



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

Area

[A.C. KING]

Machine Id

JOHN DEERE 180G 1FF180GXCHF020760

Component

Diesel Engine

Fluid

JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (5 GAL)

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0217212</b>	JR0206835	JR0046554
Sample Date		Client Info		<b>19 Jun 2024</b>	28 Mar 2024	20 Apr 2020
Machine Age	hrs	Client Info		<b>4803</b>	4624	2423
Oil Age	hrs	Client Info		<b>0</b>	400	0
Filter Age	hrs	Client Info		<b>0</b>	400	0
Oil Changed		Client Info		<b>Not Chngd</b>	Not Chngd	Changed
Filter Changed		Client Info		<b>Not Chngd</b>	N/A	Changed
Sample Status				<b>NORMAL</b>	ABNORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	<b>19</b>	▲ 88	12
Chromium	ppm	ASTM D5185m	>11	<b>&lt;1</b>	2	<1
Nickel	ppm	ASTM D5185m	>5	<b>1</b>	3	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>31	<b>5</b>	11	5
Lead	ppm	ASTM D5185m	>26	<b>2</b>	▲ 39	1
Copper	ppm	ASTM D5185m	>26	<b>2</b>	11	5
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	1	0
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

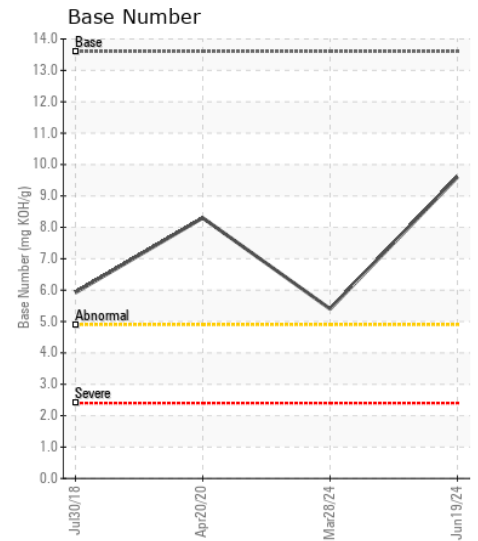
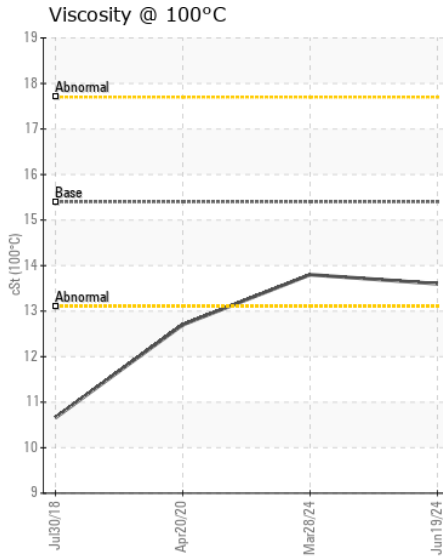
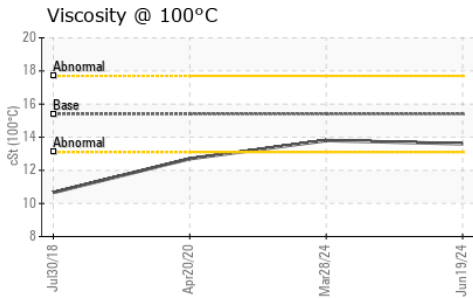
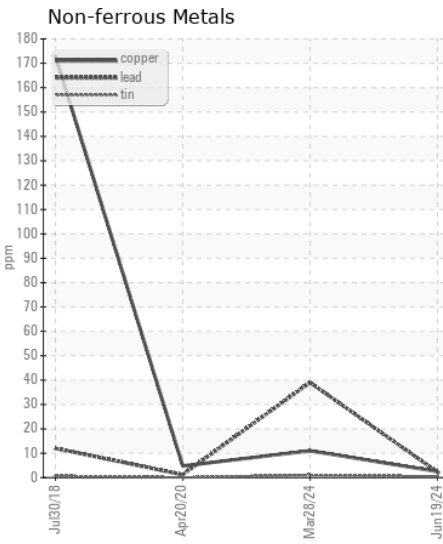
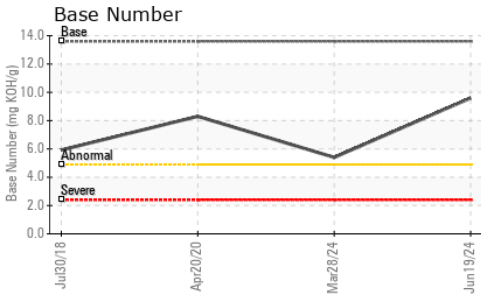
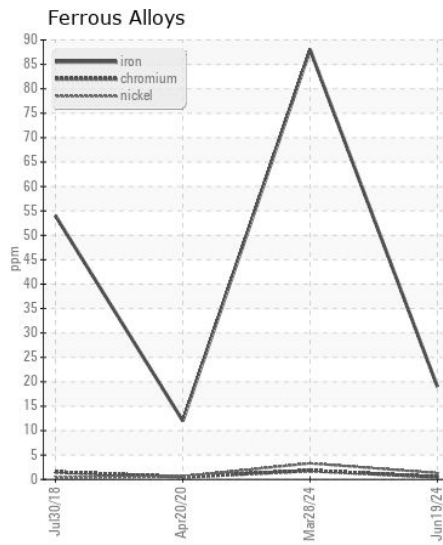
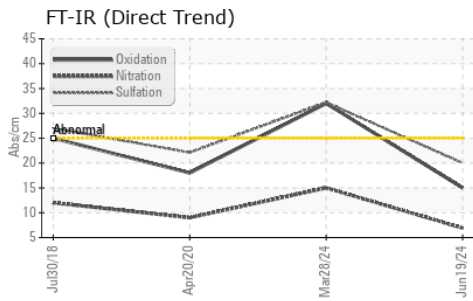
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	<b>8</b>	12	9
Potassium	ppm	ASTM D5185m	>20	<b>3</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>	1	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.9</b>	15.0	9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.0</b>	32.2	22.1
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>	6	2
Boron	ppm	ASTM D5185m		<b>307</b>	24	193
Barium	ppm	ASTM D5185m		<b>1</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>260</b>	246	235
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	1	<1
Magnesium	ppm	ASTM D5185m		<b>810</b>	826	922
Calcium	ppm	ASTM D5185m		<b>1417</b>	1462	1582
Phosphorus	ppm	ASTM D5185m		<b>908</b>	875	908
Zinc	ppm	ASTM D5185m		<b>1028</b>	1118	1074
Sulfur	ppm	ASTM D5185m		<b>3038</b>	3229	2540
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.0</b>	32.0	18
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>9.6</b>	5.4	8.3
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.6</b>	13.8	12.7



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0217212 **Received** : 20 Jun 2024  
**Lab Number** : 06215459 **Tested** : 21 Jun 2024  
**Unique Number** : 11088323 **Diagnosed** : 21 Jun 2024 - Wes Davis  
**Test Package** : CONST ( Additional Tests: TBN )

**JRE - CASTLE HAYNE**  
 113 CROWATAN ROAD  
 CASTLE HAYNE, NC  
 US 28429-5819

Contact: WILMINGTON SHOP

To discuss this sample report, contact Customer Service at 1-800-237-1369.

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\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

T: (910)675-9211

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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