



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

Machine Id  
**JOHN DEERE Pump PE4045U148240**  
 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>JR0197865</b>	JR0190739	JR0175092
Sample Date		Client Info		<b>15 Jan 2024</b>	06 Nov 2023	26 May 2023
Machine Age	hrs	Client Info		<b>2651</b>	2143	1545
Oil Age	hrs	Client Info		<b>508</b>	598	567
Filter Age	hrs	Client Info		<b>508</b>	598	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	<b>12</b>	8	7
Chromium	ppm	ASTM D5185m	>11	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m	>31	<b>4</b>	3	3
Lead	ppm	ASTM D5185m	>26	<b>14</b>	12	3
Copper	ppm	ASTM D5185m	>26	<b>1</b>	8	12
Tin	ppm	ASTM D5185m	>4	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

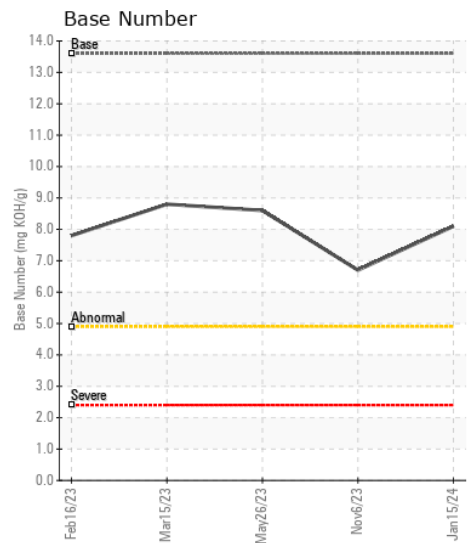
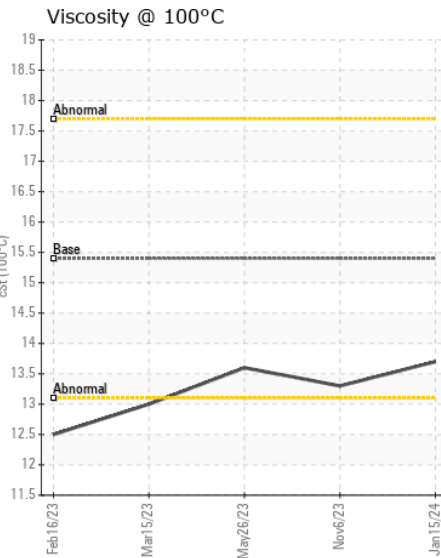
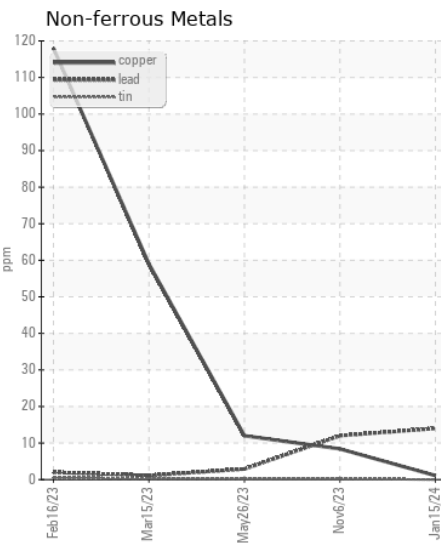
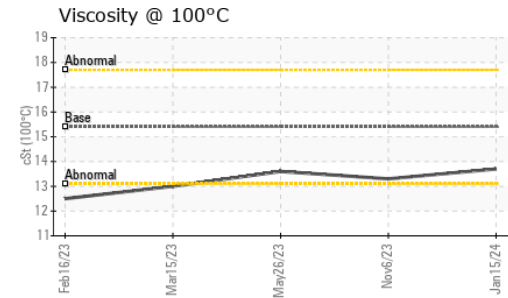
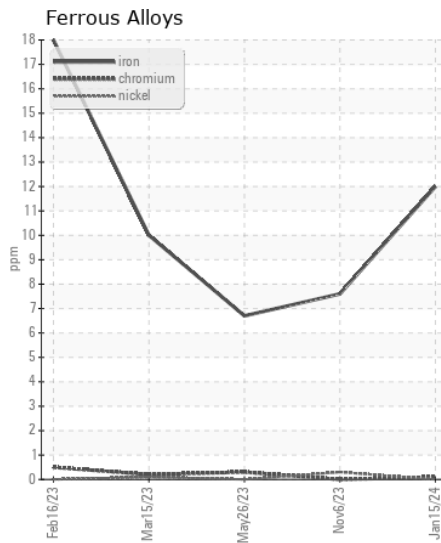
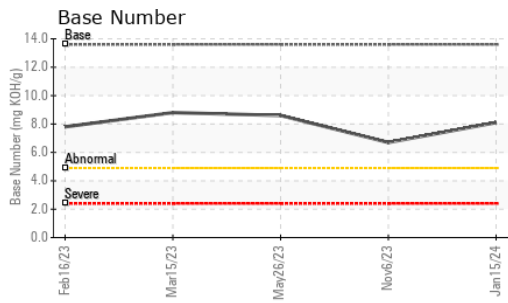
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	<b>8</b>	7	8
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	2	1
Fuel		WC Method	>2.1	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.21	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.1</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.8</b>	9.6	8.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>22.6</b>	25.8	23.2
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.21	<b>NEG</b>	NEG	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>1</b>	2	2
Boron	ppm	ASTM D5185m		<b>229</b>	204	239
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>243</b>	242	233
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>861</b>	874	872
Calcium	ppm	ASTM D5185m		<b>1532</b>	1472	1460
Phosphorus	ppm	ASTM D5185m		<b>915</b>	823	872
Zinc	ppm	ASTM D5185m		<b>1189</b>	1088	1109
Sulfur	ppm	ASTM D5185m		<b>3191</b>	2992	3565
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.9</b>	23.1	19.2
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>8.1</b>	6.7	8.6
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.7</b>	13.3	13.6



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0197865 **Received** : 17 Jan 2024  
**Lab Number** : 06062486 **Diagnosed** : 18 Jan 2024  
**Unique Number** : 10833868 **Diagnostician** : Don Baldrige  
**Test Package** : CONST ( Additional Tests: TBN )

**JRE - GARNER**  
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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)