



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Area

**[A34461]**

Machine Id

**JOHN DEERE 450K 1T0450KXPMF390627**

Component

**Diesel Engine**

Fluid

**JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)**

## RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WE0005960</b>	WE0005624	---
Sample Date		Client Info		<b>12 Jan 2024</b>	20 Sep 2023	---
Machine Age	hrs	Client Info		<b>1069</b>	1012	---
Oil Age	hrs	Client Info		<b>60</b>	512	---
Filter Age	hrs	Client Info		<b>60</b>	512	---
Oil Changed		Client Info		<b>Not Changd</b>	Changed	---
Filter Changed		Client Info		<b>Not Changd</b>	Changed	---
Sample Status				<b>NORMAL</b>	SEVERE	---

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	<b>&lt;1</b>	▲ 56	---
Chromium	ppm	ASTM D5185m	>11	<b>0</b>	1	---
Nickel	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	---
Titanium	ppm	ASTM D5185m		<b>0</b>	0	---
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>31	<b>4</b>	6	---
Lead	ppm	ASTM D5185m	>26	<b>&lt;1</b>	4	---
Copper	ppm	ASTM D5185m	>26	<b>0</b>	20	---
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	1	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

## CONTAMINATION

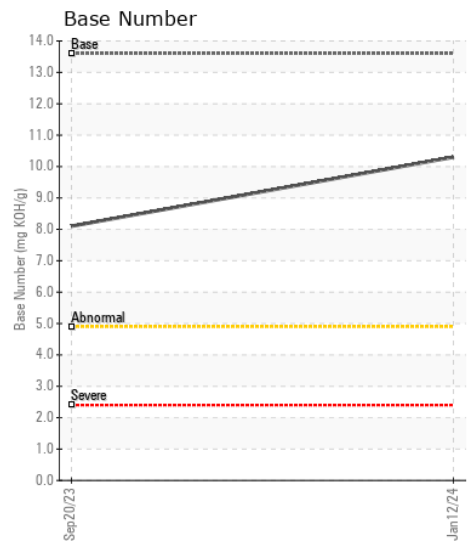
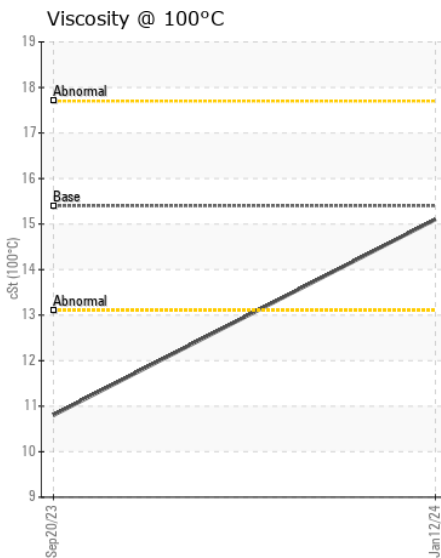
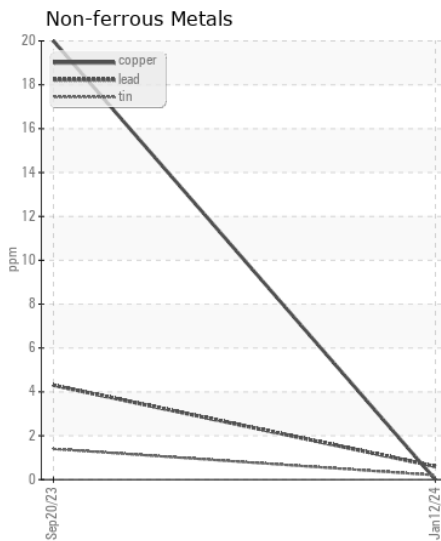
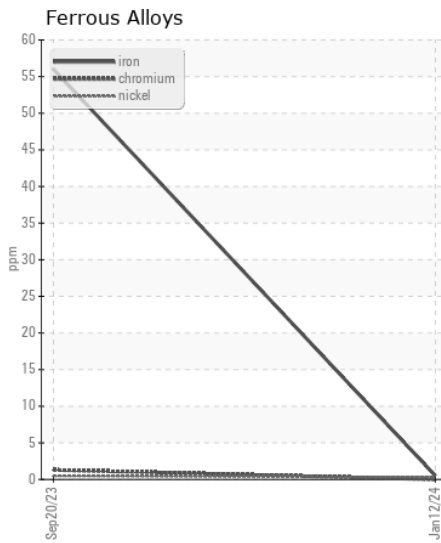
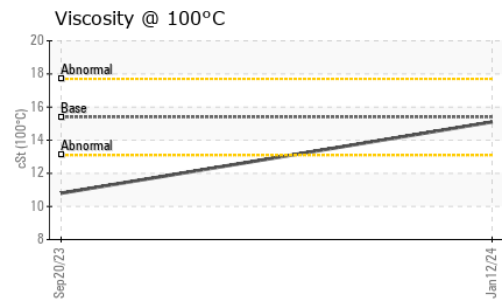
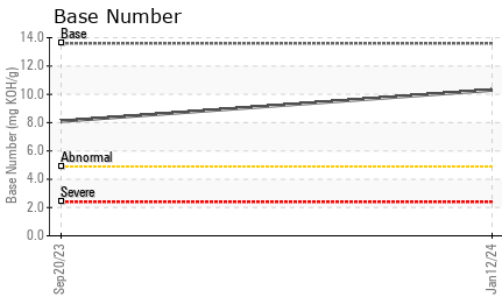
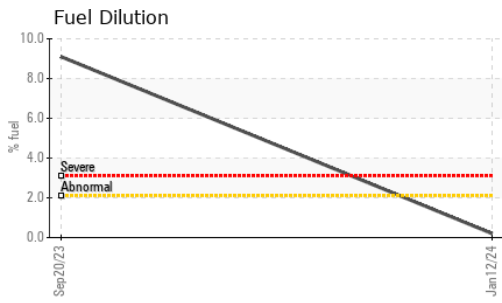
Fuel content negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	<b>8</b>	9	---
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	2	---
