



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	ABNORMAL



Area
Store 9 - Marietta
Machine Id
JOHN DEERE 50G 1FF050GXKNH298589
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (2 GAL)

RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We advise that you check for the source of the coolant leak. Check for low coolant level. We advise that you check the fuel injection system. 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		LEC0047902	---	---
Sample Date		Client Info		20 Feb 2024	---	---
Machine Age	hrs	Client Info		1124	---	---
Oil Age	hrs	Client Info		1124	---	---
Filter Age	hrs	Client Info		1124	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				SEVERE	---	---

WEAR

Cylinder, crank, or cam shaft wear is indicated.

Iron	ppm	ASTM D5185m	>51	▲ 73	---	---
Chromium	ppm	ASTM D5185m	>11	1	---	---
Nickel	ppm	ASTM D5185m	>5	0	---	---
Titanium	ppm	ASTM D5185m		0	---	---
Silver	ppm	ASTM D5185m	>3	0	---	---
Aluminum	ppm	ASTM D5185m	>31	4	---	---
Lead	ppm	ASTM D5185m	>26	8	---	---
Copper	ppm	ASTM D5185m	>26	24	---	---
Tin	ppm	ASTM D5185m	>4	<1	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

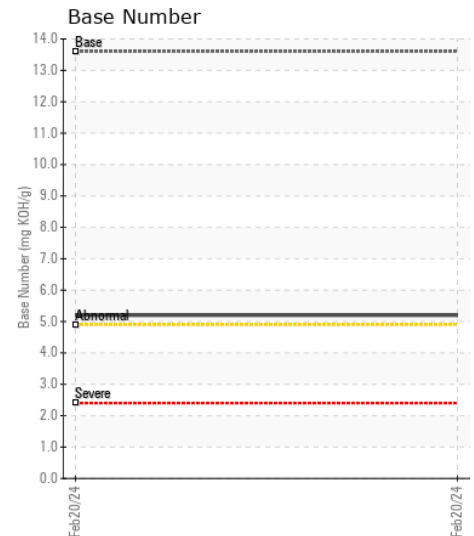
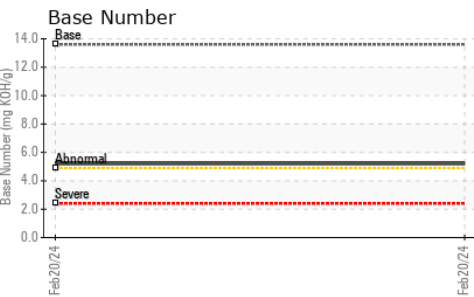
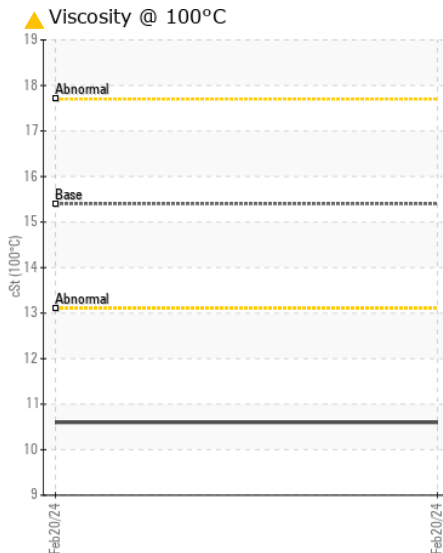
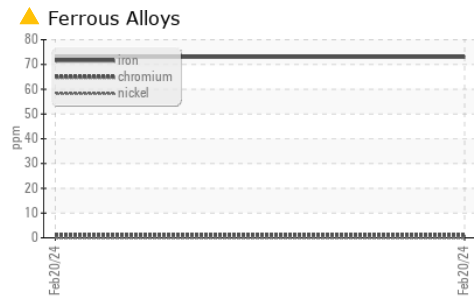
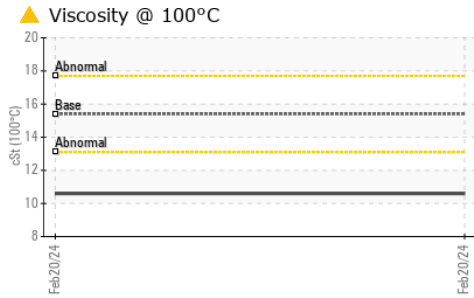
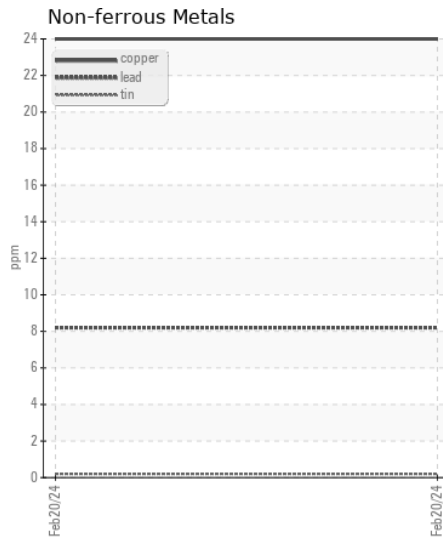
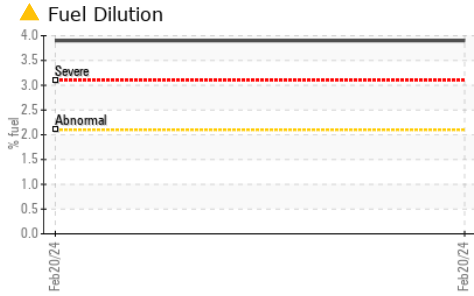
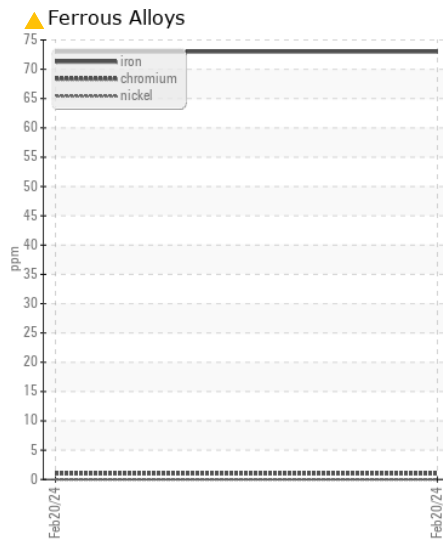
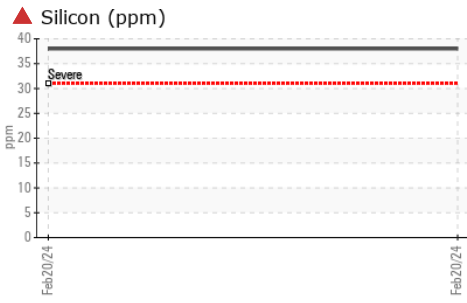
Sodium and/or potassium levels are high. Elemental level of silicon (Si) above normal indicating ingress of dirt/seal material. There is a moderate amount of fuel present in the oil.

Silicon	ppm	ASTM D5185m	>120	▲ 38	---	---
Potassium	ppm	ASTM D5185m	>20	▲ 196	---	---
Fuel	%	ASTM D3524	>2.1	▲ 3.9	---	---
Water		WC Method	>0.21	NEG	---	---
Glycol	%	*ASTM D2982		NEG	---	---
Soot %	%	*ASTM D7844	>3	0.5	---	---
Nitration	Abs/cm	*ASTM D7624	>20	13.4	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.5	---	---
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

Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

Sodium	ppm	ASTM D5185m	>31	11	---	---
Boron	ppm	ASTM D5185m		127	---	---
Barium	ppm	ASTM D5185m		15	---	---
Molybdenum	ppm	ASTM D5185m		165	---	---
Manganese	ppm	ASTM D5185m		<1	---	---
Magnesium	ppm	ASTM D5185m		24	---	---
Calcium	ppm	ASTM D5185m		1890	---	---
Phosphorus	ppm	ASTM D5185m		601	---	---
Zinc	ppm	ASTM D5185m		688	---	---
Sulfur	ppm	ASTM D5185m		2230	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	23.1	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	5.2	---	---
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 10.6	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0047902 **Received** : 26 Feb 2024
Lab Number : 06099988 **Tested** : 28 Feb 2024
Unique Number : 10898218 **Diagnosed** : 28 Feb 2024 - Jonathan Hester
Test Package : CONST (Additional Tests: FuelDilution, Glycol, PercentFuel, TBN)

LESLIE EQUIPMENT COMPANY
 105 TENNIS CENTER DR.
 MARIETTA, OH
 US 45750-9765
 Contact: LEANNE KENDALL
 KendalLeanne@lec1.com

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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