0	2,09	984,93	1,93	911,43	2,09	985,09	148,8	872,51	Normal pretest
13	4816,5	4814,6	2,09	985,81	1,93	911,86	2,09	986,35	149,5	3254,28	Normal pretest
14	4822,0	4820,1	2,09	987,14	1,93	911,88	2,09	987,28	150,0	10,96	Normal pretest
15	4828,8	4826,9	2,09	988,48	1,93	912,20	2,09	988,85	150,5	1914,03	Normal pretest
16	4831,0	4829,1	2,09	989,01	1,93	912,31	2,09	989,69	150,9	1803,85	Normal pretest
17	4811,5	4809,6	2,09	984,80	1,93	911,20	2,09	985,10	151,4	1014,80	Normal pretest.Unsuc. sampleattempt
18	4811,4	4809,5	2,09	985,00	1,93	911,20	2,09	985,10	151,7	1907,20	Normal pretest.Unsuc. sampleattempt
19	4879,5	4877,5	2,09	998,94	1,91	916,03	2,09	999,11	152,7	1,30	Tight
20	4884,0	4882,0	2,09	1000,03	1,91	916,29	2,09	1000,11	153,6	1,34	Tight
21	4891,5	4889,5	2,09	1001,65		-	2,09	1001,68	154,0	-	Tight. Aborted
22	4900,5	4898,5	2,09	1003,43	1,91	917,89	2,09	1003,62	155,2	1,26	Normal pretest
23	4911,0	4909,0	2,09	1005,73	1,91	918,51	2,09	1005,80	156,0	13,42	Normal pretest
24	4913,0	4911,0	2,09	1006,14	1,91	918,89	2,09	1006,32	157,0	1,42	Normal pretest
25	4905,0	4903,0	2,09	1004,37	1,91	918,02	2,09	1004,48	157,7	190,35	Normal pretest
26	4811,5	4809,6	2,09	985,39	1,93	911,51	2,09	985,55	154,8	2283,16	Normal pretest. Sample

Table 5.7

SAGA PETROLEUM ASA

WELL: **6406/2-3T3** | FMT WELLSITE WORKSHEET | PAGE: 1 of 1

PRESSURE UNITS: BARA | RIG: **Transocean Arctic** | WITNESSED BY: LOG/KjG

KB (M): 24 | DATE: 13.01.97

RUN #: 2C	DEPTH MD	DEPTH TVD	IN. HYDROST. PRESSURE		FORMATION PRESSURE		FIN. HYDROST. PRESSURE		TEMP	MOB. INDEX	REMARKS
TEST #	RKB	RKB	EMW	HP	EMW	HP	EMW	HP	degC	mD/cP	
1	4645,50	4643,7	2,09	950,76	1,97	895,54	2,09	950,55	136,0	2,20	Normal pretest
2	4656,10	4654,3	2,09	952,93	1,96	895,98	2,09	952,67	137,8	1,99	Normal pretest
3	4667,50	4665,7	2,09	955,21	1,96	896,48	2,09	955,02	139,9	0,94	Normal pretest
4	4677,90	4676,1	2,09	957,25	1,95	896,42	2,09	957,36	141,3	1,53	Normal pretest
5	4687,00	4685,2	2,09	959,08	1,95	897,15	2,09	958,93	142,1	1,36	Normal pretest
6	4698,50	4696,7	2,09	961,41	1,95	897,80	2,09	961,61	142,9	1,40	Normal pretest
7	4754,40	4752,5	2,09	972,77	-	-	2,09	972,60	144,0	-	Tight, abandon test
8	4767,90	4766,0	2,09	975,54	-	-	2,09	975,52	145,9	-	Tight, abandon test
9	4785,00	4783,1	2,09	979,06	1,94	910,07	2,09	979,06	148,1	435,49	Normal pretest
10	4786,90	4785,0	2,09	979,58	1,94	910,16	2,09	979,55	149,0	841,50	Normal pretest
11	4790,20	4788,3	2,09	980,23	-	-	2,09	980,32	149,5	-	Tight, abandon test
12	4790,50	4788,6	2,09	980,37	-	-	2,09	980,08	150,0	-	Tight, abandon test
13	4792,00	4790,1	2,09	980,72	1,94	910,43	2,09	980,77	150,1	26,37	Normal pretest
14	4823,60	4821,7	2,09	987,29	1,93	911,85	2,09	987,25	150,8	129,45	Normal pretest
15	4683,90	4682,1	2,09	959,04	1,95	897,60	2,09	959,04	148,9	2,02	Sample point
16											27 min 34 sec filling time for 10 l tank
17											22 min 45 sec filling time for 4 l tank
18											10 liter tank had 896.8 bar shut-in pressure.
19											4 liter tank had 897.0 bar shut-in pressure.
20											
21											

