



WEAR	SEVERE
CONTAMINATION	SEVERE
FLUID CONDITION	NORMAL



Machine Id
JOHN DEERE 350G 1FF350GXVFF810933

Component
Diesel Engine

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

RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. The oil change at the time of sampling has been noted. We recommend you service the filters on this component. We recommend an early resample to monitor this condition. (Customer Sample Comment: Check oil for dirt or metals)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0192819	JR0128925	JR0024797
Sample Date		Client Info		22 Feb 2024	12 May 2022	24 Oct 2019
Machine Age	hrs	Client Info		4872	4040	4842
Oil Age	hrs	Client Info		4842	0	600
Filter Age	hrs	Client Info		0	0	600
Oil Changed		Client Info		Changed	Not Changd	Changed
Filter Changed		Client Info		N/A	Not Changed	Changed
Sample Status				SEVERE	NORMAL	NORMAL

WEAR

Piston, ring and cylinder wear is indicated.

Iron	ppm	ASTM D5185m	>51	▲ 380	31	48
Chromium	ppm	ASTM D5185m	>11	▲ 31	2	1
Nickel	ppm	ASTM D5185m	>5	2	<1	<1
Titanium	ppm	ASTM D5185m		3	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	● 41	14	6
Lead	ppm	ASTM D5185m	>26	4	<1	2
Copper	ppm	ASTM D5185m	>26	18	3	4
Tin	ppm	ASTM D5185m	>4	3	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

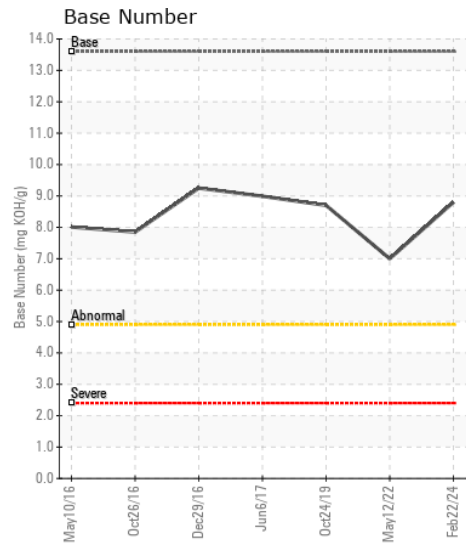
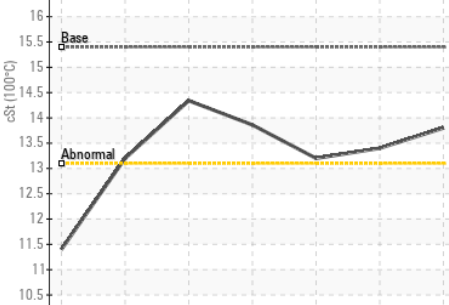
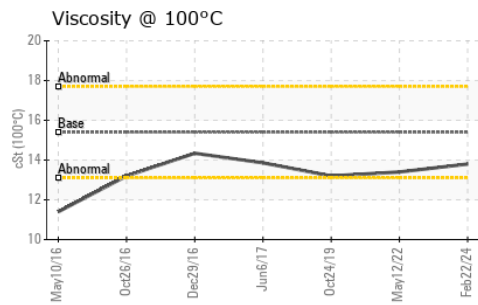
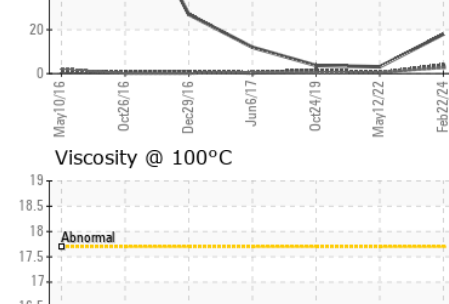
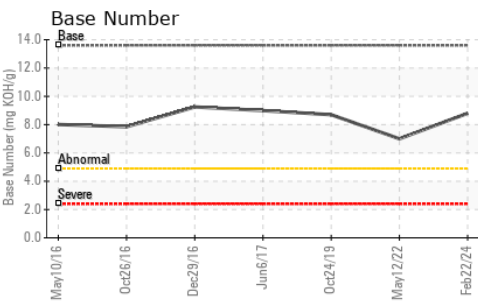
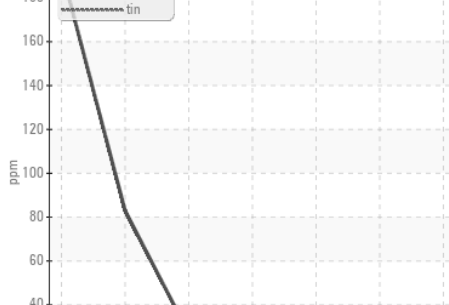
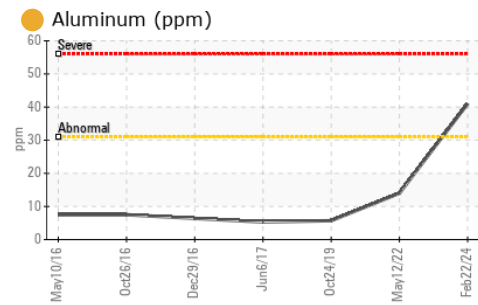
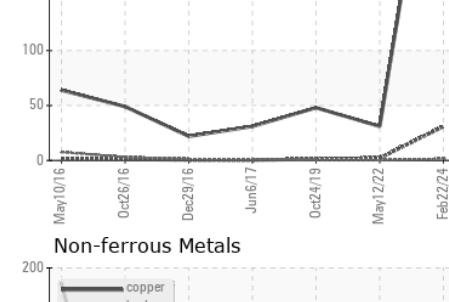
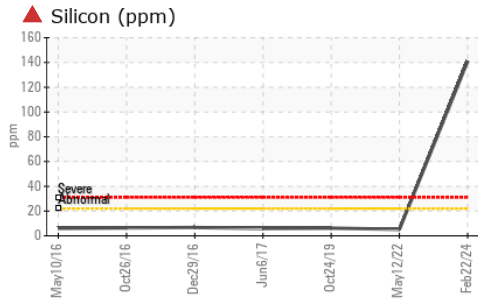
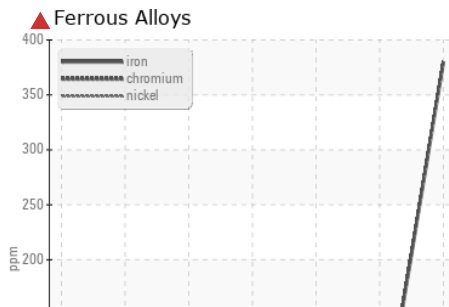
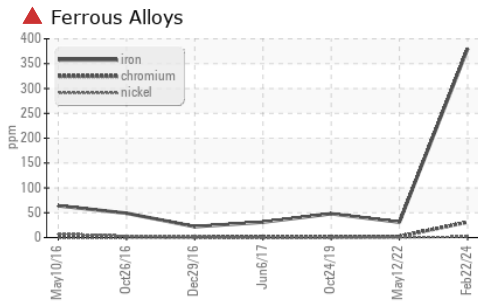
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Silicon	ppm	ASTM D5185m	>22	▲ 141	5	6
Potassium	ppm	ASTM D5185m	>20	12	7	4
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	0.3	0.6	0.6
Nitration	Abs/cm	*ASTM D7624	>20	6.4	9.9	9.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.1	21.6	23.8
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 oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m	>31	5	2	2
Boron	ppm	ASTM D5185m		35	1	114
Barium	ppm	ASTM D5185m		2	0	0
Molybdenum	ppm	ASTM D5185m		60	57	100
Manganese	ppm	ASTM D5185m		3	<1	1
Magnesium	ppm	ASTM D5185m		781	944	681
Calcium	ppm	ASTM D5185m		997	1166	1553
Phosphorus	ppm	ASTM D5185m		915	995	623
Zinc	ppm	ASTM D5185m		1087	1207	785
Sulfur	ppm	ASTM D5185m		3046	2432	2146
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.8	17.8	17.8
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	8.8	7.0	8.7
Visc @ 100°C	cSt	ASTM D445	15.4	13.8	13.4	13.2



Certificate L2367

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

Sample No. : JR0192819

Lab Number : 06101413

Unique Number : 10899643

Test Package : CONST (Additional Tests: TBN)

Received : 27 Feb 2024

Tested : 28 Feb 2024

Diagnosed : 29 Feb 2024 - Jonathan Hester

JRE - CHARLOTTE

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CHARLOTTE, NC

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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)