



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 160G 1FF160GXKNF058603
 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		JR0218967	JR0193033	---
Sample Date		Client Info		07 Jul 2024	28 Nov 2023	---
Machine Age	hrs	Client Info		965	481	---
Oil Age	hrs	Client Info		484	481	---
Filter Age	hrs	Client Info		484	481	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				NORMAL	ABNORMAL	---

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>51	24	29	---
Chromium	ppm	ASTM D5185m	>11	1	<1	---
Nickel	ppm	ASTM D5185m	>5	<1	0	---
Titanium	ppm	ASTM D5185m		1	<1	---
Silver	ppm	ASTM D5185m	>3	<1	0	---
Aluminum	ppm	ASTM D5185m	>31	7	11	---
Lead	ppm	ASTM D5185m	>26	8	10	---
Copper	ppm	ASTM D5185m	>26	21	▲ 128	---
Tin	ppm	ASTM D5185m	>4	1	2	---
Vanadium	ppm	ASTM D5185m		<1	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

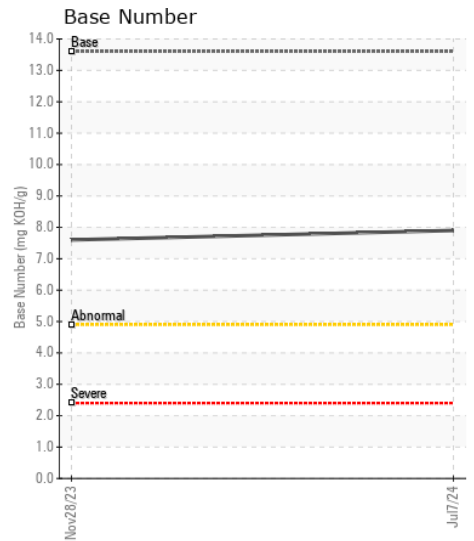
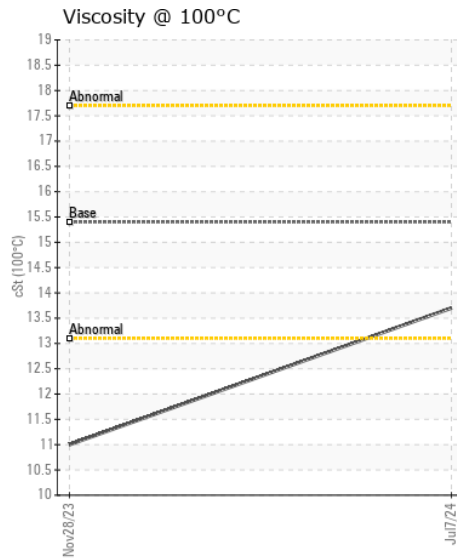
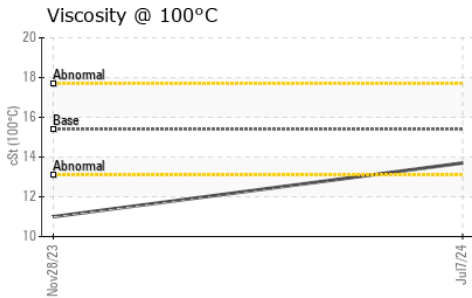
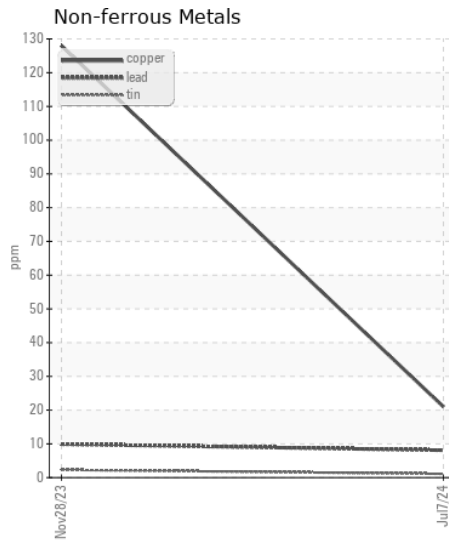
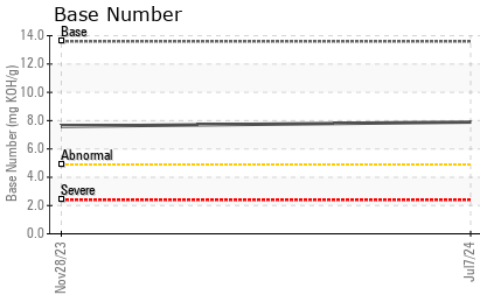
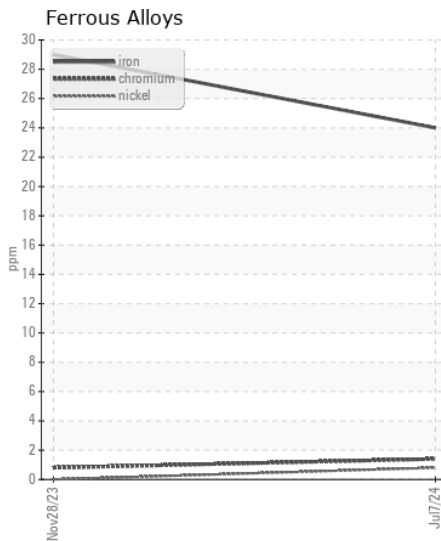
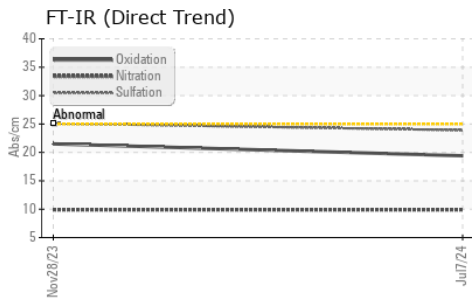
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	10	12	---
Potassium	ppm	ASTM D5185m	>20	3	<1	---
Fuel		WC Method	>2.1	<1.0	0.5	---
Water		WC Method	>0.21	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.4	0.3	---
Nitration	Abs/cm	*ASTM D7624	>20	9.9	9.9	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.9	25.1	---
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 suitable for further service.

Sodium	ppm	ASTM D5185m	>31	5	8	---
Boron	ppm	ASTM D5185m		113	140	---
Barium	ppm	ASTM D5185m		0	2	---
Molybdenum	ppm	ASTM D5185m		231	248	---
Manganese	ppm	ASTM D5185m		2	4	---
Magnesium	ppm	ASTM D5185m		851	827	---
Calcium	ppm	ASTM D5185m		1600	1565	---
Phosphorus	ppm	ASTM D5185m		948	833	---
Zinc	ppm	ASTM D5185m		1234	1025	---
Sulfur	ppm	ASTM D5185m		3028	2533	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.4	21.5	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	7.9	7.6	---
Visc @ 100°C	cSt	ASTM D445	15.4	13.7	11.0	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0218967 **Received** : 08 Jul 2024
Lab Number : 06229676 **Tested** : 09 Jul 2024
Unique Number : 11113169 **Diagnosed** : 09 Jul 2024 - Wes Davis
Test Package : CONST (Additional Tests: TBN)

JRE - ASHEVILLE
 101 BRUCE DRIVE
 ASHEVILLE, NC
 US 28806

Contact: Randy Warren
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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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