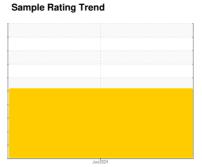


# **FUEL REPORT**

# **CITY OF ROCK HILL [18603]** [CITY OF ROCK HILL] MANCHESTER INTER 1

**Diesel Fuel** 

No.2 DIESEL FUEL (ULTRALOW SULPHUF





# DIAGNOSIS

#### Recommendation

We advise that you follow the water drain-off procedure for this component, and use off-line filtration to improve the cleanliness of the system fluid. There is too much contamination present in this sample to perform a particle count.

#### Corrosion

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

#### Contaminants

Free water present. Light concentration of visible dirt/debris present in the fuel. There is no bacteria or fungus (yeast and/or mold) present in the sample.

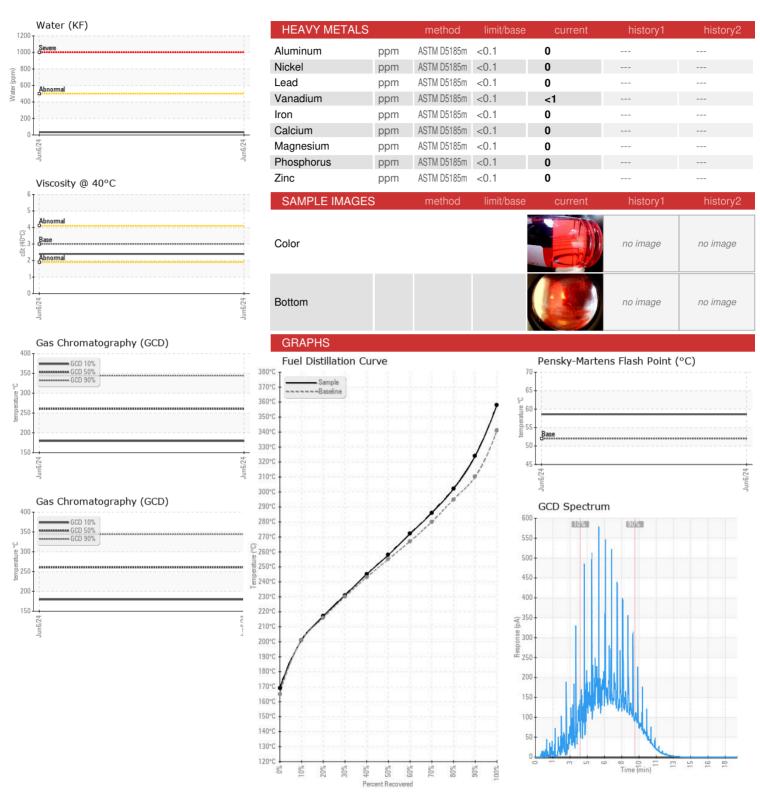
### **Fuel Condition**

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	R) (660 GAL)			•	Jun 2024		
Sample Date	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Date	Sample Number		Client Info		WC06220306		
Machine Age   hrs   Client Info   SEVERE           PHYSICAL PROPERTIES   method   limit/base   current   history1   history2       Fuel Color   scalar   'ASTM D1500   L4.5           Visc @ 40°C   cSt   ASTM D445   3.0   2.4           Pensky-Martens Flash Point   °C   'PMCC circlated   52   58.6           SULFUR CONTENT   method   limit/base   current   history1   history2       SULFUR CONTENT   method   limit/base   current   history1   history2       SULfur (UVF)   ppm   ASTM D5185m   10   0	•						
PHYSICAL PROPERTIES   method   milibase   current   history1   history2	•	hrs					
Fuel Color					SEVERE		
Fuel Color	PHYSICAL PROP	ERTIES	method	limit/base	current	history1	history2
ASTM Color	Fuel Color	text	*Visual Screen	Yllow	Red	· ·	•
Visc @ 40°C         cSt         ASTM D445         3.0         2.4	ASTM Color		*ASTM D1500		L4.5		
Pensky-Marters Flash Point   °C   °PMCC Calculated   52   58.6           SULFUR CONTENT   method   limit/base   current   history1   history2       Sulfur (UVF)   ppm   ASTM D5185m   10   0           Sulfur (UVF)   ppm   ASTM D5453   8           DISTILLATION   method   limit/base   current   history1   history2       Initial Boiling Point   °C   ASTM D86   165   169           10% Distill Point   °C   ASTM D86   192           10% Distill Point   °C   ASTM D86   201   201           10% Distill Point   °C   ASTM D86   209           20% Distill Point   °C   ASTM D86   230   231           30% Distill Point   °C   ASTM D86   243   245           20% Distill Point   °C   ASTM D86   243   245           20% Distill Point   °C   ASTM D86   267   272           20% Distill Point   °C   ASTM D86   267   272           20% Distill Point   °C   ASTM D86   267   272           20% Distill Point   °C   ASTM D86   280   286           20% Distill Point   °C   ASTM D86   295   302           20% Distill Point   °C   ASTM D86   313           20% Distill Point   °C   ASTM D86   310   324           20% Distill Point   °C   ASTM D86   341   358           20% Distill Point   °C   ASTM D86   341   358     -	Visc @ 40°C			3.0	2.4		
Sulfur         ppm         ASTM D5185m         10         0             Sulfur (UVF)         ppm         ASTM D5453         8             DISTILLATION         method         limit/base         current         history1         history2           Initial Boiling Point         °C         ASTM D86         192             5% Distillation Point         °C         ASTM D86         192             10% Distill Point         °C         ASTM D86         209             10% Distill Point         °C         ASTM D86         216         217             20% Distill Point         °C         ASTM D86         216         217             40% Distill Point         °C         ASTM D86         243         245             50% Distill Point         °C         ASTM D86         255         258             60% Distill Point         °C         ASTM D86         280         286             85% Distillation Point         °C         ASTM D86 <td></td> <td>°C</td> <td>*PMCC Calculated</td> <td>52</td> <td>58.6</td> <td></td> <td></td>		°C	*PMCC Calculated	52	58.6		
Sulfur (UVF)   Dpm   ASTM D5453   8	SULFUR CONTE	NT	method	limit/base	current	history1	history2
DISTILLATION	Sulfur	maa	ASTM D5185m	10	0		
Initial Boiling Point   °C   ASTM D86   165   169         5% Distillation Point   °C   ASTM D86   192         15% Distill Point   °C   ASTM D86   201   201         15% Distill Point   °C   ASTM D86   209           20% Distill Point   °C   ASTM D86   216   217         20% Distill Point   °C   ASTM D86   230   231               20% Distill Point   °C   ASTM D86   230   231							
5% Distill ation Point         °C         ASTM D86         192             10% Distill Point         °C         ASTM D86         201         201             20% Distill Point         °C         ASTM D86         209             20% Distill Point         °C         ASTM D86         216         217             30% Distill Point         °C         ASTM D86         230         231             40% Distill Point         °C         ASTM D86         243         245             50% Distill Point         °C         ASTM D86         255         258             60% Distill Point         °C         ASTM D86         280         286             70% Distill Point         °C         ASTM D86         295         302             80% Distill Point         °C         ASTM D86         313             85% Distillation Point         °C         ASTM D86         313         32            90% Distill Point         °C         ASTM D86	DISTILLATION		method	limit/base	current	history1	history2
10% Distill Point         °C         ASTM D86         201         201             15% Distillation Point         °C         ASTM D86         209             20% Distill Point         °C         ASTM D86         216         217             30% Distill Point         °C         ASTM D86         230         231             40% Distill Point         °C         ASTM D86         243         245             50% Distill Point         °C         ASTM D86         255         258             60% Distill Point         °C         ASTM D86         280         286             80% Distill Point         °C         ASTM D86         280         286             80% Distill Point         °C         ASTM D86         313             85% Distillation Point         °C         ASTM D86         313             90% Distill Point         °C         ASTM D86         341         358             15x Distillation Point         °C	Initial Boiling Point	°C	ASTM D86	165	169		
15% Distillation Point         °C         ASTM D86         209             20% Distill Point         °C         ASTM D86         216         217             30% Distill Point         °C         ASTM D86         230         231             40% Distill Point         °C         ASTM D86         243         245             50% Distill Point         °C         ASTM D86         255         258             60% Distill Point         °C         ASTM D86         267         272             70% Distill Point         °C         ASTM D86         286              85% Distillation Point         °C         ASTM D86         310         324             99% Distill Point         °C         ASTM D86         310         324             95% Distillation Point         °C         ASTM D86         341         358             Final Boiling Point         °C         ASTM D777         37.7         37             AP	5% Distillation Point	°C	ASTM D86		192		
20% Distill Point         °C         ASTM D86         216         217             30% Distill Point         °C         ASTM D86         230         231             40% Distill Point         °C         ASTM D86         243         245             50% Distill Point         °C         ASTM D86         255         258             60% Distill Point         °C         ASTM D86         267         272             70% Distill Point         °C         ASTM D86         280         286             80% Distill Point         °C         ASTM D86         313             90% Distill Point         °C         ASTM D86         313             90% Distill Point         °C         ASTM D86         313             95% Distillation Point         °C         ASTM D86         341         358             Final Boiling Point         °C         ASTM D87         37.7         37             IGNITION QUALITY         method         <	10% Distill Point	°C	ASTM D86	201	201		
30% Distill Point	15% Distillation Point	°C	ASTM D86		209		
40% Distill Point         °C         ASTM D86         243         245             50% Distill Point         °C         ASTM D86         255         258             60% Distill Point         °C         ASTM D86         267         272             70% Distill Point         °C         ASTM D86         280         286             80% Distill Point         °C         ASTM D86         313             85% Distillation Point         °C         ASTM D86         313             90% Distill Point         °C         ASTM D86         343             90% Distillation Point         °C         ASTM D86         343             95% Distillation Point         °C         ASTM D86         341         358             Final Boiling Point         °C         ASTM D86         341         358             IGNITION QUALITY         method         limit/base         current         history1         history2           API Gravity         ASTM D7777         37.7	20% Distill Point	°C	ASTM D86	216	217		
50% Distill Point         °C         ASTM D86         255         258             60% Distill Point         °C         ASTM D86         267         272             70% Distill Point         °C         ASTM D86         280         286             80% Distill Point         °C         ASTM D86         313             90% Distill Point         °C         ASTM D86         310         324             95% Distillation Point         °C         ASTM D86         343             95% Distillation Point         °C         ASTM D86         343             95% Distillation Point         °C         ASTM D86         341         358             Final Boiling Point         °C         ASTM D86         341         358             IGNITION QUALITY         method         limit/base         current         history1         history2           API Gravity         ASTM D7777         37.7         37             Cetane Index         ASTM D5185m         <1.0	30% Distill Point	°C	ASTM D86	230	231		
60% Distill Point	40% Distill Point	°C	ASTM D86	243	245		
70% Distill Point         °C         ASTM D86         280         286             80% Distill Point         °C         ASTM D86         295         302             85% Distillation Point         °C         ASTM D86         313             90% Distill Point         °C         ASTM D86         343             95% Distillation Point         °C         ASTM D86         341         358             Final Boiling Point         °C         ASTM D86         341         358             IGNITION QUALITY         method         limit/base         current         history1         history2           API Gravity         ASTM D4737         <0.0	50% Distill Point	°C	ASTM D86	255	258		
80% Distill Point         °C         ASTM D86         295         302             85% Distillation Point         °C         ASTM D86         313             90% Distill Point         °C         ASTM D86         310         324             95% Distillation Point         °C         ASTM D86         343             Final Boiling Point         °C         ASTM D86         341         358             IGNITION QUALITY         method         limit/base         current         history1         history2           API Gravity         ASTM D7777         37.7         37             Cetane Index         ASTM D4737         <40.0	60% Distill Point	°C	ASTM D86	267	272		
85% Distillation Point         °C         ASTM D86         313             90% Distill Point         °C         ASTM D86         310         324             95% Distillation Point         °C         ASTM D86         343             Final Boiling Point         °C         ASTM D86         341         358             IGNITION QUALITY         method         limit/base         current         history1         history2           API Gravity         ASTM D7777         37.7         37             Cetane Index         ASTM D4737         <40.0	70% Distill Point	°C	ASTM D86	280	286		
90% Distill Point         °C         ASTM D86         310         324             95% Distillation Point         °C         ASTM D86         343             Final Boiling Point         °C         ASTM D86         341         358             IGNITION QUALITY         method         limit/base         current         history1         history2           API Gravity         ASTM D7777         37.7         37             Cetane Index         ASTM D4737         <40.0	80% Distill Point	°C	ASTM D86	295	302		
95% Distillation Point         °C         ASTM D86         343             Final Boiling Point         °C         ASTM D86         341         358             IGNITION QUALITY         method         limit/base         current         history1         history2           API Gravity         ASTM D7777         37.7         37             Cetane Index         ASTM D4737         <40.0	85% Distillation Point	°C	ASTM D86		313		
Final Boiling Point         °C         ASTM D86         341         358             IGNITION QUALITY         method         limit/base         current         history1         history2           API Gravity         ASTM D7777         37.7         37             Cetane Index         ASTM D4737         <40.0	90% Distill Point	°C	ASTM D86	310	324		
IGNITION QUALITY	95% Distillation Point	°C	ASTM D86		343		
API Gravity	Final Boiling Point	°C	ASTM D86	341	358		
Cetane Index         ASTM D4737         <40.0         49             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         <1.0	IGNITION QUALIT	ГΥ	method	limit/base	current	history1	history2
CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         <1.0	API Gravity		ASTM D7777	37.7	37		
Silicon         ppm         ASTM D5185m         <1.0         <1             Sodium         ppm         ASTM D5185m         <0.1         <1             Potassium         ppm         ASTM D5185m         <0.1         <1             Water         %         ASTM D6304         <0.05         0.003             ppm Water         ppm         ASTM D6304         <500         34             % Gasoline         %         *In-House         <0.50         0.0             % Biodiesel         *In-House         <20.0         0.0             MICROBIAL         method         limit/base         current         history1         history2           Bacteria         CFU/ml         WC-Method         >=100000         0             Yeast         CFU/ml         WC-Method         >=100000         0	Cetane Index		ASTM D4737	<40.0	49		
Sodium         ppm         ASTM D5185m         < 0.1         <1             Potassium         ppm         ASTM D5185m         < 0.1	CONTAMINANTS		method	limit/base	current	history1	history2
Sodium         ppm         ASTM D5185m         <0.1         <1             Potassium         ppm         ASTM D5185m         <0.1	Silicon	ppm	ASTM D5185m	<1.0	<1		
Potassium         ppm         ASTM D5185m         < 0.1         <1             Water         %         ASTM D6304         <0.05         0.003             ppm Water         ppm         ASTM D6304         <500         34             % Gasoline         %         *In-House         <0.50         0.0             % Biodiesel         %         *In-House         <20.0         0.0             MICROBIAL         method         limit/base         current         history1         history2           Bacteria         CFU/ml         WC-Method         >=100000         0             Yeast         CFU/ml         WC-Method         >=100000         0	Sodium		ASTM D5185m	< 0.1	<1		
ppm Water         ppm         ASTM D6304         <500         34             % Gasoline         % *In-House         <0.50	Potassium		ASTM D5185m	<0.1	<1		
ppm Water         ppm         ASTM D6304         <500         34             % Gasoline         % *In-House         <0.50	Water	%	ASTM D6304	< 0.05	0.003		
% Biodiesel         %         *In-House         <20.0         0.0             MICROBIAL         method         limit/base         current         history1         history2           Bacteria         CFU/ml         WC-Method         >=100000         0             Yeast         CFU/ml         WC-Method         >=100000         0	ppm Water	ppm	ASTM D6304		34		
MICROBIAL         method         limit/base         current         history1         history2           Bacteria         CFU/ml         WC-Method         >=100000         0             Yeast         CFU/ml         WC-Method         >=100000         0	% Gasoline	%	*In-House	< 0.50	0.0		
Bacteria         CFU/ml         WC-Method         >=100000         0             Yeast         CFU/ml         WC-Method         >=100000         0	% Biodiesel	%	*In-House	<20.0	0.0		
Yeast   CFU/ml   WC-Method   >=100000   <b>0</b>	MICROBIAL		method	limit/base	current	history1	history2
Yeast   CFU/ml   WC-Method   >=100000   <b>0</b>	Bacteria	CFU/ml	WC-Method	>=100000	0		
			WC-Method	>=100000	0		



# **FUEL REPORT**







Certificate 12367

Laboratory Sample No.

Lab Number : 06220306

: WC06220306 Unique Number : 11098503

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 25 Jun 2024 **Tested** : 02 Jul 2024

Diagnosed : 02 Jul 2024 - Doug Bogart

Test Package: DF-2 (Additional Tests: Bacteria, Fuel, Screen) To discuss this sample report, contact Customer Service at 1-800-237-1369.

 $^st$  - Denotes test methods that are outside of the ISO 17025 scope of accreditation. Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

PETROLEUM RECOVERY SERVICES

210 POWELL DR SUMMERVILLE, SC US 29483

Contact: AJAY EL Ajay@prsfuel.com T: (843)225-1777