



WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 333G 1T0333GMEMF392598
 Component
Diesel Engine
 Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)

RECOMMENDATION

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		JR0219254	JR0124864	JR0089355
Sample Date		Client Info		15 Jul 2024	22 Apr 2022	09 Jul 2021
Machine Age	hrs	Client Info		1145	926	475
Oil Age	hrs	Client Info		219	451	0
Filter Age	hrs	Client Info		219	451	0
Oil Changed		Client Info		N/A	Changed	Changed
Filter Changed		Client Info		N/A	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

The copper level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	30	31	34
Chromium	ppm	ASTM D5185m	>11	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	<1	0	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	<1	<1	<1
Aluminum	ppm	ASTM D5185m	>31	6	7	3
Lead	ppm	ASTM D5185m	>26	<1	<1	<1
Copper	ppm	ASTM D5185m	>26	▲ 73	▲ 49	▲ 152
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

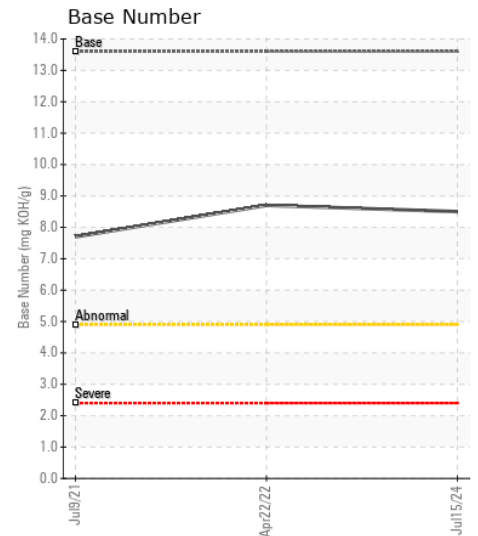
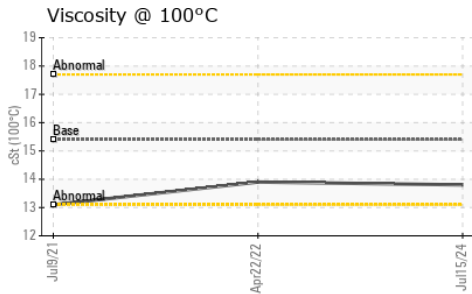
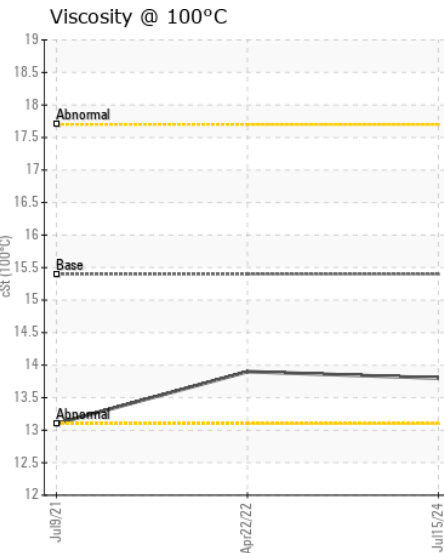
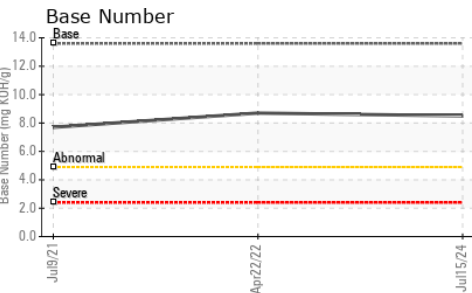
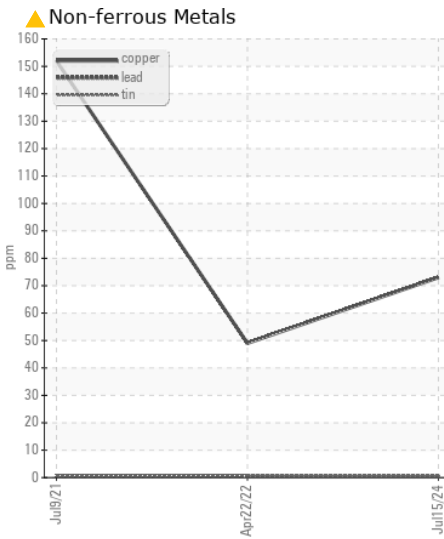
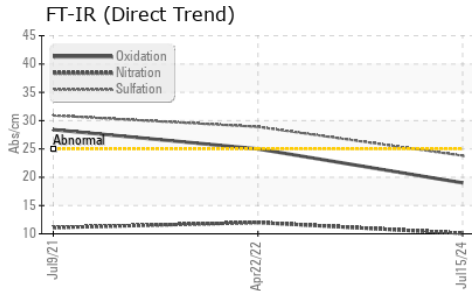
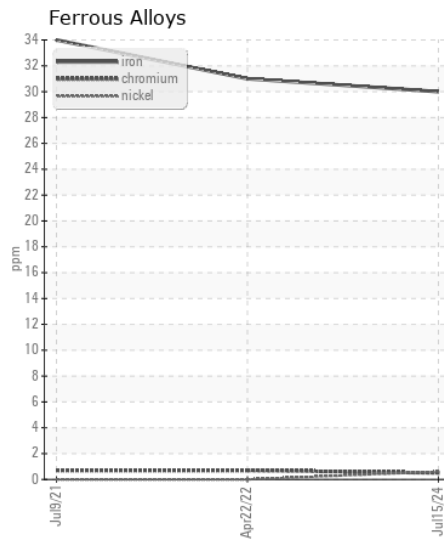
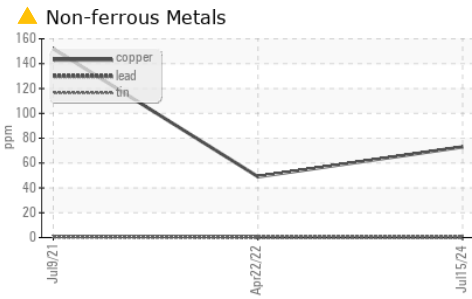
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	18	19	▲ 41
Potassium	ppm	ASTM D5185m	>20	3	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	0.3	0.5	0.3
Nitration	Abs/cm	*ASTM D7624	>20	10.1	12.0	11.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.8	28.9	30.9
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 suitable for further service.

Sodium	ppm	ASTM D5185m	>31	0	4	12
Boron	ppm	ASTM D5185m		207	156	254
Barium	ppm	ASTM D5185m		2	0	0
Molybdenum	ppm	ASTM D5185m		258	245	238
Manganese	ppm	ASTM D5185m		<1	1	2
Magnesium	ppm	ASTM D5185m		829	891	696
Calcium	ppm	ASTM D5185m		1520	1736	1748
Phosphorus	ppm	ASTM D5185m		939	986	891
Zinc	ppm	ASTM D5185m		1144	1120	1110
Sulfur	ppm	ASTM D5185m		3046	2539	2425
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.0	25.0	28.4
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	8.5	8.7	7.7
Visc @ 100°C	cSt	ASTM D445	15.4	13.8	13.9	13.1



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0219254 **Received** : 17 Jul 2024
Lab Number : 06238996 **Tested** : 18 Jul 2024
Unique Number : 11127830 **Diagnosed** : 19 Jul 2024 - Sean Felton
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)