



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

Area

**[W20634-WINDY HILL]**

Machine Id

**JOHN DEERE 5510 LV5510S250177**

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>JR0190488</b>	JR0148806	JR0082024
Sample Date		Client Info		<b>24 Jan 2024</b>	05 Jan 2023	18 Mar 2021
Machine Age	hrs	Client Info		<b>7262</b>	7029	6614
Oil Age	hrs	Client Info		<b>200</b>	0	250
Filter Age	hrs	Client Info		<b>200</b>	0	250
Oil Changed		Client Info		<b>Not Changd</b>	Changed	Changed
Filter Changed		Client Info		<b>Not Changd</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	<b>6</b>	8	9
Chromium	ppm	ASTM D5185m	>11	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>5	<b>&lt;1</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>4</b>	1	2
Lead	ppm	ASTM D5185m	>26	<b>&lt;1</b>	<1	2
Copper	ppm	ASTM D5185m	>26	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185m	>4	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

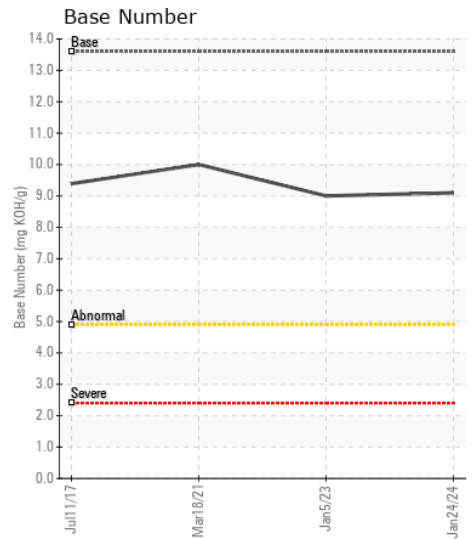
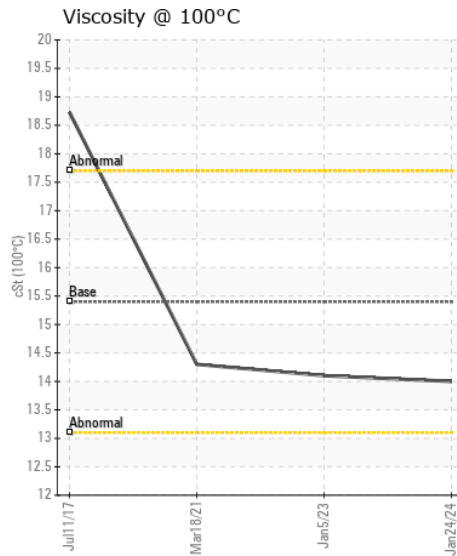
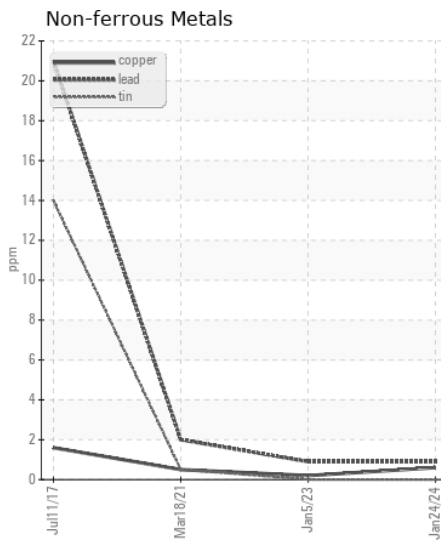
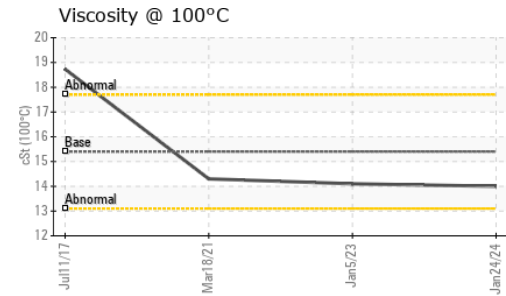
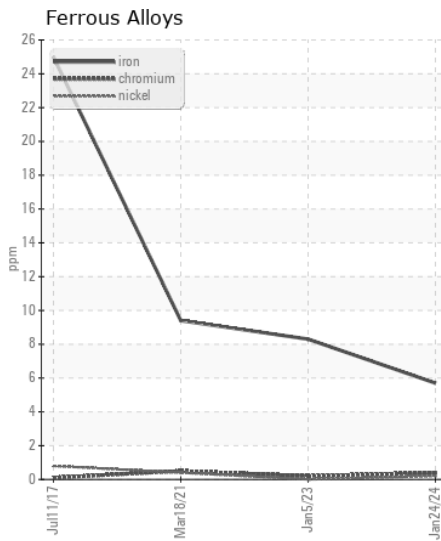
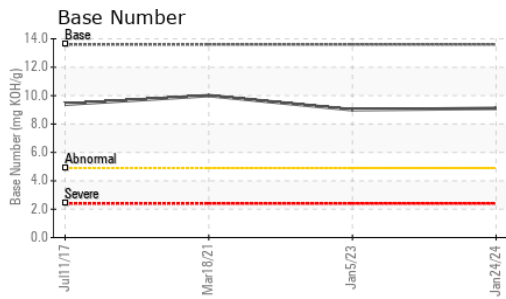
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	<b>6</b>	6	2
Potassium	ppm	ASTM D5185m	>20	<b>2</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>0.1</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.9</b>	8.7	9.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.4</b>	20.9	23.4
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>	<1	2
Boron	ppm	ASTM D5185m		<b>254</b>	238	296
Barium	ppm	ASTM D5185m		<b>1</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>272</b>	253	261
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>823</b>	783	833
Calcium	ppm	ASTM D5185m		<b>1418</b>	1420	1494
Phosphorus	ppm	ASTM D5185m		<b>935</b>	873	932
Zinc	ppm	ASTM D5185m		<b>1103</b>	1032	1114
Sulfur	ppm	ASTM D5185m		<b>3144</b>	2612	2824
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.7</b>	16.0	18.4
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>9.1</b>	9.0	10
Visc @ 100°C	cSt	ASTM D445	15.4	<b>14.0</b>	14.1	14.3



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0190488 **Received** : 01 Feb 2024  
**Lab Number** : 06077564 **Diagnosed** : 02 Feb 2024  
**Unique Number** : 10859655 **Diagnostician** : Wes Davis  
**Test Package** : CONST ( Additional Tests: TBN )

**JRE - BURKEVILLE**  
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Certificate L2367  
 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)