



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

Area

[W21696-DIRECT AUTO]

Machine Id

JOHN DEERE 544L 1DW544LZHKF694295

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>JR0210805</b>	JR0174965	JR0148849
Sample Date		Client Info		<b>13 Apr 2024</b>	29 Aug 2023	02 Nov 2022
Machine Age	hrs	Client Info		<b>3374</b>	2766	2005
Oil Age	hrs	Client Info		<b>0</b>	500	800
Filter Age	hrs	Client Info		<b>0</b>	500	800
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>	14	16
Chromium	ppm	ASTM D5185m	>11	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>31	<b>4</b>	0	2
Lead	ppm	ASTM D5185m	>26	<b>0</b>	2	1
Copper	ppm	ASTM D5185m	>26	<b>2</b>	3	12
Tin	ppm	ASTM D5185m	>4	<b>0</b>	<1	<1
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

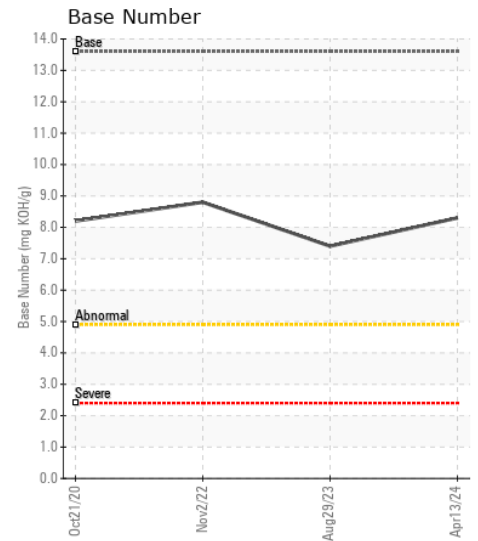
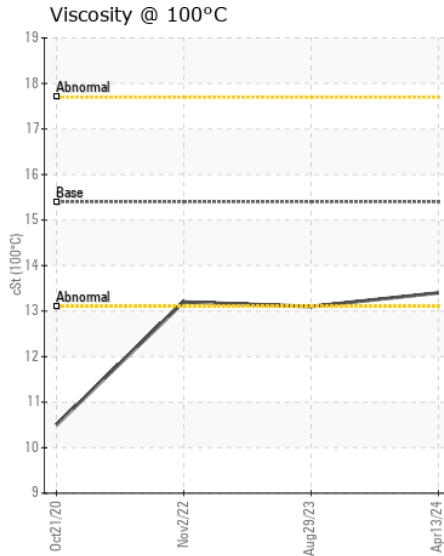
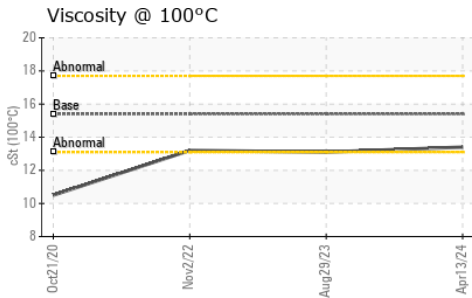
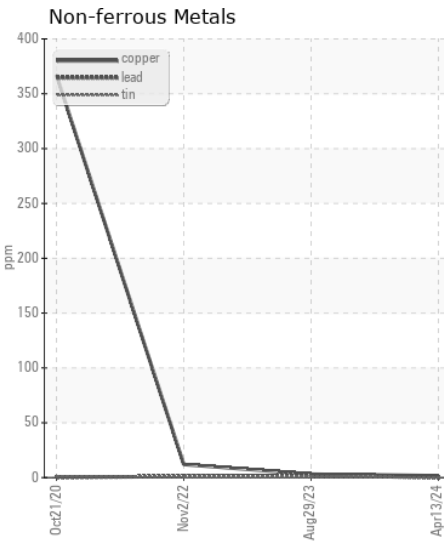
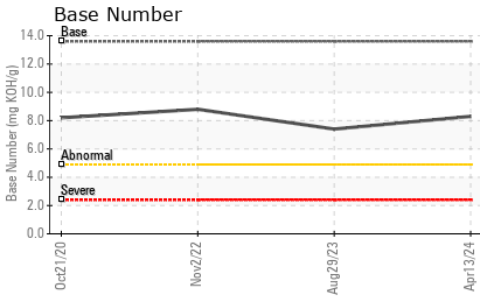
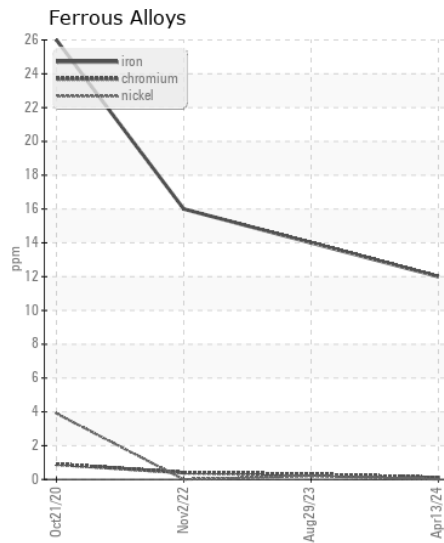
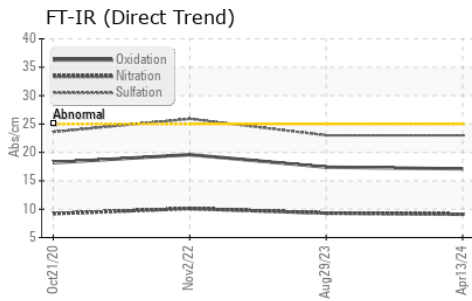
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	<b>6</b>	6	6
Potassium	ppm	ASTM D5185m	>20	<b>0</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>0.3</b>	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.1</b>	9.3	10.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>23.0</b>	23.0	25.9
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>	3	2
Boron	ppm	ASTM D5185m		<b>233</b>	168	150
Barium	ppm	ASTM D5185m		<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185m		<b>264</b>	244	262
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>854</b>	834	759
Calcium	ppm	ASTM D5185m		<b>1420</b>	1488	1451
Phosphorus	ppm	ASTM D5185m		<b>908</b>	779	806
Zinc	ppm	ASTM D5185m		<b>1091</b>	991	1014
Sulfur	ppm	ASTM D5185m		<b>3374</b>	3464	3290
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.1</b>	17.4	19.6
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>8.3</b>	7.4	8.8
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.4</b>	13.1	13.2



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0210805 **Received** : 23 Apr 2024  
**Lab Number** : 06158345 **Tested** : 24 Apr 2024  
**Unique Number** : 10993768 **Diagnosed** : 24 Apr 2024 - Wes Davis  
**Test Package** : CONST ( Additional Tests: TBN )

**JRE - BURKEVILLE**  
 510 WEST COLONIAL DR  
 BURKEVILLE, VA  
 US 23922

Contact: BRANDON BOLLING  
 bbolling@jamesriverequipment.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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