



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

Machine Id  
**JOHN DEERE 850L 1T0850LXLMF411324**  
 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>JR0211964</b>	JR0179953	JR0180432
Sample Date		Client Info		<b>10 Apr 2024</b>	05 Feb 2024	27 Oct 2023
Machine Age	hrs	Client Info		<b>3939</b>	3514	2959
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</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	ABNORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	<b>19</b>	23	33
Chromium	ppm	ASTM D5185m	>11	<b>&lt;1</b>	<1	1
Nickel	ppm	ASTM D5185m	>5	<b>2</b>	4	▲ 15
Titanium	ppm	ASTM D5185m		<b>0</b>	0	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>31	<b>4</b>	5	8
Lead	ppm	ASTM D5185m	>26	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185m	>26	<b>2</b>	2	4
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	<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.

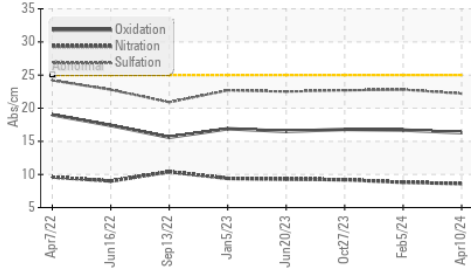
Silicon	ppm	ASTM D5185m	>22	<b>10</b>	8	10
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	<1	3
Fuel		WC Method	>2.1	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.21	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.4</b>	0.4	0.6
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.6</b>	8.8	9.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>22.2</b>	22.8	22.7
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

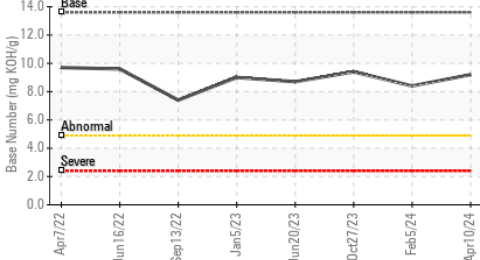
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>31	<b>2</b>	2	3
Boron	ppm	ASTM D5185m		<b>237</b>	199	186
Barium	ppm	ASTM D5185m		<b>1</b>	0	2
Molybdenum	ppm	ASTM D5185m		<b>269</b>	265	279
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>852</b>	847	875
Calcium	ppm	ASTM D5185m		<b>1522</b>	1374	1483
Phosphorus	ppm	ASTM D5185m		<b>1025</b>	942	947
Zinc	ppm	ASTM D5185m		<b>1156</b>	1144	1193
Sulfur	ppm	ASTM D5185m		<b>3328</b>	2913	3738
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.3</b>	16.7	16.8
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>9.2</b>	8.4	9.4
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.5</b>	13.6	13.7

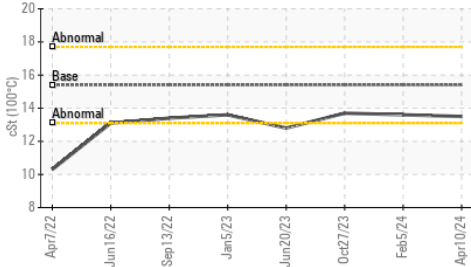
**FT-IR (Direct Trend)**



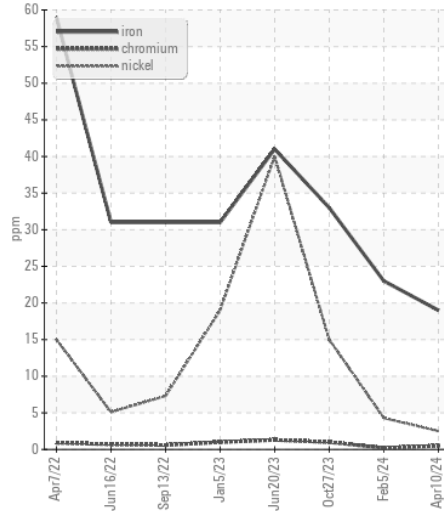
**Base Number**



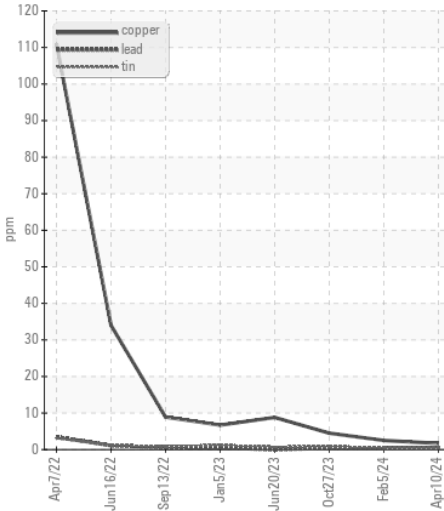
**Viscosity @ 100°C**



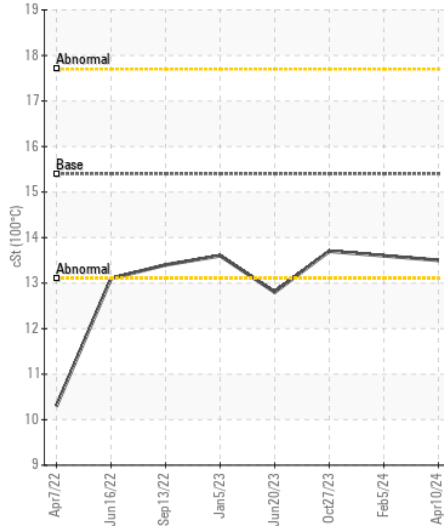
**Ferrous Alloys**



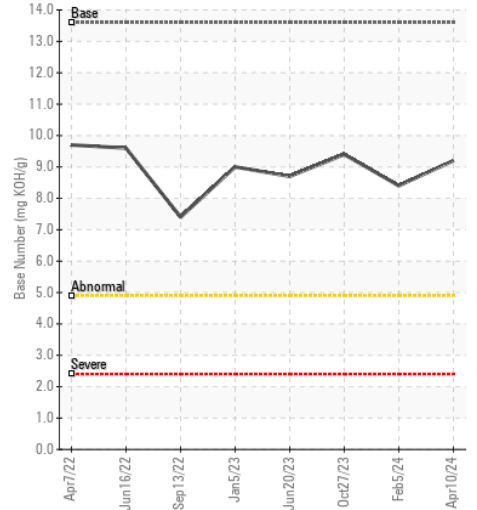
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0211964 **Received** : 15 Apr 2024  
**Lab Number** : 06148522 **Tested** : 16 Apr 2024  
**Unique Number** : 10978600 **Diagnosed** : 16 Apr 2024 - Wes Davis  
**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)

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