



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
[05W44711]
 Machine Id
CATERPILLAR 950GC C285096 (S/N 0M5T05487)
 Component
Diesel Engine
 Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (21 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0203118	JR0192359	---
Sample Date		Client Info		12 Feb 2024	14 Nov 2023	---
Machine Age	hrs	Client Info		2018	1485	---
Oil Age	hrs	Client Info		533	500	---
Filter Age	hrs	Client Info		533	500	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	14	15	---
Chromium	ppm	ASTM D5185m	>20	1	<1	---
Nickel	ppm	ASTM D5185m	>2	0	<1	---
Titanium	ppm	ASTM D5185m	>2	0	0	---
Silver	ppm	ASTM D5185m	>2	0	0	---
Aluminum	ppm	ASTM D5185m	>25	19	9	---
Lead	ppm	ASTM D5185m	>40	0	<1	---
Copper	ppm	ASTM D5185m	>330	2	3	---
Tin	ppm	ASTM D5185m	>15	<1	<1	---
Vanadium	ppm	ASTM D5185m		0	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

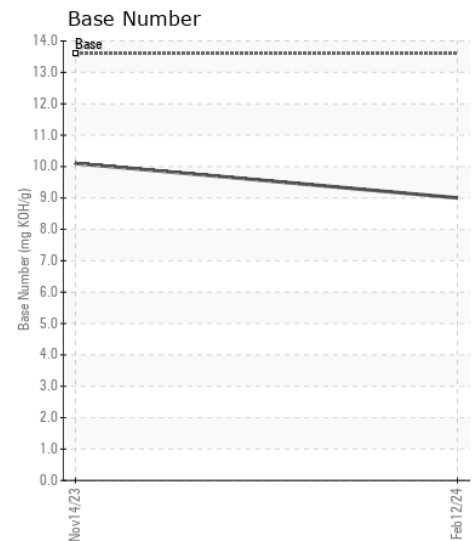
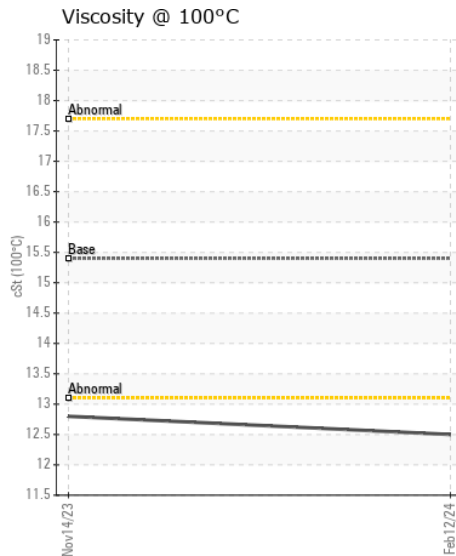
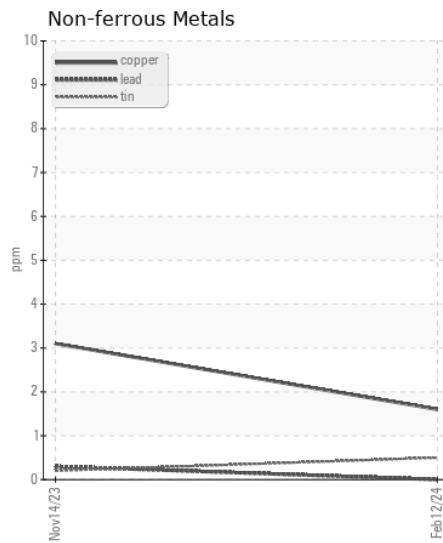
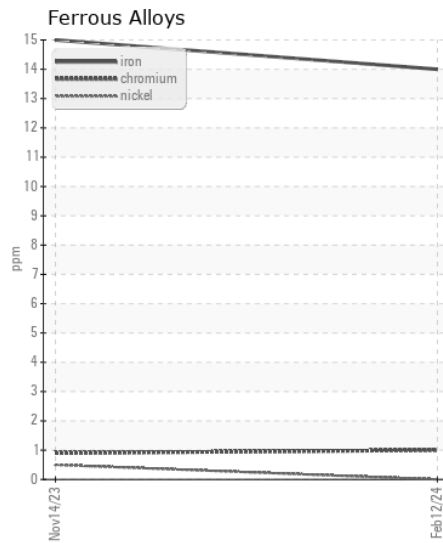
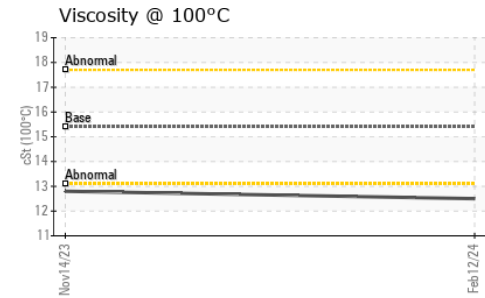
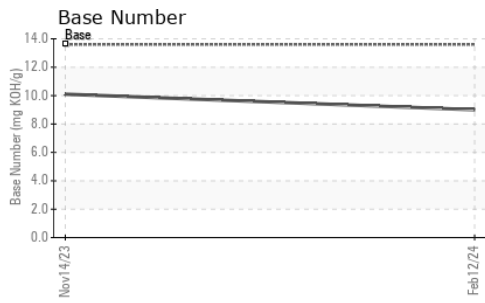
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	7	7	---
Potassium	ppm	ASTM D5185m	>20	<1	<1	---
Fuel	%	ASTM D3524	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.3	0.3	---
Nitration	Abs/cm	*ASTM D7624	>20	7.9	7.2	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.4	22.4	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	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		1	4	---
Boron	ppm	ASTM D5185m		133	42	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		150	45	---
Manganese	ppm	ASTM D5185m		<1	<1	---
Magnesium	ppm	ASTM D5185m		636	403	---
Calcium	ppm	ASTM D5185m		1642	1835	---
Phosphorus	ppm	ASTM D5185m		921	962	---
Zinc	ppm	ASTM D5185m		1060	1080	---
Sulfur	ppm	ASTM D5185m		3040	2441	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.1	20.7	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	9.0	10.1	---
Visc @ 100°C	cSt	ASTM D445	15.4	12.5	12.8	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0203118 **Received** : 14 Feb 2024
Lab Number : 06089418 **Tested** : 15 Feb 2024
Unique Number : 10876863 **Diagnosed** : 15 Feb 2024 - Jonathan Hester
Test Package : CONST (Additional Tests: FuelDilution, TBN)

TITAN VIRGINIA READY MIX LLC
 5700 LAKEWRIGHT DR, SUITE 300
 NORFOLK, VA
 US 23502

Contact: ROBERT TAUBER
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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)

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F: