

FUEL REPORT

Sample Rating Trend

ISO

DUKE HOSP HUDSON BLDG GEN

Diesel Fuel Fluid

{not provided} (--- QTS)

DIAGNOSIS

Recommendation

We recommend pre-filter before use. All other laboratory tests indicate that this sample meets specifications for No.2 ultra-low-sulfur diesel fuel.

Corrosion

All metal levels are normal indicating no corrosion in the system.

Contaminants

There is a high amount of particulates present in the fuel. There is no bacteria or fungus (yeast and/or mold) indicated in the sample. The water content is negligible.

Fuel Condition

Sulfur value derived by ASTM D5453 method for ULSD validation. Sulfur level is acceptable for ULSD specification.

SAMPLE INFORMATION method limit/base current history1 history2 Sample Number Client Info WC05687552 WC03880254 Machine Age hrs Client Info 0 0 Sample Datus Client Info 0 0 Sample Status Client Info 0 0.842 0.841 PHYSICAL PROPERTIES method limit/base current history1 history2 Specific Gravity 'XSTM D1298 0.842 0.841 PHYSICAL PROPERTIES method limit/base current history1 history2 Specific Gravity 'XSTM D1500 L4.0 Specific Gravity method limit/base current history1 history2 Sufur ppm ASTM D5458 0 0 Sufur (UVF) ppm ASTM D5458 0 0							
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Sample Date Client Info 07 Nov 2022 22 Oct 2015 Machine Age hrs Client Info 0 0 PHYSICAL PROPERTIES method limit/base current history1 /history2 Specific Gravity 'ASTM D1298 0.842 0.841 Specific Gravity 'ASTM D1298 0.842 0.841 Specific Gravity 'ASTM D1298 0.842 0.841 Specific Gravity 'ASTM D445 2.6 2.66 Suffur Color scalar 'ASTM D445 2.6 2.66 Sulfur (UVF) ppm ASTM D5557 0 0 DISTILLATION method limit/base current history1 history2 Sulfur (UVF) ppm ASTM D86 161 175 DISTILLATION method limit/base current history1 history2 Sulfur (UVF) ppm ASTM D86	SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 0 0 PHYSICAL PROPERTIES method Imit/base current history1 history2 Specific Gravity 'ASTM D1288 0.842 0.841 Specific Gravity 'ASTM D1288 0.842 0.841 Specific Gravity 'ASTM D1288 0.842 0.841 Specific Gravity 'ASTM D1090 L4.0 ASTM Color scalar 'ASTM D1080 L4.0 Suffur CONTENT method Imit/base current history1 history2 Sulfur (UVF) ppm ASTM D5453 9 DISTILLATION method limit/base current history1 history2 Initial Boiling Point °C ASTM D86 161 175 DISTILLATION method limit/base current history1 history2 Initial Boiling Point °C	Sample Number		Client Info		WC05687552	WC03850254	
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PHYSICAL PROPERTIES method limit/base current history1 history2 Specific Gravity 'ASTM D1288 0.842 0.841 Specific Gravity 'ASTM D1280 0.842 0.841 Suffic Cora text 'Visual Screen Red Red Red ASTM Color scalar 'ASTM D1500 L4.0 Visc @ 40°C cSt ASTM D445 2.6 2.66 SULFUR CONTENT method limit/base current history1 history2 Sulfur (UVF) ppm ASTM D565 0 0 DISTILLATION method limit/base current history1 history2 Initial Boiling Point °C ASTM D86 161 175 DiSTILLATION method limit/base current history1 history2 Initial Boiling Point °C ASTM D86 203 208	Machine Age	hrs	Client Info		0	0	
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DISTILLATION method limit/base current history1 history2 Initial Boiling Point °C ASTM D86 161 175 5% Distillation Point °C ASTM D86 190 196 10% Distill Point °C ASTM D86 203 208 10% Distill Point °C ASTM D86 212 217 20% Distill Point °C ASTM D86 220 224 20% Distill Point °C ASTM D86 235 239 20% Distill Point °C ASTM D86 263 266 50% Distill Point °C ASTM D86 293 292 80% Distill Point °C ASTM D86 309 308 80% Distill Point °C ASTM D86 318 316 90% Distill Point °C ASTM D86 346 344 90% Distill Point °C	Sulfur	ppm	ASTM D5185m		0	0	
Initial Boiling Point °C ASTM D86 161 175	Sulfur (UVF)	ppm	ASTM D5453		9		
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03% Distill Point °C ASTM D86 235 239 40% Distill Point °C ASTM D86 249 252 50% Distill Point °C ASTM D86 263 266 50% Distill Point °C ASTM D86 278 279 60% Distill Point °C ASTM D86 293 292 70% Distill Point °C ASTM D86 309 308 80% Distill Point °C ASTM D86 309 308 80% Distill Point °C ASTM D86 318 316 90% Distill Point °C ASTM D86 329 327 90% Distill Point °C ASTM D86 346 344 90% Distillation Point °C ASTM D86 352 351 Distillation Residue % ASTM D86 0.8 0.7 Distillation Loss % ASTM D777 36.6 36.8 ContAMINANTS m	15% Distillation Point	°C	ASTM D86		212	217	
40% Distill Point °C ASTM D86 249 252 50% Distill Point °C ASTM D86 263 266 50% Distill Point °C ASTM D86 278 279 60% Distill Point °C ASTM D86 293 292 70% Distill Point °C ASTM D86 309 308 80% Distill Point °C ASTM D86 309 308 80% Distill Point °C ASTM D86 318 316 90% Distill Point °C ASTM D86 329 327 90% Distill Point °C ASTM D86 346 344 90% Distillation Point °C ASTM D86 352 351 Distillation Residue % ASTM D86 0.8 0.7 Distillation Loss % ASTM D777 36.6 36.8 IGNITION QUALITY method limit/base current history1 history2 Silicon	20% Distill Point	°C	ASTM D86		220	224	
