

# Area **Quality Technology Services [17867]** [Quality Technology Services] TANK 1

**Diesel Fuel** Fluid

No.2 DIESEL FUEL (ULTRALOW SULPHUR) (200000 GAL)

# DIAGNOSIS

#### Recommendation

No corrective action is recommended at this time. All laboratory tests indicate that this sample meets specifications for No.2 low-sulfur diesel fuel.

#### Corrosion

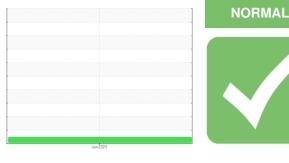
All metal levels are normal indicating no corrosion in the system.

## Contaminants

There is a light amount of visible silt present in the sample. The water content is negligible. There is no bacteria or fungus (yeast and/or mold) indicated in the sample. The amount and size of particulates present in the system are acceptable.

### **Fuel Condition**

Sulfur value derived by ASTM D5453 method for ULSD validation.



Sample Rating Trend



SAMPLE INFORM	1ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC06218696		
Sample Date		Client Info		04 Jun 2024		
Machine Age	hrs	Client Info		0		
Sample Status				NORMAL		
PHYSICAL PROP	ERTIES	method	limit/base	current	history1	history2
Fuel Color	text	*Visual Screen	Yllow	Red		
ASTM Color	scalar	*ASTM D1500		L4.5		
Visc @ 40°C	cSt	ASTM D445	3.0	2.44		
Pensky-Martens Flash Point	°C	*PMCC Calculated	52	64.7		
SULFUR CONTER	NT	method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185m	10	84		
Sulfur (UVF)	ppm	ASTM D5453		48		
DISTILLATION		method	limit/base	current	history1	history2
Initial Boiling Point	°C	ASTM D86	165	176		
5% Distillation Point	°C	ASTM D86		197		
10% Distill Point	°C	ASTM D86	201	205		
15% Distillation Point	°C	ASTM D86		212		
20% Distill Point	°C	ASTM D86	216	220		
30% Distill Point	°C	ASTM D86	230	234		
40% Distill Point	°C	ASTM D86	243	247		
50% Distill Point	°C	ASTM D86	255	261		
60% Distill Point	°C	ASTM D86	267	275		
70% Distill Point	°C	ASTM D86	280	289		
80% Distill Point	°C	ASTM D86	295	304		
85% Distillation Point	°C	ASTM D86		315		
90% Distill Point	°C	ASTM D86	310	325		
95% Distillation Point	°C	ASTM D86		343		
Final Boiling Point	°C	ASTM D86	341	361		
IGNITION QUALIT	ΓY	method	limit/base	current	history1	history2
API Gravity		ASTM D7777	37.7	36		
Cetane Index		ASTM D4737	<40.0	48		
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	<1.0	0		
Sodium	ppm	ASTM D5185m	<0.1	2		
Potassium	ppm	ASTM D5185m	<0.1	<1		
Water	%	ASTM D6304	<0.05	0.011		
ppm Water	ppm	ASTM D6304	<500	111		
% Gasoline	%	*In-House	<0.50	0.0		
% Biodiesel	%	*In-House	<20.0	0.0		



# FUEL REPORT

ppm

ppm

ppm

ppm

ppm

ppm

ppm

ppm

ppm

ASTM D7647

ASTM D7647 >640

ASTM D7647 >80

ASTM D7647 >20

ASTM D7647 >3

ASTM D7647

ASTM D5185m

ASTM D5185m <0.1

ASTM D5185m <0.1

>2500

>4

< 0.1

< 0.1

< 0.1

<0.1

< 0.1

<0.1

< 0.1

ISO 4406 (c) >18/16/13

FLUID CLEANLINESS

Particles >4µm Particles >6um

Particles >14µm

Particles >21µm

Particles >38µm

Particles >71µm

**Oil Cleanliness** 

Aluminum

Vanadium

Calcium

Magnesium

Phosphorus

SAMPLE IMAGES

Nickel

Lead

Iron

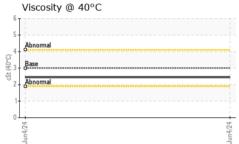
Zinc

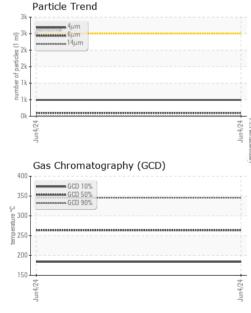
Color

Rottom

HEAVY METALS

Particle Count			
491,520			T <sup>26</sup>
122,880 -			-24
30,720 Severe			-22 8
7,680 Abnormal			-20 3
1,920			-18
480			16
120	-		-22 -20 -18 -16 -14 -12 -10
30-			-12
8-			-10
2 -			-8
0 4µ 6µ	14µ 21µ	38µ	71µ
1000 Severe 1000 Abnormal			
100			
400 - 200 -			
200			
200 -			
200 -			lin4/24





G	RAPH	IS							
	el Dis	tillatio	n Cur	ve					
380°C		Sample							
360°C		Baseline							1
340°C								1	2
320°C							a ha	11	ř
300°C							1	2	
280°C					/	1	-		
260°C				1	-8-"				
240°C -									
220°C -	1	1							
200°C -	1								
180°C									
160°C									
140°C									
120°C	10% -	30% -	40% -	50% -	- %09	70% -	80%	30%	100%



no image

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493

97

5

1

1

0

0

0

0

0

0

0

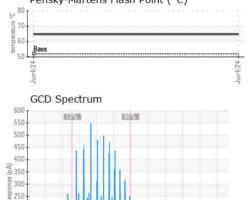
1

0

0

200 150

100 50 16/14/10



Time (min)



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 PETROLEUM RECOVERY SERVICES Sample No. : WC06218696 Received : 24 Jun 2024 210 POWELL DR Lab Number : 06218696 Tested : 27 Jun 2024 SUMMERVILLE, SC Unique Number : 11096893 Diagnosed : 27 Jun 2024 - Elizabeth Valachovic Test Package : DF-2 (Additional Tests: Fuel, Screen) Contact: AJAY EL Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369. Ajay@prsfuel.com \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (843)225-1777 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Report Id: PETSUM [WUSCAR] 06218696 (Generated: 06/29/2024 19:25:34) Rev: 1

Contact/Location: AJAY EL - PETSUM

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Page 2 of 2

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