



WEAR	SEVERE
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 470G 1FF470GXTJF235345
 Component
Diesel Engine
 Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)

RECOMMENDATION

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		JR0098021	JR0130149	---
Sample Date		Client Info		23 Sep 2022	26 May 2022	---
Machine Age	hrs	Client Info		2007	1497	---
Oil Age	hrs	Client Info		510	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				SEVERE	ABNORMAL	---

WEAR

Bearing and/or bushing wear is indicated. Cylinder, crank, or cam shaft wear is indicated.

Iron	ppm	ASTM D5185m	>51	▲ 55	31	---
Chromium	ppm	ASTM D5185m	>11	<1	<1	---
Nickel	ppm	ASTM D5185m	>5	0	<1	---
Titanium	ppm	ASTM D5185m		31	27	---
Silver	ppm	ASTM D5185m		0	<1	---
Aluminum	ppm	ASTM D5185m	>31	5	3	---
Lead	ppm	ASTM D5185m	>26	▲ 256	▲ 58	---
Copper	ppm	ASTM D5185m	>26	▲ 23	16	---
Tin	ppm	ASTM D5185m	>4	▲ 4	3	---
Vanadium	ppm	ASTM D5185m		<1	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

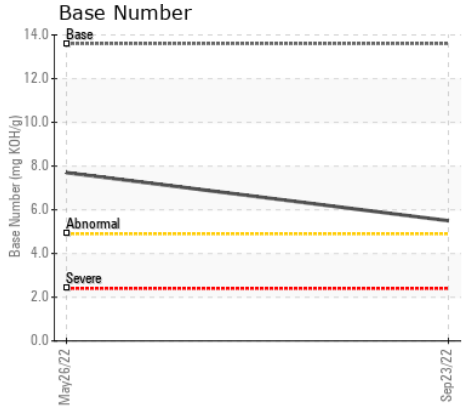
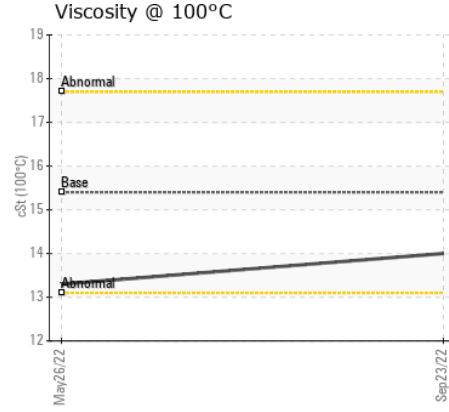
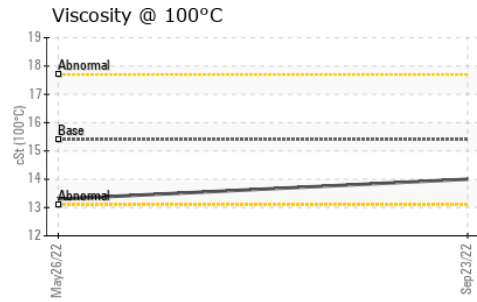
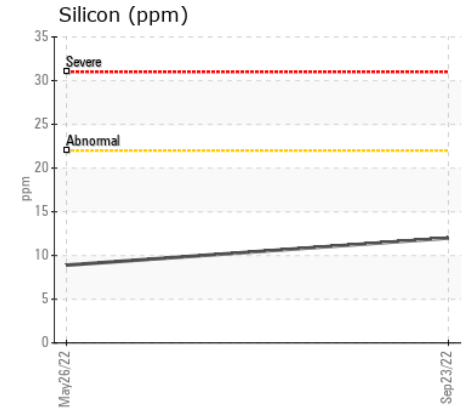
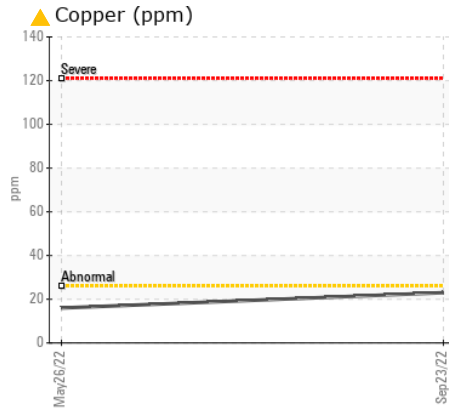
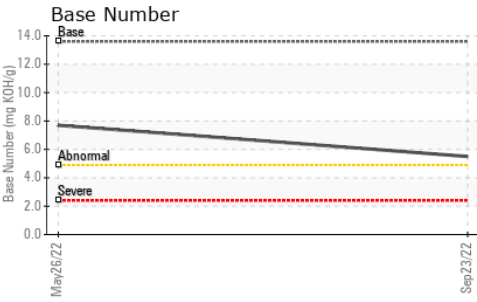
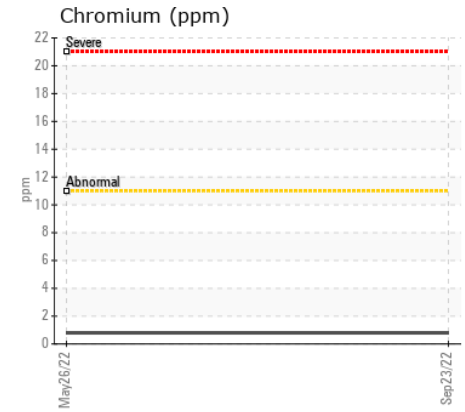
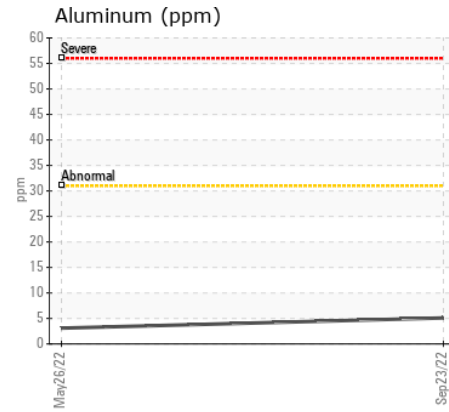
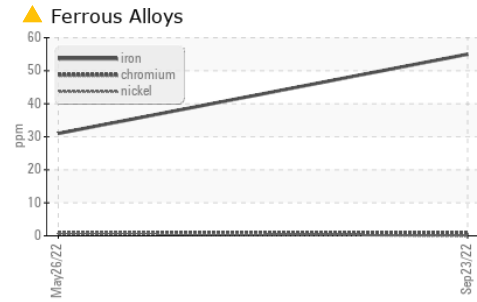
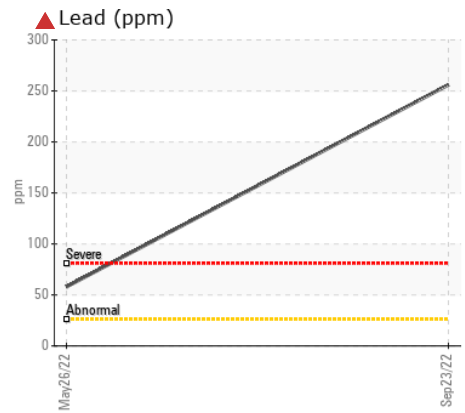
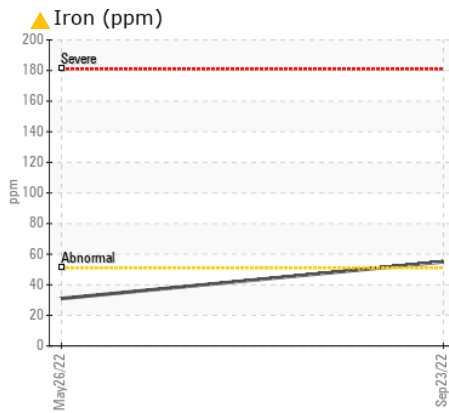
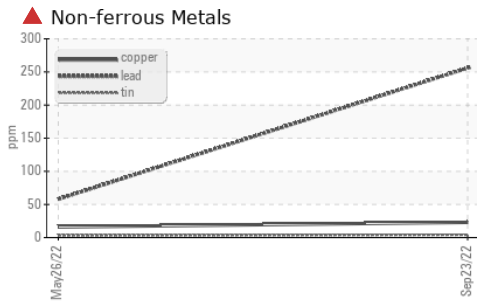
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	12	9	---
Potassium	ppm	ASTM D5185m	>20	9	4	---
Fuel		WC Method	>2.1	<1.0	<1.0	---
Water		WC Method	>0.21	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.4	0.5	---
Nitration	Abs/cm	*ASTM D7624	>20	16.3	15.1	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	37.5	32.4	---
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 oils additive package is suitable for further service.

Sodium	ppm	ASTM D5185m	>31	5	9	---
Boron	ppm	ASTM D5185m		52	67	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		195	178	---
Manganese	ppm	ASTM D5185m		1	<1	---
Magnesium	ppm	ASTM D5185m		672	698	---
Calcium	ppm	ASTM D5185m		1676	1628	---
Phosphorus	ppm	ASTM D5185m		976	932	---
Zinc	ppm	ASTM D5185m		1190	1190	---
Sulfur	ppm	ASTM D5185m		3636	3596	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	42.0	32.0	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	5.5	7.7	---
Visc @ 100°C	cSt	ASTM D445	15.4	14.0	13.3	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0098021 **Received** : 26 Sep 2022
Lab Number : 05650096 **Tested** : 27 Sep 2022
Unique Number : 10149648 **Diagnosed** : 28 Sep 2022 - Doug Bogart
Test Package : MOBCE (Additional Tests: TBN)

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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)