

2.9 REPEAT FORMATION TESTS

RFT formation pressures were obtained

Additionally, a total of three RFT samples were taken

Details of the wellsite analyses of these samples are included in the Repeat Formation Testing Worksheets. A summary of the detailed laboratory analyses made by GECO is shown in Figure 2.15.

Figures 2.13a through 2.13b summarize the RFT results and Figures 2.14a through 2.14c give plots of the data for the well. Details of the tests are contained in the Repeat Formation Testing Worksheets.

MOBIL EXPLORATION NORWAY INC.

WELL 33/9-15

RFT RESULTS

DATE/ RUN No.	DEPTH (mRKB)		HYDSTAT. MUD PRESSURE psia	FM PRESSURE (HP GAUGE)		TEMP deg C	REMARKS
	TEST No.	MD		TVD	psia		
30 MAY 92							
RUN 3A							
1	2742.0	2741.9	6069.2			87.4	DRY TEST
2	2743.0	2742.9	6072.0			87.4	DRY TEST
3	2743.5	2742.6	6071.0	5726.13	39.480	87.4	GOOD PERMEABILITY
4	2744.0	2743.1	6070.8	5726.71	39.484	87.5	GOOD PERMEABILITY
5	2745.0	2744.1	6072.0	5728.08	39.494	87.6	GOOD PERMEABILITY
6	2746.0	2745.1	6073.8	5729.43	39.503	87.7	GOOD PERMEABILITY
7	2747.0	2746.1	6075.1	5730.93	39.513	87.8	GOOD PERMEABILITY
8	2748.0	2747.1	6077.0	5732.43	39.524	87.9	GOOD PERMEABILITY
9	2750.0	2749.1	6081.9	5735.28	39.543	88.0	GOOD PERMEABILITY
10	2754.0	2753.1	6089.6	5740.91	39.582	88.1	GOOD PERMEABILITY
11	2758.0	2757.1	6099.8	5746.70	39.622	88.2	GOOD PERMEABILITY
12	2765.5	2764.6	6118.7	5757.81	39.699	88.4	GOOD PERMEABILITY
13	2743.5	2742.6	6074.6	5726.23	39.481	88.4	GOOD PERMEABILITY - Segregated Sample.
14	2783.0	2782.1	6148.3	5779.85	39.851	89.5	GOOD PERMEABILITY
15	2784.5	3283.6	6158.9			89.5	DRY TEST
16	2785.0	2784.1	6157.1	5782.74	39.870	89.6	GOOD PERMEABILITY
17	2790.5	2789.6	6170.7	5790.34	39.923	89.8	GOOD PERMEABILITY
18	2794.0	2793.1	6174.9	5795.39	39.958	90.0	GOOD PERMEABILITY
19	2798.0	2797.1	6181.3	5800.97	39.996	90.2	GOOD PERMEABILITY
20	2805.0	2804.1	6198.8	5810.91	40.065	90.4	GOOD PERMEABILITY
21	2810.5	2809.6	6110.1	5818.78	40.119	90.7	GOOD PERMEABILITY
22	2818.0	2817.1	6220.2	5829.43	40.192	91.2	GOOD PERMEABILITY
23	2821.5	2820.6	6232.5	5834.34	40.226	91.6	GOOD PERMEABILITY
24	2829.5	2828.6	6248.6	5845.83	40.305	92.3	GOOD PERMEABILITY
25	2831.5	2830.6	6250.4	5848.76	40.326	92.7	GOOD PERMEABILITY
26	2835.0	2834.1	6261.7	5853.83	40.361	92.9	GOOD PERMEABILITY
27	2839.0	2838.1	6267.3	5859.59	40.400	93.2	GOOD PERMEABILITY
28	2945.5	2944.6	6495.4			98.5	DRY TEST
29	2946.0	2945.1	6484.6	5497.43	37.903	98.7	FAIR PERMEABILITY
30	2947.5	2946.6	6505.6			99.2	LOW PERMEABILITY - Very low buildup.

Figure 2.13a

MOBIL EXPLORATION NORWAY INC.

WELL 33/9-15

RFT RESULTS

DATE/ RUN No.	DEPTH (mRKB)		HYDSTAT. MUD PRESSURE psla	FM PRESSURE (HP GAUGE)		TEMP deg C	REMARKS
	TEST No.	MD		TVD	psla		
30 MAY 92 RUN 3A (CONT)							
31	2974.0	2973.1	6586.0			99.5	SEAL FAILURE - Abandon Test.
32	2976.0	2975.1	6572.0	5520.78	38.064	99.7	GOOD PERMEABILITY
30 MAY 92 RUN 3B							
33	2783.0	2782.1	6161.4			90.0	DRY TEST
34	2782.8	2781.9	6148.8			90.1	DRY TEST
35	2783.2	2782.3	6151.9	5779.88	39.851	90.5	GOOD PERMEABILITY - Segregated Sample.
31 MAY 92 RUN 3C							
36	2828.5	2827.3	6265.2			92.8	DRY TEST
37	2828.7	2827.8	6255.6			92.9	DRY TEST
38	2828.9	2828.0	6253.8			93.1	DRY TEST
39	2829.1	2828.2	6262.9			93.1	DRY TEST
40	2829.3	2828.4	6260.6			93.3	DRY TEST
41	2829.4	2828.5	6259.8			93.4	DRY TEST
42	2829.5	2828.6	6259.4			93.5	DRY TEST
43	2829.6	2828.7	6256.6			93.6	DRY TEST
44	2829.7	2828.8	6259.1	5854.83	40.367	93.7	FAIR PERMEABILITY
45	2829.8	2828.9	6257.7	5846.78	40.312	94.2	GOOD PERMEABILITY - Segregated Sample. NB: TESTS 36 TO 44 LOOKING FOR SAMPLE ZONE.

Figure 2.13b

MOBIL EXPLORATION NORWAY INC.

REPEAT FORMATION TESTING WORKSHEET

WELL: 33/9-15

FIELD: Wildcat

LOCATION: Norway North Sea

RIG: Sovereign Explorer

DATE: 30/05/92

LOGGING Co: Schlumberger

RUN No: 3A

GAUGE: HP

GEOLOGIST: TJH/JRK

MUD TYPE: KCL/Gel/Polymer

MUD DENSITY: 1.57

HOLE SIZE: 8.5"

TEST No	DEPTH mRKB	TYPE	HYD PRESS BEFORE psi	TIME SET	FORMATION PRESS psi	TIME RETRAC	HYD PRESS AFTER psi	RESULT	TEMP	REMARKS
13	2743.5	S (#1)	6074.6	10:44	5726.23	11:06	6066.5	GOOD	88.4	Drawdown 5695 psi. Good Perm. Formation pressure stable after taking sample.
				10:47	Open Lower Chamber (2 3/4 gallon)					
				11:01	Lower Chamber full. Max pressure 5724.94 psi. Seal Chamber.					
				11:02	Open Upper Chamber. (1 gallon)					
				11:04	Upper Chamber full. Max pressure 5726.30 psi. Seal Chamber.					

SAMPLE RECOVERED FROM LOWER CHAMBER (2 3/4 GALLON) ON RIG FLOOR

PRESSURE IN CHAMBER AT SURFACE - No pressure detected.

SAMPLE CONTAINED - Only very slight traces of GAS.
- 70 cc of OIL.
- 9930 cc of MUD FILTRATE/WATER.

ANALYSIS OF MUD FILTRATE/WATER - DENSITY - 1.03 sg
- CHLORIDES - 33000 mg/l
- Water in sample is Filtrate.

NOTE: INSUFFICIENT GAS PRESENT TO ANALYSE

NOTES:

REFERENCE LOG:

CONVERSION CONSTANTS: KPa = PSI * 6.89474

PPG (EMW) = psi/(TVDepth * 0.1703)

MOBIL EXPLORATION NORWAY INC.

REPEAT FORMATION TESTING WORKSHEET

WELL: 33/9-15

FIELD: Wildcat

LOCATION: Norway North Sea

RIG: Sovereign Explorer

DATE: 30/05/92

LOGGING Co: Schlumberger

RUN No: 3B

GAUGE: HP

GEOLOGIST: TJH/JRK

MUD TYPE: KCL/Gel/Polymer

MUD DENSITY: 1.57

HOLE SIZE: 8.5"

TEST No	DEPTH mRKB	TYPE	HYD PRESS BEFORE psi	TIME SET	FORMATION PRESS psi	TIME RETRAC	HYD PRESS AFTER psi	RESULT	TEMP	REMARKS
35	2783.2	S (#2)	6151.90	20:25	5779.88	20.44	6151.70	GOOD	90.5	Drawdown 5700 psi. Good Perm. Good Stabilisation.
				20:29	Open Lower Chamber (2 3/4 gallon).					
				20:40	Lower Chamber Full. Max Pressure 5779.9 psi. Seal Chamber.					
				20:41	Open Upper Chamber (1 gallon).					
				20:44	Upper Chamber Full. Max Pressure 5779.9 psi. Seal Chamber.					

SAMPLE RECOVERED FROM LOWER CHAMBER (2 3/4 GALLON) ON RIG FLOOR

PRESSURE IN CHAMBER AT SURFACE - No pressure detected.

SAMPLE CONTAINED - Only very slight traces of GAS.
 - 100 cc of OIL
 - 9900 cc of MUD FILTRATE/WATER

ANALYSIS OF MUD FILTRATE/WATER - DENSITY - 1.03 sg
 - CHLORIDES - 25500 mg/l
 - Sample contains small amount of filtrate, saltwater and 0.6% OIL/vol.

NOTE: INSUFFICIENT GAS TO ANALYSE

NOTES:

REFERENCE LOG:

CONVERSION CONSTANTS: KPa = PSI * 6.89474

PPG (EMW) = psi/(TVDepth * 0.1703)

MOBIL EXPLORATION NORWAY INC.

REPEAT FORMATION TESTING WORKSHEET

WELL: 33/9-15

FIELD: Wildcat

LOCATION: Norway North Sea

RIG: Sovereign Explorer

DATE: 30/05/92

LOGGING Co: Schlumberger

RUN No: 3C

GAUGE: HP

GEOLOGIST: TJH/JRK

MUD TYPE: KCl/Gel/Polymer

MUD DENSITY: 1.57

HOLE SIZE: 8.5"

TEST No	DEPTH mRKB	TYPE	HYD PRESS BEFORE psi	TIME SET	FORMATION PRESS psi	TIME RETRAC	HYD PRESS AFTER psi	RESULT	TEMP	REMARKS
45	2829.8	S (#3)	6257.65	01:51	5846.78	02:10	6254.65	GOOD	90.5	Drawdown 5800 psi. Good Perm. Good Stabilisation.
				01:54	Open Lower Chamber (2 3/4 gallon).					
				02:04	Lower Chamber Full. Max Pressure 5845.2 psi. Seal Chamber.					
				02:05	Open Upper Chamber (1 gallon).					
				02:08	Upper Chamber Full. Max Pressure 5845.9 psi. Seal Chamber.					

SAMPLE RECOVERED FROM LOWER CHAMBER (2 3/4 GALLON) ON RIG FLOOR

PRESSURE IN CHAMBER AT SURFACE - 200 psi pressure.

SAMPLE CONTAINED - 17.39% of GAS
 - 450 cc of OIL
 - 9550 cc of MUD FILTRATE/WATER

ANALYSIS OF MUD FILTRATE/WATER - DENSITY - 1.02+ sg
 - CHLORIDES - 27500 mg/l
 - Sample contains 4.5 - 5.0% OIL and MUD FILTRATE.

GAS ANALYSIS: Total Gas: 17.39%
 C1: 42764 ppm iC4: 2992 ppm Note: iC5 is present but Halliburton do not have
 C2: 23833 ppm nC4: 4119 ppm iC5 calibration gas.
 C3: 17644 ppm nC5: 418 ppm

NOTES:

REFERENCE LOG:

CONVERSION CONSTANTS: KPa = PSI * 6.89474

PPG (EMW) = psi/(TVDepth * 0.1703)

MOBIL EXPLORATION NORWAY INC.

WELL 33/9-15

RFT SAMPLE ANALYSIS SUMMARY

Contractor: GECO

	RFT Sample Number		
	1	2	3
Depth (mMD)	2743.5	2783.2	2829.8
Chamber contents	Water	Water	Oil/Water

Results from flash separation:

Gas oil ratio (CF/BBL)	Trace of Oil	Trace of Oil Present	236.38
Oil density (g/cc)	3.6 litres Mud Filtrate	3.7 litres Mud Filtrate	0.859
Oil gravity (API)	N/A	N/A	33.1
Gas gravity (Air = 1)	N/A	N/A	0.835

Chamber contents after flash separation:

Gas (litre)	-	-	Good trace
Stock tank oil (cc)	Trace	Trace	Good trace
Water (cc)	3600 (Mud Filtrate)	3700 (Mud Filtrate)	3600 (Mud Filtrate)
Emulsion (cc)	-	-	-

Figure 2.15

MENI WELL 33/9-15 MUD PROPERTIES RECAP

REPORT#	3	4	5	6	7	8	9	10	11
DATE	23 Apr 92	24 Apr 92	25 Apr 92	26 Apr 92	27 Apr 92	28 Apr 92	29 Apr 92	30 Apr 92	01 May 92
TIME	20:00	20:00	20:00	20:00	23:00	22:00	22:00	22:00	24:00
DEPTH	413	413	413	411	411	508m	846m	1202m	1205m
WT. s.g.	1.06	1.07	1.07	1.14	1.14	1.14 s.g.	1.14 s.g.	1.14 s.g.	1.14 s.g.
TEMP °C						32°C	33°C	34°C	
PV					37	28	11	14	11
YP					48	46	24	27	28
GELS					30/81/95	34/89/104	20 / 34	19 / 54	18 / 60
PH	10.0	10.0	10.0		9.2	9.0	9.0	8.5	8.4
API FL						4.4	11.0	9.0	8.9
HTHP									
Pm						0.10	0.00	0.10	0.10
PI / Mf						0/2	0.0/0.3	0.1/0.2	0.1/0.2
Cl ppm					16000	13000	13000	13000	12500
Ca ppm						320	300	410	400
% Sand						trace	TR	0.50 %	TR
% SOL						6.00 %	8.00 %	7.00 %	7.00 %
%LGSol						2.82 %	4.17 %	2.28 %	1.25
MBT ppb					64	60.0	59.0	57.0ppb	59
K+ppm									0
600					122	102	46	55	50
300					85	74	35	41	39
200					67	60	31	34	32
100					48	46	27	27	26
6					20	25	22	22	23
3					18	24	22	22	23

MENI WELL 33/9-15
MUD PROPERTIES RECAP

REPORT#	12	13	14	15	16	17	18	19	20
DATE	02 May 92	03 May 92	04 May 92	05 May 92	06 May 92	07 May 92	08 May 92	09 May 92	10 May 92
TIME	24:00	24:00	24:00	2400	2100	24:00	24:00	23:30	24:00
DEPTH	1210m	1210m	1490m	00:00	00:00	2011m	2218m	2218m	2218m
WT. s.g.	1.14 s.g.	1.14 s.g.	1.26 s.g.	1.35	1.46	1.47 s.g.	1.49 s.g.	1.49 s.g.	1.49 s.g.
TEMP °C			39°C	33		33°C	30°C	29°C	20°C
PV	11	12	14	16	24	22	22	24	30
YP	27	17	21	24	19	21	18	20	35
GELS	19 / 55	06 / 26	10 / 74	845	747	08 / 47	06 / 43	07 / 40	24 / 86
PH	8.8	8.0	8.8	9	9	8.9	9.4	9.4	8.4
API FL	8.8	8.5	8.7	6.5	5.7	5.6	5.6	5.4	6.2
HTHP									
Pm	0.10	0.30	0.10	0.1	0.1	0.10	0.30	0.30	0.10
Pf / Mf	0.1/0.5	0.1/0.7	0.1/0.6	0.1/6	0.1/0.5	0.1/0.5	0.1 / 0.5	0.1/0.6	0.1/0.5
Cl ppm	13000	13500	23000	29000	30000	33000	38000	42000	41000
Ca ppm	420	180	800	960	780	640	640	680	680
% Sand	TR	TR	0.25 %	TR	TR	0.25 %	tr	TR	TR
% SOL	7.00 %	7.00 %	14.00 %	16.5	19.5	19.50 %	20.00 %	20.50 %	20.00 %
%LGSol	1.24	1.25	4.82 %	4.13	4	4.00 %	4.45 %	4.35 %	4.60 %
MBT ppb	57	52	60	65	60	62.0	75.0	66.0	75.0
K+ppm	0	0	16	46	47	57.0	78.0	83.0	79.0
600	49	42	49	56	67	65	62	68	95
300	38	30	35	40	43	43	40	44	65
200	31	24	27	31	33	33	31	34	50
100	25	18	19	22	23	24	21	23	39
6	20	10	16	15	12	13	12	12	21
3	20	9	16	14	11	12	11	11	20

**MENI WELL 33/9-15
MUD PROPERTIES RECAP**

REPORT#	21	22	23	24	25	26	27	28	29
DATE	11 May 92	12 May 92	13 May 92	14 May 92	15 May 92	16 May 92	17 May 92	18 May 92	19 May 92
TIME	22:00	24:00	24:00	24:00	2400	2400	2400	2400	24:00
DEPTH	2218m	2218m	2218m	2218m	00:00	00:00	2443	00:00	2711m
WT. s.g.	1.49 s.g.	1.49 s.g.	1.49 s.g.	1.49 s.g.	1.5	1.49	1.5	1.54	1.57 s.g.
TEMP °C	20°C	20°C	20°C	20°C	21	31	34	34	22°C
PV	30	31	30	30	21	40	30	33	33
YP	35	34	20	20	21	40	28	23	25
GELS	20 / 76	18 / 68	15 / 55	15 / 55	1055	1476	640	1057	08 / 47
PH	8.5	8.6	11.5	11.3	9.7	9.4	9	8.9	8.8
API FL	6.0	5.8	7.0	6.8	6.2	3.2	3.4	3.7	3.8
HThP									
Pm	0.20	0.30	0.40	0.30	0.4	0.2	0.1	0.3	0.10
Pf / Mf	0.1/0.5	0.1/0.6	0.3/0.8	0.3/0.7	0.1/0.8	0.1/0.5	0.1/0.5	0.1/0.5	0.1/0.5
Cl ppm	40000	39000	39000	39000	39000	40000	36000	35000	32000
Ca ppm	700	700	350	400	400	450	480	550	650
% Sand	TR	TR	TR	TR	TR	TR	TR	TR	TR
% SOL	20.00 %	20.00 %	20	20.00 %	20	20	21	22.5	22.50 %
%LGSol	4.60 %	4.40 %	4.33	4.30 %	2.6	2.8	4.3	5.7	4.70 %
MBT ppb	75	76	76	75	76	60	64	62	57.0
K+ppm	78	77	76	76	64	65	57	57	52.0
600	95	96	80	80	74	120	88	89	91
300	65	65	50	50	53	80	58	56	58
200	50	50	32	34	44	61	43	46	45
100	40	41	24	24	28	42	30	31	30
6	21	21	16	15	15	15	9	10	9
3	19	20	15	14	14	13	7	10	8

**MENI WELL 33/9-15
MUD PROPERTIES RECAP**

REPORT#	30	31	32	33	34	35	36	37	38
DATE	20 May 92	21 May 92	22 May 92	23 May 92	24 May 92	25 May 92	26 May 92	27 May 92	28 May 92
TIME	23:00	23:00	22:00	22:00	22:00	22:00	22:00	22:00	22:00
DEPTH	2723m	2733m	2770m	2792m	2811m	2823m	2861m	3000m	3007m
WT. s.g.	1.57 s.g.	1.57 s.g.	1.57 s.g.	1.57 s.g.	1.57 s.g.	1.57 s.g.	1.57 s.g.	1.57 s.g.	1.57 s.g.
TEMP °C	20°C	26°C	35°C	35°C	29°C	32°C	38°C	39°C	27°C
PV	32	23	26	30	28	29	28	27	25
YP	27	27	28	25	25	28	30	25	22
GELS	9/049	5/038	5/39/49	6/37/51	5/45/58	7/43/56	7/52/68	6/40/55	5/35/46
PH	8.9	8.0	8.6	8.6	9.0	8.5	8.6	8.5	9.0
API FL	3.8	3.8	4.1	4.0	4.2	4.0	5.0	4.6	5.0
HTHP								11.8	
Pm	0.20	0.00	0.10	0.00	0.10	0.20	0.20	0.20	0.20
Pf / Mf	.1/5	0/0.4	.1/4	0/3	0.1/0.3	0.1/0.4	0.1/0.4	0.1/0.4	0.1/0.3
Cl ppm	32000	28000	33000	34000	35000	33000	34000	37000	36000
Ca ppm	620	680	640	540	440	380	300	460	400
% Sand	trace	trace	trace	0.50 %	0.50 %	0.50 %	0.40 %	0.40 %	TR
% SOL	22.50 %	21.00 %	22.00 %	22.00 %	21.50 %	21.50 %	21.00 %	21.30 %	21.00 %
%LGSol	4.82 %	2.11 %	3.83 %	3.74 %	2.75 %	2.99 %	2.04 %	2.20 %	1.59 %
MBT ppb	61.0	46.0	50.0	44.0	38.0	46.0	33.0	43.0	44.0
K+ppm	52.0	38.0	38.0	35.0	38.0	38.0	32.0	31.0	28.0
600	91	73	80	85	81	86	86	79	72
300	59	50	54	55	53	57	58	52	47
200	45	40	41	43	41	45	46	42	36
100	30	28	28	29	28	31	31	28	25
6	9	8	9	9	9	10	10	10	8
3	8	7	8	8	8	9	9	9	7

**MENI WELL 33/9-15
MUD PROPERTIES RECAP**

REPORT#	39	40	41	42	43	44	45
DATE	29 May 92	30 May 92	31 May 92	01 Jun 92	02 Jun 92	03 Jun 92	04 Jun 92
TIME	22:00	22:00	22:00	22:00	22:00	22:00	16:00
DEPTH	3007m	3007m	3007m	2159m	2158m	2158m	
WT. s.g.	1.57 s.g.	1.57 s.g.	1.57 s.g.	1.57 s.g.	1.57 s.g.	1.57 s.g.	1.54 s.g.
TEMP °C	27°C	27°C	27°C	30°C	27°C	27°C	24°C
PV	25	25	25	25	25	28	26
YP	22	22	22	22	22	23	26
GELS	5/35/46	5/35/46	5/35/46	5/35/46	3/35/45	5/38/48	5/38/48
PH	9.0	9.0	9.0	9.0	9.0	10.0	10.0
API FL	5.0	5.0	5.0	5.0	5.0	5.0	7.0
HHP							
Pm	0.20	0.20	0.20	0.20	0.20	0.10	0.30
Pf / Mf	0.1/0.3	.1/.3	0.1/0.3	0.1/0.3	0.1/0.3	0.1/0.3	0.2/0.4
Cl ppm	36000	36000	36000	36000	36000	36000	36000
Ca ppm	400	400	400	400	400	750	750
% Sand	Trace	tr	tr	tr	TR	tr	0.40 %
% SOL	21.00 %	21.00 %	21.00 %	21.00 %	79.00 %	21.50 %	19.00 %
%LGSol	1.59 %	1.59 %	1.59 %	1.59 %	0.78 %	1.73 %	3.20 %
MBT ppb	44	44	44	44	44	47	47
K+ppm	28	28	28	28	28	28	28
600	72	72	72	72	72	79	78
300	47	47	47	47	47	51	52
200	36	36	36	36	36	38	37
100	25	25	25	25	25	27	26
6	8	8	8	8	8	9	9
3	7	7	7	7	7	8	8

