

Table OA6. Normal alkane and acyclic isoprenoid ratios of oil seeps, stains and oils

Sample#	Comments	Data Quality		Pr/Ph	Pr/Ph	Pr/17	Pr/17	Ph/18	Ph/18	CPI 1	CPI 1	CPI 2	CPI 2	CPI 3	CPI 3	CPI 4	CPI 4	OEP 1	OEP 1	OEP 2	OEP 2	OEP 3	OEP 3
		C ₁₇ -C ₂₀	C ₂₇ -C ₃₀	area	height	area	height	area	height	area	height	area	height	area	height	area	height	area	height	area	height	area	height
1	Volatile loss - UCM	B	B	1.25	1.12	0.51	0.49	0.44	0.44	0.98	1.00	0.95	1.01	1.05	1.08	0.95	0.97	0.88	0.94	1.03	1.07	1.07	1.07
2	Volatile loss - UCM	C	B	0.84	0.86	0.50	0.48	0.47	0.46	0.96	0.98	0.96	1.01	1.04	1.08	0.92	0.95	0.87	0.96	1.02	1.06	1.06	1.06
3		A	A	1.17	1.23	0.67	0.51	0.65	0.45	0.88	0.89	0.90	0.92	0.97	1.00	0.87	0.87	0.81	0.81	0.96	1.00	0.86	0.86
4		A	B	0.75	0.81	0.47	0.37	0.71	0.52	1.04	1.04	1.05	1.03	1.16	1.04	1.01	1.02	0.93	0.95	1.10	1.03	1.12	1.12
5	Volatile loss - UCM	C	C	1.08	1.27	0.61	0.72	0.84	0.57	1.00	1.00	0.97	1.00	1.12	1.15	1.02	1.02	0.95	0.97	1.06	1.09	0.88	0.88
6	Volatile loss - UCM	D	C	0.53	0.57	1.00	1.11	1.14	1.07	0.89	0.94	0.93	0.98	0.94	1.10	0.87	0.90	0.85	0.88	0.90	1.07	0.88	0.88
7	Volatile loss - UCM	B	A	1.23	1.17	0.35	0.27	0.27	0.22	1.03	1.01	1.08	1.05	1.16	1.10	0.98	0.98	0.95	0.98	1.13	1.09	1.13	1.13
8		A	A	0.89	0.94	0.67	0.51	0.85	0.59	0.82	0.82	0.85	0.85	0.92	0.99	0.79	0.80	0.71	0.72	0.90	0.99	0.85	0.85
9	Volatile loss - UCM	C	A	0.68	0.75	0.62	0.47	0.68	0.45	1.04	1.01	1.07	1.03	1.15	1.10	1.00	0.98	0.97	0.98	1.11	1.08	1.13	1.13
10	Volatile loss - UCM	C	A	0.69	0.74	0.89	0.71	0.68	0.46	1.01	1.03	1.03	1.03	1.09	1.13	0.98	1.01	0.96	1.00	1.04	1.10	1.05	1.05
11	Volatile loss - UCM	D	B	0.59	0.60	1.01	1.16	0.95	0.91	1.01	1.03	1.03	1.06	1.10	1.16	0.97	1.00	0.91	0.96	1.07	1.15	1.11	1.11
12	Volatile loss - UCM	D	B	0.62	0.63	0.63	0.52	0.57	0.42	0.98	1.02	0.99	1.05	1.03	1.14	0.95	1.00	0.92	0.99	1.01	1.14	1.04	1.04
13	Volatile loss - UCM	D	C	0.34	0.38	1.03	1.06	1.25	1.06	0.95	0.96	1.02	1.03	1.07	1.07	0.92	0.92	0.93	0.96	1.03	1.06	0.96	0.96
14	Volatile loss - UCM	D	C	0.45	0.49	1.00	1.13	0.99	0.86	0.97	1.01	1.00	1.04	1.05	1.15	0.95	0.99	0.92	0.98	1.01	1.12	0.95	0.95
15	Volatile loss - UCM	C	C	0.51	0.54	0.61	0.50	0.69	0.48	0.98	1.01	0.98	1.01	1.01	1.17	0.94	0.99	0.80	0.89	0.95	1.12	1.01	1.01
16	Volatile loss - UCM	D	C	0.73	0.79	0.93	0.99	0.90	0.70	1.01	1.01	1.03	1.05	1.12	1.20	0.98	0.97	0.93	0.96	1.09	1.18	1.06	1.06
17		A	A	1.39	1.53	0.71	0.54	0.57	0.38	0.97	1.00	1.00	1.00	1.00	1.09	0.96	0.98	0.88	0.95	0.98	1.09	0.90	0.90
18	Biodegraded	F	F	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
19	Biodegraded	F	F	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
20	Biodegraded	F	F	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
21	Biodegraded	F	F	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
23	Biodegraded	F	F	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
24	Biodegraded	F	F	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
25	Biodegraded	F	F	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
26	Biodegraded	F	F	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
27	Biodegraded	A	C	2.68	2.55	0.82	0.82	0.45	0.45	1.18	1.23	1.28	1.24	1.19	1.27	1.41	1.28	1.11	1.17	1.39	1.35	1.41	1.33
28	Biodegraded	F	F	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
29	Biodegraded	F	F	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
30		A	A	2.31	2.56	0.87	0.71	0.47	0.33	1.08	1.09	1.14	1.13	1.10	1.15	1.06	1.07	1.03	1.06	1.08	1.14	1.08	1.08
43	suspect contaminant	A	B	3.69	3.34	1.01	0.92	0.57	0.48	1.14	1.14	1.30	1.29	1.36	1.31	1.11	1.11	1.18	1.16	1.40	1.37	1.31	1.31

Notes:

Data Quality: A = best F= worst
 UCM = unresolved complex mixture
 Pr/Ph = pristane/phytane
 Pr/17 = pristane/n-C17
 Ph/18 = phytane/n-C18
 CPI = Carbon Preferential Index
 OEP = Odd Even Predominance

$$CPI\ 3 = 2^{\left(\frac{C_{29}}{C_{28}+C_{30}}\right)} \quad \text{Philippi (1965)}$$

$$CPI\ 4 = \left(\frac{(C_{23}+C_{25}+C_{27})+(C_{25}+C_{27}+C_{29})}{2^{\left(C_{24}+C_{26}+C_{28}\right)}}\right) \quad \text{based on Marzi and others (1993)}$$

$$OEP = \left(\frac{C_{i+6}C_{i+2}+C_{i+4}}{4C_{i+1}+4C_{i+3}}\right)^{-1^{i+1}} \quad \text{Scalan and Smith (1970)}$$

OEP 1 = centered on n-C₂₇ (i = 25)
 OEP 2 = centered on n-C₂₉ (i = 27)
 OEP 3 = centered on n-C₃₁ (i = 29)

$$CPI\ 1 = \frac{1}{2} \left(\frac{C_{23}+C_{25}+C_{27}+C_{29}+C_{31}}{C_{24}+C_{26}+C_{28}+C_{30}+C_{32}} + \frac{C_{25}+C_{27}+C_{29}+C_{31}+C_{33}}{C_{24}+C_{26}+C_{28}+C_{30}+C_{32}} \right) \quad \text{Hunt (1979)}$$

$$CPI\ 2 = \frac{1}{2} \left(\frac{C_{25}+C_{27}+C_{29}+C_{31}+C_{33}}{C_{24}+C_{26}+C_{28}+C_{30}+C_{32}} + \frac{C_{25}+C_{27}+C_{29}+C_{31}+C_{33}}{C_{26}+C_{28}+C_{30}+C_{32}+C_{34}} \right) \quad \text{Bray and Evans (1961)}$$