



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



Area  
**[W44886]**  
 Machine Id  
**JOHN DEERE 650K 1T0650KKPJF344840**  
 Component  
**Diesel Engine**  
 Fluid  
**DIESEL ENGINE OIL SAE 40 (--- GAL)**

### RECOMMENDATION

No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0119389</b>	JR0080074	JR0072610
Sample Date		Client Info		<b>13 Mar 2022</b>	03 Jun 2021	02 Feb 2021
Machine Age	hrs	Client Info		<b>2335</b>	1468	0
Oil Age	hrs	Client Info		<b>500</b>	500	500
Filter Age	hrs	Client Info		<b>500</b>	500	500
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>ABNORMAL</b>	NORMAL	NORMAL

### WEAR

The lead level is abnormal. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	<b>47</b>	18	32
Chromium	ppm	ASTM D5185m	>11	<b>2</b>	<1	2
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m		<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>31	<b>8</b>	2	9
Lead	ppm	ASTM D5185m	>26	<b>▲ 137</b>	8	15
Copper	ppm	ASTM D5185m	>26	<b>7</b>	5	18
Tin	ppm	ASTM D5185m	>4	<b>4</b>	1	1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

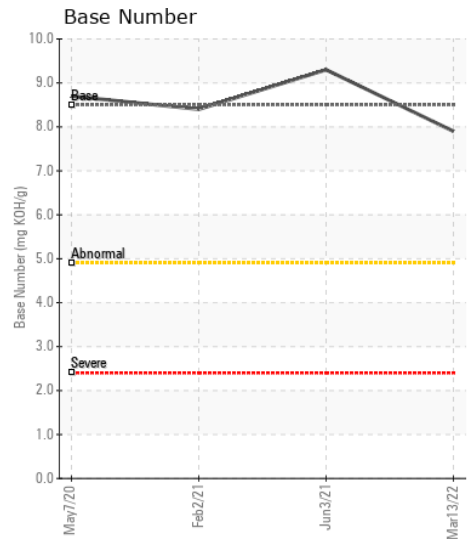
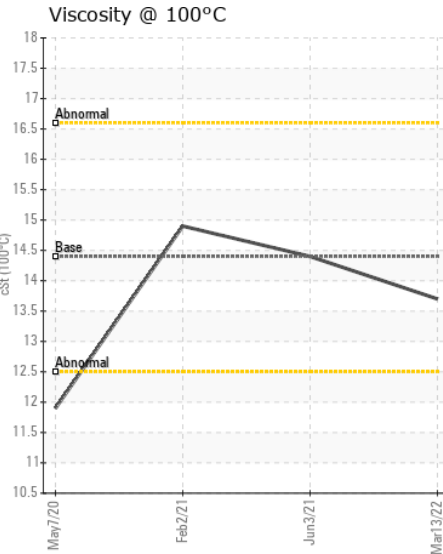
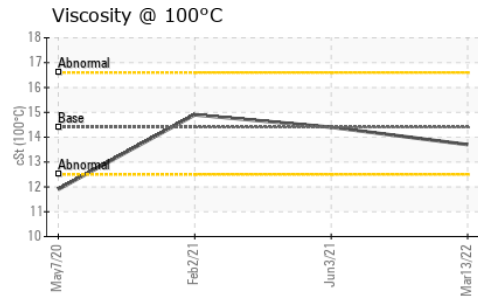
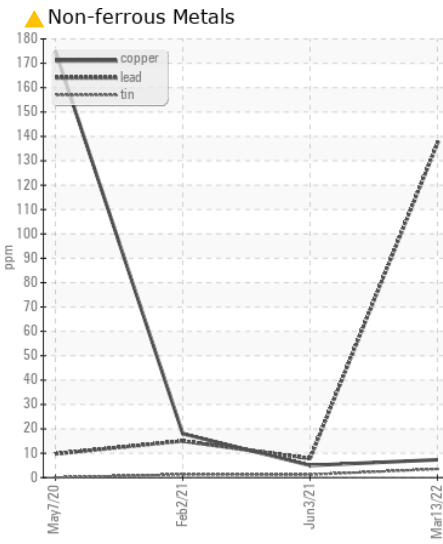
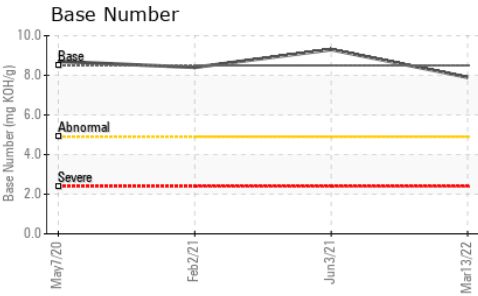
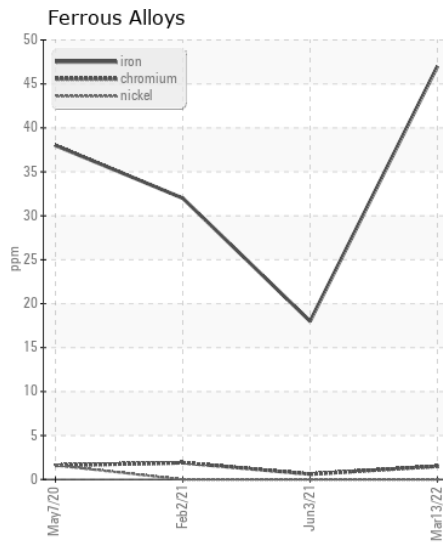
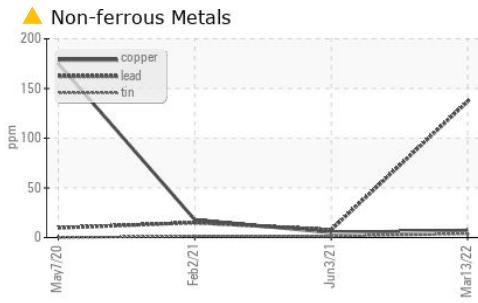
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	<b>12</b>	6	8
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	2	11
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>1.2</b>	0.5	0.9
Nitration	Abs/cm	*ASTM D7624	>20	<b>14.1</b>	10.1	11.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>33.9</b>	25	27.5
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	>216	<b>0</b>	3	4
Boron	ppm	ASTM D5185m	250	<b>48</b>	204	93
Barium	ppm	ASTM D5185m	10	<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185m	100	<b>266</b>	254	196
Manganese	ppm	ASTM D5185m		<b>2</b>	<1	1
Magnesium	ppm	ASTM D5185m	450	<b>897</b>	808	715
Calcium	ppm	ASTM D5185m	3000	<b>1642</b>	1515	1870
Phosphorus	ppm	ASTM D5185m	1150	<b>919</b>	910	1046
Zinc	ppm	ASTM D5185m	1350	<b>1125</b>	1045	1211
Sulfur	ppm	ASTM D5185m	4250	<b>2577</b>	2438	2587
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>30.1</b>	19.4	21.9
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>7.9</b>	9.3	8.4
Visc @ 100°C	cSt	ASTM D445	14.4	<b>13.7</b>	14.4	14.9



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0119389 **Received** : 14 Mar 2022  
**Lab Number** : 05490880 **Tested** : 16 Mar 2022  
**Unique Number** : 9890100 **Diagnosed** : 16 Mar 2022 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: TBN )

**JRE - CHARLOTTE**  
 9550 STATESVILLE ROAD  
 CHARLOTTE, NC  
 US 28269

Contact: CHARLOTTE SHOP  
 myoung@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)

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