



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



Machine Id  
**JOHN DEERE 244J LU244JX722841**

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>JR0202697</b>	JR0181439	JR0175168
Sample Date		Client Info		<b>23 Feb 2024</b>	18 Oct 2023	02 Jun 2023
Machine Age	hrs	Client Info		<b>13165</b>	12906	12603
Oil Age	hrs	Client Info		<b>259</b>	303	716
Filter Age	hrs	Client Info		<b>259</b>	0	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	>50	<b>8</b>	10	11
Chromium	ppm	ASTM D5185m	>11	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>3</b>	3	2
Lead	ppm	ASTM D5185m	>26	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>13	<b>&lt;1</b>	1	1
Tin	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

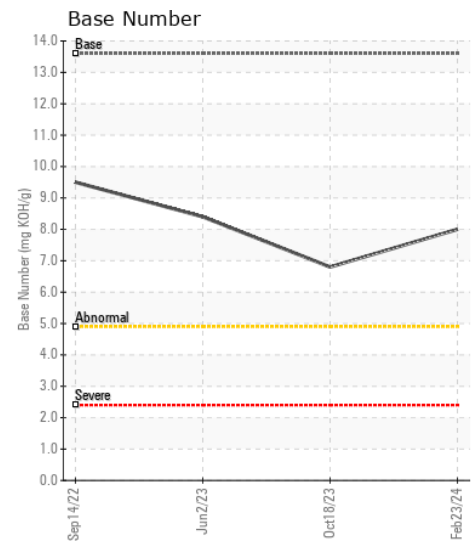
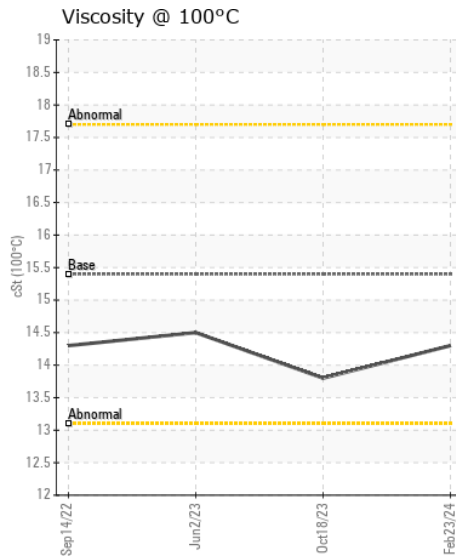
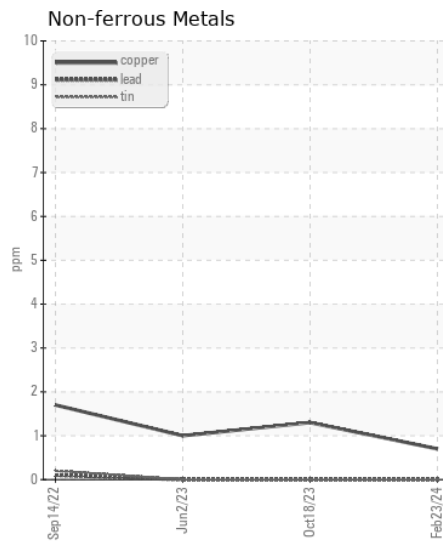
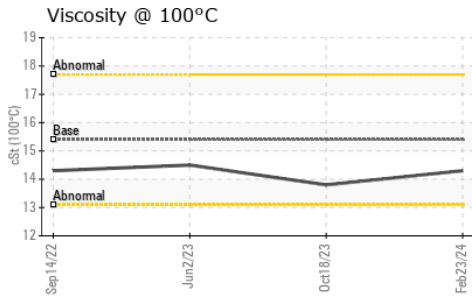
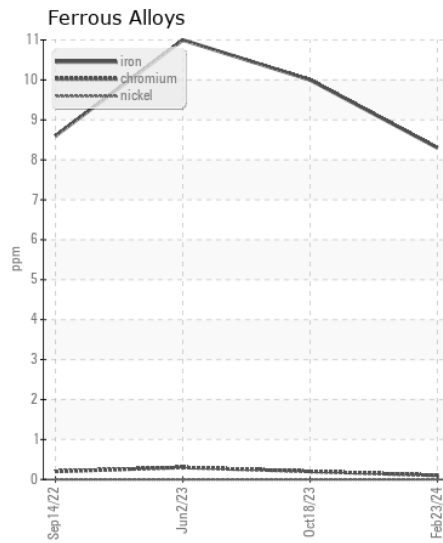
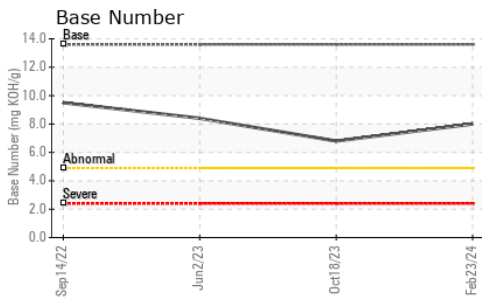
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>81	<b>8</b>	8	10
Potassium	ppm	ASTM D5185m	>20	<b>10</b>	28	31
Fuel		WC Method	>1.6	<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>	0.2	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.8</b>	8.1	9.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>22.3</b>	20.7	23.3
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>9</b>	31	24
Boron	ppm	ASTM D5185m		<b>209</b>	182	154
Barium	ppm	ASTM D5185m		<b>9</b>	0	2
Molybdenum	ppm	ASTM D5185m		<b>197</b>	89	202
Manganese	ppm	ASTM D5185m		<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m		<b>601</b>	366	634
Calcium	ppm	ASTM D5185m		<b>1339</b>	1914	1613
Phosphorus	ppm	ASTM D5185m		<b>891</b>	987	908
Zinc	ppm	ASTM D5185m		<b>1013</b>	1299	1126
Sulfur	ppm	ASTM D5185m		<b>2976</b>	3366	3047
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.7</b>	16.0	18.4
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>8.0</b>	6.8	8.4
Visc @ 100°C	cSt	ASTM D445	15.4	<b>14.3</b>	13.8	14.5



Certificate L2367

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

Sample No. : JR0202697

Lab Number : 06099993

Unique Number : 10898223

Test Package : CONST ( Additional Tests: TBN )

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)

Received : 26 Feb 2024

Tested : 27 Feb 2024

Diagnosed : 27 Feb 2024 - Wes Davis

**GARNER - MARTIN MARIETTA**

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