



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
[W13957]
 Machine Id
JOHN DEERE 650K-II 1T0650KKCNF430135
 Component
Diesel Engine
 Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. (Customer Sample Comment: W13957)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0173687	JR0161048	---
Sample Date		Client Info		18 May 2023	06 Mar 2023	---
Machine Age	hrs	Client Info		1027	719	---
Oil Age	hrs	Client Info		308	719	---
Filter Age	hrs	Client Info		308	719	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				NORMAL	ABNORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	18	54	---
Chromium	ppm	ASTM D5185m	>11	<1	2	---
Nickel	ppm	ASTM D5185m	>5	<1	0	---
Titanium	ppm	ASTM D5185m		<1	0	---
Silver	ppm	ASTM D5185m	>3	0	<1	---
Aluminum	ppm	ASTM D5185m	>31	2	8	---
Lead	ppm	ASTM D5185m	>26	4	27	---
Copper	ppm	ASTM D5185m	>26	12	▲ 110	---
Tin	ppm	ASTM D5185m	>4	<1	2	---
Vanadium	ppm	ASTM D5185m		0	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

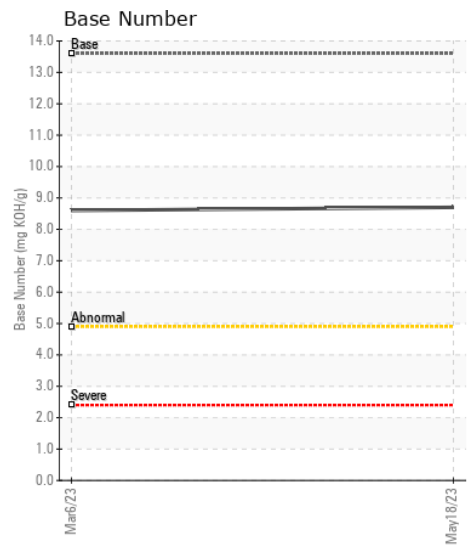
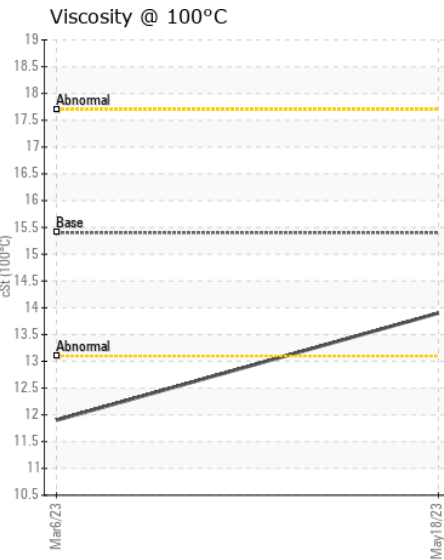
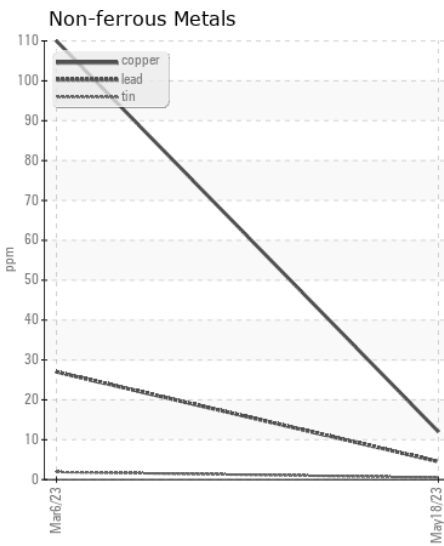
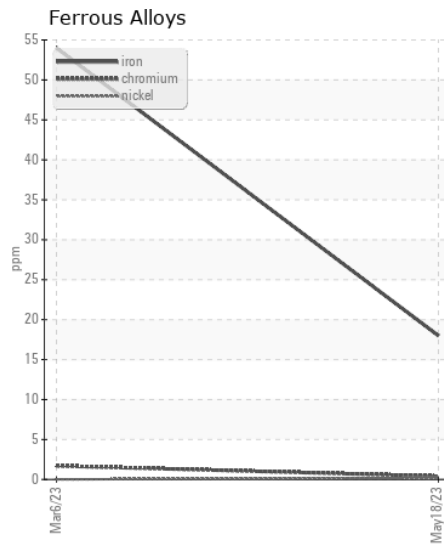
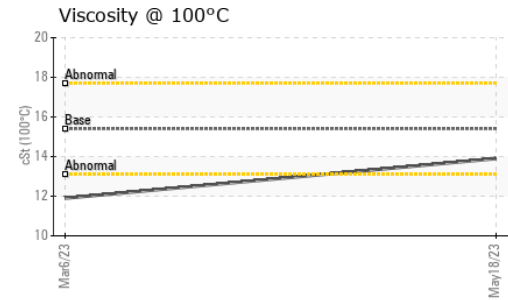
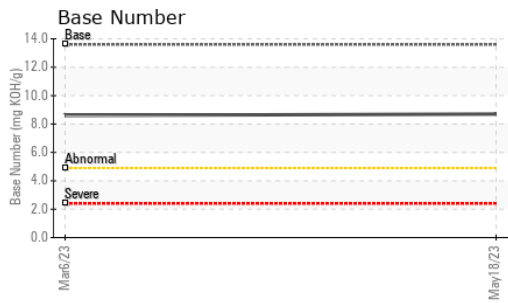
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	10	12	---
Potassium	ppm	ASTM D5185m	>20	2	<1	---
Fuel		WC Method	>2.1	<1.0	0.4	---
Water		WC Method	>0.21	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.4	0.6	---
Nitration	Abs/cm	*ASTM D7624	>20	9.0	10.8	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.9	26.6	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.21	NEG	NEG	---

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m	>31	2	5	---
Boron	ppm	ASTM D5185m		229	106	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		262	275	---
Manganese	ppm	ASTM D5185m		<1	4	---
Magnesium	ppm	ASTM D5185m		877	891	---
Calcium	ppm	ASTM D5185m		1606	1556	---
Phosphorus	ppm	ASTM D5185m		897	826	---
Zinc	ppm	ASTM D5185m		1158	1115	---
Sulfur	ppm	ASTM D5185m		3504	3046	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.6	21.9	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	8.7	8.6	---
Visc @ 100°C	cSt	ASTM D445	15.4	13.9	▲ 11.9	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0173687 **Received** : 23 May 2023
Lab Number : 05854227 **Diagnosed** : 24 May 2023
Unique Number : 10483582 **Diagnostician** : Sean Felton
Test Package : CONST (Additional Tests: TBN)

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 - CASTLE HAYNE
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