



OIL ANALYSIS REPORT

WEAR	MARGINAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 944X 03734
 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. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MT0006112	MT0005973	---
Sample Date		Client Info		17 May 2024	24 Jan 2024	---
Machine Age	hrs	Client Info		951	469	---
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				MARGINAL	ABNORMAL	---

WEAR

The copper level has decreased, but is still abnormal. All other metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>51	18	28	---
Chromium	ppm	ASTM D5185m	>11	0	<1	---
Nickel	ppm	ASTM D5185m	>5	<1	<1	---
Titanium	ppm	ASTM D5185m		0	<1	---
Silver	ppm	ASTM D5185m	>3	<1	0	---
Aluminum	ppm	ASTM D5185m	>31	8	7	---
Lead	ppm	ASTM D5185m	>26	24	44	---
Copper	ppm	ASTM D5185m	>26	▲ 170	▲ 430	---
Tin	ppm	ASTM D5185m	>4	4	8	---
Vanadium	ppm	ASTM D5185m		<1	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

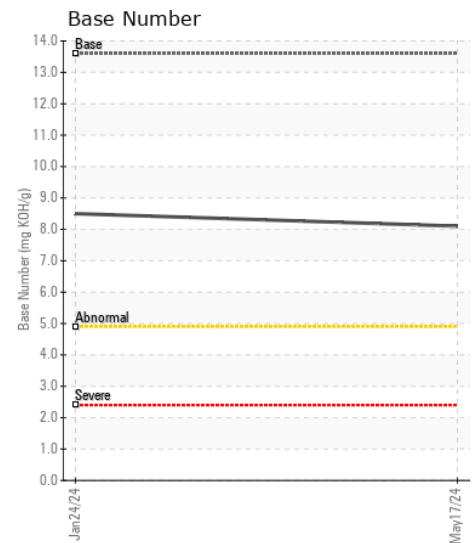
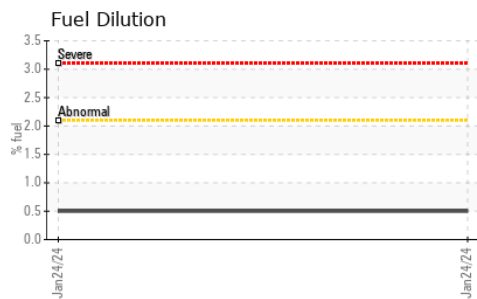
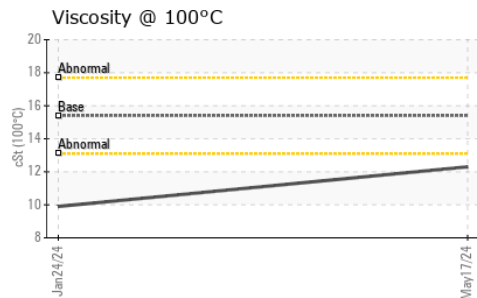
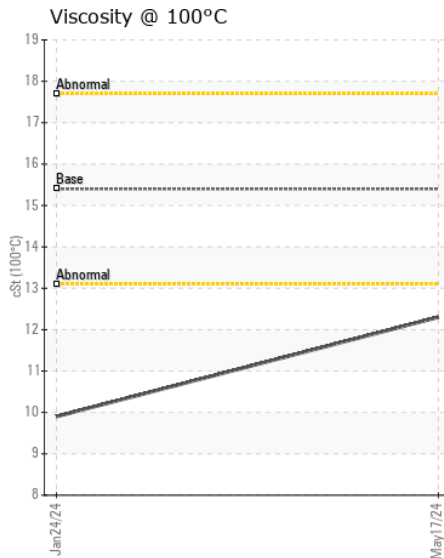
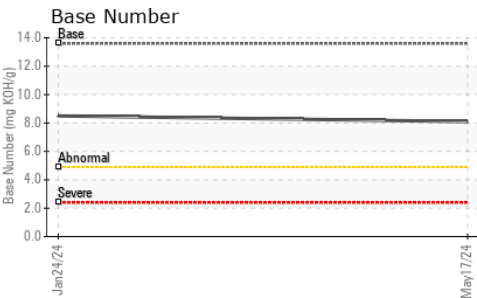
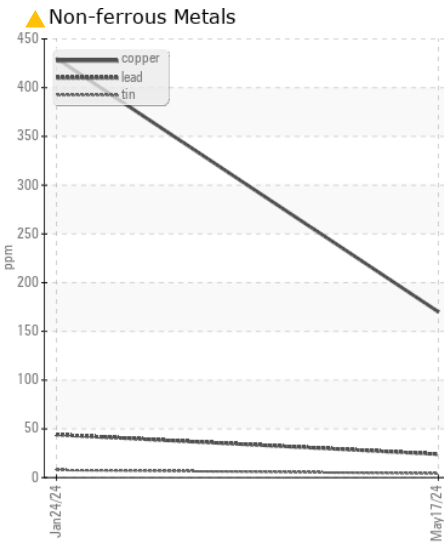
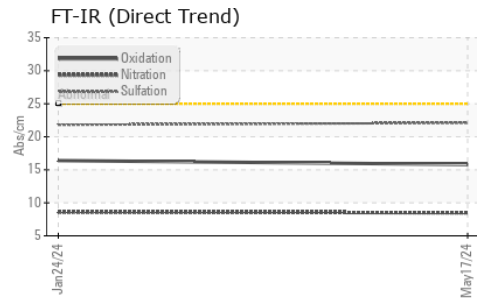
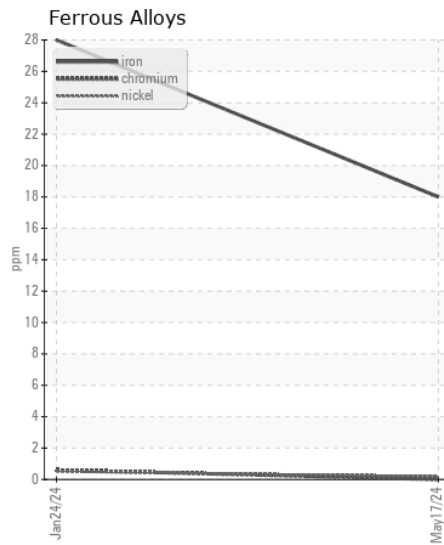
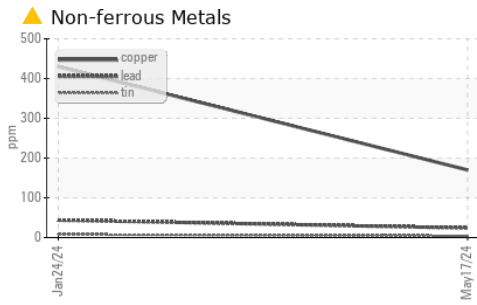
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	8	14	---