Total Well Materials Consumption

Well No : 33/9-15
 Mud Type : Spud mud
 Seawater/PHB/Pac

Total length drilled : 2730 m

Formation Volume Drilled : 304.1m3

MATERIAL	UNIT SIZE	UNITS USED	UNIT COST	COST	NOK/m3
BARITE	1000	705	624.20	440061.00	180.21
BENTONITE	1000	102	1892.00	192984.00	79.03
CAUSTIC	25	107	117.10	12529.70	5.13
SODA ASH	25	27	58.30	1574.10	0.64
LIME	20	15	48.38	725.70	0.30
XC POLYMER	25	2	1732.36	3464.72	1.42
ANTISOL REG	25	271	722.86	195895.06	80.22
ANTISOL LV	25	67	722.86	48431.62	19.83
POLY PLUS	22.68	85	706.00	60010.00	24.57
BOREWELL FE	25	134	95.00	12730.00	5.21
SOD BICARB	25	107	77.20	8260.40	3.38
CITRIC ACID	25	69	259.50	17905.50	7.33
BACBAN 3	5	13	1407.00	18291.00	7.49
SI.DEFOAMER	200	12	4305.00	51660.00	21.15
RENAX 100	196	18	3345.00	60210.00	24.66
M.P.O.C.	194	3	3215.00	9645.00	3.95
VG-69	25	2	508.40	1016.80	0.42
MICA FINE	25	9	85.80	772.20	0.32
NUTPLUG F	25	10	85.80	858.00	0.35
DESCO CF	11.34	57	192.50	10972.50	4.49
CA.CARB	25	39	59.04	2302.56	0.94
AGIPAC LV	25	65	508.52	33053.80	13.54
KCL SX		1029	44.30	45584.70	18.67
BRINE	m3	131	555.70	72796.70	29.81
DRILL+SEA W	m3	1448	0.00	0.00	0.00
TOTAL WELL MATERIAL COST :				1301735.06	NOK

Total Mud Volumes Breakdown

Well No : 33/9-15
 Mud Type : Spud mud
 Seawater/PHB/Pac

Total length drilled : 2730 m

Formation Volume Drilled : 304.1m3

	m3	Cost	NOK/m3

New Volume Built :	2442		
Whole Well material cost :		1301735.06	533.06
Volume transferred in :			
at beginning of Well :			
Imported 22/04/92 :	25	33103.00	1324.12
Imported 23/04/92 :	251	332354.12	1324.12
Sub.Total :	276	365457.12	1324.12
Volume transferred out :			
No mud exported :			
Sub.Total :			
Credit to next Well :	234	143533.26	613.39

Total utilised :	2484	1523658.92	613.39

Cost per m drilled :		558.12	NOK
Cost per m3 formation drilled :		5010.39	NOK

WELL NUMBER 33/9-15

NET TOTAL VOLUME MUD USED FOR WELL (M3)

2849

VOLUME LOSSES DOWNHOLE & CSG/PLUGS (M3)

231

PRODUCT NAME	FUNC CODE (SFT)	NET UNIT SIZE (KG)	NET TTL CHEMICALS USED IN MUD SYSTEM LESS NON ADDED UNITS	WEIGHT OF CHEMICALS USED IN MUD SYSTEM (MT)	WEIGHT OF CHEMICALS LOSSES DOWNHOLE & CSG/PLUGS (MT)	WEIGHT OF CHEMICALS DISCHARGE TO SEA (MT)
BARITE	1	1000	702,53	702,53	95,11	607,42
BENTONITE	1	1000	98,75	98,75	5,86	92,89
CAUSTIC	2	25	109,68	2,74	0,51	2,23
SODA ASH	2	25	40,32	1,01	0,06	0,95
LIME	2	20	15,64	0,31	0,01	0,30
XC-POLYMER	5	25	16,66	0,42	0,03	0,38
POLYSAL	5	25	41,36	1,03	0,00	1,03
ANTISOL REG	5	25	288,31	7,21	0,60	6,61
ANTISOL LV	5	25	83,95	2,10	0,17	1,93
POLY PLUS	5	22,68	86,63	1,96	0,38	1,58
BORREWELL	4	25	184,03	4,60	0,58	4,02
SOD BICARBONATE	2	25	106,56	2,66	0,12	2,54
CITRIC ACID	2	25	60,92	1,52	0,05	1,47
BACBAN III	8	5	9,46	0,05	0,00	0,05
SIL DEFOAMER	7	200	14,52	2,90	0,29	2,61
RENAX-100	15	196	21,17	4,15	0,41	3,74
M.P.O.C.	12	194	2,34	0,45	0,07	0,38
MICA F	3	25	0,00	0,00	0,00	0,00
NUTPLUG F	3	25	0,00	0,00	0,00	0,00
DESCO CF	4	11,34	51,44	0,58	0,140	0,44
CAL CARBONATE	2	25	0,00	0,00	0,000	0,00
AGIPAC LV	5	25	86,95	2,17	0,440	1,73
OILEX	8	214	0,10	0,02	0,000	0,02
KCL POWDER	2	25	993,89	24,85	9,930	14,92
KCL BRINE	2	M3	127,00	31,75	0,000	31,75 * as powder
VG-69	1	25	0,00	0,00	0,000	0,00
TOTAL CUTTINGS DISCHARGED (m3)		304,10	TOTAL CUTTINGS DISCHARGED (mt)		748,72	LOTUS/MOBIL/TOTDISC M-I FEB 92

TOTAL WELL - MATERIALS & SERVICE CONSUMPTION

M-I NORGE A.S.

PAGE: 2 OF: 2

WELL NUMBER 33/9-15

PRODUCT NAME	NET UNIT SIZE (KG)	UNIT COST (NOK)	NET TOTAL UNITS	TOTAL COST (NOK)
BARITE	1000	624,20	702,53	438519,23
BENTONITE	1000	1892,00	98,75	186835,00
CAUSTIC	25	117,10	109,68	12843,53
SODA ASH	25	58,30	40,32	2350,66
LIME	20	48,38	15,64	756,66
XC-POLYMER	25	1732,36	16,66	28861,12
POLYSAL	25	156,70	41,36	6481,11
ANTISOL REG	25	722,86	288,31	208407,77
ANTISOL LV	25	722,86	83,95	60684,10
POLY PLUS	22,68	706,00	86,63	61160,78
BORREWELL	25	95,00	184,03	17482,85
SOD BICARB	25	77,20	106,56	8226,43
CITRIC ACID	25	259,50	60,92	15808,74
BACBAN III	5	1407,00	9,46	13310,22
SIL DEFOAMER	200	4305,00	14,52	62508,60
RENAX-100	196	3345,00	21,17	70813,65
M.P.O.C.	194	3215,00	2,34	7523,10
MICA F	25	85,80	0,00	0,00
NUTPLUG F	25	85,80	0,00	0,00
DESCO CF	11,34	192,50	51,44	9902,20
CAL CARBONATE	25	59,04	0,00	0,00
AGIPAC LV	25	508,52	86,95	44215,81
OILEX	214	3658,84	0,10	365,88
KCL POWDER	25	44,30	993,89	44029,33
KCL BRINE	M3	555,70	127,00	70573,90
VG-69	25	508,40	0,00	0,00
TOTAL				1371660,66

NON MUD MATERIALS CONSUMPTION - LISTED BELOW

BARITE	1000	624,20	27,00	16853,40
BENTONITE	1000	1892,00	10,00	18920,00
SODA ASH	25	58,30	1,00	58,30
XC POLYMER	25	1732,36	1,00	1732,36
MICA F	25	85,80	9,00	772,20
NUTPLUG F	25	85,80	10,00	858,00
CAL CARBONATE	25	59,04	39,00	2302,56
KCL BRINE	M3	555,70	4,00	2222,80
KCL POWDER	25	44,30	100,00	4430,00
VG-69	25	508,40	2,00	1016,80
TOTAL				49166,42

ENGINEERING SERVICE	COST/DAY	DAYS	TOTAL ENGINEERING COST
1 st ENGINEER	4000,00	80	320000,00
2 nd ENGINEER	3900,00	74	288600,00
LOTUS/MOBIL/TOTMATCON	COST ADJUSTMENTS		0,00
M-1 FEB 92	TOTAL WELL MUD COST		2029427,08

BA-92-1797-1

**Geochemical Report for
Well NOCS 33/9-15
and Oils from 33/9-14 and 33/9-C32**

Vol I

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Chapter 1

INTRODUCTION

Well NOCS 33/9-15 was analysed on behalf of Mobil Exploration Norway by authorization of Dag Isaksen.

The well is located in the Norwegian sector of the North Sea and is situated in the Tampen Spur Area (61°24'24.67"N, 01°57'15.76"E). The water depth was 252.5 m and KB elevation was 26.5 m. All depths given are relative to KB unless otherwise specified. The location of the well is shown in Figure 1.

Samples (cuttings, side-wall cores, conventional cores and oils) were supplied by Mobil and delivered to Geolab Nor's laboratory in Trondheim. A preliminary stratigraphy based on seismic and biostratigraphic data to date was provided by Mobil and is used in this report. Note that this stratigraphy may differ slightly from the final stratigraphy.

Both screening and follow-up analyses were performed. Samples for analyses were selected in agreement with Dag Isaksen on a continuous basis. The well was analyzed from 421.5 m to 3007 m (range of samples supplied to Geolab Nor). Conventional core samples were preferred for analyses where available and side-wall cores were preferred to cuttings samples. Three mixed oil - water samples from 33/9-15 were also analyzed. The results are presented in the relevant stratigraphic sections of this report. In addition two oils (from 33/9-14 and 33/9-C32, both from the Statfjord field) were analysed and compared with data from 33/9-15.

The report is divided into chapters according to the various analytical methods used. Within the chapters the results are mainly discussed in a (descending) stratigraphic context.

1.1 General Comments

The cuttings samples were supplied unwashed in cans. The samples were analysed for headspace and occluded gas, washed, described and picked before analyses commenced. The conventional core samples were supplied as core-chips which were used after removal of any superficial contamination. The side-wall cores were cleansed of drill mud before analyses.

The quality of the rock samples was good. No analytical problems were encountered.

1.2 Analytical Program

In accordance with the contract, sample availability and the screening analyses results, the following analytical program was executed for Well NOCS 33/9-15 in the section from 421.5 m to 3005 m:

<u>Analysis type</u>	<u>No of samples</u>	<u>Figures</u>	<u>Tables</u>
Headspace and Occluded Gas	97	2a-c	1a-c
Lithology description	312	3	2
Rock-Eval pyrolysis	51	4a,5a,6	3
Quantitative GHM (S ₁ and S ₂), wellsite	150	4b-c,5b 7a-f,8a-d	5
Thermal Extraction and Pyrolysis GC (GHM)	13	9	4
Soxhlet Extraction of organic matter	11		
MPLC/HPLC separation	14		6a-d
Whole oil GC	3		
Saturated hydrocarbon GC	14	10a-h	7a
Aromatic hydrocarbon GC	14	11a-f	8a
Vitrinite reflectance	26	12	9
Visual kerogen microscopy	16	13	9,10
Isotope composition C ₁₅ + fractions	13	14,15	11a-b
GC - MS of saturated and aromatic HC	13	16a-m	12a-i
GC - MS cross-plots		17a-e	

In addition two oil samples (one from well 33/9-14 and one from 33/9-C32) were analysed for comparison. The results are included in this report:

<u>Analysis type</u>	<u>No of samples</u>	<u>Figures</u>	<u>Tables</u>
MPLC/HPLC separation	2		6e-f
Whole oil GC	2		
Saturated hydrocarbon GC	2	10f-z	7b
Aromatic hydrocarbon GC	2	11g-z	8b
Isotope composition C ₁₅ + fractions	2	14,15	11c-d
GC - MS of saturated and aromatic HC	2	16n-z	12j-r
GC - MS cross-plots		17a-e	

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Table 1a: C1 to C7 hydrocarbons in HEADSPACE gas
(μl gas/kg rock)

Project: AREA 35/11

Well: NOCS 33/9-15

Depth unit of measure: m

* Indicated values in ml gas/kg rock

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4 --- nC4
460.00	7976	3	4	1	4	8	7988	12	0.2	0.25
500.00	21359	6	2	1	2	10	21370	11	0.1	0.50
540.00	15976	6	5	2	4	7	15993	17	0.1	0.50
580.00	37511	13	11	3	3	2	37541	30	0.1	1.00
620.00	25097	11	4	1	1	5	25114	17	0.1	1.00
660.00	6502	3	2	1	1	2	6509	7	0.1	1.00
700.00	22690	7	2	1	1	1	22701	11	0.1	1.00
740.00	372	-	-	-	-	-	372	-	-	-
780.00	12963	7	2	1	-	4	12973	10	0.1	-
820.00	24535	10	4	2	1	11	24552	17	0.1	2.00
860.00	19707	10	4	2	2	4	19725	18	0.1	1.00
900.00	17353	13	13	2	5	5	17386	33	0.2	0.40
940.00	21268	11	5	1	1	29	21286	18	0.1	1.00
980.00	9430	5	6	1	2	26	9444	14	0.2	0.50
1020.00	8036	3	4	1	3	3	8047	11	0.1	0.33
1060.00	3900	1	-	-	-	3	3901	1	-	-
1100.00	230	-	-	-	-	-	230	-	-	-
1140.00	3239	2	-	-	-	1	3241	2	0.1	-
1180.00	232	-	-	-	-	-	232	-	-	-
1220.00	299	2	2	-	-	-	303	4	1.3	-
1260.00	1259	6	4	-	1	1	1270	11	0.9	-
1300.00	6081	14	9	1	1	3	6106	25	0.4	1.00
1340.00	6505	2	1	-	-	3	6508	3	0.1	-

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Table 1a: C1 to C7 hydrocarbons in HEADSPACE gas
(μl gas/kg rock)

Project: AREA 35/11

Well: NOCS 33/9-15

Depth unit of measure: m

* Indicated values in ml gas/kg rock

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4 ---- nC4
1380.00	1679	1	-	-	-	4	1680	1	0.1	-
1420.00	1050	2	1	-	-	-	1053	3	0.3	-
1460.00	1138	2	1	-	-	3	1141	3	0.3	-
1500.00	603	2	-	-	-	-	605	2	0.3	-
1540.00	973	3	1	-	-	12	977	4	0.4	-
1580.00	8	-	-	-	-	-	8	-	-	-
1620.00	3402	10	1	1	1	1	3415	13	0.4	1.00
1660.00	5638	21	4	3	1	18	5667	29	0.5	3.00
1700.00	2372	8	1	2	1	20	2384	12	0.5	2.00
1740.00	2327	12	4	3	2	96	2348	21	0.9	1.50
1780.00	3461	38	4	4	1	176	3508	47	1.3	4.00
1820.00	4233	67	9	7	4	110	4320	87	2.0	1.75
1860.00	12058	57	6	7	2	36	12130	72	0.6	3.50
1900.00	3308	18	3	3	1	9	3333	25	0.8	3.00
1940.00	2678	18	6	5	2	30	2709	31	1.1	2.50
1980.00	1327	6	2	1	1	9	1337	10	0.8	1.00
2020.00	2233	19	5	4	2	10	2263	30	1.3	2.00
2060.00	2222	25	8	6	3	20	2264	42	1.9	2.00
2100.00	4043	68	23	14	8	32	4156	113	2.7	1.75
2140.00	5298	77	28	18	10	74	5431	133	2.5	1.80
2180.00	7530	151	55	29	17	57	7782	252	3.2	1.71
2220.00	358	7	5	2	2	7	374	16	4.3	1.00
2260.00	1036	41	20	9	7	68	1113	77	6.9	1.29

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Table 1a: C1 to C7 hydrocarbons in HEADSPACE gas
(μl gas/kg rock)

Project: AREA 35/11

Well: NOCS 33/9-15

Depth unit of measure: m

* Indicated values in ml gas/kg rock

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4 --- nC4
2300.00	3685	66	21	21	35	522	3828	143	3.7	0.60
2340.00	10243	215	65	29	31	414	10583	340	3.2	0.94
2380.00	5704	255	123	57	37	556	6176	472	7.6	1.54
2420.00	3208	141	77	33	19	178	3478	270	7.8	1.74
2460.00	3649	286	173	66	37	116	4211	562	13.4	1.78
2500.00	3197	220	167	51	38	211	3673	476	13.0	1.34
2540.00	6679	531	381	103	80	361	7774	1095	14.1	1.29
2580.00	3707	721	629	129	115	126	5301	1594	30.1	1.12
2600.00	16504	2284	1552	253	235	289	20828	4324	20.8	1.08
2609.00	7365	613	642	161	183	230	8964	1599	17.8	0.88
2618.00	5234	635	711	151	180	221	6911	1677	24.3	0.84
2627.00	3353	413	475	86	135	129	4462	1109	24.9	0.64
2636.00	1411	193	262	62	81	199	2009	598	29.8	0.77
2645.00	2429	307	369	77	121	89	3303	874	26.5	0.64
2663.00	5636	552	666	155	272	267	7281	1645	22.6	0.57
2672.00	3126	382	514	136	239	303	4397	1271	28.9	0.57
2681.00	3752	514	816	200	374	378	5656	1904	33.7	0.53
2690.00	15492	2497	3589	814	1280	1269	23672	8180	34.6	0.64
2699.00	3279	518	982	256	531	557	5566	2287	41.1	0.48
2708.00	1284	248	342	83	196	184	2153	869	40.4	0.42
2717.00	1911	438	687	130	288	267	3454	1543	44.7	0.45
2726.00	2102	175	368	105	263	353	3013	911	30.2	0.40
2735.00	529	129	234	47	115	203	1054	525	49.8	0.41

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Table 1a: C1 to C7 hydrocarbons in HEADSPACE gas
(μl gas/kg rock)

Project: AREA 35/11

Well: NOCS 33/9-15

Depth unit of measure: m

* Indicated values in ml gas/kg rock

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4 --- nC4
2744.00	518	148	322	115	328	1812	1431	913	63.8	0.35
2753.00	474	101	138	28	67	175	808	334	41.3	0.42
2762.00	456	151	201	36	88	171	932	476	51.1	0.41
2771.00	2306	627	881	169	425	790	4408	2102	47.7	0.40
2780.00	1410	336	429	85	219	451	2479	1069	43.1	0.39
2789.00	1070	190	208	38	100	230	1606	536	33.4	0.38
2798.00	244	40	50	10	27	70	371	127	34.2	0.37
2807.00	554	66	88	21	55	96	784	230	29.3	0.38
2816.00	806	215	278	58	130	138	1487	681	45.8	0.45
2825.00	2514	1079	1082	132	381	680	5188	2674	51.5	0.35
2834.00	475	118	153	25	70	84	841	366	43.5	0.36
2843.00	91698	14853	7270	721	1498	1059	116040	24342	21.0	0.48
2861.00	128072	17195	8798	807	1358	795	156230	28158	18.0	0.59
2870.00	1998	1476	119	-	70	212	3663	1665	45.5	-
2879.00	92907	13980	6487	480	740	612	114594	21687	18.9	0.65
2888.00	56763	11655	6263	557	826	730	76064	19301	25.4	0.67
2897.00	46612	13500	9597	985	1378	1522	72072	25460	35.3	0.71
2906.00	40633	11144	8175	962	1290	1592	62204	21571	34.7	0.75
2915.00	63504	13808	10193	1241	1633	1642	90379	26875	29.7	0.76
2924.00	19369	5230	3867	474	663	509	29603	10234	34.6	0.71
2933.00	27958	8197	6022	747	937	918	43861	15903	36.3	0.80
2942.00	25075	6124	5054	903	934	514	38090	13015	34.2	0.97
2951.00	58430	21621	15206	1920	2339	2110	99516	41086	41.3	0.82

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Table 1a: C1 to C7 hydrocarbons in HEADSPACE gas
(μ l gas/kg rock)

Project: AREA 35/11

Well: NOCS 33/9-15

Depth unit of measure: m * Indicated values in ml gas/kg rock

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4 --- nC4
2960.00	13300	4489	3607	485	581	615	22462	9162	40.8	0.83
2969.00	22363	7692	5336	626	754	609	36771	14408	39.2	0.83
2978.00	9142	2949	2124	289	365	435	14869	5727	38.5	0.79
2996.00	48197	5932	2874	400	456	329	57859	9662	16.7	0.88
3005.00	14679	3752	2213	270	344	285	21258	6579	31.0	0.78

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Table 1b: C1 to C7 hydrocarbons in CUTTINGS gas
(μ l gas/kg rock)

Project: AREA 35/11

Well: NOCS 33/9-15

Depth unit of measure: m

* Indicated values in ml gas/kg source rock

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4 --- nC4
460.00	40	1	-	-	-	1	41	1	2.4	-
500.00	103	2	1	-	-	2	106	3	2.8	-
540.00	42	1	1	-	1	6	45	3	6.7	-
580.00	138	2	6	2	14	42	162	24	14.8	0.14
620.00	146	5	2	-	2	3	155	9	5.8	-
660.00	180	2	-	-	-	-	182	2	1.1	-
700.00	105	3	1	-	1	-	110	5	4.6	-
740.00	157	3	1	-	-	2	161	4	2.5	-
780.00	100	2	1	-	-	1	103	3	2.9	-
820.00	101	1	-	-	-	1	102	1	1.0	-
860.00	204	2	1	-	-	1	207	3	1.5	-
900.00	133	1	-	-	-	-	134	1	0.8	-
940.00	93	3	10	3	17	74	126	33	26.2	0.18
980.00	165	6	9	4	19	99	203	38	18.7	0.21
1020.00	53	1	1	-	2	34	57	4	7.0	-
1060.00	163	3	1	-	1	1	168	5	3.0	-
1100.00	58	3	1	-	-	-	62	4	6.5	-
1140.00	61	4	2	-	1	1	68	7	10.3	-
1180.00	74	4	2	-	1	1	81	7	8.6	-
1220.00	53	2	2	-	1	2	58	5	8.6	-
1260.00	133	1	1	-	1	3	136	3	2.2	-
1300.00	27	1	1	-	-	-	29	2	6.9	-
1340.00	9	1	-	-	-	-	10	1	10.0	-

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Table 1b: C1 to C7 hydrocarbons in CUTTINGS gas
(μ l gas/kg rock)

Project: AREA 35/11

Well: NOCS 33/9-15

Depth unit of measure: m

* Indicated values in ml gas/kg source rock

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4 ---	nC4 ---
1380.00	10	1	-	-	-	-	11	1	9.1	-	-
1420.00	5	1	-	-	-	-	6	1	16.7	-	-
1460.00	8	1	-	-	-	6	9	1	11.1	-	-
1500.00	11	2	1	-	-	3	14	3	21.4	-	-
1540.00	17	4	4	1	2	8	28	11	39.3	0.50	-
1580.00	12	1	-	-	-	1	13	1	7.7	-	-
1620.00	14	2	1	-	-	-	17	3	17.7	-	-
1660.00	18	2	1	-	-	9	21	3	14.3	-	-
1700.00	10	1	-	-	-	18	11	1	9.1	-	-
1740.00	14	1	1	-	1	68	17	3	17.7	-	-
1780.00	10	1	-	-	-	35	11	1	9.1	-	-
1820.00	26	2	1	-	1	26	30	4	13.3	-	-
1860.00	22	3	2	-	1	3	28	6	21.4	-	-
1900.00	41	3	1	-	1	7	46	5	10.9	-	-
1940.00	16	1	1	-	-	4	18	2	11.1	-	-
1980.00	17	3	2	-	1	8	23	6	26.1	-	-
2020.00	21	4	3	-	1	3	29	8	27.6	-	-
2060.00	18	2	2	-	1	6	23	5	21.7	-	-
2100.00	16	1	1	-	1	7	19	3	15.8	-	-
2140.00	18	2	2	1	1	10	24	6	25.0	1.00	-
2180.00	24	2	1	1	2	14	30	6	20.0	0.50	-
2220.00	9	-	-	-	-	3	9	-	-	-	-
2260.00	11	1	-	-	-	8	12	1	8.3	-	-

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Table 1b: C1 to C7 hydrocarbons in CUTTINGS gas
(μl gas/kg rock)

Project: AREA 35/11

Well: NOCS 33/9-15

Depth unit of measure: m

* Indicated values in ml gas/kg source rock

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4 --- nC4
2300.00	27	3	1	-	1	34	32	5	15.6	-
2340.00	43	5	2	1	1	25	52	9	17.3	1.00
2380.00	31	3	2	1	1	49	38	7	18.4	1.00
2420.00	45	5	3	1	1	69	55	10	18.2	1.00
2460.00	49	3	2	-	1	8	55	6	10.9	-
2500.00	70	27	48	6	18	43	169	99	58.6	0.33
2540.00	92	8	4	1	2	20	107	15	14.0	0.50
2580.00	52	5	4	1	2	20	64	12	18.8	0.50
2600.00	55	13	4	5	10	55	87	32	36.8	0.50
2609.00	40	9	16	4	12	43	81	41	50.6	0.33
2618.00	42	5	5	1	3	16	56	14	25.0	0.33
2627.00	34	5	4	1	4	30	48	14	29.2	0.25
2636.00	35	5	6	2	5	14	53	18	34.0	0.40
2645.00	50	8	11	3	9	31	81	31	38.3	0.33
2663.00	36	4	4	1	4	24	49	13	26.5	0.25
2672.00	39	5	4	1	5	10	54	15	27.8	0.20
2681.00	37	5	6	2	7	30	57	20	35.1	0.29
2690.00	40	4	4	1	4	11	53	13	24.5	0.25
2699.00	67	9	8	2	10	29	96	29	30.2	0.20
2708.00	52	9	11	3	13	39	88	36	40.9	0.23
2717.00	62	11	19	7	26	134	125	63	50.4	0.27
2726.00	40	7	16	10	39	160	112	72	64.3	0.26
2735.00	50	6	4	3	12	86	75	25	33.3	0.25

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Table 1b: C1 to C7 hydrocarbons in CUTTINGS gas
(μ l gas/kg rock)

Project: AREA 35/11

Well: NOCS 33/9-15

Depth unit of measure: m

* Indicated values in ml gas/kg source rock

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4 --- nC4
2744.00	55	5	5	5	18	261	88	33	37.5	0.28
2753.00	62	6	4	1	5	39	78	16	20.5	0.20
2762.00	66	7	19	8	32	113	132	66	50.0	0.25
2771.00	58	6	9	4	19	139	96	38	39.6	0.21
2780.00	63	6	4	2	6	64	81	18	22.2	0.33
2789.00	74	7	5	1	5	50	92	18	19.6	0.20
2798.00	130	17	8	1	4	30	160	30	18.8	0.25
2807.00	79	8	5	2	8	56	102	23	22.6	0.25
2816.00	97	8	9	4	14	115	132	35	26.5	0.29
2825.00	63	14	35	9	33	205	154	91	59.1	0.27
2834.00	88	9	5	1	5	24	108	20	18.5	0.20
2843.00	1499	2395	4004	747	1875	2497	10520	9021	85.8	0.40
2861.00	2127	2174	3185	459	901	530	8846	6719	76.0	0.51
2870.00	1655	2126	2865	314	629	287	7589	5934	78.2	0.50
2879.00	464	742	1189	142	325	197	2862	2398	83.8	0.44
2888.00	382	813	1456	190	427	318	3268	2886	88.3	0.44
2897.00	129	224	691	116	293	465	1453	1324	91.1	0.40
2906.00	267	426	1140	179	401	408	2413	2146	88.9	0.45
2915.00	313	707	1646	267	537	592	3470	3157	91.0	0.50
2924.00	227	547	1401	262	551	811	2988	2761	92.4	0.48
2933.00	297	522	1910	436	1042	1863	4207	3910	92.9	0.42
2942.00	150	352	1023	233	454	619	2212	2062	93.2	0.51
2951.00	147	384	1110	222	451	480	2314	2167	93.7	0.49

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Table 1b: C1 to C7 hydrocarbons in CUTTINGS gas
(μ l gas/kg rock)

Project: AREA 35/11

Well: NOCS 33/9-15

Depth unit of measure: m

* Indicated values in ml gas/kg source rock

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4 ---- nC4
2960.00	95	218	552	101	216	220	1182	1087	92.0	0.47
2969.00	141	488	1263	228	478	465	2598	2457	94.6	0.48
2978.00	124	300	871	178	390	687	1863	1739	93.3	0.46
2996.00	1946	2347	2352	344	587	293	7576	5630	74.3	0.59
3005.00	206	599	1187	228	495	689	2715	2509	92.4	0.46

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Table 1c: C1 to C7 hydrocarbons in HEADSPACE and CUTTINGS gas
(μ l gas/kg rock)

Project: AREA 35/11

Well: NOCS 33/9-15

Depth unit of measure: m * Indicated values in ml gas/kg source rock

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4 --- nC4
460.00	8016	4	4	1	4	9	8029	13	0.2	0.25
500.00	21462	8	3	1	2	12	21476	14	0.1	0.50
540.00	16018	7	6	2	5	13	16038	20	0.1	0.40
580.00	37649	15	17	5	17	44	37703	54	0.1	0.29
620.00	25243	16	6	1	3	8	25269	26	0.1	0.33
660.00	6682	5	2	1	1	2	6691	9	0.1	1.00
700.00	22795	10	3	1	2	1	22811	16	0.1	0.50
740.00	529	3	1	-	-	2	533	4	0.8	-
780.00	13063	9	3	1	-	5	13076	13	0.1	-
820.00	24636	11	4	2	1	12	24654	18	0.1	2.00
860.00	19911	12	5	2	2	5	19932	21	0.1	1.00
900.00	17486	14	13	2	5	5	17520	34	0.2	0.40
940.00	21361	14	15	4	18	103	21412	51	0.2	0.22
980.00	9595	11	15	5	21	125	9647	52	0.5	0.24
1020.00	8089	4	5	1	5	37	8104	15	0.2	0.20
1060.00	4063	4	1	-	1	4	4069	6	0.2	-
1100.00	288	3	1	-	-	-	292	4	1.4	-
1140.00	3300	6	2	-	1	2	3309	9	0.3	-
1180.00	306	4	2	-	1	1	313	7	2.2	-
1220.00	352	4	4	-	1	2	361	9	2.5	-
1260.00	1392	7	5	-	2	4	1406	14	1.0	-
1300.00	6108	15	10	1	1	3	6135	27	0.4	1.00

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Table 1c: C1 to C7 hydrocarbons in HEADSPACE and CUTTINGS gas
(μ l gas/kg rock)

Project: AREA 35/11

Well: NOCS 33/9-15

Depth unit of measure: m

* Indicated values in ml gas/kg source rock

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4 nC4
1340.00	6514	3	1	-	-	3	6518	4	0.1	-
1380.00	1689	2	-	-	-	4	1691	2	0.1	-
1420.00	1055	3	1	-	-	-	1059	4	0.4	-
1460.00	1146	3	1	-	-	9	1150	4	0.4	-
1500.00	614	4	1	-	-	3	619	5	0.8	-
1540.00	990	7	5	1	2	20	1005	15	1.5	0.50
1580.00	20	1	-	-	-	1	21	1	4.8	-
1620.00	3416	12	2	1	1	1	3432	16	0.5	1.00
1660.00	5656	23	5	3	1	27	5688	32	0.6	3.00
1700.00	2382	9	1	2	1	38	2395	13	0.5	2.00
1740.00	2341	13	5	3	3	164	2365	24	1.0	1.00
1780.00	3471	39	4	4	1	211	3519	48	1.4	4.00
1820.00	4259	69	10	7	5	136	4350	91	2.1	1.40
1860.00	12080	60	8	7	3	39	12158	78	0.6	2.33
1900.00	3349	21	4	3	2	16	3379	30	0.9	1.50
1940.00	2694	19	7	5	2	34	2727	33	1.2	2.50
1980.00	1344	9	4	1	2	17	1360	16	1.2	0.50
2020.00	2254	23	8	4	3	13	2292	38	1.7	1.33
2060.00	2240	27	10	6	4	26	2287	47	2.1	1.50
2100.00	4059	69	24	14	9	39	4175	116	2.8	1.56
2140.00	5316	79	30	19	11	84	5455	139	2.6	1.73
2180.00	7554	153	56	30	19	71	7812	258	3.3	1.58

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Table 1c: C1 to C7 hydrocarbons in HEADSPACE and CUTTINGS gas
(μ l gas/kg rock)

Project: AREA 35/11

Well: NOCS 33/9-15

Depth unit of measure: m

* Indicated values in ml gas/kg source rock

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4 --- nC4
2220.00	367	7	5	2	2	10	383	16	4.2	1.00
2260.00	1047	42	20	9	7	76	1125	78	6.9	1.29
2300.00	3712	69	22	21	36	556	3860	148	3.8	0.58
2340.00	10286	220	67	30	32	439	10635	349	3.3	0.94
2380.00	5735	258	125	58	38	605	6214	479	7.7	1.53
2420.00	3253	146	80	34	20	247	3533	280	7.9	1.70
2460.00	3698	289	175	66	38	124	4266	568	13.3	1.74
2500.00	3267	247	215	57	56	254	3842	575	15.0	1.02
2540.00	6771	539	385	104	82	381	7881	1110	14.1	1.27
2580.00	3759	726	633	130	117	146	5365	1606	29.9	1.11
2600.00	16559	2297	1556	258	245	344	20915	4356	20.8	1.05
2609.00	7405	622	658	165	195	273	9045	1640	18.1	0.85
2618.00	5276	640	716	152	183	237	6967	1691	24.3	0.83
2627.00	3387	418	479	87	139	159	4510	1123	24.9	0.63
2636.00	1446	198	268	64	86	213	2062	616	29.9	0.74
2645.00	2479	315	380	80	130	120	3384	905	26.7	0.62
2663.00	5672	556	670	156	276	291	7330	1658	22.6	0.57
2672.00	3165	387	518	137	244	313	4451	1286	28.9	0.56
2681.00	3789	519	822	202	381	408	5713	1924	33.7	0.53
2690.00	15532	2501	3593	815	1284	1280	23725	8193	34.5	0.63
2699.00	3346	527	990	258	541	586	5662	2316	40.9	0.48
2708.00	1336	257	353	86	209	223	2241	905	40.4	0.41

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Table 1c: C1 to C7 hydrocarbons in HEADSPACE and CUTTINGS gas
(μ l gas/kg rock)

Project: AREA 35/11

Well: NOCS 33/9-15

Depth unit of measure: m

* Indicated values in ml gas/kg source rock

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4 ---- nC4
2717.00	1973	449	706	137	314	401	3579	1606	44.9	0.44
2726.00	2142	182	384	115	302	513	3125	983	31.5	0.38
2735.00	579	135	238	50	127	289	1129	550	48.7	0.39
2744.00	573	153	327	120	346	2073	1519	946	62.3	0.35
2753.00	536	107	142	29	72	214	886	350	39.5	0.40
2762.00	522	158	220	44	120	284	1064	542	50.9	0.37
2771.00	2364	633	890	173	444	929	4504	2140	47.5	0.39
2780.00	1473	342	433	87	225	515	2560	1087	42.5	0.39
2789.00	1144	197	213	39	105	280	1698	554	32.6	0.37
2798.00	374	57	58	11	31	100	531	157	29.6	0.35
2807.00	633	74	93	23	63	152	886	253	28.6	0.37
2816.00	903	223	287	62	144	253	1619	716	44.2	0.43
2825.00	2577	1093	1117	141	414	885	5342	2765	51.8	0.34
2834.00	563	127	158	26	75	108	949	386	40.7	0.35
2843.00	93197	17248	11274	1468	3373	3556	126560	33363	26.4	0.44
2861.00	130199	19369	11983	1266	2259	1325	165076	34877	21.1	0.56
2870.00	3653	3602	2984	314	699	499	11252	7599	67.5	0.45
2879.00	93371	14722	7676	622	1065	809	117456	24085	20.5	0.58
2888.00	57145	12468	7719	747	1253	1048	79332	22187	28.0	0.60
2897.00	46741	13724	10288	1101	1671	1987	73525	26784	36.4	0.66
2906.00	40900	11570	9315	1141	1691	2000	64617	23717	36.7	0.67
2915.00	63817	14515	11839	1508	2170	2234	93849	30032	32.0	0.69

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Table 1c: C1 to C7 hydrocarbons in HEADSPACE and CUTTINGS gas
(μ l gas/kg rock)

Project: AREA 35/11

Well: NOCS 33/9-15

Depth unit of measure: m * Indicated values in ml gas/kg source rock

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4 --- nC4
2924.00	19596	5777	5268	736	1214	1320	32591	12995	39.9	0.61
2933.00	28255	8719	7932	1183	1979	2781	48068	19813	41.2	0.60
2942.00	25225	6476	6077	1136	1388	1133	40302	15077	37.4	0.82
2951.00	58577	22005	16316	2142	2790	2590	101830	43253	42.5	0.77
2960.00	13395	4707	4159	586	797	835	23644	10249	43.4	0.74
2969.00	22504	8180	6599	854	1232	1074	39369	16865	42.8	0.69
2978.00	9266	3249	2995	467	755	1122	16732	7466	44.6	0.62
2996.00	50143	8279	5226	744	1043	622	65435	15292	23.4	0.71
3005.00	14885	4351	3400	498	839	974	23973	9088	37.9	0.59

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Table 2 : Lithology description for well NOCS 33/9-15

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int Cvd	TOC%	%	Lithology description			
421.50	swc					0001
	0.37	100	Sh/Clst: lt gy to lt brn gy, slt, calc			0001-1L
435.50	swc					0002
		100	Sh/Clst: m gy to brn gy, slt, calc			0002-1L
450.00	swc					0003
		100	Sh/Clst: ol gy to drk gn gy, slt, calc			0003-1L
460.00						0064
		70	Sh/Clst: w to lt gy, calc, mic			0064-1L
		30	S/Sst : w, lt brn, m gy to drk gy, crs			0064-2L
462.00	swc					0004
		100	Sh/Clst: m gy to m brn, slt, calc			0004-1L
481.50	swc					0005
		100	Sh/Clst: brn gy to m brn gy, slt, calc			0005-1L
492.00	swc					0006
		100	Sh/Clst: lt brn gy to brn gy, slt, calc, fos			0006-1L

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Table 2 : Lithology description for well NOCS 33/9-15

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
500.00						0065
				50 S/Sst : w, lt brn, m gy to drk gy, crs		0065-2L
				45 Sh/Clst: w to lt gy, calc, mic		0065-1L
				5 Other : fos		0065-3L
511.00	swc					0007
				100 Sltst : lt brn gy to brn gy, cly, calc		0007-1L
526.00	swc					0008
		0.37	100	Sh/Clst: lt brn gy to brn gy, slt, calc, fos		0008-1L
542.00	swc					0009
				100 Sh/Clst: brn gy, slt, calc		0009-1L
560.00	swc					0010
				100 Sh/Clst: brn gy to gy brn, slt, calc		0010-1L
576.50	swc					0011
				100 Sh/Clst: brn gy, slt, calc, fos		0011-1L
580.00						0066
				35 S/Sst : w, lt brn, m gy to drk gy		0066-2L
				30 Sh/Clst: w to lt gy, calc, mic		0066-1L
				30 Meta : m gy to drk gy		0066-5L
				5 Other : fos		0066-3L
				tr Cont : prp		0066-4L

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Table 2 : Lithology description for well NOCS 33/9-15

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
587.00	swc					0012
			100	Sh/Clst: brn gy to gy brn, slt, calc		0012-1L
603.50	swc					0013
			100	Sh/Clst: brn gy to gy brn, slt, calc		0013-1L
615.00	swc					0014
			100	Sh/Clst: brn gy to dsk brn, slt, calc, fos		0014-1L
620.00						0067
			45	S/Sst : w, lt brn, m gy to drk gy		0067-2L
			45	Meta : m gy to drk gy, mic		0067-5L
			5	Sh/Clst: lt gy, calc, mic		0067-1L
			5	Other : fos		0067-3L
			tr	Cont : prp		0067-4L
623.50	swc					0015
		0.34	100	Slstst : lt gy to lt brn gy, calc, mic, fos		0015-1L
638.00	swc					0016
			100	Sh/Clst: drk gy to brn gy, sft, carb		0016-1L
653.00	swc					0017
			100	Sh/Clst: lt gy to brn gy, calc, slt		0017-1L

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Table 2 : Lithology description for well NOCS 33/9-15

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
660.00						0068
				50 Meta : w, m gy to drk gy, mic		0068-5L
				40 S/Sst : w to lt gy, f, l		0068-2L
				10 Other : mic, fos, glauc		0068-3L
				tr Sh/Clst: lt gy, calc, mic		0068-1L
				tr Cont : Coal-ad, prp		0068-4L
670.00	swc					0018
				100 Sh/Clst: ol gy, calc, slt		0018-1L
685.00	swc					0019
				100 Sh/Clst: ol gy to ol brn, calc, slt		0019-1L
700.00	swc					0020
				100 Sh/Clst: lt brn gy to brn gy, calc, slt, s		0020-1L
700.00						0069
				50 Meta : w, m gy to drk gy, mic		0069-5L
				40 S/Sst : w to lt gy, f, l		0069-2L
				10 Other : mic, fos, glauc		0069-3L
				tr Sh/Clst: lt gy, calc, mic		0069-1L
				tr Cont : Coal-ad, prp		0069-4L
715.00	swc					0021
				100 Sh/Clst: lt gy, calc, slt		0021-1L

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Table 2 : Lithology description for well NOCS 33/9-15

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
730.00	swc					0022
		0.36	100	Sh/Clst: lt gy to lt brn gy to ol gy, slt		0022-1L
740.00						0070
				55 Meta : w, m gy to drk gy, mic		0070-4L
				40 S/Sst : w to lt gy, f, l		0070-1L
				5 Other : mic, fos, glauc		0070-2L
				tr Cont : Coal-ad, prp		0070-3L
745.00	swc					0023
				100 Sh/Clst: m gy to drk gy to ol gy, slt, s		0023-1L
761.00	swc					0024
				100 Sh/Clst: lt gy to m gy, slt		0024-1L
775.50	swc					0025
				100 Sh/Clst: lt gy to lt brn gy, slt		0025-1L
780.00						0071
				55 Meta : w, m gy to drk gy, mic		0071-4L
				40 S/Sst : w to lt gy, f, l		0071-1L
				5 Other : mic, fos, glauc		0071-2L
				tr Cont : Coal-ad, prp		0071-3L
790.00	swc					0026
				100 Sh/Clst: lt gy to lt brn gy, slt, calc		0026-1L

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Table 2 : Lithology description for well NOCS 33/9-15

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
805.00	swc					0027
			100	Sh/Clst: lt gy to m gy, slt		0027-1L
820.00	swc					0028
		0.33	100	Sh/Clst: lt gy to m gy to dsk brn, slt, calc, fos		0028-1L
820.00						0072
			55	Meta : w, gy red, ol gy, m gy to drk gy, mic		0072-4L
			40	S/Sst : w to lt gy, f, l		0072-1L
			5	Other : mic, fos, glauc		0072-2L
			tr	Cont : Coal-ad, prp		0072-3L
834.00	swc					0029
			100	Sh/Clst: ol gy, slt, calc		0029-1L
850.00	swc					0030
			100	Sh/Clst: ol gy		0030-1L
860.00						0073
			65	S/Sst : w to lt gy, f, l		0073-1L
			30	Meta : w, gy red, ol gy, m gy to drk gy, mic		0073-4L
			5	Other : mic, fos, glauc		0073-2L
			tr	Cont : Coal-ad, prp		0073-3L

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Table 2 : Lithology description for well NOCS 33/9-15

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
865.00	swc					0031
			100	Sh/Clst: ol gy, sft		0031-1L
880.00	swc					0032
			100	Sh/Clst: m gy to ol gy, slt, calc		0032-1L
894.50	swc					0033
			100	Sh/Clst: lt gy to m gy, slt		0033-1L
900.00						0074
			50	S/Sst : w to lt gy, f, l		0074-1L
			45	Meta : w, ol gy, m gy to drk gy, mic		0074-4L
			5	Other : mic, fos, glauc		0074-2L
			tr	Cont : Coal-ad, prp		0074-3L
			tr	Sh/Clst: lt gy, calc, slt, mic		0074-5L
910.00	swc					0034
			100	S/Sst : y gy to lt brn gy, f, l, calc, fos, cly		0034-1L
923.50	swc					0035
	0.73		100	Sh/Clst: brn gy to drk brn, sft, slt, calc		0035-1L
939.00	swc					0036
			100	Sltst : y gy, hd, calc		0036-1L

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Table 2 : Lithology description for well NOCS 33/9-15

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
940.00						0075
				50 S/Sst : w to lt gy, crs, rnd, l		0075-1L
				45 Meta : w, ol gy, m gy to drk gy, mic		0075-4L
				5 Other : pyr, mic, fos, glauc		0075-2L
				tr Cont : Coal-ad, prp		0075-3L
				tr Sh/Clst: w to lt gy, calc, slt, mic		0075-5L
956.50	swc					0037
				100 Sltst : y gy to lt brn gy, hd, cly, calc		0037-1L
962.00	swc					0038
				100 S/Sst : pl y brn to lt brn gy, crs, l, cly, calc		0038-1L
980.00						0076
				80 S/Sst : w to lt gy, f, rnd, l		0076-1L
				15 Meta : w, ol gy, m gy to drk gy, mic		0076-4L
				5 Other : pyr, mic, fos, glauc		0076-2L
				tr Cont : prp		0076-3L
				tr Sh/Clst: w to lt gy, calc, slt, mic		0076-5L
998.50	swc					0039
				100 Sltst : lt brn gy, calc, fos, cly		0039-1L
1005.00	swc					0040
				100 S/Sst : gy gy to y gy to or gy, crs, l, calc		0040-1L

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Table 2 : Lithology description for well NOCS 33/9-15

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
1020.00						0077
			85	Sltst : w to lt gy, rnd, l		0077-1L
			10	Meta : w, ol gy, m gy to drk gy, mic		0077-4L
			5	Sh/Clst: w to lt gy, calc, slt, mic		0077-5L
			tr	Other : pyr, mic, fos, glauc		0077-2L
			tr	Cont : prp		0077-3L
1024.50	swc					0041
		0.28	100	Sh/Clst: brn gy		0041-1L
1030.00	swc					0042
			100	Sh/Clst: brn gy to pl brn, slt, calc		0042-1L
1041.00	swc					0043
			100	S/Sst : pl y brn to lt brn gy to gn blk, crs, l, slt, glauc		0043-1L
1052.50	swc					0044
			100	S/Sst : lt gy w to gn blk, crs, l, glauc		0044-1L
1060.00						0078
			50	Sltst : w to lt gy, l		0078-1L
			50	Other : glauc		0078-6L
			tr	Other : pyr, fos		0078-2L
			tr	Cont : prp		0078-3L
			tr	Meta : m gy to drk gy, mic		0078-4L
			tr	Sh/Clst: w to pl y brn, calc, slt		0078-5L

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Table 2 : Lithology description for well NOCS 33/9-15

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
1063.50	swc					0045
			100	Other	: gn blk to lt gy w, glauc, hd, s	0045-1L
1067.00	swc					0046
			90	Other	: gn blk, glauc, l	0046-1L
			10	S/Sst	: lt gy w, crs, l	0046-2L
1075.00	swc					0047
			50	Other	: gn blk, glauc, l	0047-1L
			25	S/Sst	: lt gy w, crs, l	0047-2L
			25	Sh/Clst:	drk brn	0047-3L
1092.00	swc					0048
			100	Sltst	: y gy to gn blk, l, glauc	0048-1L
1100.00	swc					0049
			100	Sltst	: y gy to gn blk, l, glauc	0049-1L
1100.00						0079
			60	Other	: glauc	0079-5L
			40	Sltst	: w to lt gy, l	0079-1L
				tr Cont	: prp	0079-2L
				tr Meta	: m gy to drk gy, mic	0079-3L
				tr Sh/Clst:	w to pl y brn, calc, slt	0079-4L

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Table 2 : Lithology description for well NOCS 33/9-15

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample	
Int Cvd	TOC%	%	Lithology description				
1110.00	swc					0050	
		100	Sh/Clst: lt brn gy			0050-1L	
1120.00	swc					0051	
	1.19	100	Sh/Clst: lt brn gy			0051-1L	
1130.00	swc					0052	
		100	Sh/Clst: lt brn gy			0052-1L	
1140.00	swc					0053	
		100	Sh/Clst: lt brn gy			0053-1L	
1140.00						0080	
		50	Sh/Clst: lt brn gy, calc, slt			0080-3L	
		25	Sltst : w to lt gy, l			0080-1L	
		25	Other : glauc, rnd			0080-4L	
		tr	Cont : prp			0080-2L	
1150.00	swc					0054	
		100	Sh/Clst: lt brn gy			0054-1L	
1160.00	swc					0055	
		100	Sh/Clst: lt brn gy			0055-1L	

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Table 2 : Lithology description for well NOCS 33/9-15

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample	
Int Cvd	TOC%	%	Lithology description				
1170.00	swc					0056	
		100	Sh/Clst: lt brn gy			0056-1L	
1180.00	swc					0057	
		100	Sh/Clst: brn gy to m gy			0057-1L	
1180.00						0081	
		95	Sh/Clst: lt brn gy, calc			0081-2L	
		5	Other : glauc, rnd			0081-3L	
		tr	Cont : prp			0081-1L	
1190.00	swc					0058	
	1.08	100	Sh/Clst: lt brn gy, s			0058-1L	
1200.00	swc					0059	
		100	Sh/Clst: lt brn gy, s			0059-1L	
1220.00						0082	
		100	Sh/Clst: lt brn gy, calc			0082-2L	
		tr	Meta : drk gy, hd			0082-1L	
		tr	Other : glauc, rnd			0082-3L	
1260.00						0083	
		50	Sh/Clst: lt ol gy			0083-1L	
		50	Slstst : w			0083-2L	
		tr	Cont : prp			0083-3L	

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Table 2 : Lithology description for well NOCS 33/9-15

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample	
Int Cvd	TOC%	%	Lithology description				
1300.00						0084	
	0.37	45	Sh/Clst: lt ol gy			0084-1L	
		45	Sltst : w			0084-2L	
		10	Sh/Clst: w to lt gy, calc, slt			0084-4L	
		tr	Cont : prp			0084-3L	
1340.00						0085	
		80	Sh/Clst: ol gy			0085-1L	
		20	Sltst : w			0085-2L	
		tr	Cont : prp			0085-3L	
1380.00						0086	
		95	Sh/Clst: ol gy			0086-1L	
		5	Sltst : w			0086-2L	
		tr	Cont : prp			0086-3L	
		tr	Sh/Clst: lt brn gy, slt			0086-4L	
		tr	Meta : blk, hd			0086-5L	
1420.00						0087	
	0.41	100	Sh/Clst: ol gy			0087-1L	
		tr	Sh/Clst: w to lt brn gy, calc, slt			0087-2L	
1460.00						0088	
		100	Sh/Clst: ol gy			0088-1L	
		tr	Sh/Clst: lt brn gy, calc, slt			0088-2L	
1500.00						0089	
	0.33	100	Sh/Clst: ol gy to ol blk			0089-1L	
		tr	Sh/Clst: lt brn gy, calc, slt			0089-2L	

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Table 2 : Lithology description for well NOCS 33/9-15

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample	
Int Cvd	TOC%	%	Lithology description				
1540.00						0090	
		100	Sh/Clst: ol gy to ol blk			0090-1L	
			tr Sh/Clst: w to lt brn gy, calc, slt			0090-2L	
1580.00						0091	
		100	Sh/Clst: lt ol gy to ol gy			0091-1L	
			tr Sh/Clst: w to lt brn gy, calc, slt			0091-2L	
1620.00						0092	
	0.25	100	Sh/Clst: lt ol gy to ol gy			0092-1L	
			tr Sh/Clst: w to lt brn gy, calc, slt			0092-2L	
1660.00						0093	
		100	Sh/Clst: ol gy to lt ol gy to dsk y brn			0093-1L	
			tr Sh/Clst: w to lt brn gy, calc, slt			0093-2L	
1700.00						0094	
		80	Sh/Clst: ol gy			0094-1L	
		20	Sh/Clst: m brn to drk y brn, calc			0094-3L	
			tr Sh/Clst: w to lt brn gy, calc, slt			0094-2L	
1740.00						0095	
	0.41	90	Sh/Clst: ol gy to lt ol gy			0095-1L	
		10	Sh/Clst: m brn to drk y brn, calc			0095-3L	
			tr Sh/Clst: w to lt brn gy, calc, slt			0095-2L	
			tr Cont : prp			0095-4L	

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Table 2 : Lithology description for well NOCS 33/9-15

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
1780.00						0096
			85	Sh/Clst: ol gy		0096-1L
			10	Sh/Clst: w to lt brn gy, calc, slt		0096-2L
			5	Sh/Clst: m brn, calc		0096-3L
				tr Cont : prp		0096-4L
1820.00						0097
	0.32	100		Sh/Clst: ol gy to lt ol gy, calc, slt		0097-1L
				tr Sh/Clst: w to lt gy, calc		0097-2L
1860.00						0098
		100		Sh/Clst: ol gy to lt ol gy, calc, slt, glauc		0098-1L
				tr Sh/Clst: w to lt gy, lt brn, calc		0098-2L
				tr Ca : pl y brn, dol		0098-3L
1900.00						0099
	0.28	100		Sh/Clst: ol gy to lt ol gy, lt ol gn, calc, slt, glauc		0099-1L
				tr Sh/Clst: lt brn to pl y brn, calc		0099-2L
				tr Ca : pl y brn, dol		0099-3L
				tr Cont : prp		0099-4L
1940.00						0100
		100		Sh/Clst: ol gy to ol blk to lt ol gy, calc, slt, glauc		0100-1L
				tr Ca : w to lt gy		0100-2L
				tr Cont : prp		0100-3L

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Table 2 : Lithology description for well NOCS 33/9-15

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
1980.00						0101
			100	Sh/Clst: ol gy to lt ol gy, calc, slt, glauc		0101-1L
			tr	Sh/Clst: y gy		0101-2L
			tr	Cont : prp		0101-3L
			tr	Other : pyr, glauc		0101-4L
2020.00						0102
	0.36		100	Sh/Clst: ol gy to lt ol gy, lt ol gn, calc, slt, glauc		0102-1L
			tr	Other : w, pyr, glauc, evap		0102-2L
			tr	Cont : prp, bar		0102-3L
2060.00						0104
			100	Sh/Clst: ol gy to lt ol gy, calc, slt, glauc		0104-1L
			tr	Other : w, evap		0104-2L
			tr	Cont : prp, bar		0104-3L
			tr	Other : pyr, glauc		0104-4L
2100.00						0103
			70	Sh/Clst: ol gy to lt ol gy, calc, slt, glauc		0103-1L
			30	Cont : prp, bar		0103-3L
			tr	Other : w, evap		0103-2L
			tr	Other : pyr, glauc		0103-4L
2140.00						0105
			100	Sh/Clst: ol gy to lt ol gy, calc, slt, glauc		0105-1L
			tr	Other : w, evap		0105-2L
			tr	Cont : prp		0105-3L
			tr	Other : pyr, mic, glauc		0105-4L

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Table 2 : Lithology description for well NOCS 33/9-15

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
2155.00	ccp					0060
		0.49	100	Sh/Clst: m gy to drk gy		0060-1L
2170.00	ccp					0061
		0.50	100	Sh/Clst: m gy to drk gy		0061-1L
2180.00						0106
				80 Sh/Clst: ol gy to lt gy		0106-1L
				20 Cont : Coal-ad, prp, bar		0106-3L
				tr Other : w, evap		0106-2L
				tr Other : pyr, mic, glauc		0106-4L
2185.00	ccp					0062
			100	Sh/Clst: brn pi to brn, calc		0062-1L
2205.00	ccp					0063
		0.34	100	Sh/Clst: drk gy, calc		0063-1L
2220.00						0107
				40 Sh/Clst: w to lt gy		0107-1L
				40 Sh/Clst: ol gy to lt ol gy, calc		0107-2L
				20 Sh/Clst: m brn		0107-3L
				tr Cont : prp		0107-4L
2240.00	swc					0299
			65	Sh/Clst: ol gy, calc		0299-1L
			35	Sh/Clst: y gy, calc		0299-2L

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Table 2 : Lithology description for well NOCS 33/9-15

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
2260.00						0108
				40 Sh/Clst: w to lt gy		0108-1L
				40 Sh/Clst: ol gy to lt ol gy, calc		0108-2L
				20 Sh/Clst: m brn		0108-3L
				tr Cont : prp		0108-4L
2300.00						0109
				70 Sltst : w to lt gy, l		0109-2L
				30 Sh/Clst: lt gy to lt ol gy		0109-1L
				tr Cont : prp, bar		0109-3L
2340.00						0110
				70 Cont : prp, bar		0110-2L
				30 Sh/Clst: lt gy to lt ol gy		0110-1L
				tr Other : pyr		0110-3L
2380.00						0111
				100 Sh/Clst: lt ol gy, calc		0111-1L
2420.00						0112
				90 Cont : prp, bar		0112-3L
				10 Sh/Clst: lt gy to lt ol gy, calc, pyr		0112-1L
				tr Other : w, evap		0112-2L
2460.00						0113
				90 Cont : prp, bar		0113-3L
				10 Sh/Clst: lt gy to lt ol gy, calc, pyr		0113-1L
				tr Other : w, evap		0113-2L

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Table 2 : Lithology description for well NOCS 33/9-15

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
2500.00					trb	0114
				90 Cont : prp, bar		0114-3L
				10 Sh/Clst: ol gy to lt gy, calc, pyr		0114-1L
				tr Other : w, evap		0114-2L
2534.00	swc					0300
				90 Sh/Clst: ol gy, calc		0300-1L
				10 Sltst : w, glauc		0300-2L
2540.00					trb	0115
				90 Sh/Clst: ol gy to lt gy to lt brn, calc, pyr		0115-1L
				10 Cont : prp, bar		0115-3L
				tr Other : w, evap		0115-2L
2565.00	swc					0301
	0.37	100		Sh/Clst: ol blk		0301-1L
2578.00	swc					0302
		100		Sh/Clst: ol blk		0302-1L
2580.00						0116
				50 Cont : prp, bar		0116-2L
				35 Sh/Clst: ol blk		0116-1L
				15 Sltst : w to lt gy, glauc		0116-3L
				tr Other : pyr		0116-4L

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Table 2 : Lithology description for well NOCS 33/9-15

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
2588.00	swc					0303
			100	Sh/Clst: ol blk, calc		0303-1L
2600.00						0117
			80	Sh/Clst: lt gy to ol gy		0117-1L
			10	Cont : prp, bar		0117-2L
			10	Sltst : w to lt gy, glauc		0117-3L
			tr	Other : pyr		0117-4L
2609.00						0118
			85	Sh/Clst: y gy, m gy to m drk gy, calc, slt		0118-1L
			15	Sltst : w to lt gy, glauc		0118-3L
			tr	Cont : prp, bar		0118-2L
			tr	Other : pyr		0118-4L
			tr	Ca : m brn, dol, br		0118-5L
2615.50	swc					0304
			100	Sh/Clst: ol blk, calc		0304-1L
2618.00						0119
			85	Sh/Clst: y gy, m gy to m drk gy, calc, slt		0119-1L
			15	Sltst : w to lt gy, glauc		0119-3L
			tr	Cont : prp, bar		0119-2L
			tr	Other : pyr		0119-4L
			tr	Ca : m brn, dol, br		0119-5L
2627.00						0120
			85	Sh/Clst: y gy, m gy to m drk gy, calc, slt		0120-1L
			15	Sltst : w to lt gy, glauc		0120-3L
			tr	Cont : prp, bar		0120-2L
			tr	Other : pyr		0120-4L
			tr	Ca : m brn, dol, br		0120-5L

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Table 2 : Lithology description for well NOCS 33/9-15

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
2636.00						0121
				90 Sh/Clst: m gy to m drk gy, calc, slt		0121-1L
				10 Sltst : w to lt gy, glauc		0121-3L
				tr Cont : prp, bar		0121-2L
				tr Other : pyr		0121-4L
2645.00						0122
				95 Sh/Clst: m gy to m drk gy, calc, slt		0122-1L
				5 Sltst : w to lt gy, glauc		0122-3L
				tr Cont : prp, bar		0122-2L
				tr Other : pyr, evap		0122-4L
2654.00						0123
				95 Sh/Clst: m gy to m drk gy, calc, slt		0123-1L
				5 Sltst : w to lt gy, glauc		0123-3L
				tr Cont : prp, bar		0123-2L
				tr Other : pyr, evap		0123-4L
2663.00						0124
				95 Sh/Clst: m gy to m drk gy, calc, slt		0124-1L
				5 Sltst : w to lt gy, glauc		0124-3L
				tr Cont : prp, bar		0124-2L
				tr Other : pyr, evap		0124-4L
2672.00						0125
				95 Sh/Clst: m gy to m drk gy, calc, slt		0125-1L
				5 Sltst : w to lt gy, glauc		0125-3L
				tr Cont : prp, bar		0125-2L
				tr Other : pyr, evap		0125-4L

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Table 2 : Lithology description for well NOCS 33/9-15

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
2681.00						0126
				85 Sh/Clst: m gy to m drk gy, calc, slt		0126-1L
				10 Cont : prp, bar		0126-2L
				5 Sltst : w to lt gy, glauc		0126-3L
				tr Other : evap		0126-4L
2690.00						0127
				75 Sh/Clst: m gy to m drk gy, calc, slt		0127-1L
				20 Cont : prp, bar		0127-2L
				5 Sltst : w to lt gy to lt brn, glauc		0127-3L
				tr Other : pyr, evap		0127-4L
2699.00						0128
				55 Sh/Clst: m gy to m drk gy, calc, slt		0128-1L
				40 Cont : prp, bar		0128-2L
				5 Sltst : w to lt gy to lt brn, glauc		0128-3L
2706.50 swc						0305
				100 Sh/Clst: drk gn, calc		0305-1L
2708.00						0129
				70 Sh/Clst: lt gy to m drk gy, calc, slt		0129-1L
				20 Cont : prp, bar		0129-3L
				10 Sh/Clst: gy red to drk brn, calc		0129-2L
2711.00 ccp						0161
	0.61			100 Sh/Clst: ol gy		0161-1L

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Table 2 : Lithology description for well NOCS 33/9-15

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
2712.00	ccp					0162
	0.65	90	Sh/Clst:	ol gy		0162-1L
		10	Sh/Clst:	dsk y brn		0162-2L
2713.00	ccp					0163
		100	Sh/Clst:	ol gy		0163-1L
2714.00	ccp					0164
	1.13	90	Sh/Clst:	m drk gy, mic		0164-2L
		10	Sh/Clst:	ol gy		0164-1L
2715.00	ccp					0165
		100	Sh/Clst:	m drk gy, calc, mic		0165-1L
2716.00	ccp					0166
	1.40	100	Sh/Clst:	m drk gy, calc, mic		0166-1L
2716.00	swc					0306
		100	Sh/Clst:	gy blk		0306-1L
2717.00						0130
		45	Sh/Clst:	lt gy to m drk gy, calc, slt		0130-1L
		45	Cont	: prp, bar		0130-3L
		10	Sh/Clst:	gy red to drk brn, calc		0130-2L

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Table 2 : Lithology description for well NOCS 33/9-15

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample	
Int Cvd	TOC%	%	Lithology description				
2717.00	ccp					0167	
		100	Sh/Clst: m drk gy, calc, mic			0167-1L	
2718.00	ccp					0168	
		100	Sh/Clst: lt gy to lt ol gy, calc, mic			0168-1L	
		tr	Sh/Clst: drk gy, calc, mic			0168-2L	
2719.00	ccp					0169	
	0.57	100	Sh/Clst: gy brn, calc, mic			0169-1L	
2720.00	ccp					0170	
		90	Sh/Clst: m gy, calc, slt, mic			0170-1L	
		10	Sh/Clst: drk gy, calc, slt, mic			0170-2L	
2721.00	ccp					0171	
		100	Sh/Clst: m brn to drk brn, calc, slt, mic			0171-1L	
2721.80	ccp					0172	
	0.24	100	Sh/Clst: drk brn, calc, slt, mic			0172-1L	
2723.00	ccp					0173	
		100	Sh/Clst: gy red to drk brn, calc, slt, mic			0173-1L	

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Table 2 : Lithology description for well NOCS 33/9-15

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
2724.00	ccp					0174
			100	Sh/Clst: lt gy to lt ol gy, calc, slt, mic		0174-1L
2725.00	ccp					0175
		2.24	100	Sh/Clst: drk gy, calc, slt, mic		0175-1L
2726.00						0131
			45	Cont : prp, bar		0131-3L
			40	Sh/Clst: lt gy to m drk gy, calc, slt		0131-1L
			15	Sh/Clst: gy red to drk brn, calc		0131-2L
			tr	Sltst : w to lt gy to lt brn, glauc		0131-4L
			tr	Other : pyr, mic, evap		0131-5L
2726.00	ccp					0176
			100	Sh/Clst: gy red to drk brn, calc, slt, mic		0176-1L
2727.00	ccp					0177
			100	Sh/Clst: gy red to drk brn, calc, slt, mic		0177-1L
2728.00	ccp					0178
		0.14	100	Sh/Clst: gy red to drk brn, m brn, calc, slt, mic		0178-1L
2729.00	ccp					0179
			100	Sh/Clst: gy red to drk brn, calc, slt, mic		0179-1L

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Table 2 : Lithology description for well NOCS 33/9-15

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
2730.00	ccp					0180
				65 Sh/Clst: ol gy to lt gy to lt ol gy, calc		0180-1L
				35 Sh/Clst: y gy, calc		0180-2L
2731.00	ccp					0181
	0.11	100		Sh/Clst: w to lt ol gy, calc, pyr		0181-1L
2731.66	ccp					0182
				100 Sh/Clst: w to lt ol gy, calc		0182-1L
2731.80	ccp					0183
				90 Sh/Clst: w to lt gy to lt bl gy, calc		0183-1L
				10 Sh/Clst: drk gy		0183-2L
2732.00	ccp					0184
				80 Congl : lt ol gy to lt bl gy, calc, cly		0184-1L
				20 Congl : w to lt gy, calc, cly, hd		0184-2L
2733.00	ccp					0185
	0.27	100		Congl : lt ol gy to lt bl gy, w to lt gy, calc, cly, mic		0185-1L
2734.00	ccp					0186
	0.17	100		Sh/Clst: w to lt gy, calc, pyr, slt, mic		0186-1L
				tr Other : w, ign		0186-2L

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Table 2 : Lithology description for well NOCS 33/9-15

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
2735.00						0132
				25 Sh/Clst: m gy to drk gy, mic		0132-1L
				25 Sh/Clst: gy red to pl red, calc		0132-2L
				25 Cont : prp, bar		0132-3L
				25 Kaolin : w		0132-4L
2735.00	ccp					0187
				80 Congl : m gy, s, glauc		0187-1L
				20 Congl : dsk y brn, cly		0187-2L
2736.00	ccp					0188
		2.20	100	S/Sst : m y brn to drk y brn, glauc, st, sft		0188-1L
2737.00	ccp					0189
		1.81	100	S/Sst : m y brn to drk y brn, glauc, st, sft		0189-1L
2738.00	ccp					0190
		2.96	100	S/Sst : w to m y brn to drk y brn, glauc, st, sft		0190-1L
2739.00	ccp					0191
				90 S/Sst : w to lt gy, glauc, sft		0191-2L
				10 S/Sst : m y brn to drk y brn, glauc, st, sft		0191-1L

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Table 2 : Lithology description for well NOCS 33/9-15

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
2740.00	ccp					0193
	0.09	100	S/Sst	: w to lt gy to pl y brn, glauc, st, sft		0193-1L
2741.00	ccp					0192
	0.08	100	S/Sst	: w to lt gy to pl y brn, glauc, st, sft		0192-1L
2743.00	ccp					0194
	0.10	100	S/Sst	: w to lt gy, mic, glauc, crs, sft		0194-1L
2744.00						0133
		30	Sh/Clst:	m gy to drk gy, mic		0133-1L
		30	Kaolin :	w		0133-4L
		20	Sh/Clst:	gy red to pl red, calc		0133-2L
		20	Cont :	prp, bar		0133-3L
2744.00	ccp					0195
		100	S/Sst	: w to lt gy, mic, glauc, crs, sft		0195-1L
2745.00	ccp					0196
		100	S/Sst	: w to lt gy, mic, glauc, crs, sft		0196-1L
2746.00	ccp					0197
		100	S/Sst	: w to lt gy, mic, glauc, crs		0197-1L

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Table 2 : Lithology description for well NOCS 33/9-15

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
2747.00	ccp					0198
		100	S/Sst	: w to lt gy, mic, glauc, crs		0198-1L
2748.00	ccp					0199
		100	S/Sst	: w to lt gy, mic, glauc, crs		0199-1L
2749.00	ccp					0200
		100	S/Sst	: w to lt gy, mic, glauc, crs		0200-1L
2750.00	ccp					0201
		100	S/Sst	: w to lt gy to lt brn, mic, glauc		0201-1L
2750.50	ccp					0202
		100	S/Sst	: w to lt gy to m gy, mic, glauc		0202-1L
2751.13	ccp					0203
		100	S/Sst	: w to lt brn gy to m gy, mic, glauc		0203-1L
2752.00	ccp					0204
		100	S/Sst	: w to lt brn gy to m gy, mic, glauc		0204-1L

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Table 2 : Lithology description for well NOCS 33/9-15

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
2753.00						0134
				85 S/Sst : w, f, l		0134-3L
				5 Sh/Clst: m gy to drk gy, mic		0134-1L
				5 Sh/Clst: gy red to pl red, calc		0134-2L
				5 Kaolin : w		0134-4L
				tr Cont : prp		0134-5L
2753.00	ccp					0205
				100 S/Sst : w to lt brn gy to m gy, mic, glauc		0205-1L
2754.00	ccp					0206
				100 S/Sst : w to lt brn gy to m gy, mic, glauc		0206-1L
2755.00	ccp					0207
				100 S/Sst : w to lt brn gy to drk gy, mic, glauc		0207-1L
2756.00	ccp					0208
				100 S/Sst : w to lt brn gy to m gy, mic, glauc		0208-1L
2757.00	ccp					0209
				100 S/Sst : w to lt brn gy to m gy, mic, glauc		0209-1L

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Table 2 : Lithology description for well NOCS 33/9-15

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int Cvd	TOC%	%	Lithology description			
2758.00	ccp					0210
		100	S/Sst	: w to lt brn gy to drk gy, mic, glauc		0210-1L
2759.00	ccp					0211
		100	S/Sst	: w to lt gy, mic, glauc, f		0211-1L
2760.00	ccp					0212
		100	S/Sst	: gy pi to lt gy to m gy, mic, glauc, f		0212-1L
2760.25	ccp					0213
		100	S/Sst	: lt gy to m gy, mic, glauc, f		0213-1L
2761.00	ccp					0214
		100	S/Sst	: w to lt brn gy, brn blk, mic, glauc, f		0214-1L
2762.00	ccp					0215
		100	S/Sst	: brn blk, lt brn gy, mic, glauc, f		0215-1L
2763.00	ccp					0216
		100	S/Sst	: brn blk, lt brn gy, mic, glauc, f		0216-1L

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Table 2 : Lithology description for well NOCS 33/9-15

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
2758.00	ccp					0210
		100	S/Sst	: w to lt brn gy to drk gy, mic, glauc		0210-1L
2759.00	ccp					0211
		100	S/Sst	: w to lt gy, mic, glauc, f		0211-1L
2760.00	ccp					0212
		100	S/Sst	: gy pi to lt gy to m gy, mic, glauc, f		0212-1L
2760.25	ccp					0213
		100	S/Sst	: lt gy to m gy, mic, glauc, f		0213-1L
2761.00	ccp					0214
		100	S/Sst	: w to lt brn gy, brn blk, mic, glauc, f		0214-1L
2762.00	ccp					0215
		100	S/Sst	: brn blk, lt brn gy, mic, glauc, f		0215-1L
2763.00	ccp					0216
		100	S/Sst	: brn blk, lt brn gy, mic, glauc, f		0216-1L

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Table 2 : Lithology description for well NOCS 33/9-15

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample	
Int Cvd	TOC%	%	Lithology description				
2764.00	ccp					0217	
		100	S/Sst	: brn blk, lt brn gy, mic, glauc, f		0217-1L	
2765.00	ccp					0218	
		100	S/Sst	: w to lt brn gy, brn blk, mic, glauc, f		0218-1L	
			tr Coal	: blk		0218-2L	
2766.00	ccp					0219	
		100	S/Sst	: y gy, brn blk, mic, glauc, f		0219-1L	
2767.00	ccp					0220	
		100	S/Sst	: y gy, brn blk, mic, glauc, f		0220-1L	
2768.00	ccp					0221	
		100	S/Sst	: y gy, brn blk, mic, glauc, f		0221-1L	
2769.00	ccp					0222	
		100	S/Sst	: w to lt gy to m gy, mic, glauc, f		0222-1L	
			tr Coal	: blk		0222-2L	
2769.62	ccp					0223	
		100	S/Sst	: w to lt brn, dsk y brn, mic, glauc, f, lam		0223-1L	
			tr Coal	: blk		0223-2L	

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Table 2 : Lithology description for well NOCS 33/9-15

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
2770.00	ccp					0224
			100	S/Sst : gy pi, m drk gy, mic, glauc, f		0224-1L
2771.00						0135
			80	Kaolin : w		0135-4L
			10	Sh/Clst: m gy to drk gy, mic		0135-1L
			10	Sltst : lt gy, calc, s		0135-6L
			tr	Sh/Clst: gy red to pl red, calc		0135-2L
			tr	Cont : prp		0135-5L
2771.00	ccp					0225
			100	Sh/Clst: y gy, m drk gy, slt, mic, lam		0225-1L
2772.00	ccp					0226
			100	Sltst : y gy, m drk gy, mic, glauc, lam		0226-1L
2773.00	ccp					0227
			100	Sltst : brn blk, y gy, mic, lam		0227-1L
2773.95	ccp					0228
			100	Sltst : brn blk, y gy, mic, lam		0228-1L
2775.00	ccp					0229
			100	Sh/Clst: y gy, drk gy, slt, mic		0229-1L