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Memorandum Number: SL/93/614

Title:

GEOCHEMICAL INTERPRETATION OF WELL 34/7-20

Prepared For:

SAGA PETROLEUM A.S.
KJ0RBOVEIEN 16
POSTBOKS 490
1301 SANDVIKA
NORWAY

Author's signature ..... **Date** 8/3/93
Dr A K Holme

Author's signature ..... **Date** 8/3/93
Mr M C Wadsworth

General Manager ..... **Date** 8/3/93
Mr J McEwan

Sample Information

Client name	Saga Petroleum A.S.
Well name	34/7-20
Location	Norwegian North Sea
Dates of receipt	28/7, 10/8, 14/8, 27/8, 16/11 & 31/11/92 + 3/5/93
Dates of analysis	18/9/92 - 5/3/93
Sample types	Cuttings, Core, SWC & VR blocks
SL job no	92069
Client ref nos	IO-AK-92-01921 IO-AK-92-01556

Sample Handling

Samples were received as wet ditch cuttings in geochemical cans, from the interval 590m to 3171m. The samples were in 10m intervals to 2580m and in 9m intervals below this depth. Also received were 8 core chips, 2 sidewall cores and 7 vitrinite blocks. Headspace and occluded gas analysis was performed on 71 samples at 40m intervals to 2400m, every 20m to 2580m and and approximately 18m spacings below. After headspace gas analysis, five of the strongest samples were collected for gas isotope analysis. However, none of the samples proved strong enough to warrant analysis. The cuttings were then washed, dried and described (OLS method 003). Where possible claystones were picked from thirtysix samples and these were analysed for organic carbon content (OLS method 001) and by Rock Eval pyrolysis (OLS method 005).
Vitrinite reflectance analysis was carried out on twentytwo samples. Seven of these samples were sent from Saga Petroleum A.S., the remaining fifteen were prepared by Simon Laboratories using isolated kerogens. Five samples were also analysed for Spore Colour Index. Also, eighteen sandstones were also picked for cold ultrasonic extraction and Iatroscan fraction (Saga method). following initial screening seventeen samples were selected for Soxthec extraction (Saga method) and subsequently fourteen extracts were used for more advanced analysis.
All fourteen extracts were separated and then analysed by saturate GC, aromatic GC (FID & FPD), and GC/MS (all Saga method). The aromatic GC/MS was subcontracted to S.A.L.. Finally the eight samples were submitted for carbon isotope analysis. Not enough sample was available for all five fractions to be submitted in some cases.
A detailed analytical plan can be found overleaf.

ANALYTICAL PROGRAM

Well Name	Nation	Sample Name	Upper Depth	Lower Depth	Sample Type	Headspace Gas	Occluded gas	Lithology	TOC	Rock Eval Pyrolysis	Vitrinite	Spore colour	Iatroscan	Extraction	Sats GC	Arom FID GC	Arom FPD GC	Sats GC/MS	Arom GC/MS	C Isotopes
34/7-20	NOR	92069-1	1030.0	1040.0	CUT	*	*	*												
34/7-20	NOR	92069-2	1070.0	1080.0	CUT	*	*	*												
34/7-20	NOR	92069-3	1110.0	1120.0	CUT	*	*	*												
34/7-20	NOR	92069-4	1150.0	1160.0	CUT	*	*	*			*									
34/7-20	NOR	92069-5	1190.0	1200.0	CUT	*	*	*												
34/7-20	NOR	92069-6	1230.0	1240.0	CUT	*	*	*			*									
34/7-20	NOR	92069-7	1270.0	1280.0	CUT	*	*	*												
34/7-20	NOR	92069-8	1310.0	1320.0	CUT	*	*	*			*									
34/7-20	NOR	92069-9	1350.0	1360.0	CUT	*	*	*												
34/7-20	NOR	92069-10	1390.0	1400.0	CUT	*	*	*			*									
34/7-20	NOR	92069-11	1430.0	1440.0	CUT	*	*	*												
34/7-20	NOR	92069-12	1470.0	1480.0	CUT	*	*	*												
34/7-20	NOR	92069-13	1510.0	1520.0	CUT	*	*	*			*									
34/7-20	NOR	92069-14	1550.0	1560.0	CUT	*	*	*												
34/7-20	NOR	92069-15	1590.0	1600.0	CUT	*	*	*			*									
34/7-20	NOR	92069-16	1630.0	1640.0	CUT	*	*	*												
34/7-20	NOR	92069-17	1670.0	1680.0	CUT	*	*	*			*									
34/7-20	NOR	92069-18	1710.0	1720.0	CUT	*	*	*												
34/7-20	NOR	92069-19	1750.0	1760.0	CUT	*	*	*												
34/7-20	NOR	92069-20	1790.0	1800.0	CUT	*	*	*			*									
34/7-20	NOR	92069-21	1830.0	1840.0	CUT	*	*	*												
34/7-20	NOR	92069-78	1860.0	1860.0	SWC						*									
34/7-20	NOR	92069-22	1870.0	1880.0	CUT	*	*	*			*									
34/7-20	NOR	92069-23	1910.0	1920.0	CUT	*	*	*												
34/7-20	NOR	92069-24	1950.0	1960.0	CUT	*	*	*												
34/7-20	NOR	92069-25	1990.0	2000.0	CUT	*	*	*	*	*										
34/7-20	NOR	92069-79	2000.0	2000.0	SWC						*									
34/7-20	NOR	92069-26	2030.0	2040.0	CUT	*	*	*	*	*										
34/7-20	NOR	92069-27	2070.0	2080.0	CUT	*	*	*												
34/7-20	NOR	92069-28	2110.0	2120.0	CUT	*	*	*	*	*										
34/7-20	NOR	92069-29	2150.0	2160.0	CUT	*	*	*	*	*										
34/7-20	NOR	92069-30	2190.0	2200.0	CUT	*	*	*												
34/7-20	NOR	92069-31	2230.0	2240.0	CUT	*	*	*												
34/7-20	NOR	92069-32	2270.0	2280.0	CUT	*	*	*				*								
34/7-20	NOR	92069-33	2310.0	2320.0	CUT	*	*	*	*	*										
34/7-20	NOR	92069-34	2350.0	2360.0	CUT	*	*	*												
34/7-20	NOR	92069-35	2390.0	2400.0	CUT	*	*	*	*	*		*								
34/7-20	NOR	92069-36	2410.0	2420.0	CUT	*	*	*												

Well Name	Nation	Sample Name	Upper Depth	Lower Depth	Sample Type	Headspace Gas	Occluded gas	Lithology	TOC	Rock Eval Pyrolysis	Vitrinite	Spore colour	Iatroscan	Extraction	Sats GC	Arom FID GC	Arom FPD GC	Sats GC/MS	Arom GC/MS	C Isotopes
34/7-20	NOR	92069-37	2430.0	2440.0	CUT	*	*	*	*	*				*	*	*	*	*	*	
34/7-20	NOR	92069-38	2450.0	2460.0	CUT	*	*	*	*	*										
34/7-20	NOR	92069-39	2470.0	2480.0	CUT	*	*	*												
34/7-20	NOR	92069-40	2490.0	2500.0	CUT	*	*	*	*	*										
34/7-20	NOR	92069-41	2510.0	2520.0	CUT	*	*	*	*	*										
34/7-20	NOR	92069-42	2530.0	2540.0	CUT	*	*	*	*	*										
34/7-20	NOR	92069-43	2550.0	2560.0	CUT	*	*	*	*	*				*	*	*	*	*	*	
34/7-20	NOR	92069-91	2560.0	2570.0	CUT									*	*	*	*	*	*	
34/7-20	NOR	92069-92	2578.0	2578.0	CCP									*	*	*	*	*	*	*
34/7-20	NOR	92069-93	2579.0	2579.0	CCP									*	*	*	*	*	*	*
34/7-20	NOR	92069-44	2570.0	2580.0	CUT	*	*	*	*	*				*						
34/7-20	NOR	92069-85	2582.0	2582.0	CCP			*	*	*				*	*	*	*	*	*	*
34/7-20	NOR	92069-86	2585.0	2585.0	CCP			*			*	*								
34/7-20	NOR	92069-94	2586.0	2586.0	CCP				*	*				*						
34/7-20	NOR	92069-95	2590.0	2590.0	CCP				*	*				*	*	*	*	*	*	*
34/7-20	NOR	92069-87	2593.0	2593.0	CCP			*	*	*				*	*	*	*	*	*	*
34/7-20	NOR	92069-45	2589.0	2598.0	CUT	*	*	*	*	*										
34/7-20	NOR	92069-88	2600.0	2600.0	CCP			*	*	*	*	*								
34/7-20	NOR	92069-89	2612.5	2612.5	CCP			*	*	*										
34/7-20	NOR	92069-46	2607.0	2616.0	CUT	*	*	*	*	*										
34/7-20	NOR	92069-90	2628.5	2628.5	CCP			*			*									
34/7-20	NOR	92069-47	2631.0	2640.0	CUT	*	*	*					*							
34/7-20	NOR	92069-80	2643.0	2643.0	SWC						*			*	*	*	*	*	*	*
34/7-20	NOR	92069-48	2649.0	2658.0	CUT	*	*	*					*	*	*	*	*	*	*	
34/7-20	NOR	92069-49	2667.0	2676.0	CUT	*	*	*					*	*						
34/7-20	NOR	92069-50	2685.0	2694.0	CUT	*	*	*					*							
34/7-20	NOR	92069-81	2700.0	2700.0	SWC						*									
34/7-20	NOR	92069-51	2703.0	2712.0	CUT	*	*	*					*							
34/7-20	NOR	92069-52	2721.0	2730.0	CUT	*	*	*					*	*	*	*	*	*	*	
34/7-20	NOR	92069-53	2739.0	2748.0	CUT	*	*	*					*							
34/7-20	NOR	92069-54	2757.0	2766.0	CUT	*	*	*					*							
34/7-20	NOR	92069-55	2775.0	2784.0	CUT	*	*	*					*							
34/7-20	NOR	92069-56	2784.0	2793.0	CUT	*	*	*			*	*	*							
34/7-20	NOR	92069-57	2802.0	2811.0	CUT	*	*	*	*	*				*	*	*	*	*	*	
34/7-20	NOR	92069-58	2820.0	2829.0	CUT	*	*	*	*	*										
34/7-20	NOR	92069-59	2840.0	2849.0	CUT	*	*	*	*	*										
34/7-20	NOR	92069-60	2856.0	2865.0	CUT	*	*	*	*	*										
34/7-20	NOR	92069-61	2874.0	2883.0	CUT	*	*	*	*	*				*	*	*	*	*	*	*

Well Name	Nation	Sample Name	Depth	Depth	Sample Type	Headspace Gas	Occluded gas	Lithology	TOC	Rock Eval Pyrolysis		Spore colour	Iatroscan	Extraction	Sats GC	Arom FID GC	Arom FPD GC	Sats GC/MS	Arom GC/MS	C Isotopes
34/7-20	NOR	92069-62	2892.0	2901.0	CUT	*	*	*	*	*	*									
34/7-20	NOR	92069-63	2910.0	2919.0	CUT	*	*	*	*	*										
34/7-20	NOR	92069-64	2928.0	2937.0	CUT	*	*	*	*	*										
34/7-20	NOR	92069-65	2946.0	2955.0	CUT	*	*	*	*	*										
34/7-20	NOR	92069-82	2955.0	2955.0	SWC						*									
34/7-20	NOR	92069-66	2964.0	2973.0	CUT	*	*	*	*	*										
34/7-20	NOR	92069-67	2982.0	2991.0	CUT	*	*	*	*	*										
34/7-20	NOR	92069-68	3000.0	3009.0	CUT	*	*	*	*	*	*									
34/7-20	NOR	92069-69	3018.0	3027.0	CUT	*	*	*	*	*			*	*	*	*	*	*	*	*
34/7-20	NOR	92069-70	3036.0	3045.0	CUT	*	*	*	*	*										
34/7-20	NOR	92069-71	3054.0	3063.0	CUT	*	*	*					*							
34/7-20	NOR	92069-72	3072.0	3081.0	CUT	*	*	*					*							
34/7-20	NOR	92069-83	3090.0	3090.0	SWC						*									
34/7-20	NOR	92069-73	3090.0	3099.0	CUT	*	*	*					*							
34/7-20	NOR	92069-74	3108.0	3117.0	CUT	*	*	*					*							
34/7-20	NOR	92069-75	3126.0	3135.0	CUT	*	*	*					*							
34/7-20	NOR	92069-76	3144.0	3153.0	CUT	*	*	*					*							
34/7-20	NOR	92069-77	3153.0	3162.0	CUT	*	*	*	*	*										
34/7-20	NOR	92069-84	3164.0	3164.0	SWC						*									

Well Name	Nation	Sample Name	Upper Depth	Lower Depth	Sample Type	Lithology
34/7-20	NOR	92069-1	1030	1040	Cuttings	Sst, med gy + 40% shell frag + 10% Sst, dk gy
34/7-20	NOR	92069-2	1070	1080	Cuttings	Clyst, lt gy + 20% Sst, lt gy, glau + 10% shell frag + 10% chert ?
34/7-20	NOR	92069-3	1110	1120	Cuttings	Sst, lt gy, glau + 10% chert ? + mnr Clyst, med rd
34/7-20	NOR	92069-4	1150	1160	Cuttings	Clyst, lt gy + tr chert
34/7-20	NOR	92069-5	1190	1200	Cuttings	Clyst, lt gy
34/7-20	NOR	92069-6	1230	1240	Cuttings	Clyst, lt gy + tr chert
34/7-20	NOR	92069-7	1270	1280	Cuttings	Clyst, olv gy + 10% Clyst, lt gy + tr salt
34/7-20	NOR	92069-8	1310	1320	Cuttings	Clyst, olv gy + mnr Clyst, lt gy + mnr salt
34/7-20	NOR	92069-9	1350	1360	Cuttings	Clyst, olv gy + mnr Clyst, lt gy + tr salt
34/7-20	NOR	92069-10	1390	1400	Cuttings	Clyst, olv gy + 10% Clyst, lt gy + mnr salt
34/7-20	NOR	92069-11	1430	1440	Cuttings	Clyst, olv gy + 10% Clyst, lt gy + mnr salt
34/7-20	NOR	92069-12	1470	1480	Cuttings	Clyst, olv gy + mnr salt + tr Clyst, lt gy
34/7-20	NOR	92069-13	1510	1520	Cuttings	Clyst, olv gy + mnr Clyst, lt gy + mnr salt
34/7-20	NOR	92069-14	1550	1560	Cuttings	Clyst, olv gy + 10% Clyst, lt gy + mnr salt + mnr chert
34/7-20	NOR	92069-15	1590	1600	Cuttings	Clyst, olv gy + mnr Lst, lt gy + mnr salt + mnr chert
34/7-20	NOR	92069-16	1630	1640	Cuttings	Clyst, olv gy + 10% Lst, v lt gy + 10% clyst, dsk yel brn
34/7-20	NOR	92069-17	1670	1680	Cuttings	Clyst, olv gy + 20% Clyst, med brn + mnr Lst, v lt gy
34/7-20	NOR	92069-18	1710	1720	Cuttings	Clyst, olv gy + 30% Clyst, med yel brn + 10% Clyst, med brn + mnr Lst, v lt gy
34/7-20	NOR	92069-19	1750	1760	Cuttings	Clyst, lt gy + 30% Clyst, olv gy + mnr Clyst, med brn
34/7-20	NOR	92069-20	1790	1800	Cuttings	Clyst, lt gy + 10% Clyst, olv gy + mnr Clyst, med brn + mnr salt
34/7-20	NOR	92069-21	1830	1840	Cuttings	Clyst, olv gy + 30% Clyst, dk gy + mnr Salt
34/7-20	NOR	92069-22	1870	1880	Cuttings	Clyst, lt gy, calc + mnr Lst, v lt gy
34/7-20	NOR	92069-23	1910	1920	Cuttings	Clyst, lt gy, calc + mnr Lst, v lt gy
34/7-20	NOR	92069-24	1950	1960	Cuttings	Clyst, lt gy, calc + mnr Lst, v lt gy
34/7-20	NOR	92069-25	1990	2000	Cuttings	Clyst, med gy, calc + 10% Clyst, dk gy, calc + tr salt
34/7-20	NOR	92069-26	2030	2040	Cuttings	Clyst, med gy, calc + 20% Clyst, dk gy, calc + mnr Lst, v lt gy
34/7-20	NOR	92069-27	2070	2080	Cuttings	Clyst, med gy, calc + 10% Clyst, dk gy, calc + tr Lst, yel gy + tr Salt
34/7-20	NOR	92069-28	2110	2120	Cuttings	Clyst, med gy + tr Lst, yel gy
34/7-20	NOR	92069-29	2150	2160	Cuttings	Clyst, med gy + 20% Clyst, dk gy, + mnr Lst, med rn brn + mnr Lst, yel gy
34/7-20	NOR	92069-30	2190	2200	Cuttings	Clyst, med gy + mnr Lst, yel gy + tr Lst, lt gy
34/7-20	NOR	92069-31	2230	2240	Cuttings	Clyst, med gy + tr Lst, lt gy
34/7-20	NOR	92069-32	2270	2280	Cuttings	Clyst, med gy + mnr Lst, lt gy + tr Clyst, med rd brn, calc
34/7-20	NOR	92069-33	2310	2320	Cuttings	Clyst, med gy + mnr Lst, lt gy + tr Clyst' med rd brn, calc
34/7-20	NOR	92069-34	2350	2360	Cuttings	Clyst, med gy + mnr Clyst, yel gy + tr Lst, v lt gy

Well Name	Nation	Sample Name	Upper Depth	Lower Depth	Sample Type	Lithology
34/7-20	NOR	92069-35	2390	2400	Cuttings	Clyst, med gy + 10% Clyst, med dk gy + 10% Sst, v lt gy + mnr Clyst, lt gy
34/7-20	NOR	92069-36	2410	2420	Cuttings	Clyst, med gy + mnr Clyst, med dk gy + mnr Sst, v lt gy + mnr Clyst, lt gy, calc
34/7-20	NOR	92069-37	2430	2440	Cuttings	Clyst, med gy + 10% Clyst, med dk gy + mnr Sst, v lt gy + mnr Clyst, lt gy, calc
34/7-20	NOR	92069-38	2450	2460	Cuttings	Clyst, med gy + mnr Sst, v lt gy
34/7-20	NOR	92069-39	2470	2480	Cuttings	Clyst, med dk gy + mnr Lst, v lt gy
34/7-20	NOR	92069-40	2490	2500	Cuttings	Clyst, med gy + 20% Clyst, dk gy + tr Lst, lt gy
34/7-20	NOR	92069-41	2510	2520	Cuttings	Clyst, med gy, calc + 10% Clyst, dk gy + mnr Lst, v lt gy
34/7-20	NOR	92069-42	2530	2540	Cuttings	Clyst, med gy, calc + 10% Clyst, dk gy + mnr cmt + mnr Clyst, med rnd brn
34/7-20	NOR	92069-43	2550	2560	Cuttings	Clyst, med dk gy, calc + 10% Clyst, dk gy, calc + mnr Lst, v lt gy
34/7-20	NOR	92069-44	2570	2580	Cuttings	Clyst, med rd brn, calc + 30% Clyst, dk gy, calc + mnr Lst, wht
34/7-20	NOR	92069-45	2589	2598	Cuttings	Clyst, med dk gy, calc + mnr Lst, v lt gy + mnr Clyst, rd brn, calc
34/7-20	NOR	92069-46	2607	2616	Cuttings	Clyst, med gy, calc + 20% Clyst, dk gy + mnr Lst, v lt gy
34/7-20	NOR	92069-47	2631	2640	Cuttings	Clyst, dk gy + 30% Sst, wht + 10% Clyst, lt gy + mnr Clyst, rd gy, calc
34/7-20	NOR	92069-48	2649	2658	Cuttings	Sst, v lt gy + 20% Coal + 10% Clyst, lt gy, calc
34/7-20	NOR	92069-49	2667	2676	Cuttings	Sst, v lt gy + 10% Clyst, lt gy, calc + tr coal
34/7-20	NOR	92069-50	2685	2694	Cuttings	Sst, v lt gy + 10% Clyst, med gy + mnr Sh, gy blk + mnr Clyst, med rd brn, calc
34/7-20	NOR	92069-51	2703	2712	Cuttings	Sst, v lt gy + 10% Clyst, med gy + mnr Clyst, med dk gy + mnr Clyst, med rd brn, calc
34/7-20	NOR	92069-52	2721	2730	Cuttings	Clyst, med dk gy + 40% Sst, v lt gy + 10% Clyst, med rd brn
34/7-20	NOR	92069-53	2739	2748	Cuttings	Sst, v lt gy + mnr Clyst, med gy
34/7-20	NOR	92069-54	2757	2766	Cuttings	Sst, v lt gy + mnr Clyst, med gy
34/7-20	NOR	92069-55	2775	2784	Cuttings	Clyst, lt gy, calc + 10% Sst, v lt gy + 10% Clyst, olv blk, calc
34/7-20	NOR	92069-56	2784	2793	Cuttings	Clyst, med gy + 30% Clyst, olv blk, calc + 10% Sst, v lt gy
34/7-20	NOR	92069-57	2802	2811	Cuttings	Clyst, med gy + 10% Clyst, gy blk + mnr Sst, v lt gy
34/7-20	NOR	92069-58	2820	2829	Cuttings	Clyst, med gy + 20% Clyst, gy blk + mnr Clyst, lt gy + mnr Lst, wht
34/7-20	NOR	92069-59	2840	2847	Cuttings	Clyst, med gy + 30% Clyst, gy blk + 10% Clyst, lt gy, calc
34/7-20	NOR	92069-60	2856	2865	Cuttings	Clyst, med gy + 20% Clyst, gy blk + tr Lst, wht
34/7-20	NOR	92069-61	2874	2883	Cuttings	Clyst, med gy + 10% Clyst, gy blk + tr Lst, wht
34/7-20	NOR	92069-62	2892	2901	Cuttings	Clyst, lt gy, calc + 10% Clyst, gy blk + tr Lst, v lt gy
34/7-20	NOR	92069-63	2910	2919	Cuttings	Clyst, med gy + 10% Clyst, gy blk + tr Lst, v lt gy
34/7-20	NOR	92069-64	2928	2937	Cuttings	Clyst, med gy + mnr Lst, v lt gy
34/7-20	NOR	92069-65	2946	2955	Cuttings	Clyst, med gy + 10% Clyst, med dk gy + tr Lst, lt gy
34/7-20	NOR	92069-66	2964	2973	Cuttings	Clyst, med dk gy + 20% Clyst, olv gy + 20% Lst, wht
34/7-20	NOR	92069-67	2982	2991	Cuttings	Clyst, lt gy, calc + 10% Clyst, dk gy, calc + mnr Lst, wht-lt gy
34/7-20	NOR	92069-68	3000	3009	Cuttings	Clyst, med dk gy + 20% Clyst, gy blk + mnr Lst, lt gy

