

### **FUEL REPORT**

Sample Rating Trend

ISO

# KIOTI XY8800313

Component Diesel Fuel Fluid NOT GIVEN (--- GAL)

#### DIAGNOSIS

#### Recommendation

No corrective action is recommended at this time. All 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 moderate amount of silt (particulates < 14 microns in size) 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.

				Mar2023		
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		KT0000483		
Sample Date		Client Info		11 Mar 2023		
Machine Age	hrs	Client Info		68		
Sample Status				ATTENTION		
PHYSICAL PROP	ERTIES	method	limit/base	current	history1	history2
Specific Gravity		*ASTM D1298		0.851		
Fuel Color	text	*Visual Screen		Yllow		
ASTM Color	scalar	*ASTM D1500		L1.5		
Visc @ 40°C	cSt	ASTM D445		2.57		
Pensky-Martens Flash Point	°C	*PMCC Calculated		58		
SULFUR CONTER	NT	method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185m		11		
Sulfur (UVF)	ppm	ASTM D5453		13		
DISTILLATION		method	limit/base	current	history1	history2
Initial Boiling Point	°C	ASTM D86		162		
5% Distillation Point	°C	ASTM D86		190		
10% Distill Point	°C	ASTM D86		202		
15% Distillation Point	°C	ASTM D86		210		
20% Distill Point	°C	ASTM D86		218		
30% Distill Point	°C	ASTM D86		232		
40% Distill Point	°C	ASTM D86		246		
50% Distill Point	°C	ASTM D86		259		
60% Distill Point	°C	ASTM D86		273		
70% Distill Point	°C	ASTM D86		287		
80% Distill Point	°C	ASTM D86		302		
85% Distillation Point	°C	ASTM D86		311		
90% Distill Point	°C	ASTM D86		321		
95% Distillation Point	°C	ASTM D86		337		
Final Boiling Point	°C	ASTM D86		349		
Distillation Residue	%	ASTM D86		1.4		
Distillation Loss	%	ASTM D86		0.3		
IGNITION QUALIT	ſY	method	limit/base	current	history1	history2
API Gravity		ASTM D7777		34.8		
Cetane Index		ASTM D4737	<40.0	44.2		
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	<1.0	0		
Sodium	ppm	ASTM D5185m	<0.1	0		
Potassium	ppm	ASTM D5185m	<0.1	<1		
Water	%	ASTM D6304	<0.05	0.004		
ppm Water	ppm	ASTM D6304	<500	40.6		
% Gasoline	%	*In-House	<0.50	0.0		
% Biodiesel	%	*In-House	<20.0	0.0		



🔺 Particle Count

491,520

## **FUEL REPORT**

limit/base

current

method

history1

history2

FLUID CLEANLINESS

T<sup>26</sup>

2,880 -	-24	Particles >4µm		ASTM D7647	> 2500	1900		
10,720 Severe	22 8	Particles >6µm		ASTM D7647 ASTM D7647		A 831		
7,680 Abnormal	-20 4406	Particles >0µm		ASTM D7647 ASTM D7647		48		
480	-18 999 Cle	Particles >21µm		ASTM D7647 ASTM D7647		40 7		
120-	-14 Deanli	Particles >38µm		ASTM D7647 ASTM D7647		0		
30-	-12 S	Particles >71µm		ASTM D7647		0		
8	-10 Ge	Oil Cleanliness				↓ 18/17/13		
	6			( )				
<sup>7</sup> 4μ 6μ 14μ 21μ 38μ 7 A Particle Trend	71μ	HEAVY METALS	5	method	limit/base	current	history1	history2
		Aluminum	ppm	ASTM D5185m	<0.1	<1		
<sup>−</sup> <sup></sup>	-	Nickel	ppm	ASTM D5185m	<0.1	<1		
<u>-</u> <u>32</u> 2k - <u>-</u>		Lead	ppm	ASTM D5185m	<0.1	0		
z 2k +		Vanadium	ppm	ASTM D5185m	<0.1	0		
5 a 1k		Iron	ppm	ASTM D5185m	<0.1	0		
-tune -		Calcium	ppm	ASTM D5185m	<0.1	0		
0k		Magnesium	ppm	ASTM D5185m		0		
	Mar11/23	Phosphorus	ppm	ASTM D5185m		1		
Mar11/23	Marl	Zinc	ppm	ASTM D5185m	<0.1	0		
Water (KF)		SAMPLE IMAGE	S	method	limit/base	current	history1	history2
1200 - Severe		Color					no image	no image
400 200 Abnormal	Mar11/23	Bottom					no image	no image
W	M	GRAPHS						
Viscosity @ 40°C	20	Fuel Distillation C	urve				ens Flash Point (	°C)
6	30	Sample	urve		0	70 T	ens Flash Point (	°C)
Viscosity @ 40°C	30 50	Sample	urve		ature °C	60	ens Flash Point (	°C)
6SAbnormal		PC Sample	urve		rature °C	70 T	ens Flash Point (	°C)
6 5 4 20 3 3 4 20 3	50 40	PC Sample	urve		ature °C	70 60 50 40	ens Flash Point (	
6SAbnormal	50 40	PC Sample	urve		ature °C	70 60 50	ens Flash Point (	°C) +
6 5 4 20 3 3 4 20 3	50 +0 20 30	C Sample C Sample C Sample C C	urve		ature °C	70 60 50 40	ens Flash Point (	
6 5 4 20 3 3 4 20 3	50 40 20 30 30	PC Sample PC Sample PC Baseline PC PC P	urve	_	ature °C	70 60 50 40	ens Flash Point (	
Abnormal Abnormal Abnormal Abnormal Abnormal Cooplets Coople	50 40 20 30 30	PC Sample PC Sample PC Baseline PC PC P	urve	_	ature °C	70 60 50 40	ens Flash Point (	
Abnormal Abnormal Abnormal CLOPH 33 CLOPH	00 10 00 00 00 00 00 00	Image: Constraint of the second secon	urve		ature °C	70 60 50 40	ens Flash Point (	
Abnormal Abnormal Abnormal Abnormal Abnormal Cooplets Coople	40 20 30 30 30 30	PC Sample	urve		ature °C	70 60 50 40	ens Flash Point (	
Abnormal Abnormal Abnormal Fuel Distillation Curve	1en Mart 1/23 00 00 00 00 00 00	PC Sample PC Sample PC Baseline	urve	_	ature °C	70 60 50 40	ens Flash Point (	
Abnormal Abnormal Abnormal Abnormal Bigging 2 Bigging 2 Bigg	50 10 20 20 20 20 20	PC Sample PC Sample PC Baseline PC PC P	urve		ature °C	70 60 50 40	ens Flash Point (	
Abnormal Abnormal Abnormal Abnormal Fuel Distillation Curve Fuel Distillation Curve	50 10 20 30 50 50 50 50 50 50 50 50 50 5	PC Sample PC Sample	urve		ature °C	70 60 50 40	ens Flash Point (	
Abnormal Abnormal Abnormal CELLER Fuel Distillation Curve Sample Sore Sample	50 10 20 10 10 10 10 10 10 10 10 10 1	Inc Sample	urve		ature °C	70 60 50 40	ens Flash Point (	
Abnormal Abnormal Abnormal Fuel Distillation Curve Fuel Distillation Curve Sample 200°C	50 10 20 30 50 50 50 50 50 50 50 50 50 5	Inc Sample	urve		ature °C	70 60 50 40	ens Flash Point (	
Abnormal Abnormal Abnormal Abnormal Fuel Distillation Curve Baseline Sorr C 250°C 250°C 250°C 250°C	50 10 20 10 10 10 10 10 10 10 10 10 1	PC Sample PC Sample PC Baseline PC PC P	urve			70 60 50 40	ens Flash Point (	
Fuel Distillation Curve	50 10 20 30 50 50 50 10 50 10 50 10 10 10 10 10 10 10 10 10 1	PC Sample PC Sample	urve	70%- 80%-	ature °C	70 60 50 40	ens Flash Point (	
Fuel Distillation Curve	50 10 10 10 10 10 10 10 10 10 1	Sample Sample	solutions for the second for the sec	son Ave., Ca I : 10 I ed : 20 I ician : Dou en ) 00-237-1365	ry, NC 275: Mar 2023 Mar 2023 Jg Bogart D.	13 J	ORDAN SALES 715 N PLEAS Pl	AND SERVICE SANT VIEW RE OST FALLS, IE US 83854 ervice Manage

Contact/Location: Service Manager - JORPOS