

RFT CHAMBER, SAMPLE EVALUATION

FOR

STATOIL

WELL: 6407/1-3

CORE LAB

CORE LABORATORIES NORSK

ÅGOTNES

RFT CHAMBER, SAMPLE EVALUATION

FOR

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CORE LAB NORSK

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BERGEN NORWAY  
Postboks 63—CCB

27th January 1984

Statoil  
Damsgårdsgaten 131  
P.O. Box 1212  
N-5001 Bergen

Attention: Jon Hanstveit

Subject: RFT Chamber Sample Evaluation.  
Well: 6407/1-3  
Haltenbanken Field  
Norwegian Sea, Norway  
Our File Number: RFLN 830005

Gentlemen:

On the 8th of December 1983 a Schlumberger six gallon RFT chamber was recieved in our Ågotnes Laboratory for examination and evaluation of the contents. Presented in following report are the results of tests performed as requested by a representative of Statoil.

Upon reciept in the laboratory the pressure in the sample chamber was determined to be 29 barg at 17 degree C, the sample contained in the chamber was found to have a bubble point of approximately 85 barg at 17 degree C. Whilst maintaining the pressure in the chamber well in excess of the saturation pressure a small sample of fluid was removed for visual examination; measurement of gas-oil ratio, gas gravity, hydrocarbon gas composition, and oil gravity.

There after, three pressurised samples were collected and the total contents of the chamber measured. The chamber was found to contain a mixture of water, mud filterate, gas and only trace amounts of oil.

During testing, samples of the evolved gas and water/ mud filterate mix were collected in containers provided by Statoil, these samples were subsequently collected by a representative of Statoil. As requested a sample of the residual oil from the initial gas-oil ratio measurement was subjected to gas-liquid chromatography, a copy of the resultant typical crude oil trace may be found on page four.

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Page Two

The measured volumetric and ratio data may be found on page two, while the hydrocarbon composition of the evolved gas is presented on page three.

It has been a pleasure to be of service to Statoil. If there are any questions concerning these data, or if we can be of further service please do not hesitate to contact us.

Yours truly  
Core Laboratories Norsk



Duncan Thow  
Operations Supervisor  
Reservoir Fluid Analysis

Company STATOIL Date Sampled \_\_\_\_\_  
 Well 6407/1-3 State NORWEGIAN SEA  
 Field HALTENBANKEN Country NORWAY

FORMATION CHARACTERISTICS

Formation Name \_\_\_\_\_  
 Date First Well Completed \_\_\_\_\_  
 Original Reservoir Pressure \_\_\_\_\_ PSIG @ \_\_\_\_\_ Ft.  
 Original Produced Gas/Oil Ratio \_\_\_\_\_ SCF/Bbl  
 Production Rate \_\_\_\_\_ Bbl/Day  
 Separator Pressure and Temperature \_\_\_\_\_ PSIG \_\_\_\_\_ °F.  
 Oil Gravity at 60°F. \_\_\_\_\_ °API  
 Datum \_\_\_\_\_ Ft. Subsea  
 Original Gas Cap \_\_\_\_\_

WELL CHARACTERISTICS

Elevation \_\_\_\_\_ Ft.  
 Total Depth \_\_\_\_\_ Ft.  
 Producing Interval \_\_\_\_\_ Ft.  
 Tubing Size and Depth \_\_\_\_\_ In. to \_\_\_\_\_ Ft.  
 Productivity Index \_\_\_\_\_ Bbl/D/PSI @ \_\_\_\_\_ Bbl/Day  
 Last Reservoir Pressure \_\_\_\_\_ PSIG @ \_\_\_\_\_ Ft.  
 Date \_\_\_\_\_  
 Reservoir Temperature \_\_\_\_\_ °F. @ \_\_\_\_\_ Ft.  
 Status of Well \_\_\_\_\_  
 Pressure Gauge \_\_\_\_\_  
 Normal Production Rate \_\_\_\_\_ Bbl/Day  
 Gas/Oil Ratio \_\_\_\_\_ SCF/Bbl  
 Separator Pressure and Temperature \_\_\_\_\_ PSIG, \_\_\_\_\_ °F.  
 Base Pressure \_\_\_\_\_ PSIA  
 Well Making Water \_\_\_\_\_ % Cut

SAMPLING CONDITIONS

Sampled at \_\_\_\_\_ Ft.  
 Status of Well \_\_\_\_\_  
 Gas/Oil Ratio \_\_\_\_\_ SCF/Bbl  
 Separator Pressure and Temperature \_\_\_\_\_ PSIG, \_\_\_\_\_ °F.  
 Tubing Pressure \_\_\_\_\_ PSIG  
 Casing Pressure \_\_\_\_\_ PSIG  
 Sampled by SCHLUMBERGER  
 Type Sampler R.F.T.

REMARKS:

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SUMMATION OF DATA FROM  
EXAMINATION OF FLUID IN RFT CHAMBER

Opening Pressure at 17 degree C	30 BARG
Saturation Pressure at 17 degree C	85 BARG
Gas-Oil Ratio of initial fluid from chamber	54.5 M <sup>3</sup> /M <sup>3</sup>
Oil Density at 15 degree C	0.8725 G/CC
Initial Gas Gravity (Air = 1.000)	0.776
Gas Gravity during bleed down (Air=1.000)	0.630

RECOVERIES

Fluid removed at 345 Bar G	2.16 L
Oil recovered during bleed down	0.31 L
Water/Mud filterate recovered at atmospheric pressure and ambient temperature	16.031 L
Gas evolved (at 1.0133 Bar and 15 degree C)	77.105 L

Company STATOIL Formation \_\_\_\_\_  
 Well 6407/1-3 County NORWEGIAN SEA  
 Field HALTENBANKEN State NORWAY

HYDROCARBON ANALYSIS OF INITIAL EVOLVED GAS SAMPLE

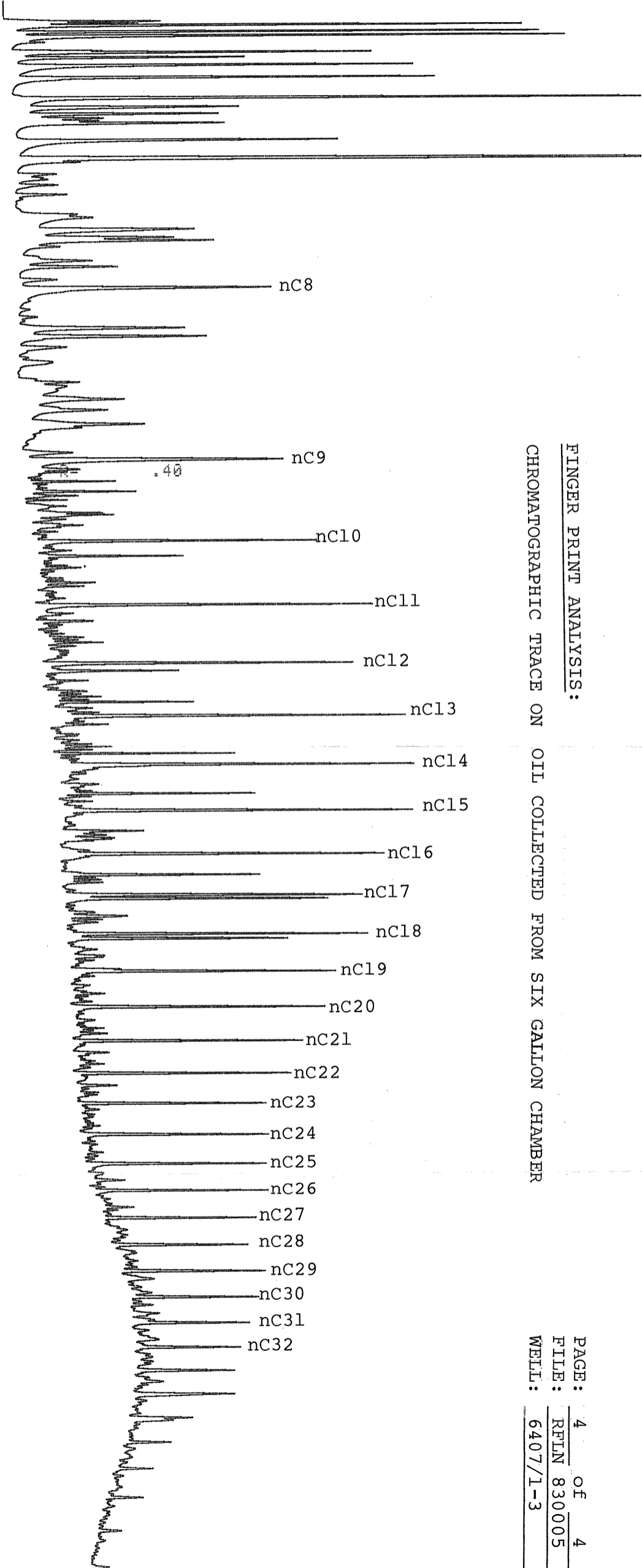
<u>Component</u>	<u>Mol Percent</u>	<u>L3/100M3</u>
Carbon Dioxide	0.09	
Nitrogen	1.06	
Methane	75.41	
Ethane	11.32	40.354
Propane	5.72	20.990
iso-Butane	1.00	4.361
n-Butane	3.36	14.122
iso-Pentane	0.82	4.001
n-Pentane	0.96	4.637
Hexanes	0.17	0.925
Heptanes plus	0.09	0.545
	<u>100.00</u>	<u>89.935</u>

Calculated gas gravity (air = 1.000) = 0.774

Calculated gross heating value = 49.64 MJ per  
 metre cubed of dry gas at 1.01325 Bara and 15 degree C.

Collected at 0 Barg and 16 degree C.

Trilab 2000 Analysis 1.74  
SAMPLE A054 1106 270184 (.20 .40R)



FINGER PRINT ANALYSIS:  
CHROMATOGRAPHIC TRACE ON OIL COLLECTED FROM SIX GALLON CHAMBER



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Duncan Thow  
Operations Supervisor