

Table 1. Wells included in this study

Well	TOC	Hydrogen index	Oxygen index	Tmax	Production index
Esso Redwater 16-28	avg 2.59% range 0.10 – 9.00%	avg 460 range 159 – 568	avg 52 range 23- 212	avg 422°C range 415 - 432°C	avg 0.08 range 0.03 – 0.44
GuideX Gvillee 09-06	avg 3.34% range 0.56 – 5.54%	avg 337 range 188 – 456	avg 15 range 5 - 59	avg 443°C range 432 - 445°C	avg 0.17 range 0.12 – 0.31
EOG Cygnet 08-20	avg 1.62% range 0.17 – 8.38%	avg 255 range 113 - 458	avg 26 range 3 - 86	avg 448°C range 436 - 454°C	avg 0.33 range 0.02 – 0.57
Shell Kaybob 02-20	avg 2.20% range 0.25 – 5.62%	avg 75 range 42 – 132	avg 13 range 3 - 41	avg 470°C range 443 - 482°C	avg 0.51 range 0.37 – 0.70
Encana Cecilia 11-04	avg 2.40% range 0.28 – 4.88%	avg 33 range 13 – 24	avg 16 range 10 - 19	avg 394°C range 364 - 514°C	avg 0.68 range 0.39 – 0.94

Well name	Depth (m)	Quartz (%)	Plagioclase (%)	K-feldspar (%)	Calcite (%)	Dolomite (%)	Ankerite (%)	Pyrite (%)	Mica (%)	Clay (%)
East Shale Basin										
Esso 16-28	1121.48	11.5	1.9	3.4	71.5	0.5	0	1	2	7.1
Esso 16-28	1144.3	10.2	0	5.2	70	0	1.9	1.5	1.1	9.7
Esso 16-28	1157.49	17.8	0	12.2	44	0	4	2.4	6.1	13.3
EOG 08-20	2574.515	3.9	0	0	92.6	0	0.5	0	0.1	2.3
EOG 08-20	2592.525	11.1	0	13.7	59.8	0	0	1.7	3.7	9.6
West Shale Basin										
GuideX 09-06	2558.2	12.7	0.5	0	86.1	0	0	0.5	0	0
GuideX 09-06	2558.71	35.2	1.3	4.4	4.8	1.2	0	1.5	14.9	36.7
GuideX 09-06	2561.06	24.5	2.7	3.3	27.8	25	0.6	1.4	2.2	12.5
Shell 02-22	3095.5	37.9	1.9	5.8	20.4	0.9	1.3	2.6	4.9	24.3
Shell 02-22	3112.5	44	0.7	11.9	16.2	0	0	1.4	5.9	19.7
Encana 11-04	3956.475	22.5	2.1	11.6	12.6	0	5	1.2	10.3	34.9
Encana 11-04	3965.41	28	2.7	17.4	25.4	0.5	0	1.8	5.1	19.1
Encana 11-04	3985.465	23.3	1.6	6.5	59.8	0.6	0	1.3	2.2	4.8