



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



Machine Id  
**JOHN DEERE 650K 1T0650KKKKF365707**  
 Component  
**Diesel Engine**  
 Fluid  
**DIESEL ENGINE OIL SAE 15W40 (16 QTS)**

### RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0214067</b>	JR0200647	JR0186672
Sample Date		Client Info		<b>14 Jul 2024</b>	06 Feb 2024	09 Sep 2023
Machine Age	hrs	Client Info		<b>4807</b>	4230	3708
Oil Age	hrs	Client Info		<b>577</b>	522	379
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>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	<b>29</b>	16	12
Chromium	ppm	ASTM D5185m	>11	<b>1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>31	<b>5</b>	5	10
Lead	ppm	ASTM D5185m	>26	<b>18</b>	5	2
Copper	ppm	ASTM D5185m	>26	<b>2</b>	<1	<1
Tin	ppm	ASTM D5185m	>4	<b>0</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.

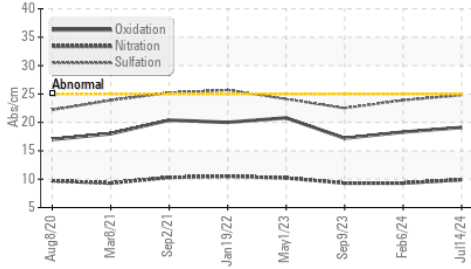
Silicon	ppm	ASTM D5185m	>22	<b>10</b>	7	7
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	0	0
Fuel		WC Method	>2.1	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.21	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.6</b>	0.5	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.9</b>	9.3	9.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>24.8</b>	23.9	22.5
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

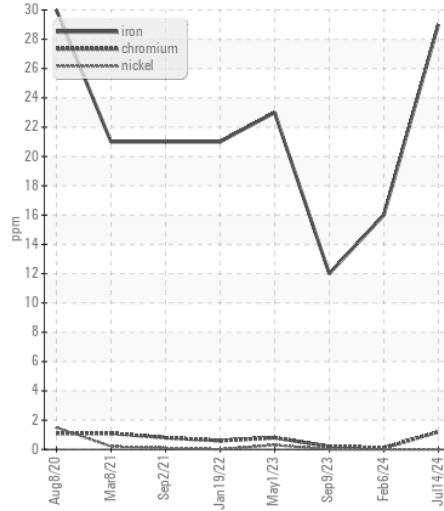
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>158	<b>3</b>	1	1
Boron	ppm	ASTM D5185m	250	<b>147</b>	192	234
Barium	ppm	ASTM D5185m	10	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m	100	<b>235</b>	247	237
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	450	<b>825</b>	799	805
Calcium	ppm	ASTM D5185m	3000	<b>1820</b>	1373	1353
Phosphorus	ppm	ASTM D5185m	1150	<b>966</b>	916	804
Zinc	ppm	ASTM D5185m	1350	<b>1170</b>	1095	962
Sulfur	ppm	ASTM D5185m	4250	<b>3709</b>	2923	3063
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>19.1</b>	18.3	17.2
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>8.2</b>	7.5	8.9
Visc @ 100°C	cSt	ASTM D445	14.4	<b>13.3</b>	13.8	14.1

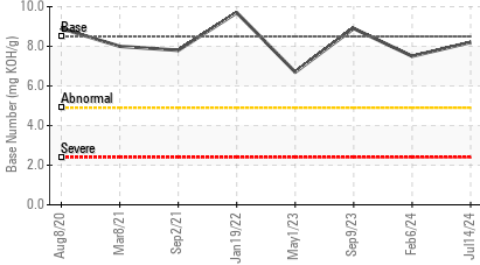
**FT-IR (Direct Trend)**



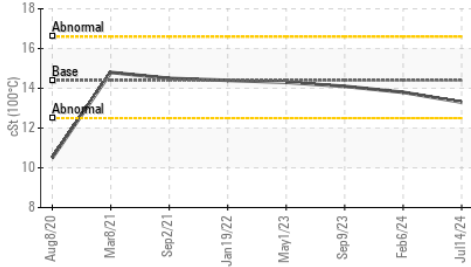
**Ferrous Alloys**



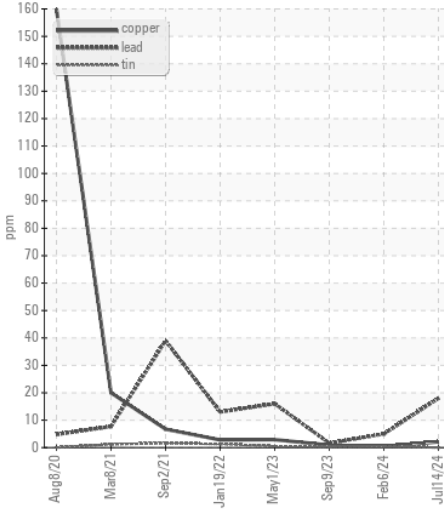
**Base Number**



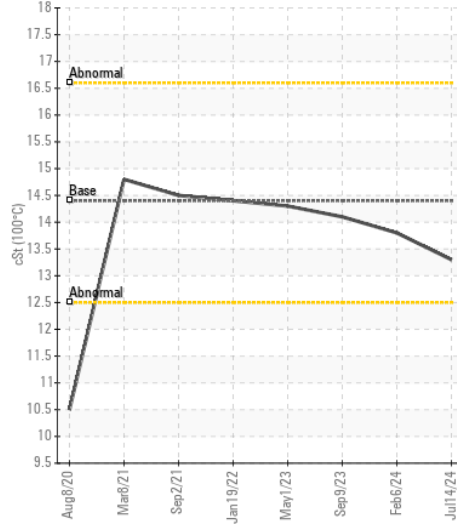
**Viscosity @ 100°C**



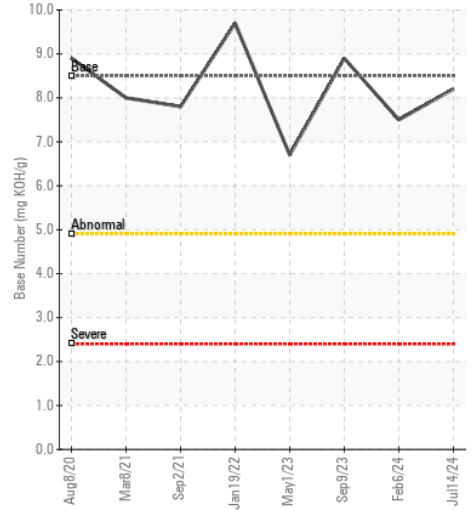
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513

**Sample No.** : JR0214067

**Lab Number** : 06237539

**Unique Number** : 11126373

**Test Package** : CONST ( Additional Tests: TBN )

**Received** : 16 Jul 2024

**Tested** : 17 Jul 2024

**Diagnosed** : 17 Jul 2024 - Wes Davis

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)

**JRE - GREENVILLE**

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