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(54) **Title:** HIGH NAPHTHENIC CONTENT MARINE FUEL COMPOSITIONS

	Method	Units	Distillate 1	Distillate 2	Distillate 3	Distillate 4	Distillate 5
API Gravity	D4052	-	27.3	29.5	32.7	29.6	32.9
Specific Gravity	Calc. from API Gravity	g/ml	0.8911	0.8789	0.8618	0.8783	0.8607
Density at 15°C	D7042		0.8866	0.8737	0.8558	0.8729	0.8547
Viscosity at 60°C	D7042	mm ² /s	21.932	18.841	13.900	18.556	14.84
Viscosity at 100°C	D7042	mm ² /s	6.9585	6.2963	5.2090	6.3081	5.4272
VI	Calc from KV60 / KV100	-	91.0	97.341	117.9	103.5	113.6
Sulfur Content	D2622	mass%		0.040	0.012	0.039	0.010
Nitrogen Content	D4629	mg/kg		344	63	307	52
Hydrogen Content	AM11807	mass%	13.13	13.61	13.99	13.51	14.03
Pour Point	D5949	°C					
MCR	D4530	mass%	0.09	0.03	0.01	0.08	0.02
Saturates		mass%		76.99	89.06	78.95	87.59
ARC1		mass%		9.86	6.26	9.93	5.67
ARC2		mass%		4.45	2.53	5.53	2.14
ARC3		mass%		2.94	1.5	3.87	1.12
ARC4		mass%		2.5	0	0	0
Sulfides		mass%		2.32	0.65	1.72	1.59
Polars		mass%		0.95	0	0	1.0
10% off	D2887	°F	708	701	696	713	708
50% off	D2887	°F	820	811	802	815	807
90% off	D2887	°F	954	949	944	946	940

FIG. 12

(57) **Abstract:** Marine diesel fuel / fuel blending component compositions and fuel oil / fuel blending component compositions are provided that are derived from crude oils having high naphthenes to aromatics volume and/or weight ratios and a low sulfur content. In addition to having a high naphthenes to aromatics ratio, a low sulfur content, and a low but substantial content of aromatics, such fuels and/or fuel blending components can have a reduced or minimized carbon intensity relative to fuels derived from conventional sources. The unexpected ratio of naphthenes to aromatics contributes to the fuels and/or fuel blending components further having additional unexpected properties, including low density, low kinematic viscosity, and/or high energy density.

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