



WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
849
 Component
Diesel Engine
 Fluid
VALVOLINE PREMIUM BLUE (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0876876	WC0731988	---
Sample Date		Client Info		05 Apr 2024	10 Dec 2022	---
Machine Age	mls	Client Info		204000	179000	---
Oil Age	mls	Client Info		25000	24000	---
Filter Age	mls	Client Info		25000	24000	---
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	65	29	---
Chromium	ppm	ASTM D5185m	>20	1	1	---
Nickel	ppm	ASTM D5185m	>4	<1	0	---
Titanium	ppm	ASTM D5185m		0	0	---
Silver	ppm	ASTM D5185m	>3	<1	0	---
Aluminum	ppm	ASTM D5185m	>20	7	3	---
Lead	ppm	ASTM D5185m	>40	4	5	---
Copper	ppm	ASTM D5185m	>330	0	1	---
Tin	ppm	ASTM D5185m	>15	1	<1	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

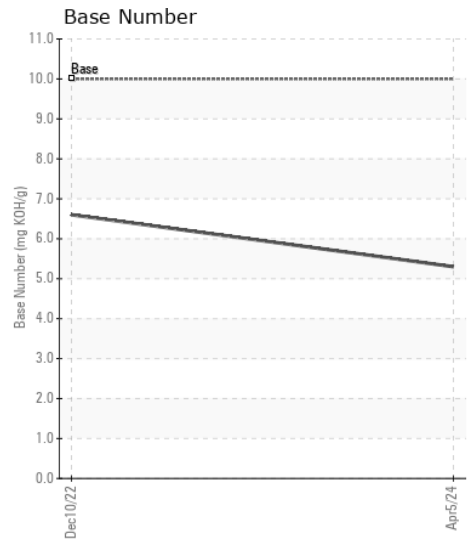
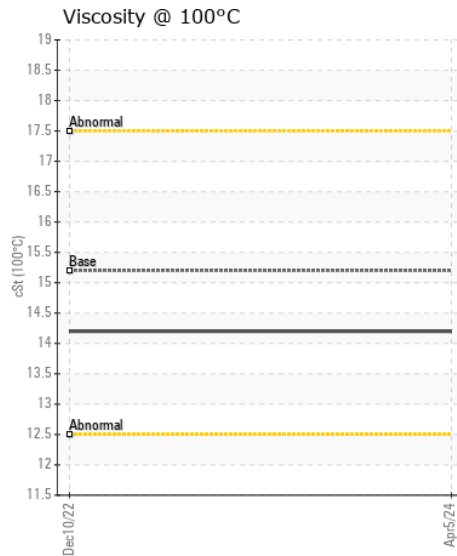
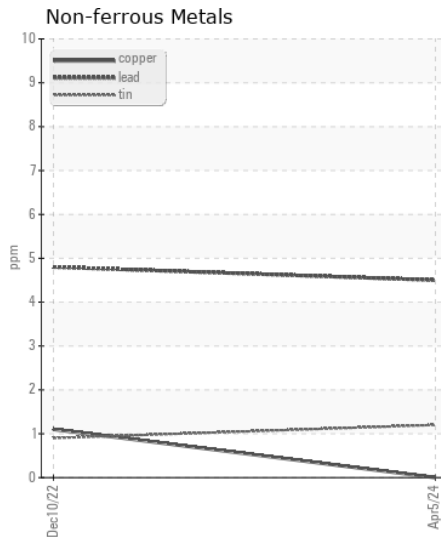
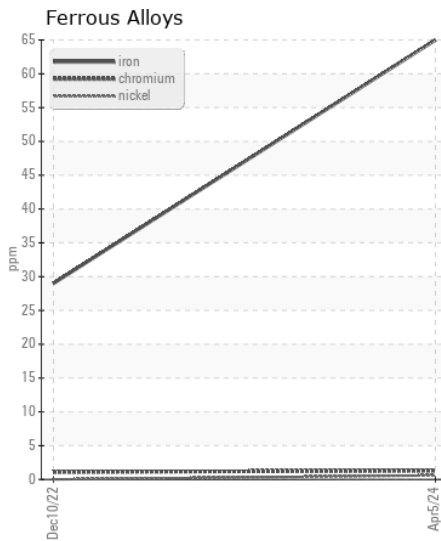
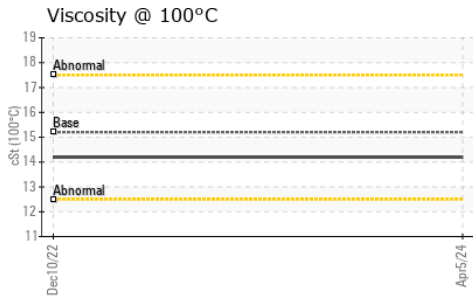
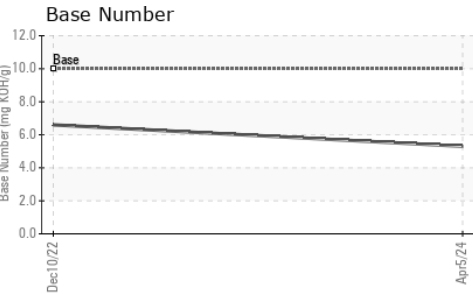
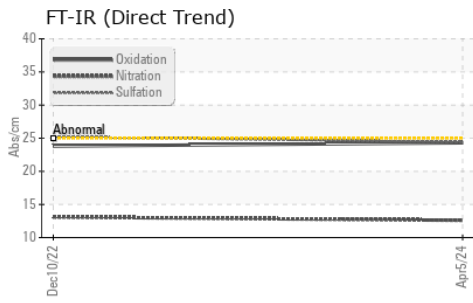
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	7	8	---
Potassium	ppm	ASTM D5185m	>20	5	2	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.5	0.4	---
Nitration	Abs/cm	*ASTM D7624	>20	12.6	13.1	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.4	25.2	---
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. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		4	3	---
Boron	ppm	ASTM D5185m	2.9	21	21	---
Barium	ppm	ASTM D5185m	0.1	0	0	---
Molybdenum	ppm	ASTM D5185m	0.0	50	53	---
Manganese	ppm	ASTM D5185m		<1	<1	---
Magnesium	ppm	ASTM D5185m	18	825	790	---
Calcium	ppm	ASTM D5185m	2936	1241	1246	---
Phosphorus	ppm	ASTM D5185m	998	768	750	---
Zinc	ppm	ASTM D5185m	1095	949	881	---
Sulfur	ppm	ASTM D5185m	5469	2833	2630	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	24.3	23.8	---
Base Number (BN)	mg KOH/g	ASTM D2896	10.0	5.3	6.6	---
Visc @ 100°C	cSt	ASTM D445	15.2	14.2	14.2	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0876876 **Received** : 11 Apr 2024
Lab Number : **06146411** **Tested** : 12 Apr 2024
Unique Number : 10976489 **Diagnosed** : 15 Apr 2024 - Don Baldrige
Test Package : FLEET

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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)