



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

Area  
**[W52513 MULCH UNL]**

Machine Id  
**JOHN DEERE 180G 1FF180GXCHF020757**

Component  
**Diesel Engine**

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

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0212044</b>	JR0164563	JR0146868
Sample Date		Client Info		<b>13 Jun 2024</b>	10 May 2023	05 Jan 2023
Machine Age	hrs	Client Info		<b>6433</b>	5960	5700
Oil Age	hrs	Client Info		<b>0</b>	0	791
Filter Age	hrs	Client Info		<b>0</b>	0	791
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>49</b>	17	▲ 56
Chromium	ppm	ASTM D5185m	>11	<b>1</b>	0	1
Nickel	ppm	ASTM D5185m	>5	<b>2</b>	0	1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>31	<b>5</b>	5	6
Lead	ppm	ASTM D5185m	>26	<b>6</b>	5	▲ 49
Copper	ppm	ASTM D5185m	>26	<b>5</b>	1	7
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

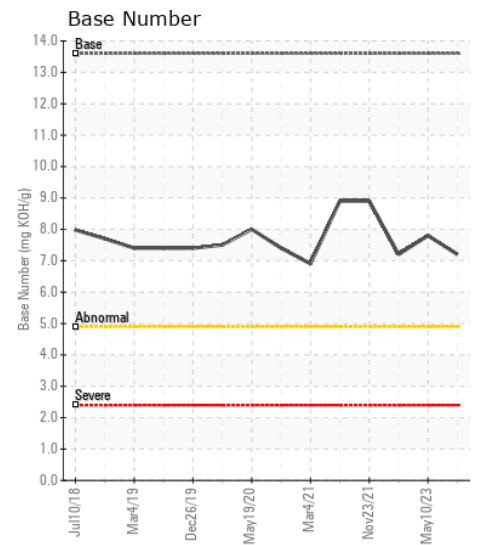
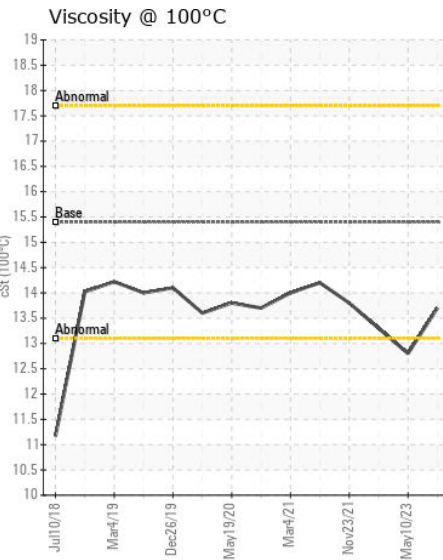
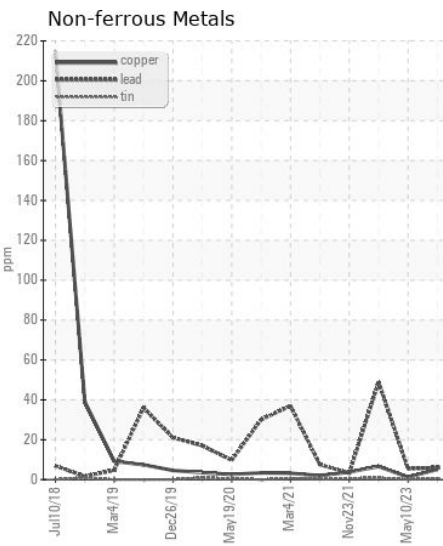
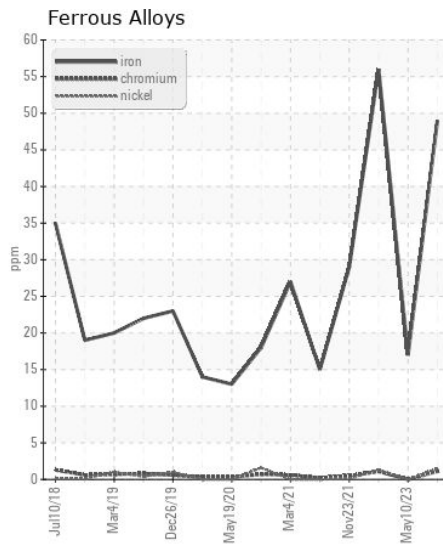
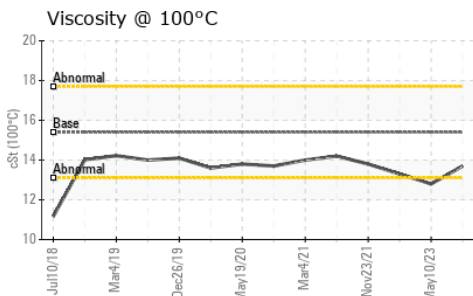
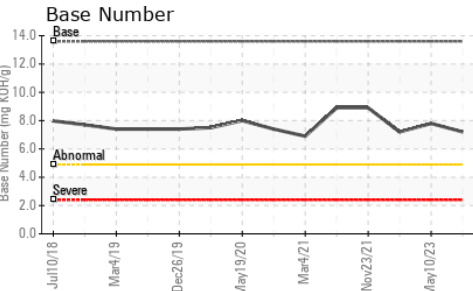
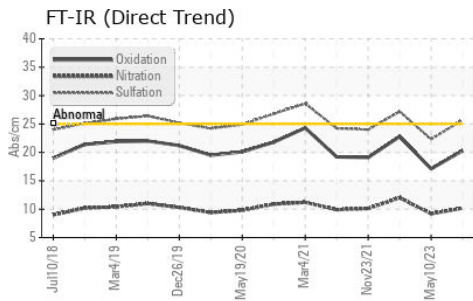
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	<b>11</b>	7	11
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	1	0
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>0.5</b>	0.3	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.2</b>	9.2	12.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>25.7</b>	22.3	27.2
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>4</b>	3	7
Boron	ppm	ASTM D5185m		<b>92</b>	184	24
Barium	ppm	ASTM D5185m		<b>2</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>268</b>	240	245
Manganese	ppm	ASTM D5185m		<b>1</b>	0	1
Magnesium	ppm	ASTM D5185m		<b>812</b>	843	771
Calcium	ppm	ASTM D5185m		<b>1474</b>	1521	1502
Phosphorus	ppm	ASTM D5185m		<b>865</b>	926	808
Zinc	ppm	ASTM D5185m		<b>1076</b>	1130	1025
Sulfur	ppm	ASTM D5185m		<b>3121</b>	3607	3126
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>20.3</b>	17.1	22.8
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>7.2</b>	7.8	7.2
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.7</b>	12.8	13.3



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0212044  
**Lab Number** : 06213075  
**Unique Number** : 11085939  
**Test Package** : CONST ( Additional Tests: TBN )

**Received** : 18 Jun 2024  
**Tested** : 19 Jun 2024  
**Diagnosed** : 20 Jun 2024 - Don Baldrige

**JRE - ASHLAND**  
 11047 LEADBETTER RD  
 ASHLAND, VA  
 US 23005

Contact: DAVID ZIEG  
 dzieg@jamesriverequipment.com

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: (804)798-6001  
 F: (804)798-0292