



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
[W52517]

Machine Id
JOHN DEERE 310 P 1DW310PAJPF06878 1DW310PAJPF06878

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		JR0212031	JR0199741	---
Sample Date		Client Info		26 Jun 2024	09 Feb 2024	---
Machine Age	hrs	Client Info		991	499	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				NORMAL	ATTENTION	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	29	43	---
Chromium	ppm	ASTM D5185m	>11	<1	<1	---
Nickel	ppm	ASTM D5185m	>5	16	13	---
Titanium	ppm	ASTM D5185m		<1	<1	---
Silver	ppm	ASTM D5185m	>3	<1	0	---
Aluminum	ppm	ASTM D5185m	>31	7	5	---
Lead	ppm	ASTM D5185m	>26	<1	1	---
Copper	ppm	ASTM D5185m	>26	7	15	---
Tin	ppm	ASTM D5185m	>4	<1	<1	---
Vanadium	ppm	ASTM D5185m		<1	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

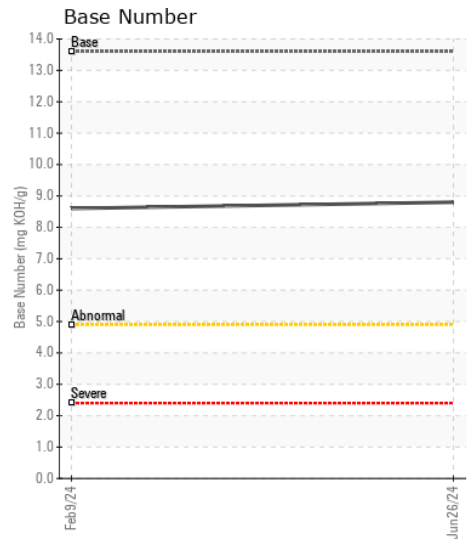
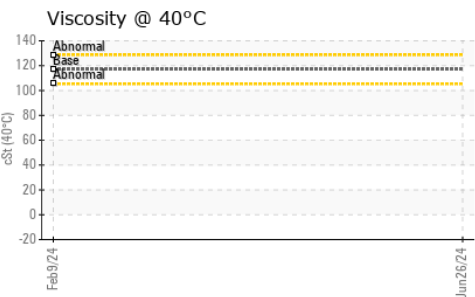
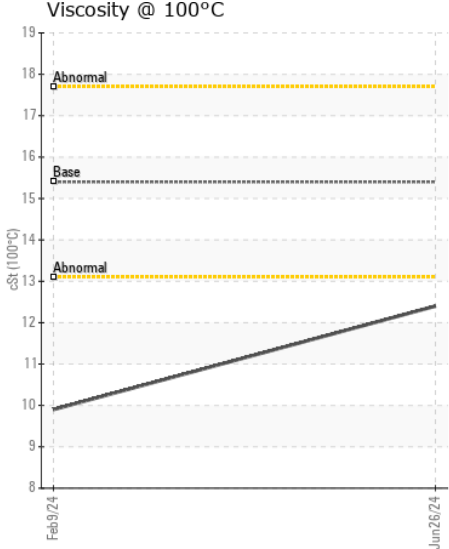
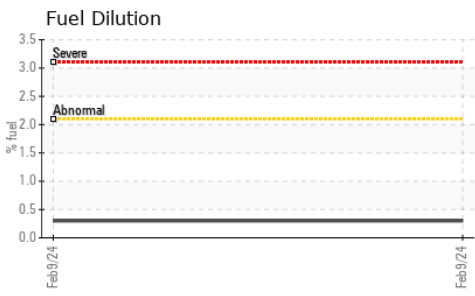
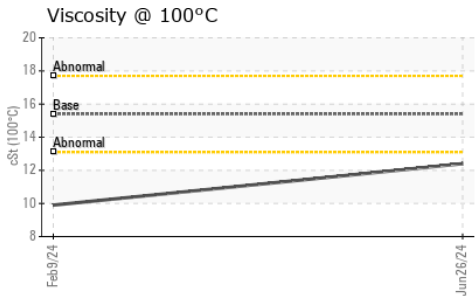
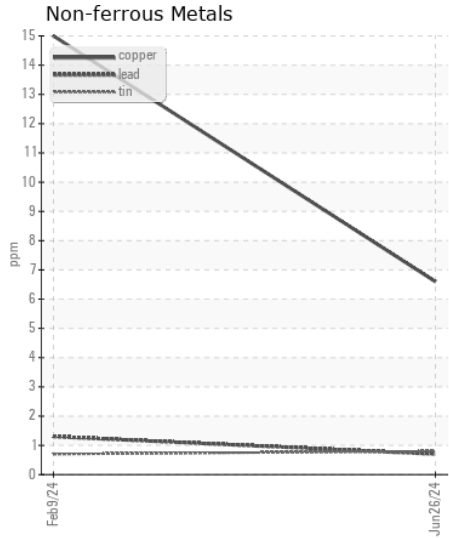
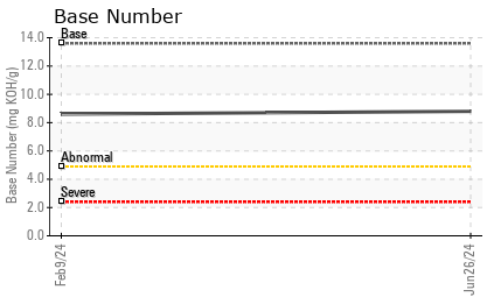
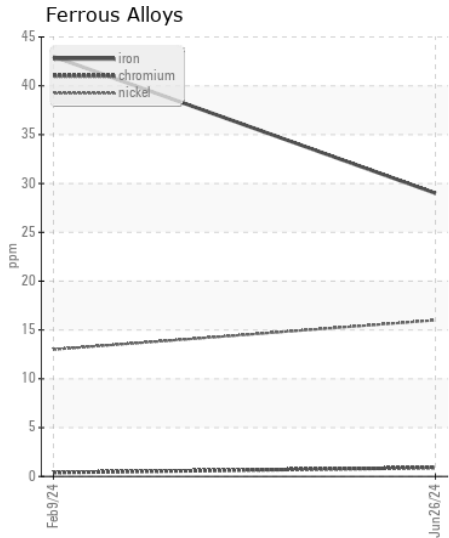
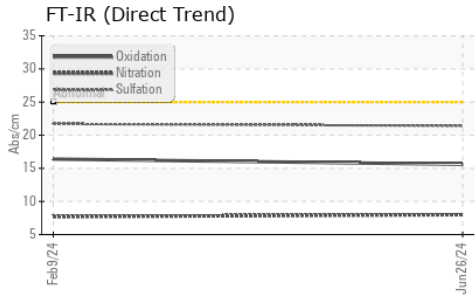