Well Name	Nation	Sample Name	Upper Depth	Lower Depth	Sample Type	Lithology
34/7-20	NOR	92069-69	3018	3027	Cuttings	Clyst, med gy + 30% Clyst, gy blk + mnr Sd + mnr Lst, wht-lt gy
34/7-20	NOR	92069-70	3036	3045	Cuttings	Clyst, med gy, calc + 10% Clyst, gy blk + tr Lst, lt gy
34/7-20	NOR	92069-71	3054	3063	Cuttings	Sd + 20% Clyst, med gy, calc + tr Lst, wht
34/7-20	NOR	92069-72	3072	3081	Cuttings	Sd + 40% Clyst, med gy, calc + mnr Lst, lt gy
34/7-20	NOR	92069-73	3090	3099	Cuttings	Sd + 30% Clyst, med gy + 30% Clyst, dsky purp rd + 10% Lst, wht
34/7-20	NOR	92069-74	3108	3117	Cuttings	Clyst, dsky purp rd + 20% Sd + 20% Clyst, lt gy + 10% Lst, wht + mnr Sst, wht
34/7-20	NOR	92069-75	3126	3135	Cuttings	Sd + 20% Clyst, dsky purp, rd + 10% Clyst, lt gy + mnr Sst, wht + mnr Lst, wht
34/7-20	NOR	92069-76	3144	3153	Cuttings	Clyst, dsky purp rd + 20% Sd + 10% Sst, wht + mnr Clyst, brn gy + mnr Clyst, med gy + mnr Lst, wht
34/7-20	NOR	92069-77	3153	3162	Cuttings	Clyst, dsky purp rd + 20% Lst, wh + 10% Sd + mnr Sst, lt gy + mnr Sst, wht
34/7-20	NOR	92069-85	2582	2582	Core	Sh, Olv gy
34/7-20	NOR	92069-86	2585	2585	Core	Sh, Olv gy
34/7-20	NOR	92069-87	2593	2593	Core	Sh, Olv gy
34/7-20	NOR	92069-88	2600	2600	Core	Sh, Olv gy, mic
34/7-20	NOR	92069-89	2612.5	2612.5	Core	Sh, Olv gy, mic
34/7-20	NOR	92069-90	2628.5	2628.5	Core	Sh, Olv gy, mic

KEY TO LITHOLOGIES USED FOR ANALYSIS

Well Name	Nation	Sample Name	Upper Depth	Lower Depth	Sample Type	Bulk or pick	Lith
34/7-20	NOR	92069-37A	2430	2440	Cut	Pick	Clyst
34/7-20	NOR	92069-43A	2550	2560	Cut	Pick	Clyst
34/7-20	NOR	92069-91A	2560	2570	Cut	Pick	Clyst
34/7-20	NOR	92069-92	2578	2578	Ccp	Bulk	Sst
34/7-20	NOR	92069-93	2579	2579	Ccp	Bulk	Sst
34/7-20	NOR	92069-44A	2570	2580	Cut	Pick	Clyst
34/7-20	NOR	92069-85	2582	2582	Ccp	Bulk	Sh
34/7-20	NOR	92069-94	2586	2586	Ccp	Bulk	Sh
34/7-20	NOR	92069-95	2590	2590	Ccp	Bulk	Sh
34/7-20	NOR	92069-87	2593	2593	Ccp	Bulk	Sh
34/7-20	NOR	92069-47A	2630	2640	Cut	Pick	Sst
34/7-20	NOR	92069-80	2643	2643	SWC	Bulk	Coal
34/7-20	NOR	92069-48B	2649	2658	Cut	Pick	Coal
34/7-20	NOR	92069-48A	2649	2658	Cut	Pick	Sst
34/7-20	NOR	92069-48A	2649	2658	Cut	Pick	Sst
34/7-20	NOR	92069-49A	2667	2676	Cut	Pick	Sst
34/7-20	NOR	92069-50A	2685	2694	Cut	Pick	Sst
34/7-20	NOR	92069-51A	2703	2712	Cut	Pick	Sst
34/7-20	NOR	92069-52A	2721	2730	Cut	Pick	Sst
34/7-20	NOR	92069-53A	2739	2748	Cut	Pick	Sst
34/7-20	NOR	92069-54A	2757	2766	Cut	Pick	Sst
34/7-20	NOR	92069-55A	2775	2784	Cut	Pick	Sst
34/7-20	NOR	92069-56A	2784	2793	Cut	Pick	Sst
34/7-20	NOR	92069-57A	2802	2811	Cut	Pick	Clyst
34/7-20	NOR	92069-61A	2874	2883	Cut	Pick	Clyst
34/7-20	NOR	92069-69A	3018	3027	Cut	Pick	Sst
34/7-20	NOR	92069-69B	3018	3027	Cut	Pick	Clyst
34/7-20	NOR	92069-71A	3054	3063	Cut	Pick	Sst
34/7-20	NOR	92069-72A	3072	3081	Cut	Pick	Sst
34/7-20	NOR	92069-73A	3090	3099	Cut	Pick	Sst
34/7-20	NOR	92069-74A	3108	3117	Cut	Pick	Sst
34/7-20	NOR	92069-75A	3126	3135	Cut	Pick	Sst
34/7-20	NOR	92069-76A	3144	3153	Cut	Pick	Sst

Headspace gas data Well : 34/7-20

Well Name	Nation	Sample Name	Upper Depth	Lower Depth	Sample Type	C1 uL/kg	C2 uL/kg	C3 uL/kg	iC4 uL/kg	nC4 uL/kg	C5+ uL/kg	SUM C1-C4 uL/kg	SUM C2-C4 uL/kg	Wetness %	iC4/nC4
34/7-20	NOR	92069-1	1030	1040	Cuttings	94	0	0	0	0	14	94	0	0.00	
34/7-20	NOR	92069-2	1070	1080	Cuttings	46	0	0	0	0	4	46	0	0.00	
34/7-20	NOR	92069-3	1110	1120	Cuttings	141	0	0	0	0	70	141	0	0.00	
34/7-20	NOR	92069-4	1150	1160	Cuttings	14356	15	4	0	0	30	14375	19	0.13	
34/7-20	NOR	92069-5	1190	1200	Cuttings	1675	4	2	1	1	17	1683	8	0.47	0.55
34/7-20	NOR	92069-6	1230	1240	Cuttings	22834	49	27	0	0	303	22910	76	0.33	
34/7-20	NOR	92069-7	1270	1280	Cuttings	2702	13	6	0	1	68	2723	21	0.77	0.25
34/7-20	NOR	92069-8	1310	1320	Cuttings	1436	2	2	1	1	28	1442	6	0.42	0.80
34/7-20	NOR	92069-9	1350	1360	Cuttings	3225	63	24	8	4	451	3323	98	2.95	1.94
34/7-20	NOR	92069-10	1390	1400	Cuttings	324	90	31	0	0	456	445	121	27.21	
34/7-20	NOR	92069-11	1430	1440	Cuttings	3408	30	13	0	0	478	3452	44	1.26	
34/7-20	NOR	92069-12	1470	1480	Cuttings	1040	5	1	0	0	50	1046	7	0.64	
34/7-20	NOR	92069-13	1510	1520	Cuttings	5432	46	13	2	4	351	5496	65	1.18	0.70
34/7-20	NOR	92069-14	1550	1560	Cuttings	17	0	0	0	0	19	17	0	0.00	
34/7-20	NOR	92069-15	1590	1600	Cuttings	2954	95	37	8	0	1368	3094	140	4.52	
34/7-20	NOR	92069-16	1630	1640	Cuttings	4677	30	0	0	0	24	4707	30	0.63	
34/7-20	NOR	92069-17	1670	1680	Cuttings	5223	111	28	22	144	1857	5528	305	5.51	0.15
34/7-20	NOR	92069-18	1710	1720	Cuttings	5775	24	7	3	1	203	5811	36	0.62	2.50
34/7-20	NOR	92069-19	1750	1760	Cuttings	2456	29	0	0	0	98	2485	29	1.17	
34/7-20	NOR	92069-20	1790	1800	Cuttings	89	0	0	0	0	67	89	0	0.00	
34/7-20	NOR	92069-21	1830	1840	Cuttings	1088	27	6	4	1	73	1126	38	3.38	2.56
34/7-20	NOR	92069-22	1870	1880	Cuttings	2941	35	6	3	2	19	2988	47	1.57	1.43
34/7-20	NOR	92069-23	1910	1920	Cuttings	1019	17	4	2	1	19	1044	25	2.39	2.14
34/7-20	NOR	92069-24	1950	1960	Cuttings	2	0	0	1	0	2	3	1	44.74	
34/7-20	NOR	92069-25	1990	2000	Cuttings	5497	210	49	15	9	29	5781	284	4.91	1.69
34/7-20	NOR	92069-26	2030	2040	Cuttings	3401	121	32	11	6	16	3570	170	4.76	1.73
34/7-20	NOR	92069-27	2070	2080	Cuttings	3272	193	62	17	11	39	3555	283	7.95	1.65

Headspace gas data Well : 34/7-20

Well Name	Nation	Sample name	Upper Depth	Lower Depth	Sample Type	C1 uL/kg	C2 uL/kg	C3 uL/kg	iC4 uL/kg	nC4 uL/kg	C5+ uL/kg	SUM C1-C4 uL/kg	SUM C2-C4 uL/kg	Wetness %	iC4/nC4
34/7-20	NOR	92069-28	2110	2120	Cuttings	1706	93	27	7	4	19	1837	131	7.12	1.60
34/7-20	NOR	92069-29	2150	2160	Cuttings	2242	154	59	12	7	33	2474	232	9.37	1.54
34/7-20	NOR	92069-30	2190	2200	Cuttings	9	1	0	0	0	5	10	2	15.31	0.50
34/7-20	NOR	92069-31	2230	2240	Cuttings	6083	661	220	43	25	50	7032	949	13.50	1.72
34/7-20	NOR	92069-32	2270	2280	Cuttings	206	45	38	11	9	44	309	103	33.43	1.27
34/7-20	NOR	92069-33	2310	2320	Cuttings	5212	462	156	31	18	33	5879	667	11.35	1.73
34/7-20	NOR	92069-34	2350	2360	Cuttings	2796	1241	934	174	155	415	5300	2504	47.24	1.12
34/7-20	NOR	92069-35	2390	2400	Cuttings	893	62	16	4	2	9	976	84	8.56	1.71
34/7-20	NOR	92069-36	2410	2420	Cuttings	3523	913	431	43	44	46	4954	1431	28.88	0.98
34/7-20	NOR	92069-37	2430	2440	Cuttings	6291	1780	914	92	102	63	9180	2889	31.47	0.89
34/7-20	NOR	92069-38	2450	2460	Cuttings	3191	1017	784	80	106	46	5178	1987	38.38	0.75
34/7-20	NOR	92069-39	2470	2480	Cuttings	104	30	16	3	3	2	155	51	33.15	1.00
34/7-20	NOR	92069-40	2490	2500	Cuttings	1120	383	405	51	91	34	2050	930	45.38	0.57
34/7-20	NOR	92069-41	2510	2520	Cuttings	91	43	75	14	25	33	249	158	63.41	0.56
34/7-20	NOR	92069-42	2530	2540	Cuttings	530	155	171	20	38	42	914	384	42.00	0.52
34/7-20	NOR	92069-43	2550	2560	Cuttings	2185	913	888	96	185	93	4268	2083	48.80	0.52
34/7-20	NOR	92069-44	2570	2580	Cuttings	2003	434	817	155	337	295	3746	1744	46.54	0.46
34/7-20	NOR	92069-45	2589	2598	Cuttings	713	1138	1735	248	438	222	4272	3559	83.32	0.57
34/7-20	NOR	92069-46	2607	2616	Cuttings	1381	1084	1410	199	426	308	4501	3120	69.31	0.47
34/7-20	NOR	92069-47	2631	2640	Cuttings	12392	3895	2751	299	574	374	19911	7519	37.77	0.52
34/7-20	NOR	92069-48	2649	2658	Cuttings	2269	722	457	59	104	50	3611	1341	37.15	0.57
34/7-20	NOR	92069-49	2667	2676	Cuttings	949	326	411	65	143	173	1893	944	49.89	0.45
34/7-20	NOR	92069-50	2685	2694	Cuttings	4067	1073	1071	180	398	444	6790	2723	40.10	0.45
34/7-20	NOR	92069-51	2703	2712	Cuttings	1414	812	979	164	373	447	3741	2327	62.20	0.44
34/7-20	NOR	92069-52	2721	2730	Cuttings	4718	1901	1567	173	342	292	8701	3983	45.78	0.50
34/7-20	NOR	92069-53	2739	2748	Cuttings	704	274	388	71	170	266	1606	902	56.18	0.42
34/7-20	NOR	92069-54	2757	2766	Cuttings	2443	1243	1270	140	344	376	5440	2997	55.09	0.41

Headspace gas data Well : 34/7-20

Well Name	Nation	Sample name	Upper Depth	Lower Depth	Sample Type	C1 uL/kg	C2 uL/kg	C3 uL/kg	iC4 uL/kg	nC4 uL/kg	C5+ uL/kg	SUM C1-C4 uL/kg	SUM C2-C4 uL/kg	Wetness %	iC4/nC4
34/7-20	NOR	92069-55	2775	2784	Cuttings	1484	592	430	49	93	62	2646	1163	43.94	0.52
34/7-20	NOR	92069-56	2784	2793	Cuttings	139	109	94	12	12	38	365	226	62.02	1.00
34/7-20	NOR	92069-57	2802	2811	Cuttings	10524	3973	2833	302	570	383	18202	7678	42.18	0.53
34/7-20	NOR	92069-58	2820	2829	Cuttings	11120	3188	1745	175	272	107	16499	5379	32.60	0.64
34/7-20	NOR	92069-59	2840	2849	Cuttings	8669	2774	1629	163	235	94	13469	4800	35.64	0.69
34/7-20	NOR	92069-60	2856	2865	Cuttings	1526	518	378	44	67	46	2533	1007	39.77	0.66
34/7-20	NOR	92069-61	2874	2883	Cuttings	11433	2776	1508	175	215	148	16108	4675	29.02	0.82
34/7-20	NOR	92069-62	2892	2901	Cuttings	5504	1613	1093	149	195	203	8553	3050	35.65	0.76
34/7-20	NOR	92069-63	2910	2919	Cuttings	4325	1074	866	141	176	198	6582	2257	34.29	0.80
34/7-20	NOR	92069-64	2928	2937	Cuttings	5612	1823	1296	191	206	203	9128	3516	38.52	0.93
34/7-20	NOR	92069-65	2946	2955	Cuttings	11202	2787	2035	352	429	633	16805	5603	33.34	0.82
34/7-20	NOR	92069-66	2964	2973	Cuttings	4881	1667	1021	170	208	282	7947	3066	38.58	0.82
34/7-20	NOR	92069-67	2982	2991	Cuttings	1855	467	346	60	73	103	2801	946	33.77	0.82
34/7-20	NOR	92069-68	3000	3009	Cuttings	4309	1087	558	103	107	131	6164	1854	30.09	0.96
34/7-20	NOR	92069-69	3018	3027	Cuttings	5171	923	534	101	107	145	6836	1665	24.36	0.94
34/7-20	NOR	92069-70	3036	3045	Cuttings	3545	559	283	55	51	58	4492	947	21.08	1.08
34/7-20	NOR	92069-71	3054	3063	Cuttings	336	116	105	26	26	71	609	273	44.78	1.00
34/7-20	NOR	92069-72	3072	3081	Cuttings	9087	986	634	126	144	354	10978	1891	17.22	0.87
34/7-20	NOR	92069-73	3090	3099	Cuttings	53	9	9	3	6	38	79	26	32.61	0.50
34/7-20	NOR	92069-74	3108	3117	Cuttings	29	4	4	3	3	44	43	14	33.02	0.87
34/7-20	NOR	92069-75	3126	3135	Cuttings	865	32	20	4	8	104	929	64	6.87	0.54
34/7-20	NOR	92069-76	3144	3153	Cuttings	340	15	6	2	4	56	368	28	7.57	0.50
34/7-20	NOR	92069-77	3153	3162	Cuttings	67	18	11	0	7	134	103	36	35.15	0.00

Occluded gas data Well : 34/7-20

Well Name	Nation	Sample name	Upper Depth	Lower Depth	Sample Type	C1 uL/Kg	C2 uL/Kg	C3 uL/Kg	iC4 uL/Kg	nC4 uL/Kg	C5+ uL/Kg	SUM C1-C4 uL/Kg	SUM C2-C4 uL/Kg	Wetness %	iC4/nC4
34/7-20	NOR	92069-1	1030	1040	Cuttings	391	15	8	1	3	108	418	27	6.51	0.42
34/7-20	NOR	92069-2	1070	1080	Cuttings	254	18	10	1	5	49	288	34	11.67	0.23
34/7-20	NOR	92069-3	1110	1120	Cuttings	187	18	11	0	4	28	219	33	14.98	0.10
34/7-20	NOR	92069-4	1150	1160	Cuttings	134	12	7	0	2	37	154	20	13.24	0.00
34/7-20	NOR	92069-5	1190	1200	Cuttings	2585	79	43	0	21	276	2728	143	5.25	0.00
34/7-20	NOR	92069-6	1230	1240	Cuttings	116	10	4	0	2	48	132	16	12.10	0.00
34/7-20	NOR	92069-7	1270	1280	Cuttings	78	38	24	0	12	181	151	74	48.56	0.00
34/7-20	NOR	92069-8	1310	1320	Cuttings	41	12	7	1	3	60	64	23	35.48	0.25
34/7-20	NOR	92069-9	1350	1360	Cuttings	40	13	8	0	4	108	65	25	38.27	0.00
34/7-20	NOR	92069-10	1390	1400	Cuttings	6	4	1	0	0	31	11	5	44.44	
34/7-20	NOR	92069-11	1430	1440	Cuttings	34	12	7	0	3	59	56	22	38.82	0.00
34/7-20	NOR	92069-12	1470	1480	Cuttings	36	10	4	0	5	213	55	19	34.19	0.00
34/7-20	NOR	92069-13	1510	1520	Cuttings	46	13	6	0	3	246	69	23	32.93	0.00
34/7-20	NOR	92069-14	1550	1560	Cuttings	39	9	6	0	2	85	57	17	30.71	0.00
34/7-20	NOR	92069-15	1590	1600	Cuttings	54	17	8	0	5	250	84	30	35.36	0.00
34/7-20	NOR	92069-16	1630	1640	Cuttings	43	10	7	1	4	191	66	23	34.76	0.30
34/7-20	NOR	92069-17	1670	1680	Cuttings	29	7	3	0	2	209	41	12	29.63	0.00
34/7-20	NOR	92069-18	1710	1720	Cuttings	38	4	2	0	1	273	44	6	14.29	0.00
34/7-20	NOR	92069-19	1750	1760	Cuttings	206	83	43	5	17	487	354	148	41.86	0.31
34/7-20	NOR	92069-20	1790	1800	Cuttings	50	9	5	0	2	99	65	15	23.39	0.00
34/7-20	NOR	92069-21	1830	1840	Cuttings	128	52	29	1	11	161	221	93	42.15	0.10
34/7-20	NOR	92069-22	1870	1880	Cuttings	31	3	2	1	1	120	38	7	18.63	0.67
34/7-20	NOR	92069-23	1910	1920	Cuttings	40	3	2	0	0	86	45	5	10.94	
34/7-20	NOR	92069-24	1950	1960	Cuttings	34	2	3	0	2	65	41	7	17.76	0.00
34/7-20	NOR	92069-25	1990	2000	Cuttings	41	6	7	6	5	156	64	23	35.88	1.25
34/7-20	NOR	92069-26	2030	2040	Cuttings	33	4	5	4	4	149	51	17	34.51	1.00
34/7-20	NOR	92069-27	2070	2080	Cuttings	44	11	8	8	7	129	79	34	43.41	1.18

Occluded gas data Well : 34/7-20

Well Name	Nation	Sample name	Upper Depth	Lower Depth	Sample Type	C1 uL/Kg	C2 uL/Kg	C3 uL/Kg	iC4 uL/Kg	nC4 uL/Kg	C5+ uL/Kg	SUM C1-C4 uL/Kg	SUM C2-C4 uL/Kg	Wetness %	iC4/nC4
34/7-20	NOR	92069-28	2110	2120	Cuttings	43	8	9	5	7	133	71	28	39.02	0.73
34/7-20	NOR	92069-29	2150	2160	Cuttings	30	4	5	3	4	60	45	15	33.63	0.89
34/7-20	NOR	92069-30	2190	2200	Cuttings	80	14	7	2	4	86	107	27	25.25	0.50
34/7-20	NOR	92069-31	2230	2240	Cuttings	39	3	19	12	15	197	87	48	55.71	0.83
34/7-20	NOR	92069-32	2270	2280	Cuttings	77	11	32	22	25	228	167	90	54.01	0.90
34/7-20	NOR	92069-33	2310	2320	Cuttings	31	8	60	29	34	298	161	130	80.70	0.84
34/7-20	NOR	92069-34	2350	2360	Cuttings	292	49	137	59	85	624	621	330	53.05	0.69
34/7-20	NOR	92069-35	2390	2400	Cuttings	75	15	139	43	72	340	345	269	78.11	0.60
34/7-20	NOR	92069-36	2410	2420	Cuttings	110	25	235	68	125	507	563	453	80.48	0.55
34/7-20	NOR	92069-37	2430	2440	Cuttings	81	36	310	82	157	634	667	586	87.88	0.52
34/7-20	NOR	92069-38	2450	2460	Cuttings	153	40	202	70	149	445	615	461	75.04	0.47
34/7-20	NOR	92069-39	2470	2480	Cuttings	53	11	130	45	104	224	343	290	84.52	0.43
34/7-20	NOR	92069-40	2490	2500	Cuttings	59	16	124	40	107	266	345	286	83.00	0.37
34/7-20	NOR	92069-41	2510	2520	Cuttings	66	12	180	83	225	510	567	501	88.30	0.37
34/7-20	NOR	92069-42	2530	2540	Cuttings	36	17	195	76	205	483	528	492	93.27	0.37
34/7-20	NOR	92069-43	2550	2560	Cuttings	43	12	223	99	295	867	671	628	93.62	0.33
34/7-20	NOR	92069-44	2570	2580	Cuttings	115	26	27	28	114	832	310	195	62.92	0.25
34/7-20	NOR	92069-45	2589	2598	Cuttings	56	147	2573	767	1974	4471	5516	5460	98.99	0.39
34/7-20	NOR	92069-46	2607	2616	Cuttings	98	55	488	186	623	2288	1450	1353	93.26	0.30
34/7-20	NOR	92069-47	2631	2640	Cuttings	77	204	2167	612	1655	4123	4715	4638	98.37	0.37
34/7-20	NOR	92069-48	2649	2658	Cuttings	98	350	2495	586	1542	3618	5070	4972	98.08	0.38
34/7-20	NOR	92069-49	2667	2676	Cuttings	168	28	233	111	307	1568	847	679	80.22	0.36
34/7-20	NOR	92069-50	2685	2694	Cuttings	233	20	70	37	88	546	448	215	47.99	0.42
34/7-20	NOR	92069-51	2703	2712	Cuttings	69	7	30	21	65	455	193	124	64.08	0.32
34/7-20	NOR	92069-52	2721	2730	Cuttings	123	27	400	202	612	2290	1364	1241	90.96	0.33
34/7-20	NOR	92069-53	2739	2748	Cuttings	71	7	7	10	34	438	128	57	44.65	0.30
34/7-20	NOR	92069-54	2757	2766	Cuttings	79	32	24	8	33	280	176	97	55.17	0.23

Occluded gas data Well : 34/7-20

Well Name	Nation	Sample name	Upper Depth	Lower Depth	Sample Type	C1 uL/Kg	C2 uL/Kg	C3 uL/Kg	iC4 uL/Kg	nC4 uL/Kg	C5+ uL/Kg	SUM C1-C4 uL/Kg	SUM C2-C4 uL/Kg	Wetness %	iC4/nC4
34/7-20	NOR	92069-55	2775	2784	Cuttings	112	25	200	117	429	1482	883	770	87.27	0.27
34/7-20	NOR	92069-56	2784	2793	Cuttings	89	856	4454	908	2482	4978	8789	8700	98.98	0.37
34/7-20	NOR	92069-57	2802	2811	Cuttings	83	302	2743	588	1584	2830	5301	5218	98.43	0.37
34/7-20	NOR	92069-58	2820	2829	Cuttings	70	42	935	262	683	1249	1991	1921	96.49	0.38
34/7-20	NOR	92069-59	2840	2849	Cuttings	52	27	739	211	549	1034	1578	1526	96.68	0.38
34/7-20	NOR	92069-60	2856	2865	Cuttings	98	142	945	280	577	1686	2043	1945	95.19	0.48
34/7-20	NOR	92069-61	2874	2883	Cuttings	117	51	1013	349	732	2065	2261	2145	94.83	0.48
34/7-20	NOR	92069-62	2892	2901	Cuttings	138	50	548	189	429	1564	1354	1216	89.78	0.44
34/7-20	NOR	92069-63	2910	2919	Cuttings	102	62	623	220	452	1759	1460	1358	92.99	0.49
34/7-20	NOR	92069-64	2928	2937	Cuttings	110	79	621	213	391	1503	1414	1304	92.19	0.54
34/7-20	NOR	92069-65	2946	2955	Cuttings	282	54	259	130	255	1290	980	699	71.27	0.51
34/7-20	NOR	92069-66	2964	2973	Cuttings	89	26	495	193	485	1645	1287	1198	93.08	0.40
34/7-20	NOR	92069-67	2982	2991	Cuttings	179	18	43	60	122	785	422	243	57.57	0.49
34/7-20	NOR	92069-68	3000	3009	Cuttings	127	129	758	307	467	1725	1789	1662	92.88	0.66
34/7-20	NOR	92069-69	3018	3027	Cuttings	103	53	578	296	445	1855	1475	1372	93.01	0.67
34/7-20	NOR	92069-70	3036	3045	Cuttings	205	40	41	49	80	472	416	210	50.60	0.62
34/7-20	NOR	92069-71	3054	3063	Cuttings	182	19	14	9	20	124	244	62	25.37	0.46
34/7-20	NOR	92069-72	3072	3081	Cuttings	188	18	12	7	18	147	242	55	22.52	0.38
34/7-20	NOR	92069-73	3090	3099	Cuttings	171	56	39	4	21	137	291	120	41.13	0.20
34/7-20	NOR	92069-74	3108	3117	Cuttings	133	23	11	7	3	41	176	43	24.67	2.13
34/7-20	NOR	92069-75	3126	3135	Cuttings	198	47	29	1	14	108	289	91	31.58	0.07
34/7-20	NOR	92069-76	3144	3153	Cuttings	231	78	48	3	25	125	384	153	39.91	0.11
34/7-20	NOR	92069-77	3153	3162	Cuttings	255	120	74	3	42	195	494	239	48.44	0.07

Combined Headspace & Occluded gas data Well : 34/7-20

Well Name	Nation	Sample name	Upper Depth	Lower Depth	Sample Type	C1 uL/Kg	C2 uL/Kg	C3 uL/Kg	iC4 uL/Kg	nC4 uL/Kg	C5+ uL/Kg	SUM C1-C4 uL/Kg	SUM C2-C4 uL/Kg	Wetness %	iC4/nC4
34/7-20	NOR	92069-1	1030	1040	Cuttings	485	15	8	1	3	122	512	27	5.32	0.42
34/7-20	NOR	92069-2	1070	1080	Cuttings	300	18	10	1	5	53	334	34	10.06	0.23
34/7-20	NOR	92069-3	1110	1120	Cuttings	328	18	11	0	4	98	360	33	9.12	0.10
34/7-20	NOR	92069-4	1150	1160	Cuttings	14490	27	11	0	2	67	14530	40	0.27	0.00
34/7-20	NOR	92069-5	1190	1200	Cuttings	4260	83	44	1	23	294	4411	151	3.43	0.03
34/7-20	NOR	92069-6	1230	1240	Cuttings	22950	59	31	0	2	351	23042	92	0.40	0.00
34/7-20	NOR	92069-7	1270	1280	Cuttings	2780	51	30	0	13	249	2874	94	3.28	0.03
34/7-20	NOR	92069-8	1310	1320	Cuttings	1478	14	9	2	5	87	1506	29	1.91	0.41
34/7-20	NOR	92069-9	1350	1360	Cuttings	3265	76	32	8	8	559	3388	123	3.64	1.02
34/7-20	NOR	92069-10	1390	1400	Cuttings	330	94	32	0	0	487	456	126	27.64	
34/7-20	NOR	92069-11	1430	1440	Cuttings	3443	42	21	0	3	537	3508	65	1.87	0.00
34/7-20	NOR	92069-12	1470	1480	Cuttings	1076	15	5	0	5	263	1101	25	2.31	0.00
34/7-20	NOR	92069-13	1510	1520	Cuttings	5478	59	19	2	7	597	5565	87	1.57	0.36
34/7-20	NOR	92069-14	1550	1560	Cuttings	56	9	6	0	2	104	74	17	23.65	0.00
34/7-20	NOR	92069-15	1590	1600	Cuttings	3009	112	45	8	5	1618	3178	170	5.34	1.76
34/7-20	NOR	92069-16	1630	1640	Cuttings	4720	40	7	1	4	215	4773	53	1.10	0.30
34/7-20	NOR	92069-17	1670	1680	Cuttings	5252	117	32	22	146	2066	5569	317	5.69	0.15
34/7-20	NOR	92069-18	1710	1720	Cuttings	5814	28	9	3	2	476	5856	42	0.72	1.64
34/7-20	NOR	92069-19	1750	1760	Cuttings	2662	112	43	5	17	584	2840	177	6.25	0.31
34/7-20	NOR	92069-20	1790	1800	Cuttings	139	9	5	0	2	167	154	15	9.84	0.00
34/7-20	NOR	92069-21	1830	1840	Cuttings	1216	79	34	5	13	235	1347	131	9.74	0.37
34/7-20	NOR	92069-22	1870	1880	Cuttings	2972	39	8	4	3	138	3026	54	1.79	1.18
34/7-20	NOR	92069-23	1910	1920	Cuttings	1059	21	6	2	1	105	1089	30	2.74	2.14
34/7-20	NOR	92069-24	1950	1960	Cuttings	35	2	3	1	2	67	44	9	19.43	0.34
34/7-20	NOR	92069-25	1990	2000	Cuttings	5538	216	56	21	14	185	5845	307	5.25	1.55
34/7-20	NOR	92069-26	2030	2040	Cuttings	3434	125	37	15	10	165	3621	187	5.17	1.45
34/7-20	NOR	92069-27	2070	2080	Cuttings	3317	205	70	25	17	169	3634	317	8.72	1.47

Combined Headspace & Occluded gas data Well : 34/7-20

Well Name	Nation	Sample name	Upper Depth	Lower Depth	Sample Type	C1 uL/Kg	C2 uL/Kg	C3 uL/Kg	iC4 uL/Kg	nC4 uL/Kg	C5+ uL/Kg	SUM C1-C4 uL/Kg	SUM C2-C4 uL/Kg	Wetness %	iC4/nC4
34/7-20	NOR	92069-28	2110	2120	Cuttings	1750	100	36	11	11	152	1908	159	8.31	1.07
34/7-20	NOR	92069-29	2150	2160	Cuttings	2272	158	63	15	11	93	2518	247	9.80	1.33
34/7-20	NOR	92069-30	2190	2200	Cuttings	89	14	7	2	5	91	117	29	24.40	0.50
34/7-20	NOR	92069-31	2230	2240	Cuttings	6121	664	239	55	40	247	7119	998	14.02	1.39
34/7-20	NOR	92069-32	2270	2280	Cuttings	282	56	70	34	34	271	476	193	40.65	1.00
34/7-20	NOR	92069-33	2310	2320	Cuttings	5243	470	216	60	52	331	6041	798	13.20	1.15
34/7-20	NOR	92069-34	2350	2360	Cuttings	3088	1290	1071	233	241	1038	5922	2834	47.85	0.97
34/7-20	NOR	92069-35	2390	2400	Cuttings	968	77	155	47	74	349	1321	353	26.72	0.63
34/7-20	NOR	92069-36	2410	2420	Cuttings	3633	939	666	111	168	554	5517	1884	34.15	0.66
34/7-20	NOR	92069-37	2430	2440	Cuttings	6372	1816	1224	174	260	697	9846	3474	35.29	0.67
34/7-20	NOR	92069-38	2450	2460	Cuttings	3344	1057	987	150	255	491	5793	2448	42.27	0.59
34/7-20	NOR	92069-39	2470	2480	Cuttings	157	41	145	48	107	226	498	342	68.54	0.45
34/7-20	NOR	92069-40	2490	2500	Cuttings	1178	400	529	91	197	300	2395	1217	50.80	0.46
34/7-20	NOR	92069-41	2510	2520	Cuttings	157	55	255	97	251	543	816	659	80.71	0.39
34/7-20	NOR	92069-42	2530	2540	Cuttings	566	172	366	96	243	525	1442	876	60.76	0.39
34/7-20	NOR	92069-43	2550	2560	Cuttings	2228	925	1111	194	480	960	4939	2711	54.89	0.40
34/7-20	NOR	92069-44	2570	2580	Cuttings	2118	460	844	184	451	1127	4056	1939	47.80	0.41
34/7-20	NOR	92069-45	2589	2598	Cuttings	768	1285	4308	1014	2412	4693	9788	9020	92.15	0.42
34/7-20	NOR	92069-46	2607	2616	Cuttings	1479	1140	1898	385	1050	2596	5951	4472	75.15	0.37
34/7-20	NOR	92069-47	2631	2640	Cuttings	12468	4099	4918	912	2229	4497	24626	12158	49.37	0.41
34/7-20	NOR	92069-48	2649	2658	Cuttings	2367	1072	2951	645	1646	3667	8680	6314	72.74	0.39
34/7-20	NOR	92069-49	2667	2676	Cuttings	1116	354	644	176	450	1741	2740	1624	59.27	0.39
34/7-20	NOR	92069-50	2685	2694	Cuttings	4301	1094	1142	217	486	990	7239	2938	40.59	0.45
34/7-20	NOR	92069-51	2703	2712	Cuttings	1483	819	1009	185	438	902	3934	2451	62.29	0.42
34/7-20	NOR	92069-52	2721	2730	Cuttings	4842	1928	1968	375	954	2582	10066	5224	51.90	0.39
34/7-20	NOR	92069-53	2739	2748	Cuttings	775	280	394	81	203	705	1734	960	55.33	0.40
34/7-20	NOR	92069-54	2757	2766	Cuttings	2522	1275	1294	148	377	655	5615	3094	55.10	0.39

Combined Headspace & Occluded gas data Well : 34/7-20

Well Name	Nation	Sample name	Upper Depth	Lower Depth	Sample Type	C1 uL/Kg	C2 uL/Kg	C3 uL/Kg	iC4 uL/Kg	nC4 uL/Kg	C5+ uL/Kg	SUM C1-C4 uL/Kg	SUM C2-C4 uL/Kg	Wetness %	iC4/nC4
34/7-20	NOR	92069-55	2775	2784	Cuttings	1596	617	629	166	521	1544	3529	1933	54.78	0.32
34/7-20	NOR	92069-56	2784	2793	Cuttings	228	965	4547	920	2494	5017	9154	8926	97.51	0.37
34/7-20	NOR	92069-57	2802	2811	Cuttings	10607	4276	5576	890	2154	3213	23503	12896	54.87	0.41
34/7-20	NOR	92069-58	2820	2829	Cuttings	11190	3229	2680	436	955	1356	18490	7300	39.48	0.46
34/7-20	NOR	92069-59	2840	2849	Cuttings	8721	2801	2368	374	784	1128	15047	6326	42.04	0.48
34/7-20	NOR	92069-60	2856	2865	Cuttings	1624	660	1324	324	644	1732	4576	2952	64.51	0.50
34/7-20	NOR	92069-61	2874	2883	Cuttings	11550	2827	2520	524	947	2213	18370	6820	37.12	0.55
34/7-20	NOR	92069-62	2892	2901	Cuttings	5642	1663	1641	338	624	1767	9908	4266	43.05	0.54
34/7-20	NOR	92069-63	2910	2919	Cuttings	4427	1136	1490	361	628	1956	8042	3615	44.95	0.58
34/7-20	NOR	92069-64	2928	2937	Cuttings	5723	1901	1918	403	597	1706	10542	4819	45.72	0.68
34/7-20	NOR	92069-65	2946	2955	Cuttings	11483	2841	2295	482	684	1923	17785	6302	35.43	0.70
34/7-20	NOR	92069-66	2964	2973	Cuttings	4970	1693	1516	363	693	1927	9234	4264	46.18	0.52
34/7-20	NOR	92069-67	2982	2991	Cuttings	2034	485	389	120	195	888	3222	1189	36.89	0.61
34/7-20	NOR	92069-68	3000	3009	Cuttings	4437	1216	1316	410	574	1856	7953	3516	44.21	0.71
34/7-20	NOR	92069-69	3018	3027	Cuttings	5274	976	1112	397	552	2000	8312	3038	36.55	0.72
34/7-20	NOR	92069-70	3036	3045	Cuttings	3751	599	323	104	131	530	4908	1157	23.58	0.80
34/7-20	NOR	92069-71	3054	3063	Cuttings	518	136	119	35	46	194	853	335	39.22	0.76
34/7-20	NOR	92069-72	3072	3081	Cuttings	9275	1004	646	133	162	501	11220	1945	17.34	0.82
34/7-20	NOR	92069-73	3090	3099	Cuttings	224	65	47	7	26	175	370	145	39.31	0.27
34/7-20	NOR	92069-74	3108	3117	Cuttings	161	27	15	9	6	86	219	58	26.30	1.49
34/7-20	NOR	92069-75	3126	3135	Cuttings	1063	79	49	5	22	211	1219	155	12.74	0.23
34/7-20	NOR	92069-76	3144	3153	Cuttings	571	93	54	5	30	181	752	181	24.09	0.16
34/7-20	NOR	92069-77	3153	3162	Cuttings	321	138	86	3	49	329	597	275	46.15	0.06

TOC & ROCK EVAL PYROLYSIS DATA

Well Name	Nation	Sample Name	Upper Depth	Lower Depth	Sample Type	Lith	S1 mg/g	S2 mg/g	S3 mg/g	TOC % Wt	PP mg/g	PI	HI	OI	Tmax deg C
34/7-20	NOR	92069-25	1990	2000	CUT	Clyst	0.06	0.37	1.03	0.76	0.43	0.14	49	136	422
34/7-20	NOR	92069-26	2030	2040	CUT	Clyst	0.12	0.51	1.70	0.79	0.63	0.19	65	215	420
34/7-20	NOR	92069-28	2110	2120	CUT	Clyst	0.07	0.20	0.89	0.69	0.27	0.26	29	129	418
34/7-20	NOR	92069-29	2150	2160	CUT	Clyst	0.11	0.16	1.30	0.66	0.27	0.41	24	197	413
34/7-20	NOR	92069-33	2310	2320	CUT	Clyst	0.06	0.56	0.53	0.92	0.62	0.10	61	58	427
34/7-20	NOR	92069-35	2390	2400	CUT	Clyst	0.07	0.97	0.73	1.05	1.04	0.07	92	70	428
34/7-20	NOR	92069-37	2430	2440	CUT	Clyst	0.12	1.16	1.17	1.07	1.28	0.09	108	109	427
34/7-20	NOR	92069-38	2450	2460	CUT	Clyst	0.06	0.32	1.18	0.84	0.38	0.16	38	140	423
34/7-20	NOR	92069-40	2490	2500	CUT	Clyst	0.14	0.39	2.08	0.98	0.53	0.26	40	212	417
34/7-20	NOR	92069-41	2510	2520	CUT	Clyst	0.10	0.30	1.97	0.79	0.40	0.25	38	249	421
34/7-20	NOR	92069-42	2530	2540	CUT	Clyst	0.06	0.27	1.04	0.86	0.33	0.18	31	121	422
34/7-20	NOR	92069-43	2550	2560	CUT	Clyst	0.07	0.23	1.20	0.86	0.30	0.23	27	140	423
34/7-20	NOR	92069-44	2570	2580	CUT	Clyst	0.06	0.06	2.24	0.35	0.12	0.50	17	640	436
34/7-20	NOR	92069-85	2582	2582	CCP	Sh	0.28	2.51	0.54	1.94	2.79	0.10	129	28	426
34/7-20	NOR	92069-94	2586	2586	CCP	Sh	0.32	6.70	0.15	2.91	7.02	0.05	230	5	430
34/7-20	NOR	92069-95	2590	2590	CCP	Sh	0.72	21.21	0.28	5.49	21.93	0.03	386	5	427
34/7-20	NOR	92069-87	2593	2593	CCP	Sh	0.21	4.41	0.27	2.25	4.62	0.05	196	12	427
34/7-20	NOR	92069-45	2589	2598	CUT	Clyst	0.22	4.14	1.76	1.94	4.36	0.05	213	91	427
34/7-20	NOR	92069-88	2600	2600	CCP	Sh	0.19	1.61	0.30	2.73	1.80	0.11	59	11	424
34/7-20	NOR	92069-89	2612.5	2612.5	CCP	Sh	0.26	1.67	0.30	2.52	1.93	0.13	66	12	427
34/7-20	NOR	92069-46	2607	2616	CUT	Clyst	0.35	2.28	1.71	2.82	2.63	0.13	81	61	427
34/7-20	NOR	92069-57	2802	2811	CUT	Clyst	0.16	2.18	1.60	1.65	2.34	0.07	132	97	437
34/7-20	NOR	92069-58	2820	2829	CUT	Clyst	0.18	1.47	1.64	1.48	1.65	0.11	99	111	430
34/7-20	NOR	92069-59	2840	2849	CUT	Clyst	0.19	1.59	1.32	1.37	1.78	0.11	116	96	429
34/7-20	NOR	92069-60	2856	2865	CUT	Clyst	0.39	2.76	2.53	1.38	3.15	0.12	200	183	428
34/7-20	NOR	92069-61	2874	2883	CUT	Clyst	0.22	3.59	1.26	1.61	3.81	0.06	223	78	430
34/7-20	NOR	92069-62	2892	2901	CUT	Clyst	0.28	3.63	1.89	1.65	3.91	0.07	220	115	429
34/7-20	NOR	92069-63	2910	2919	CUT	Clyst	0.20	2.30	1.37	1.35	2.50	0.08	170	101	431
34/7-20	NOR	92069-64	2928	2937	CUT	Clyst	0.21	2.71	1.54	1.51	2.92	0.07	179	102	432
34/7-20	NOR	92069-65	2946	2955	CUT	Clyst	0.20	1.28	3.06	1.00	1.48	0.14	128	306	430
34/7-20	NOR	92069-66	2964	2973	CUT	Clyst	0.08	0.29	3.21	0.70	0.37	0.22	41	459	404
34/7-20	NOR	92069-67	2982	2991	CUT	Clyst	0.10	0.51	2.35	0.87	0.61	0.16	59	270	428
34/7-20	NOR	92069-68	3000	3009	CUT	Clyst	0.17	2.03	1.41	1.59	2.20	0.08	128	89	433
34/7-20	NOR	92069-69	3018	3027	CUT	Clyst	0.29	2.63	2.00	0.84	2.92	0.10	313	238	433
34/7-20	NOR	92069-70	3036	3045	CUT	Clyst	0.16	0.70	2.01	0.98	0.86	0.19	71	205	425
34/7-20	NOR	92069-77	3153	3162	CUT	Clyst	0.03	0.01	1.53	0.24	0.04	0.75	4	638	438

COMPANY: SAGA WELL: 34/7-20 LOCATION: NORWAY

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
1160	Ctgs	CLYST, lt gy+ tr CHT		.27(50)							
1240	Ctgs	CLYST, lt gy+ tr CHT		.29(38)							
1320	Ctgs	CLYST, ol-gy+ mnr CLYST, lt gy+ mnr HAL		.33(51)							
1400	Ctgs	CLYST, ol-gy+ 10% CLYST, lt gy+ mnr HAL		.33(35) .44(5)R							
1520	Ctgs	CLYST, ol-gy+ mnr CLYST, lt gy+ mnr HAL		.39(55)							
1600	Ctgs	CLYST, ol-gy+ mnr LST, lt gy+ mnr HAL + mnr CHT		.39(44) .51(5)R							
1680	Ctgs	CLYST, ol-gy+ 20% CLYST, mod brn+ mnr LST, v lt gy		.49(27)R							
1800	Ctgs	CLYST, lt gy+ 10% CLYST, ol-gy+ mnr CLYST, mod brn+ mnr HAL		.59(10)R							
1860.0	Swc			*							
1880	Ctgs	CLYST, lt gy, calc+ mnr LST, v lt gy		.54(14)R							
2000.0	Swc	CLYST, med gy, calc + 10% CLYST, dk gy, calc+ tr HAL		.37(4) .75(3)R							
2280	Ctgs	CLYST, med gy+ mnr LST, lt gy+ tr CLYST mod red-brn, calc	3.5		30	40	30				
2400	Ctgs	CLYST, med gy+ 10% CLYST, med-dk gy+ 10% SST, v lt gy+ mnr CLYST, lt gy	3.5		30	40	30				
2585.0	Core	SH, ol-gy	3.5	.43(46)	5	50	45				
2600.0	Core	SH, ol-gy, mic	3.5	.47(52) .56(3)R	40	50	10				
2628.5	Core	SH, ol-gy, mic		.44(51)							
2643.0	Swc			.37(35)							
2700.0	Swc			.38(48)							
2793	Ctgs	CLYST, med gy+ 30% CLYST, ol-blk, calc + 10% SST, v lt gy	3.5	.45(51) .55(4)R	40	30	30				

MATURITY AND KEROGEN COMPOSITION DATA

COMPANY: SAGA WELL: 34/7-20 LOCATION: NORWAY

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
2901	Ctgs	CLYST, lt gy, calc+ 10% CLYST, gy-blk+ tr LST, v lt gy		.40(52)							
2955.0	Swc			.50(4) .94(15)R							
3009	Ctgs	CLYST, med-dk gy+ 20% CLYST, gy-blk+ mnr LST, lt gy		.50(53) .61(2)R							
3090.0	Swc			*							
3164.0	Swc			*							

MATURITY AND KEROGEN COMPOSITION DATA

COMPANY : SAGA
WELL : 34/7-20
LOCATION : NORWAY

HISTOGRAMS, DATA AND STATISTICS FOR VITRINITE REFLECTIVITY

SAMPLE DATA
DEPTH: 1160.0 M
CODE :
TYPE : CTGS
PROJECT : 92069
SAMPLE : 2K0418
BLOCK: BLOC KEROGEN

STATISTICS

POPN 1 - INDIGENOUS
MEAN VALUE : .27 %
STD DEVIATION : .04 %
NO. OF VALUES : 50
RANGE : .19 TO .35 %

.19	.23	.25	.27	.28	.30	.31	.35
.20	.23	.25	.27	.28	.30	.31	.38
.20	.23	.26	.27	.28	.30	.32	
.21	.24	.26	.27	.28	.31	.32	
.22	.24	.26	.28	.30	.31	.33	
.23	.24	.26	.28	.30	.31	.33	
.23	.24	.27	.28	.30	.31	.33	

SAMPLE DATA
DEPTH: 1320.0 M
CODE :
TYPE : CTGS
PROJECT : 92069
SAMPLE : 2K0422
BLOCK: BLOC KEROGEN

STATISTICS

POPN 1 - INDIGENOUS
MEAN VALUE : .33 %
STD DEVIATION : .05 %
NO. OF VALUES : 51
RANGE : .24 TO .43 %

.24	.28	.30	.31	.32	.35	.39	.42
.24	.28	.30	.31	.32	.35	.39	.43
.26	.28	.30	.31	.33	.36	.40	.52
.26	.28	.30	.32	.33	.36	.41	
.27	.28	.30	.32	.33	.37	.41	
.27	.29	.31	.32	.35	.38	.41	
.28	.29	.31	.32	.35	.38	.41	

SAMPLE DATA
DEPTH: 1240.0 M
CODE :
TYPE : CTGS
PROJECT : 92069
SAMPLE : 2K0420
BLOCK: BLOC KEROGEN

STATISTICS

POPN 1 - INDIGENOUS
MEAN VALUE : .29 %
STD DEVIATION : .04 %
NO. OF VALUES : 38
RANGE : .23 TO .38 %

.23	.25	.27	.28	.32	.37
.24	.26	.27	.28	.33	.37
.24	.26	.27	.29	.33	.38
.24	.26	.28	.29	.34	.42
.24	.26	.28	.29	.35	
.25	.27	.28	.30	.37	
.25	.27	.28	.32	.37	

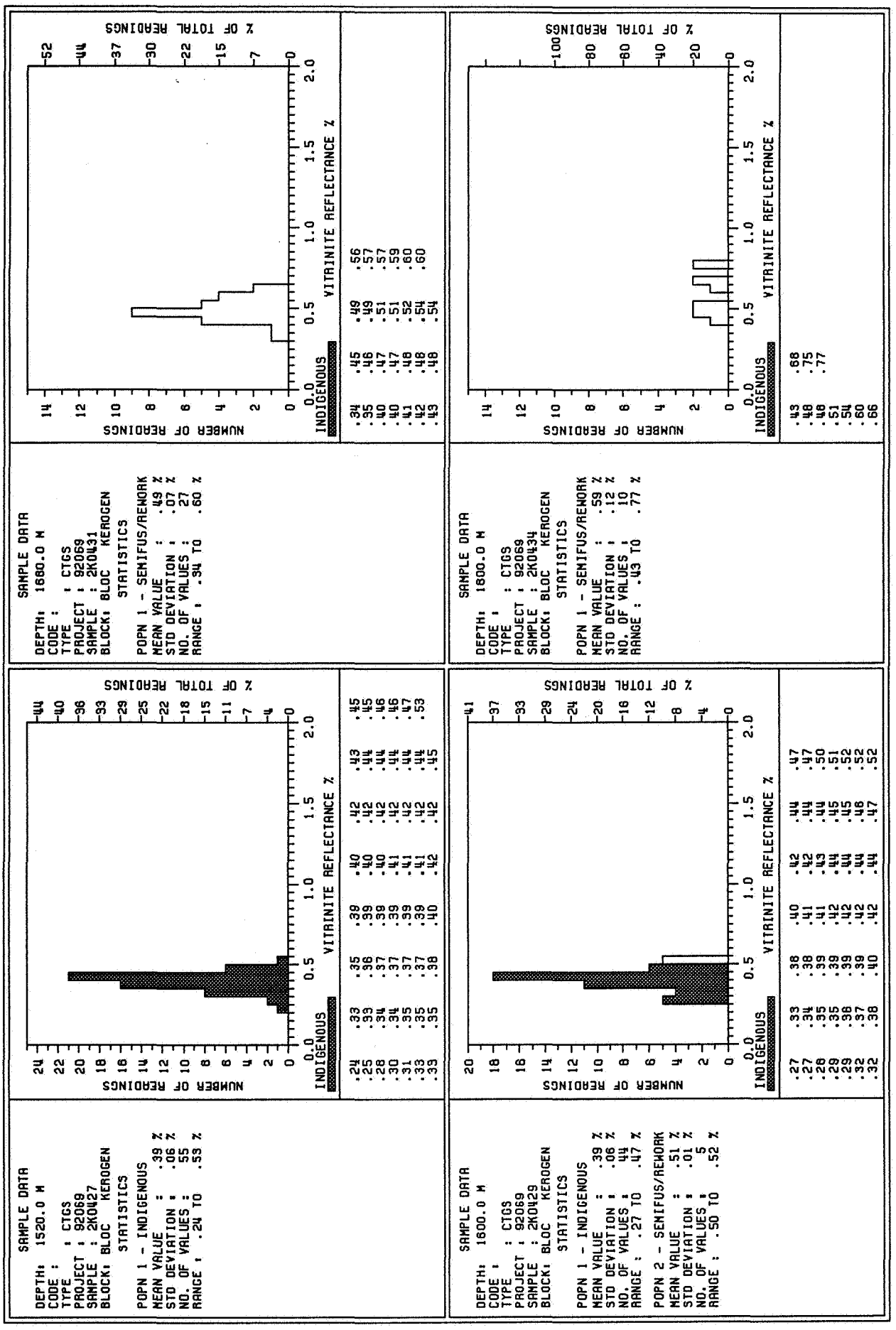
SAMPLE DATA
DEPTH: 1400.0 M
CODE :
TYPE : CTGS
PROJECT : 92069
SAMPLE : 2K0424
BLOCK: BLOC KEROGEN

STATISTICS

POPN 1 - INDIGENOUS
MEAN VALUE : .33 %
STD DEVIATION : .04 %
NO. OF VALUES : 35
RANGE : .24 TO .40 %

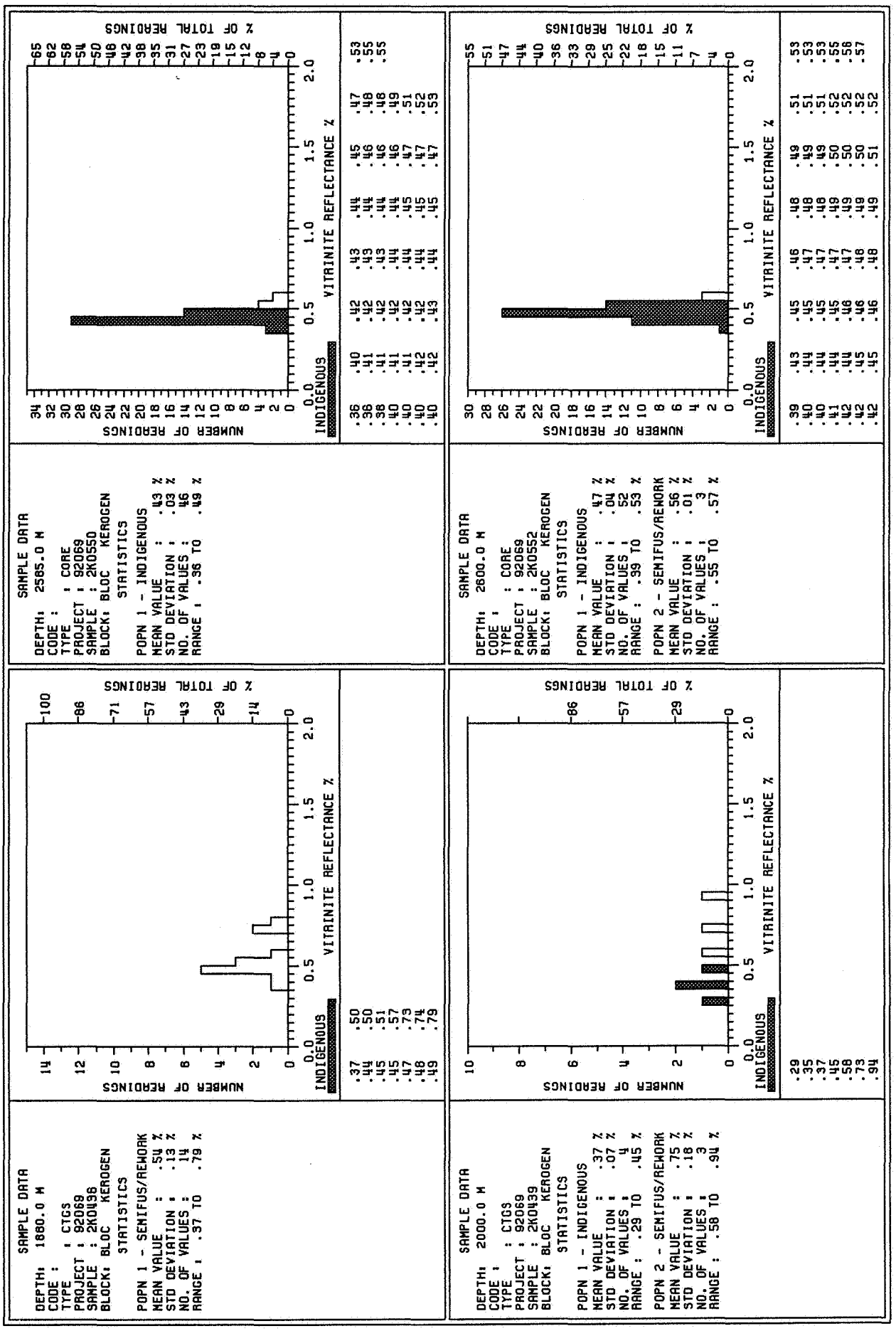
POPN 2 - SEMIFUS/REWORK
MEAN VALUE : .44 %
STD DEVIATION : .02 %
NO. OF VALUES : 5
RANGE : .42 TO .47 %

.24	.30	.32	.34	.36	.42
.28	.30	.32	.35	.37	.43
.28	.30	.32	.36	.37	.43
.29	.31	.32	.36	.39	.45
.30	.31	.33	.36	.39	.47
.30	.32	.33	.36	.40	
.30	.32	.34	.36	.40	



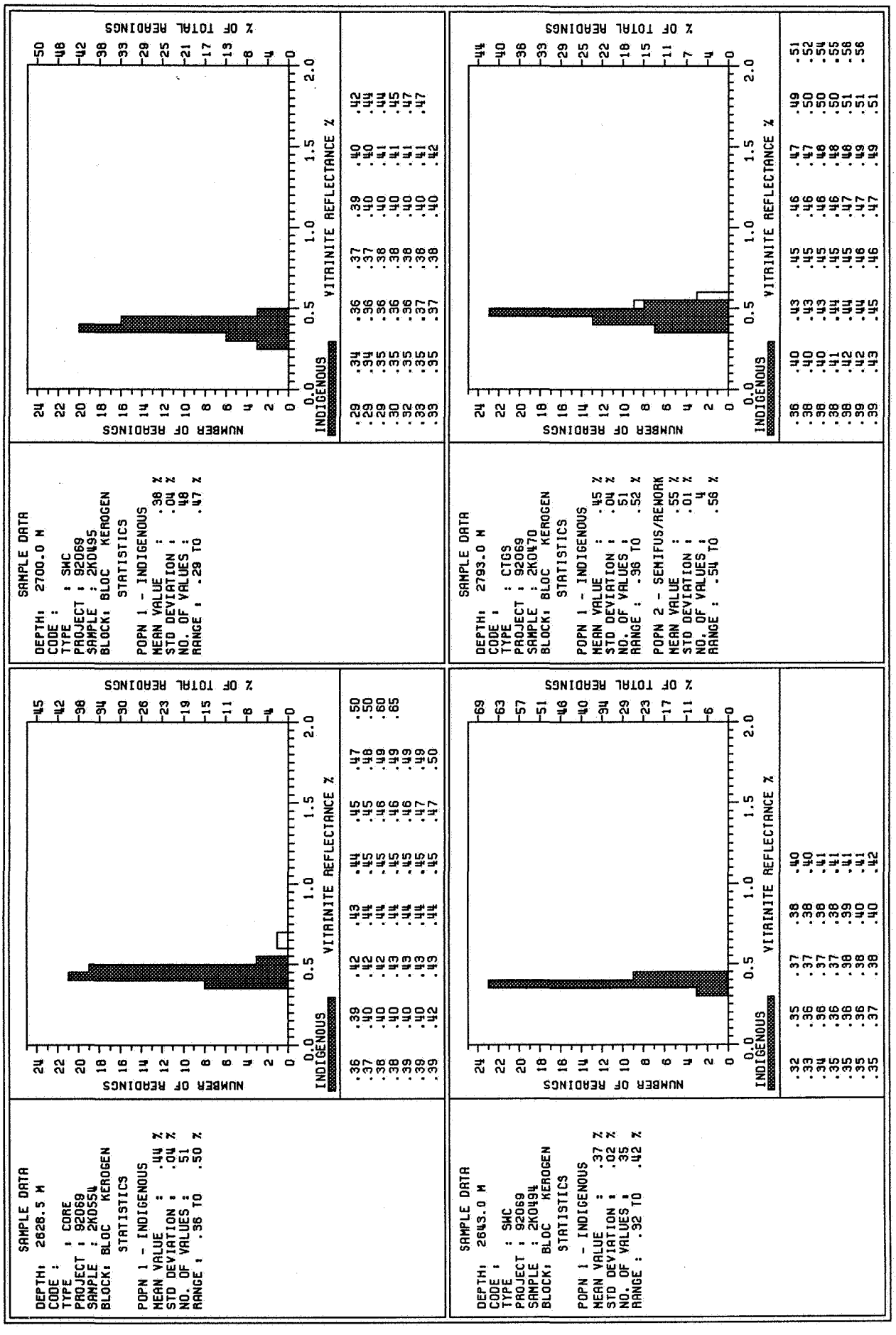
COMPANY : SAGA
WELL : 34/7-20
LOCATION : NORWAY

HISTOGRAMS, DATA AND STATISTICS
FOR VITRINITE REFLECTIVITY



COMPANY : SAGA
WELL : 34/7-20
LOCATION : NORWAY

HISTOGRAMS, DATA AND STATISTICS
FOR VITRINITE REFLECTIVITY



COMPANY : SAGA
WELL : 34/7-20
LOCATION : NORWAY

HISTOGRAMS, DATA AND STATISTICS
FOR VITRINITE REFLECTIVITY

COMPANY : SAGA
WELL :
LOCATION : NORWAY 34/7-20

HISTOGRAMS, DATA AND STATISTICS FOR VITRINITE REFLECTIVITY

SAMPLE DATA
DEPTH: 2901.0 M
CODE :
TYPE : CTGS
PROJECT : 92069
SAMPLE : 2K0478
BLOCK: BLOC KEROGEN

STATISTICS

POPN 1 - INDIGENOUS
MEAN VALUE : .40 %
STD DEVIATION : .03 %
NO. OF VALUES : 52
RANGE : .33 TO .48 %

.33	.37	.39	.40	.41	.42	.43	.46
.35	.37	.39	.40	.41	.42	.44	.48
.36	.37	.39	.40	.41	.42	.44	.46
.36	.38	.39	.40	.41	.42	.44	
.36	.38	.39	.40	.41	.43	.44	
.36	.38	.40	.41	.42	.43	.44	
.37	.38	.40	.41	.42	.43	.45	

SAMPLE DATA
DEPTH: 3009.0 M
CODE :
TYPE : CTGS
PROJECT : 92069
SAMPLE : 2K0482
BLOCK: BLOC KEROGEN

STATISTICS

POPN 1 - INDIGENOUS
MEAN VALUE : .50 %
STD DEVIATION : .05 %
NO. OF VALUES : 53
RANGE : .40 TO .57 %

POPN 2 - SEMIFUS/REWORK
MEAN VALUE : .81 %
STD DEVIATION : .01 %
NO. OF VALUES : 2
RANGE : .60 TO .82 %

.40	.42	.48	.51	.53	.54	.55	.57
.40	.43	.48	.51	.53	.54	.55	.57
.40	.43	.48	.51	.53	.54	.56	.57
.40	.45	.48	.52	.53	.55	.56	.57
.41	.46	.50	.52	.53	.55	.56	.60
.42	.47	.50	.52	.53	.55	.56	.61
.42	.47	.51	.53	.53	.55	.56	

SAMPLE DATA
DEPTH: 2955.0 M
CODE :
TYPE : SWC
PROJECT : 92069
SAMPLE : 2K0496
BLOCK: BLOC KEROGEN

STATISTICS

POPN 1 - INDIGENOUS
MEAN VALUE : .50 %
STD DEVIATION : .04 %
NO. OF VALUES : 4
RANGE : .46 TO .55 %

POPN 2 - SEMIFUS/REWORK
MEAN VALUE : .94 %
STD DEVIATION : .26 %
NO. OF VALUES : 15
RANGE : .84 TO 1.49 %

.46	.70	1.06
.47	.70	1.22
.53	.79	1.22
.55	.85	1.23
.64	.89	1.49
.64	.94	
.68	1.01	

EXTRACTION AND IATROSCAN FRACTIONATION DATA

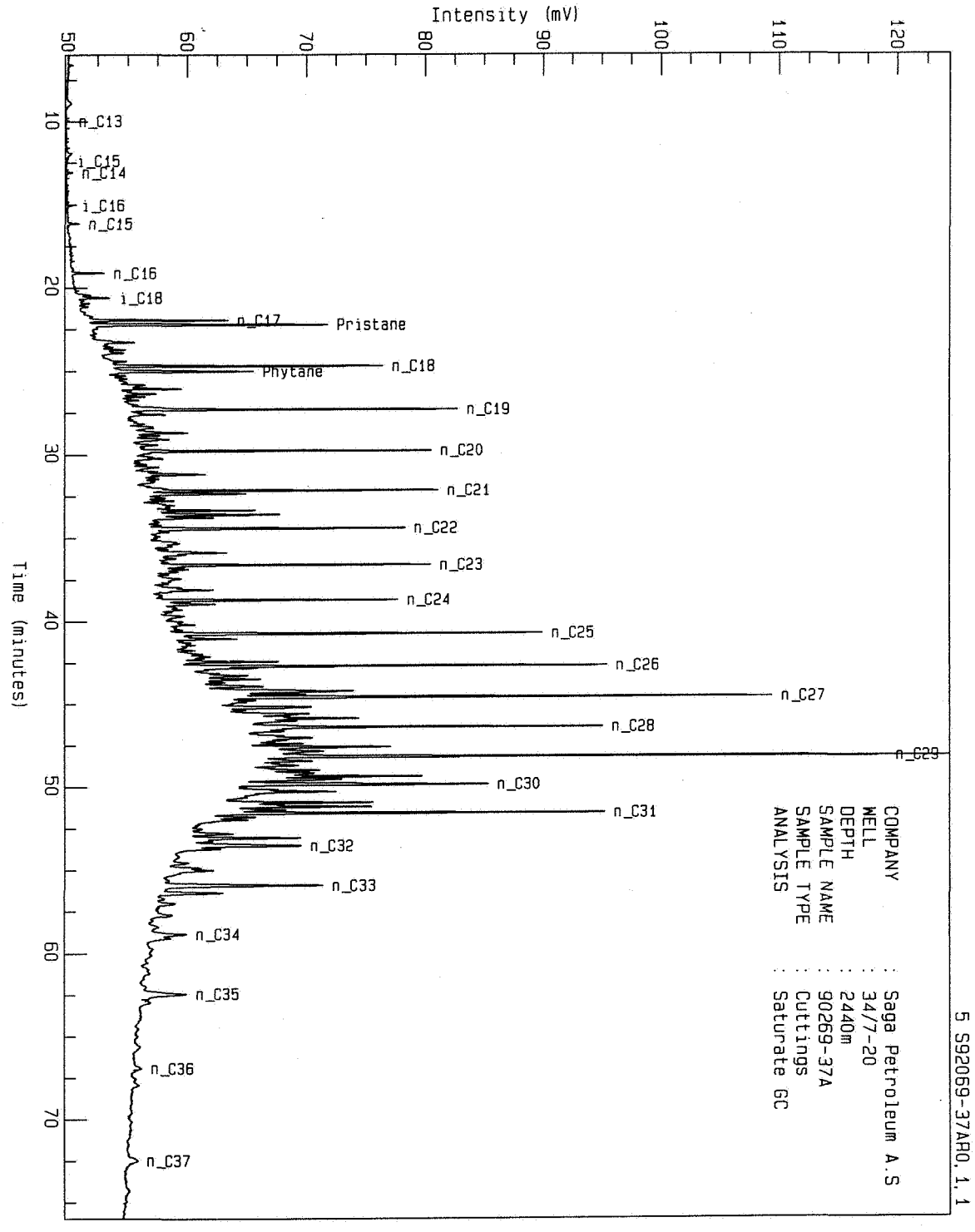
Well Name	Nation	Sample Name	Upper Depth	Lower Depth	Sample Type	Lith	Rock Wt (G)	EOM mg/g	SAT mg/g	ARO mg/g	Polars mg/g
34/7-20	NOR	92069-47A	2640	2640	Ctgs	Sst	2.0	0.20	0.02	0.05	0.13
34/7-20	NOR	92069-48B	2658	2658	Ctgs	Coal	0.6	12.83	1.32	2.27	9.24
34/7-20	NOR	92069-48A	2658	2658	Ctgs	Sst	2.0	0.55	0.03	0.08	0.44
34/7-20	NOR	92069-49A	2676	2676	Ctgs	Sst	2.0	0.30	0.03	0.03	0.24
34/7-20	NOR	92069-50A	2694	2694	Ctgs	Sst	2.0	0.50	0.06	0.13	0.32
34/7-20	NOR	92069-51A	2712	2712	Ctgs	Sst	2.0	0.45	0.03	0.08	0.33
34/7-20	NOR	92069-52A	2730	2730	Ctgs	Sst	2.0	0.35	0.03	0.05	0.27
34/7-20	NOR	92069-53A	2748	2748	Ctgs	Sst	2.0	0.30	0.03	0.04	0.23
34/7-20	NOR	92069-54A	2766	2766	Ctgs	Sst	2.0	0.35	0.05	0.06	0.24
34/7-20	NOR	92069-55A	2784	2784	Ctgs	Sst	2.0	0.35	0.02	0.04	0.30
34/7-20	NOR	92069-56A	2793	2793	Ctgs	Sst	1.5	0.40	0.04	0.04	0.32
34/7-20	NOR	92069-69A	3027	3027	Ctgs	Sst	2.0	0.90	0.05	0.13	0.72
34/7-20	NOR	92069-71A	3063	3063	Ctgs	Sst	2.0	0.10	0.01	0.02	0.07
34/7-20	NOR	92069-72A	3081	3081	Ctgs	Sst	2.0	0.15	0.05	0.03	0.07
34/7-20	NOR	92069-73A	3099	3099	Ctgs	Sst	2.0	0.10	0.01	0.02	0.06
34/7-20	NOR	92069-74A	3117	3117	Ctgs	Sst	2.0	0.20	0.03	0.06	0.11
34/7-20	NOR	92069-75A	3135	3135	Ctgs	Sst	2.0	0.20	0.03	0.09	0.08
34/7-20	NOR	92069-76A	3153	3153	Ctgs	Sst	2.0	0.10	0.01	0.04	0.04

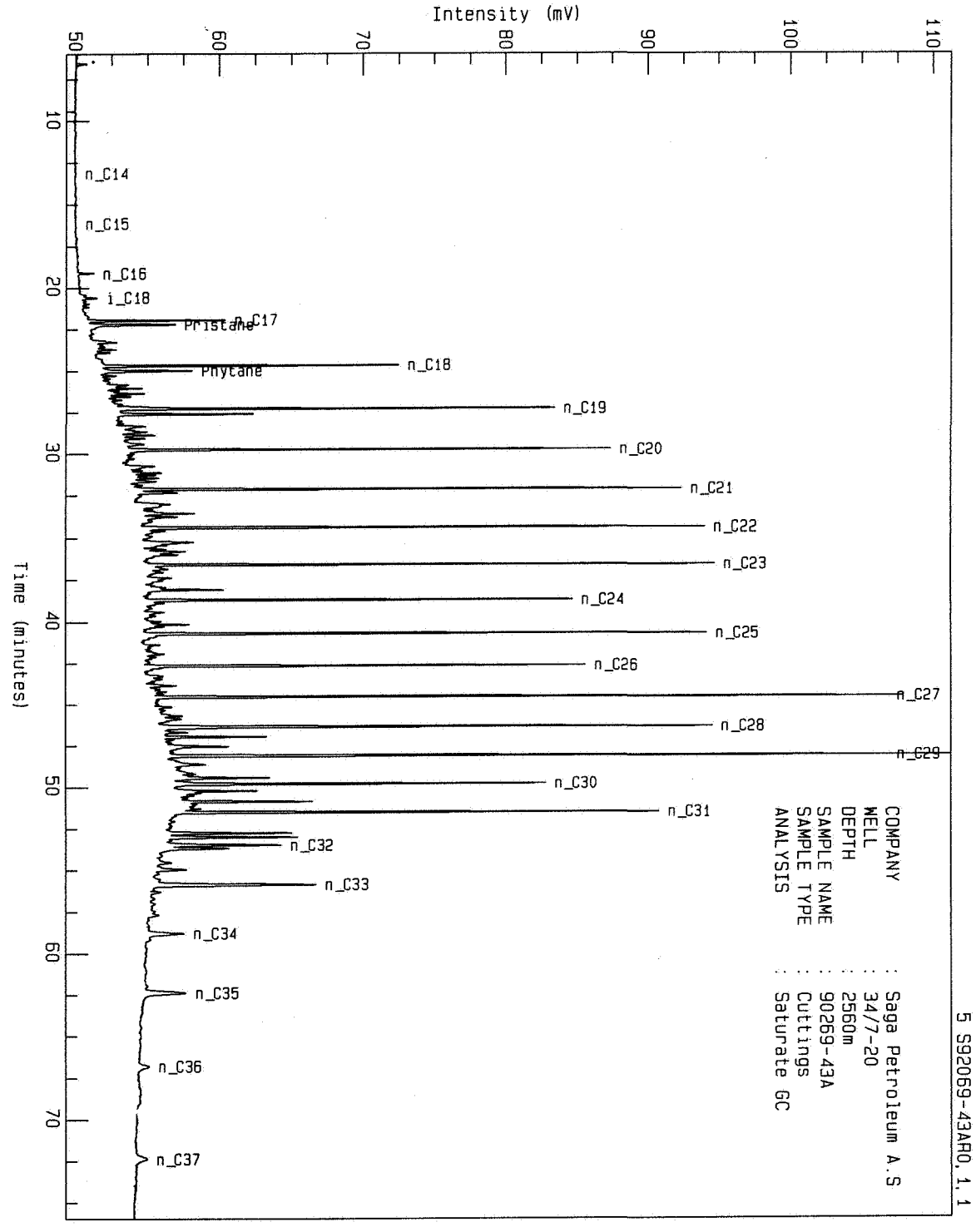
EXTRACTION AND LIQUID CHROMATOGRAPHY DATA

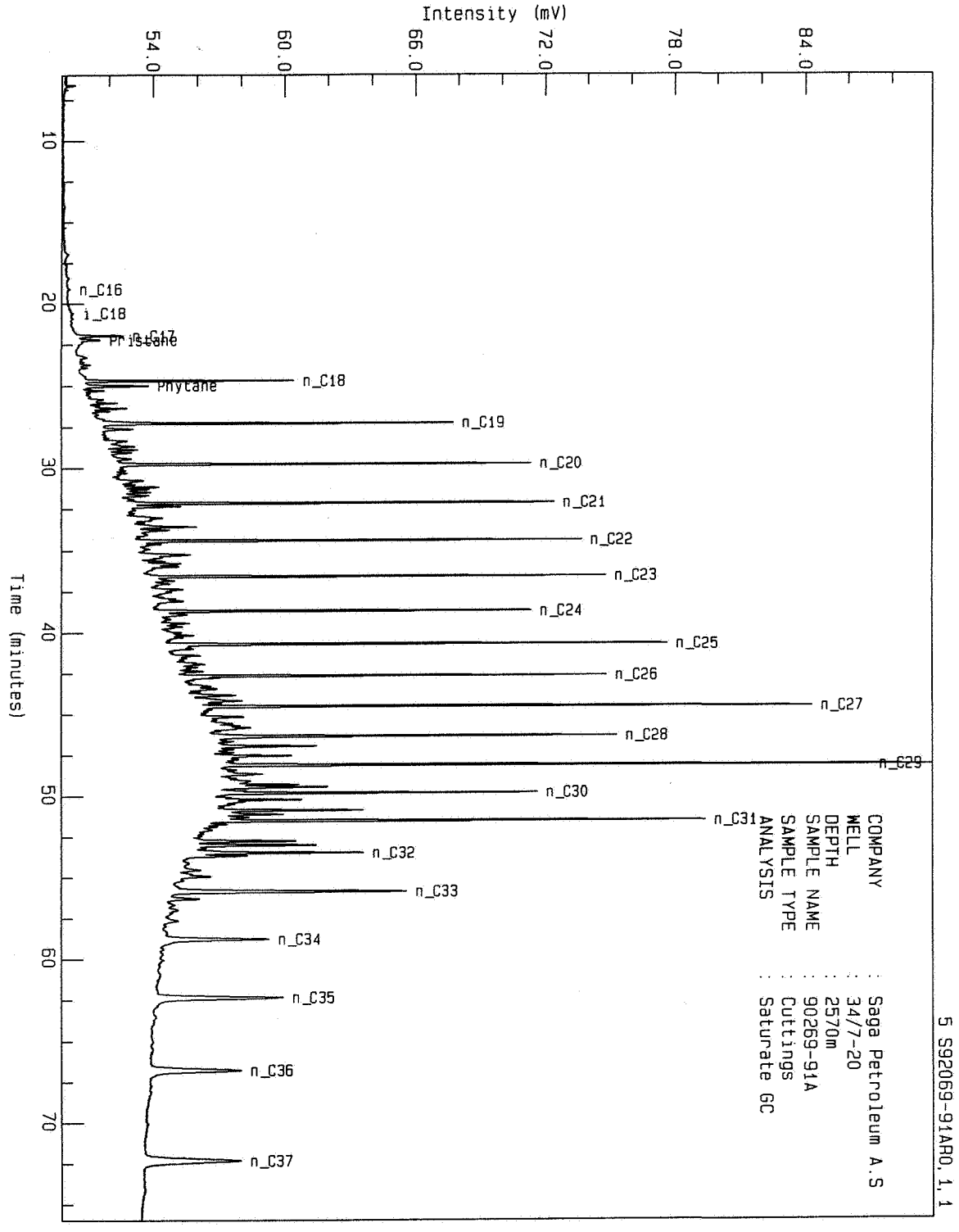
Well Name	Nation	Sample Name	Upper Depth	Lower Depth	Sample Type	Lith	Rock Wt (G)	EOM mg/g	SAT mg/g	ARO mg/g	NSO mg/g
34/7-20	NOR	92069-37A	2430	2440	CUT	Clyst	14.0	0.46	N.D.	N.D.	N.D.
34/7-20	NOR	92069-43A	2550	2560	CUT	Clyst	15.0	0.23	N.D.	N.D.	N.D.
34/7-20	NOR	92069-91A	2560	2570	CUT	Clyst	9.2	0.24	N.D.	N.D.	N.D.
34/7-20	NOR	92069-92	2578	2578	CCP	Sst	12.2	6.25	3.28	0.69	1.52
34/7-20	NOR	92069-93	2579	2579	CCP	Sst	15.0	20.57	11.13	4.12	4.95
34/7-20	NOR	92069-44A	2570	2580	CUT	Clyst	10.0	0.13			
34/7-20	NOR	92069-85	2582	2582	CCP	Sh	5.0	0.76	0.14	0.29	0.20
34/7-20	NOR	92069-94	2586	2586	CCP	Sh	8.0	0.33			
34/7-20	NOR	92069-95	2590	2590	CCP	Sh	8.5	2.54	0.30	0.60	0.52
34/7-20	NOR	92069-87	2593	2593	CCP	Sh	2.6	1.46	0.34	0.39	0.48
34/7-20	NOR	92069-80	2643	2643	SWC	Coal	4.0	81.15	8.80	12.02	33.17
34/7-20	NOR	92069-48A	2649	2658	CUT	Sst	14.0	0.37	0.04	0.06	0.11
34/7-20	NOR	92069-49A	2667	2676	CUT	Sst	12.7	0.11			
34/7-20	NOR	92069-52A	2721	2730	CUT	Sst	14.5	0.17	0.04	0.05	0.06
34/7-20	NOR	92069-57A	2802	2811	CUT	Clyst	14.5	0.51	0.02	0.02	0.34
34/7-20	NOR	92069-61A	2874	2883	CUT	Clyst	14.5	0.93	0.11	0.10	0.11
34/7-20	NOR	92069-69B	3018	3027	CUT	Clyst	15	1.23	0.15	0.17	0.28

SATURATE GC PEAK HEIGHT DATA

Well Name	Nation	Sample Name	Upper Depth	Lower Depth	Sample Type	Lith	nC17 uV	nC18 uV	nC22 uV	nC27 uV	nC32 uV	Nor pris uV	Pris uV	Phyt uV	CPI 1	CPI 2	Pris nC17	Phyt nC18	Pris Phyt
34/7-20	NOR	92069-37A	2430	2440	CUT	Clyst	11694	23185	21321	44821	8493	2761	19713	12148	1.75	2.33	1.69	0.52	1.62
34/7-20	NOR	92069-43A	2550	2560	CUT	Clyst	9512	20552	39559	52298	8287	1158	5962	6280	1.62	1.69	0.63	0.31	0.95
34/7-20	NOR	92069-91A	2560	2570	CUT	Clyst	2104	9525	20319	27914	8064	116	902	2936	1.64	1.97	0.43	0.31	0.31
34/7-20	NOR	92069-92	2578	2578	CCP	Sst	52303	67406	65483	40453	13842	26986	64276	56871	1.07	1.07	1.23	0.84	1.13
34/7-20	NOR	92069-93	2579	2579	CCP	Sst	83651	75973	44986	23884	8469	37405	76841	54104	1.04	1.07	0.92	0.71	1.42
34/7-20	NOR	92069-85	2582	2582	CCP	Sh	14402	30681	47336	126893	14252	1464	14653	11851	1.86	1.91	1.02	0.39	1.24
34/7-20	NOR	92069-95	2590	2590	CCP	Sh	167885	116390	74872	151374	32558	38909	241876	82008	1.90	2.04	1.44	0.70	2.95
34/7-20	NOR	92069-87	2593	2593	CCP	Sh	8083	18033	39187	96399	10415	754	7605	6969	1.72	1.77	0.94	0.39	1.09
34/7-20	NOR	92069-80	2643	2643	SWC	Coal	50708	44991	78830	154622	87306	21173	162809	30428	2.09	1.46	3.21	0.68	5.35
34/7-20	NOR	92069-48A	2649	2658	CUT	Sst	34543	60011	56228	101929	33412	5215	24289	22812	1.51	1.28	0.70	0.38	1.06
34/7-20	NOR	92069-52A	2721	2730	CUT	Sst	30728	57369	35148	49317	6820	2986	15297	19439	1.26	1.28	0.50	0.34	0.79
34/7-20	NOR	92069-57A	2802	2811	CUT	Clyst	79258	121424	188883	270381	45594	9490	65705	31142	1.75	1.83	0.83	0.26	2.11
34/7-20	NOR	92069-61A	2874	2883	CUT	Clyst	44701	71088	111043	163388	30224	9072	85686	43771	1.95	2.07	1.92	0.62	1.96
34/7-20	NOR	92069-69B	3018	3027	CUT	Clyst	27722	62391	133468	247799	65277	4130	33439	16071	1.85	1.64	1.21	0.26	2.08


Intensity (mV)
50
60
70
80
90
100
110
120
Time (minutes)
10
20
30
40
50
60
70
n_C13
i_C15
n_C14
i_C16
n_C15
n_C16
i_C18
n_C17
Pristane
Phytane
n_C18
n_C19
n_C20
n_C21
n_C22
n_C23
n_C24
n_C25
n_C26
n_C27
n_C28
n_C29
n_C30
n_C31
n_C32
n_C33
n_C34
n_C35
n_C36
n_C37
COMPANY : Saga Petroleum A.S
WELL : 34/7-20
DEPTH : 2440m
SAMPLE NAME : 90269-37A
SAMPLE TYPE : Cuttings
ANALYSIS : Saturate GC
5 S92069-37ARO,1,1


Intensity (mV)
50
60
70
80
90
100
110
Time (minutes)
10
20
30
40
50
60
70
n_C14
n_C15
n_C16
i_C18
Pristane
n_C17
Phytane
n_C18
n_C19
n_C20
n_C21
n_C22
n_C23
n_C24
n_C25
n_C26
n_C27
n_C28
n_C29
n_C30
n_C31
n_C32
n_C33
n_C34
n_C35
n_C36
n_C37
COMPANY : Saga Petroleum A.S
WELL : 34/7-20
DEPTH : 2560m
SAMPLE NAME : 90269-43A
SAMPLE TYPE : Cuttings
ANALYSIS : Saturate GC
5 S92069-43ARO, 1, 1


Intensity (mV)
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60.0
66.0
72.0
78.0
84.0
Time (minutes)
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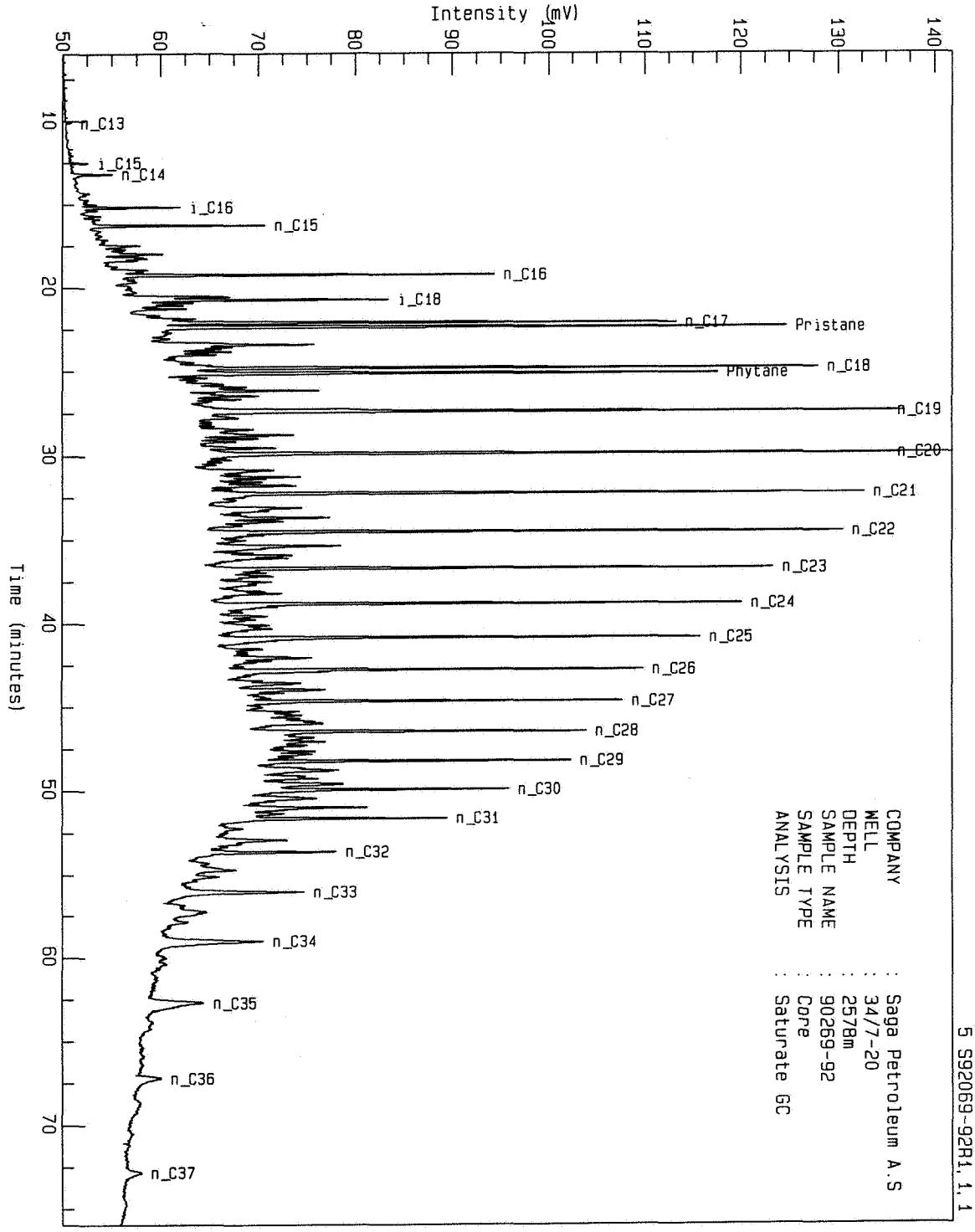
20
30
40
50
60
70
n_C16
i_C18
Pristane
n_C17
Phytane
n_C18
n_C19
n_C20
n_C21
n_C22
n_C23
n_C24
n_C25
n_C26
n_C27
n_C28
n_C29
n_C30
n_C31
n_C32
n_C33
n_C34
n_C35
n_C36
n_C37
COMPANY : Saga Petroleum A.S
WELL : 34/7-20
DEPTH : 2570m
SAMPLE NAME : 90269-91A
SAMPLE TYPE : Cuttings
ANALYSIS : Saturate GC
5 S92069-91AR0.1.1


Intensity (mV)
50
60
70
80
90
100
110
120
130
140
Time (minutes)
10
20
30
40
50
60
70
n_C13
i_C15
n_C14
i_C16
n_C15
n_C16
i_C18
n_C17
Pristane
Phytane
n_C18
n_C19
n_C20
n_C21
n_C22
n_C23
n_C24
n_C25
n_C26
n_C27
n_C28
n_C29
n_C30
n_C31
n_C32
n_C33
n_C34
n_C35
n_C36
n_C37
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WELL 34/7-20
DEPTH 2578m
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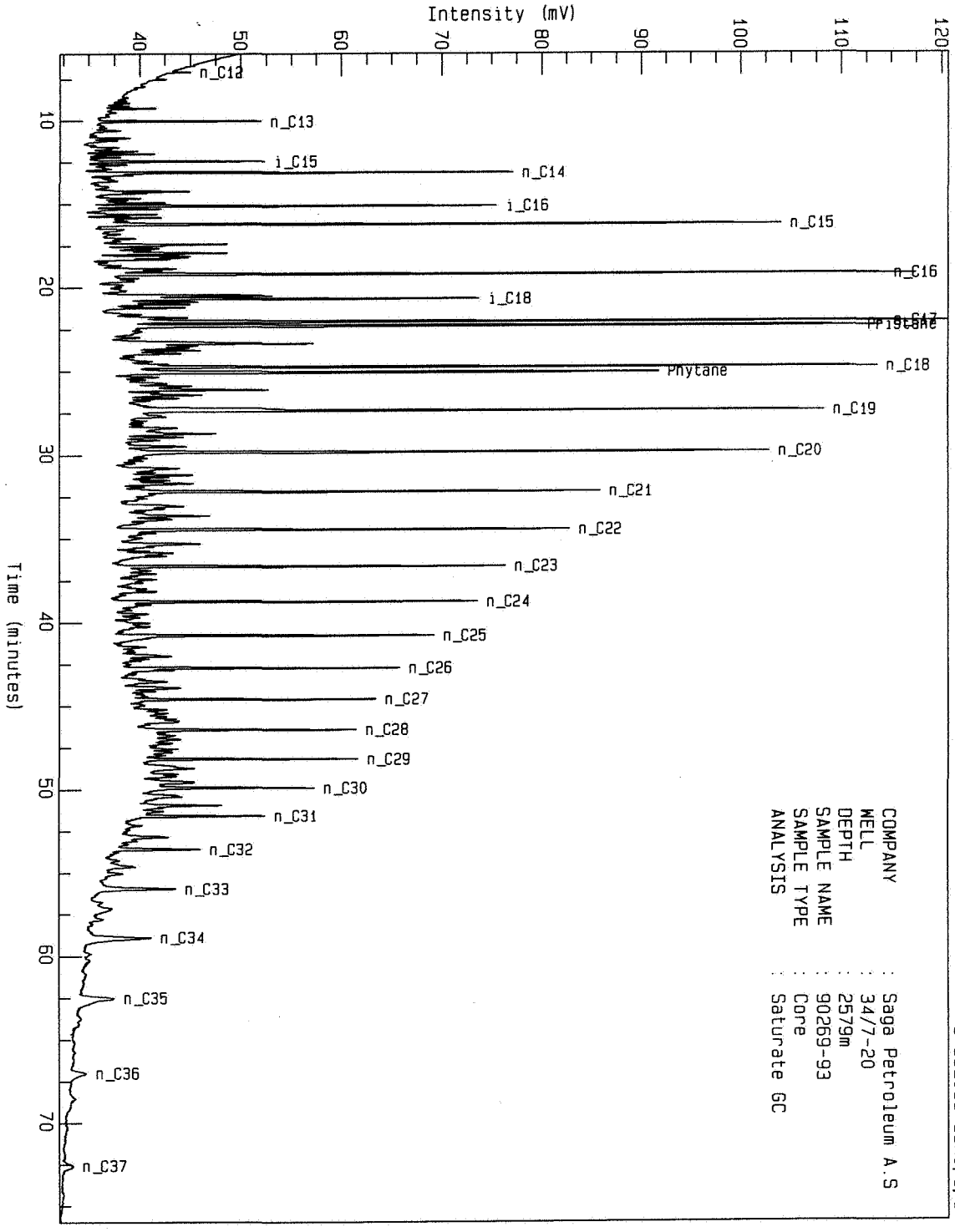
SAMPLE TYPE . . . . . Core
ANALYSIS . . . . . Saturate GC
5 S92069-92R1, 1, 1


Intensity (mV)
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50
60
70
80
90
100
110
120
Time (minutes)
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20
30
40
50
60
70
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n_C13
i_C15
n_C14
i_C16
n_C15
n_C16
i_C18
n_C17
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n_C20
n_C21
n_C22
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n_C24
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n_C26
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n_C30
n_C31
n_C32
n_C33
n_C34
n_C35
n_C36
n_C37
COMPANY . . . . . Saga Petroleum A.S
WELL 34/7-20
DEPTH 2579m
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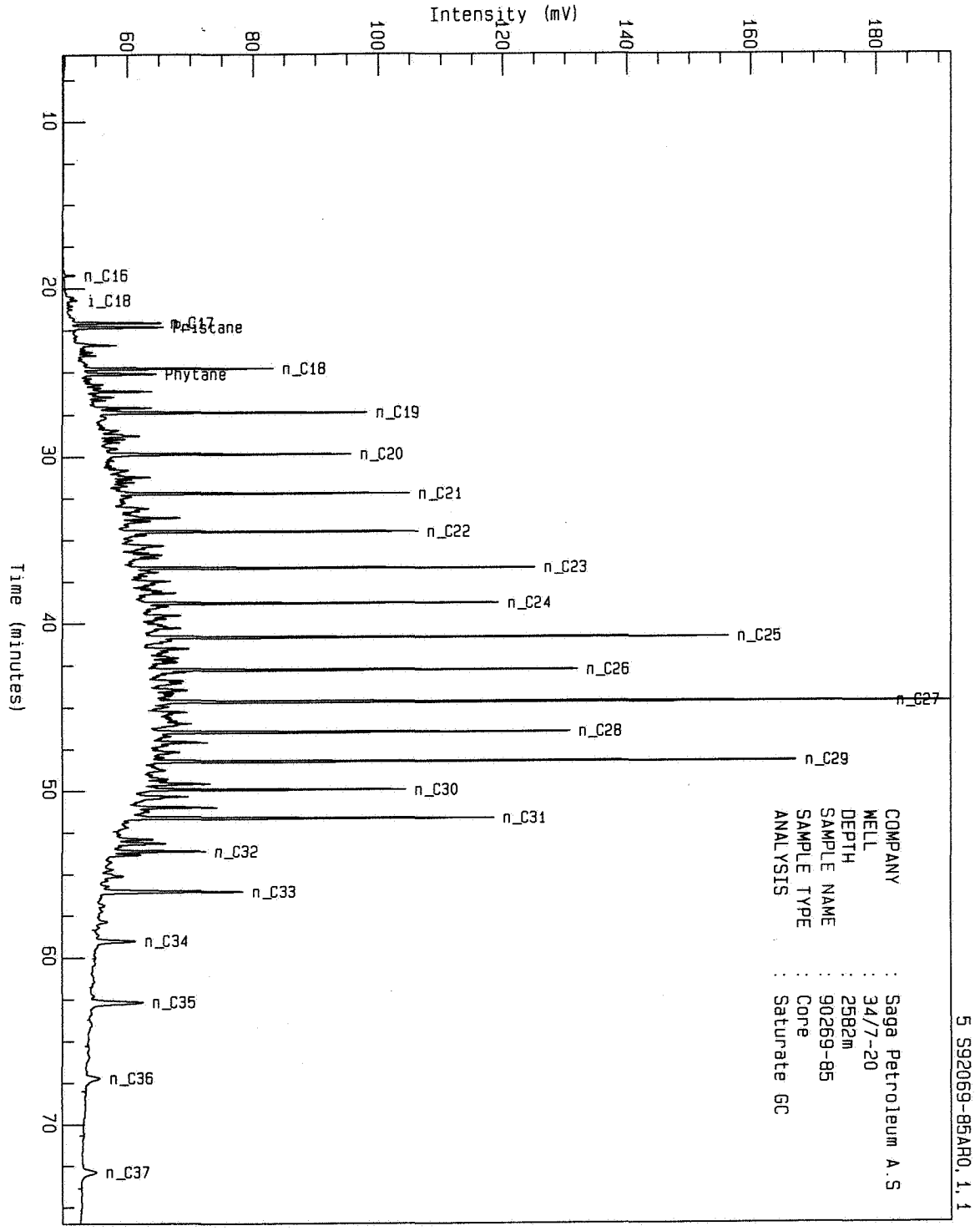
SAMPLE TYPE . . . . . Core
ANALYSIS . . . . . Saturate GC
5 S92069-93R0.1.1


Intensity (mV)
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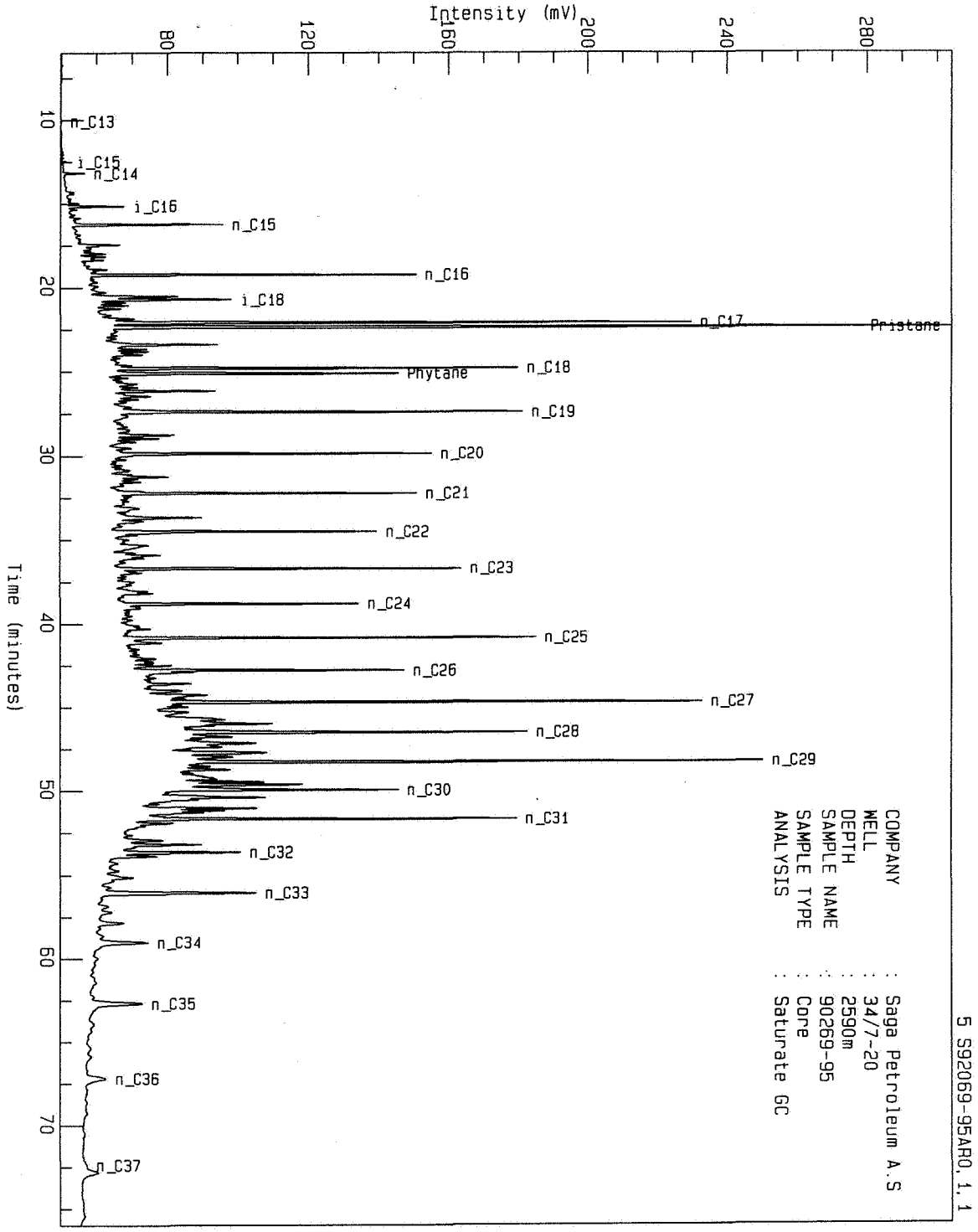
80
100
120
140
160
180
Time (minutes)
10
20
30
40
50
60
70
n_C16
i_C18
n_C17
Pristane
Phytane
n_C18
n_C19
n_C20
n_C21
n_C22
n_C23
n_C24
n_C25
n_C26
n_C27
n_C28
n_C29
n_C30
n_C31
n_C32
n_C33
n_C34
n_C35
n_C36
n_C37
COMPANY : Saga Petroleum A.S
WELL : 34/7-20
DEPTH : 2582m
SAMPLE NAME : 90269-85
SAMPLE TYPE : Core
ANALYSIS : Saturate GC
5 S92069-85AR0.1.1


Intensity (mV)
80
120
160
200
240
280
Time (minutes)
10
20
30
40
50
60
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n_C15
n_C16
i_C18
n_C17
Pristane
Phytane
n_C18
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n_C20
n_C21
n_C22
n_C23
n_C24
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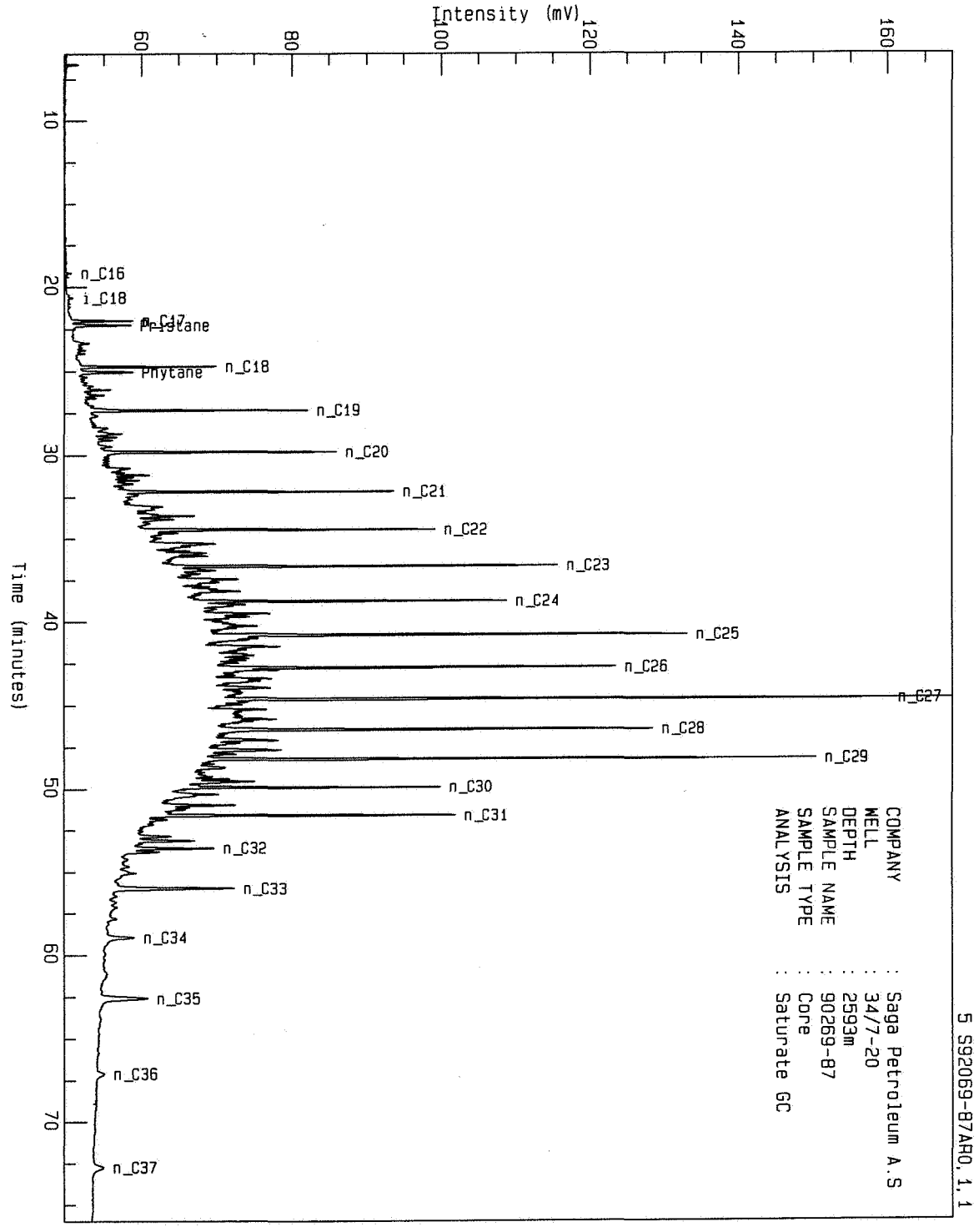
n_C29
n_C30
n_C31
n_C32
n_C33
n_C34
n_C35
n_C36
n_C37
COMPANY : Saga Petroleum A.S
WELL : 34/7-20
DEPTH : 2590m
SAMPLE NAME : 90269-95
SAMPLE TYPE : Core
ANALYSIS : Saturate GC
5 S92069-95AR0.1.1


Intensity (mV)
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100
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140
160
Time (minutes)
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20
30
40
50
60
70
n_C16
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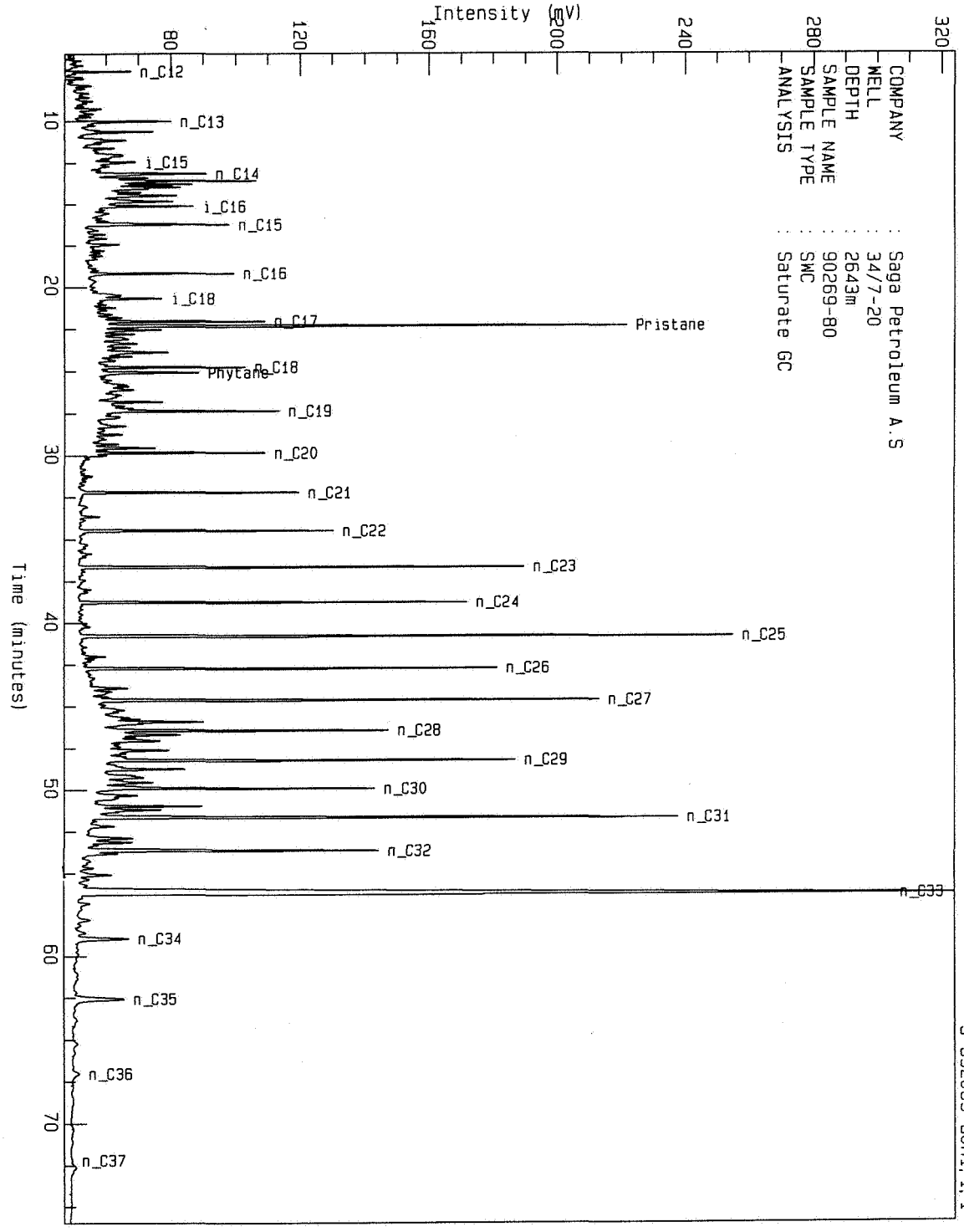
Phytane
n_C18
n_C19
n_C20
n_C21
n_C22
n_C23
n_C24
n_C25
n_C26
n_C27
n_C28
n_C29
n_C30
n_C31
n_C32
n_C33
n_C34
n_C35
n_C36
n_C37
COMPANY : Saga Petroleum A.S
WELL : 34/7-20
DEPTH : 2593m
SAMPLE NAME : 90269-87
SAMPLE TYPE : Core
ANALYSIS : Saturate GC
5 S92069-87ARO.1.1


Intensity (mV)
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160
200
240
280
320
Time (minutes)
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20
30
40
50
60
70
n_C12
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i_C16
n_C15
n_C16
i_C18
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Phytane
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n_C20
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n_C24
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n_C27
n_C28
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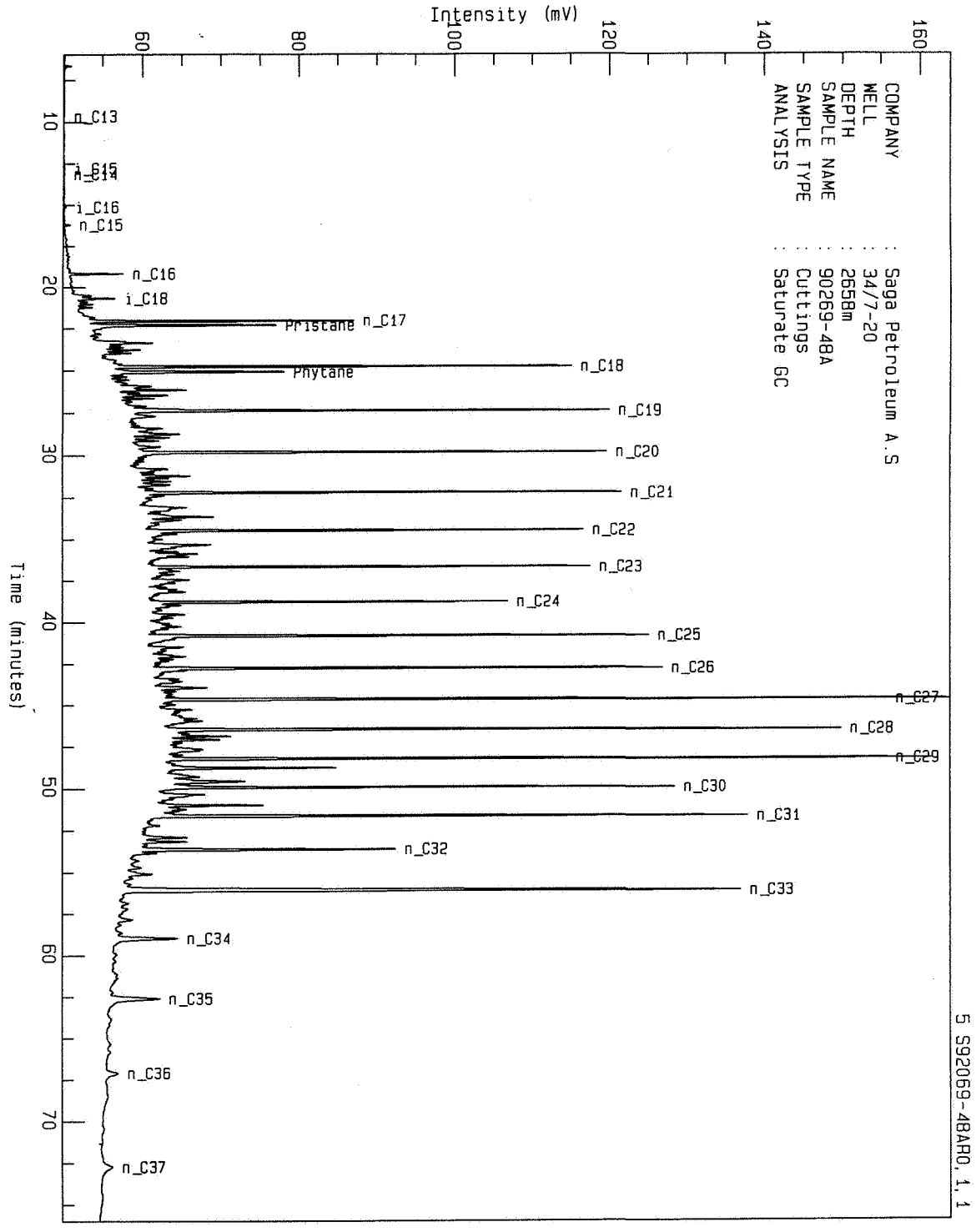
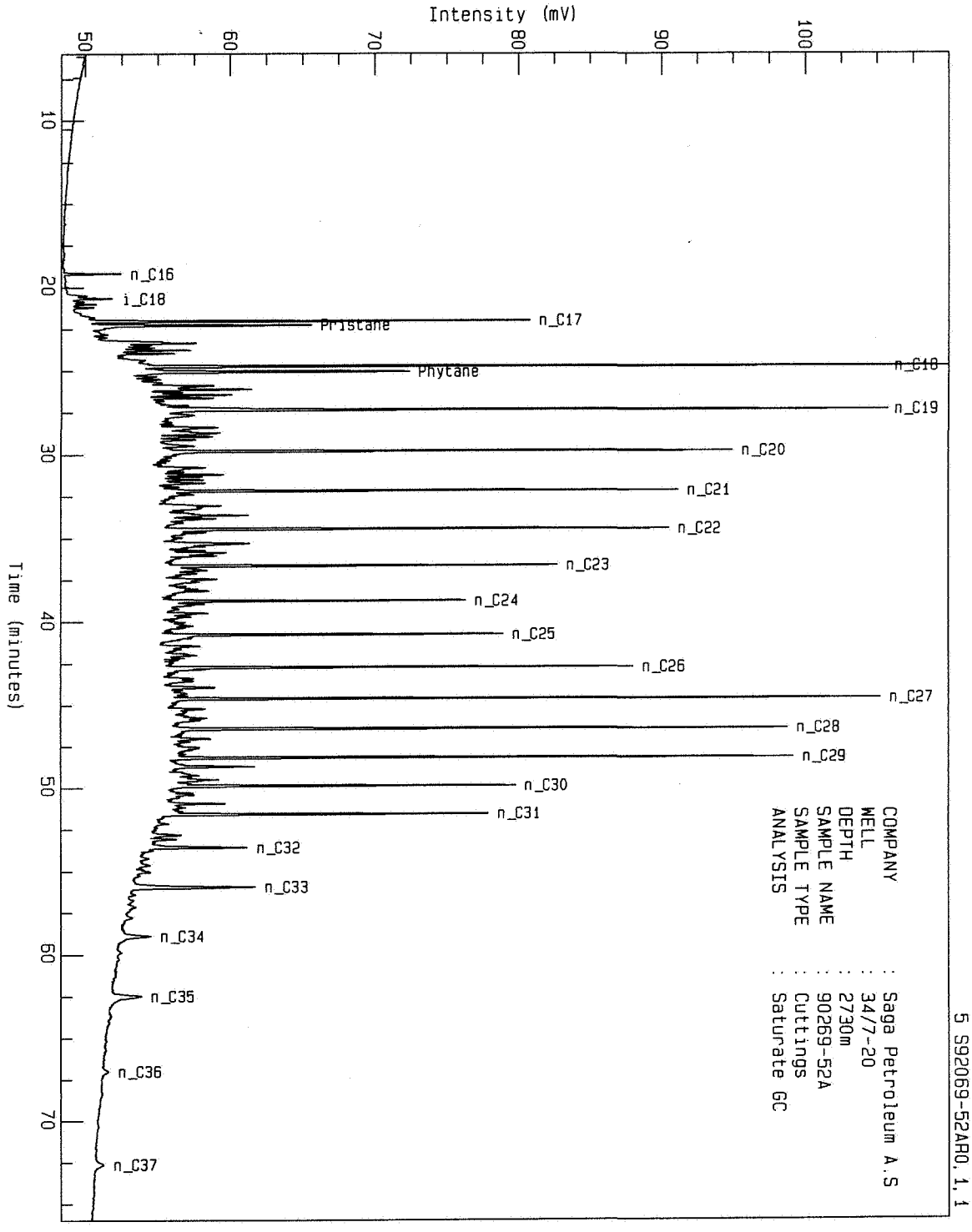
n_C30
n_C31
n_C32
n_C33
n_C34
n_C35
n_C36
n_C37
COMPANY . . . . . Saga Petroleum A.S
WELL 34/7-20
DEPTH 2643m
SAMPLE NAME 90269-80
SAMPLE TYPE . . . . . SWC
ANALYSIS . . . . . Saturate GC
5 S92069-80R1, 1, 1


Intensity (mV)
60
80
100
120
140
160
Time (minutes)
10
20
30
40
50
60
70
COMPANY : Saga Petroleum A.S
WELL : 34/7-20
DEPTH : 2658m
SAMPLE NAME : 90269-48A
SAMPLE TYPE : Cuttings
ANALYSIS : Saturate GC
n_C13
i_C15
n_C14
i_C16
n_C15
n_C16
i_C18
Pristane
n_C17
n_C18
Phytane
n_C19
n_C20
n_C21
n_C22
n_C23
n_C24
n_C25
n_C26
n_C27
n_C28
n_C29
n_C30
n_C31
n_C32
n_C33
n_C34
n_C35
n_C36
n_C37
5 S92069-48ARO, 1, 1


Intensity (mV)
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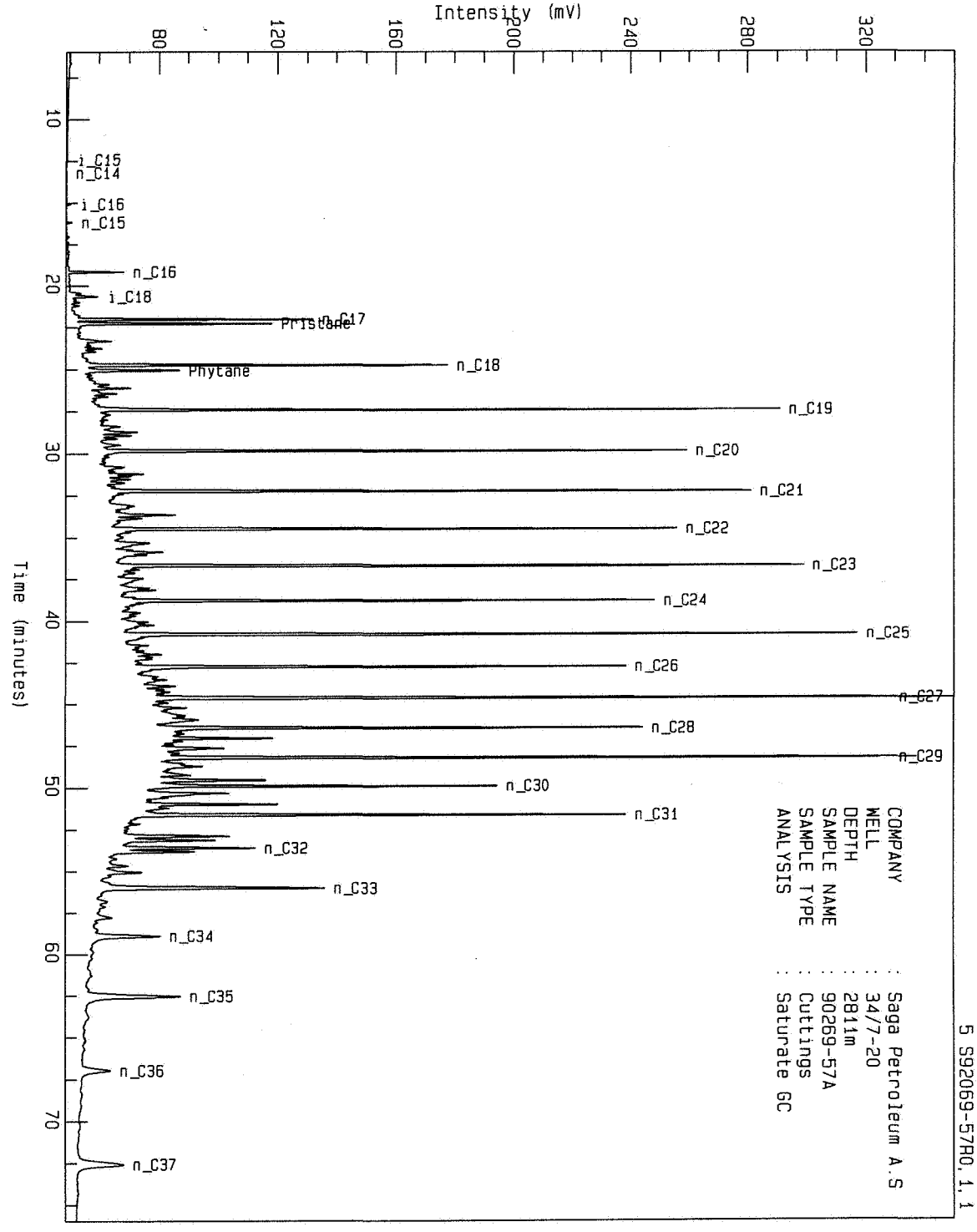
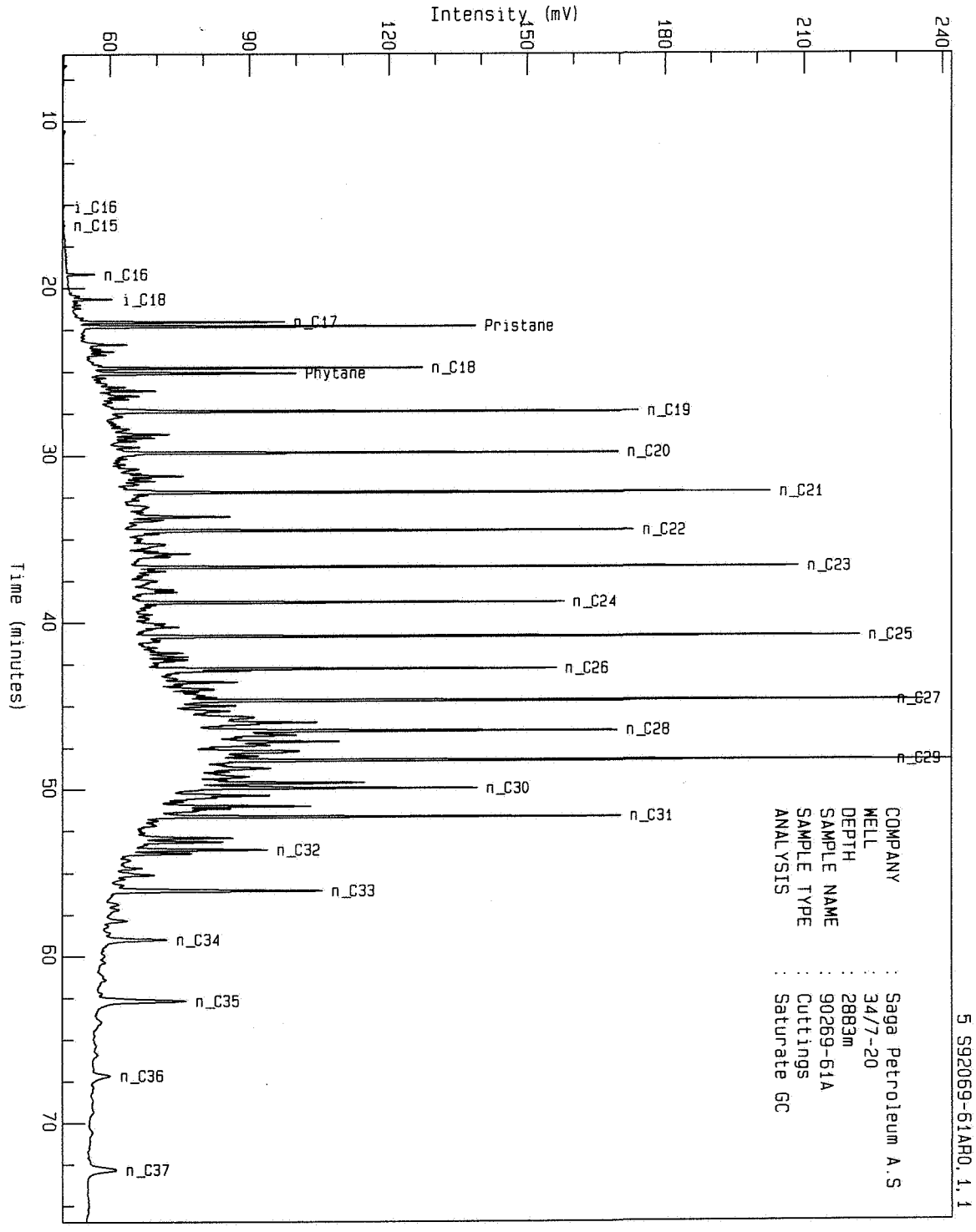
60
70
80
90
100
Time (minutes)
10
20
30
40
50
60
70
n_C16
i_C18
Pristane
n_C17
Phytane
n_C18
n_C19
n_C20
n_C21
n_C22
n_C23
n_C24
n_C25
n_C26
n_C27
n_C28
n_C29
n_C30
n_C31
n_C32
n_C33
n_C34
n_C35
n_C36
n_C37
COMPANY : Saga Petroleum A.S
WELL : 34/7-20
DEPTH : 2730m
SAMPLE NAME : 90269-52A
SAMPLE TYPE : Cuttings
ANALYSIS : Saturate GC
5 S92069-52AR0.1.1


Intensity (mV)
80
120
160
200
240
280
320
Time (minutes)
10
20
30
40
50
60
70
i_C15
n_C14
i_C16
n_C15
n_C16
i_C18
Pristane
n_C17
n_C18
Phytane
n_C19
n_C20
n_C21
n_C22
n_C23
n_C24
n_C25
n_C26
n_C27
n_C28
n_C29
n_C30
n_C31
n_C32
n_C33
n_C34
n_C35
n_C36
n_C37
COMPANY : Saga Petroleum A.S
WELL : 34/7-20
DEPTH : 2811m
SAMPLE NAME : 90269-57A
SAMPLE TYPE : Cuttings
ANALYSIS : Saturate GC
5 92069-57A0, 1, 1


Intensity (mV)
60
90
120
150
180
210
240
Time (minutes)
10
20
30
40
50
60
70
i_C16
n_C15
n_C16
i_C18
n_C17
Pristane
Phytane
n_C18
n_C19
n_C20
n_C21
n_C22
n_C23
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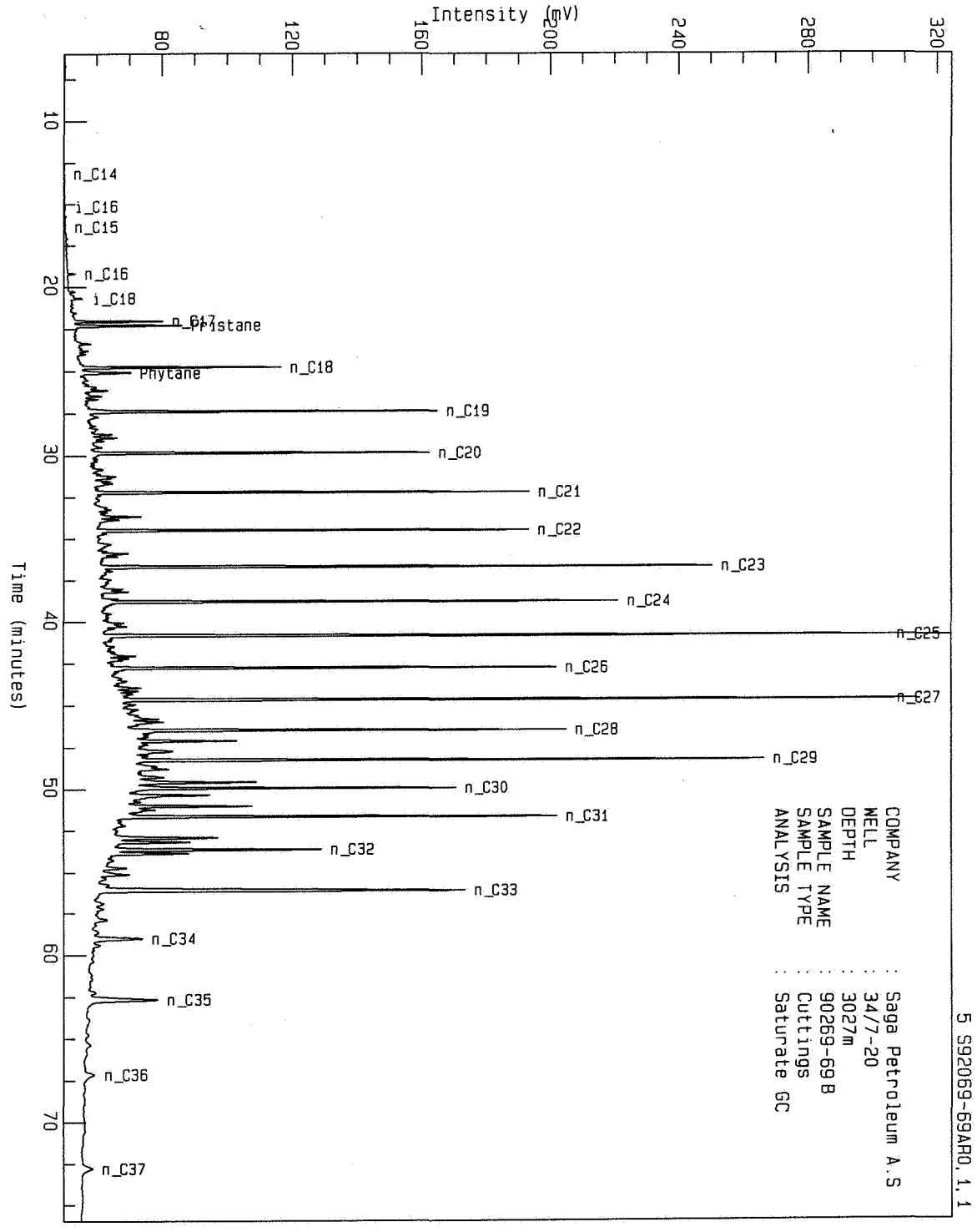
n_C26
n_C27
n_C28
n_C29
n_C30
n_C31
n_C32
n_C33
n_C34
n_C35
n_C36
n_C37
COMPANY . . . . . Saga Petroleum A.S
WELL 34/7-20
DEPTH 2883m
SAMPLE NAME 90269-61A
SAMPLE TYPE . . . . . Cuttings
ANALYSIS . . . . . Saturate GC
5 S92069-61AR0, 1, 1


Intensity (mV)
80
120
160
200
240
280
320
Time (minutes)
10
20
30
40
50
60
70
n_C14
i_C16
n_C15
n_C16
i_C18
n_C17
Pristane
Phytane
n_C18
n_C19
n_C20
n_C21
n_C22
n_C23
n_C24
n_C25
n_C26
n_C27
n_C28
n_C29
n_C30
n_C31
n_C32
n_C33
n_C34
n_C35
n_C36
n_C37
COMPANY : Saga Petroleum A.S
WELL : 34/7-20
DEPTH : 3027m
SAMPLE NAME : 90269-69 B
SAMPLE TYPE : Cuttings
ANALYSIS : Saturate GC
5 S92069-69AR0.1.1

AROMATIC GC PEAK HEIGHT DATA

Well Name	Nation	Sample Name	Upper Depth	Lower Depth	Sample Type	Lith	2MN uV	1MN uV	BiPh uV	2EN uV	1EN uV	2,6+2,7 DMN uV	1,5 DMN uV	1,3,7 TMN uV	2,3,6 TMN uV	1,3,6 TMN uV	1,3,5+1,4,6 TMN uV
34/7-20	NOR	92069-37A	2430	2440	CUT	Clyst											
34/7-20	NOR	92069-43A	2550	2560	CUT	Clyst											
34/7-20	NOR	92069-91A	2560	2570	CUT	Clyst											
34/7-20	NOR	92069-92	2578	2578	CCP	Sst	81	87	48	64	61	384	190	348	941	1626	606
34/7-20	NOR	92069-93	2579	2579	CCP	Sst	48	56	92	45	76	258	219	327	397	596	256
34/7-20	NOR	92069-85	2582	2582	CCP	Sh											
34/7-20	NOR	92069-95	2590	2590	CCP	Sh	17	24	24	184	154	1033	519	1252	2310	1610	889
34/7-20	NOR	92069-87	2593	2593	CCP	Sh											
34/7-20	NOR	92069-80	2643	2643	SWC	Coal	37444	38538	5429	9962	9214	32830	18198	20154	18066	23686	13122
34/7-20	NOR	92069-48A	2649	2658	CUT	Sst											
34/7-20	NOR	92069-52A	2721	2730	CUT	Sst											
34/7-20	NOR	92069-57A	2802	2811	CUT	Clyst			10	15	16	42	32	231	173	139	90
34/7-20	NOR	92069-61A	2874	2883	CUT	Clyst								13	103	93	71
34/7-20	NOR	92069-69B	3018	3027	CUT	Clyst								51	53	44	33

AROMATIC GC PEAK HEIGHT DATA

Well Name	Nation	Sample Name	Upper Depth	Lower Depth	Sample Type	Lith	P uV	3MP uV	2MP uV	9MP uV	1MP uV	2MP / 1MP	MPI1	DBT uV	4MDBT uV	3+2MDBT uV	1MDBT
34/7-20	NOR	92069-37A	2430	2440	CUT	Clyst	583	638	519	1113	691	0.75	0.73	1582	1964	1885	3908
34/7-20	NOR	92069-43A	2550	2560	CUT	Clyst	275	171	78	175	233	0.33	0.55	344	288	173	349
34/7-20	NOR	92069-91A	2560	2570	CUT	Clyst	63	81	49	86	69	0.71	0.89	2945	3516	1792	3559
34/7-20	NOR	92069-92	2578	2578	CCP	Sst	2428	522	1629	2179	427	3.81	0.64	481	1568	1149	1378
34/7-20	NOR	92069-93	2579	2579	CCP	Sst	428	91	206	280	104	1.98	0.55	890	1854	1239	1350
34/7-20	NOR	92069-85	2582	2582	CCP	Sh	1021	1937	1720	3211	2454	0.70	0.82	16294	95969	50732	34107
34/7-20	NOR	92069-95	2590	2590	CCP	Sh	5150	2668	1348	3051	1926	0.70	0.59	7814	2661	3321	11608
34/7-20	NOR	92069-87	2593	2593	CCP	Sh	17	215	141	404	256	0.55	0.79	146	658	602	1494
34/7-20	NOR	92069-80	2643	2643	SWC	Coal	9378	2032	1332	2849	1400	0.95	0.37	45908	8787	4250	4484
34/7-20	NOR	92069-48A	2649	2658	CUT	Sst	118	71	50	189	113	0.44	0.43	3541	4693	2759	2959
34/7-20	NOR	92069-52A	2721	2730	CUT	Sst	217	204	188	392	254	0.74	0.68	1138	673	394	511
34/7-20	NOR	92069-57A	2802	2811	CUT	Clyst	1097	433	368	867	646	0.57	0.46	2802	525	585	1621
34/7-20	NOR	92069-61A	2874	2883	CUT	Clyst	1836	982	862	1841	1139	0.76	0.57	1479	707	1051	2268
34/7-20	NOR	92069-69B	3018	3027	CUT	Clyst	820	326	297	729	528	0.56	0.45	2011	987	1484	2470

CARBON ISOTOPE DATA

Well Name	Nation	Sample Name	Upper Depth	Lower Depth	Sample Type	Lith	del C13 EOM	del C13 SAT	del C13 ARO	del C13 NSO	del C13 Asph
34/7-20	NOR	92069-92	2578	2578	Core	Sst	N.D.	-29.7	-29.1	-28.7	-29.2
34/7-20	NOR	92069-93	2579	2579	Core	Sst	-29.2	-29.8	-29.1	-29.0	-29.6
34/7-20	NOR	92069-85	2582	2582	Core	Sh	N.D.	-28.1	-27.2	-26.9	-27.0
34/7-20	NOR	92069-95	2590	2590	Core	Sh	-28.7	N.D.	N.D.	-28.7	-28.0
34/7-20	NOR	92069-87	2593	2593	Core	Sh	N.D.	N.D.	-27.4	-26.7	-27.1
34/7-20	NOR	92069-80	2643	2643	SWC	Coal	-26.7	-30.0	-26.9	-26.5	-25.6
34/7-20	NOR	92069-61A	2874	2883	Ctgs	Clyst	-27.3	N.D.	N.D.	N.D.	-26.7
34/7-20	NOR	92069-69B	3018	3027	Ctgs	Clyst	-27.4	N.D.	N.D.	-27.4	-26.1

ANALYTICAL METHODS

ANALYSIS	INSTRUMENT	METHOD	TEMPERATURE PROGRAM	COLUMNS
TOC	Leco CS 125	OLS 1		
Rock Eval Pyrolysis	Rock Eval II	OLS 5	Cycle 1	
Headspace gas	Perkin Elmer Sigma 3	Saga method	Isothermal 110C	1/8" SS packed
Occluded gas	Perkin Elmer Sigma 3	Saga method	Isothermal 110C	1/8" SS packed
Iatroscan fractionation	Iatroscan MKIII	OLS 23		
Quantatitative Extraction	Soxhtec Tecator 1043	Saga method	Boil 1 hr, rinse 2hrs (DCM:MeOH, 7:1)	
Alkane GC	HP5890a (on column)	Saga method	80C 3min, 4C/min to 300C, 300c 12 min.	CP SIL-5
Aromatic GC FID	AMS 92	Saga method	80C - 103C (1C/min), 103C-140C (3C/min)	DB-5
Aromatic GC FPD	AMS 94	Al method	80C - 180C (6C/min), 180C-300C (25C/min)	BP-5
Alkane GC/MS	HP MSD	Saga method	180C 1min, 1.7C/min to 310C, 310C 10 min.	CP SIL-5
Aromatic GC/MS	VG 7070 H (at SAL)	Saga method	180C 1min, 1.7C/min to 310C, 310C 10 min.	DB-5
Isotope analysis	run at IFE			

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The National Measurement Accreditation Service, NAMAS, is the official UK national authority competent in the field of laboratory accreditation.

NAMAS conduct a surveillance visit six months after accreditation and annually thereafter. Four years after accreditation, NAMAS undertakes a full re-assessment NAMAS can make unannounced visits.

What's so special about a NAMAS report or certificate?

- It's your assurance that the work has been carried out to the highest standard.
- The laboratory issuing the certificate has been stringently assessed by independent experts.
- You are assured that the agreed or specific methods and procedures have been followed.
- Measurements are traceable to national and international standards. NAMAS (which stands for the National and Measurement Accreditation Service) is a service of the National Physical Laboratory. NPL hold many of the UK's primary standards.

What does NAMAS assess?

All technical aspects of the laboratory's practice. NAMAS specifies criteria that laboratories must meet. These criteria deal with more than just the quality system and cover:

- Organisation
- Equipment
- Handling of samples
- Quality system
- Measurement traceablity
- Records
- Quality audits and reviews
- Methods and procedures
- Complaints
- Staff
- Environment
- Subcontracting and purchasing

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NAMAS is recognised and have mutual accreditation agreements with the following national bodies.

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Hong Kong (KOKLAS)
New Zealand (TELARC)
Switzerland (SMO)
Germany (DKD)
Italy (SIT)
Norway (DNVQA)
France (BNM, RNE)
Netherlands (NKO)
Sweden (SMO)

Simon Laboratories are NAMAS accredited for all the methods listed overleaf.

