



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
Store 1 - Cowen [RO#150387]
Machine Id
JOHN DEERE 748L II 1DW748LBTMF711946
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (8 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LEC0048752	LEC0042204	LEC0038677
Sample Date		Client Info		07 May 2024	23 Oct 2023	14 Feb 2023
Machine Age	hrs	Client Info		2631	2064	1484
Oil Age	hrs	Client Info		567	580	362
Filter Age	hrs	Client Info		567	580	362
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	17	16	13
Chromium	ppm	ASTM D5185m	>11	<1	1	<1
Nickel	ppm	ASTM D5185m	>5	3	5	5
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	4	6	3
Lead	ppm	ASTM D5185m	>26	<1	0	<1
Copper	ppm	ASTM D5185m	>26	3	4	16
Tin	ppm	ASTM D5185m	>4	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

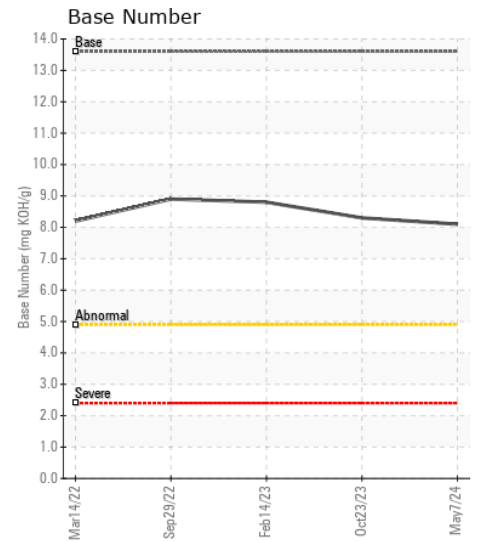
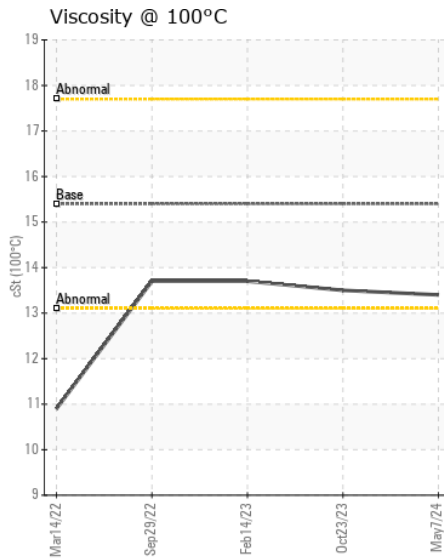
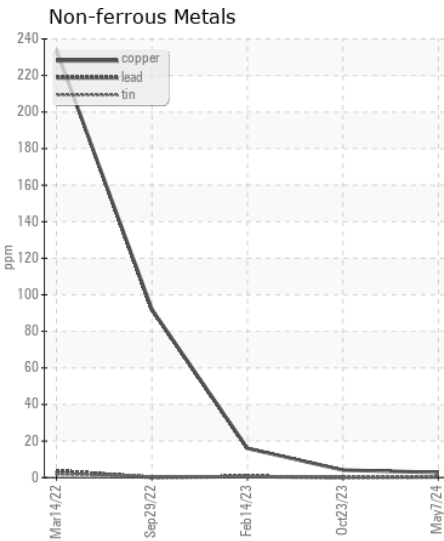
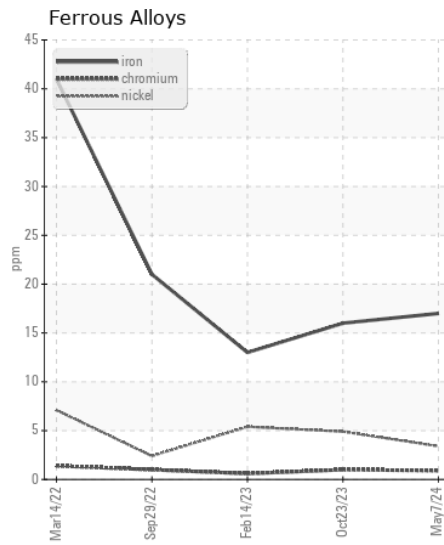
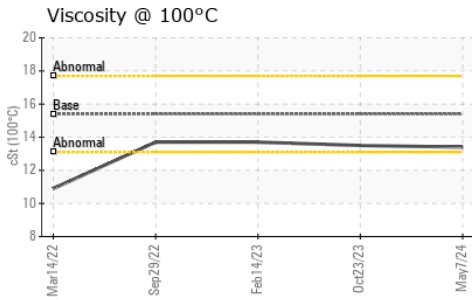
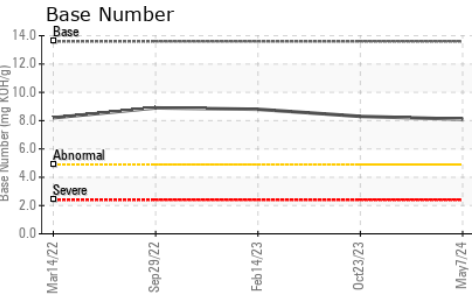
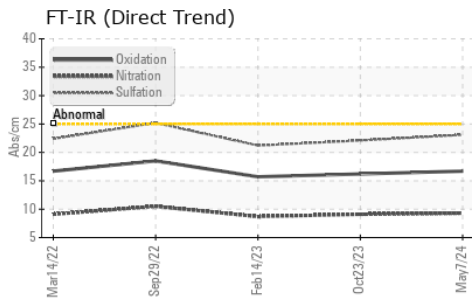
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>120	10	11	8
Potassium	ppm	ASTM D5185m	>20	4	7	3
Fuel		WC Method	>2.1	<1.0	<1.0	<1.0
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.4	0.4	0.3
Nitration	Abs/cm	*ASTM D7624	>20	9.3	9.1	8.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.1	22.1	21.2
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.21	NEG	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	3
Boron	ppm	ASTM D5185m		210	143	215
Barium	ppm	ASTM D5185m		3	0	<1
Molybdenum	ppm	ASTM D5185m		255	235	248
Manganese	ppm	ASTM D5185m		1	<1	1
Magnesium	ppm	ASTM D5185m		768	722	799
Calcium	ppm	ASTM D5185m		1420	1472	1425
Phosphorus	ppm	ASTM D5185m		997	952	846
Zinc	ppm	ASTM D5185m		1104	1117	1052
Sulfur	ppm	ASTM D5185m		3441	3784	3484
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.7	16.2	15.7
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	8.1	8.3	8.8
Visc @ 100°C	cSt	ASTM D445	15.4	13.4	13.5	13.7



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0048752 **Received** : 10 May 2024
Lab Number : 06176532 **Tested** : 13 May 2024
Unique Number : 11022585 **Diagnosed** : 13 May 2024 - Wes Davis
Test Package : CONST (Additional Tests: 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)