

# GEOCHEMICAL DATA REPORT

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TITLE

## GEOCHEMICAL DATA REPORT, VALEMON OIL 34/11-5S and WATER SAMPLES

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Table 1: Analytical Program for Valemon Oil 34/11-5S

Statoil

Well		Sample Type	Sample Code	Extraction Clean-Up	Lithology Description	Picking for screening	Prepreparing	Leco TOC	RockEval	Thermal Extraction	Pyrolysis GC	Picking for Extraction	Matroscan	Solvent Extraction	Topping	MPLC & Deasphaltene	EOM GC	Whole Oil GC	Sat GC (Quantitative)	Aro GC (Quantitative)	Sat GCMS (Quantitative)	Aro GCMS (Quantitative)	Carbon isotope of topped oil and fractions	Vitrinite Reflectance	Visual kerogen	API Gravity	Gas composition	GC-IRMS of gas	
			Table nos.:										8	8	8	8		13	9	9	11	12	10			17			
34/11-5S	Desc: MPSR # 166	'Oil'											x		x	x		x	x	x	x	x	x				*		
34/11-5S	MPSR # 786	'Water'												x			x												
			Totals:										1	2	1	1	2	1	1	1	1	1	1						
			* Ordered but not possible due to small sample amount																										

Table 8a Extraction and Fractionation (MPLC) Data (weights) for Valemon Oil 34/11-5S

Statoil

Well name	Sample type	Description	EOM/Wh.oil	EOM/Top.oil	Sat.	Aro.	NSO	Asph.	TOC(e)	HC	Non-HC	Sample number
34/11-5 S	oil	MPSR#166	54.7	36.7	27.43	6.57	2.3	0.4		34	2.7	142/0001-0

Table 8d Fractionation Data from MPLC (fractions as a percentage of topped oil) for Valemon Oil 34/11-5S

Statoil

Well name	Sample type	Description	Sat/EOM	Aro/EOM	Asph/EOM	NSO/EOM	HC/EOM	Non-HC/EOM	Sat/Aro	HC/Non-HC	Sample number
34/11-5 S	oil	MPSR#166	74.74	17.9	1.09	6.27	92.64	7.36	4.18	12.59	142/0001-0

Table 8g Iatroscan Data (%) for Valemon Oil 34/11-5S

Statoil

Well name	Sample type	Desc	%Sat.	%Aro.	%Resins	%Asph.	%Tot. HC	%Tot. pol.	Sample number
34/11-5 S	oil	MPSR#166	83.35	15.02	0.54	1.09	98.37	1.63	142/0001-0

Table 9Aa Saturated Hydrocarbon GC data (Peak Areas) for Valemon Oil 34/11-5S

Statoil

Well name	Sample type	Desc	nC15	nC16	Norpristane	nC17	Pristane	nC18
34/11-5 S	oil	MPSR#166	9235241	8474988	2800293	8028737	4742975	7021832

Well name	Sample type	Desc	Phytane	nC19	nC20	nC21	nC22	nC23
34/11-5 S	oil	MPSR#166	2793552	6769451	5351668	4567764	3977353	3443461

Well name	Sample type	Desc	nC24	nC25	nC26	nC27	nC28	nC29
34/11-5 S	oil	MPSR#166	3040851	2946384	2211753	1794788	1414314	1182227

Well name	Sample type	Desc	nC30	nC31	nC32	nC33	nC34	Sample number
34/11-5 S	oil	MPSR#166	915492	723006	563522	518453	432218	142/0001-0

Table 9Ab Saturated Hydrocarbon GC data (Peak Heights) for Valemon Oil 34/11-5S

Statoil

Well name	Sample type	Desc	nC15	nC16	Norpristane	nC17	Pristane	nC18
34/11-5 S	oil	MPSR#166	1252081	1166031	394374	1026353	661034	905182

Well name	Sample type	Desc	Phytane	nC19	nC20	nC21	nC22	nC23
34/11-5 S	oil	MPSR#166	416706	915068	805629	712391	676747	615637

Well name	Sample type	Desc	nC24	nC25	nC26	nC27	nC28	nC29
34/11-5 S	oil	MPSR#166	550280	470641	405325	373029	313864	278434

Well name	Sample type	Desc	nC30	nC31	nC32	nC33	nC34	Sample number
34/11-5 S	oil	MPSR#166	214434	171342	131186	106553	80534	142/0001-0

