



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Machine Id
JOHN DEERE 850L 1T0850LXLMPL109041
 Component
Diesel Engine
 Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)

RECOMMENDATION

We advise that you check for the source of the coolant leak. Check for low coolant level. 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		JR0209918	---	---
Sample Date		Client Info		28 May 2024	---	---
Machine Age	hrs	Client Info		5018	---	---
Oil Age	hrs	Client Info		524	---	---
Filter Age	hrs	Client Info		524	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				ABNORMAL	---	---

WEAR

Valve wear is indicated.

Iron	ppm	ASTM D5185m	>51	36	---	---
Chromium	ppm	ASTM D5185m	>11	1	---	---
Nickel	ppm	ASTM D5185m	>5	▲ 21	---	---
Titanium	ppm	ASTM D5185m		0	---	---
Silver	ppm	ASTM D5185m	>3	0	---	---
Aluminum	ppm	ASTM D5185m	>31	7	---	---
Lead	ppm	ASTM D5185m	>26	1	---	---
Copper	ppm	ASTM D5185m	>26	4	---	---
Tin	ppm	ASTM D5185m	>4	<1	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

Sodium and/or potassium levels are high.

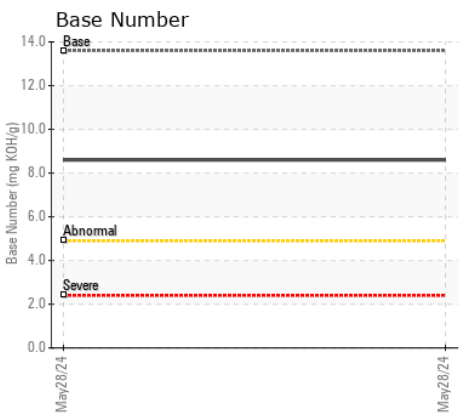
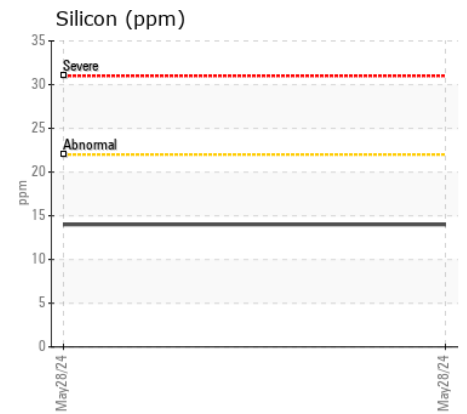
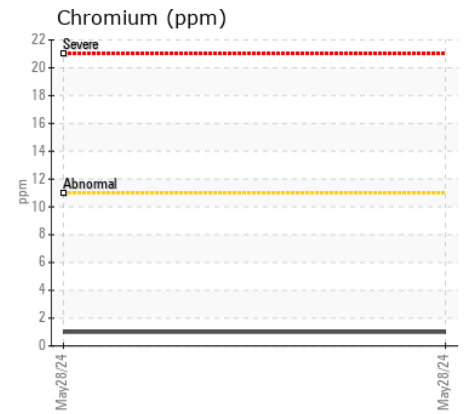
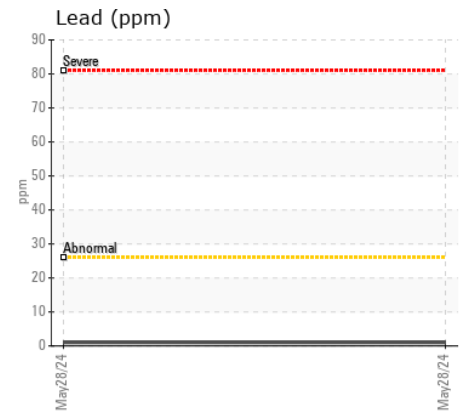
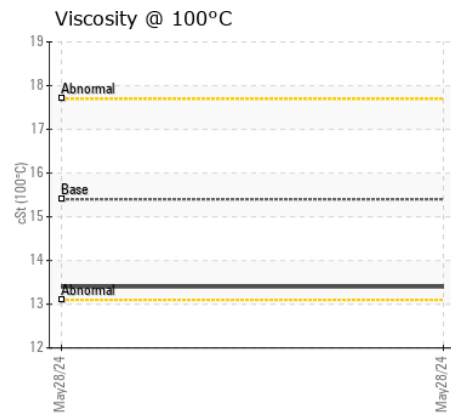
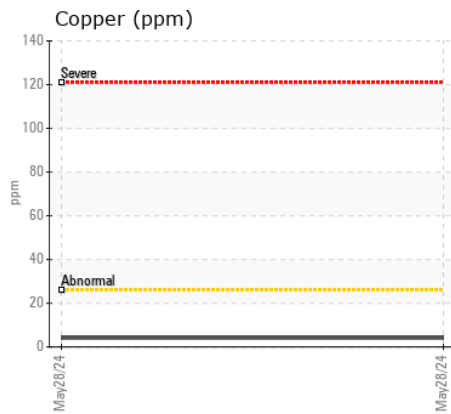
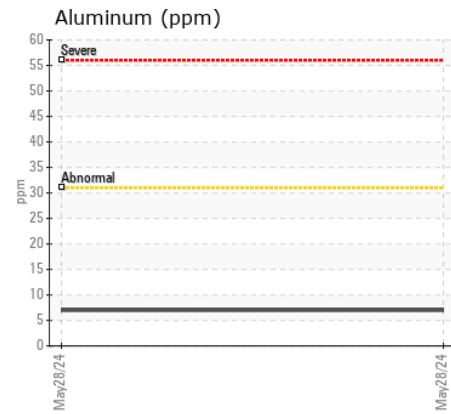
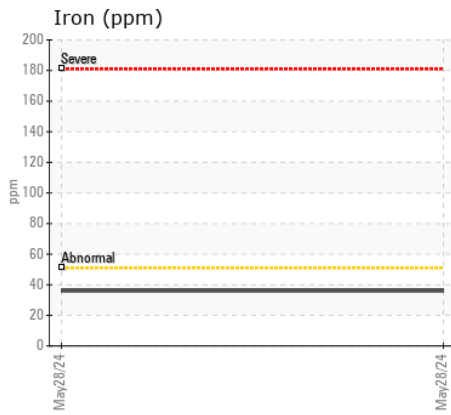
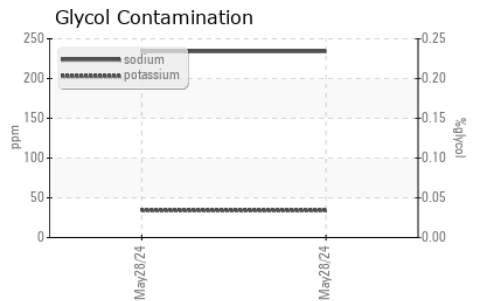
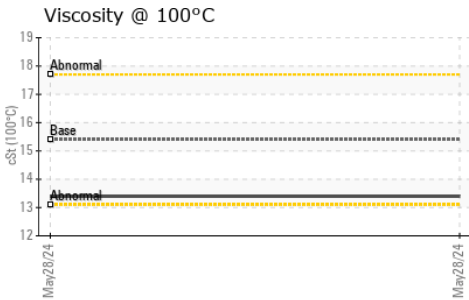
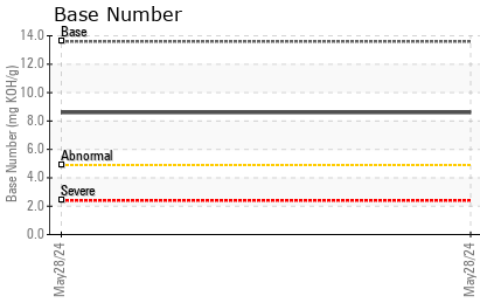
