FUEL REPORT

Sample Rating Trend

WATER

Machine Id
KIOTI CX2510H-1 YA2U00498
Component
Diesel Fuel
Fluid
NOT GIVEN (--- GAL)

DIAGNOSIS

Recommendation

We advise that you follow the water drain-off procedure for this component. We recommend you service and check the fuel filters for mucous-like deposits. Check with fuel supplier for biocides available to destroy the microorganisms in the fuel system. We were unable to perform a particle count due to a high concentration of particles and water present in this sample.

Corrosion

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

Contaminants

Excessive free water present. There is a light concentration of Bacteria, Yeast and/or Fungus present in the sample. Moderate concentration of visible dirt/debris present in the fuel.

Fuel Condition

The fuel is no longer serviceable due to the presence of contaminants. Sulfur value derived by ASTM D5453 method for ULSD validation.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**KT0000221**	---	---
Sample Date		Client Info		**14 Oct 2022**	---	---
Machine Age	hrs	Client Info		**1**	---	---
Sample Status				**SEVERE**	---	---

PHYSICAL PROPERTIES		method	limit/base	current	history1	history2
Specific Gravity		*ASTM D1298		**0.827**	---	---
Fuel Color	text	*Visual Screen		**Red**	---	---
ASTM Color	scalar	*ASTM D1500		**L4.5**	---	---
Visc @ 40°C	cSt	ASTM D445		**2.56**	---	---
Pensky-Martens Flash Point	°C	*PMCC Calculated		**64**	---	---

SULFUR CONTENT		method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185m		**21**	---	---
Sulfur (UVF)	ppm	ASTM D5453		**20**	---	---

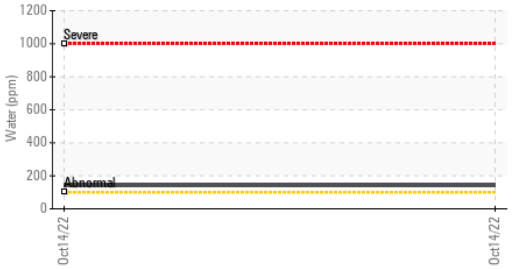
DISTILLATION		method	limit/base	current	history1	history2
Initial Boiling Point	°C	ASTM D86		**168**	---	---
5% Distillation Point	°C	ASTM D86		**189**	---	---
10% Distill Point	°C	ASTM D86		**200**	---	---
15% Distillation Point	°C	ASTM D86		**209**	---	---
20% Distill Point	°C	ASTM D86		**218**	---	---
30% Distill Point	°C	ASTM D86		**234**	---	---
40% Distill Point	°C	ASTM D86		**249**	---	---
50% Distill Point	°C	ASTM D86		**263**	---	---
60% Distill Point	°C	ASTM D86		**277**	---	---
70% Distill Point	°C	ASTM D86		**292**	---	---
80% Distill Point	°C	ASTM D86		**308**	---	---
85% Distillation Point	°C	ASTM D86		**318**	---	---
90% Distill Point	°C	ASTM D86		**331**	---	---
95% Distillation Point	°C	ASTM D86		**350**	---	---
Final Boiling Point	°C	ASTM D86		**361**	---	---
Distillation Residue	%	ASTM D86		**1.4**	---	---
Distillation Loss	%	ASTM D86		**0.4**	---	---

IGNITION QUALITY		method	limit/base	current	history1	history2
API Gravity		ASTM D7777		**39.6**	---	---
Cetane Index		ASTM D4737	<40.0	**54.3**	---	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	<1.0	**2**	---	---
Sodium	ppm	ASTM D5185m	<0.1	**0**	---	---
Potassium	ppm	ASTM D5185m	<0.1	**0**	---	---
Water	%	ASTM D6304	<0.05	**0.014**	---	---
ppm Water	ppm	ASTM D6304	<500	**141.3**	---	---
% Gasoline	%	*In-House	<0.50	**0.0**	---	---
% Biodiesel	%	*In-House	<20.0	**0.0**	---	---

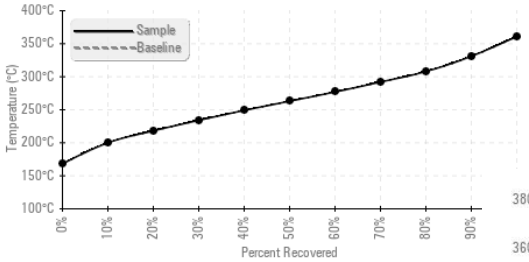
FUEL REPORT

Water (KF)



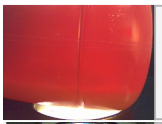
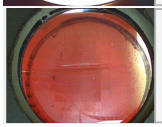
Viscosity @ 40°C

Fuel Distillation Curve



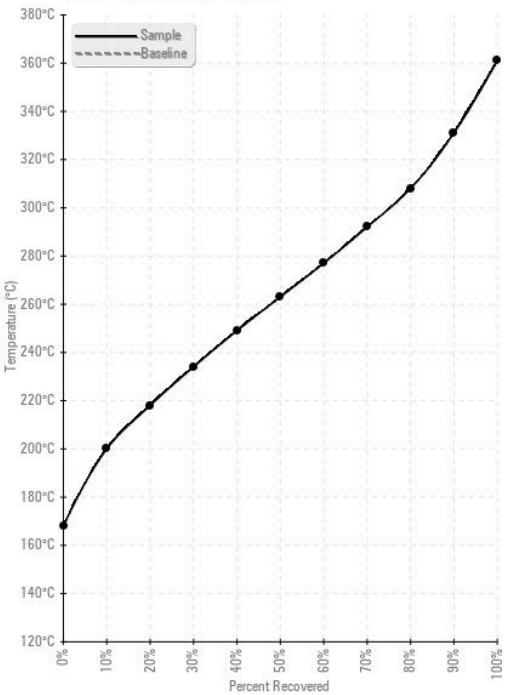
MICROBIAL		method	limit/base	current	history1	history2
Bacteria	CFU/ml	WC-Method	>=100000	**0**	---	---
Yeast	CFU/ml	WC-Method	>=100000	⚠ **10**	---	---
Mold	Colonies	WC-Method	MODER	**---**	---	---

HEAVY METALS		method	limit/base	current	history1	history2
Aluminum	ppm	ASTM D5185m	<0.1	**0**	---	---
Nickel	ppm	ASTM D5185m	<0.1	**0**	---	---
Lead	ppm	ASTM D5185m	<0.1	**0**	---	---
Vanadium	ppm	ASTM D5185m	<0.1	**0**	---	---
Iron	ppm	ASTM D5185m	<0.1	**<1**	---	---
Calcium	ppm	ASTM D5185m	<0.1	**0**	---	---
Magnesium	ppm	ASTM D5185m	<0.1	**0**	---	---
Phosphorus	ppm	ASTM D5185m	<0.1	**0**	---	---
Zinc	ppm	ASTM D5185m	<0.1	**0**	---	---

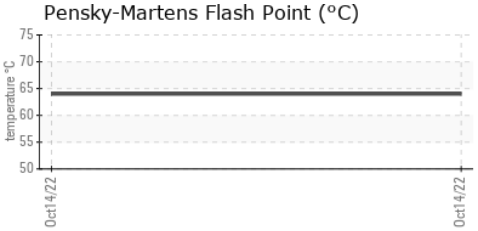
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				*no image*	*no image*
Bottom				*no image*	*no image*

GRAPHS

Fuel Distillation Curve



Pensky-Martens Flash Point (°C)



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KT0000221 **Received** : 19 Oct 2022
Lab Number : 05671238 **Diagnosed** : 26 Oct 2022
Unique Number : 10180808 **Diagnostician** : Doug Bogart
Test Package : DF-2 (Additional Tests: Bacteria, Screen)

To discuss this sample report, contact Customer Service at 1-800-237-1369.
** - 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)

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