Table 9Ac Quantitative Analysis data of the Saturated Fraction (mg/g sat) for Valemon Oil 34/11-5S

Statoil

Well name	Sample type	Desc	nC15	nC16	iC18	nC17	Pr	nC18
34/11-5 S	oil	MPSR#166	42.65	39.14	12.93	37.08	21.90	32.43

Well name	Sample type	Desc	Ph	nC19	nC20	nC21	nC22	nC23
34/11-5 S	oil	MPSR#166	12.90	31.26	24.71	21.09	18.37	15.90

Well name	Sample type	Desc	nC24	nC25	nC26	nC27	nC28	nC29
34/11-5 S	oil	MPSR#166	14.04	13.61	10.21	8.29	6.53	5.46

Well name	Sample type	Desc	nC30	nC31	nC32	nC33	nC34	Sample number
34/11-5 S	oil	MPSR#166	4.23	3.34	2.60	2.39	2.00	142/0001-0

Table 9Ba Saturated Hydrocarbon GC data (Ratios from peak areas) for Valemon Oil 34/11-5S

Statoil

Well name	Sample type	Desc	Prist./ nC17	Prist./ Phyt.	(Prist./nC17)/ (Phyt./nC18)	CPI 1	Phytane/ nC18	nC17 /(nC17+nC27)	(Pristane+Phytane)/ (nC17+nC18)	Sample number
34/11-5 S	oil	MPSR#166	0.59	1.7	1.48	1.09	0.4	0.82	0.5	142/0001-0

Table 9Bb Saturated Hydrocarbon GC data (Ratios from peak heights) for Valemon Oil 34/11-5S

Statoil

Well name	Sample type	Desc	Prist./ nC17	Prist./ Phyt.	(Prist./nC17)/ (Phyt./nC18)	CPI 1	Phytane/ nC18	nC17/ (nC17+nC27)	(Pristane+Phytane)/ (nC17+nC18)	Sample number
34/11-5 S	oil	MPSR#166	0.64	1.59	1.4	1.04	0.46	0.73	0.56	142/0001-0

Table 9Ca Aromatic Hydrocarbon GC data (Peak Areas) for Valemon Oil 34/11-5S

Well name	Sample type	Desc	2MN	1MN	BPh	2EN	1EN	2.6+2.7 DMN	1.6DMN	1.5DMN	1.3.7TMN	1.3.6TMN	1.3.5TMN
34/11-5 S	oil	MPSR#166	2556253	875360	583171	459044		1350473	818904	379146	471186	518464	262564

Well name	Sample type	Desc	1.4.6+2.3. 6 TMN	P	3MP	2MP	9MP	1MP	DBT	4MDBT	2+3 MDBT	1MDBT	Sample number
34/11-5 S	oil	MPSR#166	526970	530144	385006	558534	361611	196567					142/0001-0



Table 9Cb Aromatic Hydrocarbon GC data (Peak Heights) for Valemon Oil 34/11-5S

Statoil

Well name	Sample type	Desc	2MN	1MN	BPh	2EN	1EN	2.6+2.7 DMN	1.6DMN	1.5DMN
34/11-5 S	oil	MPSR#166	448823	212691	108108	85451		275861	214066	76728

  

Well name	Sample type	Desc	1.3.7TMN	1.3.6TMN	1.3.5TMN	1.4.6+2.3.6 TMN	P	3MP	2MP	9MP
34/11-5 S	oil	MPSR#166	86389	124423	56895	101184	107481	74786	120405	61281

  

Well name	Sample type	Desc	1MP	DBT	4MDBT	2+3 MDBT	1MDBT	Sample number
34/11-5 S	oil	MPSR#166	43122	72560.3	143517.8	40292.1	6095.2	142/0001-0

Table 9Cc Quantitative Analysis data of the Aromatic Fraction (mg/g aro) for Valemon Oil 34/11-5S

Statoil

Well name	Sample type	Desc	P	3MP	2MP	9MP	1MP	Sample number
34/11-5 S	oil	MPSR#166	7.04	5.11	7.42	4.80	2.61	142/0001-0

Table 9Da Aromatic Hydrocarbon GC data (Ratios from peak areas) for Valemon Oil 34/11-5S

Statoil

Well name	Sample type	Desc	MNR	DMNR	BPhR	2/1MP	MPI1	MPI2	Rc
34/11-5 S	oil	MPSR#166	2.92	3.56	0.71	2.84	1.3	1.54	1.18

Well name	Sample type	Desc	DBT/ Ph	4/1 MDBT	(3+2)/ 1MDBT	F1	F2	Sample number
34/11-5 S	oil	MPSR#166				0.63	0.37	142/0001-0

Table 9Db Aromatic Hydrocarbon GC data (Ratios from peak heights) for Valemon Oil 34/11-5S

Statoil

Well name	Sample type	Desc	MNR	DMNR	BPhR	2/1MP	MPI1	MPI2	Rc
34/11-5 S	oil	MPSR#166	2.11	3.6	0.51	2.79	1.38	1.7	1.23

Well name	Sample type	Desc	DBT/Ph	4/1 MDBT	(3+2)/ 1MDBT	F1	F2	Sample number
34/11-5 S	oil	MPSR#166				0.65	0.4	142/0001-0

Table 10 Stable Carbon Isotope Composition of EOM/Topped Oils and Oil Fractions for Valemon Oil 34/11-5S

Statoil

Well name	Sample type	Description	EOM / Topped oil	Sat	Aro	NSO	Asph	CV	Sample Ref. number
34/11-5 S	oil	MPSR#166	-29.36	-29.56	-27.62	-34.12	-26.67	1.82	142/0001-0

Table 11a Triterpane data from m/z 191 fragmentograms  
 (Saturated Hydrocarbon Fraction GC-MS SIR analysis)  
 Triterpane Peak Heights for Valemon Oil 34/11-5S

Well name	Sample type	Desc	21/3 (N)	22/3 (O)	23/3 (P)	24/3 (Q)	25/3 (R)	24/4 (S)
34/11-5 S	oil	MPSR#166	2663.1	1948.9	1949.8	1915.2	832.1	563
Well name	26/3 (T)	26/3S	28/3R	28/3S	29/3R	29/3S	27Ts (A)	27Tm (B)
34/11-5 S	965	874	947.4	838.2	777.9	957.7	1157.4	363.6
Well name	28ab (Z)	25nor30ab (Z1)	29ab (C)	29Ts (C1)	30d (X)	29ba (D)	30O	30ab (E)
34/11-5 S			606.5	881.8	1173	393		1155
Well name	30ba (F)	30G	31abS (G)	31abR (H)	31ba (I)	32abS (J1)	32abR (J2)	33abS (K1)
34/11-5 S	148.9	166	354.3	243.3		624.6	185.4	528.9
Well name	33abR (K2)	34abS (L1)	34abR (L2)	35abS (M1)	35abR (M2)	Sample number		
34/11-5 S	135	380.7	164	231.8	182.6	142/0001-0		

Trit. Pk. Hts. m/z 191  
 For key to peak annotations see Experimental Procedures

Table 11b Triterpane data from m/z 177 fragmentograms  
(Saturated Hydrocarbon Fraction GC-MS SIR analysis)  
Triterpane Peak Heights for Valemon Oil 34/11-5S

Statoil

<u>Well name</u>	<u>Sample type</u>	<u>Desc</u>	<u>25nor28ab</u>	<u>25nor30ab</u>	<u>Sample number</u>
34/11-5 S	oil	MPSR#166			142/0001-0

Table 11c Sterane data from m/z 217 fragmentograms  
 (Saturated Hydrocarbon Fraction GC-MS SIR analysis)  
 Sterane peak heights for Valemon Oil 34/11-5S

Well name	Sample type	Desc	21a (u)	22a (v)	27dbS (a)	27dbR (b)	27daR (c)	27daS (d)	28dbS (e)	28dbR (f)
34/11-5 S	oil	MPSR#166	11881.2	2047.2	5102.4	3620.5	1312.8	1604.5	2648.9	1830.3

Well name	28daR+27aaS (g)	29dbS+27bbR (h)	27bbS+28daS (i)	27aaR (j)	29dbR (k)	29daR (l)	28aaS (m)	28bbR+29daS (n)
34/11-5 S	1559.5	3881.2	2747.5	2757.6	2788.7	1213.2	874.5	1704.7

Well name	28bbS (o)	28aaR (p)	29aaS (q)	29bbR (r)	29bbS (s)	29aaR (t)	Sample number
34/11-5 S	2820.9	702.3	1040.1	1940.6	1737.5	733.4	142/0001-0

Table 11d Sterane data from m/z 218 fragmentograms  
 (Saturated Hydrocarbon Fraction GC-MS SIR analysis)  
 Sterane peak heights for Valemon Oil 34/11-5S

Statoil

Well name	Sample type	Desc	27bbR (h)	27bbS (i)	28bbR (n)	28bbS (o)	29bbR (r)	29bbS (s)	30bbR (x)	30bbS (y)	Sample number
34/11-5 S	oil	MPSR#166	2724.8	2827	2286.6	3033.6	2648.9	2477.9	880	851.1	142/0001-0

Table 11e Triterpane data from m/z 191 fragmentograms  
 (Saturated Hydrocarbon Fraction GC-MS SIR analysis)  
 Amount of Triterpanes in ng/g oil (ppb) for Valemon Oil 34/11-5S

Well name	Sample type	Desc	21/3 (N)	22/3 (O)	23/3 (P)	24/3 (Q)	25/3 (R)	24/4 (S)
34/11-5 S	oil	MPSR#166	9007.6	6591.9	6594.9	6478.1	2814.6	1904.4
Well name	26/3 (T)	26/3S	28/3R	28/3S	29/3R	29/3S	27Ts (A)	27Tm (B)
34/11-5 S	3263.9	2956.1	3204.4	2835.1	2631.2	3239.4	3914.8	1229.9
Well name	28ab (Z)	25nor30ab (Z1)	29ab (C)	29Ts (C1)	30d (X)	29ba (D)	30O	30ab (E)
34/11-5 S			2051.4	2982.8	3967.6	1329.4		3906.6
Well name	30ba (F)	30G	31abS (G)	31abR (H)	31ba (I)	32abS (J1)	32abR (J2)	33abS (K1)
34/11-5 S	503.8	561.4	1198.4	823		2112.8	626.9	1789
Well name	33abR (K2)	34abS (L1)	34abR (L2)	35abS (M1)	35abR (M2)	Sample number		
34/11-5 S	456.6	1287.8	554.8	784	617.5	142/0001-0		

Triterpane Quant. (ppb) m/z 191  
 For ratio descriptions see Abbreviations section



Table 11f Triterpane data from m/z 177 fragmentograms  
(Saturated Hydrocarbon Fraction GC-MS SIR analysis)  
Amount of Triterpanes in ng/g oil (ppb) for Valemon Oil 34/11-5S

<u>Well name</u>	<u>Sample type</u>	<u>Desc</u>	<u>25nor28ab</u>	<u>25nor30ab</u>	<u>Sample number</u>
34/11-5 S	oil	MPSR#166			

Table 11g Sterane data from m/z 217 fragmentograms  
 (Saturated Hydrocarbon Fraction GC-MS SIR analysis)  
 Amount of steranes in ng/g oil (ppb) for Valemon Oil 34/11-5S

Statoil

Well name	Sample type	Desc	21a (u)	22a (v)	27dbS (a)	27dbR (b)	27daR (c)	27daS (d)	28dbS (e)
34/11-5 S	oil	MPSR#166	40187.2	6924.5	17258.3	12245.9	4440.6	5427	8959.8

Well name	28dbR (f)	28daR+27aaS (g)	29dbS+27bbR (h)	27bbS+28daS (i)	27aaR (j)	29dbR (k)	29daR (l)	28aaS (m)
34/11-5 S	6190.9	5274.8	13127.7	9293.1	9327.4	9432.4	4103.4	2957.9

Well name	28bbR+29daS (n)	28bbS (o)	28aaR (p)	29aaS (q)	29bbR (r)	29bbS (s)	29aaR (t)	Sample number
34/11-5 S	5766.1	9541.6	2375.4	3518.2	6563.9	5876.9	2480.5	142/0001-0

Table 11h Sterane data from m/z 218 fragmentograms  
 (Saturated Hydrocarbon Fraction GC-MS SIR analysis)  
 Sterane Quantified in ng/g oil (ppb) for Valemon Oil 34/11-5S

Statoil

Well name	Sample type	Desc	27bbR (h)	27bbS (i)	28bbR (n)	28bbS (o)	29bbR (r)	29bbS (s)	30bbR (x)	30bbS (y)	Sample number
34/11-5 S	oil	MPSR#166	9216.5	9561.9	7734.2	10260.7	8959.7	8381.2	2976.7	2878.9	142/0001-0

**Saturated Fraction GCMS Ratio definitions**

In Tables	Triterpanes	Steranes
Ratio 1	27Tm/27Ts	$27d\beta S / (27d\beta S + 27\alpha\alpha R)$
Ratio 2	27Tm/(27Tm+27Ts)	$29\alpha\alpha S / (29\alpha\alpha S + 29\alpha\alpha R)$
Ratio 3	27Tm/(27Tm+30 $\alpha\beta$ +30 $\beta\alpha$ )	$2 * (29\beta\beta R + 29\beta\beta S) / (29\alpha\alpha S + 29\alpha\alpha R + 2 * [29\beta\beta R + 29\beta\beta S])$
Ratio 4	29 $\alpha\beta$ /30 $\alpha\beta$	$(27d\beta S + 27d\beta R + 27d\alpha R + 27d\alpha S) / (29d\beta S + 29d\beta R + 29d\alpha R + 29d\alpha S)$
Ratio 5	29 $\alpha\beta$ /(29 $\alpha\beta$ +30 $\alpha\beta$ )	$(29\beta\beta R + 29\beta\beta S) / (29\alpha\alpha S + 29\beta\beta R + 29\beta\beta S)$
Ratio 6	30d/30 $\alpha\beta$	$21\alpha + 22\alpha / (21\alpha + 22\alpha + 29\alpha\alpha S + 29\beta\beta R + 29\beta\beta S + 29\alpha\alpha R)$
Ratio 7	28 $\alpha\beta$ /30 $\alpha\beta$	$21\alpha + 22\alpha / (21\alpha + 22\alpha + 28d\alpha S + 28\alpha\alpha S + 29d\alpha R + 29\alpha\alpha S + 29\beta\beta R + 29\beta\beta S + 29\alpha\alpha R)$
Ratio 8	28 $\alpha\beta$ /29 $\alpha\beta$	$(29\beta\beta R + 29\beta\beta S) / (29\alpha\alpha S + 29\beta\beta R + 29\beta\beta S + 29\alpha\alpha R)$
Ratio 9	28 $\alpha\beta$ /(28 $\alpha\beta$ +30 $\alpha\beta$ )	$29\alpha\alpha S / 29\alpha\alpha R$
Ratio 10	24/3/30 $\alpha\beta$	$(29\beta\beta R + 29\beta\beta S) / 29\alpha\alpha R$
Ratio 11	30 $\alpha\beta$ /(30 $\beta\alpha$ +30 $\alpha\beta$ )	
Ratio 12	(29 $\alpha\beta$ +29 $\beta\alpha$ )/(29 $\alpha\beta$ +29 $\beta\alpha$ +30 $\alpha\beta$ +30 $\beta\alpha$ )	
Ratio 13	(29 $\beta\alpha$ +30 $\beta\alpha$ )/(29 $\alpha\beta$ +30 $\alpha\beta$ )	
Ratio 14	32 $\alpha\beta$ S/(32 $\alpha\beta$ S+32 $\alpha\beta$ R) %	

Table 11i Triterpane data from m/z 191 fragmentograms  
 (Saturated Hydrocarbon Fraction GC-MS SIR analysis)  
 Ratios from peak heights for Valemon Oil 34/11-5S

Statoil

Well name	Sample type	Desc	Ratio 1	Ratio 2	Ratio 3	Ratio 4	Ratio 5	Ratio 6	Ratio 7
34/11-5 S	oil	MPSR#166	0.31	0.24	0.22	0.53	0.34	1.02	

Well name	Ratio 8	Ratio 9	Ratio 10	Ratio 11	Ratio 12	Ratio 13	Ratio 14	Sample number
34/11-5 S			1.66	0.89	0.43	0.31	77.12	142/0001-0

Table 11j Sterane data from m/z 217 fragmentograms  
 (Saturated Hydrocarbon Fraction GC-MS SIR analysis)  
 Ratios from peak heights for Valemon Oil 34/11-5S

Statoil

Well name	Sample type	Desc	Ratio 1	Ratio 2	Ratio 3	Ratio 4	Ratio 5	Ratio 6
34/11-5 S	oil	MPSR#166	0.65	58.65	80.57	1.21	0.78	0.72

Well name	Ratio 7	Ratio 8	Ratio 9	Ratio 10	Sample number
34/11-5 S	0.56	0.67	1.42	5.02	142/0001-0

Statoil

Table 12a: Aromatic Peak Height data from m/z 142/156 fragmentograms  
(Aromatic Hydrocarbon Fraction GC-MS SIR analysis)  
C1 and C2 Naphthalenes peak heights for Valemon Oil 34/11-5S

Well	Sample type	Desc	2MN	1MN	2EN	1EN	2.6+2.7-DMN	1.3+1.7-DMN	1.6-DMN
34/11-5 S	oil	MPSR#166	3171732	1335909	304907.3	42074.2	2401777	2076224	1610254

  

Well	Sample type	Desc	2MN	1MN	2EN	2.3+1.4-DMN	1.5-DMN	1.2-DMN	Sample
34/11-5 S	oil	MPSR#166	3171732	1335909	304907.3	609371.1	200273.1	60650.9	142/0001-0

Statoil

Table 12b: Aromatic Peak Height data from m/z 170 fragmentograms  
(Aromatic Hydrocarbon Fraction GC-MS SIR analysis)  
C3 Naphthalenes peak heights for Valemon Oil 34/11-5S

Well	Sample type	Desc	1.3.7-TMN	1.3.6-TMN	1.3.5+1.4.6	2.3.6-TMN	1.6.7+1.2.7	1.2.6-TMN	1.2.4-TMN	1.2.5-TMN	Sample
34/11-5 S	oil	MPSR#166	747609.8	1015615	467069.7	759226.2	385868	75852.4	14504.2	32399.2	142/0001-0

Statoil

Table 12c Aromatic Peak Height data from m/z 178/192 fragmentograms  
(Aromatic Hydrocarbon Fraction GC-MS SIR analysis)  
Phenanthrene and methyl phenanthrene peak heights for Valemon oil 34/11-5S

Well	Sample type	Desc	P	3MP	2MP	9MP	1MP	Sample
34/11-5 S	oil	MPSR#166	1480203	791845	898032.1	526248.7	391995.8	S49/0003-0

Table 12d: Aromatic Peak Height data from m/z 184/198 fragmentograms  
 (Aromatic Hydrocarbon Fraction GC-MS SIR analysis)  
 Dibenzothiophene and Methyl Dibenzothiophene peak heights for Valemon Oil 34/11-5S

Statoil

Well	Sample type	Desc	DBT	4 MDBT	2+3 MDBT	1 MDBT	Sample
34/11-5 S	oil	MPSR#166	72560.3	143517.8	40292.1	6095.2	142/0001-0

Table 12e Triaromatic Sterane data from m/z 231 fragmentograms  
 (Aromatic Hydrocarbon Fraction GC-MS SIR analysis)  
 Triaromatic Sterane peak heights for Valemon Oil 34/11-5S

Statoil

Well name	Sample type	Description	a1	b1	c1	d1	e1	f1	g1	Sample number
34/11-5 S	oil	MPSR#166	6169.4	3984.9	187.5	149.7				142/0001-0

Table 12f Monoaromatic Sterane data from m/z 253 fragmentograms  
 (Aromatic Hydrocarbon Fraction GC-MS SIR analysis)  
 Monoaromatic Sterane peak heights for Valemon Oil 34/11-5S

Statoil

Well name	Sample type	Description	A1	B1	C1	D1	E1	F1	G1	H1	I1	Sample number
34/11-5 S	oil	MPSR#166	2498.6	1436.7	2665	2135.3	4063.9	1142.7	3927	2323.4	685.8	142/0001-0

Table 12g: Amount of C1-C2-naphthalenes in ng/g oil (ppb) from m/z 142/156 of Aro fraction for Valemon Oil 34/11-5S

Statoil

Well	Descript.		2MN	1MN	2EN	1EN	2.6+2.7-DMN	1.3+1.7-DMN	1.6-DMN
34/11-5 S	oil	MPSR#166	3241052.5	1365106.2	311571.3	42993.7	2454269.5	2121601.2	1645447.2

Well	Descript.		2MN	1MN	2EN	2.3+1.4-DMN	1.5-DMN	1.2-DMN	Sample
34/11-5 S	oil	MPSR#166	3241052.5	1365106.2	311571.3	622689.4	204650.2	61976.4	142/0001-0

Table 12h: Amount of C3-naphthalenes in ng/g oil (ppb) from m/z 170 of Aro fraction for Valemon Oil 34/11-5S

Statoil

Well	Sample type	Description	1.3.7-TMN	1.3.6-TMN	1.3.5+1.4.6	2.3.6-TMN	1.6.7+1.2.7	1.2.6-TMN
34/11-5 S	oil	MPSR#166	763949.4	1037812	477277.8	775819.6	394301.4	77510.2

Well	Sample type	Description	1.3.7-TMN	1.3.6-TMN	1.3.5+1.4.6	1.2.4-TMN	1.2.5-TMN	Sample
34/11-5 S	oil	MPSR#166	763949.4	1037812	477277.8	14821.2	33107.3	142/0001-0

Table 12i: Amount of phenanthrene and methyl phenanthrenes in ng/g oil (ppb) from m/z 178/192 of Aro fraction for Valemon Oil 34/11-5S

Statoil

Well	Sample type	Description	P	3MP	2MP	9MP	1MP	Sample
34/11-5 S	oil	MPSR#166	1512553.9	809151.3	917659.3	537750.3	400563.2	S49/0003-0

Table 12j: Amount of dibenzothiophene and methyl dibenzothiophenes in ng/g oil (ppb) from m/z 184/198 of Aro fraction for Valemon Oil 34/11-5S

Statoil

Well	Sample type	Description	DBT	4 MDBT	2+3 MDBT	1 MDBT	Sample
34/11-5 S	oil	MPSR#166	74146.2	146654.5	41172.7	6228.4	142/0001-0

Table 12k: Amount of triaromatic steranes in ng/g oil (ppb) from m/z 231 of Aro fraction for Valemon Oil 34/11-5S

Statoil

Well name	Sample type	Description	a1	b1	c1	d1	e1	f1	g1	Sample number
34/11-5 S	oil	MPSR#166	6304.2	4072	191.6	153				142/0001-0



Table 12l: Amount of monoaromatic steranes in ng/g oil (ppb) from m/z 253 of Aro fraction for Valemon Oil 34/11-5S

Statoil

Well name	Sample type	Description	A1	B1	C1	D1	E1	F1
34/11-5 S	oil	MPSR#166	2553.2	1468.1	2723.3	2181.9	4152.7	1167.7

  

Well name	Sample type	Description	G1	H1	I1	Sample number
34/11-5 S	oil	MPSR#166	4012.8	2374.2	700.8	142/0001-0

Table 12m Triaromatic Sterane data from m/z 231 fragmentograms (Aromatic Hydrocarbon Fraction GC-MS SIR analysis)  
Ratios from peak heights for Valemon Oil 34/11-5S

Statoil

Well name	Sample type	Description	$a1/(a1+g1)$	$b1/(b1+g1)$	$(a1+b1)/(a1+b1+c1+d1+e1+f1+g1)$	$a1/(a1+e1+f1+g1)$	$a1/(a1+d1)$	Sample number	
34/11-5 S	oil	MPSR#166	1	1		0.97	1	0.98	142/0001-0

Table 12n Monoaromatic Sterane data from m/z 253 fragmentograms (Aromatic Hydrocarbon Fraction GC-MS SIR analysis)  
Ratios from peak heights for Valemon Oil 34/11-5S

Statoil

Well name	Sample type	Description	$A1/(A1+E1)$	$B1/(B1+E1)$	$A1/(A1+E1+G1)$	$(A1+B1)/(A1+B1+C1+D1+E1+F1+G1+H1+I1)$	Sample number	
34/11-5 S	oil	MPSR#166	0.38	0.26	0.24		0.19	142/0001-0

Table 13: Light Hydrocarbons Data, Valemon Oil 34/11-5S

Statoil

Well name	Sample type	Description	iC4	nC4	iC5	nC5	2,2DMC4	2,3DMC4	2MC5	3MC5	nC6	MCyC5	Benz	CyC6
34/11-5 S	oil	MPSR#166					0.16	0.22			3.61	2.05	1.7	3.68

Well name	Sample type	2MC6	3MC6	1,3ciDMCyC5	1,3trDMCyC5	1,2trDMCyC5	nC7	MCyC6	Tol	nC8	p/m-Xyl	Sample number
34/11-5 S	oil	2.41	1.66	0.55	0.53	0.98	5.14	8	6.04	5.44	6.09	142/0001-0