



Area

**[W20967-DEMALO]**

Machine Id

**JOHN DEERE 6330 L06330H545540**

Component

**Diesel Engine**

Fluid

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

### RECOMMENDATION

We advise that you check for the source of the coolant leak. Check for low coolant level. We advise that you check for faulty combustion, plugged air filters, or aftercoolers. We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0204425</b>	---	---
Sample Date		Client Info		<b>06 Feb 2024</b>	---	---
Machine Age	hrs	Client Info		<b>4608</b>	---	---
Oil Age	hrs	Client Info		<b>0</b>	---	---
Filter Age	hrs	Client Info		<b>0</b>	---	---
Oil Changed		Client Info		<b>Not Chngd</b>	---	---
Filter Changed		Client Info		<b>Not Chngd</b>	---	---
Sample Status				<b>ABNORMAL</b>	---	---

### WEAR

Cylinder, crank, or cam shaft wear is indicated. Bearing and/or bushing wear is indicated.

Iron	ppm	ASTM D5185m	>51	<b>▲ 196</b>	---	---
Chromium	ppm	ASTM D5185m	>11	<b>5</b>	---	---
Nickel	ppm	ASTM D5185m	>5	<b>5</b>	---	---
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
Silver	ppm	ASTM D5185m	>3	<b>0</b>	---	---
Aluminum	ppm	ASTM D5185m	>31	<b>11</b>	---	---
Lead	ppm	ASTM D5185m	>26	<b>▲ 50</b>	---	---
Copper	ppm	ASTM D5185m	>26	<b>17</b>	---	---
Tin	ppm	ASTM D5185m	>4	<b>2</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	---	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---

### CONTAMINATION

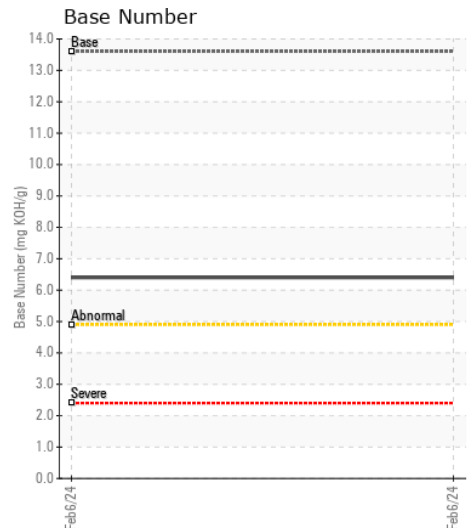
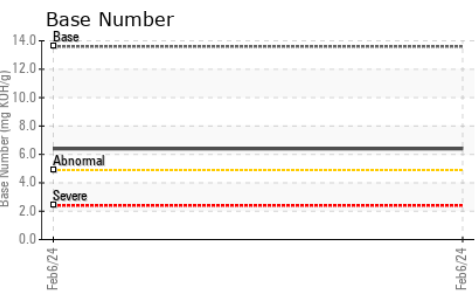
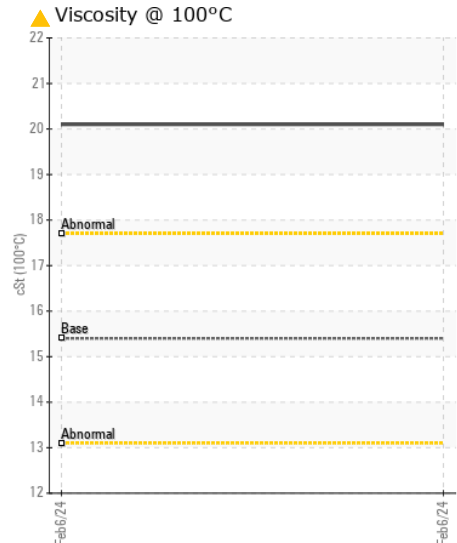
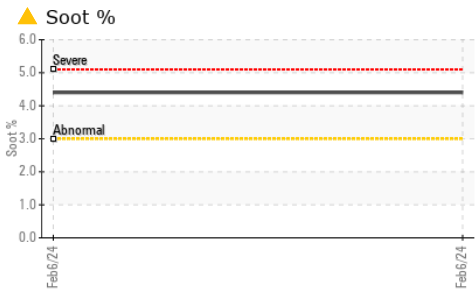
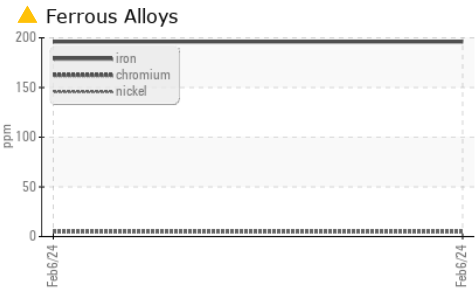
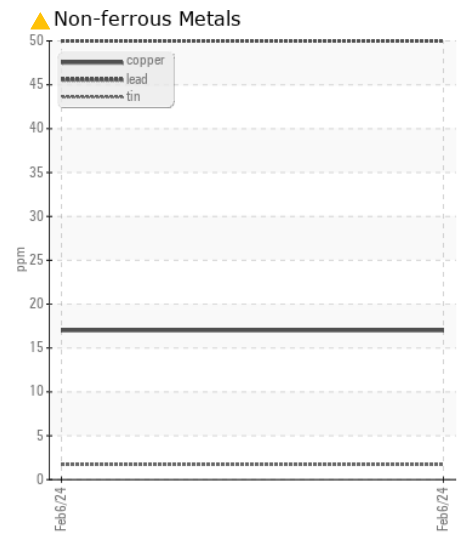
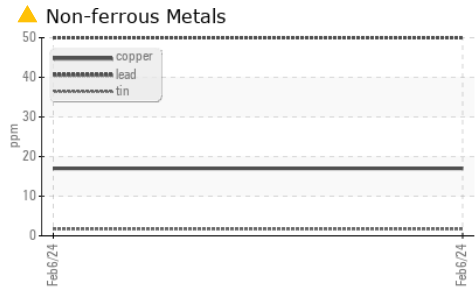
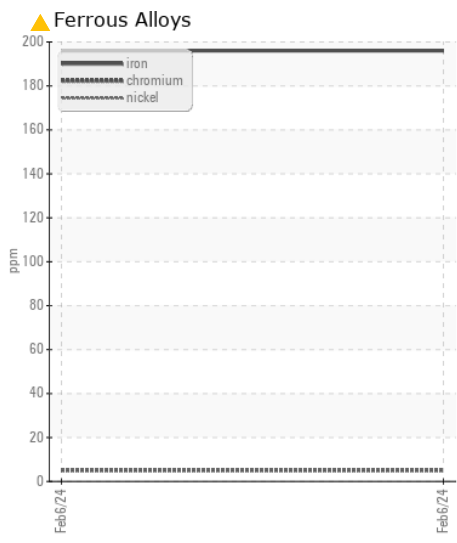
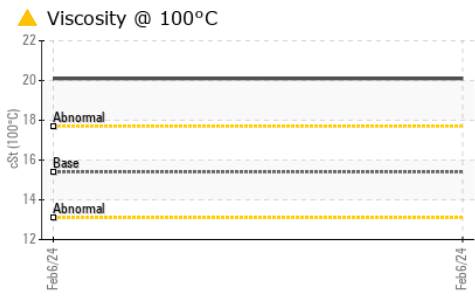
Sodium and/or potassium levels are high. There is an abnormal amount of solids and carbon present in the oil.

Silicon	ppm	ASTM D5185m	>22	<b>15</b>	---	---
Potassium	ppm	ASTM D5185m	>20	<b>▲ 149</b>	---	---
Fuel		WC Method	>2.1	<b>&lt;1.0</b>	---	---
Water		WC Method	>0.21	<b>NEG</b>	---	---
Glycol	%	*ASTM D2982		<b>NEG</b>	---	---
Soot %	%	*ASTM D7844	>3	<b>▲ 4.4</b>	---	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>21.6</b>	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>43.9</b>	---	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	---	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	*Visual	>0.21	<b>NEG</b>	---	---

### FLUID CONDITION

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

Sodium	ppm	ASTM D5185m	>31	<b>▲ 74</b>	---	---
Boron	ppm	ASTM D5185m		<b>92</b>	---	---
Barium	ppm	ASTM D5185m		<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185m		<b>101</b>	---	---
Manganese	ppm	ASTM D5185m		<b>2</b>	---	---
Magnesium	ppm	ASTM D5185m		<b>468</b>	---	---
Calcium	ppm	ASTM D5185m		<b>2697</b>	---	---
Phosphorus	ppm	ASTM D5185m		<b>1361</b>	---	---
Zinc	ppm	ASTM D5185m		<b>1687</b>	---	---
Sulfur	ppm	ASTM D5185m		<b>4112</b>	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>41.2</b>	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>6.4</b>	---	---
Visc @ 100°C	cSt	ASTM D445	15.4	<b>▲ 20.1</b>	---	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0204425 **Received** : 09 Feb 2024  
**Lab Number** : 06085335 **Tested** : 13 Feb 2024  
**Unique Number** : 10872780 **Diagnosed** : 13 Feb 2024 - Jonathan Hester  
**Test Package** : CONST ( Additional Tests: Glycol, TBN )

**JRE - BURKEVILLE**  
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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)