



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

Machine Id  
**JOHN DEERE 844L 1DW844LXVLF705479 - FILL PLUG**

Component  
**Diesel Engine**

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

### RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0179588</b>	JR0179312	JR0164712
Sample Date		Client Info		<b>19 Dec 2023</b>	27 Sep 2023	05 Jun 2023
Machine Age	hrs	Client Info		<b>9473</b>	8933	8437
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>MARGINAL</b>	ABNORMAL	SEVERE

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	<b>9</b>	11	8
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>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>31	<b>4</b>	5	1
Lead	ppm	ASTM D5185m	>26	<b>4</b>	3	3
Copper	ppm	ASTM D5185m	>26	<b>5</b>	5	4
Tin	ppm	ASTM D5185m	>4	<b>2</b>	1	<1
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.

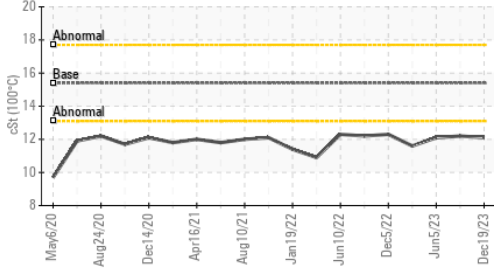
Silicon	ppm	ASTM D5185m	>22	<b>6</b>	7	7
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	2	1
Fuel	%	ASTM D3524	>8.0	<b>4.4</b>	5.0	4.9
Water		WC Method	>0.21	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.2</b>	0.3	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.2</b>	9.4	9.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>23.2</b>	22.7	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

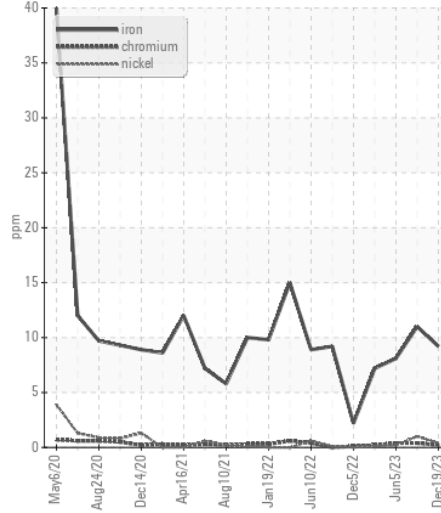
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil.

Sodium	ppm	ASTM D5185m	>31	<b>4</b>	4	6
Boron	ppm	ASTM D5185m		<b>153</b>	175	181
Barium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>253</b>	250	231
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>845</b>	772	835
Calcium	ppm	ASTM D5185m		<b>1419</b>	1315	1341
Phosphorus	ppm	ASTM D5185m		<b>888</b>	848	827
Zinc	ppm	ASTM D5185m		<b>1029</b>	1041	1034
Sulfur	ppm	ASTM D5185m		<b>3186</b>	3207	3617
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>18.2</b>	17.0	18.6
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>7.8</b>	8.1	7.6
Visc @ 100°C	cSt	ASTM D445	15.4	<b>12.1</b>	12.2	12.1

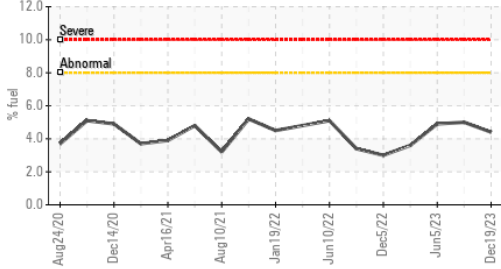
▲ Viscosity @ 100°C



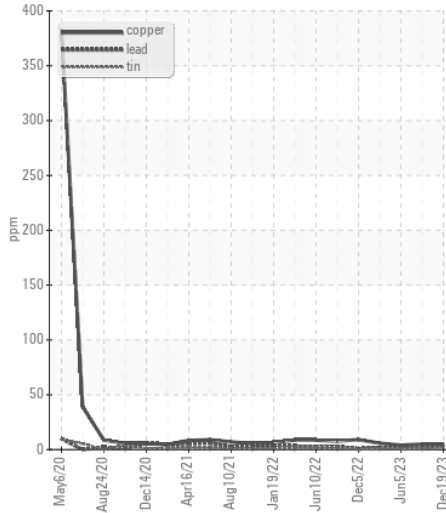
Ferrous Alloys



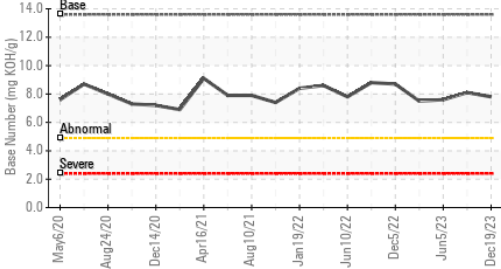
Fuel Dilution



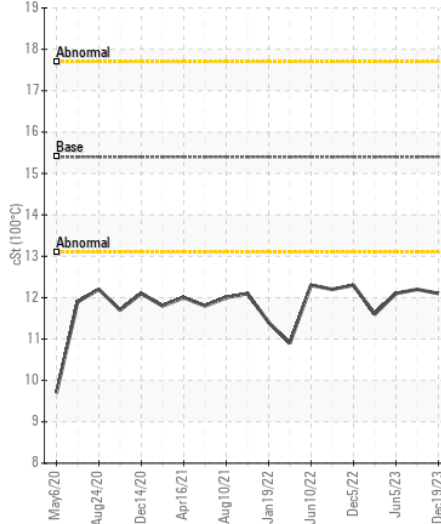
Non-ferrous Metals



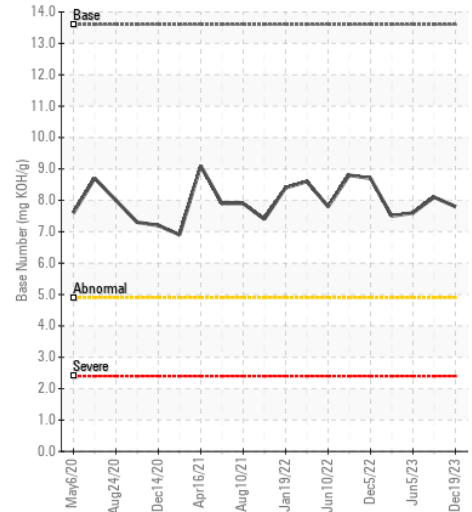
Base Number



▲ Viscosity @ 100°C



Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0179588 **Received** : 29 Dec 2023  
**Lab Number** : 06047654 **Diagnosed** : 08 Jan 2024  
**Unique Number** : 10808262 **Diagnostician** : Doug Bogart  
**Test Package** : CONST ( Additional Tests: FUELDILUTION, PercentFuel, TBN )

**JRE - ASHLAND**  
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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)