



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
4160314
 Component
Diesel Engine
 Fluid
SHELL 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0808695	WC0808711	---
Sample Date		Client Info		10 Jan 2024	23 Aug 2023	---
Machine Age	hrs	Client Info		3224	2948	---
Oil Age	hrs	Client Info		273	250	---
Filter Age	hrs	Client Info		273	250	---
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	15	14	---
Chromium	ppm	ASTM D5185m	>20	0	<1	---
Nickel	ppm	ASTM D5185m	>4	<1	0	---
Titanium	ppm	ASTM D5185m		0	0	---
Silver	ppm	ASTM D5185m	>3	0	0	---
Aluminum	ppm	ASTM D5185m	>20	9	2	---
Lead	ppm	ASTM D5185m	>40	0	0	---
Copper	ppm	ASTM D5185m	>330	<1	<1	---
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

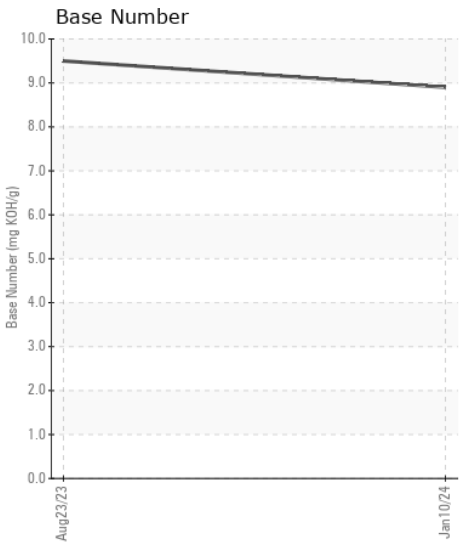
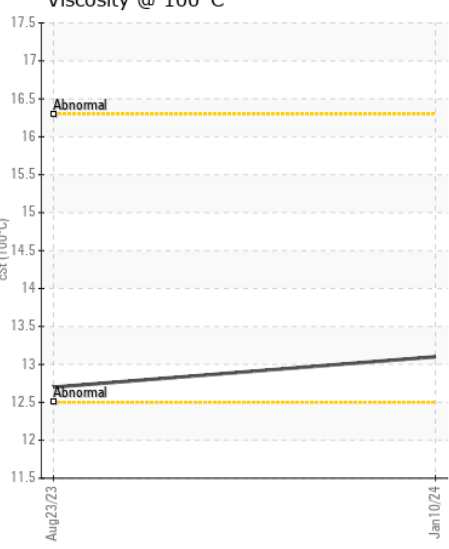
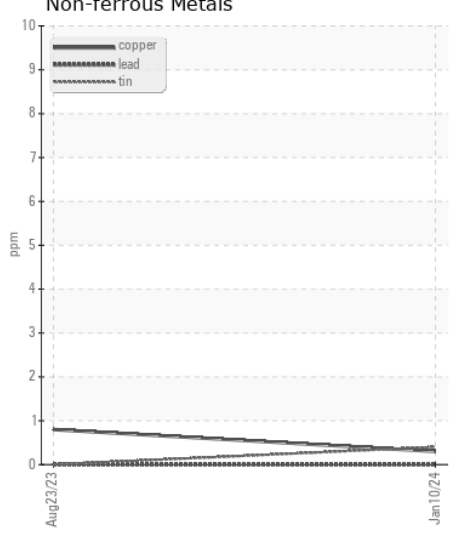
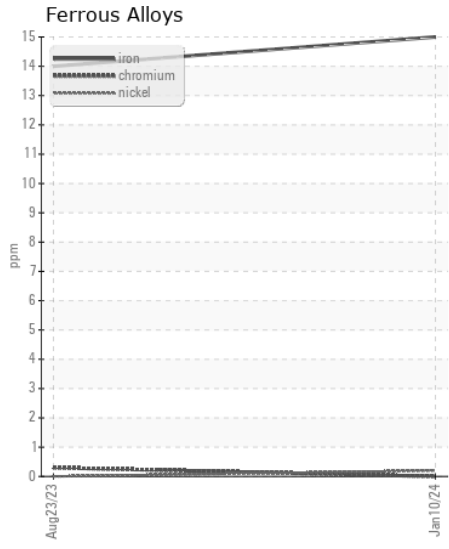
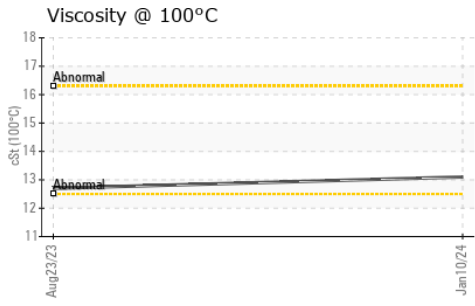
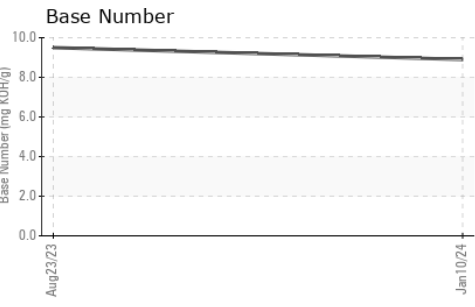
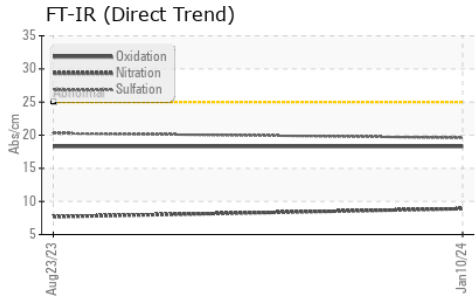
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	4	4	---
Potassium	ppm	ASTM D5185m	>20	1	1	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.2	0.3	---
Nitration	Abs/cm	*ASTM D7624	>20	8.9	7.7	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.6	20.3	---
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	>150	3	2	---
Boron	ppm	ASTM D5185m		29	27	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		44	42	---
Manganese	ppm	ASTM D5185m		0	<1	---
Magnesium	ppm	ASTM D5185m		748	555	---
Calcium	ppm	ASTM D5185m		1299	1779	---
Phosphorus	ppm	ASTM D5185m		792	823	---
Zinc	ppm	ASTM D5185m		955	1035	---
Sulfur	ppm	ASTM D5185m		2945	3133	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.3	18.3	---
Base Number (BN)	mg KOH/g	ASTM D2896		8.9	9.5	---
Visc @ 100°C	cSt	ASTM D445		13.1	12.7	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0808695 **Received** : 12 Jul 2024
Lab Number : 06234420 **Tested** : 12 Jul 2024
Unique Number : 11123254 **Diagnosed** : 12 Jul 2024 - Wes Davis
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)