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	8	12	---
Potassium	ppm	ASTM D5185m	>20	6	11	---
Fuel	%	ASTM D3524	>2.1	<1.0	0.3	---
Water		WC Method	>0.21	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.3	0.2	---
Nitration	Abs/cm	*ASTM D7624	>20	8.0	7.7	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.4	21.7	---
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	1	3	---
Boron	ppm	ASTM D5185m		216	286	---
Barium	ppm	ASTM D5185m		2	0	---
Molybdenum	ppm	ASTM D5185m		258	286	---
Manganese	ppm	ASTM D5185m		1	1	---
Magnesium	ppm	ASTM D5185m		766	828	---
Calcium	ppm	ASTM D5185m		1423	1352	---
Phosphorus	ppm	ASTM D5185m		852	868	---
Zinc	ppm	ASTM D5185m		1045	1090	---
Sulfur	ppm	ASTM D5185m		2719	2846	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.6	16.4	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	8.8	8.6	---
Visc @ 100°C	cSt	ASTM D445	15.4	12.4	9.9	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0212031 **Received** : 02 Jul 2024
Lab Number : 06225843 **Tested** : 03 Jul 2024
Unique Number : 11109336 **Diagnosed** : 03 Jul 2024 - Jonathan Hester
Test Package : CONST (Additional Tests: FuelDilution, KV40, 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)