



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL



Machine Id
JOHN DEERE 350G E185 (S/N 1FF350GXTEE810105)
 Component
Diesel Engine
 Fluid
CAT DIESEL ENGINE OIL 15W40 (--- GAL)

RECOMMENDATION

We advise that you check for the source of the coolant leak. Check for low coolant level. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0203811	JR0205676	JR0154954
Sample Date		Client Info		18 Mar 2024	04 Mar 2024	09 Feb 2023
Machine Age	hrs	Client Info		9621	9608	9107
Oil Age	hrs	Client Info		13	501	558
Filter Age	hrs	Client Info		13	501	558
Oil Changed		Client Info		N/A	Changed	Changed
Filter Changed		Client Info		N/A	Changed	Changed
Sample Status				ABNORMAL	SEVERE	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	25	▲ 125	▲ 79
Chromium	ppm	ASTM D5185m	>11	0	5	4
Nickel	ppm	ASTM D5185m	>5	0	2	1
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	2	● 9	6
Lead	ppm	ASTM D5185m	>26	1	12	5
Copper	ppm	ASTM D5185m	>26	22	▲ 33	4
Tin	ppm	ASTM D5185m	>4	0	2	<1
Vanadium	ppm	ASTM D5185m		0	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

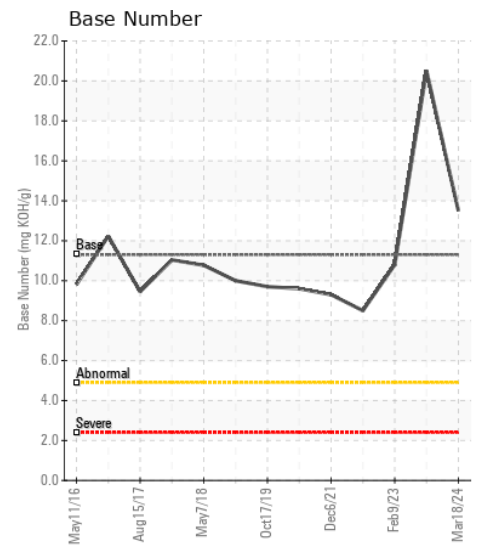
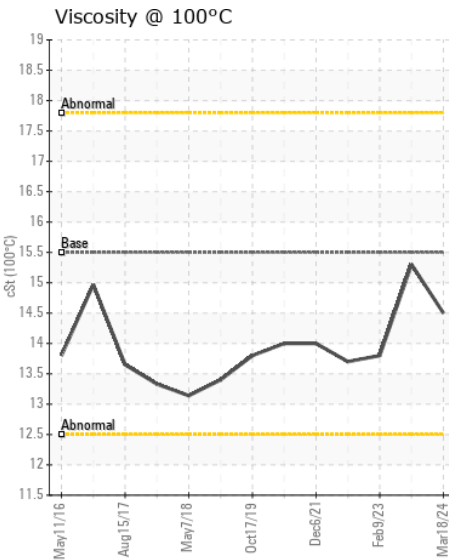
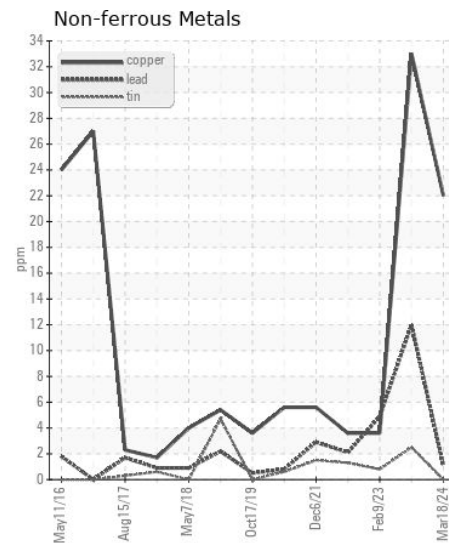
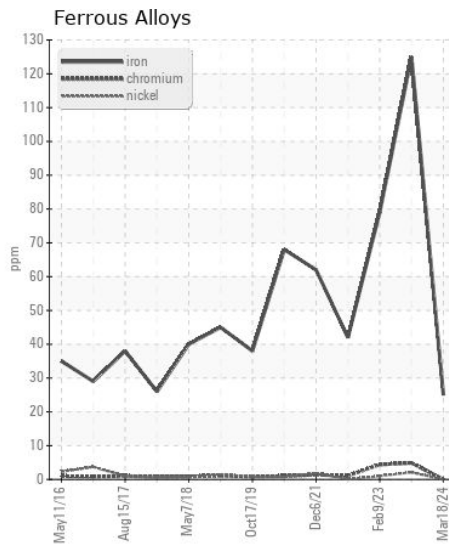
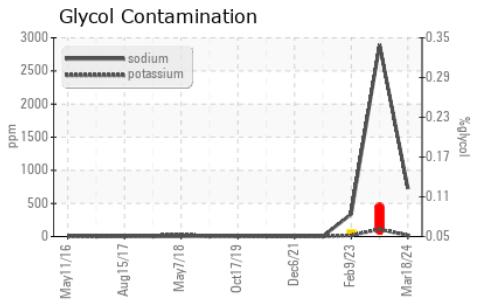
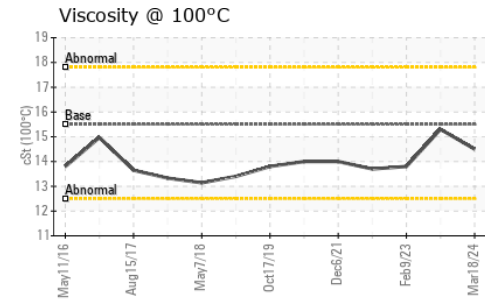
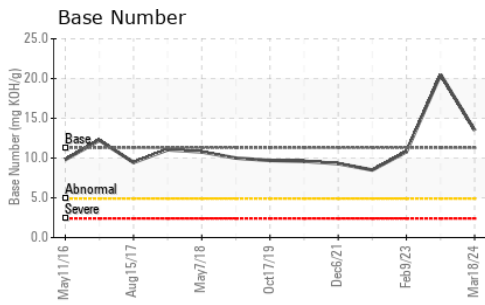
Sodium and/or potassium levels remain high.

