



WEAR	ATTENTION
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 50G 1FF050GXPEH281399

Component
Diesel Engine

Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (2 GAL)

RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0195766	JR0160392	JR0033180
Sample Date		Client Info		16 Jan 2024	07 Feb 2023	20 Nov 2019
Machine Age	hrs	Client Info		6429	5883	4300
Oil Age	hrs	Client Info		546	5611	0
Filter Age	hrs	Client Info		546	0	0
Oil Changed		Client Info		Changed	Changed	Not Changd
Filter Changed		Client Info		Changed	Changed	Not Changd
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	29	23	3
Chromium	ppm	ASTM D5185m	>11	2	<1	0
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	▲ 14	5	4
Lead	ppm	ASTM D5185m	>26	<1	0	0
Copper	ppm	ASTM D5185m	>26	1	2	<1
Tin	ppm	ASTM D5185m	>4	1	<1	0
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

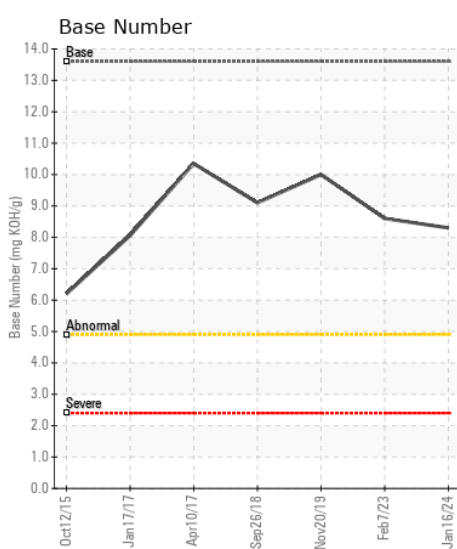
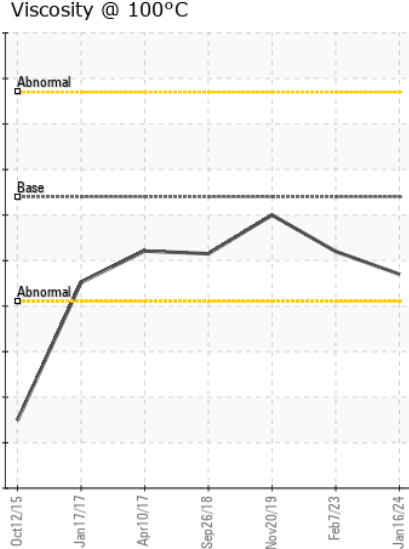
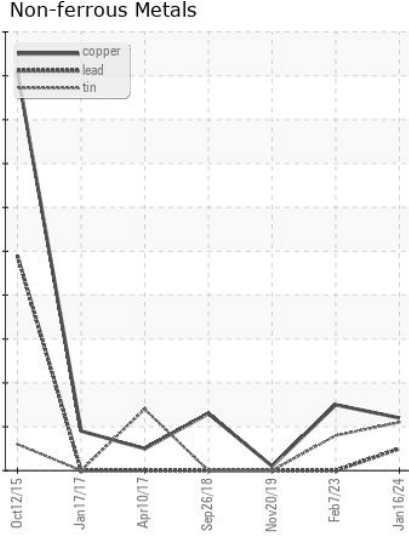
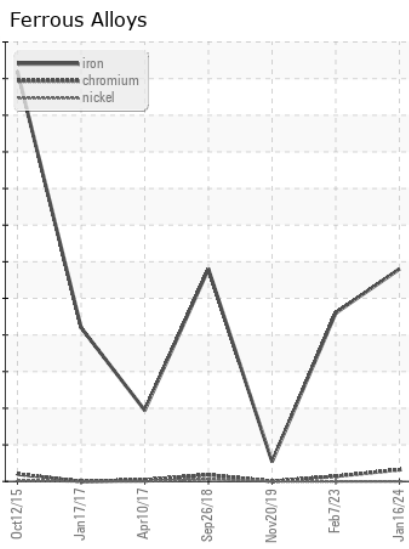
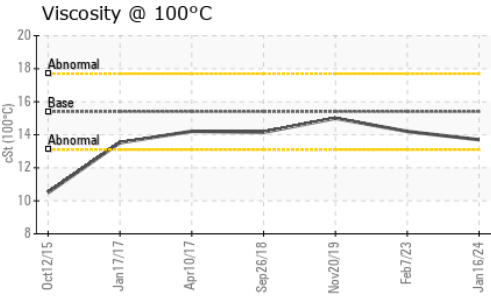
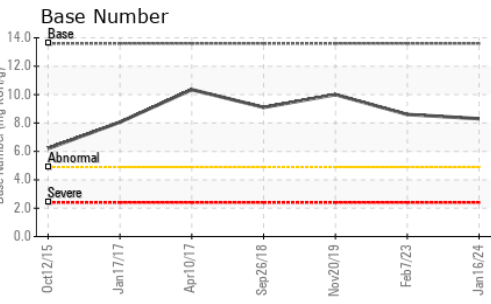
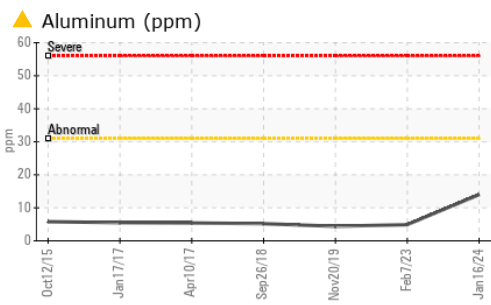
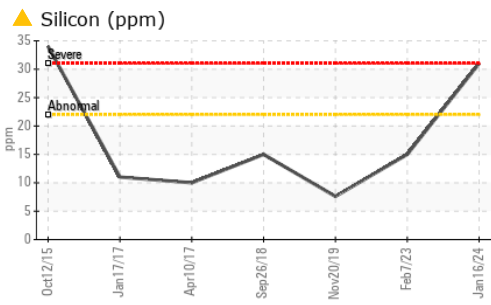
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Silicon	ppm	ASTM D5185m	>22	▲ 31	15	8
Potassium	ppm	ASTM D5185m	>20	4	0	2
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	0.7	0.1
Nitration	Abs/cm	*ASTM D7624	>20	9.6	11.4	6.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.4	25.4	19.9
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	1	2	2
Boron	ppm	ASTM D5185m		205	146	239
Barium	ppm	ASTM D5185m		<1	1	0
Molybdenum	ppm	ASTM D5185m		239	248	234
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		807	821	735
Calcium	ppm	ASTM D5185m		1354	1375	1220
Phosphorus	ppm	ASTM D5185m		917	757	801
Zinc	ppm	ASTM D5185m		1074	990	855
Sulfur	ppm	ASTM D5185m		2985	3268	1031
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.5	22.7	15
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	8.3	8.6	10
Visc @ 100°C	cSt	ASTM D445	15.4	13.7	14.2	15.0



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0195766 **Received** : 18 Jan 2024
Lab Number : 06064974 **Diagnosed** : 22 Jan 2024
Unique Number : 10836356 **Diagnostician** : Sean Felton
Test Package : CONST (Additional Tests: TBN)

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)

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