



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

Area

**[44275]**

Machine Id

**JOHN DEERE 310SL 702722**

Component

**Diesel Engine**

Fluid

**JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (14 QTS)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0196110</b>	JR0132134	---
Sample Date		Client Info		<b>11 Jan 2024</b>	18 May 2022	---
Machine Age	hrs	Client Info		<b>1366</b>	646	---
Oil Age	hrs	Client Info		<b>720</b>	646	---
Filter Age	hrs	Client Info		<b>0</b>	646	---
Oil Changed		Client Info		<b>N/A</b>	Changed	---
Filter Changed		Client Info		<b>N/A</b>	Changed	---
Sample Status				<b>NORMAL</b>	ATTENTION	---

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	<b>11</b>	43	---
Chromium	ppm	ASTM D5185m	>11	<b>0</b>	<1	---
Nickel	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	---
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	---
Silver	ppm	ASTM D5185m	>3	<b>0</b>	<1	---
Aluminum	ppm	ASTM D5185m	>31	<b>5</b>	7	---
Lead	ppm	ASTM D5185m	>26	<b>2</b>	17	---
Copper	ppm	ASTM D5185m	>26	<b>3</b>	105	---
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	5	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

### CONTAMINATION

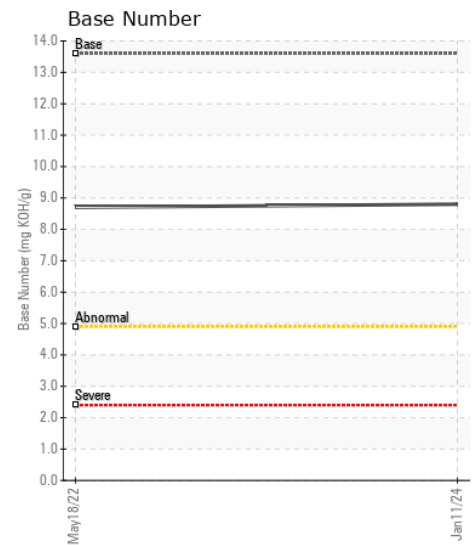
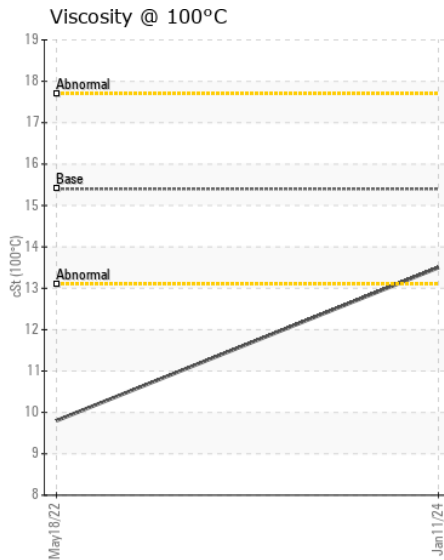
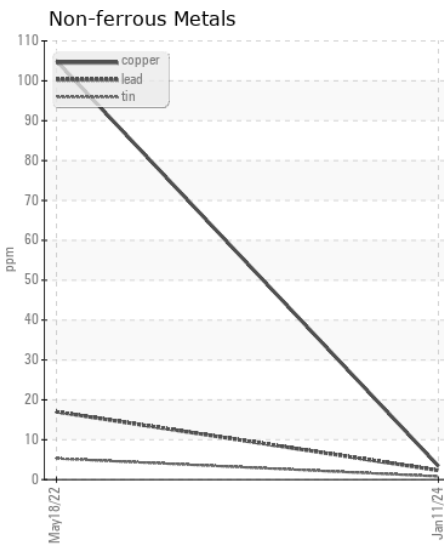
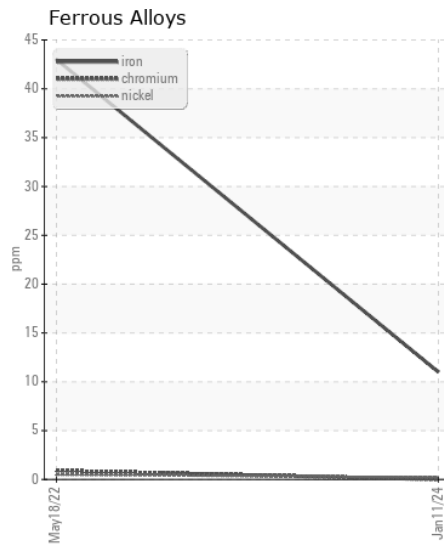
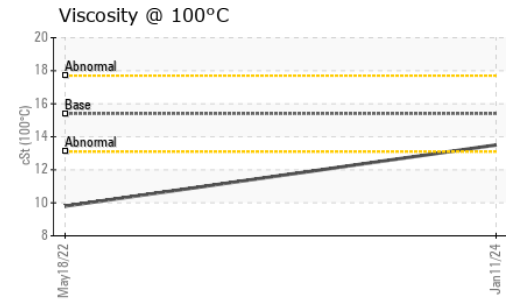
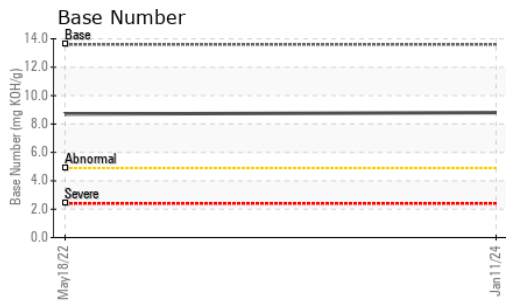
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	<b>7</b>	11	---
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	2	---
Fuel		WC Method	>2.1	<b>&lt;1.0</b>	0.2	---
Water		WC Method	>0.21	<b>NEG</b>	NEG	---
Glycol		WC Method		<b>NEG</b>	NEG	---
Soot %	%	*ASTM D7844	>3	<b>0.1</b>	0.2	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.7</b>	10.2	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.8</b>	24.8	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.21	<b>NEG</b>	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>	6	---
Boron	ppm	ASTM D5185m		<b>233</b>	198	---
Barium	ppm	ASTM D5185m		<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m		<b>250</b>	254	---
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	5	---
Magnesium	ppm	ASTM D5185m		<b>833</b>	939	---
Calcium	ppm	ASTM D5185m		<b>1380</b>	1552	---
Phosphorus	ppm	ASTM D5185m		<b>967</b>	826	---
Zinc	ppm	ASTM D5185m		<b>1125</b>	991	---
Sulfur	ppm	ASTM D5185m		<b>3064</b>	2552	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.2</b>	20.9	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>8.8</b>	8.7	---
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.5</b>	▲ 9.8	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0196110 **Received** : 17 Jan 2024  
**Lab Number** : 06063287 **Diagnosed** : 18 Jan 2024  
**Unique Number** : 10834669 **Diagnostician** : Wes Davis  
**Test Package** : CONST ( Additional Tests: TBN )

**NPL CONSTRUCTION**  
 7611 COPPERMINE DR  
 MANASSAS, VA  
 US 20109-2668  
 Contact: BRANDON

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:  
F: