

FMT pressure measurements (Run 1A)

Depth mMD RT	Drawdown mobility mD/cp	Mud pressure		Formation pressure kPa	Comments
		Before kPa	After kPa		
1908.1	164.4	23845	23843	19242	Good
1910.1	213.6	23864	23863	19258	Good
1914.5	90.7	23913	23915	19299	Good
1946.5	411.9	24311	24311	19615	Good
1950.4	49.2	24356	24358	19652	Good
1960	-	24475	24476		Tight
1992.3	8.8	24875	24874	20065	Sample
2001.5	48.8	24986	24983	20156	Good
2006.5	15.2	25045	25044	20244	Good
2012	8.8	25117	25114	20260	Good
2042	7.1	25487	25487	20556	Good
2131	42.9	26571	26575	21521	Good
2135	26.2	26626	26626	21561	Good
2140	8	26687	26686	21610	Good
2154.5	7.7	26869	26866	21664	Good
2199	-	27413	27414		Tight
2344	-	29188	29188		Tight
2836.5	7.7	35220	35219	29290	Good
2862.5	10.8	35541	35538	29603	Good
2893	51.8	35912	35912	29907	Good
2895	169.1	35939	35939	29912	Good
2904	20.1	36050	36050	30000	Good
2910	17.6	36125	36124	30059	Good

Table 3.3.1

FMT segregated sample (Run 1A and 1B)

Measurements		Depth		Remarks	Opening pressure Measured offshore kPa
FMT run	Zone	m MD RT	Chamber s		
1A	Florø sst.	1992.3	10 + 4 litres	<p>10 litres chamber drained offshore</p> <p>10 litres of filtrate/formation water.</p> <p>Trace of oilfilm.</p> <p>H₂S = 0 ppm</p> <p><i>Analysis offshore:</i></p> <p>Cl⁻ = 35000 mg/l</p> <p>Ca²⁺ = 480 mg/l</p> <p>pH = 7.0</p> <p>Tot. hardnes = 680 mg/l</p>	690
				<p>4 litres chamber sent to PVT lab</p>	4830
1B	Sognefjord Formation	2893.0	10 + 4 litres	<p>10 litres chamber drained offshore</p> <p>10 litres of filtrate/formation water.</p> <p>H₂S = 0 ppm</p> <p><i>Analysis offshore:</i></p> <p>Cl⁻ = 33500 mg/l</p> <p>Ca²⁺ = 500 mg/l</p> <p>pH = 7.7</p> <p>Tot. hardnes = 640 mg/l</p>	2070
				<p>4 litres chamber sent to PVT lab</p>	6210

Table 3.3.3

**FINAL WELL REPORT
WELL 6204/11-2
PL 175**



RESTRICTED

Document no.: 98S9400009680

Rev. no.: 0 Date : 06.07.98

From Run 1A, taken at 1992.3 m, it was reported trace of oil film on the fluid that was drained from the 10 litres chamber offshore. The 4 litres chamber has been analysed and no oil film could be seen on the sample.

It is likely that the chambers has not been properly cleaned before the job, which resulted in that traces of hydrocarbons was reported.

The small amounts of oil which was extracted using Freon has been analysed beeing base oil.

The results of the water analysis are listed in Table 3.3.4.

Administration Data					
Well Name	6204/11-2	Location	Norway	Date & Time	28-Dec-97 10:00
Operator	STATOIL	Contractor/Rlg	Odfjell Drilling	Interval	8 1/2 In
Operator Rep.	Peter Guest	Contractor Rep.	Stein Skar	Dowell Eng.	Anita Abrahamson
Analysis Type	WBM	Fluid System	KCL PAC	Spud Date	05-Dec-1997

DRILLING FLUIDS PROPERTIES RECORD - From 10-Dec-1997 23:59 to 28-Dec-1997 10:00

Property Name	Units	1	2	3	4	5	6	7	8	9	10	11	12	13
Date		11-Dec-97	12-Dec-97	13-Dec-97	14-Dec-97	14-Dec-97	14-Dec-97	15-Dec-97	15-Dec-97	16-Dec-97	16-Dec-97	16-Dec-97	17-Dec-97	17-Dec-97
Time		15:00	03:00	20:00	04:00	13:01	22:31	04:10	22:30	04:30	12:32	22:30	05:00	13:00
Sample loc.		RESERVE	RESERVE	FlowLine	Active S	Active S	Active S	Active S	Active S	Active S	Active S	Active S	Active S	Active S
MD	m	1352.	1352.	1464.	1761.	1953.	2110.	2188.	2263.	2339.	2420.	2557.	2635.	2710.
TVD	m	1352.	1352.	1464.	1761.	1952.	2110.	2188.	2263.	2339.	2419.	2556.	2634.	2709.
Hole Angle	deg	0.	0.	0.7		1.		2.		1.		2.		1.
Flow. Temp.	degC			13.	16.	30.	27.	27.	29.	30.		34.	34.	30.
Density		1.15	1.15	1.21	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
Gradient	bar/m	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Funnel Visc.	s	55	57	59	62	53	58	59	59	59	60	60	61	60
600 rpm		50.	49.	50.	59.	55.	56.	54.	54.	53.	54.	56.	56.	62.
300 rpm		35.	34.	35.	43.	38.	40.	39.	39.	38.	39.	40.	40.	44.
200 rpm		29.	29.	30.	35.	31.	34.	33.	33.	32.	32.	34.	35.	36.
100 rpm		22.	22.	22.	25.	22.	25.	25.	25.	24.	23.	25.	25.	26.
60 rpm				18.	21.		20.	20.	20.	19.	19.	20.	20.	20.
30 rpm				15.	15.		15.	16.	15.	15.	15.	15.	15.	16.
6 rpm		8.	8.	8.	8.	8.	8.	8.	8.	8.	8.	8.	8.	8.
3 rpm		6.	6.	6.	6.	6.	6.	6.	6.	6.	6.	6.	6.	6.
Rheo. Temp.	degC	50.	50.	50.	50.	50.	50.	50.	50.	50.	50.	50.	50.	50.
Plastic Visc.	cP	15.	15.	15.	16.	17.	16.	15.	15.	15.	15.	16.	16.	18.
Yield Point	Pa	9.6	9.1	9.6	12.9	10.1	11.5	11.5	11.5	11.	11.5	11.5	11.5	12.4
10 sec. Gel	Pa	6.	5.	3.	3.	3.5	3.	3.5	3.	3.5	3.5	3.	3.	3.5
10 min. Gel	Pa	9.	9.	5.	8.	6.	5.	6.	5.	5.	5.	5.	4.5	5.
n-annulus		0.383	0.377	0.383	0.428	0.401	0.412	0.406	0.406	0.401	0.406	0.412	0.412	0.433
K-annulus	Pa*s^n	1.642	1.659	1.642	1.526	1.595	1.566	1.58	1.58	1.595	1.58	1.566	1.566	1.514
API Filtrate	mL	2.2	2.	2.	2.3	2.1	2.6	2.8	1.8	1.9	2.1	2.	2.	2.
API Cake	1/32nd"	1	1	1	1	1	1	1	1	1	1	1	1	1
Pm	mL	3.5	3.3	0.2	0.1	0.	0.	0.	0.	0.	0.	0.05	0.05	0.
Pf	mL	0.3	0.25	0.1	0.05	0.01	0.	0.	0.	0.	0.	0.05	0.05	0.
Mf	mL	1.	0.85	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.25	0.35	0.35	0.3
pH		9.5	9.5	9.	8.5	8.	8.	8.	8.	8.	7.9	8.	8.1	8.1
Total Hard.	mg/L	801.6	601.2	721.4	1002.	921.8	921.8	881.7	841.6	841.6	841.6	761.5	761.5	761.5
Ca2+	mg/L	400.8	320.6	400.8	641.2	681.3	641.2	561.1	521.	521.	521.	400.8	400.8	400.8
Mg2+	mg/L	243.1	170.1	194.4	218.7	145.8	170.1	194.4	194.4	194.4	194.4	218.7	218.7	218.7
Cl-	g/L	52.	55.	54.	56.	60.	68.	70.	70.	70.	71.	75.	76.	75.
KCl	kg/m3	130.	128.	123.	120.	120.	125.	122.	131.	122.	135.	134.	130.	135.
Excess Lime	kg/m3	2.4	2.3	0.1	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
Sand %	%	0.	0.	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1
Water %	%	90.	90.	87.	85.5	86.	85.5	85.5	85.	85.5	85.5	85.	85.	85.
Brine %	%	93.8	94.5	91.2	89.7	90.2	90.3	90.3	90.	90.3	90.7	90.2	90.2	90.3

This report has been produced with MudCADE Software 1.1c - Thu 22-Jan-1998 11:40

Administration Data					
Well Name	6204/11-2	Location	Norway	Date & Time	28-Dec-97 10:00
Operator	STATOIL	Contractor/Rig	Odfjell Drilling	Interval	8 1/2 In
Operator Rep.	Peter Guest	Contractor Rep.	Stein Skar	Dowell Eng.	Anita Abrahamsen
Analysis Type	WBM	Fluid System	KCL PAC	Spud Date	05-Dec-1997

DRILLING FLUIDS PROPERTIES RECORD - From 10-Dec-1997 23:59 to 28-Dec-1997 10:00													
Property Name	Units	14	15	16	17	18	19	20	21	22	23	24	25
Date		18-Dec-97	18-Dec-97	18-Dec-97	19-Dec-97	19-Dec-97	20-Dec-97	20-Dec-97	21-Dec-97	21-Dec-97	21-Dec-97	22-Dec-97	23-Dec-97
Time		04:45	12:23	22:00	12:30	23:00	11:45	16:15	11:30	17:30	21:00	16:00	13:00
Sample loc.		Active S	Active S	Active S	Active S	Active S	Active S	Active S	Active S	Active S	FlowLine	Active S	Active S
MD	m	2715.	2750.	2741.	2752.	2789.	2827.	2843.	2880.	2902.	2920.	2920.	2920.
TVD	m	2714.	2748.	2740.	2751.	2788.	2826.	2842.	2879.	2901.	2919.	2919.	2919.
Hole Angle	deg					1.6							
Flow. Temp.	degC		30.	35.	28.	32.	28.	27.	32.	31.	30.		
Density		1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
Gradient	bar/m	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Funnel Visc.	s	62	63	63	65	62	65	67	64	69	69	75	77
600 rpm		56.	59.	58.	64.	63.	65.	68.	64.	67.	68.	69.	70.
300 rpm		40.	43.	42.	46.	45.	47.	49.	46.	49.	49.	50.	50.
200 rpm		35.	35.	35.	38.	37.	38.	42.	39.	41.	42.	42.	43.
100 rpm		25.	26.	26.	28.	27.	28.	31.	28.	31.	31.	31.	31.
60 rpm		20.	20.	20.	22.	21.	22.	25.	23.	25.	25.	26.	26.
30 rpm		15.	15.	15.	16.	15.	17.	19.	17.	19.	19.	19.	19.
6 rpm		8.	8.	8.	8.	8.	8.	9.	8.	9.	9.	9.	9.
3 rpm		6.	6.	6.	6.	6.	6.	7.	6.	7.	6.	6.	7.
Rheo. Temp.	degC	50.	50.	50.	50.	50.	50.	50.	50.	50.	50.	50.	50.
Plastic Visc.	cP	16.	16.	16.	18.	18.	18.	19.	18.	18.	19.	19.	20.
Yield Point	Pa	11.5	12.9	12.4	13.4	12.9	13.9	14.4	13.4	14.8	14.4	14.8	14.4
10 sec. Gel	Pa	3.5	3.5	2.5	3.	3.	3.	3.5	3.5	3.5	3.5	3.5	3.5
10 min. Gel	Pa	5.	5.	4.5	5.	5.	4.5	5.5	5.5	5.5	5.5	5.5	5.5
n-annulus		0.412	0.428	0.423	0.442	0.438	0.447	0.423	0.442	0.423	0.456	0.46	0.427
K-annulus	Pa-s^n	1.566	1.526	1.539	1.49	1.502	1.479	1.795	1.49	1.795	1.457	1.447	1.783
API Filtrate	mL	2.	2.3	2.	1.8	2.1	1.9	2.	1.8	2.1	2.2	2.2	2.2
API Cake	1/32nd"	1	1	1	1	1	1	1	1	1	1	1	1
Pm	mL	0.	0.	0.2	0.3	0.3	0.35	0.35	0.25	0.3	0.4	0.4	0.4
Pf	mL	0.	0.	0.1	0.05	0.05	0.05	0.05	0.03	0.03	0.05	0.05	0.05
Mf	mL	0.3	0.3	0.4	0.35	0.35	0.35	0.35	0.25	0.25	0.35	0.35	0.35
pH		8.2	8.2	8.4	8.3	8.3	8.3	8.3	8.1	8.	8.4	8.4	8.4
Total Hard.	mg/L	761.5	841.6	521.	561.1	521.	561.1	561.1	601.2	601.2	400.8	400.8	400.8
Ca2+	mg/L	400.8	480.9	280.5	280.5	320.6	360.7	360.7	360.7	360.7	200.4	200.4	200.4
Mg2+	mg/L	218.7	218.7	145.8	170.1	121.5	121.5	121.5	145.8	145.8	121.5	121.5	121.5
Cl-	g/L	73.	76.	71.	72.	70.	72.	71.	68.	69.	67.	68.	68.
KCl	kg/m3	133.	140.	135.	140.	135.	140.	138.	138.	139.	138.	140.	141.
Excess Lime	kg/m3	0.	0.	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3
Sand %	%	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2
Water %	%	85.	85.	85.	84.5	85.	85.5	86.	85.5	85.5	85.5	85.5	85.5
Brine %	%	90.1	90.5	90.1	89.7	90.	90.8	91.2	90.7	90.6	90.5	90.6	90.6

This report has been produced with MudCADE Software 1.1c - Thu 22-Jan-1998 11:40

Title:
Special Study on Possible Cretaceous Source Rocks in Well 6204/11-2

Document no.:	Contract no./project no.:	Filing no.:
---------------	---------------------------	-------------

Classification:	Distribution: Partners, NPD, Statoil archives
-----------------	---

Distribution date: Dec. 98	Rev. date: B498-2129-1	Rev. no.:	Copy no.: 8
--------------------------------------	----------------------------------	-----------	-----------------------

Author(s)/Source(s):
Geolab Nor

Subjects:
The mud-system used in this well should be a waterbased system, but contains minor oil contamination, which could affect the results/interpretations.

Remarks:

Valid from:	Updated:
-------------	----------

Circulated by:	Authority to approve deviations:
----------------	----------------------------------

Techn. responsible:	Name:	Date/Signature:
Responsible:	Name:	Date/Signature:
Recommended:	Name:	Date/Signature:
Approved: LTEK-PE	Name: Per Emil Eliassen	Date/Signature: 4/12-98 Per Emil Eliassen

Chapter 1

INTRODUCTION

1.1 General Well Information

The well 6204/11-2 is located in the area north-east of the Agat field. The 6204/11 block and adjoining blocks are shown in Figure 1.1.

The aims of the Statoil-designed analytical program were to evaluate the possible source rock sections of the Cretaceous. A water based mud system (KCL polymer glycol [Staplex]) was used in drilling this well. Analysis of this mud shows that nC_{15} - nC_{34} alkanes are present, which should not be there (see section 2.1). A routine well report on this well which is entitled "Geochemical report on Well NOCS 6204/11-2" covers the whole analysed interval of the well.

Table 1. Analytical programme

Formation Preliminary	Sample depth	Sample type	Table 3 Lithological descr.	Table 4 Vitrinite reflectance	Table 5 TOC	Table 5 Rock Eval	Table 6 TE-GC	Table 6 Py-GC mrk. evt. m/CD	Table 7 Kerogen description	Table 8 Bulk composition	Table 9 GC sats	Table 9 GC arom	Table 11 GCMS sats	Table 12 GCMS aroms	Miniextr. & .soxtec extr.
	2356	cutt	100% clyst		x	x	CD	CD							
	2365	cutt	100% clyst		x	x	cd	cd		X	CD	CD	CD	cd	x
	2371	cutt	100% clyst		x	x									
	2386	cutt	100% clyst		x	x	CD	CD	x	X	CD	CD	CD	cd	
	2392	cutt	100% clyst		x	x									
	2398	cutt	90% clyst	x	x	x	CD	CD	x						x
	2668	cutt	100% clyst		x	x	CD	CD		X	CD	CD	CD	cd	x
	2674	cutt	90% clyst		x	x	CD	CD							
	2686	cutt	90% clyst		x	x	CD	CD		X	CD	CD	CD	cd	
	2698	cutt	100% clyst	x	x	x	CD	CD							
	2707	cutt	70% clyst		x	x									x
	Total		11	2	11	11	8	8	2	4	4	4	4	4	4

+dubl.

Belastes spes. studiet	11	2	6	6	2	2	2	2	4	4	4	4	4	4	4
------------------------	----	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Table 3 : Lithology description for well NOCS 6204/11-2

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample	
Int Cvd	TOC%	%	Lithology description				
2356.00						0023	
	1.45	100	Sh/Clst: brn gy to m drk gy			0023-1L	
2365.00						0024	
	1.51	100	Sh/Clst: brn blk to gy blk			0024-1L	
2371.00						0025	
	1.74	100	Sh/Clst: drk gy to gy blk			0025-1L	
2377.00						0026	
	2.85	100	Sh/Clst: drk gy to gy blk			0026-1L	
2386.00						0027	
	2.53	100	Sh/Clst: drk gy to gy blk			0027-1L	
2392.00						0028	
	2.89	100	Sh/Clst: drk gy to gy blk			0028-1L	
2398.00						0029	
	2.93	90	Sh/Clst: drk gy to gy blk			0029-1L	
		10	Sh/Clst: m lt gy to m gy			0029-2L	
2668.00						0035	
	2.11	100	Sh/Clst: drk gy to ol blk			0035-1L	
2674.00						0036	
	2.32	90	Sh/Clst: drk gy to ol blk			0036-1L	
		10	Ca : gy pi			0036-2L	

Table 3 : Lithology description for well NOCS 6204/11-2

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
2686.00						0037
	2.65	90	Sh/Clst: drk gy to ol blk			0037-1L
		5	Ca : gy pi			0037-2L
		5	S/Sst : lt gy to m gy			0037-3L
2698.00						0038
	2.66	100	Sh/Clst: drk gy to ol blk			0038-1L
2707.00						0039
	2.19	70	Sh/Clst: drk gy to brn blk, ol blk			0039-1L
		30	Congl			0039-2L

Table 4 : Thermal Maturity Data for well NOCS 6204/11-2

Depth unit of measure: m

Depth	Typ	Lithology	Vitrinite Reflectance (%)	Number of Readings	Standard Deviation (%)	Spore Fluorescence Colour	SCI	Tmax (°C)	Sample
2398.00	cut	Sh/Clst: drk gy to gy blk	0.42	23	0.06	-	5.0(?)	426	0029-1L
2698.00	cut	Sh/Clst: drk gy to ol blk	0.51	21	0.06	-	-	366	0038-1L

Table 5A: Rock-Eval table for well NOCS 6204/11-2

Depth unit of measure: m

Depth	Typ	Form	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
2356.00	cut		Sh/Clst: brn gy to m drk gy	1.03	4.26	1.46	2.92	1.45	294	101	5.3	0.19	356	0023-1L
2365.00	cut		Sh/Clst: brn blk to gy blk	0.61	4.18	2.08	2.01	1.51	277	138	4.8	0.13	368	0024-1L
2371.00	cut		Sh/Clst: drk gy to gy blk	0.41	4.26	1.94	2.20	1.74	245	111	4.7	0.09	374	0025-1L
2377.00	cut		Sh/Clst: drk gy to gy blk	0.71	8.83	1.58	5.59	2.85	310	55	9.5	0.07	422	0026-1L
2386.00	cut		Sh/Clst: drk gy to gy blk	0.61	8.14	1.64	4.96	2.53	322	65	8.8	0.07	422	0027-1L
2392.00	cut		Sh/Clst: drk gy to gy blk	0.68	9.03	1.70	5.31	2.89	312	59	9.7	0.07	425	0028-1L
2398.00	cut		Sh/Clst: drk gy to gy blk	0.61	8.77	1.81	4.85	2.93	299	62	9.4	0.07	426	0029-1L
2668.00	cut		Sh/Clst: drk gy to ol blk	0.69	7.68	2.21	3.48	2.11	364	105	8.4	0.08	360	0035-1L
2674.00	cut		Sh/Clst: drk gy to ol blk	0.56	6.85	1.98	3.46	2.32	295	85	7.4	0.08	365	0036-1L
2686.00	cut		Sh/Clst: drk gy to ol blk	0.71	6.62	2.04	3.25	2.65	250	77	7.3	0.10	360	0037-1L
2698.00	cut		Sh/Clst: drk gy to ol blk	0.44	5.93	2.08	2.85	2.66	223	78	6.4	0.07	366	0038-1L
2707.00	cut		Sh/Clst: drk gy to brn blk, ol blk	0.59	5.46	1.94	2.81	2.19	249	89	6.1	0.10	367	0039-1L

Table 5B: Rock-Eval table for well RE, STD

Depth unit of measure: m

Depth	Typ	Form	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
1.00	std		bulk	0.44	18.96	1.60	11.85	-	-	-	19.4	0.02	420	0191-0B
2.00	std		bulk	0.48	19.57	1.66	11.79	-	-	-	20.0	0.02	418	0192-0B
3.00	std		bulk	0.44	19.30	1.51	12.78	-	-	-	19.7	0.02	419	0193-0B

Table 6 : Pyrolysis GC Data (S2 peak) as Percentage of Total Area for Well NOCS 6204/11-2

Depth unit of measure: m

Depth	Typ	Lithology	C1	C2-C5	C6-C14	C15+	S2 from Rock-Eval	Sample
2356.00	cut	Sh/Clst: brn gy to m drk gy	2.03	42.62	49.89	5.46	4.26	0023-1L
2365.00	cut	Sh/Clst: brn blk to gy blk	2.58	38.92	48.28	10.22	4.18	0024-1L
2377.00	cut	Sh/Clst: drk gy to gy blk	2.67	31.26	43.12	22.95	8.83	0026-1L
2386.00	cut	Sh/Clst: drk gy to gy blk	3.09	28.86	42.88	25.17	8.14	0027-1L
2398.00	cut	Sh/Clst: drk gy to gy blk	3.38	25.83	40.13	30.66	8.77	0029-1L
2668.00	cut	Sh/Clst: drk gy to ol blk	1.61	37.82	54.79	5.78	7.68	0035-1L
2674.00	cut	Sh/Clst: drk gy to ol blk	3.82	32.94	55.98	7.25	6.85	0036-1L
2686.00	cut	Sh/Clst: drk gy to ol blk	1.97	36.01	55.63	6.39	6.62	0037-1L
2698.00	cut	Sh/Clst: drk gy to ol blk	2.24	35.61	55.48	6.67	5.93	0038-1L

Table 7: Visual Kerogen Composition Data for well NOCS 6204/11-2

Depth unit of measure: m

Depth	Typ	Lithology	Amorphous			Algal/Phytoplankton				Herbaceous				Woody				Coaly			SCI	Sample											
			AM%	FA	HA	AP%	Cy	Ta	Bo	Di	De	HE%	SP	Cu	De	WO%	FL	NF	De	CO%			FS	De									
2386.00	cut	Sh/Clst	75	*	**	TR	*		*					5	*	*	**					5		*	**			15	*	**		4.5-5.0(?)	0027-1L
2398.00	cut	Sh/Clst	80	*	**	TR	*		*					TR	*	*	**					TR		*	**			20	*	**		5.0(?)	0029-1L

Table 8a: MPLC Bulk Composition: Weight of EOM and Fraction for well NOCS 6204/11-2

Depth unit of measure: m

Depth	Typ	Lithology	Rock Extracted (g)	EOM (mg)	Sat (mg)	Aro (mg)	Asph (mg)	NSO (mg)	HC (mg)	Non-HC (mg)	TOC (e) (%)	Sample
2365.00	cut	Sh/Clst: brn blk to gy blk	6.1	1.3	0.3	0.2	0.5	0.3	0.5	0.8	1.59	0024-1L
2377.00	cut	Sh/Clst: drk gy to gy blk	6.5	2.8	0.2	0.2	0.4	2.0	0.4	2.4	2.74	0026-1L
2386.00	cut	Sh/Clst: drk gy to gy blk	8.4	3.7	0.6	0.6	0.7	1.7	1.3	2.4	2.66	0027-1L
2668.00	cut	Sh/Clst: drk gy to ol blk	6.9	1.3	0.3	0.3	0.3	0.5	0.5	0.8	2.02	0035-1L
2686.00	cut	Sh/Clst: drk gy to ol blk	9.6	1.8	0.0	0.0	0.8	0.9	0.1	1.7	2.31	0037-1L

Table 8b: MPLC Bulk Composition: Concentration of EOM and Fraction (wt ppm rock) for well NOCS 6204/11-2

Depth unit of measure: m

Depth	Typ	Lithology	EOM	Sat	Aro	Asph	NSO	HC	Non-HC	Sample
2365.00	cut	Sh/Clst: brn blk to gy blk	213	47	35	81	47	83	129	0024-1L
2377.00	cut	Sh/Clst: drk gy to gy blk	432	33	33	61	303	67	364	0026-1L
2386.00	cut	Sh/Clst: drk gy to gy blk	436	75	75	82	202	151	285	0027-1L
2668.00	cut	Sh/Clst: drk gy to ol blk	187	36	36	43	72	72	115	0035-1L
2686.00	cut	Sh/Clst: drk gy to ol blk	187	2	2	83	98	5	181	0037-1L

Table 8c: MPLC Bulk Composition: Concentration of EOM and Fraction (mg/g TOC(e)) for well NOCS 6204/11-2

Depth unit of measure: m

Depth	Typ	Lithology	EOM	Sat	Aro	Asph	NSO	HC	Non-HC	Sample
2365.00	cut	Sh/Clst: brn blk to gy blk	13.40	3.00	2.25	5.16	3.00	5.25	8.15	0024-1L
2377.00	cut	Sh/Clst: drk gy to gy blk	15.75	1.23	1.23	2.25	11.04	2.45	13.29	0026-1L
2386.00	cut	Sh/Clst: drk gy to gy blk	16.42	2.85	2.85	3.11	7.60	5.70	10.72	0027-1L
2668.00	cut	Sh/Clst: drk gy to ol blk	9.29	1.79	1.79	2.14	3.57	3.57	5.71	0035-1L
2686.00	cut	Sh/Clst: drk gy to ol blk	8.10	0.12	0.12	3.60	4.26	0.24	7.86	0037-1L

Table 8d: MPLC Bulk Composition: Material extracted from the rock (%) for well NOCS 6204/11-2

Depth unit of measure: m

Depth	Typ	Lithology	Sat	Aro	Asph	NSO	Total	HC	Non-HC	Recov. MPLC	Recov. Asph	Sample
2365.00	cut	Sh/Clst: brn blk to gy blk	22.38	16.78	38.46	22.38	100.00	39.16	60.84	-	0.69	0024-1L
2377.00	cut	Sh/Clst: drk gy to gy blk	7.79	7.79	14.29	70.13	100.00	15.58	84.42	-	0.57	0026-1L
2386.00	cut	Sh/Clst: drk gy to gy blk	17.36	17.36	18.97	46.30	100.00	34.73	65.27	-	0.60	0027-1L
2668.00	cut	Sh/Clst: drk gy to ol blk	19.23	19.23	23.08	38.46	100.00	38.46	61.54	-	0.62	0035-1L
2686.00	cut	Sh/Clst: drk gy to ol blk	1.50	1.50	44.44	52.55	100.00	3.00	97.00	-	0.72	0037-1L

Table 8e: MPLC Bulk Composition: Ratios for well NOCS 6204/11-2

Depth unit of measure: m

Depth	Typ	Lithology	Sat	HC	Asp	Sample
			Aro	Non-HC	NSO	
2365.00	cut	Sh/Clst: brn blk to gy blk	1.33	0.64	1.72	0024-1L
2377.00	cut	Sh/Clst: drk gy to gy blk	1.00	0.18	0.20	0026-1L
2386.00	cut	Sh/Clst: drk gy to gy blk	1.00	0.53	0.41	0027-1L
2668.00	cut	Sh/Clst: drk gy to ol blk	1.00	0.63	0.60	0035-1L
2686.00	cut	Sh/Clst: drk gy to ol blk	1.00	0.03	0.85	0037-1L

Table 8f: Iatroscan TLC Bulk Composition: Absolute yields in mg/g rock for well NOCS 6204/11-2

Depth unit of measure: m

Depth	Typ	Lithology	Sat HC	Aro HC	NSO	Asp	HC	Non-HC	EOM	Sample
2365.00	cut	Sh/Clst	0.03	0.02	0.08	0.08	0.06	0.16	0.21	0024-1L
2377.00	cut	Sh/Clst	0.05	0.09	0.22	0.06	0.15	0.28	0.43	0026-1L
2386.00	cut	Sh/Clst	0.05	0.08	0.22	0.08	0.13	0.31	0.44	0027-1L
2668.00	cut	Sh/Clst	0.02	0.04	0.08	0.04	0.06	0.13	0.19	0035-1L
2686.00	cut	Sh/Clst	0.01	0.04	0.05	0.08	0.05	0.13	0.19	0037-1L

Table 8g: Iatroscan TLC Bulk Composition: Rel. percentages of sep. fractions for well NOCS 6204/11-2

Depth unit of measure: m

<u>Depth</u>	<u>Typ</u>	<u>Lithology</u>	<u>Sat HC</u>	<u>Aro HC</u>	<u>NSO</u>	<u>Asp</u>	<u>Total</u>	<u>HC</u>	<u>Non-HC</u>	<u>Recov. Iatr.</u>	<u>Recov. Asp</u>	<u>Sample</u>
2365.00	cut	Sh/Clst	15.08	10.88	35.58	38.46	100.00	25.96	74.04	0.49	0.69	0024-1L
2377.00	cut	Sh/Clst	12.37	21.92	51.43	14.29	100.00	34.29	65.71	0.60	0.57	0026-1L
2386.00	cut	Sh/Clst	12.12	17.57	51.34	18.97	100.00	29.69	70.31	0.15	0.60	0027-1L
2668.00	cut	Sh/Clst	9.87	23.49	43.56	23.08	100.00	33.36	66.64	0.64	0.62	0035-1L
2686.00	cut	Sh/Clst	4.95	23.94	26.67	44.44	100.00	28.89	71.11	1.08	0.72	0037-1L

Table 9a: Quantitative Analysis of Saturated Fraction for well 6204/11-2

sample	nC15 mg/g sat	nC16 mg/g sat	iC18 mg/g sat	nC17 mg/g sat	Pr mg/g sat	nC18 mg/g sat	Ph mg/g sat	nC19 mg/g sat	nC20 mg/g sat	nC21 mg/g sat	nC22 mg/g sat	nC23 mg/g sat	nC24 mg/g sat	nC25 mg/g sat	nC26 mg/g sat	nC27 mg/g sat	nC28 mg/g sat	nC29 mg/g sat	nC30 mg/g sat	nC31 mg/g sat	nC32 mg/g sat	nC33 mg/g sat	nC34 mg/g sat
2365.00m	1.03	2.98	4.78	3.99	4.36	4.35	2.83	1.66	1.60	1.06	1.22	1.14	1.00	1.02	0.89	1.50	0.43	0.76	0.62	0.84	0.41	0.29	0.00
2377.00m	4.59	7.99	9.05	8.86	41.88	11.97	23.81	5.49	7.10	5.42	4.75	4.93	3.79	3.95	9.72	18.50	3.72	5.73	5.61	5.84	1.22	0.96	0.00
2386.00m	1.83	2.67	2.91	2.38	13.80	2.91	5.80	1.64	1.98	1.63	1.29	1.21	1.15	0.96	2.28	4.40	1.22	1.43	1.61	1.63	0.00	0.00	0.00
2668.00m	0.76	1.47	2.56	1.16	1.76	1.53	0.42	0.74	0.73	0.65	0.55	0.51	0.48	0.00	0.56	0.74	0.54	1.15	0.43	1.33	0.55	0.48	0.00
2686.00m	2.05	3.34	3.53	2.69	6.50	4.79	1.69	2.43	2.22	1.79	1.27	1.30	1.67	0.00	1.39	1.99	1.62	2.33	1.31	2.36	0.82	1.86	0.00

Table 9B: Saturated Hydrocarbon Ratios (peak area) for well NOCS 6204/11-2

Depth unit of measure: m

Depth	Typ	Lithology	<u>Pristane</u>	<u>Pristane</u>	<u>Pristane/nC17</u>	<u>Phytane</u>	<u>nC17</u>	Sample
			<u>nC17</u>	<u>Phytane</u>	<u>Phytane/nC18</u>	<u>nC18</u>	<u>CPI1</u>	
2365.00	cut	Sh/Clst: brn blk to gy blk	1.09	1.54	1.68	0.65	1.58	0024-1L
2377.00	cut	Sh/Clst: drk gy to gy blk	4.72	1.76	2.37	1.99	1.58	0026-1L
2386.00	cut	Sh/Clst: drk gy to gy blk	5.79	2.38	2.90	2.00	1.50	0027-1L
2668.00	cut	Sh/Clst: drk gy to ol blk	1.52	4.17	5.50	0.28	1.58	0035-1L
2686.00	cut	Sh/Clst: drk gy to ol blk	2.42	3.85	6.86	0.35	1.21	0037-1L

Table 9Ca: Aromatic Hydrocarbon Ratios (peak area) for well NOCS 6204/11-2

Depth unit of measure: m

Depth	Typ	Lithology	MNR	DMNR	BPhR	2/1MP	MPI1	MPI2	Rc	DBT/P	4/1MDBT	(3+2) /1MDBT	Sample
2365.00	cut	Sh/Clst: brn blk to gy blk	-	-	-	-	-	-	-	-	-	-	0024-1L
2377.00	cut	Sh/Clst: drk gy to gy blk	-	-	-	-	-	-	-	-	-	-	0026-1L
2386.00	cut	Sh/Clst: drk gy to gy blk	1.18	-	0.21	-	-	-	-	-	-	-	0027-1L
2668.00	cut	Sh/Clst: drk gy to ol blk	-	-	-	-	-	-	-	-	-	-	0035-1L
2686.00	cut	Sh/Clst: drk gy to ol blk	-	-	-	-	-	-	-	-	-	-	0037-1L