Potassium	ppm	ASTM D5185m	>20	3	7	---
Fuel	%	ASTM D3524	>2.1	<1.0	0.5	---
Water		WC Method	>0.21	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.4	0.4	---
Nitration	Abs/cm	*ASTM D7624	>20	8.5	8.6	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.1	21.8	---
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	5	10	---
Boron	ppm	ASTM D5185m		190	173	---
Barium	ppm	ASTM D5185m		0	<1	---
Molybdenum	ppm	ASTM D5185m		251	234	---
Manganese	ppm	ASTM D5185m		3	11	---
Magnesium	ppm	ASTM D5185m		879	772	---
Calcium	ppm	ASTM D5185m		1426	1286	---
Phosphorus	ppm	ASTM D5185m		895	898	---
Zinc	ppm	ASTM D5185m		1105	1019	---
Sulfur	ppm	ASTM D5185m		3353	2864	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.8	16.4	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	8.1	8.5	---
Visc @ 100°C	cSt	ASTM D445	15.4	12.3	9.9	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MT0006112 **Received** : 24 May 2024
Lab Number : 06190171 **Tested** : 30 May 2024
Unique Number : 11046923 **Diagnosed** : 30 May 2024 - Jonathan Hester
Test Package : CONST (Additional Tests: FuelDilution, TBN)

MURPHY TRACTOR - CAMBRIDGE
 60611 HULSE DRIVE
 CAMBRIDGE, OH
 US 43725
 Contact: DUSTIN DAILEY
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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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