



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
1810
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (--- QTS)

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		WC0870856	WC0870766	---
Sample Date		Client Info		02 Feb 2024	31 Oct 2023	---
Machine Age	mls	Client Info		24511	19186	---
Oil Age	mls	Client Info		0	0	---
Filter Age	mls	Client Info		0	0	---
Oil Changed		Client Info		Not Changd	Not Changd	---
Filter Changed		Client Info		Not Changd	Not Changd	---
Sample Status				ABNORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	49	23	---
Chromium	ppm	ASTM D5185m	>20	2	<1	---
Nickel	ppm	ASTM D5185m	>4	<1	0	---
Titanium	ppm	ASTM D5185m		0	<1	---
Silver	ppm	ASTM D5185m	>3	0	0	---
Aluminum	ppm	ASTM D5185m	>20	44	23	---
Lead	ppm	ASTM D5185m	>40	0	0	---
Copper	ppm	ASTM D5185m	>330	3	3	---
Tin	ppm	ASTM D5185m	>15	<1	0	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

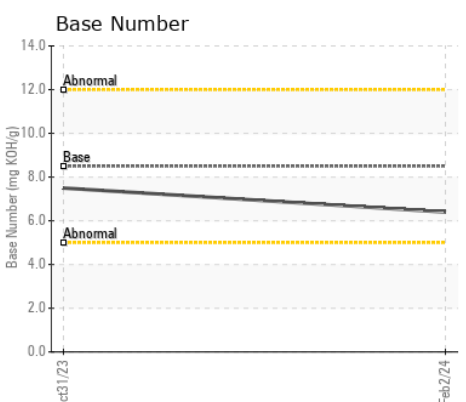
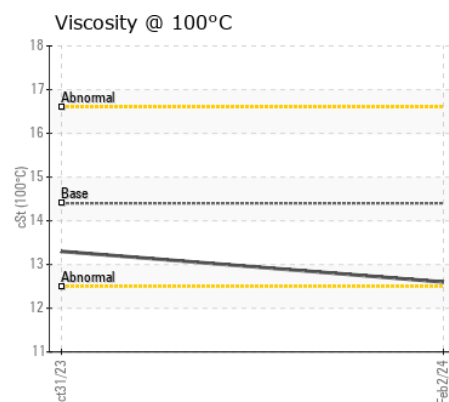
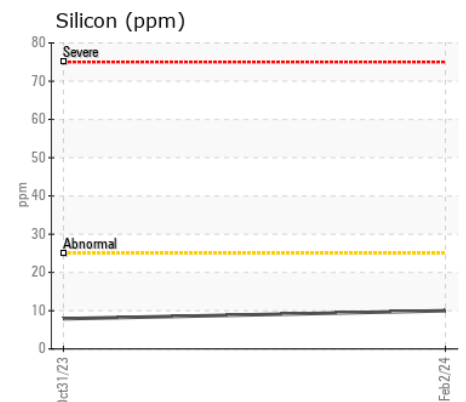
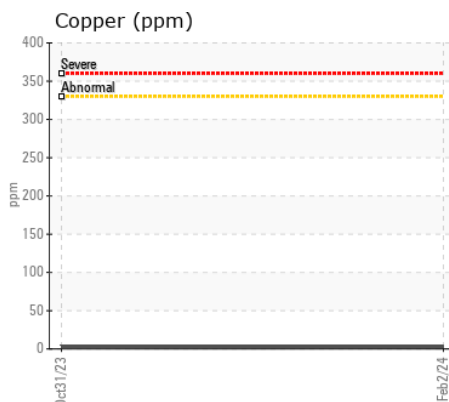
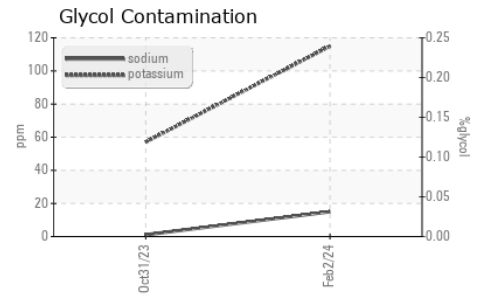
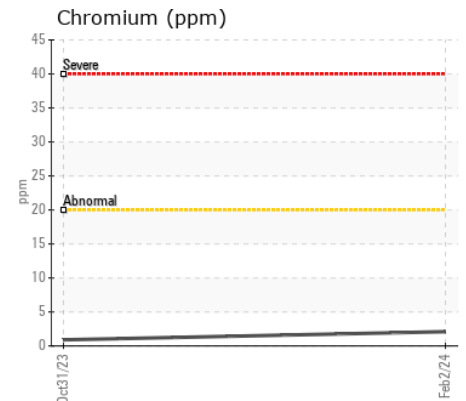
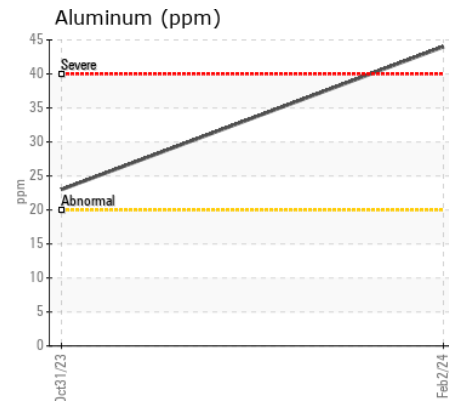
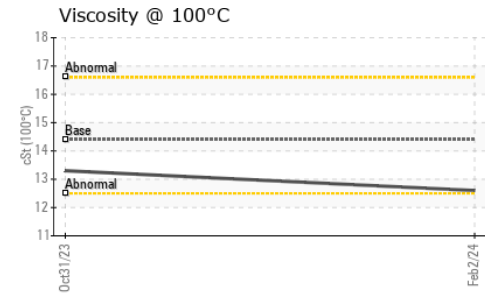
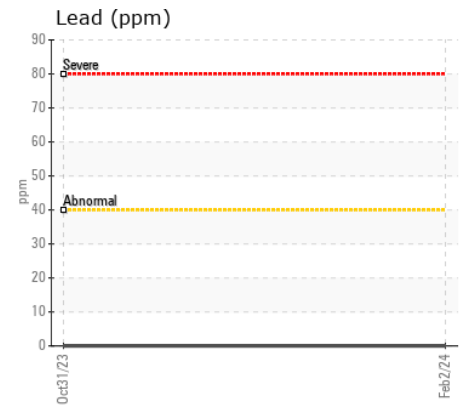
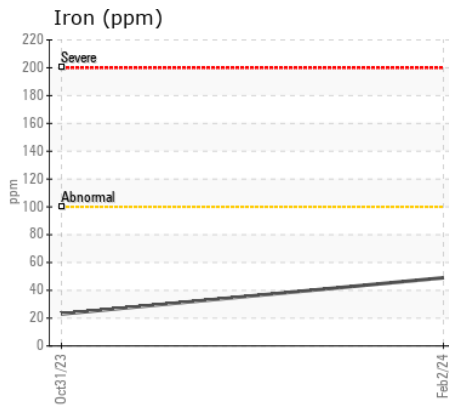
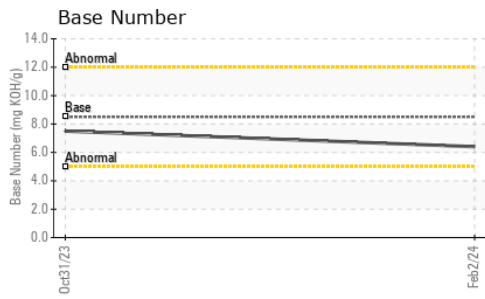
Sodium and/or potassium levels are high.

