Table OA16. Normal alkane and acyclic isoprenoid ratios of hydrous pyrolysis liquids.

Sample#	Formation	HP #	Yield %	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
31A	Shublik	2467 R	0.00%	lean HMW	C	F	2.05	2.20	2.64	2.52	4.54	3.53	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
31B	Shublik	2475 F	2.74%	lean HMW	A	F	2.29	2.47	0.94	0.74	0.56	0.39	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
31B	Shublik	2475 F	2.74%	whole oil	B	A	1.91	2.24	0.81	0.59	0.48	0.31	1.10	1.08	1.11	1.09	1.11	1.13	1.07	1.05	1.02	0.98	1.10	1.13	1.15	1.15
31C	Shublik	2480 F	23.63%	lean HMW	A	F	1.79	2.14	0.50	0.39	0.34	0.22	-0-	-0-	-0-	-0-	-0-	-0-	1.10	1.10	1.01	1.03	-0-	-0-	-0-	-0-
31C	Shublik	2480 F	23.63%	whole oil	B	A	1.17	1.74	0.38	0.33	0.34	0.20	1.07	1.06	1.07	1.06	1.00	1.03	1.05	1.04	1.03	1.03	1.01	1.04	1.13	1.13
31D	Shublik	2485 F	73.63%	lean HMW	A	D	1.78	1.77	0.21	0.14	0.14	0.09	1.02	1.06	1.04	1.09	1.01	1.08	0.99	1.05	0.95	1.01	1.03	1.10	1.18	1.18
31D	Shublik	2485 F	73.63%	whole oil	B	B	1.40	1.80	0.22	0.18	0.20	0.11	1.06	1.02	1.06	1.02	1.02	0.98	1.02	1.01	1.04	0.99	1.03	0.99	1.19	1.19
			weighted average - saturates only				**1.80**	**1.88**	**0.30**	**0.22**	**0.20**	**0.13**	**1.02**	**1.06**	**1.04**	**1.09**	**1.01**	**1.08**	**1.02**	**1.06**	**0.96**	**1.01**	**1.03**	**1.10**	**1.18**	**1.18**
			weighted average - whole oils only				**1.36**	**1.80**	**0.27**	**0.23**	**0.24**	**0.14**	**1.06**	**1.03**	**1.06**	**1.03**	**1.02**	**1.00**	**1.03**	**1.02**	**1.04**	**1.00**	**1.03**	**1.01**	**1.17**	**1.17**
33A	Hue	2469 R		lean HMW	A	F	1.63	1.75	2.23	1.89	2.32	1.92	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
34A	Hue	2470 F	23.72%	lean HMW	A	F	0.74	0.78	1.05	0.82	1.76	1.25	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
34A	Hue	2470 F	23.72%	whole oil	A	A	0.74	0.79	0.76	0.65	1.09	0.85	0.86	0.88	0.87	0.90	0.94	0.97	0.85	0.86	0.79	0.81	0.96	0.98	0.87	0.87
34B	Hue	2473 F	13.09%	lean HMW	A	F	0.78	0.83	0.91	0.73	1.38	0.99	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
34B	Hue	2473 F	13.09%	whole oil	A	A	0.74	0.82	0.71	0.57	0.92	0.69	0.88	0.89	0.91	0.91	1.02	1.00	0.85	0.86	0.82	0.83	1.02	1.01	0.94	0.94
34C	Hue	2478 F	47.74%	lean HMW	A	C	0.88	0.95	0.54	0.42	0.70	0.48	1.09	1.10	1.34	1.45	0.99	1.01	1.09	1.10	0.85	0.87	0.78	0.80	0.94	0.94
34C	Hue	2478 F	47.74%	whole oil	A	A	0.85	0.94	0.51	0.40	0.60	0.42	0.92	0.92	0.92	0.93	0.96	1.01	0.91	0.91	0.87	0.89	0.95	1.01	0.90	0.90
34D	Hue	2483 F	15.45%	lean HMW	A	B	0.93	0.96	0.26	0.23	0.32	0.24	0.95	0.97	0.99	1.00	0.95	1.00	0.93	0.96	0.87	0.89	0.98	1.03	1.10	1.10
34D	Hue	2483 F	15.45%	whole oil	B	A	0.94	1.06	0.32	0.27	0.37	0.26	0.96	0.95	0.96	0.96	1.01	0.99	0.94	0.94	0.89	0.92	1.02	1.00	1.06	1.06
			weighted average - saturates only				**0.84**	**0.90**	**0.67**	**0.53**	**0.98**	**0.69**	**1.06**	**1.07**	**1.25**	**1.34**	**0.98**	**1.01**	**1.05**	**1.07**	**0.85**	**0.87**	**0.83**	**0.86**	**0.98**	**0.98**
			weighted average - whole oils only				**0.82**	**0.91**	**0.57**	**0.46**	**0.72**	**0.53**	**0.91**	**0.91**	**0.91**	**0.92**	**0.97**	**1.00**	**0.89**	**0.90**	**0.85**	**0.87**	**0.97**	**1.00**	**0.92**	**0.92**
38B	Hue	2497 R		lean HMW	A	B	1.65	1.67	0.71	0.61	0.52	0.41	1.09	1.09	1.14	1.11	1.06	1.15	1.05	1.06	0.97	0.96	1.09	1.17	1.31	1.31
42A	Hue	2491 F	19.92%	lean HMW	A	F	2.61	2.78	1.08	0.85	0.55	0.40	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
42A	Hue	2491 F	19.92%	whole oil	A	A	2.46	2.65	1.04	0.76	0.51	0.35	1.09	1.05	1.11	1.07	1.07	1.13	1.06	1.02	1.04	0.95	1.12	1.14	1.28	1.28
42B	Hue	2495 F	45.90%	lean HMW	A	C	2.48	2.78	0.77	0.58	0.37	0.25	1.11	1.09	-0-	-0-	1.02	1.05	1.07	1.06	0.97	1.00	1.07	1.12	1.38	1.38
42B	Hue	2495 F	45.90%	whole oil	A	A	2.32	2.71	0.72	0.54	0.34	0.22	1.09	1.09	1.12	1.11	1.10	1.10	1.05	1.07	1.04	1.03	1.13	1.12	1.24	1.24
42C	Hue	2501 F	22.56%	lean HMW	A	C	2.13	2.48	0.35	0.26	0.19	0.12	1.05	1.04	1.10	1.08	1.05	1.05	1.03	1.02	0.96	0.98	1.08	1.09	1.13	1.13
42C	Hue	2501 F	22.56%	whole oil	A	A	1.87	2.53	0.36	0.30	0.21	0.12	1.05	1.04	1.05	1.06	0.99	1.07	1.02	1.03	1.00	1.01	1.02	1.08	1.12	1.12
42D	Hue	2512 F	11.62%	lean HMW	B	D	1.78	2.04	0.12	0.09	0.07	0.05	-0-	-0-	-0-	-0-	0.99	1.07	1.07	1.06	1.00	1.03	1.03	1.12	-0-	-0-
42D	Hue	2512 F	11.62%	whole oil	B	A	1.44	2.08	0.20	0.14	0.15	0.07	1.06	1.03	1.05	1.03	0.99	1.00	1.06	1.03	1.01	0.99	1.02	1.02	1.04	1.04
			weighted average - saturates only				**2.35**	**2.63**	**0.66**	**0.50**	**0.33**	**0.23**	**1.09**	**1.07**	**1.10**	**1.08**	**1.02**	**1.05**	**1.06**	**1.05**	**0.97**	**1.00**	**1.07**	**1.11**	**1.30**	**1.30**
			weighted average - whole oils only				**2.14**	**2.58**	**0.64**	**0.48**	**0.32**	**0.21**	**1.08**	**1.06**	**1.09**	**1.08**	**1.06**	**1.09**	**1.05**	**1.05**	**1.03**	**1.00**	**1.09**	**1.10**	**1.20**	**1.20**

Notes:

Data Quality: A = best F= worst

HMW = high molecular weight (greater than n-C_{22})

Pr/Ph = pristane/phytane

Pr/17 = pristane/n-C17

Ph/18 = phytane/n-C18

CPI = Carbon Preferential Index

OEP = Odd Even Predominance

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

OEP 1 = centered on n-C_{27} (i = 25)

OEP 2 = centered on n-C_{29} (i = 27)

OEP 3 = centered on n-C_{31} (i = 29)

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

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

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

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