

Table 10. GCMS SIR of saturated compounds (peak height)

m/e			177				191										
Well	Sample type	Lower Depth	APT ID	25nor28αβ	25nor30αβ	20/3	21/3	23/3	24/3	25/3R	25/3S	24/4	26/3R	26/3S	28/3R	28/3S	29/3R
7228/7-1 S	DC	1335	11823	0.00e0	6.23e5	1.05e6	1.45e6	2.40e6	1.03e6	1.01e6	1.07e6	1.30e6	7.11e5	5.61e5	4.46e5	6.74e5	1.47e6
7228/7-1 S	DC	1347	11825	0.00e0	1.87e5	5.25e5	8.31e5	1.28e6	5.76e5	4.45e5	4.73e5	6.54e5	3.30e5	2.53e5	1.85e5	2.47e5	5.31e5
7228/7-1 S	DC	1359	11827	0.00e0	1.01e5	4.56e5	7.70e5	1.02e6	5.72e5	2.92e5	2.90e5	6.13e5	2.73e5	1.77e5	1.22e5	1.95e5	2.95e5
7228/7-1 ST3	DC	1779	11828	3.19e5	2.10e5	1.39e6	2.42e6	2.84e6	1.31e6	5.83e5	5.24e5	2.52e6	4.21e5	4.17e5	3.31e5	4.01e5	3.03e5
7228/7-1 ST3	DC	1794	11063	0.00e0	0.00e0	4.13e5	6.73e5	7.37e5	5.90e5	1.40e5	1.16e5	7.75e5	1.14e5	1.11e5	1.16e5	1.07e5	8.52e4
7228/7-1 B	SWC	1959.50	11835	5.36e4	4.20e4	1.02e6	1.26e6	1.09e6	3.39e5	1.20e5	1.15e5	2.56e5	9.65e4	8.45e4	4.63e4	4.79e4	4.65e4
7228/7-1 B	SWC	2025.50	11837	6.71e4	5.56e4	4.22e5	8.83e5	2.49e6	1.83e6	3.84e5	3.78e5	5.35e5	1.64e5	1.63e5	4.80e4	3.81e4	0.00e0
7228/7-1 B	SWC	2081	11840	1.00e5	0.00e0	1.01e6	2.20e5	4.20e5	4.08e5	6.96e4	5.35e4	2.53e6	1.18e5	5.25e4	0.00e0	0.00e0	0.00e0
7228/7-1 B	SWC	2123	11841	1.07e5	1.36e5	4.81e5	5.04e5	7.04e5	8.83e5	1.30e5	1.22e5	1.08e6	9.48e4	7.56e4	0.00e0	0.00e0	0.00e0
7228/7-1 A	DC	1347	11032	1.98e5	0.00e0	3.32e5	5.49e5	6.63e5	4.58e5	1.93e5	1.95e5	5.58e5	2.27e5	1.36e5	9.45e4	1.28e5	1.63e5
7228/7-1 A	DC	2742	11048	6.15e4	0.00e0	2.10e5	2.03e5	4.50e5	3.97e5	7.88e4	7.90e4	3.08e5	5.57e4	5.27e4	4.09e4	4.07e4	3.42e4
7228/7-1 A	COCH	2857.75	11843	6.45e4	2.73e4	4.98e5	8.50e5	1.75e6	1.16e6	2.18e5	2.18e5	4.09e5	1.07e5	1.00e5	4.65e4	3.70e4	0.00e0



Table 10. continued, GCMS SIR of saturated compounds (peak height)
m/e 191

Well	Sample type	Lower Depth	APT ID	29/3S	27Ts	27Tm	30/3R	30/3S	28αβ	25nor30αβ	29αβ	29Ts	30d	29βα	300	30αβ	30βα
7228/7-1 S	DC	1335	11823	1.31e6	5.64e6	1.57e7	1.46e6	8.13e5	1.63e6	4.41e5	2.53e7	9.50e6	2.68e6	9.17e6	0.00e0	6.62e7	1.66e7
7228/7-1 S	DC	1347	11825	4.49e5	2.01e6	8.66e6	5.31e5	2.73e5	5.42e5	1.47e5	1.11e7	3.21e6	9.82e5	3.42e6	0.00e0	2.38e7	6.19e6
7228/7-1 S	DC	1359	11827	2.43e5	8.88e5	1.04e7	0.00e0	0.00e0	2.81e5	0.00e0	1.03e7	1.43e6	7.19e5	2.25e6	0.00e0	1.54e7	3.98e6
7228/7-1 ST3	DC	1779	11828	2.77e5	1.90e6	4.61e6	2.46e5	1.96e5	5.52e5	3.51e5	5.90e6	2.15e6	1.92e6	6.60e5	0.00e0	1.05e7	1.35e6
7228/7-1 ST3	DC	1794	11063	8.34e4	4.78e5	1.56e6	7.75e4	1.38e5	9.06e4	0.00e0	2.16e6	7.16e5	8.08e5	3.25e5	0.00e0	4.25e6	6.67e5
7228/7-1 B	SWC	1959.50	11835	3.63e4	1.97e5	5.98e5	0.00e0	0.00e0	1.10e5	5.51e4	1.47e6	1.95e5	5.38e4	2.07e5	0.00e0	2.04e6	4.59e5
7228/7-1 B	SWC	2025.50	11837	0.00e0	2.60e5	4.38e5	0.00e0	0.00e0	9.73e4	8.22e4	1.05e6	2.62e5	4.77e4	2.22e5	0.00e0	1.03e6	2.30e5
7228/7-1 B	SWC	2081	11840	0.00e0	9.93e5	2.34e7	0.00e0	0.00e0	4.42e5	0.00e0	5.01e7	2.74e6	1.25e6	1.02e7	0.00e0	3.07e7	9.47e6
7228/7-1 B	SWC	2123	11841	0.00e0	4.14e5	5.18e6	0.00e0	0.00e0	2.34e5	2.50e5	1.29e7	1.05e6	1.03e6	2.95e6	0.00e0	9.76e6	3.60e6
7228/7-1 A	DC	1347	11032	1.44e5	4.29e5	8.88e6	0.00e0	0.00e0	2.03e5	0.00e0	7.87e6	5.68e5	4.26e5	1.04e6	0.00e0	7.58e6	1.68e6
7228/7-1 A	DC	2742	11048	2.44e4	2.09e5	4.76e5	0.00e0	0.00e0	2.77e5	0.00e0	1.14e6	2.32e5	1.26e5	2.51e5	0.00e0	1.12e6	1.98e5
7228/7-1 A	COCH	2857.75	11843	0.00e0	2.07e5	1.85e5	0.00e0	0.00e0	6.18e4	0.00e0	4.77e5	1.58e5	6.18e4	5.54e4	0.00e0	5.05e5	7.63e4



Table 10. continued, GCMS SIR of saturated compounds (peak height)

