



WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

[45836]

Machine Id

JOHN DEERE 850L 1T0850LXJPF445777

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. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0211294	JR0196012	JR0187568
Sample Date		Client Info		11 Apr 2024	04 Dec 2023	18 Sep 2023
Machine Age	hrs	Client Info		1494	972	459
Oil Age	hrs	Client Info		522	513	0
Filter Age	hrs	Client Info		0	513	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

The copper level is abnormal. Valve wear is indicated.

Iron	ppm	ASTM D5185m	>51	53	58	▲ 86
Chromium	ppm	ASTM D5185m	>11	1	1	2
Nickel	ppm	ASTM D5185m	>5	▲ 37	9	▲ 20
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	5	3	7
Lead	ppm	ASTM D5185m	>26	<1	<1	7
Copper	ppm	ASTM D5185m	>26	▲ 32	▲ 98	▲ 247
Tin	ppm	ASTM D5185m	>4	1	<1	6
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

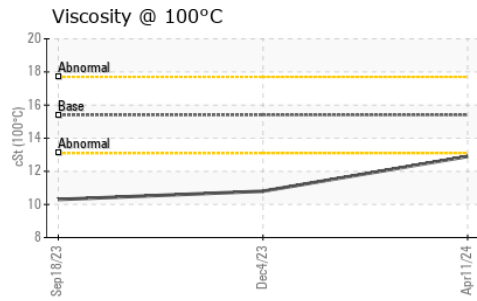
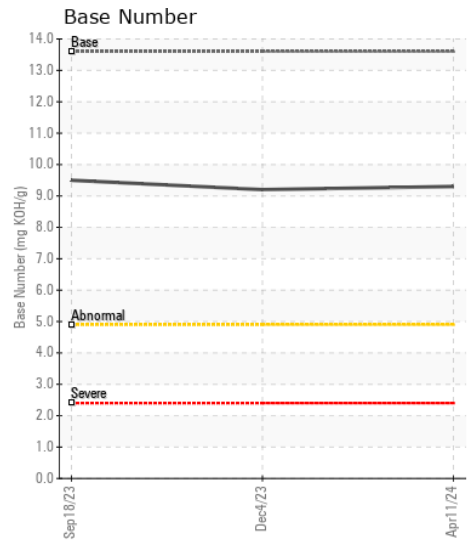
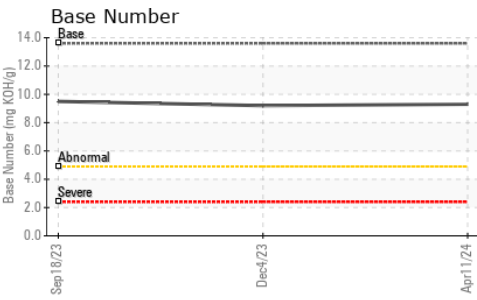
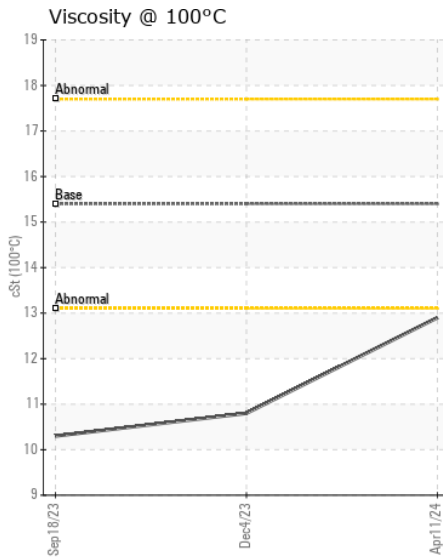
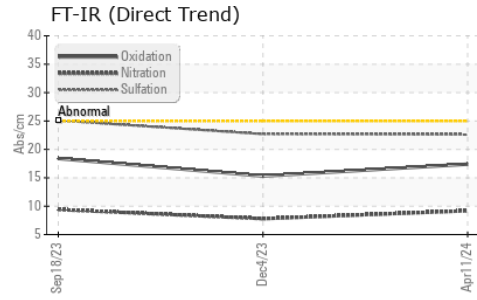
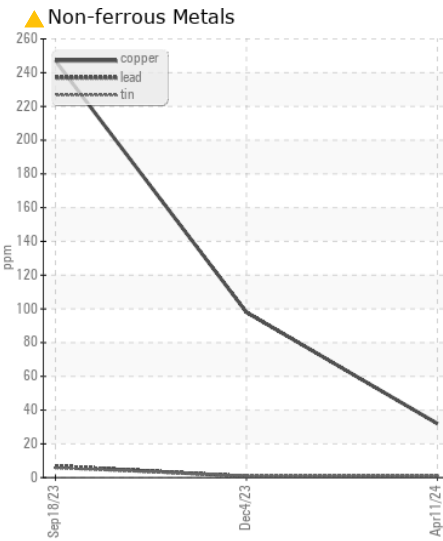
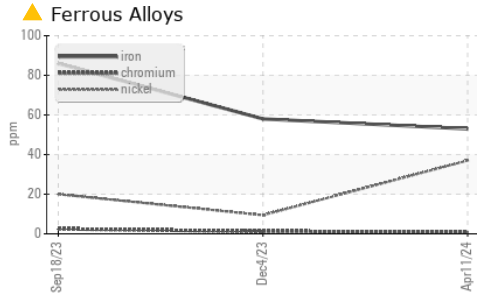
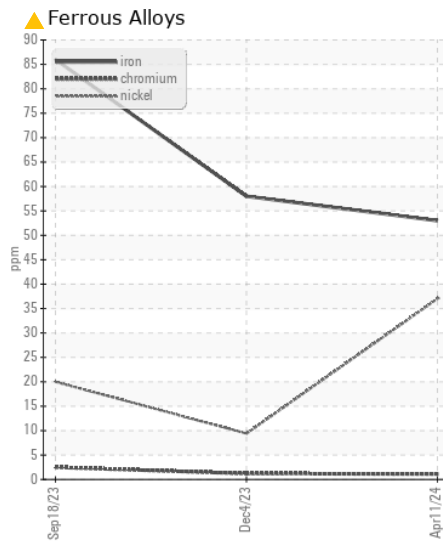
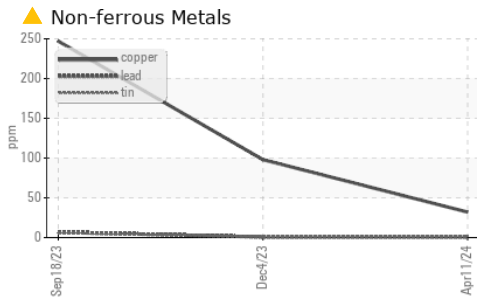
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	7	7	15
Potassium	ppm	ASTM D5185m	>20	<1	3	12
Fuel	%	ASTM D3524	>2.1	<1.0	<1.0	0.1
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.7	0.6	0
Nitration	Abs/cm	*ASTM D7624	>20	9.2	7.8	9.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.6	22.7	25.1
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 acceptable for the time in service.

Sodium	ppm	ASTM D5185m	>31	2	0	9
Boron	ppm	ASTM D5185m		181	101	257
Barium	ppm	ASTM D5185m		<1	3	4
Molybdenum	ppm	ASTM D5185m		211	144	420
Manganese	ppm	ASTM D5185m		2	0	4
Magnesium	ppm	ASTM D5185m		838	464	1200
Calcium	ppm	ASTM D5185m		1757	2547	2116
Phosphorus	ppm	ASTM D5185m		1009	961	1260
Zinc	ppm	ASTM D5185m		1192	1183	1601
Sulfur	ppm	ASTM D5185m		3557	3204	4788
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.4	15.3	18.4
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	9.3	9.2	9.5
Visc @ 100°C	cSt	ASTM D445	15.4	12.9	● 10.8	● 10.3



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0211294 **Received** : 15 Apr 2024
Lab Number : 06149271 **Tested** : 16 Apr 2024
Unique Number : 10979349 **Diagnosed** : 17 Apr 2024 - Don Baldrige
Test Package : CONST (Additional Tests: FuelDilution, 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)