

## APPENDIX 4

### Aromatic-hydrocarbon ratios of the extracts

Sample code	MNR 1)	DNR 2)	TNR-1 3)	TNR-2 4)	TNR-5 5)	MPI-3 6)	MPI-1 7)	MBR 8)	DMPR 9)	$R_c$ 11)
E1	1.71	2.57	1.16	0.95	0.57	0.73	0.68	0.27	0.27	0.81
E2	2.23	—	1.04	0.77	0.60	0.96	1.52	—	0.48	1.31
E3	1.37	1.96	1.13	0.85	0.56	0.90	1.16	—	0.23	1.10
E4	1.30	—	0.52	0.86	0.68	0.49	0.64	—	0.33	0.78
E5	0.86	5.92	1.16	0.79	0.65	0.66	0.90	0.28	0.22	0.94
E6	0.76	—	0.48	0.55	0.58	0.46	0.92	0.43	—	0.95
E7	0.59	0.83	0.85	0.67	0.58	0.59	0.66	—	0.19	0.80
E8	0.70	1.00	0.43	0.55	0.27	0.40	0.23	0.34	—	0.54
E9	1.30	—	—	—	—	0.80	0.71	—	0.37	0.83
E10	0.60	2.05	0.65	0.64	0.55	0.60	0.65	0.39	0.20	0.79
E11	0.96	1.17	1.63	0.92	0.46	1.62	1.82	1.01	0.43	1.49
E12	1.44	—	—	—	—	1.30	1.81	—	0.53	1.48
E13	0.98	—	—	—	—	0.36	0.58	—	0.34	0.75
E14	1.86	—	0.76	0.71	0.34	0.69	1.05	0.06	0.30	1.03
E15	1.27	2.75	1.01	0.82	0.24	0.65	1.00	0.84	0.19	1.00
E16	—	—	—	—	—	0.98	1.40	—	—	1.24
EG1	1.24	5.22	1.28	1.10	0.70	0.59	0.85	0.28	0.37	0.91
EG2	1.34	3.63	1.43	0.90	0.49	0.87	1.30	0.77	0.22	1.18
EG3	1.03	2.63	0.87	0.70	0.63	0.69	0.54	0.33	0.25	0.72
EG4	1.12	4.09	1.46	0.93	0.12	0.78	1.22	—	0.21	1.13

1) MNR = 2-methylnaphthalene/1-methylnaphthalene;  $m/z$  = 142; thermal maturity parameter (Radke, 1987).

2) DNR = (2,6-dimethylnaphthalene+2,7-dimethylnaphthalene)/1,5-dimethylnaphthalene;  $m/z$  = 156, thermal maturity parameter (Radke, 1987).

3) TNR-1 = 2,3,6-trimethylnaphthalene/(1,3,6-trimethylnaphthalene+1,4,6-trimethylnaphthalene+1,3,5-trimethylnaphthalene);  $m/z$  = 170, thermal maturity parameter (Radke et al., 1986).

4) TNR-2 = (1,3,7-trimethylnaphthalene+2,3,6-trimethylnaphthalene)/(1,3,5-trimethylnaphthalene+1,4,6-trimethylnaphthalene+1,3,6-trimethylnaphthalene);  $m/z$  = 170, thermal maturity parameter (Radke et al., 1986).

5) TNR-5 = 1,2,5-trimethylnaphthalene/(1,2,5-trimethylnaphthalene+1,2,7-trimethylnaphthalene+1,6,4-trimethylnaphthalene);  $m/z$  = 170, thermal maturity parameter (Radke et al., 1986).

6) MPI-3 = (2-methylphenanthrene+3-methylphenanthrene)/(1-methylphenanthrene+9-methylphenanthrene);  $m/z$  = 192; thermal maturity parameter (Radke and Welte, 1983).

7) MPI-1 = (2-methylphenanthrene+3-methylphenanthrene)/(phenanthrene+1-methylphenanthrene+9-methylphenanthrene);  $m/z$  = 192; thermal maturity parameter (Radke and Welte, 1983).

8) MBR = (3-methylbiphenyl+4-methylbiphenyl)/dibenzofurane;  $m/z$  = 168; thermal maturity parameter (Radke et al., 2000).

9) DMPR = (2,6-dimethylphenanthrene+2,7-dimethylphenanthrene)/(3,10-dimethylphenanthrene+1,9-dimethylphenanthrene+1,6-dimethylphenanthrene)  $m/z$  = 206; thermal maturity parameter (Radke et al., 2000).

9)  $R_c = R_c = 0.60 \text{ MPI-1} + 0.40$ ; calculated according to the Radke's formula (1988).

“—” compounds not detected or in concentrations too low to calculate a parameter value