Silicon	ppm	ASTM D5185m	>22	8	▲ 25	13
Potassium	ppm	ASTM D5185m	>20	19	▲ 110	17
Fuel		WC Method	>2.1	<1.0	<1.0	<1.0
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	▲ 0.10	▲ 0.06
Soot %	%	*ASTM D7844	>3	0.2	0.7	0.6
Nitration	Abs/cm	*ASTM D7624	>20	8.3	17.2	10.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.5	23.8	22.5
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.

Sodium	ppm	ASTM D5185m	>31	▲ 726	▲ 2895	▲ 338
Boron	ppm	ASTM D5185m		167	10	78
Barium	ppm	ASTM D5185m		0	1	<1
Molybdenum	ppm	ASTM D5185m		255	384	242
Manganese	ppm	ASTM D5185m		0	1	1
Magnesium	ppm	ASTM D5185m		828	739	779
Calcium	ppm	ASTM D5185m		1347	1360	1446
Phosphorus	ppm	ASTM D5185m		881	790	833
Zinc	ppm	ASTM D5185m	1460	1029	1008	1057
Sulfur	ppm	ASTM D5185m		3480	2712	3356
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.6	16.9	17.3
Base Number (BN)	mg KOH/g	ASTM D2896	11.3	13.5	20.5	10.8
Visc @ 100°C	cSt	ASTM D445	15.5	14.5	15.3	13.8



Certificate L2367

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

Sample No. : JR0203811

Lab Number : 06122099

Unique Number : 10936250

Test Package : CONST (Additional Tests: TBN)

Received : 19 Mar 2024

Tested : 21 Mar 2024

Diagnosed : 21 Mar 2024 - Jonathan Hester

MATTHEWS CONSTRUCTION

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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)