Silicon	ppm	ASTM D5185m	>25	10	8	---
Potassium	ppm	ASTM D5185m	>20	▲ 115	57	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol	%	*ASTM D2982		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.6	0.3	---
Nitration	Abs/cm	*ASTM D7624	>20	10.0	8.2	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.5	18.2	---
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.

Sodium	ppm	ASTM D5185m	>158	15	1	---
Boron	ppm	ASTM D5185m	250	26	44	---
Barium	ppm	ASTM D5185m	10	0	6	---
Molybdenum	ppm	ASTM D5185m	100	82	81	---
Manganese	ppm	ASTM D5185m		1	<1	---
Magnesium	ppm	ASTM D5185m	450	219	213	---
Calcium	ppm	ASTM D5185m	3000	1903	1953	---
Phosphorus	ppm	ASTM D5185m	1150	996	1009	---
Zinc	ppm	ASTM D5185m	1350	1216	1163	---
Sulfur	ppm	ASTM D5185m	4250	3724	3586	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.6	14.2	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	6.4	7.5	---
Visc @ 100°C	cSt	ASTM D445	14.4	12.6	13.3	---



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0870856 **Received** : 29 Feb 2024
Lab Number : **06104818** **Tested** : 05 Mar 2024
Unique Number : 10903048 **Diagnosed** : 05 Mar 2024 - Jonathan Hester
Test Package : MOB 1 (Additional Tests: Glycol, TBN)

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Certificate L2367
 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)