



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

Machine Id  
**RAYCO C120 1200468 (S/N C120R0130619)**

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>JR0207872</b>	JR0037186	---
Sample Date		Client Info		<b>10 Apr 2024</b>	03 Feb 2020	---
Machine Age	hrs	Client Info		<b>583</b>	140	---
Oil Age	hrs	Client Info		<b>0</b>	140	---
Filter Age	hrs	Client Info		<b>0</b>	140	---
Oil Changed		Client Info		<b>Changed</b>	Changed	---
Filter Changed		Client Info		<b>Changed</b>	Changed	---
Sample Status				<b>NORMAL</b>	NORMAL	---

### WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>100	<b>103</b>	33	---
Chromium	ppm	ASTM D5185m	>20	<b>2</b>	1	---
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	<1	---
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	---
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>20	<b>8</b>	11	---
Lead	ppm	ASTM D5185m	>40	<b>0</b>	1	---
Copper	ppm	ASTM D5185m	>330	<b>9</b>	11	---
Tin	ppm	ASTM D5185m	>15	<b>0</b>	2	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

### CONTAMINATION

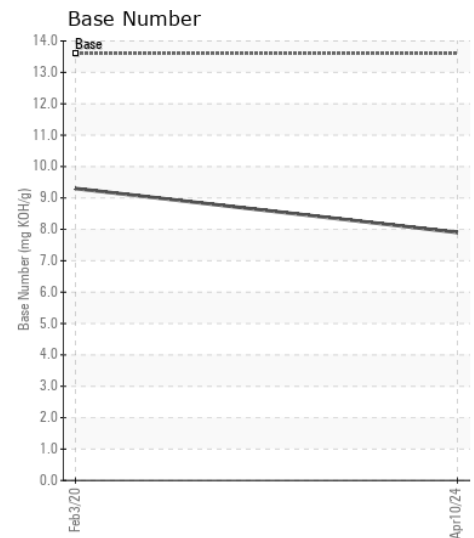
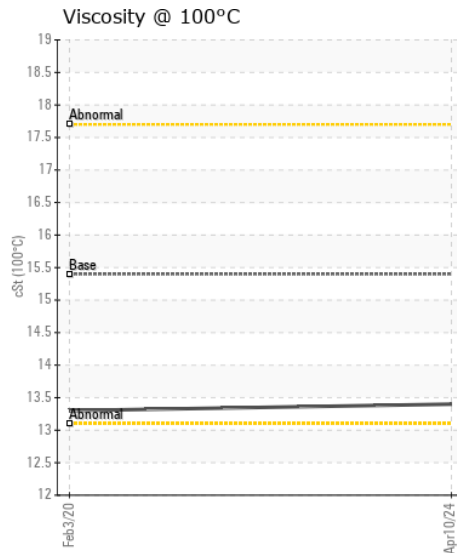
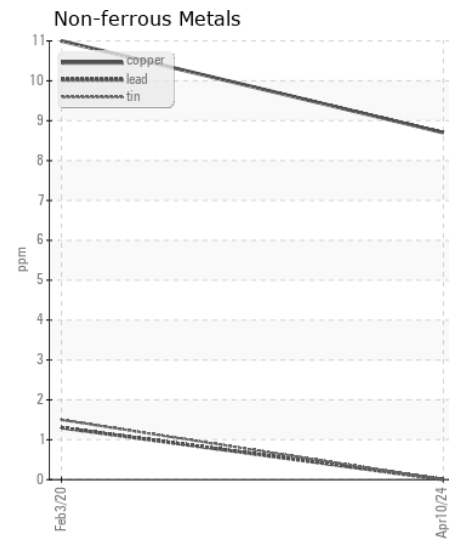
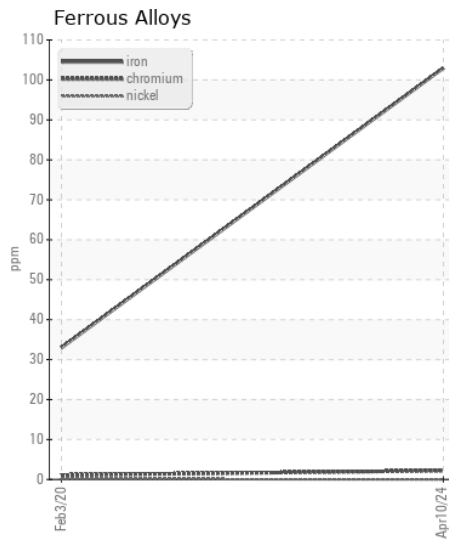
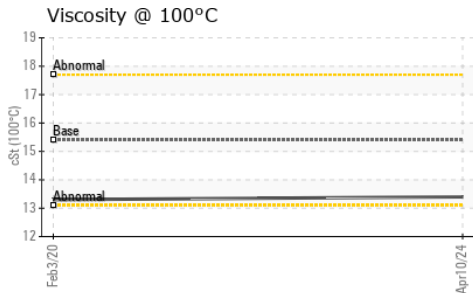
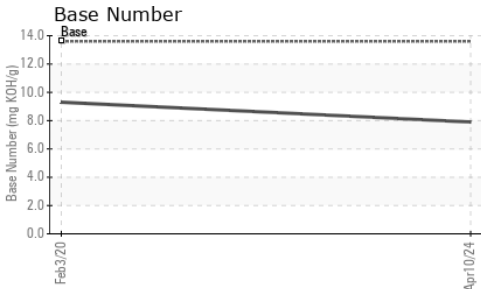
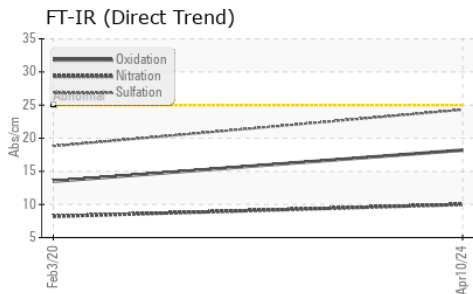
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>18</b>	9	---
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	3	---
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	---
Water		WC Method	>0.2	<b>NEG</b>	NEG	---
Glycol		WC Method		<b>NEG</b>	NEG	---
Soot %	%	*ASTM D7844	>3	<b>0.8</b>	0.1	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.0</b>	8.2	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>24.3</b>	18.8	---
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	>0.2	<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		<b>3</b>	6	---
Boron	ppm	ASTM D5185m		<b>90</b>	69	---
Barium	ppm	ASTM D5185m		<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m		<b>220</b>	52	---
Manganese	ppm	ASTM D5185m		<b>0</b>	2	---
Magnesium	ppm	ASTM D5185m		<b>827</b>	735	---
Calcium	ppm	ASTM D5185m		<b>1836</b>	1283	---
Phosphorus	ppm	ASTM D5185m		<b>1007</b>	953	---
Zinc	ppm	ASTM D5185m		<b>1166</b>	992	---
Sulfur	ppm	ASTM D5185m		<b>3662</b>	4058	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>18.2</b>	13.5	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>7.9</b>	9.3	---
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.4</b>	13.3	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513

**Sample No.** : JR0207872

**Lab Number** : 06146990

**Unique Number** : 10977068

**Test Package** : CONST ( Additional Tests: TBN )

**Received** : 12 Apr 2024

**Tested** : 15 Apr 2024

**Diagnosed** : 15 Apr 2024 - Wes Davis

**JRE - ASHEVILLE**

101 BRUCE DRIVE

ASHEVILLE, NC

US 28806

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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)