



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

Machine Id  
**JOHN DEERE 624 P 1DW624PATNLZ14642**

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>JR0198420</b>	JR0177392	JR0156034
Sample Date		Client Info		<b>15 Jan 2024</b>	09 Aug 2023	28 Feb 2023
Machine Age	hrs	Client Info		<b>2317</b>	1726	1027
Oil Age	hrs	Client Info		<b>591</b>	699	500
Filter Age	hrs	Client Info		<b>0</b>	0	500
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>13</b>	18	16
Chromium	ppm	ASTM D5185m	>11	<b>&lt;1</b>	0	0
Nickel	ppm	ASTM D5185m	>5	<b>&lt;1</b>	1	1
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>31	<b>3</b>	2	2
Lead	ppm	ASTM D5185m	>26	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m	>26	<b>3</b>	9	▲ 61
Tin	ppm	ASTM D5185m	>4	<b>0</b>	<1	0
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

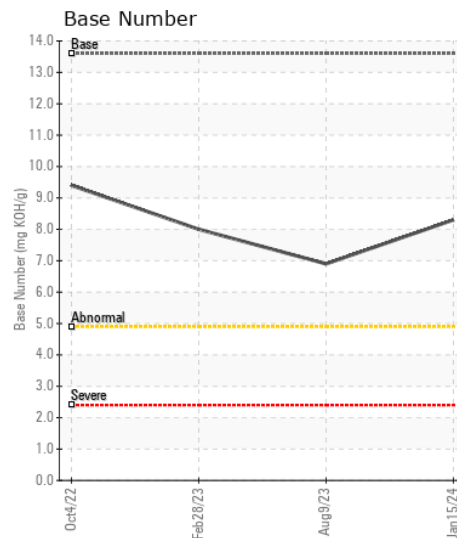
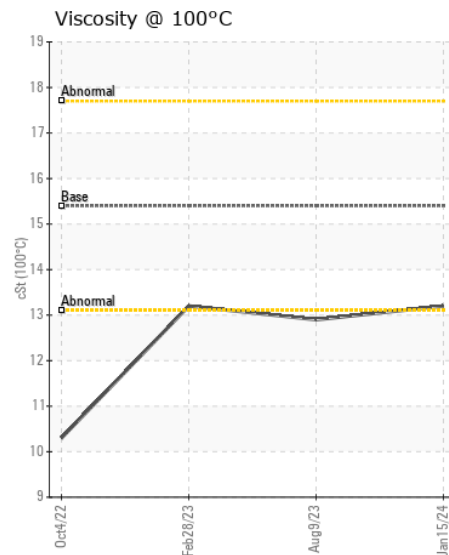
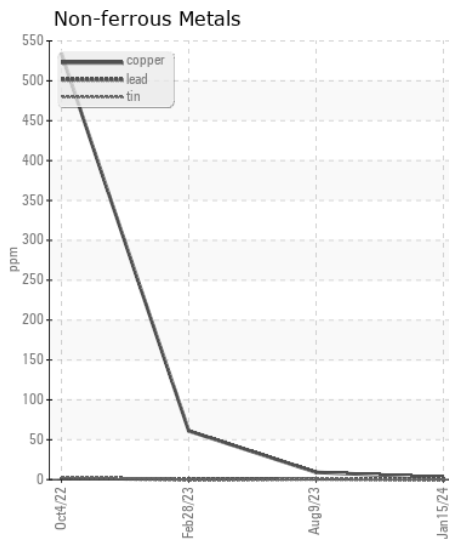
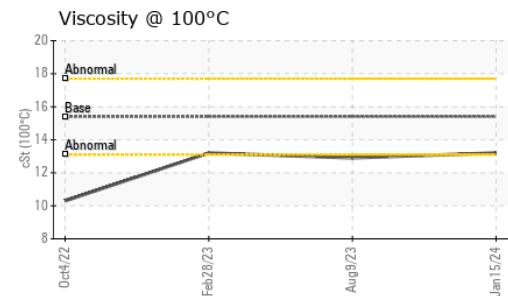
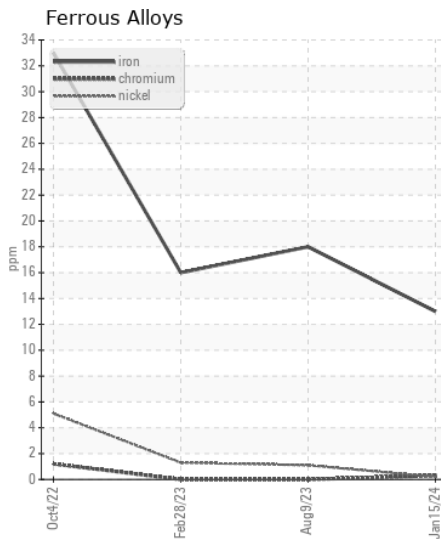
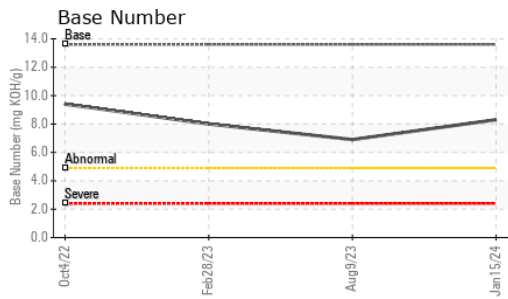
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	<b>9</b>	7	5
Potassium	ppm	ASTM D5185m	>20	<b>3</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>0.2</b>	0.3	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.1</b>	8.8	9.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>22.0</b>	23.6	22.3
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>0</b>	0	<1
Boron	ppm	ASTM D5185m		<b>231</b>	129	188
Barium	ppm	ASTM D5185m		<b>4</b>	3	1
Molybdenum	ppm	ASTM D5185m		<b>258</b>	269	248
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	0
Magnesium	ppm	ASTM D5185m		<b>861</b>	781	716
Calcium	ppm	ASTM D5185m		<b>1388</b>	1498	1417
Phosphorus	ppm	ASTM D5185m		<b>926</b>	832	846
Zinc	ppm	ASTM D5185m		<b>1108</b>	1032	1045
Sulfur	ppm	ASTM D5185m		<b>3503</b>	3093	2823
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.1</b>	17.3	16.3
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>8.3</b>	6.9	8.0
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.2</b>	12.9	13.2



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0198420 **Received** : 18 Jan 2024  
**Lab Number** : 06064038 **Diagnosed** : 19 Jan 2024  
**Unique Number** : 10835420 **Diagnostician** : Wes Davis  
**Test Package** : CONST ( Additional Tests: TBN )

**CARLTON'S BACKHOE**  
 9550 STATESVILLE ROAD  
 CHARLOTTE, NC  
 US 28269  
 Contact: LEO

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)

T: (704)547-0211

F: