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E&P Research Centre

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Summary/Conclusion//Recommendation	

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Section	Petroleum Geochemistry		
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INTRODUCTION.

Vitrinite reflection was measured by Geo-optics, Newcastle, UK.
Spore colour was measured by The Robertson group, Llandudno, UK.
Stable carbon isotopes were measured by Geolab Nor A/S,
Trondheim, Norway. All other analytical work, interpretation and
compilation of this report was done at Norsk Hydro Research
Centre, Bergen, Norway.

Table 1.2 List of samples analysed

DEPTH m	Sample type	Ro	SCI	RockEval	pyrolysis GC	Extraction	Bulk separation	Chromatography	Isotopes
1	1320	DC	*	*					
2	1350	SWC			*				
3	1360	DC	*	*					
4	1400	DC	*	*					
5	1450	DC	*	*					
6	1500	DC	*	*					
7	1550	DC	*	*					
8	1570	SWC			*				
9	1600	DC	*	*					
10	1617	SWC			*				
11	1625	DC	*	*					
12	1650	DC	*	*					
13	1658	SWC			*				
14	1678	SWC			*				
15	1700	DC	*	*					
16	1727	DC	*	*					
17	1744	DC	*	*			*	*	
18	1745	SWC							
19	1800	DC	*	*					
20	1877	DC	*	*					
21	1900	DC	*	*					
22	1950	DC	*	*					
23	1964	SWC			*	*	*	*	*
24	1970	DC	*	*					
25	1977	DC	*	*	*				
26	1980	DC	*	*	*				
27	1982	DC	*	*	*	*	*	*	*
28	1985	DC	*	*	*	*	*	*	*
29	1987	DC	*	*	*	*	*	*	*
30	1990	DC	*	*	*	*	*	*	*
31	1997	DC	*	*	*	*	*	*	*
32	2000	DC	*	*					
33	2035	DC	*	*					





Table 2.1 VITRINITE REFLECTANCE DATA WELL 25/11-15
Average values

Depth	Group/Fm.	%	Lithology	Type	Population I	Population II	Population III	SCI
1320.00		100	SH	DC	0.35 (20)			3.5
1360.00		100	SH	DC	0.36 (20)			3.0
1400.00		100	SH	DC	0.37 (20)			3.0
1450.00		100	SH	DC	0.42 (9)			3.5
1500.00		100	SH	DC	0.41 (12)			3.0
1550.00		100	SH	DC	0.49 (3)			3.5
1600.00		100	SH	DC	0.52 (5)			3.5
1625.00		100	SH	DC	0.50 (8)			4.0
1650.00		100	SH	DC	0.50 (4)			3.5
1700.00		100	SH	DC	0.45 (12)			3.5
1727.00		100	SH	DC	0.49 (11)			3.5
1745.00		100	SH	DC	0.49 (8)			3.5
1800.00		100	SH	DC	0.43 (21)			3.5
1877.00		70	SH	DC	0.39 (5)			4.0
1900.00		100	MRL	DC	0.48 (3)			4.0
1950.00		100	SH	DC	0.50 (1)			4.5
1970.00		100	SH	DC	0.57 (4)			4.5
1987.00		60	SH	DC	0.46 (20)			4.0

Table 2.1 VITRINITE REFLECTANCE DATA WELL 25/11-15 (cont'd)
Average values

Petroleum Geochemistry Group
Research Centre Bergen



Depth	Group/Fm.	%	Lithology	Type	Population I	Population II	Population III	SCI
2000.00		70	CALC.SLST	DC	0.45 (20)			4.5
2035.00		70	SLST	DC	0.44 (20)			4.5

Table 3.1 SOURCE ROCK SCREENING DATA WELL 25/11-15



Depth (m)	Group/Fm.	%	Lithology	Type	S1 kg/t	S2 kg/t	TOC %	HI	PI	Tmax DegC	Company
1350.00			SST	SWC	0.13	1.45	1.2	123	0.08	433	F-BERGEN
1570.00			CLYST	SWC	0.12	1.01	0.4	259	0.11		F-BERGEN
1617.00			CLYST	SWC	0.12	0.62	0.7	90	0.16	419	F-BERGEN
1658.50			CLYST	SWC	0.04	0.36	0.1	600			F-BERGEN
1678.00			CLYST	SWC	0.06	0.57	0.2	335	0.10		F-BERGEN
1964.00			CLYST	SWC	1.08	42.38	9.1	463	0.02	423	F-BERGEN
1977.00				DCD	0.34	0.30	0.6	53	0.53		F-BERGEN
1980.00				DCD	0.13	1.19	0.9	131	0.10	430	F-BERGEN
1982.00				DCD	0.49	12.29	3.8	327	0.04	427	F-BERGEN
1985.00				DCD	0.32	11.22	3.2	346	0.03	427	F-BERGEN
1990.00				DCD	0.21	4.08	2.0	209	0.05	428	F-BERGEN
1997.00				DCD	0.40	8.13	4.0	204	0.05	425	F-BERGEN

Table 3.2 SOURCE ROCK EXTRACTION DATA WELL 25/11-15



Depth (m)	Group/Fm.	% Lithology	Type	EOM(mg)	EOM(%)	Hydrocarbons			Non Hydrocarbons		
						SAT(%)	ARO(%)	TOTAL(%)	NSO(%)	ASPH(%)	TOTAL(%)
1744.00		SST	SWC	322.8	6.21	22.00	33.00	55.00	36.00	9.00	45.00
1964.00		CLYST	SWC	48.7	0.75	2.00	9.00	11.00	51.00	38.00	89.00
1982.00			DCD	16.2	0.22	2.50	3.50	6.00	38.00	56.00	94.00
1985.00			DCD	16.6	0.20	2.00	7.00	9.00	65.00	26.00	91.00
1990.00			DCD	3.7	0.06	1.00	2.00	3.00	51.00	46.00	97.00
1997.00			DCD	1.9	0.36	1.00	1.00	2.00	71.00	27.00	98.00

Table 3.3 SOURCE ROCK EXTRACTION DATA WELL 25/11-15



Depth	Group/Fm.	%	Lithology	Type	TOC (%)	EOM(%) / TOC(%)	SAT(%) / TOC(%)	SAT(%) / ARO(%)	HC / Non HC
1744.00			SST	SWC				0.67	1.22
1964.00			CLYST	SWC	9.15	0.08	0.22	0.22	0.12
1982.00				DCD	3.76	0.06	0.66	0.71	0.06
1985.00				DCD	3.24	0.06	0.62	0.29	0.10
1990.00				DCD	1.95	0.03	0.51	0.50	0.03
1997.00				DCD	3.98	0.09	0.25	1.00	0.02

Table 3.4 SATURATED FRACTION MOLECULAR RATIOS WELL 25/11-15



Depth	Group/Fm.	% Lithology	Type	Pristane	Pristane	CPI-I	CPI-II	nC15+	nC20
				nC17	Phytane			Total	nC25
1744.00		SST	SWC	0.97	1.54	1.37	0.82		
1964.00		CLYST	EXTR	2.33	1.48	1.18	1.45		
1982.00			DCD	1.45	1.35	1.81	2.38		
1985.00			DCD	1.88	1.26	1.96	2.19		
1990.00			DCD	0.50	1.30				

Table 3.5 Biomarker ratios well 25/11-15

DEPTH M	%20S	%abb	27/28/29 steranes	%22S	Diahopane/ Hopane	25-norhopane/ norhopane	bisnorhopane/ hopane
1744	50	59	42/24/34	56	0.17	0.57	0.2
1964	10	32	39/26/35	19			
1982	8	32	44/23/33	21			
1985	8	31	40/23/36	15			
1990	11	31	42/24/34	14			

Table 3.6: Tabulation of carbon isotope data for EOM/EOM - fractions or Oils for well NOCS 25/11-5

Depth unit of measure: m

Depth	EOM/Oil	Saturated	Aromatic	NSO	Asphaltenes	Kerogen	Sample
1964.00	-	-30.44	-31.30	-31.55	-29.55	-	0038-0
		* -30.57	* -31.20	* -31.43			
1982.00	-	-28.70	-28.05	-30.68	-29.54	-	0039-0
		# -28.33	* -28.03	* -30.62	* -29.54		

* Prøven kjørt for andre gang.

Prøven var liten ved andre gangs kjøring.

APPENDIX I

Vitrinite reflectance, individual measurements.

Sample ID: 25/11-15 1320m
R.O. Aver.: 0.35 (20)
Lithology: Shale 100%
Phytoclast Content: Very low
 Vitrinite: 80%
 Inertinite: 20%
 Exinite: -
UV fluorescence: Spores - low - y+y/o
Bitumen: Stain. - mod.; wisps - mod./rich
VR populations: 1
Mineralogy: -
General Comments: -
0.40
0.34
0.36
0.34
0.37
0.35
0.30
0.30
0.30
0.38
0.37
0.35
0.42
0.27
0.35
0.33
0.37
0.36
0.35
0.36

Sample ID: 25/11-15 1360m

R.o. Aver.: 0.36 (20)

Lithology: Shale 100%

Pyroclast Content: Trace

Vitrinite: 80%

Inertinite: 20%

Exinite: -

UV fluorescence: Algae - low - g/y; spores - low/mod. -

y+y/o

Bitumen: Stain. - mod.; wisps - mod./rich

VR populations: 1

Mineralogy: -

General Comments: -

0.32

0.41

0.38

0.33

0.41

0.29

0.33

0.36

0.35

0.37

0.31

0.31

0.39

0.45

0.31

0.38

0.38

0.37

0.38

0.31

Sample ID: 25/11-15 1400m

R.o. Aver.: 0.37 (20)

Lithology: Shale 100%

Phytoclast Content: Trace

Vitrinite: 70%

Inertinite: 30%

Exinite: -

UV fluorescence: Spores - low/mod. - y-l.o.

Bitumen: Stain. - mod.; wisps - rich

VR populations: 1

Mineralogy: -

General Comments: -

0.31

0.38

0.36

0.44

0.45

0.35

0.43

0.31

0.34

0.31

0.36

0.34

0.50

0.37

0.43

0.31

0.30

0.38

0.34

0.38

Sample ID: 25/11-15 1450m

R.o. Aver.: 0.42 (9)

Lithology: Shale 100%

Phytoclast Content: Trace

Vitrinite: Tr.

Inertinite: Tr.

Exinite: -

UV fluorescence: Spores - low - y-l.o.

Bitumen: Stain. - mod.; wisps - mod./rich

VR populations: 1

Mineralogy: Iron oxide specks

General Comments: -

0.52

0.37

0.52

0.45

0.41

0.42

0.38

0.29

0.38

Sample ID: 25/11-15 1500m

R.o. Aver.: 0.41 (12)

Lithology: Shale 100%

Phytoclast Content: Trace

Vitrinite: Tr.

Inertinite: Tr.

Exinite: -

UV fluorescence: Spores - tr. - y/o

Bitumen: Stain. - light/mod.; wisps - mod.

VR populations: 1

Mineralogy: Iron oxide specks

General Comments: -

0.42

0.40

0.35

0.40

0.37

0.41

0.41

0.43

0.40

0.38

0.42

52

Sample ID: 25/11-15 1550m

R.o. Aver.: 0.49 (3)

Lithology: Shale 100%

Phytoclast Content: Trace

Vitrinite: Tr.

Inertinite: 100%

Exinite: -

UV fluorescence: Spores - low - y/o+l.o.

Bitumen: Stain. - light/mod.; wisps - trace

VR populations: 1

Mineralogy: Iron oxide specks

General Comments: Phytoclasts degraded

0.44

0.48

0.56

Sample ID: 25/11-15 1600m

R.o. Aver.: 0.52 (5)

Lithology: Shale 100%

Phytoclast Content: Trace

Vitrinite: Tr.

Inertinite: 100%

Exinite: -

UV fluorescence: Tas. - tr. - y; spores - tr. - l.o.
(faint)

Bitumen: Stain. - light; wisps - low

VR populations: 1

Mineralogy: Iron oxide specks

General Comments: Phytoclasts degraded

0.53

0.51

0.48

0.53

0.56

Sample ID: 25/11-15 1625m

R.o. Aver.: 0.50 (8)

Lithology: Shale 100%

Phytoclast Content: Trace

Vitrinite: Tr.

Inertinite: Tr.

Exinite: -

UV fluorescence: Spores - low - y/o+l.o.

Bitumen: Stain. - low+mod.; wisps - low

VR populations: 1

Mineralogy: Iron oxide specks

General Comments: -

0.50

0.48

0.46

0.43

0.47

0.58

0.56

0.49

Sample ID: 25/11-15 1650m

R.o. Aver.: 0.50 (4)

Lithology: Shale 100%

Phytoclast Content: Trace

Vitrinite: Tr.

Inertinite: Tr.

Exinite: -

UV fluorescence: Spores - low - y/o-l.o.

Bitumen: Stain. - light/mod.; wisps - mod.

VR populations: 1

Mineralogy: Iron oxide specks

General Comments: -

0.55

0.49

0.46

0.49

Sample ID: 25/11-15 1700m

R.o. Aver.: 0.45 (12)

Lithology: Shale 100%

Phytoclast Content: Very low

Vitrinite: Tr.

Inertinite: 100%

Exinite: -

UV fluorescence: Spores - low - y/o-l.o.

Bitumen: Stain. - light/mod.; wisps - low

VR populations: 1

Mineralogy: Iron oxide specks

General Comments: -

0.49

0.50

0.44

0.45

0.39

0.42

0.42

0.59

0.45

0.44

0.45

36

Sample ID: 25/11-15 1727m

R.o. Aver.: 0.49 (11)

Lithology: Shale 100%

Pyroclast Content: Low

Vitrinite: Tr.

Inertinite: Tr.

Exinite: -

UV fluorescence: Spores - tr. - y-m.o.

Bitumen: Stain. - light/mod.; wisps - low

VR populations: 1

Mineralogy: Iron oxide specks

General Comments: -

0.42

0.56

0.50

0.52

0.51

0.49

0.41

0.51

0.47

0.49

0.47

4

Sample ID: 25/11-15 1745m

R.o. Aver.: 0.49 (8)

Lithology: Shale 100%

Phytoclast Content: Very low

Vitrinite: Tr.

Inertinite: 100%

Exinite: -

UV fluorescence: Dino. - tr. - y; spores - tr. - y/o-l.o.

Bitumen: Stain. - var. light; wisps - low

VR populations: 1

Mineralogy: Iron oxide specks

General Comments: -

0.51

0.53

0.50

0.51

0.40

0.46

0.57

0.44

Sample ID: 25/11-15 1800m

R.o. Aver.: 0.43 (21)

Lithology: Shale 100%

Pyroclast Content: Low

Vitrinite: 10%

Inertinite: 90%

Exinite: -

UV fluorescence: Spores - low - y+y/o

Bitumen: Stain. - light; wisps - mod.

VR populations: 1

Mineralogy: Iron oxide specks + some stained cuttings

General Comments: Readings possibly include cavings

0.52

0.37

0.40

0.43

0.43

0.39

0.36

0.37

0.44

0.32

0.53

0.47

0.35

0.37

0.41

0.41

0.45

0.45

0.54

0.55

0.48

Sample ID: 25/11-15 1877m

R.o. Aver.: 0.39 (5)

Lithology: Shale 70%, marl 30%

Pyroclast Content: Trace

Vitrinite: Tr.

Inertinite: Tr.

Exinite: -

UV fluorescence: Spores - low - y/o

Bitumen: Stain. - var. - nil-light; wisps - low

VR populations: 1

Mineralogy: Iron oxide specks

General Comments: Cavings?

0.36

0.38

0.42

0.41

0.36

Sample ID: 25/11-15 1900m
R.o. Aver.: 0.48 (3)
Lithology: Shaly marl 100%
 ytoclast Content: Trace
 Vitrinite: Tr.
 Inertinite: Tr.
 Exinite: -
UV fluorescence: Spores - tr. - y+y/o
Bitumen: Stain. - tr.; wisps - tr.
VR populations: 1
Mineralogy: Forams
General Comments: -
0.50
0.46
0.48

Sample ID: 25/11-15 1950m
R.o. Aver.: 0.50 (1)
Lithology: Shale 100%
Phytoclast Content: Moderate
Vitrinite: Tr.
Inertinite: 100%
Exinite: -
UV fluorescence: Spores - tr. - y+y/o
Bitumen: Stain. - tr.; wisps - tr.
VR populations: 1
Mineralogy: Forams; iron oxides
General Comments: Phytoclasts degraded
0.50

Sample ID: 25/11-15 1970m

R.o. Aver.: 0.57 (4)

Lithology: Shale 100%

Phytoclast Content: Low

Vitrinite: Tr.

Inertinite: 100%

Exinite: -

UV fluorescence: Spores - tr. - y+y/o

Bitumen: Stain. - var. nil-light; wisps - tr.

VR populations: 1

Mineralogy: Iron oxide staining

General Comments: Tentative result

0.66

0.60

0.51

0.49

Sample ID: 25/11-15 1989m

R.o. Aver.: 0.46 (20)

Lithology: Shale 60%, siltstone 40%

Phytoclast Content: Low

Vitrinite: 10%

Inertinite: 90%

Exinite: -

UV fluorescence: Spores - mod. - y/o in a few cuttings only

Bitumen: Stain. - light; wisps + blebs - rich in shale

VR populations: 1

Mineralogy: A few iron oxide stained cuttings

General Comments: -

0.63

0.55

0.56

0.46

0.43

0.43

0.40

0.47

0.46

0.43

0.41

0.46

0.40

0.46

0.43

0.44

0.44

0.42

0.37

0.45

Sample ID: 25/11-15 2000m

R.o. Aver.: 0.45 (20)

Lithology: Shale 30%, calcareous siltstone 70%

Phytoclast Content: Low-moderate

Vitrinite: 10%

Inertinite: 90%

Exinite: -

UV fluorescence: Algae - tr. - y-y/o; spores - low - y-y/o and l-m.o.

Bitumen: Stain. - light/mod.; wisps - rich in shale; mod. in silt

VR populations: 1

Mineralogy: -

General Comments: -

0.48

0.47

0.45

0.46

0.41

0.47

0.45

0.44

0.46

0.44

0.47

0.44

0.54

0.43

0.41

0.45

0.42

0.44

0.40

0.39

Sample ID: 25/11-15 2035m
R.O. Aver.: 0.44 (20)
Lithology: Shale 30%; siltstone 70%
Mycoclast Content: Moderate
Vitrinite: 20%
Inertinite: 80%
Exinite: -
UV fluorescence: Spores - low - y/o
Bitumen: Stain. - light; wisps - mod.
VR populations: 1
Mineralogy: -
General Comments: -

0.43
0.43
0.46
0.45
0.43
0.43
0.50
0.41
0.47
0.48
0.46
0.41
0.39
0.44
0.45
0.40
0.41
0.45
0.40
0.49

APPENDIX II

Robertson report, Spore colour and kerogen data.

SIMON-ROBERTSON

REPORT NO. 7120/Ic

SPORE COLOURATION AND KEROGEN TYPING STUDY OF THE NORSK HYDRO 25/11-15 WELL, INTERVAL 1320m TO 2035m, NORWEGIAN SECTOR, NORTH SEA

by

R W HARDING

PROJECT NO. Ic/21325

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MAY 1992

2 INTRODUCTION

This report presents the results of spore colouration and visual kerogen typing studies carried out on 20 well cuttings samples from the interval 1320m to 2035m in the Norsk Hydro 25/11-15 Norwegian North Sea well.

Clean cuttings samples from Norsk Hydro arrived at Simon-Robertson's North Wales laboratories on 30 March 1992. Rapid turnaround was requested and, accordingly, preliminary results were despatched by facsimile message to Elin Rein, our contact at Norsk Hydro for this project, on 6 April 1992. The work was carried out in accordance with Simon-Robertson's proposal No. Ic/91/058 of 18 November 1992, and under the authority of Norsk Hydro's contract order NH0577151 of 27 March 1992.

The numbers of analyses performed were as follows:

Kerogen isolation and slide preparation	:	20
Spore colouration	:	20
Kerogen typing	:	20

Simon-Robertson personnel involved in the study were:

A G Collins/C Darlington	-	Project advice
R Harding	-	Project co-ordination, microscopy and report preparation
K Oakley	-	Supervision of kerogen preparation

GENERAL DATA			MATURITY DATA		KEROGEN COMPOSITION DATA							
SAMPLE DEPTH (Metres)	SAMPLE TYPE	ANALYSED LITHOLOGY	SPORE COLOUR INDEX	VITR. REFL. R oil av %	% (Visual, from microscopy)			% (Calculated)				
					INERTINITE	VITRINITE	SAPROPEL	INERT	VIT	ALG SAP	WXY SAP	
1320	Ctgs	No liths available	3.5 6.5 R		Mnr	90	10					
1360	Ctgs	No liths available	3.0 5.5 R		Prt	60	40					
1400	Ctgs	No liths available	3.0		Mnr	70	30					
1450	Ctgs	No liths available	3.5		10	80	10					
1500	Ctgs	No liths available	3.0 6.0 R		10	75	15					
1550	Ctgs	No liths available	3.5 5.5 R		20	60	20					
1600	Ctgs	No liths available	3.5 6.5 R		15	55	30					
1625	Ctgs	No liths available	4.0 6.0 R		5	85	10					
1650	Ctgs	No liths available	3.5 5.0 R		Mnr	90	10					
1700	Ctgs	No liths available	3.5 7.0 R		5	65	30					
1727	Ctgs	No liths available	3.5 6.0 R		5	60	35					
1745	Ctgs	No liths available	3.5		10	75	15					
1800	Ctgs	No liths available	3.5 5.5 R		15	70	15					
1817	Ctgs	No liths available	4.0 6.0 R		30	65	5					
1900	Ctgs	No liths available	4.0 6.5 R		20	60	20					
1950	Ctgs	No liths available	4.5 ? 6.5 ? R		25	75	Mnr					
1970	Ctgs	No liths available	4.5 6.0 R		30	65	5					
1987	Ctgs	No liths available	4.0 6.0 R		10	45	45					
2000	Ctgs	No liths available	4.5-5.0 6.0 R		5	40	55					
2035	Ctgs	No liths available	4.5 6.0 R		20	50	30					

MATURITY AND KEROGEN COMPOSITION DATA

TABLE : 1

COMPANY: NORSK HYDRO

WELL: 25/11-15

LOCATION: NORWEGIAN NORTH SEA

Depth (m)	SCI	Inerts.	Vitrinite (Struct.)	Amorph. (Non-Fl.)	Amorph. (Fluor.)	Liptinite (Struct.)
1320	3.5 6.5R	Mnr	10	80	5	5 Sp, Di
1360	3.0 5.5R	Tr	10	50	30	10 Sp, Di
1400	3.0	Mnr	5	65	20	10 Sp, Di
1450	3.5	10	20	60	Mnr	10 Sp, Di
1500	3.0 6.0R	10	10	65	Tr	15 Sp, Di, Al
1550	3.5 5.5R	20	20	40	Tr	20 Di, Sp
1600	3.5 6.5R	15	15	40	10	20 Sp, Di
1625	4.0 6.0R	5	20	65	0	10 Di, Sp
1650	3.5 5.0R	Mnr	5	85	0	10 Di, Sp
1700	3.5 7.0R	5	10	55	20	10 Di, Sp
1727	3.5 6.0R	5	20	40	20	15 Di, Sp
1745	3.5	10	20	55	0	15 Di, Sp
1800	3.5 5.5R	15	10	60	0	15 Di, Sp
1817	4.0 6.0R	30	10	55	0	5 Di, Sp
1900	4.0 6.5R	20	10	50	0	20 Di, Sp
1950	4.5? 6.5R	25	10	65	0	Mnr Sp, Di
1970	4.5 6.0R	30	10	55	Tr	5 Di, Sp
1987	4.0 6.0R	10	10	35	40	5 Di, Sp, Al
2000	4.5-5.0 6.0R	5	Mnr	40	50	5 Di, Sp, Al
2035	4.5 6.0R	20	15	35	20	10 Sp

Sp - Spores, pollen

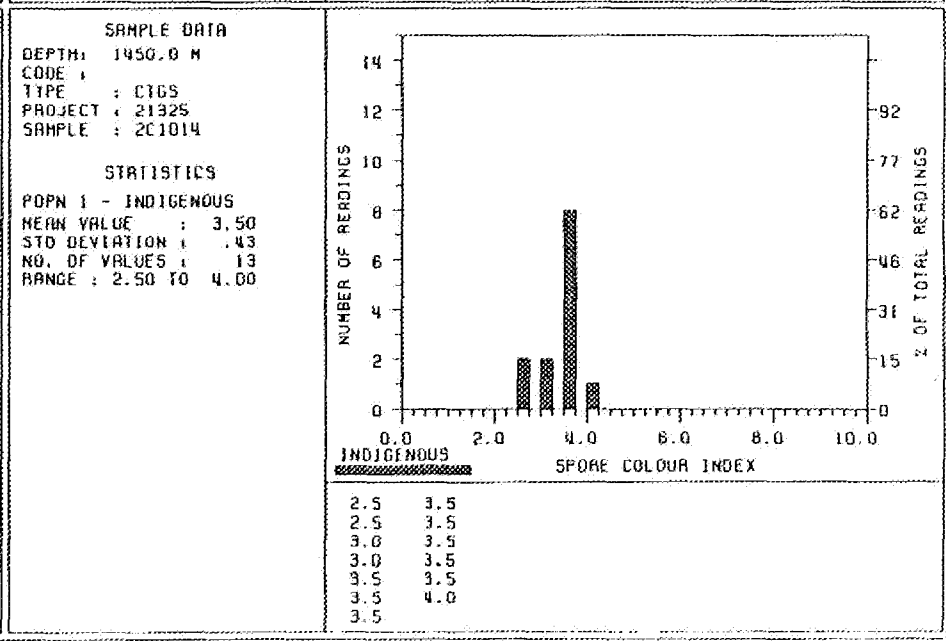
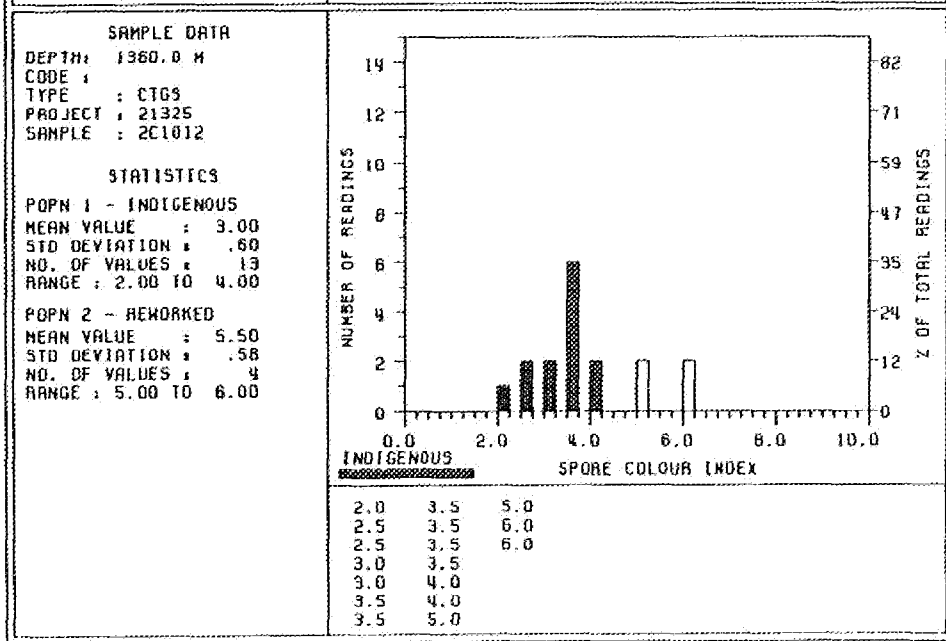
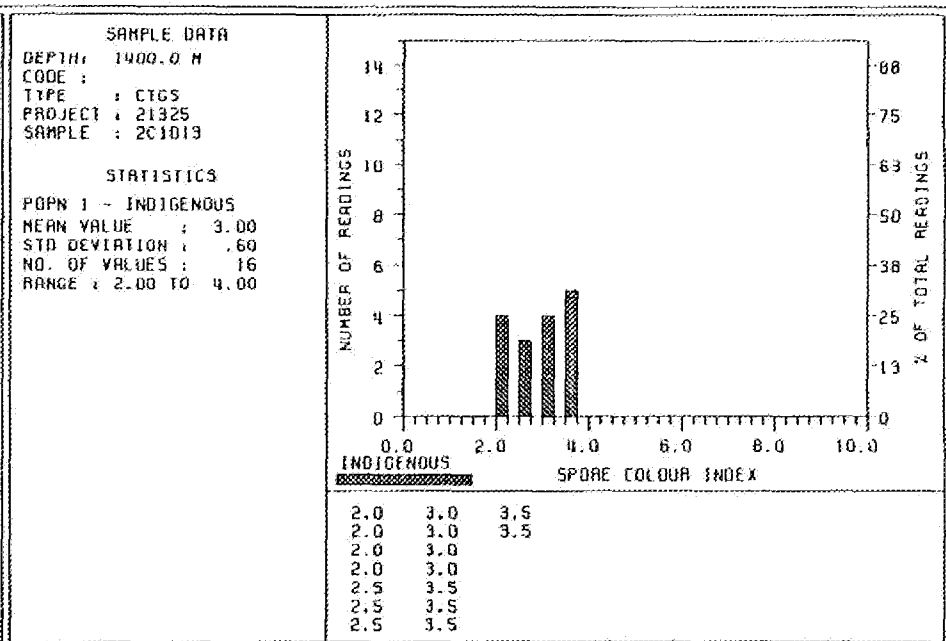
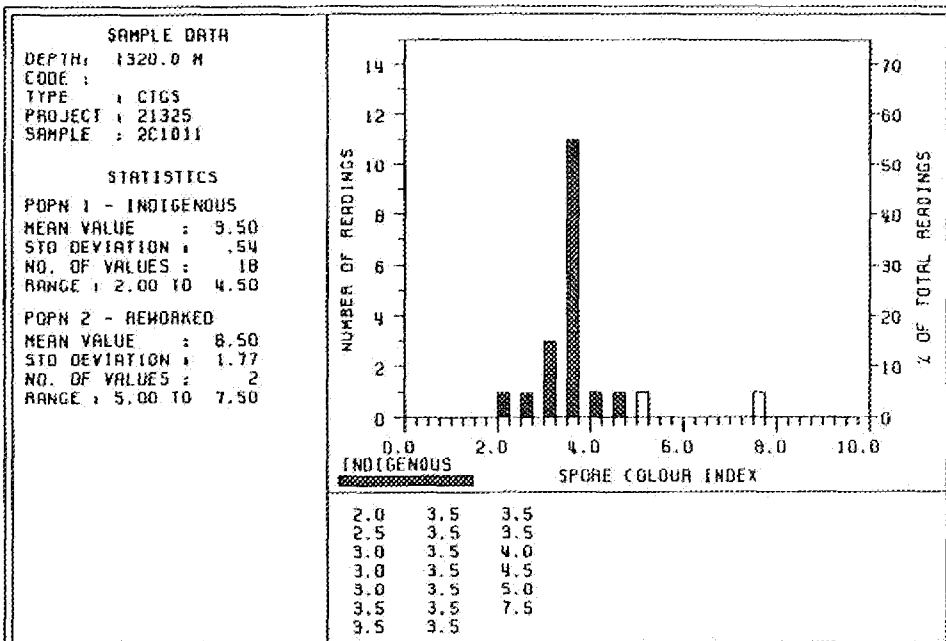
Di - Dinoflagellate cysts

Al - Algal bodies (mainly *Tasmanites*)

TABLE 2 Detailed kerogen typing data

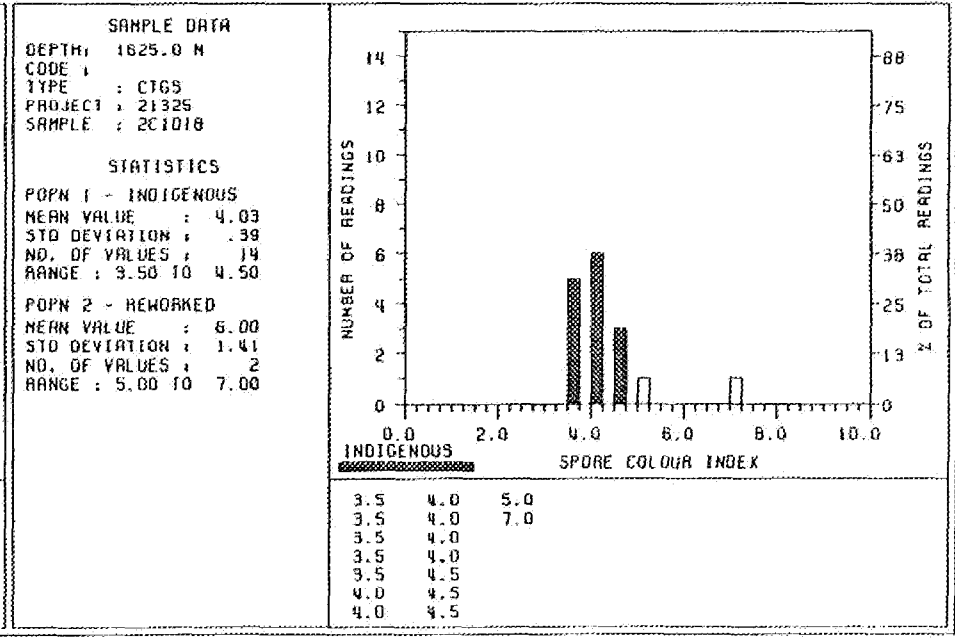
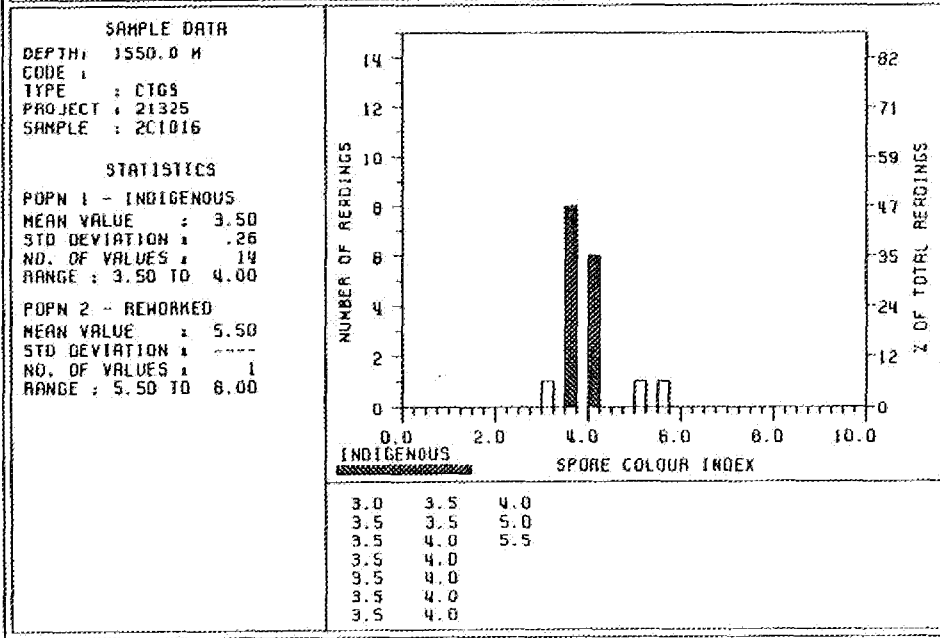
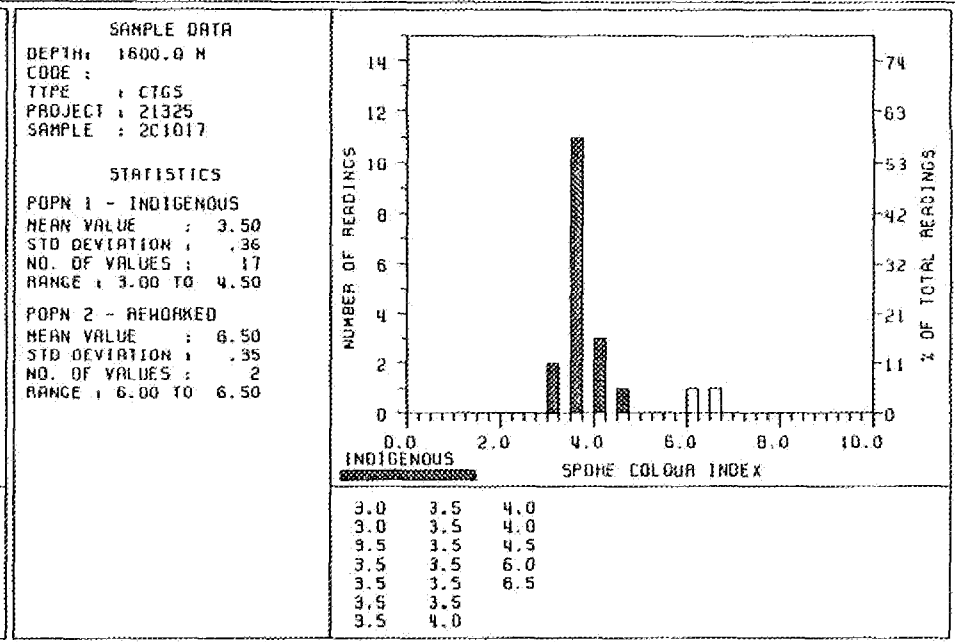
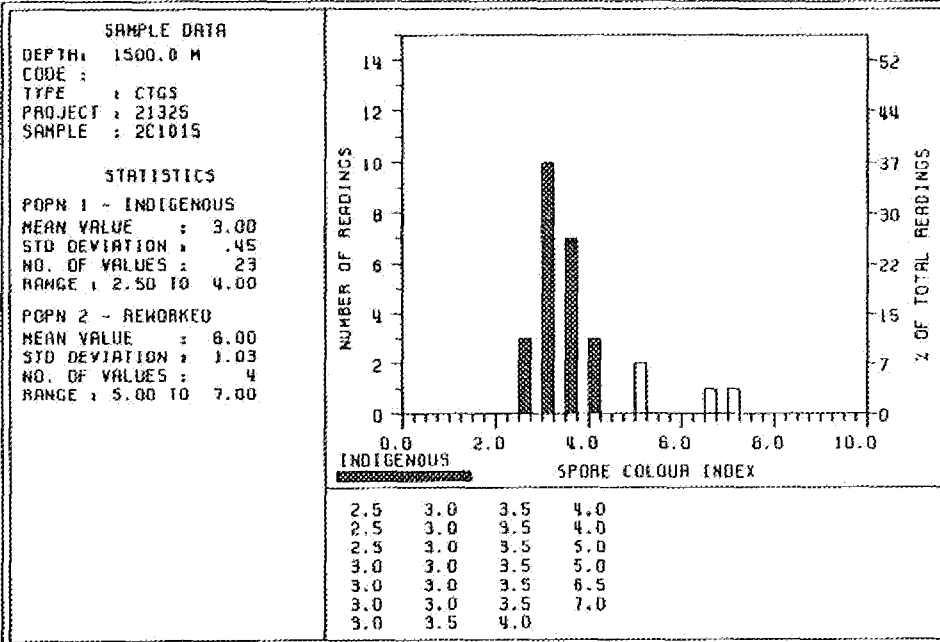
COMPANY : NORASK HYDRO
WELL : 25/11-15
LOCATION : OFFSHORE NORWAY

HISTOGRAMS, DATA AND STATISTICS
FOR SPORE COLOURATION



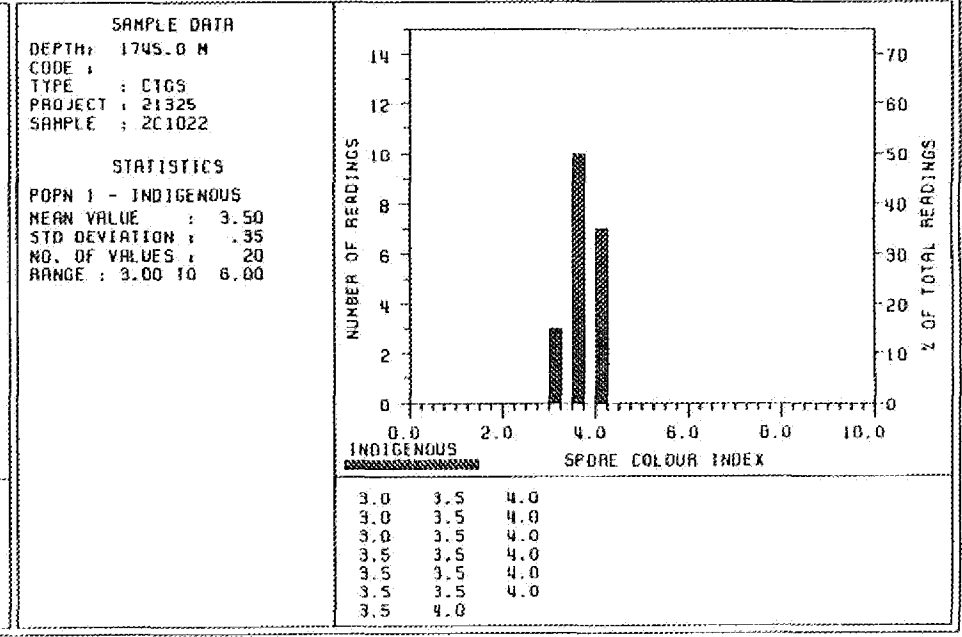
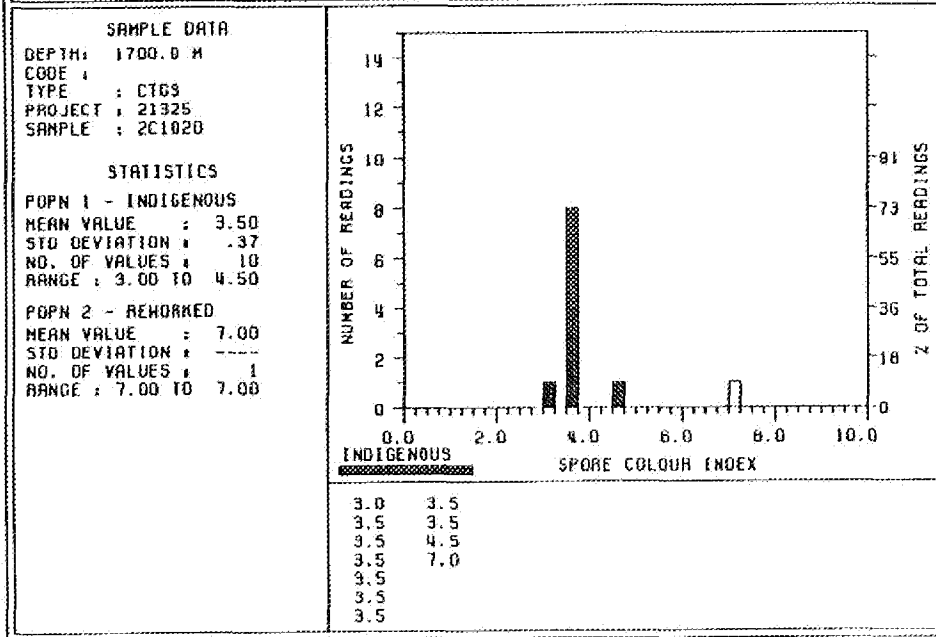
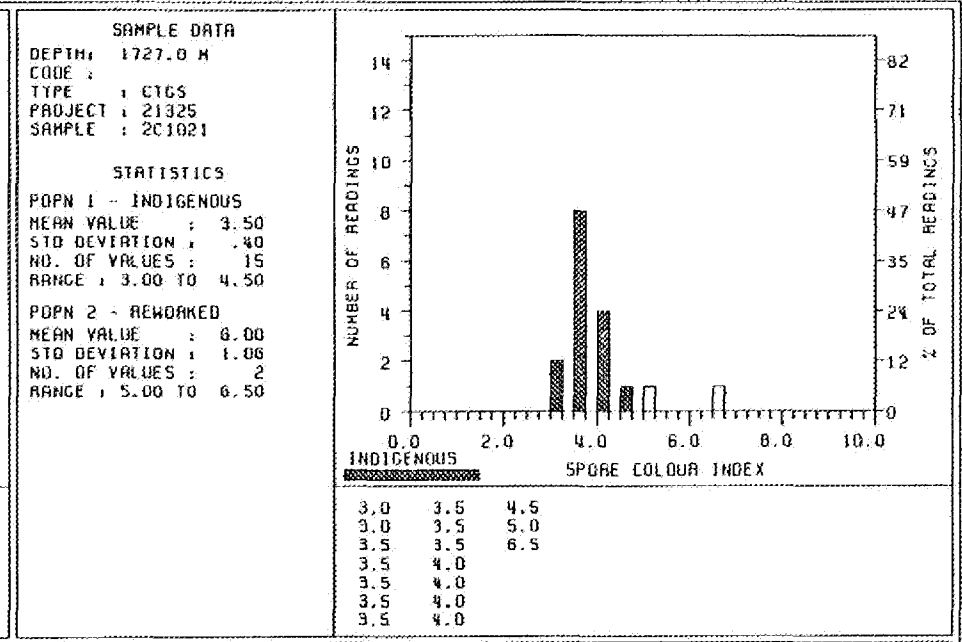
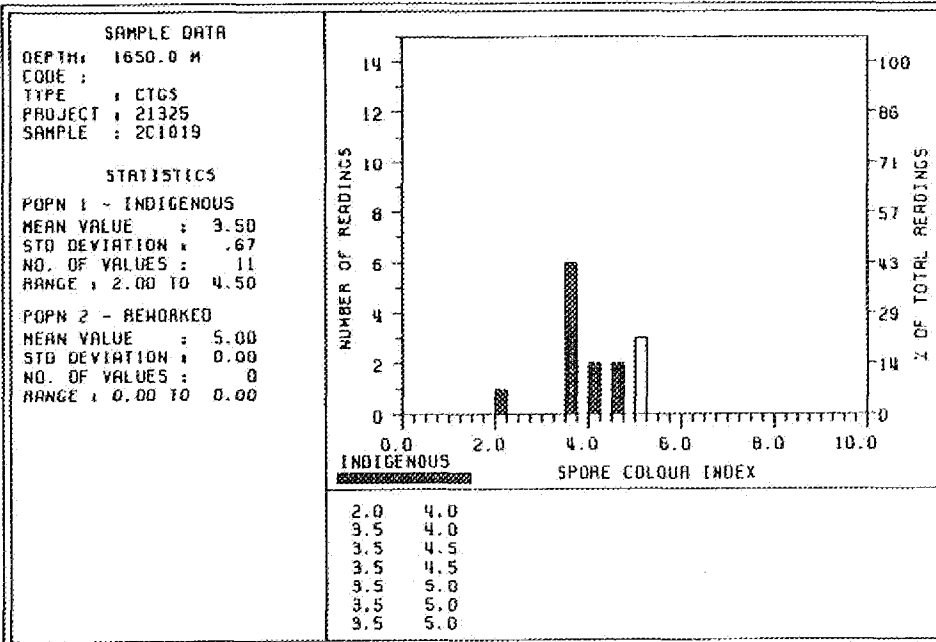
COMPANY : NORASK HYDRO
 WELL : 25/11-15
 LOCATION : OFFSHORE NORWAY

