



# OIL ANALYSIS REPORT

WEAR	<b>ABNORMAL</b>
CONTAMINATION	<b>SEVERE</b>
FLUID CONDITION	<b>ABNORMAL</b>

Machine Id  
**JOHN DEERE 744L 1DW744LXHNL713327**  
 Component  
**Diesel Engine**  
 Fluid  
**JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)**

## RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WE0007372</b>	WE0007471	WE0005252
Sample Date		Client Info		<b>21 May 2024</b>	29 Mar 2024	07 Mar 2024
Machine Age	hrs	Client Info		<b>14436</b>	13395	12880
Oil Age	hrs	Client Info		<b>1000</b>	395	500
Filter Age	hrs	Client Info		<b>1000</b>	395	500
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>SEVERE</b>	ABNORMAL	ABNORMAL

## WEAR

Cylinder, crank, or cam shaft wear is indicated.

Iron	ppm	ASTM D5185m	>51	<b>▲ 210</b>	▲ 89	▲ 149
Chromium	ppm	ASTM D5185m	>11	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m	>5	<b>2</b>	0	4
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>31	<b>7</b>	3	5
Lead	ppm	ASTM D5185m	>26	<b>3</b>	0	0
Copper	ppm	ASTM D5185m	>26	<b>3</b>	<1	1
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

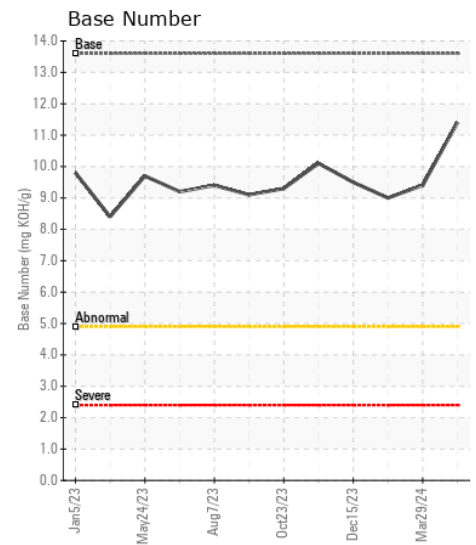
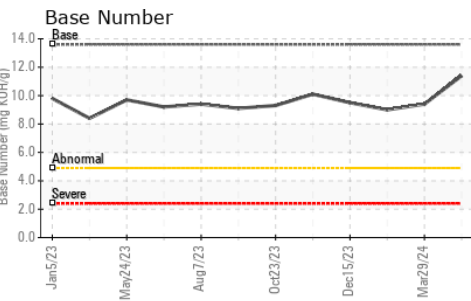
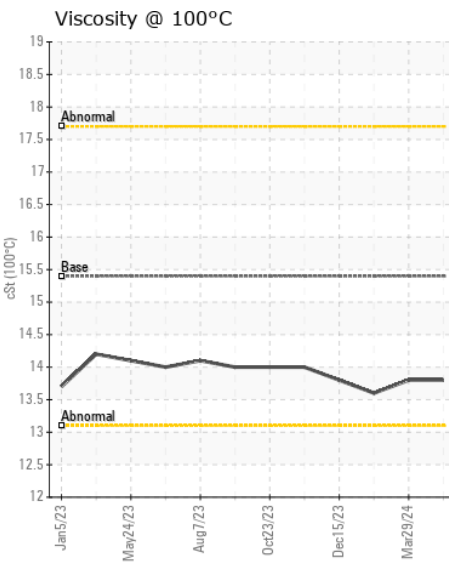
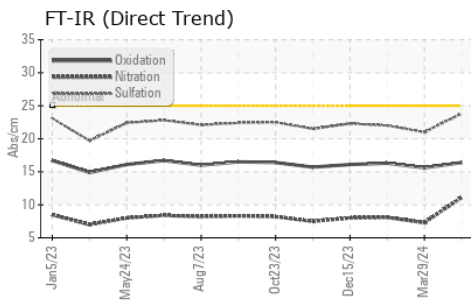
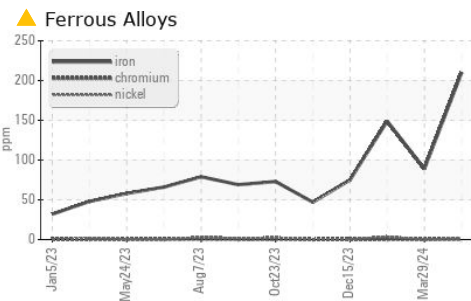
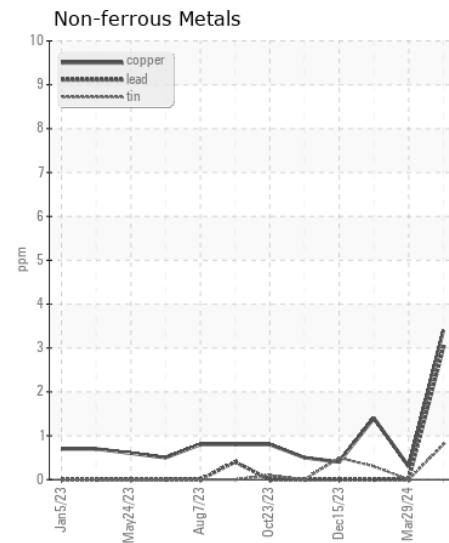
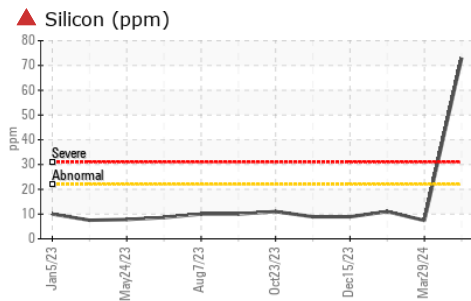
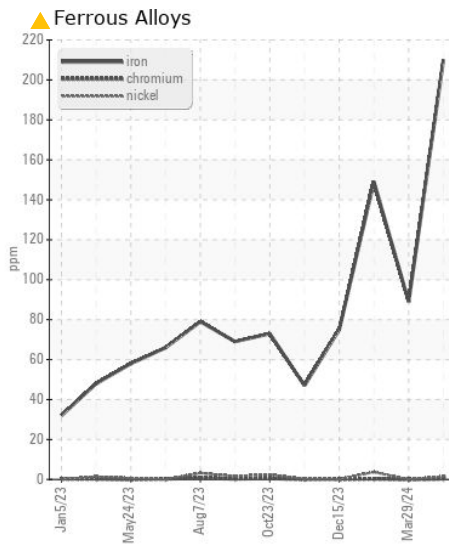
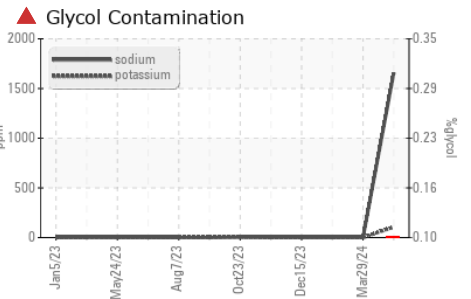
Sodium and/or potassium levels are high. Test for glycol is positive. Elemental level of silicon (Si) above normal.

Silicon	ppm	ASTM D5185m	>22	<b>▲ 73</b>	7	11
Potassium	ppm	ASTM D5185m	>20	<b>▲ 107</b>	<1	0
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	%	*ASTM D2982		<b>▲ 0.10</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.4</b>	0.2	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>11.1</b>	7.3	8.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>23.8</b>	21.0	22.0
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 oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m	>31	<b>▲ 1656</b>	<1	1
Boron	ppm	ASTM D5185m		<b>108</b>	238	218
Barium	ppm	ASTM D5185m		<b>1</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>294</b>	252	254
Manganese	ppm	ASTM D5185m		<b>2</b>	<1	1
Magnesium	ppm	ASTM D5185m		<b>860</b>	881	810
Calcium	ppm	ASTM D5185m		<b>1318</b>	1460	1348
Phosphorus	ppm	ASTM D5185m		<b>935</b>	957	867
Zinc	ppm	ASTM D5185m		<b>1033</b>	1091	1036
Sulfur	ppm	ASTM D5185m		<b>3391</b>	3781	3227
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.4</b>	15.6	16.3
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>11.4</b>	9.4	9.0
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.8</b>	13.8	13.6



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WE0007372 **Received** : 30 May 2024  
**Lab Number** : 06195282 **Tested** : 31 May 2024  
**Unique Number** : 11057405 **Diagnosed** : 02 Jun 2024 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: Glycol, TBN )

**WARRIOR TRACTOR AND EQUIPMENT - MONROEVILLE**  
 66 INDUSTRIAL PARK DR  
 MONROEVILLE, AL  
 US 36460  
 Contact: SCOTT WILLIAMSON  
 swilliamson@warriortractor.com

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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F: