



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

Machine Id  
**JOHN DEERE 331G 1T0331GKKKF357727**  
 Component  
**Diesel Engine**  
 Fluid  
**JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0218492</b>	---	---
Sample Date		Client Info		<b>29 May 2024</b>	---	---
Machine Age	hrs	Client Info		<b>1966</b>	---	---
Oil Age	hrs	Client Info		<b>0</b>	---	---
Filter Age	hrs	Client Info		<b>0</b>	---	---
Oil Changed		Client Info		<b>Changed</b>	---	---
Filter Changed		Client Info		<b>Changed</b>	---	---
Sample Status				<b>NORMAL</b>	---	---

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	<b>31</b>	---	---
Chromium	ppm	ASTM D5185m	>11	<b>0</b>	---	---
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	---	---
Titanium	ppm	ASTM D5185m		<b>0</b>	---	---
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	---	---
Aluminum	ppm	ASTM D5185m	>31	<b>2</b>	---	---
Lead	ppm	ASTM D5185m	>26	<b>0</b>	---	---
Copper	ppm	ASTM D5185m	>26	<b>26</b>	---	---
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</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

There is no indication of any contamination in the oil.

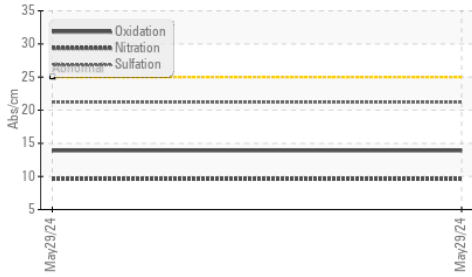
Silicon	ppm	ASTM D5185m	>22	<b>8</b>	---	---
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	---	---
Fuel	%	ASTM D3524	>2.1	<b>&lt;1.0</b>	---	---
Water		WC Method	>0.21	<b>NEG</b>	---	---
Glycol		WC Method		<b>NEG</b>	---	---
Soot %	%	*ASTM D7844	>3	<b>0.7</b>	---	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.6</b>	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.2</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

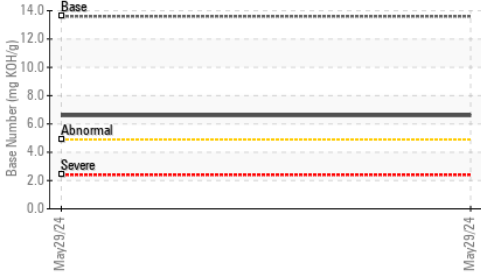
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>31	<b>2</b>	---	---
Boron	ppm	ASTM D5185m		<b>4</b>	---	---
Barium	ppm	ASTM D5185m		<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185m		<b>6</b>	---	---
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
Magnesium	ppm	ASTM D5185m		<b>57</b>	---	---
Calcium	ppm	ASTM D5185m		<b>2205</b>	---	---
Phosphorus	ppm	ASTM D5185m		<b>861</b>	---	---
Zinc	ppm	ASTM D5185m		<b>1035</b>	---	---
Sulfur	ppm	ASTM D5185m		<b>3786</b>	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.9</b>	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>6.6</b>	---	---
Visc @ 100°C	cSt	ASTM D445	15.4	<b>12.7</b>	---	---

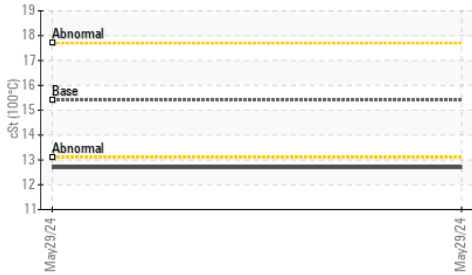
FT-IR (Direct Trend)



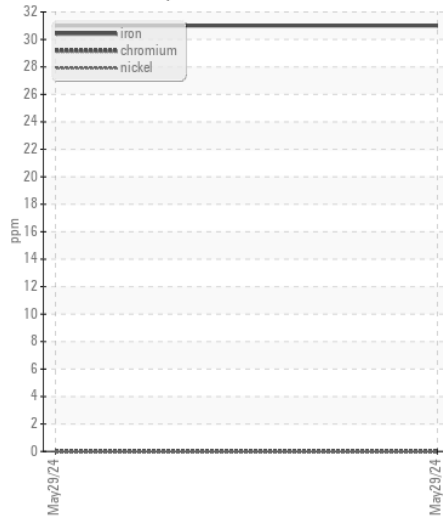
Base Number



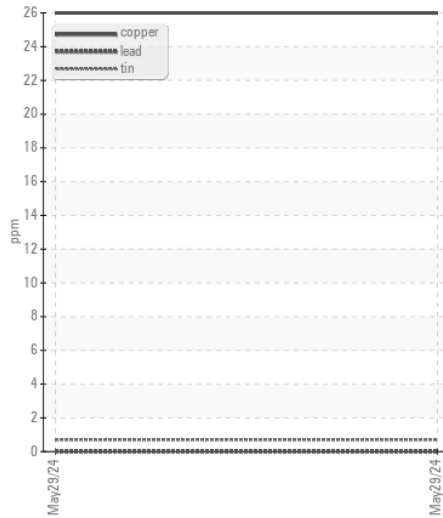
Viscosity @ 100°C



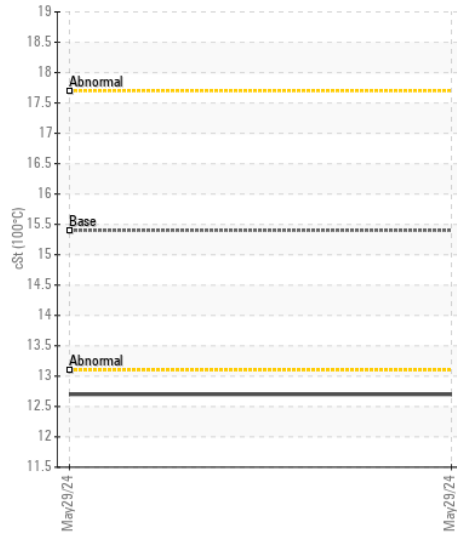
Ferrous Alloys



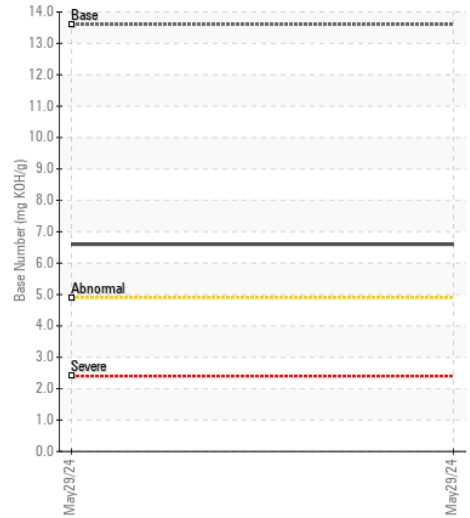
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : JR0218492 Received : 30 May 2024  
 Lab Number : 06195296 Tested : 31 May 2024  
 Unique Number : 11057419 Diagnosed : 01 Jun 2024 - Don Baldrige  
 Test Package : CONST ( Additional Tests: FuelDilution, TBN )

JRE - MANASSAS PARK  
 9107 OWENS DRIVE  
 MANASSAS PARK, VA  
 US 20111

Contact: DON VEST  
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 F: (703)631-4715

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)