Table 5.8

SAGA PETROLEUM ASA

PAGE: 1 OF 1

WELL: **6406/2-3T3**

FMT WELLSITE WORKSHEET

WITNESSED BY: Kjetil Gran

PRESSURE UNITS: BARA

RIG: **Transocean Arctic**

DATE: 13.01.97

KB (M): 24

RUN #: 2D TEST #	DEPTH MD RKB	DEPTH TVD RKB	IN. HYDROST. PRESSURE EMW	IN. HYDROST. PRESSURE HP	FORMATION PRESSURE EMW	FORMATION PRESSURE HP	FIN. HYDROST. PRESSURE EMW	FIN. HYDROST. PRESSURE HP	TEMP degC	MOB. INDEX mD/cP	REMARKS
1	4664,3	4662,5	2,09	954,53	1,96	896,40	2,09	954,57	137,7	1,34	Normal pretest
2	4695,2	4693,4	2,09	960,86	1,95	898,13	2,09	960,86	140,3	1,02	Normal pretest
3	4777,4	4775,5	2,09	977,49	1,94	909,79	2,09	977,53	145,2	4,20	Normal pretest
4	4798,9	4797,0	2,09	981,96	1,94	910,99	2,09	982,01	147,3	1,08	Normal pretest
5	4883,5	4881,5	2,09	999,72	1,91	916,42	2,09	999,85	155,7	0,76	Tight. OK
6	4878,8	4876,8	2,09	998,74		-	2,09	998,89	156,0	-	Tight. Aborted
7	4889,0	4887,0	2,09	1001,00	1,91	917,25	2,09	1001,14	156,5	1,71	Tight. OK
8	4898,9	4896,9	2,09	1003,19	1,91	917,93	2,09	1003,30	157,4	1,62	Normal pretest
9	4895,6	4893,6	2,09	1002,41	1,91	917,18	2,09	1002,56	158,2	7,53	Normal pretest. Sample
10	4903,1	4901,1	2,09	1004,19	1,91	917,98	2,09	1004,31	158,7	49,43	Normal pretest
11											
12											Sample at 4895.6 mRKB
13											Shut-in pressure 10 liter; 917.07 bar
14											Filling time 50 seconds
15											Shut-in pressure 4 liter; 917.19 bar
16											Filling time 22 seconds
17											
18											
19											
20											
21											
22											
23											
24											
25											
26											

Table 5.9

					SAGA PETROLEUM ASA					PAGE:		1 OF 1
WELL:		6406/2-3T3			FMT WELLSITE WORKSHEET					WITNESSED BY:		Kjetil Gran
PRESSURE UNITS:			BARA		RIG:	Transocean Arctic				DATE:		29.01.97
					KB (M):	24						

RUN #:	DEPTH	DEPTH	IN. HYDROST.		FORMATION		FIN. HYDROST.		TEMP	MOB.	REMARKS
3E	MD	TVD	PRESSURE		PRESSURE		PRESSURE			INDEX	
TEST #	RKB	RKB	EMW	HP	EMW	HP	EMW	HP	degC	mD/cP	
1	4659,7	4657,8	2,06	940,09	1,96	896,32	2,06	940,10	138,8	1,01	Good
2	4663,9	4662,0	2,06	940,96	1,96	896,41	2,06	940,97	140,0	1,11	Good
3	4684,2	4682,3	2,06	945,13	1,95	897,41	2,06	945,13	141,2	1,65	Good
4	4756,8	4754,9	2,06	959,67	1,95	909,73	2,06	959,75	144,7	0,78	Tight. Unstable
5	4765,0	4763,1	2,06	961,43	1,95	909,50	2,06	961,46	146,0	0,63	Tight
6	4768,4	4766,5	2,06	962,26	1,94	909,44	2,06	962,23	146,5	3,07	Good
7	4771,0	4769,1	2,06	962,80	1,94	909,54	2,06	962,85	146,8	1,28	Good
8	4780,0	4778,1	2,06	964,63	1,94	910,87	2,06	964,62	147,2	1,27	Tight. Unstable
9	4780,8	4778,9	2,06	964,80	1,94	910,03	2,06	964,79	147,5	3,86	Good
10	4895,0	4893,0	2,06	987,76	1,91	917,02	2,06	987,77	150,0	6,74	Good
11	4910,0	4908,0	2,06	990,82	1,91	918,42	2,06	990,80	150,4	6,41	Good
12	4923,0	4921,0	2,06	993,52	1,91	919,84	2,06	993,49	150,9	66,72	Excellent
13	4955,5	4953,5	2,06	1000,06	1,90	922,93	2,06	1000,06	151,4	82,73	Excellent
14	4996,5	4994,5	2,06	1008,34	1,89	926,98	2,06	1008,35	152,1	46,13	Excellent
15	5001,0	4998,9	2,06	1009,33	1,89	927,48	2,06	1009,43	152,6	2,36	Good
16	4785,5	4783,6	2,06	966,14	1,94	910,41	2,06	966,05	150,0	916,17	Sample
17											
18											Sample at 4785.5 mRKB
19											Shut-in pressure 10 and 4 liter; 910 bara
20											(Both tanks filled simultaneously)
21											
22											
23											
24											
25											
26											

Table 5.10

					SAGA PETROLEUM ASA					PAGE:	1 OF 1
WELL:		6406/2-3T3			FMT WELLSITE WORKSHEET					WITNESSED BY:	Kjetil Gran
PRESSURE UNITS:			BARA		RIG:	Transocean Arctic				DATE:	31.01.97
					KB (M):	24					

RUN #:	DEPTH	DEPTH	IN. HYDROST.		FORMATION		FIN. HYDROST.		TEMP	MOB.	REMARKS
3F	MD	TVD	PRESSURE		PRESSURE		PRESSURE			INDEX	
TEST #	RKB	RKB	EMW	HP	EMW	HP	EMW	HP	degC	mD/cP	
1	5036,5	5034,4	2,06	1017,06		-	2,06	1017,00	150,0	-	Tight. Abandon
2	5037,0	5034,9	2,06	1017,26	1,89	931,07	2,06	1017,50	152,4	5,96	Good. Sample
3	5069,0	5066,9	2,06	1023,98		-	2,06	1024,04	153,5	-	Tight. Abandon
4	5072,5	5070,4	2,06	1024,76		-	2,06	1024,77	153,9	-	Tight. Abandon
5	5037,0	5034,9	2,06	1017,66	1,89	931,19	2,06	1017,05	153,9	50,77	Good.
6	5104,2	5102,1	2,06	1030,98		-	2,06	1031,01	154,8	-	Tight. Abandon
7	5126,0	5123,9	2,06	1035,39	1,87	940,80	2,06	1035,39	155,3	2,08	Good
8	5146,5	5144,4	2,06	1039,50		-	2,06	1039,51	155,7	-	Tight. Abandon
9	5146,0	5143,9	2,06	1039,31		-	2,06	1039,35	156,1	-	Tight. Abandon
10	5174,0	5171,9	2,06	1044,99	1,86	945,42	2,06	1045,00	156,6	4,31	Good
11	5196,0	5193,9	2,06	1049,42	1,86	947,59	2,06	1049,46	157,1	2,07	Good
12	5205,0	5202,9	2,06	1051,32	1,86	948,85	2,06	1051,25	157,9	1,58	Good
13	5209,0	5206,9	2,06	1052,05		-	2,06	1052,30	158,2	-	Tight. Abandon
14	5228,9	5226,8	2,06	1056,36		-	2,06	1056,49	159,0	-	Tight. Abandon
15	5233,5	5231,4	2,06	1057,31	1,85	951,37	2,06	1057,35	159,3	14,90	Good
16	5235,0	5232,9	2,06	1057,60		-	2,06	1057,64	159,5	-	Tight. Abandon
17	5147,1	5145,0	2,06	1039,88	1,87	943,05	2,06	1039,93	158,8	18,49	Good
18	5074,8	5072,7	2,06	1025,58		-	2,06	1025,39	157,6	-	Tight. Abandon
19	4961,5	4959,5	2,06	1002,95	1,90	923,89	2,06	1002,94	154,7	3,89	Good
20	4930,7	4928,7	2,06	996,72	1,90	920,76	2,06	996,76	153,7	70,25	Good
21											
22											Sample at 5037.0 mRKB
23											Shut-in pressure 10 and 4 liter; 930.4 bara
24											Filling time 460 seconds
25											(Both tanks filled simultaneously)
26											

Table 5.11

SAGA PETROLEUM ASA

PAGE: 1 OF 1

WELL: **6406/2-3T3**

FMT WELLSITE WORKSHEET

WITNESSED BY: KjG/GSm

PRESSURE UNITS: BARA

RIG: **Transocean Arctic**

DATE: 01.02.97

KB (M): 24

RUN #: 3G	DEPTH MD	DEPTH TVD	IN. HYDROST. PRESSURE		FORMATION PRESSURE		FIN. HYDROST. PRESSURE		TEMP	MOB. INDEX	REMARKS
TEST #	RKB	RKB	EMW	HP	EMW	HP	EMW	HP	degC	mD/cP	
1	4755,8	4753,9	2,06	960,86		-	2,06	960,83	144,5	-	Tight. Abandon
2	4755,5	4753,6	2,06	960,86	1,95	908,73	2,06	960,82	146,5	1,06	Good.
3	4755,0	4753,1	2,06	960,85	1,95	908,79	2,06	960,92	148,0	0,82	Tight
4	4770,5	4768,6	2,06	964,29		-	2,06	964,24	148,1	-	Tight. Abandon
5	4770,8	4768,9	2,06	964,29	1,94	909,68	2,06	964,27	148,5	0,75	Tight
6	4768,5	4766,6	2,06	963,74	1,94	909,30	2,06	963,86	149,0	5,86	Good pretest. Sample
7											Sample data:
8											10 liter filling time 10 sec.
9											4 liter filling time 45 sec.
10											Shut-in pressure 909.3 bara.
11											Fm. temperature 149.7 degC.
12											
13											

Table 5.12

SAGA PETROLEUM ASA

PAGE: 1 OF 1

WELL: **6406/2-3T3**

FMT WELLSITE WORKSHEET

WITNESSED BY: KjG/GSm

PRESSURE UNITS: BARA

RIG: **Transocean Arctic**

DATE: 01.02.97

KB (M): 24

RUN #: 3 H	DEPTH MD	DEPTH TVD	IN. HYDROST. PRESSURE		FORMATION PRESSURE		FIN. HYDROST. PRESSURE		TEMP	MOB. INDEX	REMARKS
TEST #	RKB	RKB	EMW	HP	EMW	HP	EMW	HP	degC	mD/cP	
1	4768,6	4766,7	2,06	963,32	1,95	909,56	2,06	963,58	149,0	5,51	Good pretest,Sample
2											
3											Sample data:
4											10 liter filling time6 min 10 sec
5											Shut-in pressure 909.2 bara at 149 c
6											Opening pressure 207 bara at 16 c
7											6 L filtrate/cond. and 1.93 cum gas
8											
9											4 liter filling time1 min 45 sec
10											Shut-in pressure 909.1 bara at 149 c
11											surface pressure235 bara at 16 c
12											
13											

Table 5.13

SAGA PETROLEUM ASA

PAGE: 1 OF 1

WELL: **6406/2-3T3**

FMT WELLSITE WORKSHEET

WITNESSED BY: GSm

PRESSURE UNITS: BARA

RIG: **Transocean Arctic**

DATE: 02.09.97

KB (M): 24

RUN #: 3 I	DEPTH MD	DEPTH TVD	IN. HYDROST. PRESSURE		FORMATION PRESSURE		FIN. HYDROST. PRESSURE		TEMP	MOB. INDEX	REMARKS
TEST #	RKB	RKB	EMW	HP	EMW	HP	EMW	HP	degC	mD/cP	
1	4882,7	4880,7	2,06	986,70		-		986,81	155,4	-	Tight, abandon
2	4880,6	4878,6	2,06	986,31	1,91	915,71	2,06	985,49	157,7	1,1	Sampling point
3											
4											Sample data:
5											10 liter filling time: 59 min
6											Shut-in pressure912 bara at 147.7 c
7											Opening pressure 20 bara at 25.4 c
8											9 L filtrate/water and no gas
9											
10											4 liter filling time: 22 min 40 sec
11											Shut-in pressure 912 bara at 147.7 c
12											Surface pressure 0 bara
13											

Table 5.14

5.4.1 Production test no. 1

5.4.1.1 Operations

Perforation:
The interval 4806.6 to 4832 mRKB (4782.6 to 4808 mMSL) was perforated on March 17, 1997 against a closed choke manifold. The well was perforated with 60 bar underbalance with a 50/50 mixture of seawater and glycol in the tubing and 1.4SG brine in the perforation interval. The perforation guns were Schlumberger 3-1/2 inch DP HNS, four shots per foot, TCP guns. The wellhead pressure increased rapidly from 330 bar to 390 bar after perforation; indicating excellent reservoir properties.

Cleanup period:
The well was opened on a 16/64" adjustable choke and gradually increased upto 44/64" during the cleanup period. Gas to surface was observed after 56 minutes and the following hour was dominated by plugging in the choke manifold with a measured wellhead pressure of upto 670 bar. The plugging problem disappeared after approximately two hours flow: probably due to cleanup, increased choke opening and wellhead temperature above 20 DegC. The cleanup period is shown in Figure 5.2.

Multirate periods:
Multirate test with three steps was originally planned in order to calculate the non-Darcy skin factor and to perform fluid sampling at three different conditions. However; due to lack of time (environmental restriction period after April 1), only two periods were performed. First, 8.53 hours

on a 11.1 mm (28/64") fixed choke and 11.55 hour on a 17.5 mm (44/64") fixed choke. The well was diverted to the separator in the beginning of the first period for rate measurements.

The well was killed after the final 12 hours buildup period.
Main results are shown in Table 5.15 and Table 5.16 and graphically in Figure 5.3.

Table 5.15 Flow- and buildup periods, 6406/2-3T3 test # 1

Period	Event	Duration (hr)
FL1	Cleanup flow (upto 44/64" choke)	4.15
FL2	1st multi rate flow (28/64" choke)	8.53
FL3	2nd multi rate flow (44/64" choke)	11.55
BU1	Main buildup	12

Table 5.16 Summary of production results (data from end of period), 6406/2-3T3 test # 1

Period	WHP (bar)	WHT (DegC)	BHP* (bar)	BHT* (DegC)	Q_{GAS}** (sm^3/d)	$Q_{COND.}$** (sm^3/d)	GOR** (sm^3/sm^3)	PI_{COND}*** ($sm^3/d/bar$)
FL2	527.0	58.0	900.1	166.1	606 600	591	1026	440
FL3	318.0	62	892.7	167.2	892 400	890	1003	260

*) Schlumberger WTQR#1788 gauge at 4711.9 mRKB.

**) Refers to 35-39 bar (GasP), 34-40 DegC (OilT) separator conditions.

***) Exclusive friction loss between perforation and gauge. Inclusive formation skin and non-Darcy skin.

5.4.2 Fluid Sampling and Analysis

Gas Analysis: On-site analysis indicated 3.7 % CO2 and 11 ppm H2S. Two gas samples for geochemical analysis were collected.

Reservoir Fluid: The well produced gas-condensate. The average separator GOR was 1026 sm^3/sm^3 during the first multirate period (28/64" choke) and 1003 sm^3/sm^3 during the second multirate period (44/64" choke). The test separator conditions were in the range 34 - 40 bar (GasP) and 34 - 39 DegC (OilT) as shown in Figure 5.3.

The well did not produce formation water; however condensed water from the gas phase amounted to a water cut of approximately 1%.

Sampling:
The following samples were collected:

Date	Time	Set no.	Sample point
17.03.97	05:25	wellhead no. 1	wellhead
17.03.97	07:30	wellhead no. 2	wellhead
17.03.97	08:15	wellhead no. 3	wellhead
17.03.97	08:40	wellhead no. 4	wellhead
17.03.97	10:05	PVT set no.1	test separator
17.03.97	11:03	PVT set no.2	test separator
17.03.97	19:55	PVT set no.3	test separator

17.03.97	20:47	PVT set no.4	test separator
17.03.97	13:16	ISO set no.1	test separator
17.03.97	22:06	ISO set no.2	test separator
17.03.97	11:13	Recomb.no.1	mini-lab

Wellhead samples contains 0.6 ltr.
All PVT sets consists of 0.5 ltr. condensate and 20 ltr. gas pressurized bottles.

The following other samples were taken:
2 gas samples for geochemistry (each 0.5 ltr.)
3 condensate samples for geochemistry (each 0.5 ltr.)
2 condensate samples for SCAL/TBP (each 20 ltr.)
20 condensate samples, dead oil (each 10 ltr.)
2 condensate samples for total sulphur (each 1.0 ltr.)
2 condensate samples for Ni/V (each 1.0 ltr.)
2 condensate samples for Hg (each 1.0 ltr.)
2 condensate samples for Polonium (each 1.0 ltr.)

5.4.4 Production test no. 2

5.4.4.1 Operations

Perforation:
The interval 4629 to 4654.4 mRKB (4605 - 4630.4 mMSL) was perforated on March 26, 1997 against a closed choke manifold. The well was perforated with approximately 70 bar underbalance with a 50/50 mixture of seawater and glycol in the tubing and 1.4 SG brine in the perforation interval. The perforation was performed with Schlumberger 3 1/2" DP HNS guns with 4 shots per foot.

Clean-up period:
The well was opened four minutes after perforation; however the well was shut in after four minutes due to a PSD failure. The well was opened again after 36 mins on a 16/64" adjustable choke, but almost immediately shut in again for 15 minutes due to the second PSD failure. The choke was again opened on a 16/64" choke and increased gradually to 44/64" adjustable choke, but after another 15 mins, the well was shut in at choke manifold due to PSD (high pressure downstream choke). At the same time, gas was observed at surface. When the well was opened 8 mins later, the choke was opened on a 20/64" choke and gradually adjusted to 44/64" fixed choke for clean up flow. Wellhead pressure during the two hrs clean-up was approximately 270 bar. The cleanup period is shown in Figure 5.4.

Multirate periods:

Three steps multirate test was performed from March 26 to March 28. A 7.35 hrs test on a 9.53 mm (24/64") fixed choke was followed by a 7.88 hrs test with a 12.7 mm (32/64") fixed choke. Finally, a test for 24 hrs with a 17.5 mm (44/64") fixed choke was performed before the main build-up. The well was diverted to the separator in the beginning of the first period for rate measurements. A drastic increase in annulus pressure was seen in the second test period. The pressure was bled off and the annulus pressure returned to normal behaviour. The well was killed after the final 24 hrs build-up period.

Main results are shown in Table 5.17 and Table 5.18 and graphically in Figure 5.5.

Table 5.17 Flow- and buildup periods, 6406/2-3T3 test # 2

Period	Event	Duration (hr)
FL1	Perforation (open up to 16/64")	0.131
BU1	Shut-in (PSD-failure)	0.608
FL2	Open on 16/64" choke	0.022
BU2	Shut-in (PSD failure)	0.253
FL3	Open on 16/64" and increase up to 44/64"	0.258
BU3	Production shut down (PSD)	0.131
FL4	Continue cleanup flow (44/64")	2.233
FL5	1st multirate flow (24/64")	7.342
FL6	2nd multirate flow (32/64")	7.889
FL7	3rd multirate flow (44/64")	24.09
BU4	Main build up	24.19

Table 5.18 Summary of production results (data from end of period), 6406/2-3T3 test # 2

Period	WHP (bar)	WHT (DegC)	BHP* (bar)	BHT* (DegC)	Q_{GAS}** (sm^3/d)	Q_{COND}** (sm^3/d)	GOR** (sm^3/sm^3)	PI_{COND}*** ($sm^3/d/bar$)
FL5	541	34	858	160	434 000	560	775	18.3
FL6	426	50	839	162	609 000	809	753	16.3
FL7	278	49	815	164	777 000	1048	744	14.4

*) Schlumberger WTSR#720 at 4550.66 mRKB.

**) Refers to 30 - 39 bar (GasP) and 28 - 33 deg C (OilT) separator conditions.

***) Exclusive friction loss between perforation and gauge. Inclusive formation skin and non-Darcy skin.

5.4.5 Fluid sampling and analysis

Gas analysis : On-site analysis indicated 4.3 % CO_2 and 11 ppm H_2S. Two gas samples for geochemical analysis were collected.

Reservoir fluid : The well produced gas-condensate. The average separator GOR was 775 Sm^3/Sm^3 during the first multirate period (24/64" choke), 753 Sm^3/Sm^3 during the second (32/64" choke) and 744 Sm^3/Sm^3 during the last multirate period. The test separator conditions were in the range of 30 - 39 bar (GasP) and 28 - 33 deg C (OilT) as shown in Figure 5.5.

The well did not produce formation water; however condensed water from the gas phase amounted to a water cut of approximately 1%.

Sampling :
The following samples were collected :

Date	Time	Set no.	Sample point
26.03.97	18:30	wellhead no. 1	wellhead
26.03.97	19:00	wellhead no. 2	wellhead
26.03.97	19:47	Recomb.no.1	mini-lab
26.03.97	20:10	PVT set no.1	test separator
26.03.97	22:49	Recomb.no.2	mini-lab
27.03.97	02:00	wellhead no. 3	wellhead
27.03.97	02:30	wellhead no. 4	wellhead
27.03.97	03:45	PVT set no.2	test separator
27.03.97	08:40	Recomb.no.3	mini-lab
27.03.97	15:20	PVT set no.3	test separator
27.03.97	17:28	ISO set no.1	test separator
27.03.97	17:53	ISO set no.2	test separator

Wellhead samples contains 0.55 ltr.
All PVT sets consists of 0.55 ltr. condensate and 20 ltr. gas pressurized bottles.

The following other samples were taken:

2 gas samples for geochemistry (each 0.5 ltr.)
3 condensate samples for geochemistry (each 0.5 ltr.)
2 condensate samples for SCAL/TBP (each 20 ltr.)
17 condensate samples, dead oil (each 10 ltr.)
2 condensate samples for total sulphur (each 1.0 ltr.)
2 condensate samples for Ni/V (each 1.0 ltr.)
2 condensate samples for Hg (each 1.0 ltr.)
2 condensate samples for Polonium (each 1.0 ltr.)

Date	Hole size	Hole depth	Mud weight	PV	YP	Gel strength	pH	Alkalinity Pf /Mf	Ca++ mg/l	Cl- mg/l	Sand %	Solids %	Mudtype
960824	36"	486.0	1.03	16.0	22.0	/	9.8	/					SPUD MUD
960825	36"	486.0	1.03	16.0	22.0	/	9.8	/					SPUD MUD
960826	9 7/8"	680.0	1.03	16.0	22.0	/	9.8	/					SPUD MUD
960827	9 7/8"	900.0	1.03	16.0	22.0	/	9.8	/					SPUD MUD
960828	24"	900.0	1.03	16.0	22.0	/	9.8	/					SPUD MUD
960829	24"	1413.0	1.05	27.0	28.0	/	10.0	/					SPUD MUD
960830	24"	1413.0	1.20	18.0	16.0	/	10.0	/					SPUD MUD
960831	24"	1413.0				/		/					SPUD MUD
960901	17 1/2"	1549.0	1.30	20.0	22.0	6/8	9.2	.1/1.6	360	92000		14.0	KCl MUD
960902	17 1/2"	2060.0	1.45	27.0	22.0	6/7	8.4	.1/.6	220	82000	.8	18.0	KCl MUD
960903	17 1/2"	2570.0	1.72	46.0	38.0	9/15	7.8	/.3	340	88000	.8	27.6	KCl MUD
960904	17 1/2"	2525.0	1.72	38.0	36.0	8/18	7.9	/.4	600	85000	1.0	27.8	KCl MUD
960905	17 1/2"	2843.0	1.72	48.0	36.0	8/22	8.1	/.4	800	86000	1.5	29.0	KCl MUD
960906	17 1/2"	2843.0	1.72	48.0	36.0	8/22	8.1	/.4	800	86000	1.5	29.0	KCl MUD
960907	17 1/2"	2843.0	1.72	48.0	36.0	8/21	8.0	/.4	600	82000	1.5	29.0	KCl MUD
960908	17 1/2"	2843.0	1.72	48.0	36.0	8/21	8.0	/.4	600	82000	1.5	29.0	KCl MUD
960909	17 1/2"	2843.0	1.72	48.0	36.0	8/21	8.0	/.4	600	82000	1.5	29.0	KCl MUD
960910	17 1/2"	2848.0	1.72	44.0	37.0	8/19	8.1	/.4	600	81000	1.5	29.0	KCl MUD
960911	12 1/4"	3389.0	1.50	44.0	21.0	12/17		/				22.0	OIL BASED
960912	12 1/4"	3580.0	1.57	41.0	21.0	13/28		/				21.0	OIL BASED
960913	12 1/4"	3689.0	1.57	47.0	20.0	14/34		/			.2	21.5	OIL BASED
960914	12 1/4"	3971.0	1.65	55.0	20.0	13/32		/			.2	25.0	OIL BASED
960915	12 1/4"	3975.0	1.68	54.0	22.0	13/33		/			.2	28.0	OIL BASED
960916	12 1/4"	4017.0	1.68	50.0	11.0	12/27		/			.2	27.0	OIL BASED
960917	12 1/4"	4050.0	1.68	45.0	15.0	12/27		/			.2	27.0	OIL BASED
960918	12 1/4"	4054.0	1.68	55.0	12.0	11/27		/			.2	28.0	OIL BASED
960919	12 1/4"	4070.0	1.68	44.0	15.0	11/26		/			.2	27.4	OIL BASED

Well: 6406/2-3

Date	Hole size	Hole depth	Mud weight	PV	YP	Gel strength	pH	Alkalinity Pf /Mf	Ca++ mg/l	Cl- mg/l	Sand %	Solids %	Mudtype
960920	12 1/4"	4180.0	1.78	54.0	16.0	13/28		/			.2	30.4	OIL BASED
960921	12 1/4"	4460.0	1.78	54.0	19.0	13/32		/			.2	30.5	OIL BASED
960922	12 1/4"	4593.0	1.82	55.0	20.0	14/30		/			.2	32.0	OIL BASED
960923	12 1/4"	4596.0	1.82	45.0	15.0	12/24		/			.2	31.5	OIL BASED
960924	12 1/4"	4596.0	1.82	39.0	12.0	9/15		/			.1	30.0	OIL BASED
960925	12 1/4"	4596.0	1.82	44.0	15.0	10/18		/			.1	30.0	OIL BASED
960926	12 1/4"	4596.0	1.82	67.0	31.0	17/22		/			.1	30.0	OIL BASED
960927	12 1/4"	4596.0	1.82	54.0	22.0	13/24		/			.5	30.0	OIL BASED
960928	12 1/4"	4596.0	1.82	57.0	25.0	15/25		/			1.0	30.5	OIL BASED
960929	12 1/4"	4596.0	1.82	60.0	21.0	14/33		/			1.5	32.0	OIL BASED
960930	12 1/4"	3802.0	1.82	51.0	20.0	13/27		/			1.0	32.0	OIL BASED
961001	12 1/4"	3802.0	1.82	48.0	18.0	13/24		/			1.0	30.5	OIL BASED
961002	12 1/4"	3802.0	1.82	55.0	22.0	14/33		/			.5	31.5	OIL BASED
961003	12 1/4"	3802.0	1.82	50.0	18.0	15/30		/			2.0	32.0	OIL BASED
961004	12 1/4"	3802.0	1.82	53.0	18.0	14/34		/			2.0	32.5	OIL BASED
961005	12 1/4"	3802.0	1.82	53.0	21.0	15/34		/			2.0	32.5	OIL BASED
961006	12 1/4"	3802.0	1.82	48.0	19.0	13/30		/			2.0	32.0	OIL BASED
961007	12 1/4"	3802.0	1.82	48.0	22.0	13/30		/			1.8	31.5	OIL BASED
961008	12 1/4"	3802.0	1.82	52.0	21.0	12/28		/			2.5	32.0	OIL BASED
961009	12 1/4"	3802.0	1.82	60.0	20.0	12/28		/			3.0	31.4	OIL BASED
961010	12 1/4"		1.82	49.0	18.0	12/25		/			2.2	31.0	OIL BASED
961011	12 1/4"		1.82	59.0	17.0	12/25		/			2.2	31.0	OIL BASED
961012	12 1/4"		1.82	64.0	23.0	13/27		/			2.2	30.0	OIL BASED
961013	12 1/4"		1.82	59.0	29.0	13/27		/			2.2	31.0	OIL BASED
961014	12 1/4"		1.82	59.0	29.0	13/27		/			2.2	31.0	OIL BASED
961015	12 1/4"		1.82	59.0	29.0	13/27		/			2.2	31.0	OIL BASED
961016	12 1/4"		1.82	59.0	29.0	13/27		/			2.2	31.0	OIL BASED

Well: 6406/2-3

Date	Hole size	Hole depth	Mud weight	PV	YP	Gel strength	pH	Alkalinity Pf /Mf	Ca++ mg/l	Cl- mg/l	Sand %	Solids %	Mudtype
961017	12 1/4"		1.82	59.0	29.0	13/27		/			2.2	31.0	OIL BASED
961018	12 1/4"		1.82	59.0	29.0	13/27		/			2.2	31.0	OIL BASED
961019	12 1/4"		1.82	59.0	29.0	13/27		/			2.2	31.0	OIL BASED
961020	12 1/4"		1.82	59.0	29.0	13/27		/			2.2	31.0	OIL BASED
961021	12 1/4"		1.82	54.0	15.0	12/23		/			2.0	30.0	OIL BASED
961022	12 1/4"	2860.0	1.82	53.0	17.0	12/24		/				30.0	OIL BASED
961023	12 1/4"	2860.0	1.82	53.0	17.0	12/24		/				30.0	OIL BASED

Date	Hole size	Hole depth	Mud weight	PV	YP	Gel strength	pH	Alkalinity Pf /Mf	Ca++ mg/l	Cl- mg/l	Sand %	Solids %	Mudtype
961023	12 1/4"	2860.0	1.82	53.0	17.0	12/24		/				30.0	OIL BASED
961024	12 1/4"	2872.0	1.82	51.0	16.0	12/24		/			.3	29.5	OIL BASED
961025	12 1/4"	2976.0	1.80	48.0	17.0	11/21		/			.3	29.5	OIL BASED
961026	12 1/4"	3170.0	1.80	47.0	16.0	11/21		/			.5	30.0	OIL BASED
961027	12 1/4"	3490.0	1.80	45.0	17.0	12/22		/			1.5	31.5	OIL BASED
961028	12 1/4"	3591.0	1.80	43.0	17.0	11/22		/			2.0	31.0	OIL BASED
961029	12 1/4"	3753.0	1.80	41.0	15.0	11/22		/			1.5	30.5	OIL BASED
961030	12 1/4"	4080.0	1.80	47.0	17.0	12/27		/			1.7	31.5	OIL BASED
961031	12 1/4"	4276.0	1.80	45.0	17.0	12/26		/			1.5	32.0	OIL BASED
961101	12 1/4"	4378.0	1.80	50.0	20.0	14/33		/			1.5	32.0	OIL BASED
961102	12 1/4"	4402.0	1.80	50.0	20.0	13/33		/			1.4	32.0	OIL BASED
961103	12 1/4"	4402.0	1.80	51.0	20.0	13/33		/			1.0	32.0	OIL BASED
961104	12 1/4"	4424.0	1.80	50.0	20.0	13/33		/			1.0	32.0	OIL BASED
961105	12 1/4"	4448.0	1.81	48.0	20.0	13/32		/			.8	32.0	OIL BASED
961106	12 1/4"	4527.0	1.81	50.0	21.0	14/33		/			1.2	32.0	OIL BASED
961107	12 1/4"	4550.0	1.81	51.0	20.0	14/33		/			1.2	32.0	OIL BASED
961108	12 1/4"	4550.0	1.81	51.0	20.0	14/33		/			1.2	32.0	OIL BASED
961109	12 1/4"	4550.0	1.81	51.0	20.0	14/33		/			1.2	32.0	OIL BASED
961110	12 1/4"	4550.0	1.81	48.0	20.0	13/32		/			1.2	32.0	OIL BASED
961111	12 1/4"	4550.0	1.81	48.0	19.0	13/33		/			1.2	32.0	OIL BASED
961112	12 1/4"	4550.0	1.81	52.0	21.0	13/33		/			1.2	32.0	OIL BASED
961113	12 1/4"	4550.0	1.82	49.0	24.0	14/34		/			1.4	32.0	OIL BASED
961114	8 1/2"	4550.0	1.81	50.0	20.0	13/33		/			1.4	32.0	OIL BASED
961115	8 1/2"	4550.0	1.81	50.0	20.0	13/33		/			1.4	32.0	OIL BASED
961116	8 1/2"	4550.0	1.81	50.0	20.0	13/33		/			1.4	32.0	OIL BASED
961117	8 1/2"	4554.0	1.90	52.0	21.0	12/29		/			1.0	34.0	OIL BASED
961118	8 1/2"	4564.0	2.00	60.0	22.0	13/31		/			1.0	37.0	OIL BASED

