



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

[W62992]

Machine Id

KLEEMANN MR110Zi EVO2 K0190166

Component

Rear Diesel Engine

Fluid

JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (12 GAL)

RECOMMENDATION

Resample at the next service interval to monitor. (Customer Sample Comment: W62992)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0189105	JR0178670	---
Sample Date		Client Info		08 Jan 2024	14 Aug 2023	---
Machine Age	hrs	Client Info		990	558	---
Oil Age	hrs	Client Info		432	558	---
Filter Age	hrs	Client Info		0	0	---
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	4	4	---
Chromium	ppm	ASTM D5185m	>20	0	<1	---
Nickel	ppm	ASTM D5185m	>4	0	0	---
Titanium	ppm	ASTM D5185m		<1	<1	---
Silver	ppm	ASTM D5185m	>3	0	<1	---
Aluminum	ppm	ASTM D5185m	>20	2	2	---
Lead	ppm	ASTM D5185m	>40	3	1	---
Copper	ppm	ASTM D5185m	>330	23	3	---
Tin	ppm	ASTM D5185m	>15	<1	<1	---
Vanadium	ppm	ASTM D5185m		<1	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

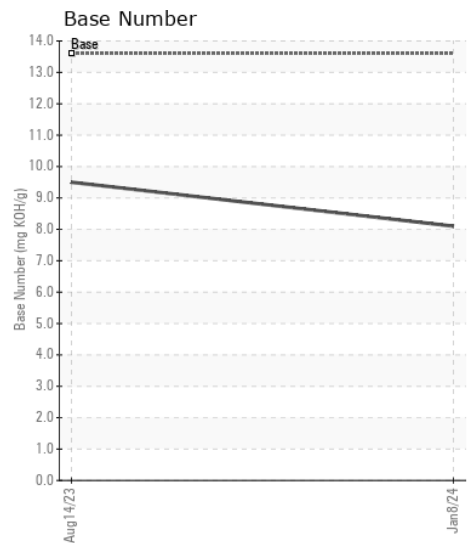
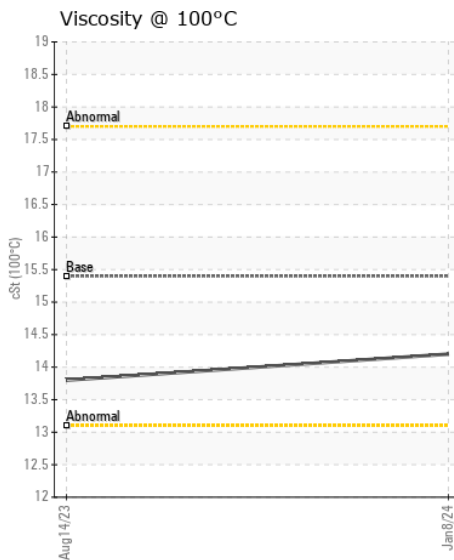
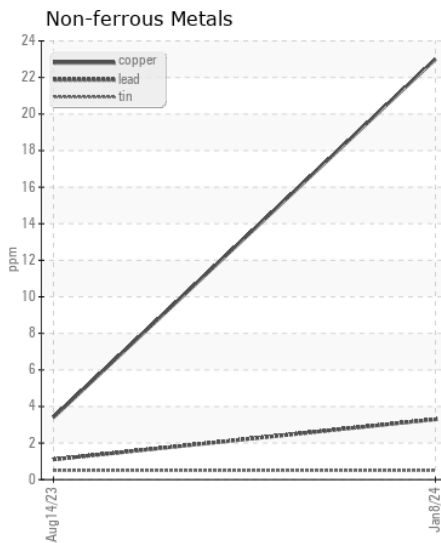
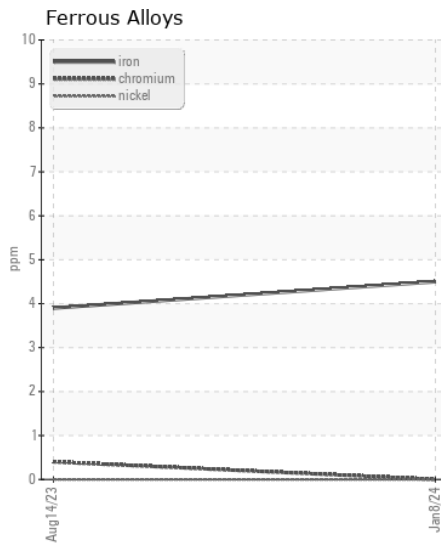
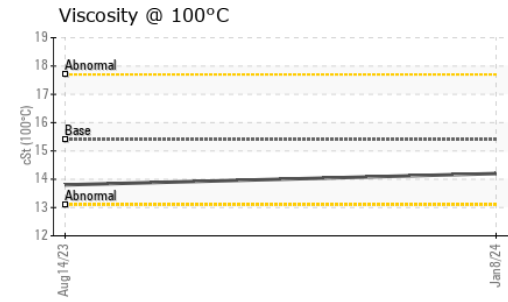
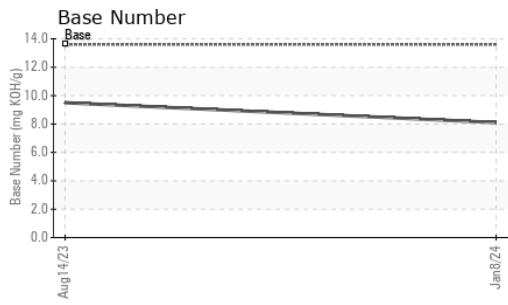
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	8	8	---
Potassium	ppm	ASTM D5185m	>20	1	3	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.1	0	---
Nitration	Abs/cm	*ASTM D7624	>20	8.5	6.9	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.6	18.8	---
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	2	---
Boron	ppm	ASTM D5185m		191	314	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		227	239	---
Manganese	ppm	ASTM D5185m		<1	<1	---
Magnesium	ppm	ASTM D5185m		857	803	---
Calcium	ppm	ASTM D5185m		1391	1691	---
Phosphorus	ppm	ASTM D5185m		932	927	---
Zinc	ppm	ASTM D5185m		1115	1117	---
Sulfur	ppm	ASTM D5185m		2987	3723	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.4	13.7	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	8.1	9.5	---
Visc @ 100°C	cSt	ASTM D445	15.4	14.2	13.8	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0189105 **Received** : 10 Jan 2024
Lab Number : 06056538 **Diagnosed** : 11 Jan 2024
Unique Number : 10822487 **Diagnostician** : Don Baldrige
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)