



# OIL ANALYSIS REPORT

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

Area

[127687]

Machine Id

JOHN DEERE 844L 1DW844LXCNL714937

Component

Diesel Engine

Fluid

JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- QTS)

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WE0007957</b>	WE0006841	WE0006373
Sample Date		Client Info		<b>17 Jul 2024</b>	11 Apr 2024	02 Feb 2024
Machine Age	hrs	Client Info		<b>4019</b>	3472	3039
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	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	<b>14</b>	17	23
Chromium	ppm	ASTM D5185m	>11	<b>0</b>	0	<1
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>31	<b>4</b>	4	5
Lead	ppm	ASTM D5185m	>26	<b>2</b>	2	5
Copper	ppm	ASTM D5185m	>26	<b>3</b>	5	9
Tin	ppm	ASTM D5185m	>4	<b>0</b>	2	1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	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.

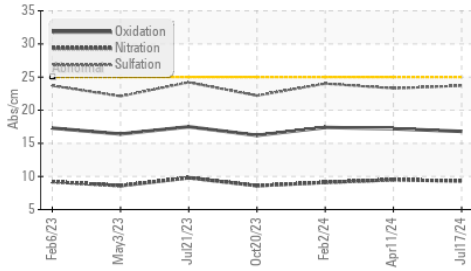
Silicon	ppm	ASTM D5185m	>22	<b>8</b>	7	12
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	2	3
Fuel		WC Method	>2.1	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.21	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.6</b>	0.5	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.3</b>	9.5	9.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>23.7</b>	23.3	24.0
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

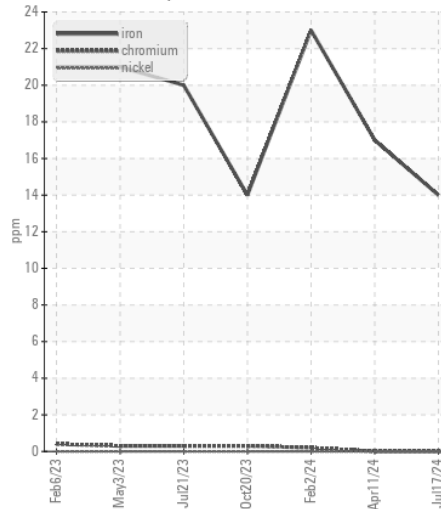
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>31	<b>6</b>	5	0
Boron	ppm	ASTM D5185m		<b>115</b>	165	201
Barium	ppm	ASTM D5185m		<b>0</b>	<1	6
Molybdenum	ppm	ASTM D5185m		<b>246</b>	222	353
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m		<b>796</b>	809	1104
Calcium	ppm	ASTM D5185m		<b>1382</b>	1388	1614
Phosphorus	ppm	ASTM D5185m		<b>836</b>	815	915
Zinc	ppm	ASTM D5185m		<b>961</b>	984	1297
Sulfur	ppm	ASTM D5185m		<b>3160</b>	3359	3587
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.8</b>	17.2	17.4
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>7.4</b>	8.6	7.5
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.1</b>	13.5	13.4

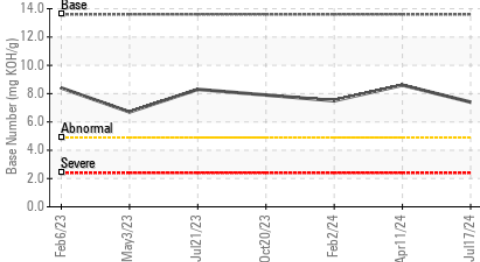
**FT-IR (Direct Trend)**



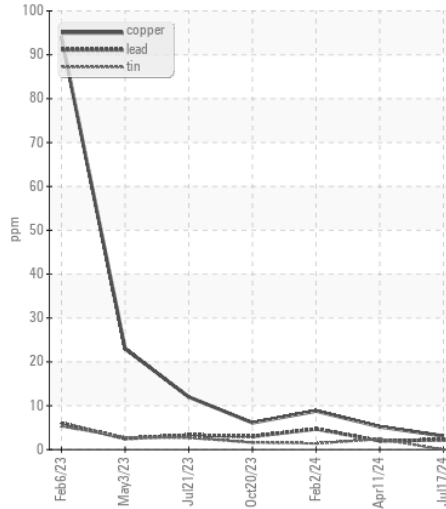
**Ferrous Alloys**



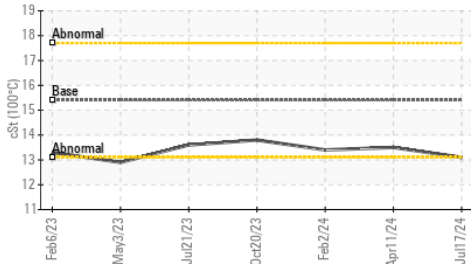
**Base Number**



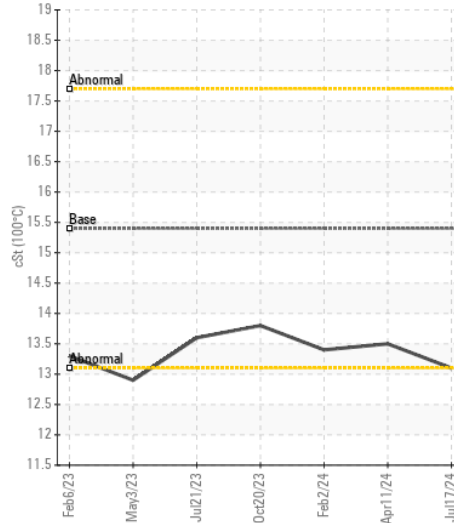
**Non-ferrous Metals**



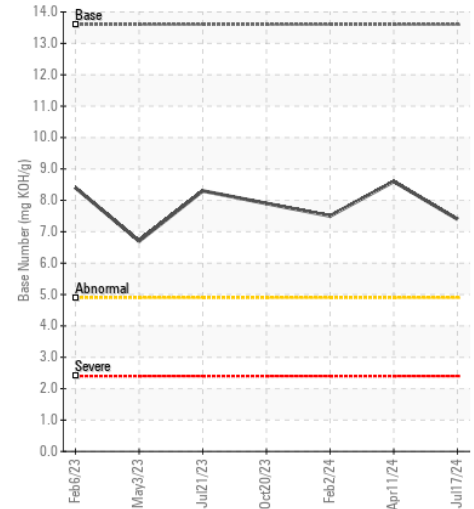
**Viscosity @ 100°C**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WE0007957 **Received** : 19 Jul 2024  
**Lab Number** : 06241365 **Tested** : 20 Jul 2024  
**Unique Number** : 11130199 **Diagnosed** : 20 Jul 2024 - Wes Davis  
**Test Package** : CONST ( Additional Tests: TBN )

**WARRIOR TRACTOR AND EQUIPMENT - NORTHPORT**  
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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)