

TEST	METHOD	UNITS	Sample Code	Tank 180A	Tank 180B	Tank 62
			Description	HF-02003 Seq VI E w/DCA	HF-02003 Seq VI E w/DCA	HF2003
			SwRI	SwRI	Haltermann	
			Results	Results	Results	
Distillation	ASTM D86					
IBP		°C	32	26	31	
5%		°C	46	46	44	
10%		°C	52	52	51	
15%		°C	57	57	56	
20%		°C	62	62	61	
30%		°C	74	74	72	
40%		°C	89	89	88	
50%		°C	103	104	102	
60%		°C	111	111	111	
70%		°C	117	117	117	
80%		°C	127	127	126	
90%		°C	158	158	157	
95%		°C	170	171	170	
FBP		°C	197	196	195	
Recovered		vol %	98.5	98.3	98.5	
Residue		vol %	0.7	0.9	0.7	
Loss		vol %	0.8	0.8	0.8	
Gravity @ 60°F/60°F	ASTM D4052	°API	59.2	59.1	59.5	
Density @ 15°C	ASTM D4052	kg/l	0.7419	0.7421	0.7406	
Dry Vapor Pressure Equivalent	ASTM D5191		61.0	60.3	63.0	
Carbon	ASTM D3343	wt%	pending	pending	pending	
Carbon	ASTM D5291	mass %	86.38	86.76	86.72	
Hydrogen	ASTM D5291	mass %	13.26	13.35	13.59	
Hydrogen/Carbon ratio	ASTM D5291	mole/mole	6.5	6.5	6.4	
Oxygen	ASTM D4815	wt%	<0.2	<0.2	<0.2	
Oxygenates Ethanol	ASTM D4815	vol%	<0.2	<0.2	<0.2	
MTBE		vol%	<0.2	<0.2	<0.2	
ETBE		vol%	<0.2	<0.2	<0.2	
Methanol		vol%	<0.2	<0.2	<0.2	
Sulfur by UV	ASTM D5453	ppm	2.32	2.49	2.47	

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			Results	Results	Results	
Composition, aromatics	ASTM D5769	vol %	31.23	30.88	30.51	
C6 aromatics (benzene)	ASTM D5769	Vol%	0.02	0.02	0.02	
C7 aromatics (toluene)	ASTM D5769	Vol%	18.6	18.4	18.1	
C8 aromatics	ASTM D5769	Vol%	1.4	1.4	1.4	
C9 aromatics	ASTM D5769	Vol%	9.1	8.9	8.9	
C10+ aromatics	ASTM D5769	Vol%	2.1	2.2	2.1	
Lead	ASTM D3237	mg/l	<0.001	<0.001	<0.001	
Manganese	ASTM D3831	g/gal	<0.2	<0.2	<0.2	
Phosphorus	ASTM D3231	mg/L	<0.2	<0.2	<0.2	
Silicon	ICP Method		not available	not available	not available	
Particulate Contamination	ASTM D5452	mg/l	1.1	3.1	1	
Oxidation Stability	ASTM D525	minutes	1440	1440	1440	
Copper Corrosion (3hrs, 50°C)	ASTM D130		1	1	1	
Unwashed Wt	ASTM D381	mg/100mls	12.0	12.5	11.0	
Washed Wt	ASTM D381	mg/100mls	<0.5	0.5	<0.5	
Research Octane Number (RON)	ASTM D2699	--	96.9	96.6	96.7	
Motor Octane Number (MON)	ASTM D2700	--	88.0	87.5	88.2	
Antiknock Index (R+M/2)	D2699/2700	calculated	92.4	92.0	92.4	
Sensitivity			8.9	9.1	8.5	
Net Heating Value, btu/lb	ASTM D3338	btu/lb	59.2	59.1	59.5	
Gross Heating Value, btu/lb	ASTM D240	btu/lb	0.7422	0.7423	0.7408	
Net Heating Value, btu/lb	ASTM D240	btu/lb	0.7419	0.7421	0.7406	
Water & Sediment by Centrifuge	ASTM D2709	vol %	< 0.005	< 0.005	< 0.005	
Observation	VISUAL	--	light red	light red	clear no color	
ppm m/m	Top Tier Additive					