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60% Distill Point °C ASTM D86 278 279 70% Distill Point °C ASTM D86 293 292 80% Distill Point °C ASTM D86 309 308 80% Distill Point °C ASTM D86 318 316 85% Distillation Point °C ASTM D86 329 327 90% Distill Point °C ASTM D86 346 344 90% Distillation Point °C ASTM D86 352 351 95% Distillation Residue % ASTM D86 0.8 0.7 Distillation Loss % ASTM D86 0.8 0.7 IGNITION QUALITY method limit/base current history1 history2 API Gravity ASTM D777 36.6 36.8 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m <0.1	40% Distill Point	°C	ASTM D86		249	252	
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80% Distill Point °C ASTM D86 309 308 85% Distillation Point °C ASTM D86 318 316 90% Distill Point °C ASTM D86 329 327 95% Distillation Point °C ASTM D86 346 344 95% Distillation Point °C ASTM D86 352 351 Distillation Residue % ASTM D86 1.4 1.4 Distillation Loss % ASTM D86 0.8 0.7 IGNITION QUALITY method limit/base current history1 history2 API Gravity ASTM D4737 <40.0	60% Distill Point	°C	ASTM D86		278	279	
85% Distillation Point °C ASTM D86 318 316 90% Distill Point °C ASTM D86 329 327 95% Distillation Point °C ASTM D86 346 344 95% Distillation Point °C ASTM D86 352 351 Distillation Residue % ASTM D86 1.4 1.4 Distillation Loss % ASTM D86 0.8 0.7 IGNITION QUALITY method limit/base current history1 history2 API Gravity ASTM D7777 36.6 36.8 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m<	70% Distill Point	°C	ASTM D86		293	292	
90% Distill Point °C ASTM D86 329 327 95% Distillation Point °C ASTM D86 346 344 95% Distillation Point °C ASTM D86 352 351 Distillation Residue % ASTM D86 1.4 1.4 Distillation Loss % ASTM D86 0.8 0.7 IGNITION QUALITY method limit/base current history1 history2 API Gravity ASTM D7777 36.6 36.8 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m <1.0	80% Distill Point	°C	ASTM D86		309	308	
Bit C ASTM D86 346 344 P5% Distillation Point °C ASTM D86 352 351 Distillation Residue % ASTM D86 1.4 1.4 Distillation Residue % ASTM D86 0.8 0.7 IGNITION QUALITY method limit/base current history1 history2 API Gravity ASTM D7777 36.6 36.8 Cetane Index ASTM D4737 <40.0	85% Distillation Point	°C	ASTM D86		318	316	
Final Boiling Point°CASTM D86352351Distillation Residue%ASTM D861.41.4Distillation Loss%ASTM D860.80.7IGNITION QUALITYmethodlimit/basecurrenthistory1history2API GravityASTM D777736.636.8Cetane IndexASTM D4737<40.0	90% Distill Point	°C	ASTM D86		329	327	
Distillation Residue % ASTM D86 1.4 1.4 Distillation Loss % ASTM D86 0.8 0.7 IGNITION QUALITY method limit/base current history1 history2 API Gravity ASTM D7777 36.6 36.8 Cetane Index ASTM D7777 36.6 36.8 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m <1.0	95% Distillation Point	°C	ASTM D86		346	344	
Distillation Loss % ASTM D86 0.8 0.7 IGNITION QUALITY method limit/base current history1 history2 API Gravity ASTM D7777 36.6 36.8 Cetane Index ASTM D4737 <40.0	Final Boiling Point	°C	ASTM D86		352	351	
IGNITION QUALITY method limit/base current history1 history2 API Gravity ASTM D7777 36.6 36.8 Cetane Index ASTM D4737 <40.0	Distillation Residue	%	ASTM D86		1.4	1.4	
API Gravity ASTM D7777 36.6 36.8 Cetane Index ASTM D4737 <40.0 48.3 49.5 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m <1.0 0 0 Sodium ppm ASTM D5185m <0.1 0 0 Potassium ppm ASTM D5185m <0.1 0 0 Water % ASTM D6304 <0.05 0.003 0.046 % Gasoline % *In-House <0.50 0.0	Distillation Loss	%	ASTM D86		0.8	0.7	
Cetane Index ASTM D4737 <40.0 48.3 49.5 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m <1.0 0 0 Sodium ppm ASTM D5185m <0.1 0 0 Potassium ppm ASTM D6304 <0.05 0.003 0.046 Water % ASTM D6304 <500 36.5 460 % Gasoline % *In-House <0.50 0.00	IGNITION QUALIT	ΓY	method	limit/base	current	history1	history2
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m <1.0	API Gravity		ASTM D7777		36.6	36.8	
Silicon ppm ASTM D5185m <1.0 0 0 Sodium ppm ASTM D5185m <0.1	Cetane Index		ASTM D4737	<40.0	48.3	49.5	
Sodium ppm ASTM D5185m <0.1	CONTAMINANTS		method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m <0.1 0 0 Water % ASTM D6304 <0.05 0.003 <0.046 ppm Water ppm ASTM D6304 <500 36.5 <460 % Gasoline % *In-House <0.50 0.0	Silicon	ppm	ASTM D5185m	<1.0	0	0	
Water % ASTM D6304 <0.05 0.003 <0.046 opm Water ppm ASTM D6304 <500	Sodium	ppm	ASTM D5185m	<0.1	0	0	
ppm Water ppm ASTM D6304 <500 36.5 ▲ 460 % Gasoline % *In-House <0.50 0.0	Potassium	ppm	ASTM D5185m	<0.1	0	0	
% Gasoline % *In-House <0.50 0.0	Water	%	ASTM D6304	<0.05	0.003	▲ 0.046	
	ppm Water	ppm	ASTM D6304	<500	36.5	4 60	
% Biodiesel % *In-House <20.0 0.0	% Gasoline	%	*In-House	<0.50	0.0		
	% Biodiesel	%	*In-House	<20.0	0.0		



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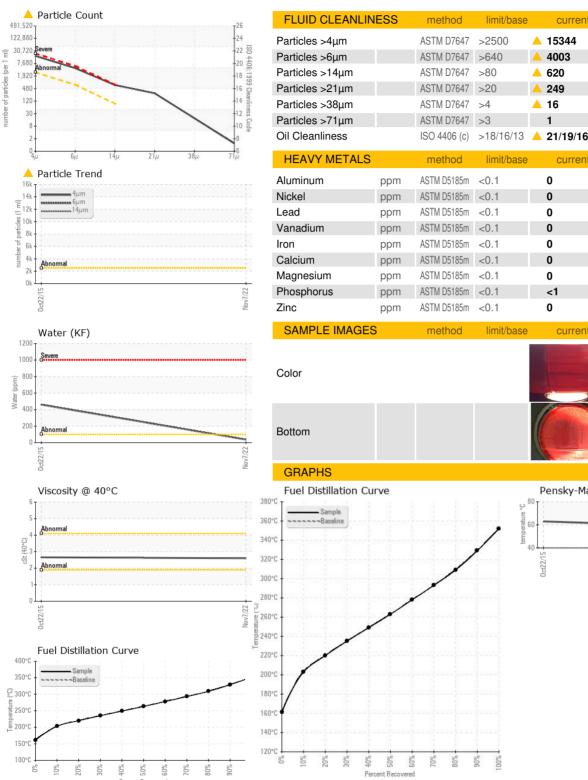
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FUEL REPORT



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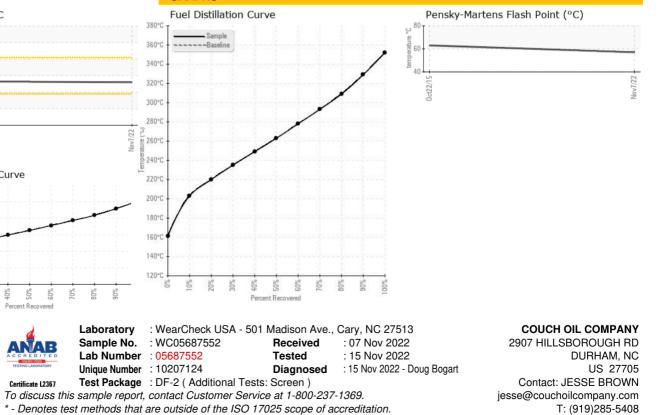
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Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Contact/Location: JESSE BROWN - COUDUR

F: