



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
HAMM H12i H2352440
 Component
Diesel Engine
 Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0212883	JR0175674	---
Sample Date		Client Info		10 May 2024	28 Jun 2023	---
Machine Age	hrs	Client Info		512	358	---
Oil Age	hrs	Client Info		154	358	---
Filter Age	hrs	Client Info		0	358	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	4	11	---
Chromium	ppm	ASTM D5185m	>20	<1	<1	---
Nickel	ppm	ASTM D5185m	>4	0	0	---
Titanium	ppm	ASTM D5185m		0	<1	---
Silver	ppm	ASTM D5185m	>3	0	0	---
Aluminum	ppm	ASTM D5185m	>20	3	2	---
Lead	ppm	ASTM D5185m	>40	1	<1	---
Copper	ppm	ASTM D5185m	>330	0	2	---
Tin	ppm	ASTM D5185m	>15	0	<1	---
Vanadium	ppm	ASTM D5185m		0	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

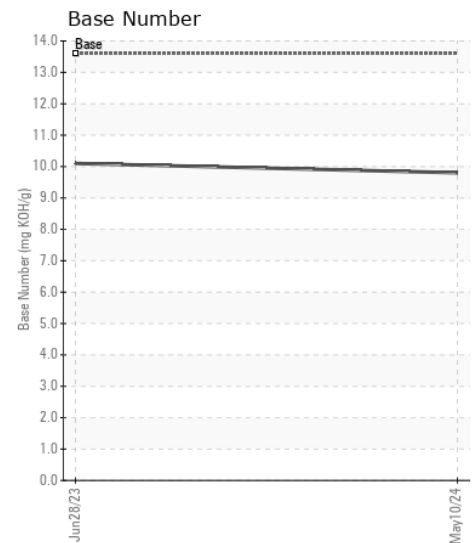
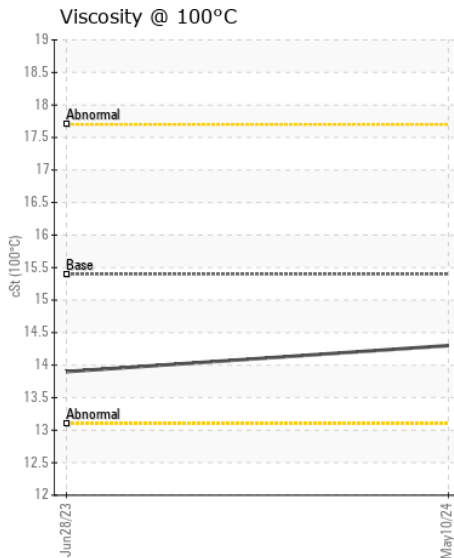
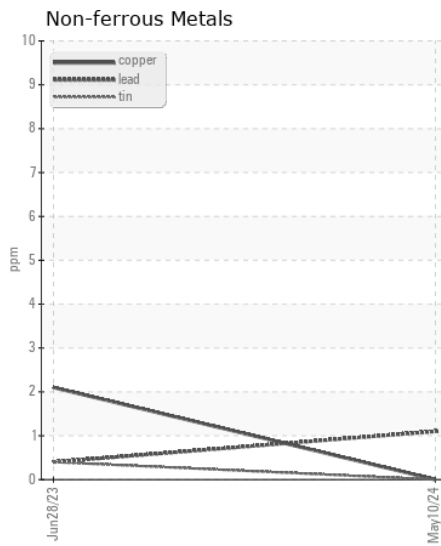
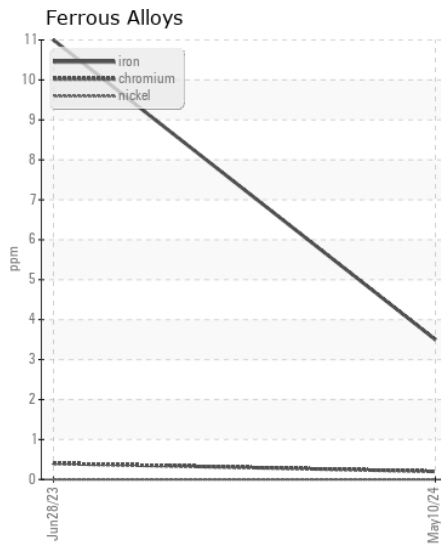
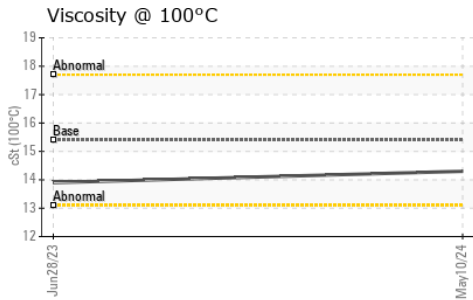
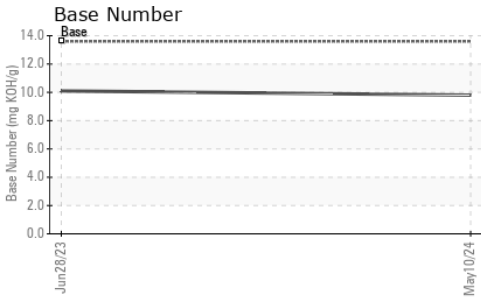
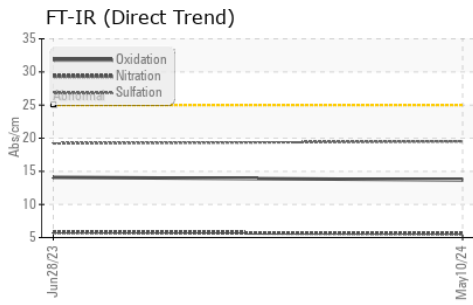
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	7	10	---
Potassium	ppm	ASTM D5185m	>20	<1	2	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0	0.1	---
Nitration	Abs/cm	*ASTM D7624	>20	5.6	5.8	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.5	19.2	---
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	>0.2	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		0	<1	---
Boron	ppm	ASTM D5185m		286	250	---
Barium	ppm	ASTM D5185m		<1	0	---
Molybdenum	ppm	ASTM D5185m		251	210	---
Manganese	ppm	ASTM D5185m		<1	1	---
Magnesium	ppm	ASTM D5185m		873	818	---
Calcium	ppm	ASTM D5185m		1507	1574	---
Phosphorus	ppm	ASTM D5185m		966	976	---
Zinc	ppm	ASTM D5185m		1182	1195	---
Sulfur	ppm	ASTM D5185m		3858	4180	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.7	14.1	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	9.8	10.1	---
Visc @ 100°C	cSt	ASTM D445	15.4	14.3	13.9	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0212883 **Received** : 13 May 2024
Lab Number : 06177013 **Tested** : 14 May 2024
Unique Number : 11023066 **Diagnosed** : 14 May 2024 - Don Baldrige
Test Package : CONST (Additional Tests: TBN)

JRE - GARNER
 4161 AUBURN CHURCH RD
 GARNER, NC
 US 27529

Contact: RALEIGH SHOP
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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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