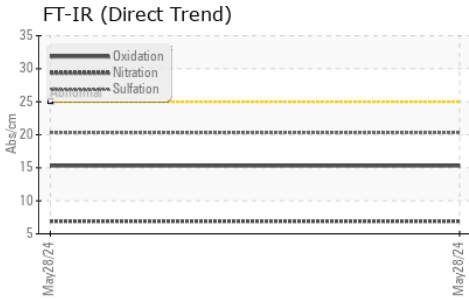
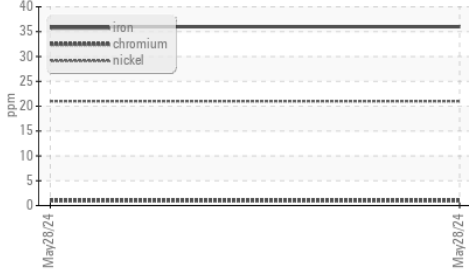
Silicon	ppm	ASTM D5185m	>22	14	---	---
Potassium	ppm	ASTM D5185m	>20	▲ 34	---	---
Fuel		WC Method	>2.1	<1.0	---	---
Water		WC Method	>0.21	NEG	---	---
Glycol	%	*ASTM D2982		NEG	---	---
Soot %	%	*ASTM D7844	>3	0.2	---	---
Nitration	Abs/cm	*ASTM D7624	>20	6.9	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.3	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.21	NEG	---	---

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil.

Sodium	ppm	ASTM D5185m	>31	▲ 234	---	---
Boron	ppm	ASTM D5185m		160	---	---
Barium	ppm	ASTM D5185m		<1	---	---
Molybdenum	ppm	ASTM D5185m		283	---	---
Manganese	ppm	ASTM D5185m		1	---	---
Magnesium	ppm	ASTM D5185m		866	---	---
Calcium	ppm	ASTM D5185m		1467	---	---
Phosphorus	ppm	ASTM D5185m		947	---	---
Zinc	ppm	ASTM D5185m		1113	---	---
Sulfur	ppm	ASTM D5185m		3387	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.3	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	8.6	---	---
Visc @ 100°C	cSt	ASTM D445	15.4	13.4	---	---

▲ Ferrous Alloys



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : JR0209918

Lab Number : 06195293

Unique Number : 11057416

Test Package : MOBCE (Additional Tests: Glycol, TBN)

Received : 30 May 2024

Tested : 03 Jun 2024

Diagnosed : 03 Jun 2024 - Jonathan Hester

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)

JRE - WILKESBORO

288 WESTGATE DRIVE

WILKESBORO, NC

US 28697

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