Well	Sample type	Lower Depth	APT ID	191								217					
				31 α β S	31 α β R	30G	32 α β S	32 α β R	33 α β S	33 α β R	34 α β S	34 α β R	35 α β S	35 α β R	21 $\alpha\alpha$	21 $\beta\beta$	22 $\alpha\alpha$
7228/7-1 S	DC	1335	11823	1.57e7	1.69e7	3.79e6	5.33e6	6.99e6	4.53e6	6.26e6	2.80e6	4.21e6	2.44e6	3.60e6	5.78e6	3.83e6	2.20e6
7228/7-1 S	DC	1347	11825	6.46e6	6.76e6	1.24e6	2.24e6	2.52e6	1.63e6	2.02e6	1.00e6	1.33e6	9.51e5	1.19e6	3.19e6	2.00e6	1.22e6
7228/7-1 S	DC	1359	11827	6.42e6	5.93e6	6.56e5	2.24e6	1.94e6	1.25e6	1.12e6	7.85e5	7.63e5	8.64e5	7.39e5	3.24e6	1.90e6	1.23e6
7228/7-1 ST3	DC	1779	11828	4.82e6	3.56e6	6.09e5	2.91e6	1.94e6	1.30e6	8.40e5	7.50e5	4.99e5	4.54e5	3.42e5	7.23e5	9.25e5	5.47e5
7228/7-1 ST3	DC	1794	11063	2.09e6	1.47e6	2.91e5	1.39e6	9.85e5	6.74e5	4.72e5	4.39e5	3.09e5	2.46e5	1.85e5	1.16e5	1.41e5	9.76e4
7228/7-1 B	SWC	1959.50	11835	4.37e5	3.54e5	4.75e5	2.05e5	1.41e5	1.24e5	8.33e4	6.44e4	5.33e4	5.13e4	3.79e4	4.68e5	1.79e5	1.37e5
7228/7-1 B	SWC	2025.50	11837	3.09e5	2.42e5	9.95e4	1.27e5	1.08e5	8.17e4	6.43e4	4.67e4	3.16e4	5.11e4	3.76e4	2.00e5	5.06e5	1.45e5
7228/7-1 B	SWC	2081	11840	1.60e7	1.11e7	8.06e5	4.77e6	3.13e6	1.05e6	6.72e5	4.00e5	2.66e5	1.40e5	1.02e5	5.81e4	9.88e4	3.66e4
7228/7-1 B	SWC	2123	11841	5.60e6	3.76e6	3.22e5	2.27e6	1.58e6	1.02e6	6.66e5	4.76e5	3.18e5	2.38e5	1.95e5	1.25e5	1.66e5	7.15e4
7228/7-1 A	DC	1347	11032	4.47e6	3.06e6	3.61e5	1.72e6	1.21e6	8.97e5	5.90e5	5.64e5	3.75e5	6.99e5	4.50e5	2.37e6	1.37e6	1.01e6
7228/7-1 A	DC	2742	11048	4.51e5	3.32e5	8.85e4	2.43e5	1.75e5	1.26e5	8.60e4	7.35e4	5.04e4	5.89e4	3.81e4	8.49e4	1.27e5	5.99e4
7228/7-1 A	COCH	2857.75	11843	1.68e5	1.22e5	4.55e4	7.58e4	6.43e4	5.25e4	3.11e4	2.68e4	2.33e4	0.00e0	0.00e0	2.00e5	4.21e5	1.55e5

Table 10. continued, GCMS SIR of saturated compounds (peak height)
m/e 217

Well	Sample type	Lower Depth	APT ID	22ββ	27dbS	27dbR	27daR	27daS	28dbS#1	28dbS#2	28dbR#1	28dbR#2	28daR	27ααS	27ββR+29dbS	27ββS	28daS
7228/7-1 S	DC	1335	11823	2.12e6	2.70e7	2.06e7	8.56e6	9.19e6	1.47e7	1.48e7	1.06e7	1.37e7	8.12e6	2.04e7	1.63e7	5.96e6	5.65e6
7228/7-1 S	DC	1347	11825	9.47e5	9.53e6	7.41e6	3.00e6	3.28e6	5.08e6	5.04e6	3.48e6	4.62e6	2.83e6	6.70e6	5.91e6	2.05e6	1.99e6
7228/7-1 S	DC	1359	11827	7.50e5	5.46e6	3.63e6	1.66e6	1.95e6	2.45e6	2.44e6	1.49e6	2.08e6	1.31e6	2.75e6	3.60e6	1.03e6	1.04e6
7228/7-1 ST3	DC	1779	11828	4.69e5	2.03e6	1.23e6	5.84e5	7.24e5	5.46e5	5.70e5	2.90e5	4.22e5	2.72e5	6.22e5	1.29e6	7.13e5	2.96e5
7228/7-1 ST3	DC	1794	11063	8.28e4	5.47e5	3.33e5	1.47e5	1.75e5	1.07e5	1.23e5	6.51e4	8.60e4	4.46e4	1.25e5	3.51e5	1.47e5	6.52e4
7228/7-1 B	SWC	1959.50	11835	9.28e4	1.86e5	1.03e5	4.50e4	5.32e4	7.02e4	7.35e4	3.64e4	4.69e4	3.05e4	1.33e5	8.99e4	6.94e4	2.57e4
7228/7-1 B	SWC	2025.50	11837	3.22e5	2.35e5	1.32e5	5.36e4	6.52e4	8.98e4	8.01e4	4.50e4	6.25e4	4.29e4	1.50e5	1.04e5	7.47e4	2.83e4
7228/7-1 B	SWC	2081	11840	6.46e4	5.16e4	3.22e4	3.92e4	3.12e4	6.36e4	7.01e4	2.90e4	6.29e4	5.50e4	7.24e4	3.04e5	0.00e0	6.21e4
7228/7-1 B	SWC	2123	11841	1.07e5	2.08e5	1.14e5	6.66e4	8.41e4	1.09e5	1.06e5	5.39e4	7.75e4	6.25e4	1.60e5	3.05e5	7.80e4	6.06e4
7228/7-1 A	DC	1347	11032	5.28e5	2.60e6	1.52e6	7.78e5	9.78e5	8.09e5	7.64e5	3.84e5	5.35e5	4.16e5	7.85e5	1.67e6	5.37e5	3.54e5
7228/7-1 A	DC	2742	11048	7.09e4	1.35e5	8.96e4	3.31e4	4.23e4	4.83e4	4.90e4	3.10e4	3.81e4	2.22e4	4.18e4	7.28e4	4.26e4	2.10e4
7228/7-1 A	COCH	2857.75	11843	2.27e5	1.69e5	9.81e4	4.32e4	4.87e4	6.49e4	5.32e4	3.03e4	4.27e4	3.19e4	5.64e4	7.29e4	5.77e4	2.39e4



Table 10. continued, GCMS SIR of saturated compounds (peak height)
m/e 217

Well	Sample type	Lower Depth	APT ID	27 α R	29 δ R	29 δ aR	28 α S	29 δ aS	28 β R	28 β S	28 α R	29 α S	29 β R	29 β S	29 α R	30 α S	30 β R
7228/7-1 S	DC	1335	11823	6.45e7	1.89e7	9.94e6	5.81e6	7.35e6	1.46e7	9.89e6	4.48e7	6.59e6	0.00e0	0.00e0	4.41e7	1.13e7	2.14e6
7228/7-1 S	DC	1347	11825	1.98e7	6.59e6	3.30e6	1.80e6	2.49e6	4.87e6	3.18e6	1.30e7	2.22e6	0.00e0	0.00e0	1.23e7	3.52e6	6.62e5
7228/7-1 S	DC	1359	11827	7.17e6	3.27e6	1.61e6	7.45e5	1.49e6	1.99e6	1.49e6	4.03e6	1.10e6	0.00e0	0.00e0	4.06e6	1.31e6	3.05e5
7228/7-1 ST3	DC	1779	11828	6.87e5	8.29e5	4.98e5	1.43e5	4.87e5	4.03e5	4.86e5	2.60e5	5.39e5	6.83e5	6.63e5	4.18e5	2.64e5	1.48e5
7228/7-1 ST3	DC	1794	11063	1.57e5	2.47e5	1.51e5	2.66e4	1.32e5	8.07e4	7.44e4	6.87e4	1.50e5	1.84e5	1.70e5	1.18e5	3.82e4	4.05e4
7228/7-1 B	SWC	1959.50	11835	4.37e5	8.52e4	3.89e4	3.95e4	3.10e4	8.20e4	7.41e4	1.09e5	8.33e4	6.89e4	6.52e4	1.13e5	4.40e4	1.79e4
7228/7-1 B	SWC	2025.50	11837	5.82e5	1.02e5	3.81e4	2.59e4	2.62e4	6.19e4	4.73e4	3.23e5	8.05e4	8.72e4	1.00e5	1.66e5	6.98e4	0.00e0
7228/7-1 B	SWC	2081	11840	2.36e5	2.11e5	1.27e5	9.01e4	1.32e5	0.00e0	6.00e4	2.55e5	7.14e5	4.28e5	2.89e5	5.94e5	1.11e6	0.00e0
7228/7-1 B	SWC	2123	11841	3.24e5	2.06e5	1.17e5	0.00e0	1.49e5	0.00e0	6.22e4	3.08e5	4.42e5	2.44e5	1.96e5	3.04e5	3.15e5	3.81e4
7228/7-1 A	DC	1347	11032	1.17e6	1.20e6	5.51e5	1.85e5	6.68e5	4.35e5	4.57e5	2.56e5	5.12e5	3.71e5	4.10e5	4.83e5	3.60e5	1.22e5
7228/7-1 A	DC	2742	11048	7.57e4	6.03e4	3.97e4	1.61e4	4.59e4	3.54e4	3.61e4	4.54e4	7.30e4	5.89e4	5.27e4	6.94e4	2.38e4	1.64e4
7228/7-1 A	COCH	2857.75	11843	2.41e5	5.88e4	2.67e4	0.00e0	2.06e4	3.34e4	3.68e4	4.92e4	4.82e4	4.86e4	5.04e4	3.96e4	2.74e4	1.71e4

Table 10. continued, GCMS SIR of saturated compounds (peak height)

Well	Sample type	Lower Depth	APT ID	217		218							
				30ββS	30ααR	27ββR	27ββS	28ββR	28ββS	29ββR	29ββS	30ββR	30ββS
7228/7-1 S	DC	1335	11823	1.39e6	1.54e7	7.31e6	4.98e6	1.11e7	9.16e6	6.21e6	6.57e6	1.31e6	1.17e6
7228/7-1 S	DC	1347	11825	4.89e5	4.38e6	2.61e6	1.70e6	3.63e6	2.87e6	1.95e6	2.14e6	3.74e5	3.42e5
7228/7-1 S	DC	1359	11827	1.52e5	1.48e6	1.60e6	1.08e6	1.57e6	1.37e6	1.04e6	1.09e6	1.72e5	1.48e5
7228/7-1 ST3	DC	1779	11828	8.13e4	6.42e4	1.06e6	9.04e5	4.17e5	5.05e5	8.75e5	8.39e5	1.20e5	1.01e5
7228/7-1 ST3	DC	1794	11063	2.58e4	1.63e4	2.61e5	2.23e5	8.02e4	9.24e4	2.97e5	2.71e5	4.12e4	3.65e4
7228/7-1 B	SWC	1959.50	11835	1.26e4	1.34e4	1.02e5	8.25e4	8.36e4	8.37e4	7.60e4	8.16e4	1.45e4	1.52e4
7228/7-1 B	SWC	2025.50	11837	0.00e0	4.05e4	1.04e5	8.07e4	5.32e4	5.16e4	1.03e5	1.11e5	0.00e0	0.00e0
7228/7-1 B	SWC	2081	11840	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	5.98e4	3.43e5	3.09e5	0.00e0	0.00e0
7228/7-1 B	SWC	2123	11841	0.00e0	0.00e0	1.37e5	9.53e4	9.75e4	8.73e4	2.79e5	2.70e5	0.00e0	0.00e0
7228/7-1 A	DC	1347	11032	4.82e4	9.23e4	8.89e5	6.16e5	3.85e5	4.18e5	5.11e5	5.26e5	6.40e4	5.62e4
7228/7-1 A	DC	2742	11048	1.14e4	8.59e3	8.14e4	7.05e4	4.36e4	5.46e4	1.07e5	7.34e4	1.57e4	1.29e4
7228/7-1 A	COCH	2857.75	11843	0.00e0	0.00e0	6.78e4	5.64e4	3.25e4	3.13e4	5.86e4	6.02e4	0.00e0	0.00e0

Table 11. GCMS SIR of saturated compounds (amounts in ng/g)

m/e				177		191											
Well	Sample type	Lower Depth	APT ID	25nor28αβ	25nor30αβ	20/3	21/3	23/3	24/3	25/3R	25/3S	24/4	26/3R	26/3S	28/3R	28/3S	29/3R
7228/7-1 S	DC	1335	11823	0.00e0	8.61e3	1.45e4	2.00e4	3.32e4	1.42e4	1.40e4	1.47e4	1.79e4	9.83e3	7.76e3	6.17e3	9.32e3	2.04e4
7228/7-1 S	DC	1347	11825	0.00e0	1.88e3	5.28e3	8.35e3	1.29e4	5.79e3	4.48e3	4.75e3	6.58e3	3.32e3	2.54e3	1.86e3	2.48e3	5.34e3
7228/7-1 S	DC	1359	11827	0.00e0	9.75e2	4.41e3	7.44e3	9.88e3	5.52e3	2.82e3	2.80e3	5.93e3	2.64e3	1.71e3	1.18e3	1.88e3	2.85e3
7228/7-1 ST3	DC	1779	11828	5.31e3	3.49e3	2.31e4	4.03e4	4.73e4	2.17e4	9.69e3	8.72e3	4.19e4	7.01e3	6.93e3	5.50e3	6.67e3	5.04e3
7228/7-1 ST3	DC	1794	11063	0.00e0	0.00e0	1.41e3	2.29e3	2.51e3	2.01e3	4.78e2	3.95e2	2.64e3	3.87e2	3.78e2	3.97e2	3.65e2	2.91e2
7228/7-1 B	SWC	1959.50	11835	1.01e3	7.88e2	1.92e4	2.36e4	2.05e4	6.36e3	2.26e3	2.16e3	4.81e3	1.81e3	1.59e3	8.70e2	8.99e2	8.72e2
7228/7-1 B	SWC	2025.50	11837	6.42e1	5.32e1	4.03e2	8.44e2	2.38e3	1.75e3	3.67e2	3.61e2	5.11e2	1.57e2	1.56e2	4.59e1	3.64e1	0.00e0
7228/7-1 B	SWC	2081	11840	1.68e2	0.00e0	1.69e3	3.68e2	7.03e2	6.82e2	1.16e2	8.95e1	4.23e3	1.98e2	8.78e1	0.00e0	0.00e0	0.00e0
7228/7-1 B	SWC	2123	11841	3.12e2	3.99e2	1.41e3	1.48e3	2.06e3	2.59e3	3.82e2	3.58e2	3.15e3	2.78e2	2.22e2	0.00e0	0.00e0	0.00e0
7228/7-1 A	DC	1347	11032	4.25e2	0.00e0	7.11e2	1.18e3	1.42e3	9.83e2	4.14e2	4.18e2	1.20e3	4.86e2	2.91e2	2.03e2	2.74e2	3.49e2
7228/7-1 A	DC	2742	11048	2.28e2	0.00e0	7.78e2	7.49e2	1.66e3	1.47e3	2.91e2	2.92e2	1.14e3	2.06e2	1.95e2	1.51e2	1.51e2	1.26e2
7228/7-1 A	COCH	2857.75	11843	1.41e2	5.98e1	1.09e3	1.86e3	3.83e3	2.53e3	4.77e2	4.78e2	8.94e2	2.33e2	2.19e2	1.02e2	8.10e1	0.00e0

Table 11. continued, GCMS SIR of saturated compounds (amounts in ng/g)
m/e 191

Well	Sample type	Lower Depth	APT ID	29/3S	27Ts	27Tm	30/3R	30/3S	28αβ	25nor30αβ	29αβ	29Ts	30d	29βα	30O	30αβ	30βα
7228/7-1 S	DC	1335	11823	1.81e4	7.80e4	2.18e5	2.02e4	1.12e4	2.25e4	6.10e3	3.50e5	1.31e5	3.70e4	1.27e5	0.00e0	9.16e5	2.29e5
7228/7-1 S	DC	1347	11825	4.51e3	2.02e4	8.71e4	5.34e3	2.74e3	5.44e3	1.48e3	1.12e5	3.22e4	9.87e3	3.44e4	0.00e0	2.39e5	6.22e4
7228/7-1 S	DC	1359	11827	2.35e3	8.58e3	1.01e5	0.00e0	0.00e0	2.72e3	0.00e0	9.92e4	1.38e4	6.95e3	2.18e4	0.00e0	1.49e5	3.85e4
7228/7-1 ST3	DC	1779	11828	4.60e3	3.17e4	7.67e4	4.09e3	3.27e3	9.18e3	5.83e3	9.82e4	3.57e4	3.20e4	1.10e4	0.00e0	1.75e5	2.25e4
7228/7-1 ST3	DC	1794	11063	2.84e2	1.63e3	5.31e3	2.64e2	4.69e2	3.09e2	0.00e0	7.36e3	2.44e3	2.75e3	1.11e3	0.00e0	1.45e4	2.27e3
7228/7-1 B	SWC	1959.50	11835	6.82e2	3.70e3	1.12e4	0.00e0	0.00e0	2.07e3	1.03e3	2.75e4	3.67e3	1.01e3	3.89e3	0.00e0	3.83e4	8.61e3
7228/7-1 B	SWC	2025.50	11837	0.00e0	2.49e2	4.18e2	0.00e0	0.00e0	9.30e1	7.85e1	1.00e3	2.51e2	4.56e1	2.12e2	0.00e0	9.83e2	2.19e2
7228/7-1 B	SWC	2081	11840	0.00e0	1.66e3	3.91e4	0.00e0	0.00e0	7.39e2	0.00e0	8.38e4	4.58e3	2.09e3	1.70e4	0.00e0	5.13e4	1.58e4
7228/7-1 B	SWC	2123	11841	0.00e0	1.21e3	1.52e4	0.00e0	0.00e0	6.86e2	7.33e2	3.78e4	3.07e3	3.02e3	8.65e3	0.00e0	2.86e4	1.06e4
7228/7-1 A	DC	1347	11032	3.08e2	9.20e2	1.91e4	0.00e0	0.00e0	4.36e2	0.00e0	1.69e4	1.22e3	9.14e2	2.24e3	0.00e0	1.63e4	3.60e3
7228/7-1 A	DC	2742	11048	9.04e1	7.72e2	1.76e3	0.00e0	0.00e0	1.03e3	0.00e0	4.23e3	8.58e2	4.68e2	9.29e2	0.00e0	4.12e3	7.31e2
7228/7-1 A	COCH	2857.75	11843	0.00e0	4.53e2	4.05e2	0.00e0	0.00e0	1.35e2	0.00e0	1.04e3	3.45e2	1.35e2	1.21e2	0.00e0	1.11e3	1.67e2

Table 11. continued, GCMS SIR of saturated compounds (amounts in ng/g)
m/e

Well	Sample type	Lower Depth	APT ID	191								217					
				31αβS	31αβR	30G	32αβS	32αβR	33αβS	33αβR	34αβS	34αβR	35αβS	35αβR	21αα	21ββ	22αα
7228/7-1 S	DC	1335	11823	2.17e5	2.33e5	5.24e4	7.36e4	9.66e4	6.27e4	8.66e4	3.87e4	5.82e4	3.38e4	4.97e4	7.99e4	5.30e4	3.04e4
7228/7-1 S	DC	1347	11825	6.50e4	6.79e4	1.24e4	2.25e4	2.53e4	1.64e4	2.03e4	1.01e4	1.33e4	9.56e3	1.19e4	3.21e4	2.01e4	1.22e4
7228/7-1 S	DC	1359	11827	6.20e4	5.73e4	6.34e3	2.17e4	1.88e4	1.20e4	1.08e4	7.59e3	7.37e3	8.35e3	7.14e3	3.13e4	1.83e4	1.19e4
7228/7-1 ST3	DC	1779	11828	8.02e4	5.92e4	1.01e4	4.84e4	3.23e4	2.16e4	1.40e4	1.25e4	8.30e3	7.55e3	5.69e3	1.20e4	1.54e4	9.09e3
7228/7-1 ST3	DC	1794	11063	7.13e3	5.02e3	9.91e2	4.75e3	3.36e3	2.30e3	1.61e3	1.50e3	1.05e3	8.38e2	6.29e2	3.97e2	4.82e2	3.33e2
7228/7-1 B	SWC	1959.50	11835	8.21e3	6.65e3	8.91e3	3.84e3	2.64e3	2.32e3	1.56e3	1.21e3	1.00e3	9.63e2	7.11e2	8.77e3	3.36e3	2.57e3
7228/7-1 B	SWC	2025.50	11837	2.96e2	2.31e2	9.51e1	1.21e2	1.03e2	7.81e1	6.15e1	4.46e1	3.02e1	4.88e1	3.60e1	1.91e2	4.83e2	1.38e2
7228/7-1 B	SWC	2081	11840	2.68e4	1.85e4	1.35e3	7.98e3	5.23e3	1.76e3	1.12e3	6.68e2	4.46e2	2.34e2	1.71e2	9.72e1	1.65e2	6.12e1
7228/7-1 B	SWC	2123	11841	1.64e4	1.10e4	9.43e2	6.64e3	4.63e3	2.99e3	1.95e3	1.40e3	9.32e2	6.99e2	5.72e2	3.67e2	4.88e2	2.10e2
7228/7-1 A	DC	1347	11032	9.59e3	6.56e3	7.73e2	3.68e3	2.59e3	1.92e3	1.27e3	1.21e3	8.05e2	1.50e3	9.66e2	5.08e3	2.94e3	2.16e3
7228/7-1 A	DC	2742	11048	1.67e3	1.23e3	3.27e2	8.98e2	6.49e2	4.65e2	3.18e2	2.72e2	1.86e2	2.18e2	1.41e2	3.14e2	4.71e2	2.22e2
7228/7-1 A	COCH	2857.75	11843	3.67e2	2.67e2	9.95e1	1.66e2	1.41e2	1.15e2	6.80e1	5.87e1	5.09e1	0.00e0	0.00e0	4.38e2	9.21e2	3.38e2



Table 11. continued, GCMS SIR of saturated compounds (amounts in ng/g)
m/e 217

Well	Sample type	Lower Depth	APT ID	22ββ	27dbS	27dbR	27daR	27daS	28dbS#1	28dbS#2	28dbR#1	28dbR#2	28daR	27ααS	27ββR+29dbS	27ββS	28daS
7228/7-1 S	DC	1335	11823	2.93e4	3.74e5	2.84e5	1.18e5	1.27e5	2.03e5	2.04e5	1.46e5	1.89e5	1.12e5	2.82e5	2.25e5	8.24e4	7.81e4
7228/7-1 S	DC	1347	11825	9.52e3	9.58e4	7.45e4	3.02e4	3.30e4	5.11e4	5.06e4	3.50e4	4.65e4	2.84e4	6.74e4	5.94e4	2.06e4	2.00e4
7228/7-1 S	DC	1359	11827	7.25e3	5.28e4	3.51e4	1.61e4	1.89e4	2.37e4	2.36e4	1.44e4	2.01e4	1.26e4	2.66e4	3.48e4	9.97e3	1.01e4
7228/7-1 ST3	DC	1779	11828	7.81e3	3.38e4	2.05e4	9.72e3	1.20e4	9.09e3	9.48e3	4.82e3	7.02e3	4.53e3	1.03e4	2.15e4	1.19e4	4.92e3
7228/7-1 ST3	DC	1794	11063	2.82e2	1.87e3	1.13e3	5.00e2	5.96e2	3.66e2	4.19e2	2.22e2	2.93e2	1.52e2	4.25e2	1.20e3	5.01e2	2.22e2
7228/7-1 B	SWC	1959.50	11835	1.74e3	3.49e3	1.94e3	8.45e2	9.98e2	1.32e3	1.38e3	6.83e2	8.79e2	5.72e2	2.50e3	1.69e3	1.30e3	4.82e2
7228/7-1 B	SWC	2025.50	11837	3.07e2	2.25e2	1.26e2	5.12e1	6.23e1	8.58e1	7.65e1	4.30e1	5.97e1	4.10e1	1.43e2	9.94e1	7.14e1	2.71e1
7228/7-1 B	SWC	2081	11840	1.08e2	8.62e1	5.38e1	6.55e1	5.21e1	1.06e2	1.17e2	4.85e1	1.05e2	9.20e1	1.21e2	5.09e2	0.00e0	1.04e2
7228/7-1 B	SWC	2123	11841	3.14e2	6.11e2	3.33e2	1.95e2	2.47e2	3.19e2	3.12e2	1.58e2	2.27e2	1.83e2	4.70e2	8.94e2	2.29e2	1.78e2
7228/7-1 A	DC	1347	11032	1.13e3	5.58e3	3.26e3	1.67e3	2.10e3	1.73e3	1.64e3	8.24e2	1.15e3	8.92e2	1.68e3	3.58e3	1.15e3	7.60e2
7228/7-1 A	DC	2742	11048	2.62e2	5.01e2	3.31e2	1.23e2	1.56e2	1.79e2	1.81e2	1.15e2	1.41e2	8.20e1	1.54e2	2.69e2	1.57e2	7.78e1
7228/7-1 A	COCH	2857.75	11843	4.97e2	3.71e2	2.15e2	9.44e1	1.07e2	1.42e2	1.16e2	6.62e1	9.35e1	6.97e1	1.23e2	1.59e2	1.26e2	5.23e1

Table 11. continued, GCMS SIR of saturated compounds (amounts in ng/g)
m/e 217

Well	Sample type	Lower Depth	APT ID	27 α R	29dbR	29daR	28 α S	29daS	28 β R	28 β S	28 α R	29 α S	29 β R	29 β S	29 α R	30 α S	30 β R
7228/7-1 S	DC	1335	11823	8.91e5	2.61e5	1.37e5	8.04e4	1.02e5	2.01e5	1.37e5	6.19e5	9.12e4	0.00e0	0.00e0	6.09e5	1.56e5	2.95e4
7228/7-1 S	DC	1347	11825	1.99e5	6.63e4	3.32e4	1.81e4	2.51e4	4.90e4	3.20e4	1.31e5	2.23e4	0.00e0	0.00e0	1.24e5	3.54e4	6.65e3
7228/7-1 S	DC	1359	11827	6.92e4	3.16e4	1.56e4	7.20e3	1.44e4	1.92e4	1.44e4	3.89e4	1.06e4	0.00e0	0.00e0	3.92e4	1.26e4	2.94e3
7228/7-1 ST3	DC	1779	11828	1.14e4	1.38e4	8.29e3	2.37e3	8.10e3	6.71e3	8.09e3	4.33e3	8.97e3	1.14e4	1.10e4	6.95e3	4.38e3	2.45e3
7228/7-1 ST3	DC	1794	11063	5.37e2	8.41e2	5.14e2	9.05e1	4.50e2	2.75e2	2.54e2	2.34e2	5.10e2	6.28e2	5.80e2	4.03e2	1.30e2	1.38e2
7228/7-1 B	SWC	1959.50	11835	8.19e3	1.60e3	7.30e2	7.41e2	5.82e2	1.54e3	1.39e3	2.04e3	1.56e3	1.29e3	1.22e3	2.12e3	8.26e2	3.35e2
7228/7-1 B	SWC	2025.50	11837	5.56e2	9.74e1	3.64e1	2.47e1	2.50e1	5.92e1	4.52e1	3.09e2	7.69e1	8.33e1	9.60e1	1.59e2	6.67e1	0.00e0
7228/7-1 B	SWC	2081	11840	3.94e2	3.53e2	2.13e2	1.51e2	2.21e2	0.00e0	1.00e2	4.26e2	1.19e3	7.15e2	4.83e2	9.93e2	1.85e3	0.00e0
7228/7-1 B	SWC	2123	11841	9.49e2	6.06e2	3.42e2	0.00e0	4.36e2	0.00e0	1.82e2	9.04e2	1.30e3	7.16e2	5.75e2	8.91e2	9.22e2	1.12e2
7228/7-1 A	DC	1347	11032	2.52e3	2.58e3	1.18e3	3.96e2	1.43e3	9.32e2	9.80e2	5.50e2	1.10e3	7.95e2	8.79e2	1.04e3	7.72e2	2.61e2
7228/7-1 A	DC	2742	11048	2.80e2	2.23e2	1.47e2	5.96e1	1.70e2	1.31e2	1.34e2	1.68e2	2.70e2	2.18e2	1.95e2	2.57e2	8.81e1	6.07e1
7228/7-1 A	COCH	2857.75	11843	5.27e2	1.29e2	5.84e1	0.00e0	4.50e1	7.31e1	8.05e1	1.08e2	1.05e2	1.06e2	1.10e2	8.67e1	5.99e1	3.74e1

Table 11. continued, GCMS SIR of saturated compounds (amounts in ng/g)

Well	Sample type	Lower Depth	APT ID	217		218							
				30βBS	30ααR	27βBR	27βBS	28βBR	28βBS	29βBR	29βBS	30βBR	30βBS
7228/7-1 S	DC	1335	11823	1.92e4	2.12e5	1.01e5	6.89e4	1.53e5	1.27e5	8.58e4	9.09e4	1.81e4	1.62e4
7228/7-1 S	DC	1347	11825	4.91e3	4.40e4	2.62e4	1.71e4	3.65e4	2.88e4	1.96e4	2.15e4	3.76e3	3.43e3
7228/7-1 S	DC	1359	11827	1.47e3	1.43e4	1.54e4	1.05e4	1.52e4	1.33e4	1.00e4	1.05e4	1.66e3	1.43e3
7228/7-1 ST3	DC	1779	11828	1.35e3	1.07e3	1.76e4	1.50e4	6.93e3	8.41e3	1.46e4	1.39e4	1.99e3	1.68e3
7228/7-1 ST3	DC	1794	11063	8.78e1	5.55e1	8.91e2	7.60e2	2.73e2	3.15e2	1.01e3	9.24e2	1.40e2	1.25e2
7228/7-1 B	SWC	1959.50	11835	2.37e2	2.51e2	1.92e3	1.55e3	1.57e3	1.57e3	1.43e3	1.53e3	2.72e2	2.85e2
7228/7-1 B	SWC	2025.50	11837	0.00e0	3.87e1	9.93e1	7.71e1	5.08e1	4.93e1	9.86e1	1.06e2	0.00e0	0.00e0
7228/7-1 B	SWC	2081	11840	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	1.00e2	5.74e2	5.16e2	0.00e0	0.00e0
7228/7-1 B	SWC	2123	11841	0.00e0	0.00e0	4.01e2	2.80e2	2.86e2	2.56e2	8.19e2	7.93e2	0.00e0	0.00e0
7228/7-1 A	DC	1347	11032	1.03e2	1.98e2	1.91e3	1.32e3	8.25e2	8.97e2	1.10e3	1.13e3	1.37e2	1.21e2
7228/7-1 A	DC	2742	11048	4.20e1	3.18e1	3.01e2	2.61e2	1.61e2	2.02e2	3.94e2	2.71e2	5.81e1	4.78e1
7228/7-1 A	COCH	2857.75	11843	0.00e0	0.00e0	1.48e2	1.23e2	7.10e1	6.85e1	1.28e2	1.32e2	0.00e0	0.00e0

Table 12. GCMS SIR of aromatic compounds (peak height)

Well	Sample type	Lower Depth	APT ID	142		156				170							
				2-MN	1-MN	2-EN	1-EN	2,6-DMN	2,7-DMN	1,3- + 1,7-DMN	1,6-DMN	2,3- + 1,4-DMN	1,5-DMN	1,2-DMN	1,8-DMN	1,3,7-TMN	1,3,6-TMN
7228/7-1 S	DC	1335	11823	8.83e4	9.08e4	0.00e0	0.00e0	3.46e4	5.18e4	1.65e5	1.50e5	1.46e5	1.58e5	2.22e5	6.37e4	3.39e6	9.45e6
7228/7-1 S	DC	1347	11825	4.80e6	1.06e7	1.75e7	1.56e7	3.84e7	3.84e7	1.06e8	9.67e7	7.74e7	3.51e7	7.28e7	5.38e6	6.78e7	1.22e8
7228/7-1 S	DC	1359	11827	6.29e8	6.14e8	2.32e8	1.56e8	3.86e8	3.33e8	7.50e8	6.22e8	4.66e8	1.83e8	3.63e8	2.05e7	1.91e8	2.84e8
7228/7-1 ST3	DC	1779	11828	5.11e4	8.13e4	0.00e0	3.51e4	8.96e4	1.33e5	5.44e5	3.78e5	3.09e5	2.73e5	2.22e5	0.00e0	1.97e6	2.67e6
7228/7-1 ST3	DC	1794	11063	9.70e7	5.07e7	8.73e6	4.14e6	2.06e7	2.03e7	4.58e7	2.72e7	1.63e7	7.23e6	7.96e6	1.13e5	1.36e7	1.60e7
7228/7-1 B	SWC	1959.50	11835	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	3.59e4	3.53e4	0.00e0	0.00e0	0.00e0	0.00e0	2.60e4	3.03e4
7228/7-1 B	SWC	2025.50	11837	7.82e4	8.52e4	0.00e0	0.00e0	0.00e0	3.01e4	6.57e4	5.29e4	2.82e4	3.02e4	2.25e4	0.00e0	1.90e5	3.59e5
7228/7-1 B	SWC	2081	11840	6.09e6	8.44e6	1.14e6	1.51e6	3.70e6	4.61e6	2.09e7	1.62e7	1.50e7	8.99e6	1.11e7	2.43e5	3.03e7	4.78e7
7228/7-1 B	SWC	2123	11841	2.84e8	2.06e8	7.36e6	5.87e6	2.57e7	2.92e7	7.55e7	4.78e7	2.67e7	1.41e7	1.15e7	2.96e5	1.36e7	1.72e7
7228/7-1 A	DC	1347	11032	5.81e8	4.86e8	1.04e8	6.82e7	1.29e8	1.21e8	2.92e8	2.31e8	1.70e8	6.20e7	1.26e8	6.66e6	5.94e7	8.99e7
7228/7-1 A	DC	2742	11048	1.89e8	1.09e8	8.91e6	4.72e6	3.04e7	2.89e7	6.46e7	4.56e7	2.37e7	9.60e6	8.62e6	1.10e5	1.43e7	1.84e7
7228/7-1 A	COCH	2857.75	11843	1.14e6	2.34e6	1.54e6	1.42e6	1.28e7	1.63e7	4.13e7	2.80e7	1.68e7	1.02e7	7.37e6	3.63e4	3.68e7	5.38e7

Table 12. continued, GCMS SIR of aromatic compounds (peak height)

Well	Sample type	Lower Depth	APT ID	170						178	192	206					
				1,3,5- + 1,4,6-TMN	2,3,6-TMN	1,2,7-TMN	1,6,7 + 1,2,6-TMN	1,2,4-TMN	1,2,5-TMN	P	3-MP	2-MP	9-MP	1-MP	2-EP+9-EP+3,6-DMP	1-EP	2,6- + 2,7- + 3,5-DMP
7228/7-1 S	DC	1335	11823	8.51e6	5.90e6	4.63e6	1.16e7	4.73e6	2.10e7	2.37e8	1.29e8	1.33e8	1.68e8	1.96e8	3.87e7	3.40e7	1.90e7
7228/7-1 S	DC	1347	11825	1.22e8	8.93e7	7.90e7	1.68e8	5.12e7	1.74e8	9.89e8	3.78e8	4.23e8	6.18e8	5.51e8	9.96e7	8.68e7	4.22e7
7228/7-1 S	DC	1359	11827	3.04e8	2.26e8	2.12e8	4.07e8	1.21e8	3.86e8	1.42e9	5.47e8	6.46e8	9.15e8	7.37e8	1.22e8	1.03e8	5.02e7
7228/7-1 ST3	DC	1779	11828	3.03e6	2.20e6	8.42e5	2.38e6	8.98e5	2.17e6	5.90e7	3.43e7	3.43e7	6.04e7	3.54e7	1.15e7	1.63e7	9.24e6
7228/7-1 ST3	DC	1794	11063	1.34e7	1.27e7	3.86e6	9.30e6	2.26e6	6.60e6	5.68e7	2.75e7	3.02e7	3.97e7	2.74e7	7.32e6	1.01e7	6.32e6
7228/7-1 B	SWC	1959.50	11835	3.13e4	2.45e4	0.00e0	3.12e4	0.00e0	4.11e4	1.25e7	2.71e6	3.10e6	5.76e6	4.19e6	8.25e5	1.66e6	9.74e5
7228/7-1 B	SWC	2025.50	11837	4.09e5	4.13e5	1.59e5	7.12e5	1.56e5	1.53e6	3.26e8	3.83e7	5.61e7	9.31e7	8.66e7	7.66e6	1.46e7	8.17e6
7228/7-1 B	SWC	2081	11840	5.63e7	4.74e7	1.94e7	7.94e7	1.56e7	2.62e8	1.41e9	5.02e8	5.51e8	7.93e8	7.08e8	1.02e8	1.50e8	7.31e7
7228/7-1 B	SWC	2123	11841	1.40e7	1.15e7	3.48e6	1.22e7	1.90e6	1.30e7	4.51e7	8.72e6	8.23e6	1.50e7	1.30e7	1.36e6	2.02e6	8.56e5
7228/7-1 A	DC	1347	11032	9.34e7	7.30e7	5.99e7	1.13e8	3.93e7	1.24e8	4.80e8	1.41e8	1.56e8	2.51e8	1.93e8	3.00e7	2.51e7	1.30e7
7228/7-1 A	DC	2742	11048	1.31e7	1.44e7	3.43e6	1.11e7	1.53e6	7.38e6	7.14e7	2.27e7	2.69e7	2.88e7	2.49e7	3.51e6	5.45e6	3.63e6
7228/7-1 A	COCH	2857.75	11843	3.07e7	4.88e7	8.99e6	3.28e7	3.81e6	9.83e6	3.79e8	2.11e8	2.55e8	2.68e8	2.28e8	3.70e7	7.44e7	4.92e7

Table 12. continued, GCMS SIR of aromatic compounds (peak height)

Well	Sample type	Lower Depth	APT ID	206 1,3- + 2,10- + 3,9- + 3,10- DMP	206 1,6- + 2,5- + 2,9-DMP	206 1,7-DMP	206 2,3-DMP	206 1,9- + 4,9- + 4,10-DMP	206 1,8-DMP	206 1,2-DMP	219 Retene	184 DBT	198 4-MDBT	198 (3+2)-MDBT	198 1-MDBT	253 C21MA	253 C22MA
7228/7-1 S	DC	1335	11823	1.22e8	6.51e7	9.11e7	2.06e7	3.20e7	3.23e7	3.19e7	8.69e7	6.21e7	5.28e7	5.52e7	1.48e8	6.29e7	8.44e7
7228/7-1 S	DC	1347	11825	3.10e8	1.42e8	1.81e8	5.87e7	9.92e7	6.55e7	8.19e7	1.81e8	7.41e8	4.69e8	4.27e8	6.40e8	2.06e8	1.68e8
7228/7-1 S	DC	1359	11827	3.88e8	1.77e8	2.13e8	7.67e7	1.29e8	7.43e7	1.09e8	2.60e8	1.07e9	7.72e8	7.49e8	9.14e8	2.69e8	2.11e8
7228/7-1 ST3	DC	1779	11828	6.91e7	2.60e7	1.99e7	1.26e7	1.79e7	8.74e6	8.28e6	6.95e6	4.45e6	6.17e6	5.00e6	3.30e6	1.31e6	1.85e6
7228/7-1 ST3	DC	1794	11063	3.68e7	1.51e7	1.30e7	7.97e6	1.02e7	5.08e6	4.77e6	2.48e6	5.49e6	5.26e6	4.04e6	1.88e6	1.64e5	3.47e5
7228/7-1 B	SWC	1959.50	11835	4.68e6	2.62e6	3.81e6	1.57e6	1.79e6	1.54e6	1.96e6	1.18e6	6.38e5	5.09e5	2.36e5	3.42e5	1.07e5	1.23e5
7228/7-1 B	SWC	2025.50	11837	5.58e7	2.86e7	3.13e7	1.83e7	2.60e7	1.46e7	1.30e7	2.17e6	2.99e7	1.72e7	5.22e6	6.80e6	2.27e5	1.50e5
7228/7-1 B	SWC	2081	11840	3.61e8	1.79e8	3.36e8	1.35e8	1.53e8	8.86e7	1.21e8	1.04e8	1.72e8	9.70e7	9.78e7	4.20e7	1.85e6	1.52e6
7228/7-1 B	SWC	2123	11841	6.05e6	2.88e6	3.22e6	1.81e6	2.33e6	1.17e6	1.63e6	3.58e6	3.37e6	1.33e6	9.71e5	7.07e5	6.12e4	5.74e4
7228/7-1 A	DC	1347	11032	9.51e7	4.27e7	5.46e7	1.88e7	3.35e7	1.83e7	2.88e7	7.40e7	4.41e8	2.05e8	1.87e8	2.65e8	5.54e7	4.36e7
7228/7-1 A	DC	2742	11048	1.55e7	7.95e6	9.51e6	5.11e6	4.89e6	2.91e6	2.41e6	1.72e6	4.80e6	3.22e6	2.02e6	1.04e6	5.11e4	4.25e4
7228/7-1 A	COCH	2857.75	11843	2.18e8	1.00e8	1.30e8	5.02e7	5.25e7	3.22e7	1.98e7	1.57e6	2.01e7	2.42e7	1.64e7	5.85e6	1.31e5	7.47e4



Table 12. continued, GCMS SIR of aromatic compounds (peak height)
m/e 253

Well	Sample type	Lower Depth	APT ID	bSC27MA	bSC27DMA	bRC27MA+bRC27DMA	aSC27MA	bSC28MA+bSC28DMA+aRC27DMA	aSC27DMA	aRC27MA	aSC28MA	bRC28MA+bRC28DMA	bSC29MA+bSC29DMA	aSC29MA	aRC28MA+bRC29MA+bRC29DMA	aRC29MA	C20TA
7228/7-1 S	DC	1335	11823	2.20e8	2.39e8	3.17e8	2.23e8	8.86e8	6.48e7	1.87e8	6.16e8	6.57e8	4.33e8	2.03e8	4.39e8	1.79e8	5.70e7
7228/7-1 S	DC	1347	11825	2.73e8	6.42e8	6.32e8	2.26e8	1.29e9	1.59e8	1.95e8	4.88e8	7.80e8	8.03e8	1.99e8	6.51e8	1.77e8	1.16e8
7228/7-1 S	DC	1359	11827	1.84e8	7.49e8	6.90e8	1.27e8	1.12e9	1.93e8	1.09e8	2.17e8	6.52e8	9.82e8	1.17e8	6.87e8	1.07e8	1.30e8
7228/7-1 ST3	DC	1779	11828	3.64e5	1.21e6	1.07e6	3.28e5	1.41e6	3.26e5	2.49e5	3.15e5	7.42e5	2.20e6	3.73e5	1.56e6	3.02e5	3.20e7
7228/7-1 ST3	DC	1794	11063	3.52e4	1.80e5	1.48e5	3.93e4	1.57e5	3.39e4	2.29e4	1.69e4	6.91e4	2.52e5	3.36e4	1.56e5	2.32e4	5.07e6
7228/7-1 B	SWC	1959.50	11835	7.45e4	1.29e5	1.28e5	6.68e4	3.46e5	4.12e4	8.72e4	1.62e5	2.30e5	2.36e5	9.32e4	1.99e5	8.60e4	7.27e5
7228/7-1 B	SWC	2025.50	11837	4.86e4	1.12e5	8.16e4	3.07e4	1.75e5	2.07e4	2.26e4	4.11e4	8.42e4	9.71e4	2.39e4	6.94e4	1.76e4	6.51e5
7228/7-1 B	SWC	2081	11840	5.81e5	8.65e5	8.35e5	4.83e5	2.32e6	6.43e5	3.43e5	1.08e6	2.42e6	7.33e6	2.01e6	4.77e6	2.02e6	2.96e7
7228/7-1 B	SWC	2123	11841	2.09e4	9.05e4	7.45e4	1.83e4	1.61e5	5.48e4	1.77e4	2.77e4	9.02e4	3.20e5	3.46e4	2.01e5	3.86e4	4.67e5
7228/7-1 A	DC	1347	11032	2.73e7	1.34e8	1.23e8	1.79e7	1.71e8	3.08e7	1.56e7	2.19e7	1.02e8	1.93e8	1.95e7	1.32e8	1.56e7	2.70e7
7228/7-1 A	DC	2742	11048	2.38e4	1.27e5	1.13e5	1.61e4	1.84e5	2.35e4	1.43e4	3.15e4	1.06e5	3.60e5	3.57e4	2.28e5	2.22e4	3.13e5
7228/7-1 A	COCH	2857.75	11843	2.19e4	5.78e4	5.07e4	1.58e4	9.48e4	1.74e4	1.51e4	2.96e4	4.99e4	6.87e4	1.17e4	4.56e4	1.51e4	6.51e5

Table 12. continued, GCMS SIR of aromatic compounds (peak height)
m/e 231

Well	Sample type	Lower Depth	APT ID	C21TA	SC26TA	RC26TA+SC27TA	SC28TA	RC27TA	RC28TA
7228/7-1 S	DC	1335	11823	3.37e7	2.04e8	7.06e8	1.42e8	3.06e8	1.69e8
7228/7-1 S	DC	1347	11825	8.37e7	3.96e8	1.02e9	2.76e8	4.03e8	3.25e8
7228/7-1 S	DC	1359	11827	9.60e7	3.67e8	7.96e8	3.01e8	2.74e8	3.47e8
7228/7-1 ST3	DC	1779	11828	2.51e7	3.43e6	5.82e6	4.70e6	2.27e6	4.62e6
7228/7-1 ST3	DC	1794	11063	3.83e6	6.76e5	1.16e6	8.98e5	4.82e5	1.02e6
7228/7-1 B	SWC	1959.50	11835	5.22e5	3.70e5	9.53e5	1.04e6	4.29e5	8.95e5
7228/7-1 B	SWC	2025.50	11837	1.05e5	5.42e4	1.68e5	6.89e4	7.35e4	7.94e4
7228/7-1 B	SWC	2081	11840	2.96e7	9.67e6	2.64e7	4.62e7	1.20e7	4.23e7
7228/7-1 B	SWC	2123	11841	3.24e5	8.93e5	2.04e6	1.90e6	9.08e5	2.20e6
7228/7-1 A	DC	1347	11032	2.16e7	6.50e7	1.29e8	6.00e7	4.28e7	6.79e7
7228/7-1 A	DC	2742	11048	1.73e5	9.41e4	2.16e5	1.58e5	6.98e4	1.89e5
7228/7-1 A	COCH	2857.75	11843	3.96e5	7.41e4	1.13e5	7.10e4	4.62e4	6.07e4



Table 13. GCMS MRM of nordiacholestane (peak area)

m/e

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Well	Sample Type	Lower Depth	API ID	24-Nordia-cholestane S	24-Nordia-cholestane R	27-Nordia-cholestane S	27-Nordia-cholestane R
7228/7-1 S	DC	1359	11827	3.89e5	3.97e5	9.85e5	1.06e6
7228/7-1 ST3	DC	1779	11828	1.76e5	1.36e5	6.62e5	6.37e5
7228/7-1 B	SWC	2081	11840	5.21e4	5.80e4	3.66e5	2.61e5
7228/7-1 B	SWC	2123	11841	1.81e4	1.33e4	7.29e4	6.92e4
7228/7-1 A	DC	1347	11032	1.74e5	1.32e5	6.20e5	6.06e5
7228/7-1 A	DC	2742	11048	1.99e4	1.70e4	8.33e4	6.85e4

L Depth →

API ID →

24-nordia Chol S →

24-nordia Chol R →

27-nordia Chol S →

27-nordia Chol R →

Table 14. Pyrolysis GC (peak area)

Well	Sample type	Lower Depth	APT ID	%C1 (UCM)	%C2-C5 (UCM)	%C6-C14 (UCM)	%C15+ (UCM)	%C1 (X-UCM)	%C2-C5 (X-UCM)	%C6-C14 (X-UCM)	%C15+ (X-UCM)	C1	C2-C5	C6-C14	C15+	C6-C14 (UCM)	C15+ (UCM)
7228/7-1 S	DC	1335	11823	4.19	10.82	39.60	45.39	8.64	22.32	56.07	12.97	3.83e6	9.89e6	2.48e7	5.75e6	3.62e7	4.15e7
7228/7-1 S	DC	1347	11825	4.97	12.46	37.11	45.46	9.53	23.88	52.49	14.10	8.21e6	2.06e7	4.53e7	1.22e7	6.13e7	7.51e7
7228/7-1 S	DC	1359	11827	5.84	11.39	34.04	48.73	11.89	23.18	50.29	14.65	1.26e7	2.45e7	5.31e7	1.55e7	7.31e7	1.05e8
7228/7-1 ST3	DC	1779	11828	4.75	25.19	45.07	24.99	6.90	36.60	46.05	10.45	1.57e6	8.31e6	1.05e7	2.37e6	1.49e7	8.24e6
7228/7-1 ST3	DC	1794	11063	6.83	15.56	45.11	32.50	10.86	24.75	52.81	11.58	1.38e6	3.14e6	6.70e6	1.47e6	9.10e6	6.56e6
7228/7-1 B	SWC	1959.50	11835	2.81	37.37	54.07	5.75	3.41	45.39	51.02	0.17	4.20e5	5.58e6	6.27e6	2.12e4	8.07e6	8.59e5
7228/7-1 B	SWC	2025.50	11837	0.00	58.31	40.08	1.61	0.00	61.12	38.88	0.00	0.00e0	4.41e6	2.81e6	0.00e0	3.03e6	1.22e5
7228/7-1 B	SWC	2081	11840	9.74	25.47	54.68	10.12	11.82	30.92	53.31	3.95	1.93e6	5.05e6	8.70e6	6.45e5	1.08e7	2.00e6
7228/7-1 B	SWC	2123	11841	1.78	13.32	43.07	41.84	3.04	22.78	59.56	14.62	2.96e6	2.22e7	5.80e7	1.42e7	7.17e7	6.96e7
7228/7-1 A	DC	1347	11032	5.87	13.54	40.73	39.87	11.13	25.68	54.35	8.84	1.21e7	2.79e7	5.91e7	9.62e6	8.40e7	8.23e7
7228/7-1 A	DC	2742	11048	3.73	37.01	53.46	5.80	4.34	43.06	51.28	1.32	2.14e5	2.12e6	2.53e6	6.50e4	3.07e6	3.33e5
7228/7-1 A	COCH	2857.75	11843	0.63	41.87	46.91	10.59	0.80	53.33	45.23	0.64	4.41e4	2.95e6	2.51e6	3.53e4	3.31e6	7.47e5



Table 14. continued, Pyrolysis GC (peak area)

Well	Sample type	Lower Depth	API ID	n-Heptene	Tol	n-Octene	m-p-Xyl	Weight (mg)
7228/7-1 S	DC	1335	11823	4.47e5	4.79e5	3.56e5	5.98e5	8.5
7228/7-1 S	DC	1347	11825	5.14e5	8.53e5	4.45e5	1.07e6	6.4
7228/7-1 S	DC	1359	11827	7.13e5	1.13e6	5.88e5	1.50e6	8.8
7228/7-1 ST3	DC	1779	11828	1.44e5	2.87e5	1.19e5	2.20e5	9.8
7228/7-1 ST3	DC	1794	11063	1.37e5	1.86e5	1.23e5	1.32e5	10.0
7228/7-1 B	SWC	1959.50	11835	6.80e4	0.00e0	2.65e4	0.00e0	14.2
7228/7-1 B	SWC	2025.50	11837	0.00e0	0.00e0	0.00e0	0.00e0	12.9
7228/7-1 B	SWC	2081	11840	1.52e5	3.99e5	1.23e5	1.87e5	10.3
7228/7-1 B	SWC	2123	11841	1.68e6	6.35e5	1.45e6	5.66e5	8.6
7228/7-1 A	DC	1347	11032	7.62e5	1.24e6	6.24e5	1.59e6	10.0
7228/7-1 A	DC	2742	11048	2.37e4	7.76e4	1.97e4	3.77e4	10.0
7228/7-1 A	COCH	2857.75	11843	0.00e0	0.00e0	0.00e0	0.00e0	13.3

L depth ->
 API ID ->
 n-heptene ->
 Tol ->
 n-octene ->
 m-p-Xyl ->
 Weight (mg) ->



Table 15. Isotopes of fractions, d13C (‰ PDB)

Well	Sample Type	Lower Depth	APTID	C1/EOM	Sat	Aro	Pol	Asph
7228/7-1 S	DC	1335	11823	-30.5	-31.7	-31.8	-30.6	-30.2
7228/7-1 S	DC	1347	11825	-29.2	-31.7	-30.2	-29.6	-28.0
7228/7-1 S	DC	1359	11827	-28.9	-30.8	-29.4	-29.1	-27.7
7228/7-1 ST3	DC	1779	11828	-30.7	-29.3	-31.5	-30.6	-30.9
7228/7-1 ST3	DC	1794	11063	-29.7	-28.8	-29.6	-28.8	-29.7
7228/7-1 B	SWC	1959.50	11835	-29.6	-28.5	-28.4	-30.1	-27.8
7228/7-1 B	SWC	2025.50	11837	-29.9	-30.0	-27.8	-30.0	-27.6
7228/7-1 B	SWC	2081	11840	-27.2	-29.6	-27.3	-28.4	-27.6
7228/7-1 B	SWC	2123	11841	-29.8	-32.3	-29.1	-29.9	-27.5
7228/7-1 A	DC	1347	11032	-29.1	-30.0	-28.9	-29.5	-27.7
7228/7-1 A	DC	2742	11048	-30.0	-28.3	-27.7	-30.2	-28.9
7228/7-1 A	COCH	2857.75	11843	-30.0	-31.3	-29.7	-30.0	-29.4

L Depth - D
 APTID - A
 C1/EOM - A
 Sat - A
 Aro - A
 Pol - A
 Asph - A

Table 16. Visual Kerogen Description

Well	Sample type	Lower Depth	APT ID	FA(%)	HA(%)	AL(%)	HE(%)	WO(%)	CO(%)
7228/7-1 S	DC	1314	11059	0	75	5	7	5	8
7228/7-1 S	DC	1335	11823	35	45	0	15	0	5
7228/7-1 S	DC	1359	11827	25	35	0	20	5	15
7228/7-1 ST3	DC	1794	11063	5	63	0	2	5	25
7228/7-1 ST3	DC	1872	11065	0	85	0	3	2	10
7228/7-1 B	SWC	1959.50	11835	0	75	0	15	0	10
7228/7-1 B	SWC	2081	11840	20	35	0	20	5	20
7228/7-1 B	SWC	2123	11841	65	5	0	20	2	8
7228/7-1 A	DC	1347	11032	0	60	3	7	15	15
7228/7-1 A	COCH	2455.52	11022	0	40	0	15	10	35
7228/7-1 A	DC	2742	11048	0	70	0	10	5	15
7228/7-1 A	DC	2781	11049	5	65	0	10	0	20
7228/7-1 A	COCH	2857.75	11843	0	70	0	15	0	15

- FA Fluoramorphinite
- HA Hebamorphinite
- AL Algal organic matter/ Phytoplankton
- HE Herbaceous organic matter
- WO Woody organic matter
- CO Coaly organic matter

Comment: Sample 11835: The material seems ragged and many nonfluorescing sporomorphs are probably reworked. There are also fluorescing sporomorphs of lower maturity. That is, two groups of organic material from different maturity levels are present in the sample.

Table 17: Vitrinite Reflectance

Well	Sample Type	APT no	Lower Depth (m MD RKB)	%Ro	SD	Number of Measurements	Sample Quality
7228/7-1S	DC	11059	1314	0.49	0.04	4	P
7228/7-1ST3	DC	11063	1794	0.54	0.06	24	G
7228/7-1ST3	DC	11065	1872	0.52	0.06	5	P
7228/7-1A	DC	11032	1347	0.40	0.03	23	M/G
7228/7-1A	COCH	11022	2455.52	0.69	0.05	8	P
7228/7-1A	DC	11048	2742	0.65	0.05	3	P
			alt.pop.	0.81	0.04	14	
7228/7-1A	DC	11049	2781	0.45	0.08	3	P
			alt.pop.	0.85	0.07	11	