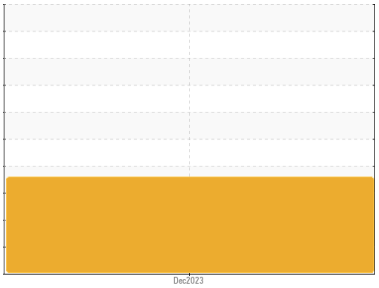
FUEL REPORT

Sample Rating Trend



OFF SPEC

Area
[R1-23486]
Machine Id
JOHN DEERE PE4045D963656
Component
Diesel Fuel
Fluid
No.2 DIESEL FUEL (ULTRALOW SULPHUR) (--- GAL)

DIAGNOSIS

Recommendation
We advise that you filter this fluid before use. We recommend an early resample to monitor this condition.

Corrosion
{not applicable}

Contaminants
There is a moderate amount of particulates (2 to 100 microns in size) present in the fuel. The water content is negligible.

Fuel Condition
10% Distill Point results are abnormally high. 20% Distill Point results are abnormally high. 50% Distill Point results are abnormally high. Final Boiling Point results are abnormally high. Laboratory tests indicate that this sample does NOT meet specifications for No.2 ultra-low-sulfur diesel fuel (US EPA/CGSB-3.517-3 type B).

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**VPA055845**	---	---
Sample Date		Client Info		**13 Dec 2023**	---	---
Machine Age	hrs	Client Info		**0**	---	---
Sample Status				**ABNORMAL**	---	---

PHYSICAL PROPERTIES		method	limit/base	current	history1	history2
Specific Gravity		ASTM D1298*	0.839	**0.823**	---	---
Fuel Color	text	Visual Screen*	Yllow	**Red**	---	---
Visc @ 40°C	cSt	ASTM D7279(m)	3.0	**3.1**	---	---
Pensky-Martens Flash Point	°C	ASTM D7215*	52	**70.6**	---	---

SULFUR CONTENT		method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185(m)	10	**7**	---	---

DISTILLATION		method	limit/base	current	history1	history2
Initial Boiling Point	°C	ASTM D2887*	165	**182**	---	---
5% Distillation Point	°C	ASTM D2887*		**213**	---	---
10% Distill Point	°C	ASTM D2887*	201	▲ **227**	---	---
15% Distillation Point	°C	ASTM D2887*		**238**	---	---
20% Distill Point	°C	ASTM D2887*	216	▲ **249**	---	---
30% Distill Point	°C	ASTM D2887*	230	**266**	---	---
40% Distill Point	°C	ASTM D2887*	243	**277**	---	---
50% Distill Point	°C	ASTM D2887*	255	▲ **288**	---	---
60% Distill Point	°C	ASTM D2887*	267	**294**	---	---
70% Distill Point	°C	ASTM D2887*	280	**300**	---	---
80% Distill Point	°C	ASTM D2887*	295	**310**	---	---
85% Distillation Point	°C	ASTM D2887*		**320**	---	---
90% Distill Point	°C	ASTM D2887*	310	**330**	---	---
95% Distillation Point	°C	ASTM D2887*		**346**	---	---
Final Boiling Point	°C	ASTM D2887*	341	▲ **380**	---	---

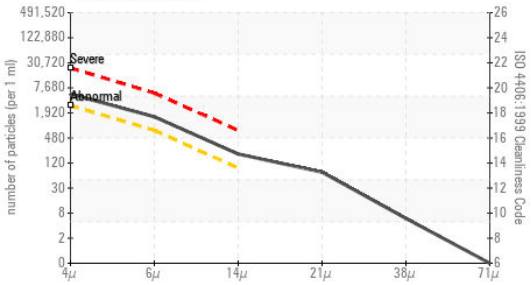
IGNITION QUALITY		method	limit/base	current	history1	history2
API Gravity		ASTM D1298*	37.7	**40**	---	---
Cetane Index		ASTM D4737*	<40.0	**63**	---	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	<1.0	**0**	---	---
Sodium	ppm	ASTM D5185(m)	<0.1	**<1**	---	---
Potassium	ppm	ASTM D5185(m)	<0.1	**0**	---	---
Water	%	ASTM D6304*	<0.05	**0.003**	---	---
ppm Water	ppm	ASTM D6304*	<500	**35**	---	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>2500	▲ **4736**	---	---
Particles >6µm		ASTM D7647	>640	▲ **1358**	---	---
Particles >14µm		ASTM D7647	>80	▲ **174**	---	---
Particles >21µm		ASTM D7647	>20	▲ **64**	---	---
Particles >38µm		ASTM D7647	>4	**5**	---	---
Particles >71µm		ASTM D7647	>3	**0**	---	---
Oil Cleanliness		ISO 4406 (c)	>18/16/13	▲ **19/18/15**	---	---