Date	Hole size	Hole depth	Mud weight	PV	YP	Gel strength	pH	Alkalinity Pf /Mf	Ca++ mg/l	Cl- mg/l	Sand %	Solids %	Mudtype
961119	8 1/2"	4597.0	2.00	61.0	17.0	12/26		/			1.0	38.0	OIL BASED
961120	8 1/2"	4634.0	2.00	59.0	18.0	11/24		/			1.0	36.5	OIL BASED
961121	8 1/2"	4635.0	2.00	58.0	21.0	12/25		/			1.0	37.0	OIL BASED
961122	8 1/2"	4635.0	2.00	58.0	21.0	12/25		/			1.0	37.0	OIL BASED
961123	8 1/2"	4635.0	2.00	58.0	21.0	12/25		/			1.0	37.0	OIL BASED
961124	8 1/2"	4635.0	2.00	71.0	17.0	14/32		/			1.0	37.0	OIL BASED
961125	8 1/2"	4635.0	2.01	59.0	25.0	13/31		/			1.0	37.5	OIL BASED
961126	8 1/2"	4635.0	2.01	59.0	25.0	13/31		/			1.0	37.5	OIL BASED
961127	8 1/2"	4635.0	2.01	59.0	25.0	13/31		/			1.0	37.5	OIL BASED
961128	8 1/2"	4635.0	2.01	68.0	26.0	14/32		/			1.0	37.5	OIL BASED
961129	8 1/2"	4635.0	2.00	64.0	26.0	14/28		/			1.0	37.5	OIL BASED
961130	8 1/2"	4635.0	2.00	69.0	28.0	15/30		/			1.5	37.5	OIL BASED
961201	8 1/2"	4635.0	2.00	68.0	26.0	14/27		/			1.5	37.5	OIL BASED
961202	8 1/2"	4635.0	2.00	66.0	26.0	14/26		/			1.5	37.5	OIL BASED
961203	8 1/2"	4635.0	2.00	70.0	25.0	15/29		/			1.5	37.5	OIL BASED
961204	8 1/2"	4635.0	2.02	69.0	34.0	15/31		/			1.5	38.0	OIL BASED
961205	8 1/2"	4635.0	2.00	68.0	28.0	13/26		/			1.5	38.0	OIL BASED
961206	8 1/2"	4635.0	2.00	61.0	25.0	11/23		/			1.0	37.0	OIL BASED

Date	Hole size	Hole depth	Mud weight	PV	YP	Gel strength	pH	Alkalinity Pf /Mf	Ca++ mg/l	Cl- mg/l	Sand %	Solids %	Mudtype
961206	8 1/2"	4580.0	2.00	63.0	23.0	12/22		/		126000	1.0	37.0	OIL BASED
961207	8 1/2"	4580.0	2.00	66.0	22.0	12/23		/	1570		1.0	36.5	OIL BASED
961208	8 1/2"	4598.0	2.00	64.0	19.0	11/21		/	1570		1.0	37.0	OIL BASED
961209	8 1/2"	4603.0	2.00	65.0	22.0	12/23		/	1570		1.0	37.0	OIL BASED
961210	8 1/2"	4614.0	2.00	66.0	24.0	12/24		/	1570		1.0	36.5	OIL BASED
961211	8 1/2"	4632.0	2.00	64.0	22.0	12/23		/	169		1.0	37.5	OIL BASED
961212	8 1/2"	4626.0	2.00	62.0	22.0	12/23		/		104000	1.0	37.5	OIL BASED
961213	8 1/2"	4626.0	2.00	63.0	22.0	12/25		/		105	1.0	37.0	OIL BASED
961214	8 1/2"	4626.0	2.00	64.0	18.0	12/24		/		101	1.0	37.0	OIL BASED
961215	8 1/2"	4626.0	2.00	62.0	19.0	11/25		/		101	1.0	37.0	OIL BASED
961216	8 1/2"	4626.0	2.00	57.0	23.0	10/23		/		101	1.0	37.0	OIL BASED
961217	8 1/2"	4661.0	2.00	57.0	22.0	11/22		/		101	1.0	37.5	OIL BASED
961218	8 1/2"	4661.5	2.00	57.0	21.0	10/22		/		101	1.0	37.5	OIL BASED
961219	8 1/2"	4661.5	2.05	64.0	22.0	12/23		/		105	1.2	39.0	OIL BASED
961220	8 1/2"	4661.5	2.07	65.0	24.0	12/23		/		109	1.5	39.5	OIL BASED
961221	8 1/2"	4661.5	2.07	65.0	24.0	12/23		/		109	1.5	39.5	OIL BASED
961222	8 1/2"	4661.5	2.07	65.0	24.0	12/23		/		109	1.5	39.5	OIL BASED
961223	8 1/2"	4671.0	2.07	69.0	23.0	12/25		/		105	1.5	40.0	OIL BASED
961224	8 1/2"	4671.0	2.07	69.0	23.0	12/25		/		105	1.5	40.0	OIL BASED
961225	8 1/2"	4699.0	2.07	68.0	24.0	11/23		/		105	1.2	40.0	OIL BASED
961226	8 1/2"	4699.0	2.07	62.0	24.0	11/23		/		105	1.0	40.0	OIL BASED
961227	8 1/2"	4719.0	2.07	65.0	24.0	11/23		/		101	1.0	39.5	OIL BASED
961228	8 1/2"	4728.0	2.07	67.0	25.0	12/24		/		105	1.0	39.5	OIL BASED
961229	8 1/2"	4728.0	2.07	67.0	25.0	12/24		/		105	1.0	39.5	OIL BASED
961230	8 1/2"	4728.0	2.07	66.0	23.0	12/23		/		93	1.0	39.0	OIL BASED
961231	8 1/2"	4742.0	2.07	65.0	23.0	11/23		/		86	1.5	38.5	OIL BASED
970101	8 1/2"	4754.0	2.07	65.0	22.0	12/24		/		90	1.0	38.0	OIL BASED