Table 9Cb: Aromatic Hydrocarbon Ratios (peak area) for well NOCS 6204/11-2

Depth unit of measure: m

Depth	Typ	Lithology	F1	F2	Sample
2365.00	cut	Sh/Clst: brn blk to gy blk	-	-	0024-1L
2377.00	cut	Sh/Clst: drk gy to gy blk	-	-	0026-1L
2386.00	cut	Sh/Clst: drk gy to gy blk	-	-	0027-1L
2668.00	cut	Sh/Clst: drk gy to ol blk	-	-	0035-1L
2686.00	cut	Sh/Clst: drk gy to ol blk	-	-	0037-1L

Table 11a: Variation in Triterpane Distribution (peak height) SIR for Well NOCS 6204/11-2

Depth unit of measure: m

Depth	Lithology	Ratio1	Ratio2	Ratio3	Ratio4	Ratio5	Ratio6	Ratio7	Ratio8	Ratio9	Rat.10	Rat.11	Rat.12	Rat.13	Rat.14	Sample
2365.00	Sh/Clst	3.11	0.76	0.18	0.52	0.34	0.04	0.12	0.23	0.11	0.10	0.77	0.36	0.33	35.18	0024-1
2377.00	Sh/Clst	4.48	0.82	0.15	0.37	0.27	0.04	0.69	1.87	0.41	0.01	0.74	0.31	0.43	16.77	0026-1
2386.00	Sh/Clst	3.79	0.79	0.15	0.36	0.27	0.04	0.58	1.61	0.37	0.01	0.77	0.32	0.40	15.64	0027-1
2668.00	Sh/Clst	10.88	0.92	0.27	0.46	0.31	0.04	0.23	0.50	0.18	0.03	0.71	0.34	0.47	32.96	0035-1
2686.00	Sh/Clst	25.18	0.96	0.35	0.48	0.33	0.03	0.07	0.14	0.06	0.03	0.67	0.33	0.51	32.22	0037-1

List of Triterpane Distribution Ratios

Ratio 1: $27Tm / 27Ts$

Ratio 2: $27Tm / 27Tm+27Ts$

Ratio 3: $27Tm / 27Tm+30a\beta+30\beta a$

Ratio 4: $29a\beta / 30a\beta$

Ratio 5: $29a\beta / 29a\beta+30a\beta$

Ratio 6: $30d / 30a\beta$

Ratio 7: $28a\beta / 30a\beta$

Ratio 8: $28a\beta / 29a\beta$

Ratio 9: $28a\beta / 28a\beta+30a\beta$

Ratio 10: $24/3 / 30a\beta$

Ratio 11: $30a\beta / 30a\beta+30\beta a$

Ratio 12: $29a\beta+29\beta a / 29a\beta+29\beta a+30a\beta+30\beta a$

Ratio 13: $29\beta a+30\beta a / 29a\beta+30a\beta$

Ratio 14: $32a\beta S / 32a\beta S+32a\beta R$ (%)

Table 11b: Variation in Sterane Distribution (peak height) SIR for Well NOCS 6204/11-2

Depth unit of measure: m

<u>Depth</u>	<u>Lithology</u>	<u>Ratio1</u>	<u>Ratio2</u>	<u>Ratio3</u>	<u>Ratio4</u>	<u>Ratio5</u>	<u>Ratio6</u>	<u>Ratio7</u>	<u>Ratio8</u>	<u>Ratio9</u>	<u>Ratio10</u>	<u>Sample</u>
2365.00	Sh/Clst	0.28	16.77	58.60	0.90	0.81	0.43	0.33	0.41	0.20	0.85	0024-1
2377.00	Sh/Clst	0.26	13.37	63.42	0.83	0.87	0.24	0.18	0.46	0.15	1.00	0026-1
2386.00	Sh/Clst	0.28	13.86	63.33	0.81	0.86	0.26	0.19	0.46	0.16	1.00	0027-1
2668.00	Sh/Clst	0.41	17.94	64.06	1.22	0.83	0.39	0.29	0.47	0.22	1.09	0035-1
2686.00	Sh/Clst	0.32	13.48	58.81	1.07	0.84	0.39	0.31	0.42	0.16	0.83	0037-1

List of Sterane Distribution Ratios

Ratio 1: $27d\beta S / 27d\beta S + 27aaR$

Ratio 2: $29aaS / 29aaS + 29aaR$ (%)

Ratio 3: $2 * (29\beta\beta R + 29\beta\beta S) / (29aaS + 29aaR + 2 * (29\beta\beta R + 29\beta\beta S))$ (%)

Ratio 4: $27d\beta S + 27d\beta R + 27daR + 27daS / 29d\beta S + 29d\beta R + 29daR + 29daS$

Ratio 5: $29\beta\beta R + 29\beta\beta S / 29\beta\beta R + 29\beta\beta S + 29aaS$

Ratio 6: $21a + 22a / 21a + 22a + 29aaS + 29\beta\beta R + 29\beta\beta S + 29aaR$

Ratio 7: $21a + 22a / 21a + 22a + 28daS + 28aaS + 29daR + 29aaS + 29\beta\beta R + 29\beta\beta S + 29aaR$

Ratio 8: $29\beta\beta R + 29\beta\beta S / 29aaS + 29\beta\beta R + 29\beta\beta S + 29aaR$

Ratio 9: $29aaS / 29aaR$

Ratio 10: $29\beta\beta R + 29\beta\beta S / 29aaR$

Table 11c: Raw triterpane data (peak height) m/z 191 SIR for Well NOCS 6204/11-2

Depth unit of measure: m

Depth	Lithology	23/3	24/3	25/3	24/4	26/3	27Ts	27Tm	28aß	25nor30aß	Sample
		29aß	29Ts	30d	29ßa	300	30aß	30ßa	30G	31aßS	
		31aßR	32aßS	32aßR	33aßS	33aßR	34aßS	34aßR	35aßS	35aßR	
2365.00	Sh/Clst	8202.2 19562.6 24990.2	3583.5 3724.2 3581.3	1277.8 1370.9 6598.2	3463.5 7503.0 2481.8	781.6 222.3 2951.1	3431.6 37611.4 1428.1	10673.4 11366.1 1532.8	4566.7 3081.7 2256.2	1519.6 10080.7 1080.1	0024-1
2377.00	Sh/Clst	4522.2 68657.1 135132.2	2113.2 12724.7 5234.8	1332.2 7266.8 25972.5	4454.6 44824.9 3452.9	1312.9 2131.7 13687.0	9544.8 185700.3 1919.8	42771.9 64312.9 4730.4	128434.0 15541.9 5739.8	13199.4 27154.6 5361.7	0026-1
2386.00	Sh/Clst	3244.8 43741.3 79343.6	1808.4 9592.1 2875.6	639.5 4825.0 15508.2	3660.3 30356.6 1859.0	884.2 1542.2 5916.8	7464.7 120796.0 819.3	28320.3 36016.1 2200.0	70595.9 9510.2 2551.8	8306.4 16577.7 1834.2	0027-1
2668.00	Sh/Clst	1339.5 8939.3 11494.1	679.7 1392.4 1556.5	270.3 817.7 3165.8	848.7 5427.0 725.0	183.4 362.6 1502.2	948.5 19605.2 572.7	10316.3 8016.6 676.3	4444.8 556.6 463.6	359.1 8366.4 518.8	0035-1
2686.00	Sh/Clst	1671.9 14409.2 16723.6	881.7 1061.8 2498.5	520.5 1004.5 5257.3	1280.4 7526.7 1084.9	308.5 166.1 1890.2	951.6 29719.3 618.8	23958.6 14773.8 871.0	1971.5 500.0 457.5	374.3 12958.8 327.8	0037-1

Table 11d: Raw sterane data (peak height) m/z 217 SIR for Well NOCS 6204/11-2

Depth unit of measure: m

Depth	Lithology	21a	22a	27dBS	27dBR	27daR	27daS	28dBS	28dBR	28daR*	Sample
		29dBS*	28daS*	27aaR	29dBR	29daR	28aaS	29daS*	28BBS		
		28aaR	29aaS	29BBR	29BBS	29aaR					
2365.00	Sh/Clst	12314.4 5710.0 8971.2	4326.0 3951.6 2196.1	5682.2 14767.8 5503.4	4453.6 4231.7 3763.8	2798.3 1883.4 10897.1	2182.3 1838.1	4805.3 4901.6	3887.3 4230.1	4704.8	0024-1
2377.00	Sh/Clst	46456.2 42612.7 64863.1	16638.7 27342.3 14222.8	35652.6 99572.5 54742.6	30347.9 35509.1 37462.9	24338.1 16125.4 92151.7	28726.6 14008.6	38118.0 48817.9	34806.8 38206.2	33768.4	0026-1
2386.00	Sh/Clst	23748.0 21266.8 32276.1	9002.9 13504.8 7041.1	18802.6 48835.4 26330.2	16082.8 17689.1 17545.4	11853.5 7947.0 43765.4	9374.1 7014.4	19600.6 22723.2	18045.0 17152.6	16576.9	0027-1
2668.00	Sh/Clst	2823.5 2914.3 1293.2	706.1 1339.5 531.0	3312.3 4730.0 1536.7	2651.5 2180.8 1102.3	1741.0 964.3 2429.6	1201.6 534.4	2761.8 1220.2	2340.8 1236.3	1332.6	0035-1
2686.00	Sh/Clst	3184.3 3040.9 1007.8	892.1 1249.1 500.4	2920.7 6207.3 1444.7	2178.3 2043.0 1205.0	1514.8 906.5 3210.6	1019.1 422.8	2105.6 1146.7	1487.2 1056.4	1404.3	0037-1

* 28daR coel with 27aaS, 29dBS coel with 27BBR, 28daS coel with 27BBS, 29daS coel with 28BBR

Table 11e: Raw sterane data (peak height) m/z 218 SIR for Well NOCS 6204/11-2

Depth unit of measure: m

Depth	Lithology	27 β β R	27 β β S	28 β β R	28 β β S	29 β β R	29 β β S	30 β β R	30 β β S	Sample
2365.00	Sh/Clst	5289.1	4046.9	5675.1	5245.6	6229.9	5403.0	857.6	734.6	0024-1
2377.00	Sh/Clst	39162.4	27135.2	63377.5	52160.5	66313.4	55611.7	9065.5	6882.8	0026-1
2386.00	Sh/Clst	18778.8	12511.4	27824.0	22872.7	30489.9	25826.9	3914.2	2795.9	0027-1
2668.00	Sh/Clst	1856.7	1109.6	1477.0	1423.9	1681.2	1630.8	191.4	162.8	0035-1
2686.00	Sh/Clst	2018.2	1109.0	1435.9	1399.4	1763.6	1890.1	176.6	173.4	0037-1

Table 11f: Raw triterpane data (peak height) m/z 177 SIR for Well NOCS 6204/11-2

Depth unit of measure: m

Depth	Lithology	25nor28aß	25nor30aß	Sample
2365.00	Sh/Clst	1014.6	483.2	0024-1
2377.00	Sh/Clst	3319.8	7106.1	0026-1
2386.00	Sh/Clst	1808.2	2891.4	0027-1
2668.00	Sh/Clst	473.0	176.0	0035-1
2686.00	Sh/Clst	228.0	239.7	0037-1

Table 11g: Amount of triterpanes (ppb) m/z 191 SIR for Well NOCS 6204/11-2

Depth unit of measure: m

Depth	Lithology	23/3	24/3	25/3	24/4	26/3	27Ts	27Tm	28aß	25nor30aß	Sample
		29aß	29Ts	30d	29Ba	300	30aß	30Ba	30G	31aßS	
		31aßR	32aßS	32aßR	33aßS	33aßR	34aßS	34aßR	35aßS	35aßR	
2365.00	Sh/Clst	19487.4	8514.0	3035.9	8228.8	1857.0	8153.0	25358.6	10849.9	3610.3	0024-1
		46478.1	8848.1	3257.0	17826.2	528.0	89359.5	27004.3	7321.8	23950.4	
		59373.4	8508.6	15676.5	5896.5	7011.3	3393.0	3641.8	5360.4	2566.2	
2377.00	Sh/Clst	33584.6	15693.8	9893.5	33082.4	9750.6	70885.3	317648.9	953825.4	98026.6	0026-1
		509887.8	94501.2	53967.6	332895.7	15831.4	1379118.2	477624.8	115423.5	201665.5	
		1003570.2	38876.7	192887.2	25642.9	101647.4	14257.7	35130.7	42627.0	39819.1	
2386.00	Sh/Clst	12110.8	6749.4	2386.6	13661.5	3300.2	27860.4	105700.4	263486.2	31002.1	0027-1
		163256.2	35800.6	18008.5	113300.4	5756.0	450849.0	134423.3	35495.2	61873.3	
		296135.5	10732.6	57881.7	6938.3	22083.3	3057.9	8211.1	9524.1	6845.8	
2668.00	Sh/Clst	6046.1	3067.9	1220.1	3830.9	827.9	4281.5	46566.2	20063.2	1621.0	0035-1
		40350.7	6285.0	3690.7	24496.4	1636.7	88494.6	36185.8	2512.3	37764.3	
		51882.5	7025.9	14289.7	3272.6	6780.6	2585.2	3052.7	2092.6	2341.9	
2686.00	Sh/Clst	12683.0	6688.7	3948.4	9713.2	2340.1	7218.7	181750.3	14955.9	2839.5	0037-1
		109308.0	8054.9	7620.2	57097.7	1259.9	225450.7	112073.9	3793.3	98305.4	
		126865.5	18953.8	39881.6	8230.2	14339.1	4694.0	6607.7	3470.7	2486.6	

Table 11h: Amount of steranes (ppb) m/z 217 SIR for Well NOCS 6204/11-2

Depth unit of measure: m

Depth	Lithology	21a	22a	27dBS	27dBR	27daR	27daS	28dBS	28dBR	28daR*	Sample
		29dBS*	28daS*	27aaR	29dBR	29daR	28aaS	29daS*	28BR		
		28aaR	29aaS	29BR	29BS	29aaR					
2365.00	Sh/Clst	29257.3 13566.1 21314.4	10278.0 9388.5 5217.7	13500.2 35086.3 13075.4	10581.1 10054.0 8942.2	6648.5 4474.6 25890.0	5184.9 4367.1	11416.7 11645.5	9235.6 10050.1	11178.0	0024-1
2377.00	Sh/Clst	345010.7 316466.3 481710.9	123568.3 203059.9 105626.5	264776.6 739482.8 406550.0	225381.0 263710.9 278221.6	180748.6 119756.5 684371.9	213340.1 104035.8	283086.3 362550.1	258495.6 283741.4	250783.4	0026-1
2386.00	Sh/Clst	88634.9 79374.3 120464.5	33601.6 50404.1 26279.7	70177.3 182269.0 98272.6	60026.2 66021.5 65485.0	44241.0 29660.7 163346.5	34987.1 26179.9	73155.6 84810.2	67349.8 64018.9	61870.3	0027-1
2668.00	Sh/Clst	12744.6 13154.7 5837.3	3187.2 6046.4 2396.9	14951.2 21350.6 6936.6	11968.4 9843.8 4975.7	7858.4 4352.9 10966.9	5423.9 2412.1	12466.4 5507.6	10565.9 5580.5	6015.1	0035-1
2686.00	Sh/Clst	24156.4 23067.9 7645.3	6767.7 9475.8 3796.0	22156.5 47088.5 10959.7	16524.9 15498.2 9141.1	11491.3 6876.8 24355.4	7730.9 3207.1	15973.3 8698.6	11282.3 8013.5	10653.0	0037-1

* 28daR coel with 27aaS, 29dBS coel with 27BR, 28daS coel with 27BS, 29daS coel with 28BR

Table 11i: Amount of standard and weight of sample for Well NOCS 6204/11-2

Depth unit of measure: m

<u>Depth</u>	<u>Lithology</u>	<u>Standard</u>	<u>Amount</u>	<u>Weight</u>	<u>Sample</u>
2365.00	Sh/Clst	736574.6	0.700	0.4	0024-1
2377.00	Sh/Clst	942560.3	0.700	0.1	0026-1
2386.00	Sh/Clst	625170.2	0.700	0.3	0027-1
2668.00	Sh/Clst	516929.6	0.700	0.3	0035-1
2686.00	Sh/Clst	922751.9	0.700	0.1	0037-1

Table 12a: Variation in Triaromatic Sterane Distribution (peak height) for Well NOCS 6204/11-2

Depth unit of measure: m

Depth	Lithology	Ratio1	Ratio2	Ratio3	Ratio4	Ratio5	Sample
2365.00	Sh/Clst	0.47	0.41	0.15	0.16	0.19	0024-1
2377.00	Sh/Clst	0.71	0.57	0.48	0.50	0.67	0026-1
2386.00	Sh/Clst	0.11	0.11	0.02	0.02	0.02	0027-1
2668.00	Sh/Clst	0.26	0.23	0.07	0.08	0.09	0035-1
2686.00	Sh/Clst	0.55	0.22	0.32	0.38	0.58	0037-1

Ratio1: $a1 / a1 + g1$

Ratio2: $b1 / b1 + g1$

Ratio3: $a1 + b1 / a1 + b1 + c1 + d1 + e1 + f1 + g1$

Ratio4: $a1 / a1 + e1 + f1 + g1$

Ratio5: $a1 / a1 + d1$

Table 12b: Variation in Monoaromatic Sterane Distribution (peak height) for Well NOCS 6204/11-2

Depth unit of measure: m

<u>Depth</u>	<u>Lithology</u>	<u>Ratio1</u>	<u>Ratio2</u>	<u>Ratio3</u>	<u>Ratio4</u>	<u>Sample</u>
2365.00	Sh/Clst	0.44	0.29	0.24	0.22	0024-1
2377.00	Sh/Clst	0.05	0.02	0.02	0.02	0026-1
2386.00	Sh/Clst	0.08	0.05	0.04	0.04	0027-1
2668.00	Sh/Clst	0.18	0.11	0.11	0.11	0035-1
2686.00	Sh/Clst	0.17	0.10	0.11	0.10	0037-1

Ratio1: A1 / A1 + E1

Ratio2: B1 / B1 + E1

Ratio3: A1 / A1 + E1 + G1

Ratio4: A1+B1 / A1+B1+C1+D1+E1+F1+G1+H1+I1

Table 12c: Aromatisation of Steranes (peak height) for Well NOCS 6204/11-2

Depth unit of measure: m

<u>Depth</u>	<u>Lithology</u>	<u>Ratio1</u>	<u>Ratio2</u>	<u>Sample</u>
2365.00	Sh/Clst	0.58	0.54	0024-1
2377.00	Sh/Clst	1.00	0.00	0026-1
2386.00	Sh/Clst	0.97	0.02	0027-1
2668.00	Sh/Clst	0.27	0.90	0035-1
2686.00	Sh/Clst	0.79	0.66	0037-1

$$\text{Ratio1: } \frac{C1+D1+E1+F1+G1+H1+I1}{C1+D1+E1+F1+G1+H1+I1 + c1+d1+e1+f1+g1}$$

$$\text{Ratio2: } g1 / g1 + I1$$

Table 12d: Raw triaromatic sterane data (peak height) m/z 231 for Well NOCS 6204/11-2

Depth unit of measure: m

Depth	Lithology	a1	b1	c1	d1	e1	f1	g1	Sample
2365.00	Sh/Clst	59377.5	47540.7	52097.1	258937.5	91152.1	143428.7	67806.0	0024-1
2377.00	Sh/Clst	4101.1	2150.6	799.0	2009.4	975.0	1428.4	1635.2	0026-1
2386.00	Sh/Clst	4718.2	4898.1	78127.2	288551.6	158257.1	59227.6	39890.0	0027-1
2668.00	Sh/Clst	130986.6	114726.1	285592.0	1247915.0	602047.3	635177.1	373830.2	0035-1
2686.00	Sh/Clst	67472.8	15256.3	13672.2	48089.0	15530.1	40605.8	55563.6	0037-1

Table 12e: Raw monoaromatic sterane data (peak height) m/z 253 for Well NOCS 6204/11-2

Depth unit of measure: m

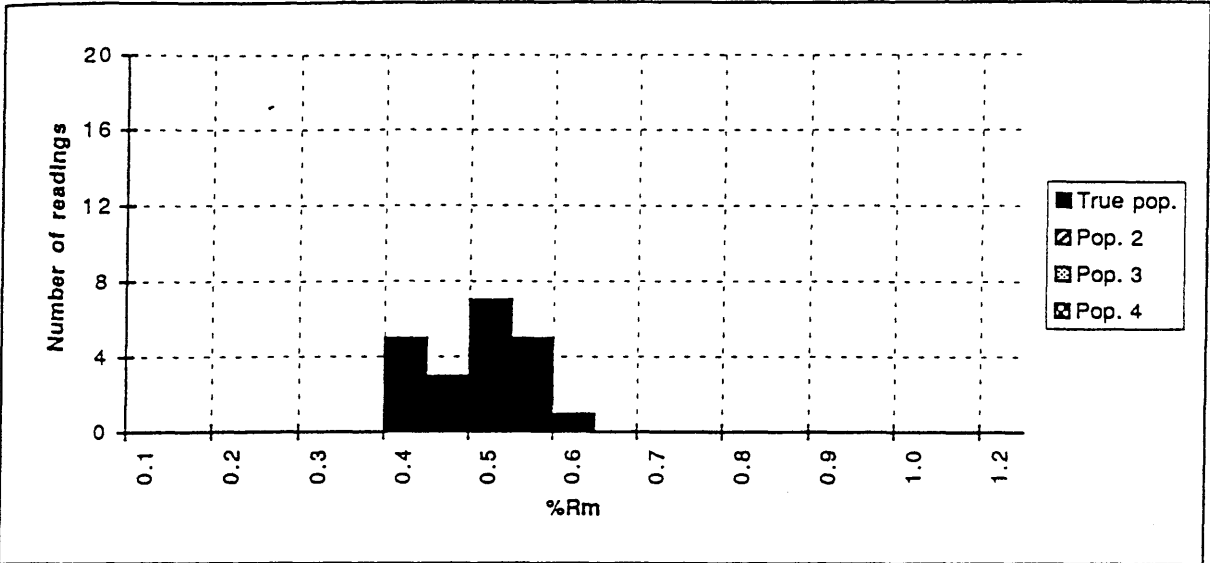
Depth	Lithology	A1	B1	C1	D1	E1	F1	G1	H1	I1	Sample
2365.00	Sh/Clst	153004.4	78349.2	29901.6	26507.4	192660.2	26975.5	288881.7	214539.6	57851.3	0024-1
2377.00	Sh/Clst	234482.7	116272.4	490694.8	450053.1	4679055.0	331372.8	5241207.0	3649571.0	898943.7	0026-1
2386.00	Sh/Clst	586212.6	336868.2	937986.9	939689.0	6546627.0	715618.6	6782879.0	5674984.0	1734580.0	0027-1
2668.00	Sh/Clst	89929.2	47755.0	93098.1	82405.5	405910.0	102475.5	290903.0	145687.6	41468.2	0035-1
2686.00	Sh/Clst	47493.1	26624.4	49970.1	41320.0	234702.3	91229.3	152720.1	63254.2	29110.2	0037-1

Legend to vitrinite reflectance data table



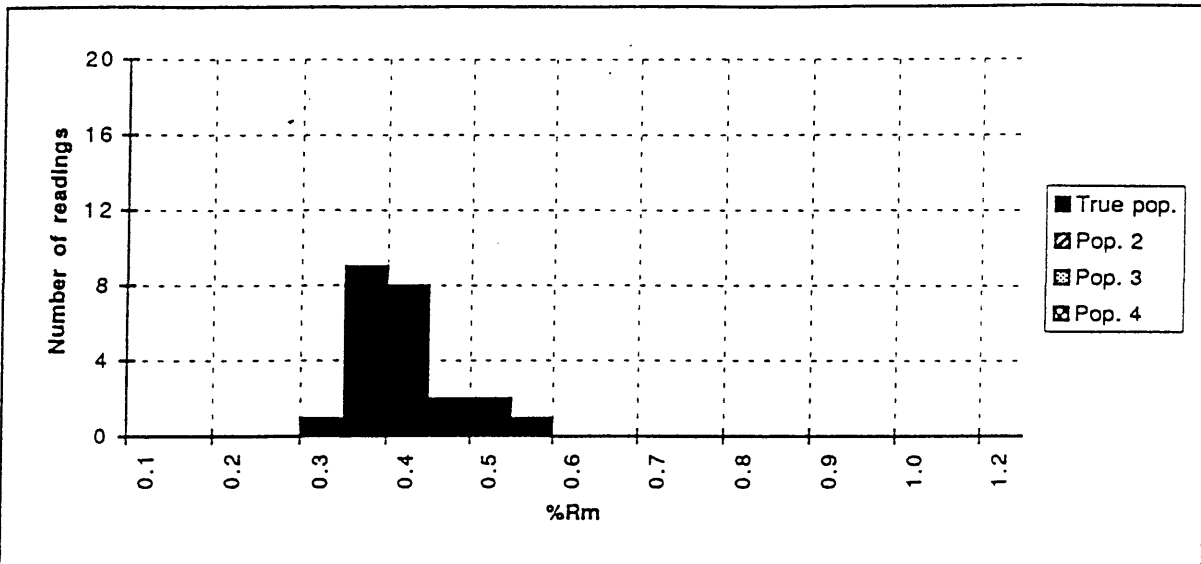
SST	sandstone		
SLST	siltstone		
CLYST	claystone		
SH	shale		
LST	limestone		
COAL	coal		
HF	sample treated with hydrofluoric acid prior to epoxy resin embedding		
DCM	sample treated with dichloromethane prior to epoxy resin embedding		
bulk	untreated sample prior to epoxy resin embedding		
G	Good quality sample		
M	Moderate quality sample		
P	Poor quality sample		
st	Sample is stained		
ooooo	Sample description:	1	Abundance of vitrinite
123456		2	Identification of vitrinite
		3	Type of vitrinite
		4	Vitrinite fragment size
		5	Vitrinite surface quality
		6	Abundance of pyrite
-	may give too low vitrinite reflectance sample value		
0	reliable vitrinite reflectance sample value		
+	may give too high vitrinite reflectance sample value		

Vitrinite reflectance sample data sheet



IFE no.	980290	%Rm readings	True pop.	Pop. 2	Pop. 3	Pop. 4
Well	6204/11-2	Mean±std.dev.	0.51±0.06			
Depth, mRKB	2698	Individual	0.41			
Sample type	DC	measurements	0.43			
Lithology	CLYST	3	0.43			
Preparation	HF	4	0.44			
Date of analysis	07.04.98	5	0.44			
		6	0.45			
Quality rating		7	0.46			
Abundance of vitrinite	O	8	0.47			
Identification of vitrinite	O	9	0.50			
Type of vitrinite	O	10	0.52			
Particle size	-	11	0.52			
Particle surface quality	-	12	0.52			
Abundance of pyrite	+	13	0.52			
Average sample quality	M	14	0.53			
		15	0.54			
Legend to quality rating		16	0.55			
No effect on the readings	O	17	0.55			
Possibly too low readings	-	18	0.55			
Possibly too high readings	+	19	0.58			
Good quality	G	20	0.59			
Moderate quality	M	21	0.64			
Poor quality	P	22				
Not vitrinite	X	23				
Mud additive	A	24				
		25				
Comments		26				
		27				
		28				
		29				
		30				

Vitrinite reflectance sample data sheet



IFE no.	980284
Well	6204/11-2
Depth, mRKB	2398
Sample type	DC
Lithology	CLYST
Preparation	HF
Date of analysis	07.04.98
Quality rating	
Abundance of vitrinite	O
Identification of vitrinite	O
Type of vitrinite	O
Particle size	-
Particle surface quality	O
Abundance of pyrite	+
Average sample quality	M
Legend to quality rating	
No effect on the readings	O
Possibly too low readings	-
Possibly too high readings	+
Good quality	G
Moderate quality	M
Poor quality	P
Not vitrinite	X
Mud additive	A

%Rm readings	True pop.	Pop. 2	Pop. 3	Pop. 4
Mean±std.dev.	0.42±0.06			
Individual measurements	0.34			
3	0.35			
4	0.36			
5	0.36			
6	0.37			
7	0.37			
8	0.38			
9	0.38			
10	0.39			
11	0.40			
12	0.40			
13	0.41			
14	0.41			
15	0.41			
16	0.41			
17	0.43			
18	0.43			
19	0.45			
20	0.46			
21	0.51			
22	0.53			
23	0.56			
24				
25				
26				
27				
28				
29				
30				

Comments

Title:
Geochemical Interpretation Report for Well NOCS 6204/11-2

Document no.:	Contract no./project no.:	Filing no.:
---------------	---------------------------	-------------

Classification: Confidentially	Distribution: Partners, NPD, Statoil archives
--	---

Distribution date: Sep 98	Rev. date:	Rev. no.:	Copy no.:
-------------------------------------	------------	-----------	-----------

3498-1531-1

Author(s)/Source(s):
Geolabnor

Subjects:
The interpretation of the geochemical data in this report could be affected by the glycol based mudsystem. In addition traces of a mineral oil/diesel has been found in the mud (see part 4.2.2)

Remarks:

Valid from:	Updated:
-------------	----------

Circulated by:	Authority to approve deviations:
----------------	----------------------------------

Techn. responsible:	Name:	Date/Signature:
Responsible:	Name:	Date/Signature:
Recommended:	Name:	Date/Signature:
Approved: LTEK-PE	Name: Per Emil Eliassen	Date/Signature: 10/9-98 <i>Per Emil Eliassen</i>

Chapter 1

INTRODUCTION

1.1 General Well Information

The well 6204/11-2 is located in the area northeast of the Agat field. The 6204/11 block and adjoining blocks are shown in Figure 1.1.

The aims of the Statoil-designed analytical program were to evaluate the possible source rock sections of the Cretaceous and Upper Jurassic and any oil shows. A water based mud system (KCL polymer glycol [Staplex]) was used in drilling this well. Analysis of this mud shows that nC_{15} - nC_{34} alkanes are present, which should not be there (see section 4.2.2.)

Table 1. Analytical programme

Sample depth	Sample type	Table 3 Lithological descr.	Table 4 Vitrinite reflectance	Table 5 TOC	Table 5 Rock Eval	Table 6 TE-GC	Table 6 Py-GC mk. ext. mCD	Table 7 Kerogen description	Table 8 Buk composition	Table 9 GC sats	Table 9 GC arom	Table 11 GCMS sats	Table 12 GCMS aroms	Mixtr. & .soxtec extr.	Other analyses p4 CD
1360	cull	100% clyst	x												
1400	cull	100% clyst	x												
1450	cull	100% clyst	x												
1500	cull	100% clyst	x												
1550	cull	100% clyst	x												
1600	cull	100% clyst	x												
1650	cull	100% clyst	x												
1700	cull	100% clyst	x												
1750	cull	100% clyst	x												
1800	cull	90% clyst	x												
1850	cull	90% clyst	x												
1951	cull	90% sst.			x										
1960	cull	80% clyst	x												
1988	swc	sst			x										
2000	swc	sst			x										
2005	cull	100% sst			x	cd	cd							x	
2134	cull	90% sst.			x										
2143	swc	sst			x										
2206	cull	100 clyst	x												
2284	cull	100 clyst	x												
2332	cull	90% clyst	x												
2353	cull	100 clyst	x												
2365	cull	100% clyst		(x)	(x)	(CD)	(CD)		(X)	(CD)	(CD)	(CD)	(cd)		
2398	cull	90% clyst	x	x	x	CD	CD								
2449	cull	100% clyst	x												
2506	cull	100% clyst	x												
2560	cull	100% clyst	x												
2605	cull	100% clyst	x												
2650	cull	100% clyst	x												
2668	cull	100% clyst		x	x	CD	CD		X	CD	CD	CD	cd		
2707	cull	70% clyst		(x)	(x)										(x)
2746	cull	100% clyst	x	x	x										
2752	cull	90% clyst		x	x										
2758	cull	100% clyst	x	x	x										
2764	cull	50% clyst		x	x										
2773	cull	70% sst			x										x
2803	cull	70% sst			x										
2809	cull	70% clyst		x	x										
2815	cull	70% clyst		x	x										
2821	cull	60% clyst		x	x	cd	cd								x
2827	cull	90% clyst		x	x			x							
2830	cull	80% clyst		x	x										
2845	cull	80% clyst		x	x	CD	CD		X	CD	CD	CD	cd		x
2854	cull	80% clyst		x	x			x							
2875	cull	80% clyst		x	x	CD	CD								
2878	cull	90% clyst	x	x	x										
2887	cull	80% clyst		x	x										
2895	swc	sst			x										
2905	cull	100% sst.			x										
Mudsamples															
1900									X	CD	CD	CD	cd		helekstr.GC
2750									X	CD	CD	CD	cd		helekstr.GC
Total		49	25	18	28	7	7	2	5	5	5	5	5	6	3
Prøver overført til spes.st.															
Belastes stdr. studie															
		4	1	4	4	3	3	0	2	2	2	2	2	4	0
		45	24	14	14	4	4	2	3	3	3	3	3	7	3

Table 3 : Lithology description for well NOCS 6204/11-2

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
1360.00						0001
				100 Sh/Clst: drk gy to ol gy		0001-1L
1400.00						0002
				100 Sh/Clst: drk gy to ol gy		0002-1L
1450.00						0003
				100 Sh/Clst: drk gy to ol gy		0003-1L
1500.00						0004
				100 Sh/Clst: drk gy to ol gy		0004-1L
1550.00						0005
				100 Sh/Clst: drk gy to ol gy, st		0005-1L
1600.00						0006
				100 Sh/Clst: drk gy to ol gy, st		0006-1L
1650.00						0007
				100 Sh/Clst: drk gy to ol gy, st		0007-1L
1700.00						0008
				100 Sh/Clst: drk gy to ol gy, st		0008-1L
1750.00						0009
				100 Sh/Clst: drk gy to ol gy, st		0009-1L

Table 3 : Lithology description for well NOCS 6204/11-2

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
1800.00						0010
				100 Sh/Clst: drk gy to ol gy, st		0010-1L
1850.00						0011
				100 Sh/Clst: drk gy to ol gy		0011-1L
						0058
						0058-7L
1951.00						0012
	0.53	90	S/Sst	: lt gy to gn gy		0012-1L
		10	Ca	: m drk gy to brn gy		0012-2L
1960.00						0013
		80	Sh/Clst	: m lt gy to m drk gy		0013-1L
		10	S/Sst	: m gy to gn gy		0013-2L
		10	Ca	: m gy to m lt gy		0013-3L
1988.00	swc					0014
	0.16	100	S/Sst	: gn gy		0014-4L
		80	Sh/Clst	: m lt gy to m drk gy		0014-1L
		10	S/Sst	: m gy to gn gy		0014-2L
		10	Ca	: m gy to m lt gy		0014-3L
2000.00	swc					0015
	0.14	100	S/Sst	: gn gy, f		0015-1L
2005.00						0016
	0.40	100	S/Sst	: gn gy to gn		0016-1L