HISTOGRAMS, DATA AND STATISTICS
 FOR SPORE COLOURATION



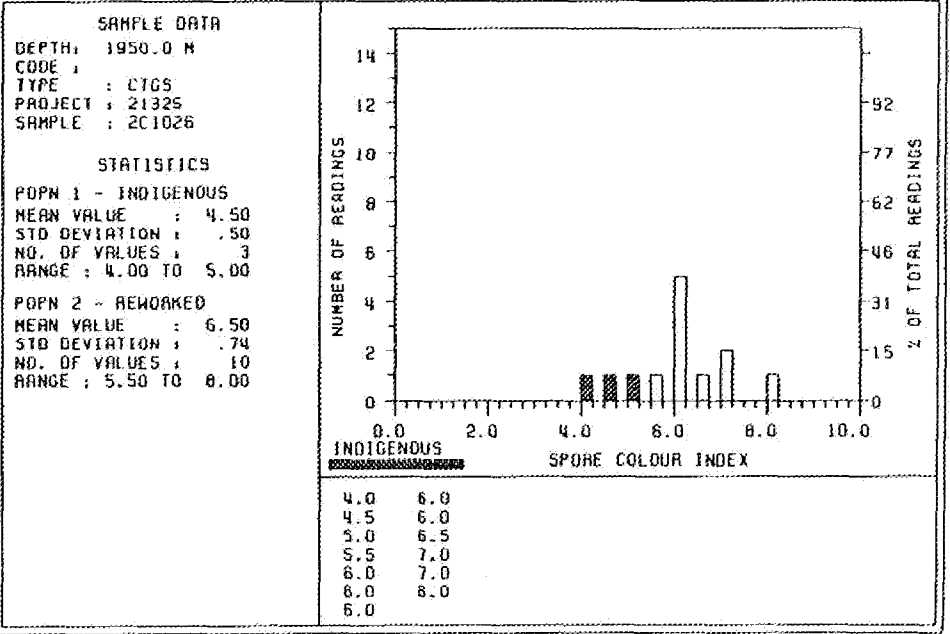
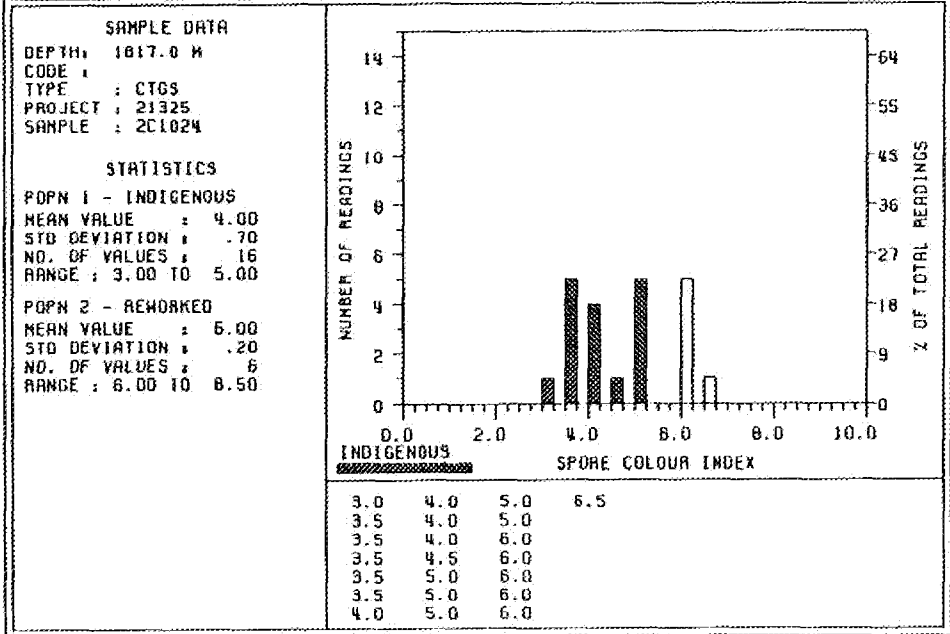
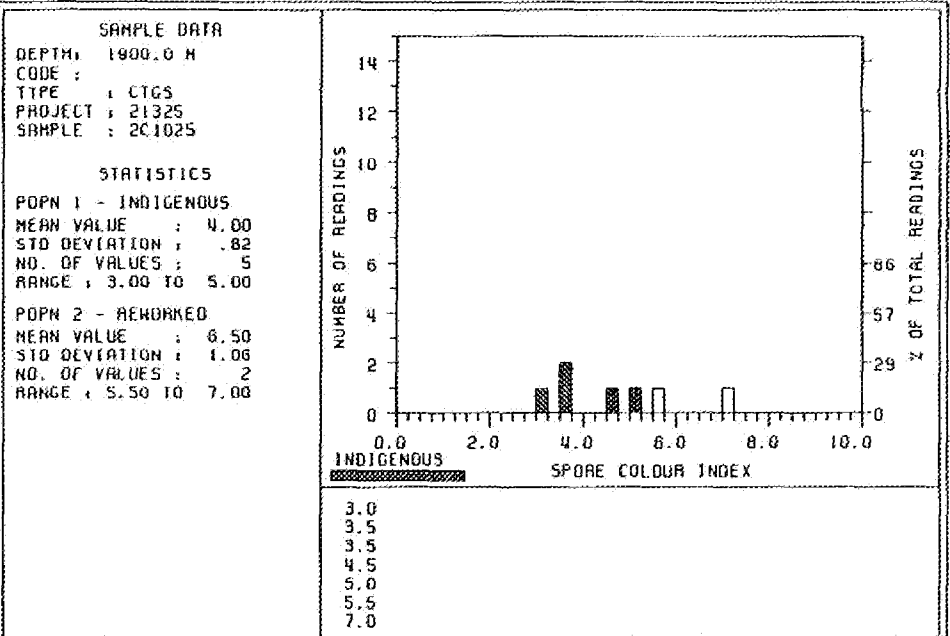
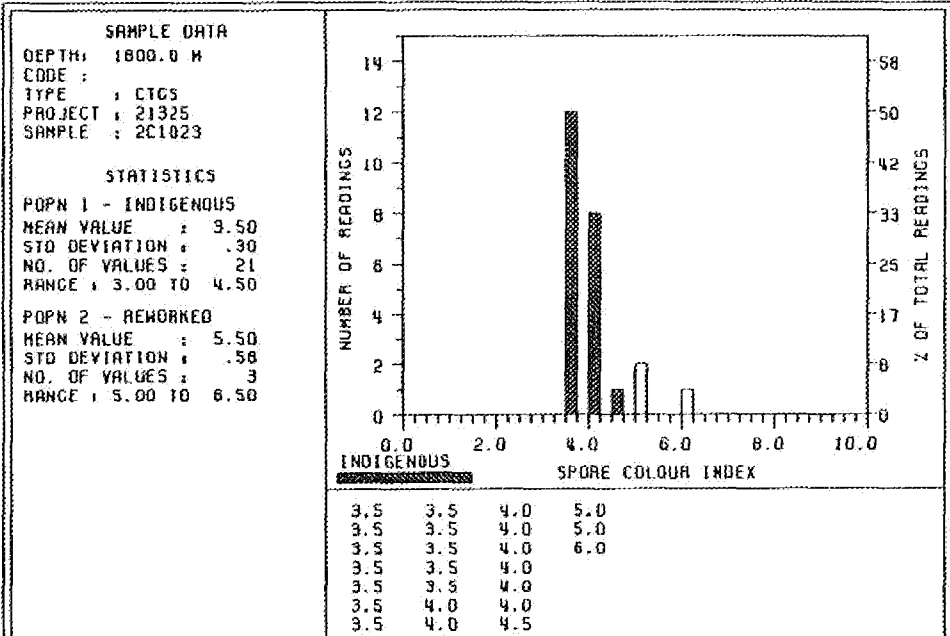
COMPART : NORRISK HYDRG
 WELL : 25/11-15
 LOCATION : OFFSHORE NORRMARKT

HISTOGRAMS, DATA AND STATISTICS
 FOR SPORE COLOURATION



COMPANY : NORISK HYDRO
 WELL : 25/11-15
 LOCATION : OFFSHORE NORWAY

HISTOGRAMS, DATA AND STATISTICS
 FOR SPORE COLOURATION



COMPANY : NORASK HYDRO
 WELL : 25/11-15
 LOCATION : OFFSHORE NORWAY

HISTOGRAMS, DATA AND STATISTICS
 FOR SPORE COLOURATION

