



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

Area

**[W47887]**

Machine Id

**JOHN DEERE 544 P 1DW544PAVNLZ14234**

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>JR0180586</b>	JR0165833	JR0147549
Sample Date		Client Info		<b>09 Jan 2024</b>	27 Apr 2023	10 Oct 2022
Machine Age	hrs	Client Info		<b>1550</b>	958	468
Oil Age	hrs	Client Info		<b>0</b>	0	468
Filter Age	hrs	Client Info		<b>0</b>	0	468
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	ATTENTION

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	<b>20</b>	14	13
Chromium	ppm	ASTM D5185m	>11	<b>&lt;1</b>	<1	3
Nickel	ppm	ASTM D5185m	>5	<b>2</b>	0	1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m	>31	<b>3</b>	<1	13
Lead	ppm	ASTM D5185m	>26	<b>&lt;1</b>	0	6
Copper	ppm	ASTM D5185m	>26	<b>7</b>	47	3
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	2
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

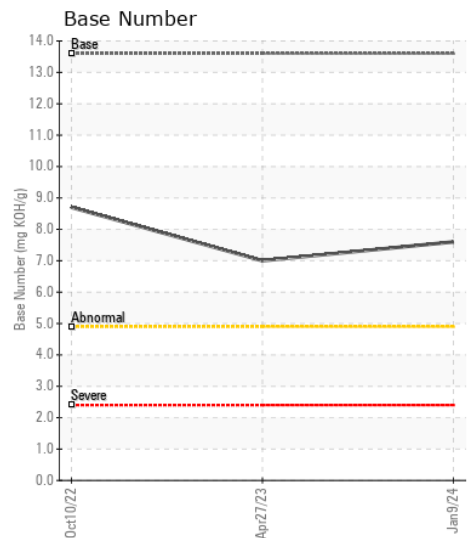
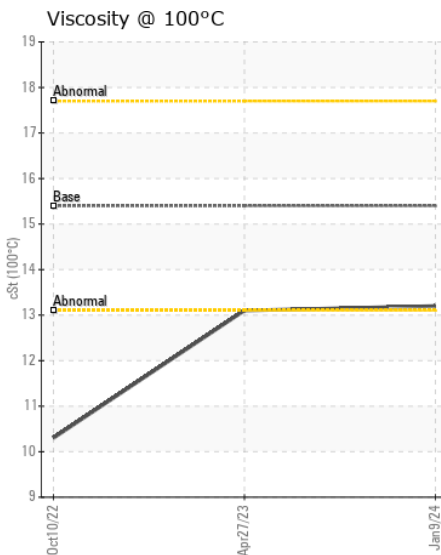
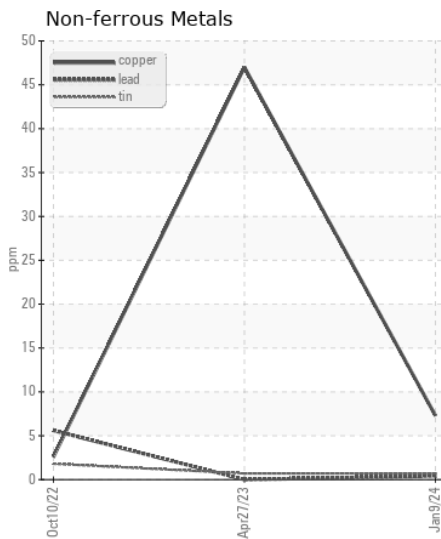
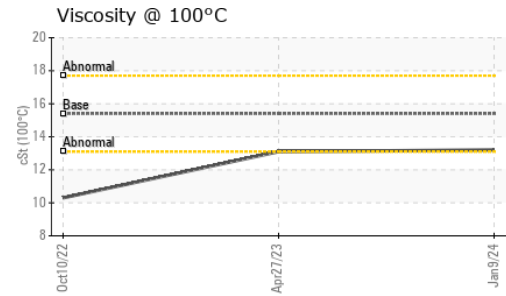
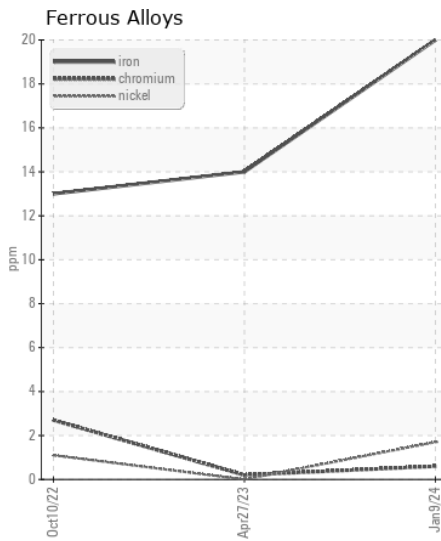
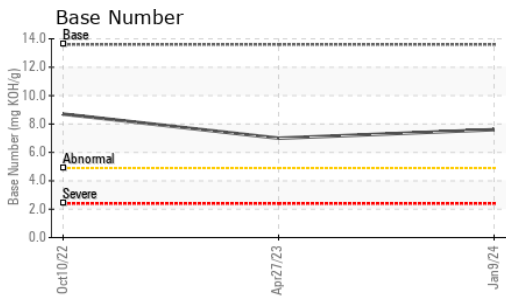
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	<b>8</b>	6	9
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	2	14
Fuel		WC Method	>2.1	<b>&lt;1.0</b>	<1.0	0.6
Water		WC Method	>0.21	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.4</b>	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.4</b>	8.0	9.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>24.0</b>	19.8	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>&lt;1</b>	3	6
Boron	ppm	ASTM D5185m		<b>186</b>	202	146
Barium	ppm	ASTM D5185m		<b>4</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>261</b>	227	204
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	1
Magnesium	ppm	ASTM D5185m		<b>809</b>	695	730
Calcium	ppm	ASTM D5185m		<b>1453</b>	1444	1327
Phosphorus	ppm	ASTM D5185m		<b>920</b>	892	778
Zinc	ppm	ASTM D5185m		<b>1100</b>	1073	945
Sulfur	ppm	ASTM D5185m		<b>3508</b>	2983	3103
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.5</b>	15.2	18.4
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>7.6</b>	7.0	8.7
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.2</b>	13.1	▲ 10.3



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0180586 **Received** : 12 Jan 2024  
**Lab Number** : 06059139 **Diagnosed** : 12 Jan 2024  
**Unique Number** : 10830521 **Diagnostician** : Wes Davis  
**Test Package** : CONST ( Additional Tests: TBN )

**JRE - ASHLAND**  
 11047 LEADBETTER RD  
 ASHLAND, VA  
 US 23005  
 Contact: DAVID ZIEG  
 dzieg@jamesriverequipment.com  
 T: (804)798-6001  
 F: (804)798-0292

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)