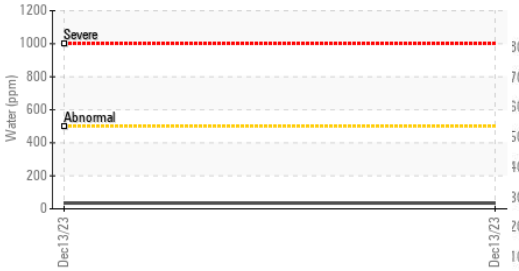
FUEL REPORT

Particle Count

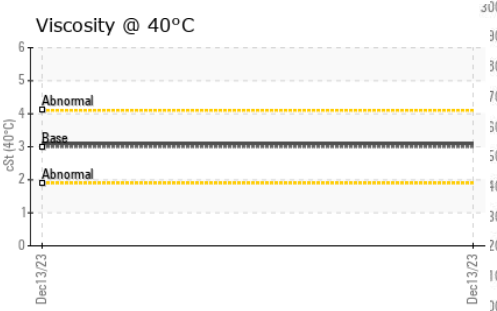


Particle Trend

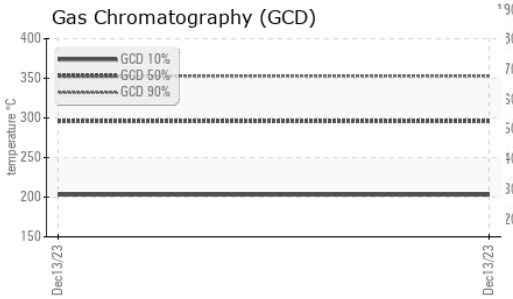
Water (KF)



Viscosity @ 40°C



Gas Chromatography (GCD)

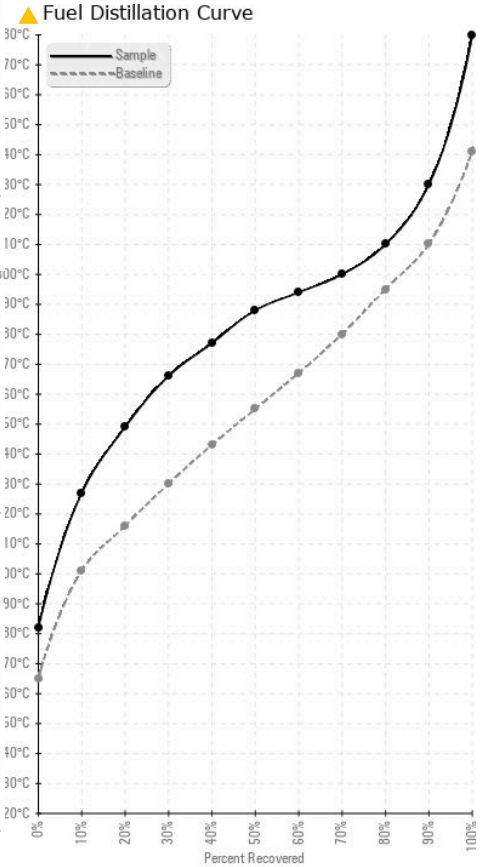


HEAVY METALS		method	limit/base	current	history1	history2
Aluminum	ppm	ASTM D5185(m)	<0.1	**0**	---	---
Nickel	ppm	ASTM D5185(m)	<0.1	**0**	---	---
Lead	ppm	ASTM D5185(m)	<0.1	**0**	---	---
Vanadium	ppm	ASTM D5185(m)	<0.1	**0**	---	---
Iron	ppm	ASTM D5185(m)	<0.1	**0**	---	---
Calcium	ppm	ASTM D5185(m)	<0.1	**<1**	---	---
Magnesium	ppm	ASTM D5185(m)	<0.1	**0**	---	---
Phosphorus	ppm	ASTM D5185(m)	<0.1	**0**	---	---
Zinc	ppm	ASTM D5185(m)	<0.1	**<1**	---	---

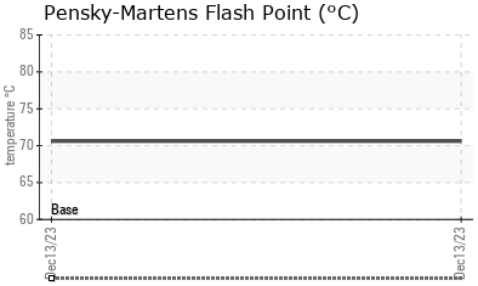
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				*no image*	*no image*
Bottom				*no image*	*no image*

GRAPHS

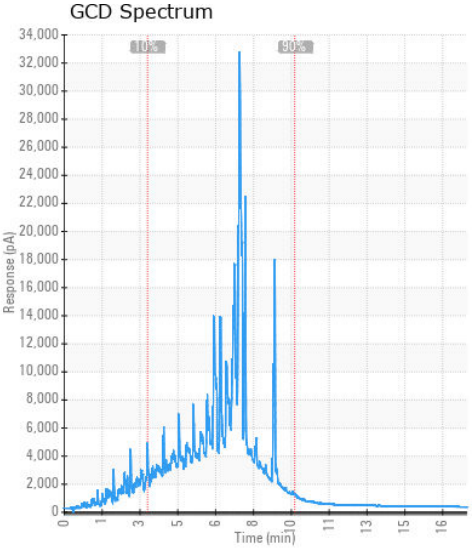
Fuel Distillation Curve



Pensky-Martens Flash Point (°C)



GCD Spectrum



CALA
ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : VPA055845
Lab Number : 02606130
Unique Number : 5707216
Test Package : FUEL (Additional Tests: CC Flash, GC-PercFuel, PrtCount)

Recieved : 02 Jan 2024
Diagnosed : 16 Jan 2024
Diagnostician : Kevin Marson

To discuss this sample report, contact Customer Service at 1-800-268-2131.
Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
Validity of results and interpretation are based on the sample and information as supplied.

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