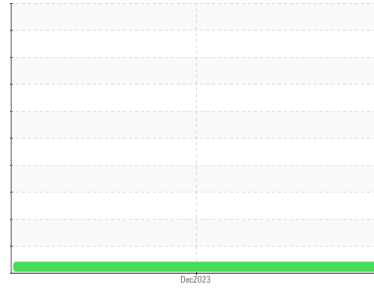


# PROBLEM SUMMARY

Sample Rating Trend



**VISCOSITY**



Area  
**[MRT3046R]**  
 Machine Id  
**John Deere 3046r MRT 3046R**  
 Component  
**Diesel Engine**  
 Fluid  
**JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (1 GAL)**

## COMPONENT CONDITION SUMMARY

### ▲ Viscosity @ 100°C



## RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. ( Customer Sample Comment: Engine has oil consumption )

## PROBLEMATIC TEST RESULTS

Sample Status				ATTENTION	---	---
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 9.5	---	---

Customer Id: JAMMOUJR  
 Sample No.: JR0137352  
 Lab Number: 06027570  
 Test Package: MOBCE



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Jonathan Hester +1 919-379-4092 x4092  
[jhester@wearcheckusa.com](mailto:jhester@wearcheckusa.com)

To change component or sample information:  
 Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

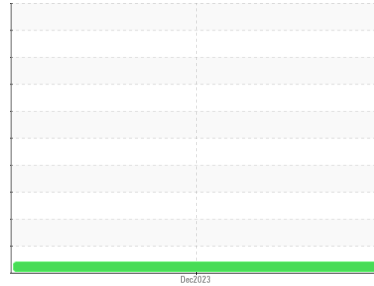
## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.

## HISTORICAL DIAGNOSIS

# OIL ANALYSIS REPORT

Sample Rating Trend


**VISCOSITY**


Area  
**[MRT3046R]**  
 Machine Id  
**John Deere 3046r MRT 3046R**  
 Component  
**Diesel Engine**  
 Fluid  
**JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (1 GAL)**

**DIAGNOSIS**
**▲ Recommendation**

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. ( Customer Sample Comment: Engine has oil consumption )

**Wear**

All component wear rates are normal.

**Contamination**

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

**▲ Fluid Condition**

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

**SAMPLE INFORMATION**

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>JR0137352</b>	---	---
Sample Date	Client Info		<b>06 Dec 2023</b>	---	---
Machine Age	hrs	Client Info	<b>1115</b>	---	---
Oil Age	hrs	Client Info	<b>8</b>	---	---
Oil Changed	Client Info		<b>Changed</b>	---	---
Sample Status			<b>ATTENTION</b>	---	---

**CONTAMINATION**

	method	limit/base	current	history1	history2
Water	WC Method	>0.1	<b>NEG</b>	---	---
Glycol	WC Method		<b>NEG</b>	---	---

**WEAR METALS**

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >80	<b>12</b>	---	---
Chromium	ppm	ASTM D5185m >6	<b>&lt;1</b>	---	---
Nickel	ppm	ASTM D5185m >2	<b>0</b>	---	---
Titanium	ppm	ASTM D5185m >2	<b>0</b>	---	---
Silver	ppm	ASTM D5185m >2	<b>0</b>	---	---
Aluminum	ppm	ASTM D5185m >20	<b>3</b>	---	---
Lead	ppm	ASTM D5185m >95	<b>&lt;1</b>	---	---
Copper	ppm	ASTM D5185m >85	<b>1</b>	---	---
Tin	ppm	ASTM D5185m >9	<b>&lt;1</b>	---	---
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	---	---
Cadmium	ppm	ASTM D5185m	<b>0</b>	---	---

**ADDITIVES**

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>266</b>	---	---
Barium	ppm	ASTM D5185m	<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185m	<b>104</b>	---	---
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	---	---
Magnesium	ppm	ASTM D5185m	<b>578</b>	---	---
Calcium	ppm	ASTM D5185m	<b>1378</b>	---	---
Phosphorus	ppm	ASTM D5185m	<b>633</b>	---	---
Zinc	ppm	ASTM D5185m	<b>738</b>	---	---
Sulfur	ppm	ASTM D5185m	<b>2099</b>	---	---

**CONTAMINANTS**

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>12</b>	---	---
Sodium	ppm	ASTM D5185m	<b>&lt;1</b>	---	---
Potassium	ppm	ASTM D5185m >20	<b>&lt;1</b>	---	---
Fuel	%	ASTM D3524 >4.0	<b>1.4</b>	---	---

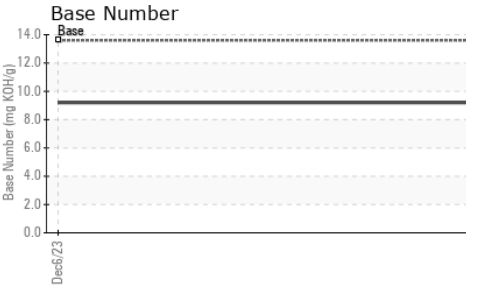
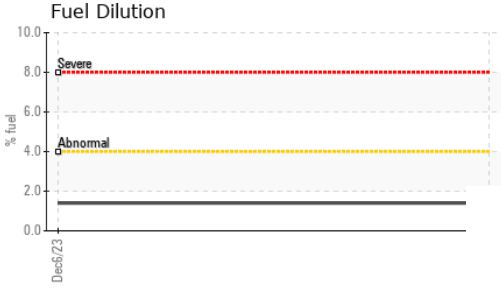
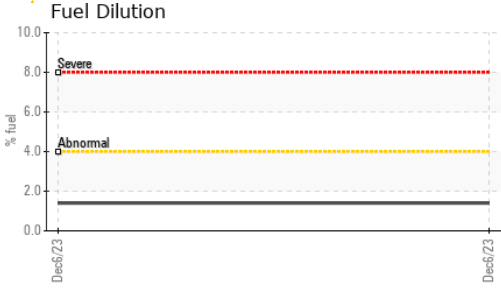
**INFRA-RED**

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	<b>0.7</b>	---	---
Nitration	Abs/cm	*ASTM D7624 >20	<b>8.7</b>	---	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>22.5</b>	---	---

**FLUID DEGRADATION**

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>17.4</b>	---	---
Base Number (BN)	mg KOH/g	ASTM D2896 13.6	<b>9.2</b>	---	---

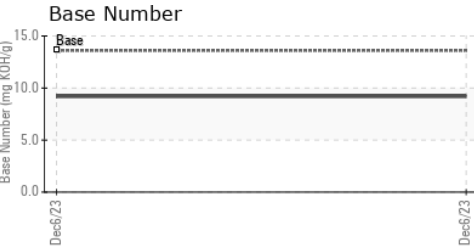
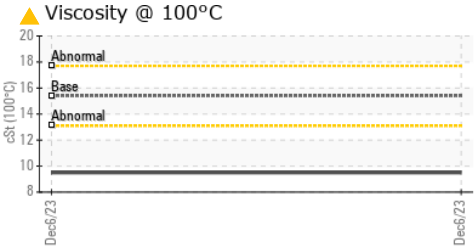
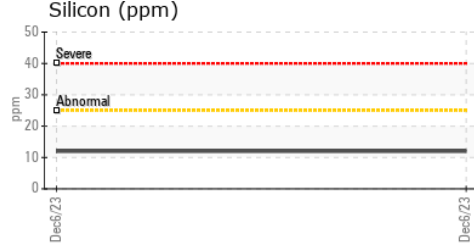
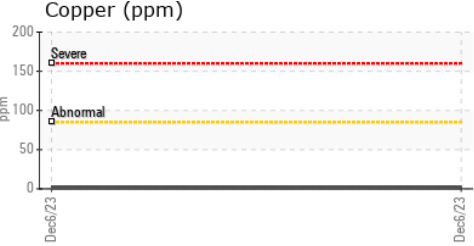
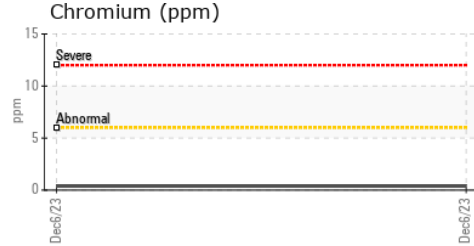
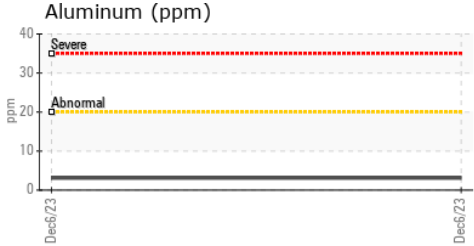
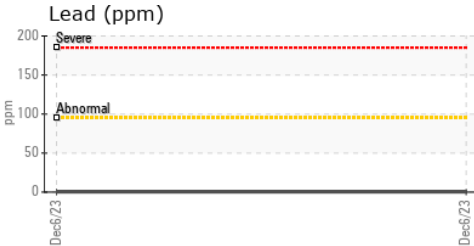
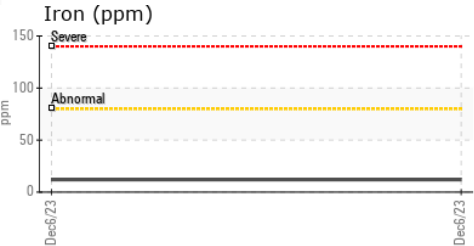
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.1	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4 ▲ 9.5	---	---

### GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0137352 **Received** : 07 Dec 2023  
**Lab Number** : 06027570 **Diagnosed** : 14 Dec 2023  
**Unique Number** : 10777361 **Diagnostician** : Jonathan Hester  
**Test Package** : MOBCE ( Additional Tests: FuelDilution, PercentFuel, TBN )

**JRE - MOUNT GILEAD**  
 305 NORTH MAIN STREET  
 MOUNT GILEAD, NC  
 US 27306  
 Contact: BRANDON NESTER  
 BRANDON.NESTER@JAMESRIVEREQUIPMENT.COM

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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