NAMAS ACCREDITATION

Simon Laboratories is NAMAS accredited for the following methods :-

OLS/001	Determination of the Carbon Content of geological samples
OLS/002	Determination of Carbonate by the LECO method
OLS/003	Geochemistry sample preparation techniques
OLS/005	Rock Eval pyrolysis for screening geochemistry
OLS/008	Quantitative DCM extraction by Soxhtec
OLS/009	Quantitative DCM extraction by Soxhlet
OLS/010	Column chromatography
OLS/011	Headspace gas analysis C1 – C4
OLS/012	Headspace gas analysis C1 – C6+
OLS/013	Occluded gas analysis C1 – C4
OLS/014	Occluded gas analysis C1 – C6+
OLS/015	Gasoline (C4 – C7) analysis
OLS/016	C15+ saturate fraction gas chromatography by flame ionisation detection
OLS/017	Aromatic fraction gas chromatography by flame ionisation detection
OLS/019	Column chromatography for the fractionation of hydrocarbon mixtures
OLS/021	Whole oil gas chromatography
OLS/022	Pyrolysis – Gas chromatography
OLS/023	Fractionation by Iatroscan
OLS/026	Topping of oils
OLS/027	Gas chromatography – Mass spectrometry of organic biomarkers
OLS/028	2D Ultra Violet fluorescence spectrometry
OLS/029	3D Ultra Violet fluorescence spectrometry
OLS/030	Determination of asphaltene content by precipitation
WC/002	Determination of water in lubricating oil
WC/003	Determination of fuel in lubricating oil
WC/004	Determination of the dielectric of lubricating oil
WC/005	Determination of viscosity of lubricating oil
WC/007	Determination of API gravity
WC/008	Total base number
WC/009	Cold finger plugging point
WC/010	Wear metals in lubricants by ICP
WC/011	Determination of API gravity of small samples by Archimedes Bridges

APPENDIX 1 – SATURATES GC/MS DATA

KEY TO SAGA PEAK LABELLING

Triterpanes

A - C27 18α(H) 22,29,30 trisnorneohopane
B - C27 17α(H) 22,29,30 trisnorhopane
Z - C28 17α(H) 21β(H) 28 30 bisnorhopane
C - C29 17α(H) 21β(H) 30 norhopane
C,- C29 18α(H) 30 norneohopane
X - C30 15α methyl 17α(H) 27 norhopane (TtX)
D - C29 17β(H) 21α(H) 30 norhopane (normoretane)
E - C30 17α(H) 21β(H) hopane
F - C30 17β(H) 21α(H) (moretane)
G1- C31 17α(H) 21β(H) homohopane 22S
G2- C31 17α(H) 21β(H) homohopane 22R
J1- C32 17α(H) 21β(H) bishomohopane 22S
J2- C32 17α(H) 21β(H) bishomohopane 22R
K1- C33 17α(H) 21β(H) trishomohopane 22S
K2- C33 17α(H) 21β(H) trishomohopane 22R
L1- C34 17α(H) 21β(H) terakishomohopane 22S
L2- C34 17α(H) 21β(H) tetrakishomohopane 22R
M1- C35 17α(H) 21β(H) pentakishomohopane 22S
M2- C35 17α(H) 21β(H) pentakishomohopane 22R
I - C31 βα homomoretane
O - 18α(H) oleanane
N - 17α(H) 21β(H) 25 norhopane

Steranes

A - C27 13β(H) 17α(H) cholestane (diasterane) 20S
J - C27 5α(H) 14α(H) 17α(H) 20R cholestane
Q - C29 5α(H) 14α(H) 17α(H) 20S cholestane
R - C29 5α(H) 14β(H) 17β(H) 20R cholestane
S - C29 5α(H) 14β(H) 17β(H) 20S cholestane
T - C29 5α(H) 14α(H) 17α(H) 20R cholestane

B - C27 5α(H) 14β(H) 17β(H) 20S cholestane
D - C28 5α(H) 14β(H) 17β(H) 20S cholestane
N - C29 5α(H) 14β(H) 17β(H) 20S cholestane

Phenanthrenes

P - phenanthrene
3MP - 3 methyl phenanthrene
2MP - 2 methyl phenanthrene
9MP - 9 methyl phenanthrene
1MP - 1 methyl phenanthrene

Thiophenes

DBT - dibenzothiophene
4MDBT - 4 methyl dibenzothiophene
3+2MDBT - 3+2 methyl dibenzothiophene
1 MDBT - 1 methyl dibenzothiophene

Monoaromatic steroids

H - C21 monoaromatic sterane
P - C28 monoaromatic sterane
R - C29 monoaromatic sterane

Triaromatic steroids

A - C20 triaromatic sterane
B - C21 triaromatic sterane
C - C26triaromatic sterane S
D - C26triaromatic sterane S
E - C27triaromatic sterane S
F - C27triaromatic sterane R
G - C28triaromatic sterane S

SATURATE GC/MS – PEAK INTEGRATION DATA

Well Name	Nation	Sample Name	Upper Depth	Lower Depth	Sample Type	Lith	191 IONS								
							A	B	Z	C	C,	X	D	E	F
34/7-20	NOR	92069-37	2440	2440	Ctgs	Clyst	3514	8920	5947	21083	6217	4865	17164	41897	8379
34/7-20	NOR	92069-43	2560	2560	Ctgs	Clyst	4338	17105	2231	25038	4710	992	11403	40284	15866
34/7-20	NOR	92069-91	2570	2570	Ctgs	Clyst	6000	48000	5500	66750	8250	2900	38500	81500	49500
34/7-20	NOR	92069-92	2578	2578	Core	Sst	5978	5092	5609	11218	4723	1624	1919	22140	2066
34/7-20	NOR	92069-93	2579	2579	Core	Sst	3844	3333	4263	9455	4185	1395	1860	22863	2093
34/7-20	NOR	92069-85	2582	2582	Core	Sh	2745	29020	10196	40196	7843	6275	31373	70196	27451
34/7-20	NOR	92069-95	2590	2590	Core	Sh	4629	15430	926	28700	9258	2160	23145	49530	15430
34/7-20	NOR	92069-87	2593	2593	Core	Sh	3636	27636	4364	31455	6545	4727	31636	58182	31636
34/7-20	NOR	92069-80	2643	2643	SWC	Coal	2555	36135	44530	28470	2920	5475	14053	60590	21718
34/7-20	NOR	92069-48	2658	2658	Ctgs	Sst	3326	65441	8046	86897	6973	6985	48544	89579	64368
34/7-20	NOR	92069-52	2730	2730	Ctgs	Sst	10000	17692	49998	384611	11923	3461	15384	59998	13076
34/7-20	NOR	92069-57	2811	2811	Ctgs	Clyst	2230	39016	1249	45482	4013	3121	26308	75580	38570
34/7-20	NOR	92069-61	2883	2883	Ctgs	Clyst	10562	73931	14522	85813	19011	14918	53138	109577	66010
34/7-20	NOR	92069-69	3027	3027	Ctgs	Clyst	865	13155	1532	20633	1658	1532	10452	28922	14867

SATURATE GC/MS – PEAK INTEGRATION DATA

Well Name	Nation	Sample Name	Upper Depth	Lower Depth	Sample Type	Lith	191 IONS								
							G1	G2	J1	J2	K1	K2	L1	L2	M1
34/7-20	NOR	92069-37	2440	2440	Ctgs	Clyst	9866	28652	3244	11082	2162	2703	541	1216	351
34/7-20	NOR	92069-43	2560	2560	Ctgs	Clyst	24542	25782	5578	8181	2975	4990	983	1240	992
34/7-20	NOR	92069-91	2570	2570	Ctgs	Clyst	62500	81250	13500	22500	8250	8500	2050	3500	1750
34/7-20	NOR	92069-92	2578	2578	Core	Sst	6347	4133	3542	2657	2288	1476	738	738	900
34/7-20	NOR	92069-93	2579	2579	Core	Sst	9145	6510	7285	5425	6200	4495	3100	2635	2480
34/7-20	NOR	92069-85	2582	2582	Core	Sh	25098	37843	4314	10588	1569	2745	784	1686	314
34/7-20	NOR	92069-95	2590	2590	Core	Sh	151121	28854	2932	9258	1852	3395	617	1234	309
34/7-20	NOR	92069-87	2593	2593	Core	Sh	21091	65091	5273	11455	3018	3236	655	1455	327
34/7-20	NOR	92069-80	2643	2643	SWC	Coal	16060	17520	3833	9855	1387	2008	3285	730	
34/7-20	NOR	92069-48	2658	2658	Ctgs	Sst	85824	64636	20920	23333	5900	6705	2307	3218	1019
34/7-20	NOR	92069-52	2730	2730	Ctgs	Sst	25384	33460	11538	14230	6538	6154	2846	3115	2961
34/7-20	NOR	92069-57	2811	2811	Ctgs	Clyst	46820	47042	12039	18728	3344	6689	1427	3166	535
34/7-20	NOR	92069-61	2883	2883	Ctgs	Clyst	84163	84493	19143	33005	7261	11222	3631	5941	1320
34/7-20	NOR	92069-69	3027	3027	Ctgs	Clyst	25769	20903	6667	7298	2343	3604	1081	2162	378

SATURATE GC/MS - PEAK INTEGRATION DATA

Well Name	Nation	Sample Name	Upper Depth	Lower Depth	Sample Type	Lith	191 IONS			217 IONS					
							M2	I	N	A	J	Q	R	S	T
34/7-20	NOR	92069-37	2440	2440	Ctgs	Clyst	541	6487	2162	8908	11084	2618	3468	4080	10268
34/7-20	NOR	92069-43	2560	2560	Ctgs	Clyst	645	14378	992	3162	2803	1736	1833	1853	2735
34/7-20	NOR	92069-91	2570	2570	Ctgs	Clyst	1300	29000	2000	6542	8723	3959	4898	5636	10971
34/7-20	NOR	92069-92	2578	2578	Core	Sst	768	694	959	9750	5724	4718	5347	5221	3522
34/7-20	NOR	92069-93	2579	2579	Core	Sst	1519	1085	465	7712	3299	3322	3958	4368	3185
34/7-20	NOR	92069-85	2582	2582	Core	Sh	353	13333	3529	5545	4045	955	3000	1909	5591
34/7-20	NOR	92069-95	2590	2590	Core	Sh	525	9875	2315	11523	17063	3324	5097	6648	19390
34/7-20	NOR	92069-87	2593	2593	Core	Sh	291	26182	1091	8175	11895	1895	3719	2000	8702
34/7-20	NOR	92069-80	2643	2643	SWC	Coal		7300		3452	7381	4762	11429	11191	19405
34/7-20	NOR	92069-48	2658	2658	Ctgs	Sst	912	44521	1126	3440	5322	2628	2142	2953	11293
34/7-20	NOR	92069-52	2730	2730	Ctgs	Sst	2423	9615	962	10641	7660	4936	5929	6006	8141
34/7-20	NOR	92069-57	2811	2811	Ctgs	Clyst	892	28092	580	3720	6278	1535	1744	2372	8021
34/7-20	NOR	92069-61	2883	2883	Ctgs	Clyst	1980	41586	1320	45030	49996	12913	10761	17217	57611
34/7-20	NOR	92069-69	3027	3027	Ctgs	Clyst	396	13695	180	5739	6921	3460	2701	3629	14601

SATURATE GC/MS – PEAK INTEGRATION DATA

Well Name	Nation	Sample Name	Upper Depth	Lower Depth	Sample Type	Lith	218 IONS		
							B	D	F
34/7-20	NOR	92069-37	2440	2440	Ctgs	Clyst	3441	5495	4440
34/7-20	NOR	92069-43	2560	2560	Ctgs	Clyst	1904	2103	2362
34/7-20	NOR	92069-91	2570	2570	Ctgs	Clyst	4239	5333	6507
34/7-20	NOR	92069-92	2578	2578	Core	Sst	8396	6418	6952
34/7-20	NOR	92069-93	2579	2579	Core	Sst	4934	4658	5779
34/7-20	NOR	92069-85	2582	2582	Core	Sh	1571	952	2917
34/7-20	NOR	92069-95	2590	2590	Core	Sh	3683	3404	6756
34/7-20	NOR	92069-87	2593	2593	Core	Sh	3022	1457	3957
34/7-20	NOR	92069-80	2643	2643	SWC	Coal	1991	5620	13452
34/7-20	NOR	92069-48	2658	2658	Ctgs	Sst	1199	1399	2697
34/7-20	NOR	92069-52	2730	2730	Ctgs	Sst	6849	6982	8262
34/7-20	NOR	92069-57	2811	2811	Ctgs	Clyst	1454	1280	2213
34/7-20	NOR	92069-61	2883	2883	Ctgs	Clyst	10532	8799	15483
34/7-20	NOR	92069-69	3027	3027	Ctgs	Clyst	1668	1724	3487

SATURATE GC/MS – PEAK INTEGRATION DATA

Well Name	Nation	Sample Name	Upper Depth	Lower Depth	Sample Type	Lith	B / A	B / A+B	C / E	C / C+E	Z / E	Z / Z+E	J1*(100) / J1+J2	Q*(100) / Q+T	R+S / R+S+Q+T
34/7-20	NOR	92069-37	2440	2440	Ctgs	Clyst	2.54	0.72	0.50	0.33	0.14	0.12	22.64	20.32	0.37
34/7-20	NOR	92069-43	2560	2560	Ctgs	Clyst	3.94	0.80	0.62	0.38	0.06	0.05	40.54	38.83	0.45
34/7-20	NOR	92069-91	2570	2570	Ctgs	Clyst	8.00	0.89	0.82	0.45	0.07	0.06	37.50	26.52	0.41
34/7-20	NOR	92069-92	2578	2578	Core	Sst	0.85	0.46	0.51	0.34	0.25	0.20	57.14	57.26	0.56
34/7-20	NOR	92069-93	2579	2579	Core	Sst	0.87	0.46	0.41	0.29	0.19	0.16	57.32	51.05	0.56
34/7-20	NOR	92069-85	2582	2582	Core	Sh	10.57	0.91	0.57	0.36	0.15	0.13	28.95	14.58	0.43
34/7-20	NOR	92069-95	2590	2590	Core	Sh	3.33	0.77	0.58	0.37	0.02	0.02	24.05	14.63	0.34
34/7-20	NOR	92069-87	2593	2593	Core	Sh	7.60	0.88	0.54	0.35	0.07	0.07	31.52	17.88	0.35
34/7-20	NOR	92069-80	2643	2643	SWC	Coal	14.14	0.93	0.47	0.32	0.73	0.42	28.00	19.70	0.48
34/7-20	NOR	92069-48	2658	2658	Ctgs	Sst	19.68	0.95	0.97	0.49	0.09	0.08	47.27	18.88	0.27
34/7-20	NOR	92069-52	2730	2730	Ctgs	Sst	1.77	0.64	6.41	0.87	0.83	0.45	44.78	37.75	0.48
34/7-20	NOR	92069-57	2811	2811	Ctgs	Clyst	17.50	0.95	0.60	0.38	0.02	0.02	39.13	16.06	0.30
34/7-20	NOR	92069-61	2883	2883	Ctgs	Clyst	7.00	0.87	0.78	0.44	0.13	0.12	36.71	18.31	0.28
34/7-20	NOR	92069-69	3027	3027	Ctgs	Clyst	15.21	0.94	0.71	0.42	0.05	0.05	47.74	19.16	0.26

APPENDIX 2 – AROMATIC GC/MS DATA

Contents							Page Numbers
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Aromatic GC/MS quantitation data							2 – 4
GC/MS traces :-							5 – 186
Well Name	Nation	Sample Name	Upper Depth	Lower Depth	Sample Type	Lith	Page Numbers
34/7-20	NOR	92069-37	2440	2440	Ctgs	Clyst	5 – 17
34/7-20	NOR	92069-43	2560	2560	Ctgs	Clyst	18 – 30
34/7-20	NOR	92069-91	2570	2570	Ctgs	Clyst	31 – 43
34/7-20	NOR	92069-92	2578	2578	Core	Sst	44 – 56
34/7-20	NOR	92069-93	2579	2579	Core	Sst	57 – 69
34/7-20	NOR	92069-85	2582	2582	Core	Sh	70 – 82
34/7-20	NOR	92069-95	2590	2590	Core	Sh	83 – 95
34/7-20	NOR	92069-87	2593	2593	Core	Sh	96 – 108
34/7-20	NOR	92069-80	2643	2643	SWC	Coal	109 – 121
34/7-20	NOR	92069-48	2658	2658	Ctgs	Sst	122 – 134
34/7-20	NOR	92069-52	2730	2730	Ctgs	Sst	135 – 147
34/7-20	NOR	92069-57	2811	2811	Ctgs	Clyst	148 – 160
34/7-20	NOR	92069-61	2883	2883	Ctgs	Clyst	161 – 173
34/7-20	NOR	92069-69	3027	3027	Ctgs	Clyst	174 – 186

KEY TO SAGA PEAK LABELLING

Triterpanes

A - C27 18α(H) 22,29,30 trisnorneohopane
B - C27 17α(H) 22,29,30 trisnorhopane
Z - C28 17α(H) 21β(H) 28 30 bisnorhopane
C - C29 17α(H) 21β(H) 30 norhopane
C,- C29 18α(H) 30 norneohopane
X - C30 15α methyl 17α(H) 27 norhopane (TtX)
D - C29 17β(H) 21α(H) 30 norhopane (normoretane)
E - C30 17α(H) 21β(H) hopane
F - C30 17β(H) 21α(H) (moretane)
G1- C31 17α(H) 21β(H) homohopane 22S
G2- C31 17α(H) 21β(H) homohopane 22R
J1- C32 17α(H) 21β(H) bishomohopane 22S
J2- C32 17α(H) 21β(H) bishomohopane 22R
K1- C33 17α(H) 21β(H) trishomohopane 22S
K2- C33 17α(H) 21β(H) trishomohopane 22R
L1- C34 17α(H) 21β(H) terakishomohopane 22S
L2- C34 17α(H) 21β(H) tetrakishomohopane 22R
M1- C35 17α(H) 21β(H) pentakishomohopane 22S
M2- C35 17α(H) 21β(H) pentakishomohopane 22R
I - C31 βα homomoretane
O - 18α(H) oleanane
N - 17α(H) 21β(H) 25 norhopane

Steranes

A - C27 13β(H) 17α(H) cholestane (diasterane) 20S
J - C27 5α(H) 14α(H) 17α(H) 20R cholestane
Q - C29 5α(H) 14α(H) 17α(H) 20S cholestane
R - C29 5α(H) 14β(H) 17β(H) 20R cholestane
S - C29 5α(H) 14β(H) 17β(H) 20S cholestane
T - C29 5α(H) 14α(H) 17α(H) 20R cholestane

B - C27 5α(H) 14β(H) 17β(H) 20S cholestane
D - C28 5α(H) 14β(H) 17β(H) 20S cholestane
N - C29 5α(H) 14β(H) 17β(H) 20S cholestane

Phenanthrenes

P - phenanthrene
3MP - 3 methyl phenanthrene
2MP - 2 methyl phenanthrene
9MP - 9 methyl phenanthrene
1MP - 1 methyl phenanthrene

Thiophenes

DBT - dibenzothiophene
4MDBT - 4 methyl dibenzothiophene
3+2MDBT - 3+2 methyl dibenzothiophene
1 MDBT - 1 methyl dibenzothiophene

Monoaromatic steroids

H - C21 monoaromatic sterane
P - C28 monoaromatic sterane
R - C29 monoaromatic sterane

Triaromatic steroids

A - C20 triaromatic sterane
B - C21 triaromatic sterane
C - C26triaromatic sterane S
D - C26triaromatic sterane S
E - C27triaromatic sterane S
F - C27triaromatic sterane R
G - C28triaromatic sterane S

Well Name	Nation	Sample Name	Upper Depth	Lower Depth	Sample Type	Lith	178 IONS	192 IONS				184 IONS	192 IONS		
							P	3MP	2MP	9MP	1MP	DBT	4MDBT	3+2MDBT	1MDBT
34/7-20	NOR	92069-37	2440.0	2440.0	Cut	Clyst	3239.8	730.5	985.6	1646.6	1066.8	188.3	105.1	69.3	79.8
34/7-20	NOR	92069-43	2560.0	2560.0	Cut	Clyst	2969.6	562.2	711.2	887.3	965.2	265.3	119.0	64.6	78.2
34/7-20	NOR	92069-91	2570.0	2570.0	Cut	Clyst	622.4	163.5	214.3	309.3	310.4	117.7	61.6	30.1	46.9
34/7-20	NOR	92069-92	2578.0	2578.0	Ccp	Sst	2345.0	1556.9	1069.5	1877.0	1105.8	1903.9	3688.0	2155.7	2025.8
34/7-20	NOR	92069-93	2579.0	2579.0	Ccp	Sst	1578.5	738.0	488.0	785.6	446.3	1429.0	2148.5	1126.8	946.5
34/7-20	NOR	92069-85	2582.0	2582.0	Ccp	Sh	26413.0	13662.1	17257.4	34155.3	24927.4	7580.5	10870.0	6651.2	6157.1
34/7-20	NOR	92069-95	2590.0	2590.0	Ccp	Sh	17428.7	3140.5	3104.4	5089.8	4169.3	3993.0	879.1	796.6	1950.4
34/7-20	NOR	92069-87	2593.0	2593.0	Ccp	Sh	8575.4	4651.6	4876.2	9110.8	5581.9	618.0	858.5	653.7	1385.4
34/7-20	NOR	92069-80	2643.0	2643.0	SWC	Coal	7752.5	887.6	741.2	1322.0	783.7	3629.3	888.9	460.0	425.8
34/7-20	NOR	92069-48	2658.0	2658.0	Cut	Sst	14727.5	4351.8	5657.3	10335.5	7325.5	2177.4	2001.0	1105.4	1049.5
34/7-20	NOR	92069-52	2730.0	2730.0	Cut	Sst	1610.0	611.9	827.0	1357.7	946.5	251.5	291.8	163.5	144.9
34/7-20	NOR	92069-57	2811.0	2811.0	Cut	Clyst	25205.9	4828.6	4553.6	8679.3	5928.8	884.8	298.5	245.9	415.6
34/7-20	NOR	92069-61	2883.0	2883.0	Cut	Clyst	16551.1	2775.6	2870.0	5400.1	3247.6	761.0	234.7	234.7	396.8
34/7-20	NOR	92069-69	3027.0	3027.0	Cut	Clyst	12153.7	1827.2	2197.9	3760.3	2886.4	337.2	94.2	104.4	103.3

Well Name	Nation	Sample Name	Upper Depth	Lower Depth	Sample Type	Lith	253 IONS			231 IONS						
							H	P	R	A	B	C	D	E	F	G
34/7-20	NOR	92069-37	2440.0	2440.0	Cut	Clyst	33.7	62.4	12.2	7.2	15.1	9.4	31.4	10.5	14.9	9.9
34/7-20	NOR	92069-43	2560.0	2560.0	Cut	Clyst	19.3	24.4	9.4	75.3	52.9	62.5	222.8	59.3	129.0	681.2
34/7-20	NOR	92069-91	2570.0	2570.0	Cut	Clyst	4.2	15.1	3.8	17.5	14.7	30.4	126.0	37.7	71.7	47.8
34/7-20	NOR	92069-92	2578.0	2578.0	Ccp	Sst	673.0	512.5	129.7	2938.7	3616.9	2599.6	10549.3	5048.6	5274.6	4973.2
34/7-20	NOR	92069-93	2579.0	2579.0	Ccp	Sst	178.7	103.5	29.8	544.0	632.3	499.9	2043.8	1051.3	1169.0	1044.0
34/7-20	NOR	92069-85	2582.0	2582.0	Ccp	Sh	122.8	175.4	76.0	61.1	38.8	39.5	132.7	88.0	61.1	111.8
34/7-20	NOR	92069-95	2590.0	2590.0	Ccp	Sh	132.0	528.0	282.0	75.1	60.1	153.2	387.4	177.2	162.2	228.3
34/7-20	NOR	92069-87	2593.0	2593.0	Ccp	Sh	264.1	673.1	375.4	215.6	161.7	190.7	468.5	244.6	236.3	319.3
34/7-20	NOR	92069-80	2643.0	2643.0	SWC	Coal	15.9	22.7	9.9	6.9	2.8	0.3	5.1	5.4	3.5	6.2
34/7-20	NOR	92069-48	2658.0	2658.0	Cut	Sst	33.9	56.1	23.3	47.4	56.0	12.9	46.3	34.5	23.7	34.5
34/7-20	NOR	92069-52	2730.0	2730.0	Cut	Sst	8.7	13.1	3.5	13.0	14.2	6.5	20.7	9.2	10.7	9.5
34/7-20	NOR	92069-57	2811.0	2811.0	Cut	Clyst	199.0	162.6	64.6	244.7	161.7	227.2	589.9	319.0	249.1	332.1
34/7-20	NOR	92069-61	2883.0	2883.0	Cut	Clyst	182.1	259.3	89.1	101.6	71.7	185.4	397.6	176.4	167.4	212.3
34/7-20	NOR	92069-69	3027.0	3027.0	Cut	Clyst	57.7	79.5	25.0	84.0	61.1	97.4	254.0	173.8	116.5	190.9

Well Name	Nation	Sample Name	Upper Depth	Lower Depth	Sample Type	Lith	A / A+G	B / B+G	A / A+D
34/7-20	NOR	92069-37	2440.0	2440.0	Cut	Clyst	0.42	0.60	0.19
34/7-20	NOR	92069-43	2560.0	2560.0	Cut	Clyst	0.10	0.07	0.25
34/7-20	NOR	92069-91	2570.0	2570.0	Cut	Clyst	0.27	0.24	0.12
34/7-20	NOR	92069-92	2578.0	2578.0	Ccp	Sst	0.37	0.42	0.22
34/7-20	NOR	92069-93	2579.0	2579.0	Ccp	Sst	0.34	0.38	0.21
34/7-20	NOR	92069-85	2582.0	2582.0	Ccp	Sh	0.35	0.26	0.32
34/7-20	NOR	92069-95	2590.0	2590.0	Ccp	Sh	0.25	0.21	0.16
34/7-20	NOR	92069-87	2593.0	2593.0	Ccp	Sh	0.40	0.34	0.32
34/7-20	NOR	92069-80	2643.0	2643.0	SWC	Coal	0.53	0.31	0.57
34/7-20	NOR	92069-48	2658.0	2658.0	Cut	Sst	0.58	0.62	0.51
34/7-20	NOR	92069-52	2730.0	2730.0	Cut	Sst	0.58	0.60	0.39
34/7-20	NOR	92069-57	2811.0	2811.0	Cut	Clyst	0.42	0.33	0.29
34/7-20	NOR	92069-61	2883.0	2883.0	Cut	Clyst	0.32	0.25	0.20
34/7-20	NOR	92069-69	3027.0	3027.0	Cut	Clyst	0.31	0.24	0.25