



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

Store 2 - Beaver [RO#148233]

Machine Id

JOHN DEERE 437E 1T0437EDEPL438581

Component

Diesel Engine

Fluid

JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (5 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LEC0048632	LEC0045678	---
Sample Date		Client Info		23 Feb 2024	30 Oct 2023	---
Machine Age	hrs	Client Info		948	430	---
Oil Age	hrs	Client Info		518	430	---
Filter Age	hrs	Client Info		518	430	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				NORMAL	ABNORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	28	32	---
Chromium	ppm	ASTM D5185m	>11	<1	<1	---
Nickel	ppm	ASTM D5185m	>5	<1	1	---
Titanium	ppm	ASTM D5185m		<1	<1	---
Silver	ppm	ASTM D5185m	>3	0	0	---
Aluminum	ppm	ASTM D5185m	>31	4	5	---
Lead	ppm	ASTM D5185m	>26	0	4	---
Copper	ppm	ASTM D5185m	>26	27	▲ 293	---
Tin	ppm	ASTM D5185m	>4	<1	<1	---
Vanadium	ppm	ASTM D5185m		0	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

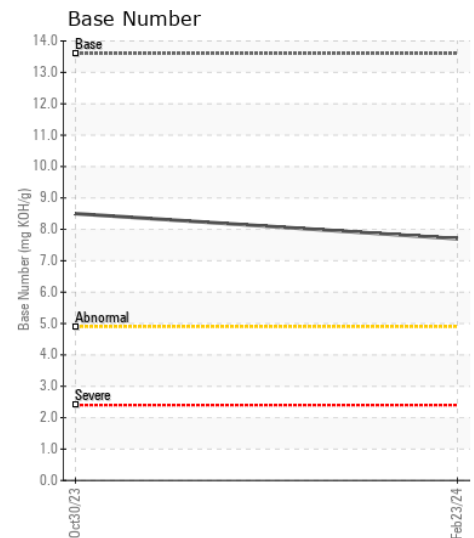
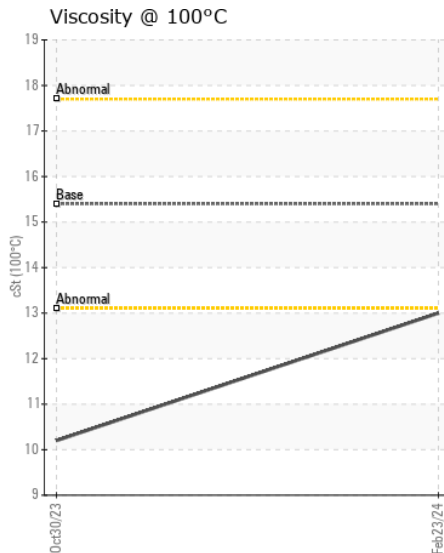
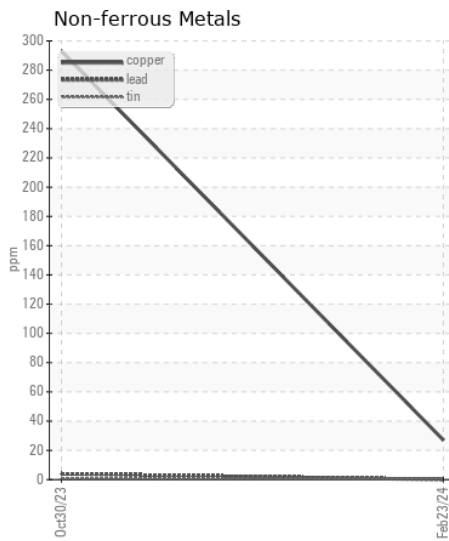
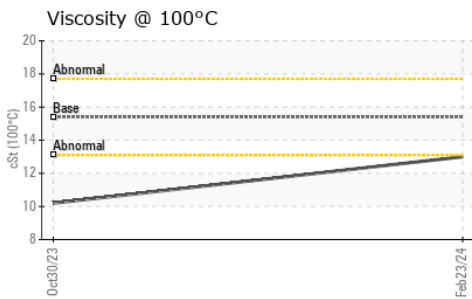
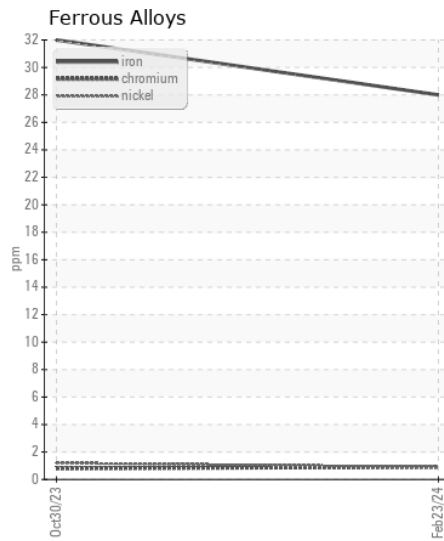
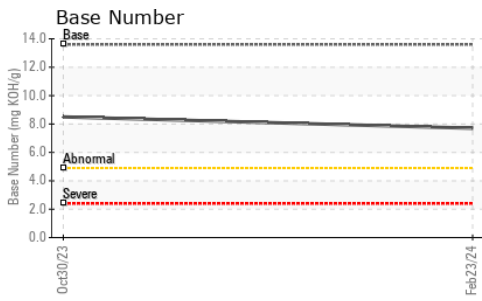
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>120	8	12	---
Potassium	ppm	ASTM D5185m	>20	3	0	---
Fuel	%	ASTM D3524	>2.1	<1.0	<1.0	---
Water		WC Method	>0.21	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.3	0.3	---
Nitration	Abs/cm	*ASTM D7624	>20	9.6	9.4	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.0	22.0	---
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	3	7	---
Boron	ppm	ASTM D5185m		162	156	---
Barium	ppm	ASTM D5185m		0	2	---
Molybdenum	ppm	ASTM D5185m		250	217	---
Manganese	ppm	ASTM D5185m		1	4	---
Magnesium	ppm	ASTM D5185m		794	749	---
Calcium	ppm	ASTM D5185m		1368	1362	---
Phosphorus	ppm	ASTM D5185m		867	806	---
Zinc	ppm	ASTM D5185m		1070	1032	---
Sulfur	ppm	ASTM D5185m		2988	2597	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.0	17.8	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	7.7	8.5	---
Visc @ 100°C	cSt	ASTM D445	15.4	13.0	10.2	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0048632 **Received** : 28 Feb 2024
Lab Number : 06102778 **Tested** : 29 Feb 2024
Unique Number : 10901008 **Diagnosed** : 29 Feb 2024 - Don Baldrige
Test Package : CONST (Additional Tests: FuelDilution, 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)

T: (740)373-5570