Fuel	%	ASTM D3524	>2.1	<b>0.2</b>	🔴 9.1	---
Water		WC Method	>0.21	<b>NEG</b>	NEG	---
Glycol		WC Method		<b>NEG</b>	NEG	---
Soot %	%	*ASTM D7844	>3	<b>0</b>	0.8	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>5.5</b>	12.1	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.6</b>	25.5	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.21	<b>NEG</b>	NEG	---

## FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>31	<b>&lt;1</b>	5	---
Boron	ppm	ASTM D5185m		<b>268</b>	79	---
Barium	ppm	ASTM D5185m		<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m		<b>239</b>	234	---
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	2	---
Magnesium	ppm	ASTM D5185m		<b>820</b>	816	---
Calcium	ppm	ASTM D5185m		<b>1353</b>	1373	---
Phosphorus	ppm	ASTM D5185m		<b>964</b>	763	---
Zinc	ppm	ASTM D5185m		<b>1097</b>	950	---
Sulfur	ppm	ASTM D5185m		<b>3192</b>	3466	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.4</b>	21.8	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>10.3</b>	8.1	---
Visc @ 100°C	cSt	ASTM D445	15.4	<b>15.1</b>	▲ 10.8	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WE0005960 **Received** : 17 Jan 2024  
**Lab Number** : 06063314 **Diagnosed** : 19 Jan 2024  
**Unique Number** : 10834696 **Diagnostician** : Wes Davis  
**Test Package** : CONST ( Additional Tests: PercentFuel, TBN )

**WARRIOR TRACTOR AND EQUIPMENT - HUNTSVILLE**  
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 MADISON, AL  
 US 35756  
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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)