



# OIL ANALYSIS REPORT

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

Machine Id  
**JOHN DEERE 624 P 1DW624PAANLZ14651**

Component  
**Diesel Engine**

Fluid  
**JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (21 GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0084555</b>	JR0169017	JR0166407
Sample Date		Client Info		<b>29 Feb 2024</b>	31 Jul 2023	21 Mar 2023
Machine Age	hrs	Client Info		<b>1967</b>	1441	967
Oil Age	hrs	Client Info		<b>526</b>	474	497
Filter Age	hrs	Client Info		<b>526</b>	474	497
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>14</b>	12	16
Chromium	ppm	ASTM D5185m	>11	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	<1
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>5</b>	2	3
Lead	ppm	ASTM D5185m	>26	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185m	>26	<b>5</b>	22	▲ 205
Tin	ppm	ASTM D5185m	>4	<b>1</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

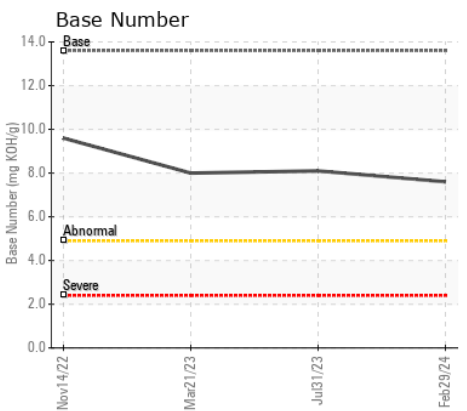
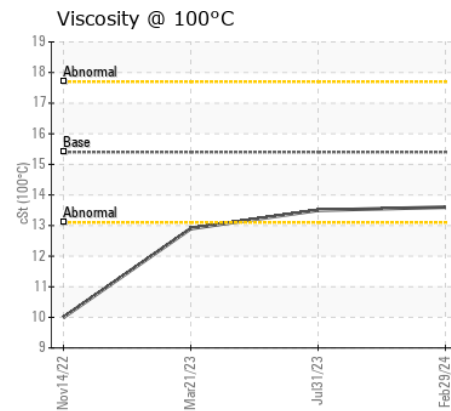
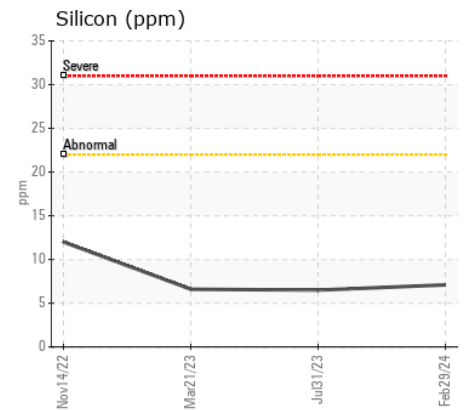
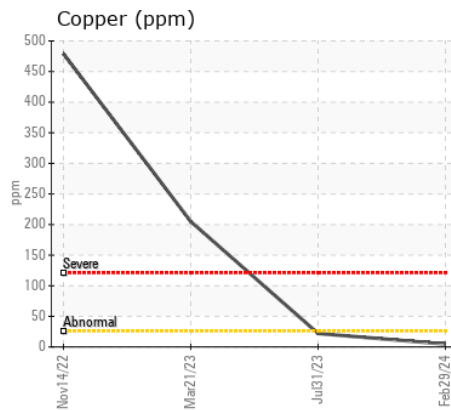
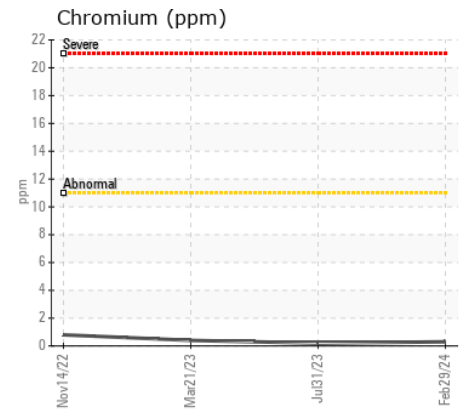
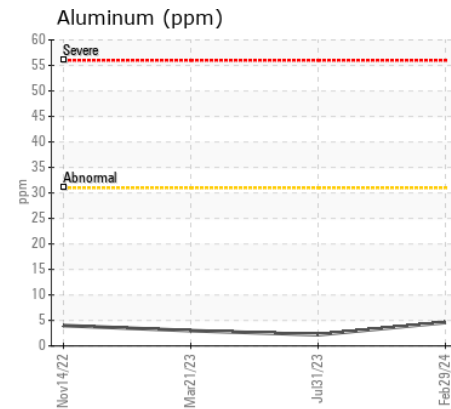
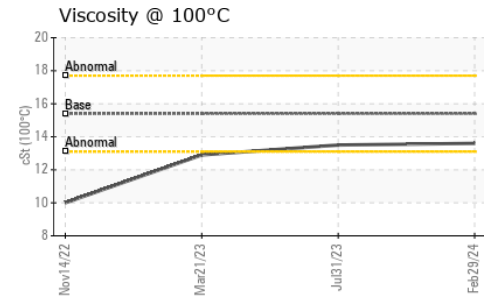
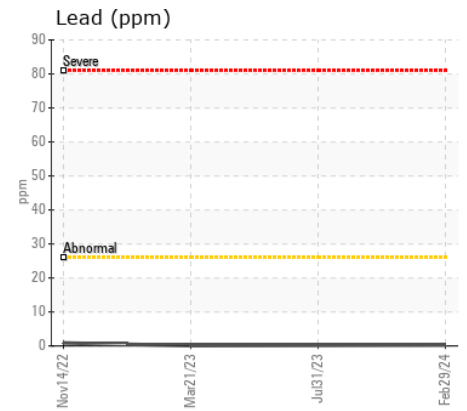
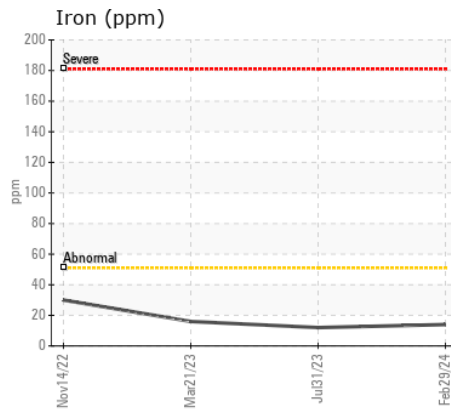
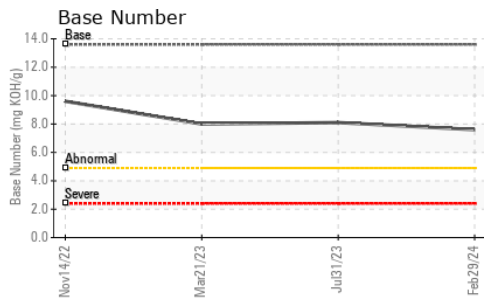
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	<b>7</b>	6	7
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	2	1
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>8.9</b>	8.5	8.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>23.2</b>	22.6	22.2
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>4</b>	3	0
Boron	ppm	ASTM D5185m		<b>180</b>	223	233
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>236</b>	243	253
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	1
Magnesium	ppm	ASTM D5185m		<b>785</b>	842	839
Calcium	ppm	ASTM D5185m		<b>1322</b>	1506	1480
Phosphorus	ppm	ASTM D5185m		<b>845</b>	907	917
Zinc	ppm	ASTM D5185m		<b>1057</b>	1136	1139
Sulfur	ppm	ASTM D5185m		<b>2856</b>	3588	2855
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.4</b>	16.6	16.4
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>7.6</b>	8.1	8.0
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.6</b>	13.5	12.9



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0084555 **Received** : 01 Mar 2024  
**Lab Number** : 06105891 **Tested** : 04 Mar 2024  
**Unique Number** : 10909388 **Diagnosed** : 04 Mar 2024 - Wes Davis  
**Test Package** : MOBCE ( Additional Tests: TBN )

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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)