



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
VOLVO 404
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 10W30 (10 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LW0009402	LW0009165	---
Sample Date		Client Info		27 Jun 2024	30 Apr 2024	---
Machine Age	hrs	Client Info		82762	0	---
Oil Age	hrs	Client Info		50000	22862	---
Filter Age	hrs	Client Info		25000	22862	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				NORMAL	ABNORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	39	46	---
Chromium	ppm	ASTM D5185m	>20	<1	1	---
Nickel	ppm	ASTM D5185m	>2	0	<1	---
Titanium	ppm	ASTM D5185m		0	<1	---
Silver	ppm	ASTM D5185m	>2	<1	21	---
Aluminum	ppm	ASTM D5185m	>25	21	32	---
Lead	ppm	ASTM D5185m	>40	0	0	---
Copper	ppm	ASTM D5185m	>330	135	13	---
Tin	ppm	ASTM D5185m	>15	2	4	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

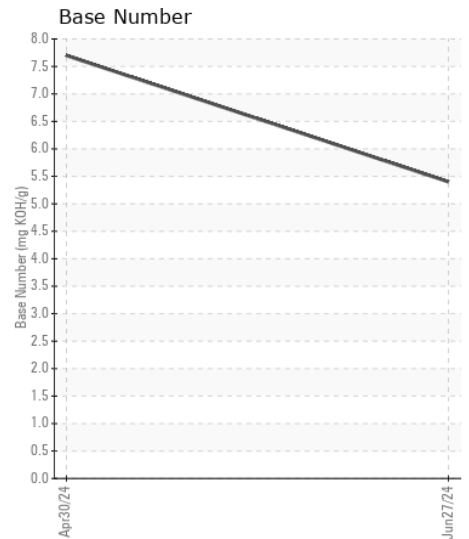
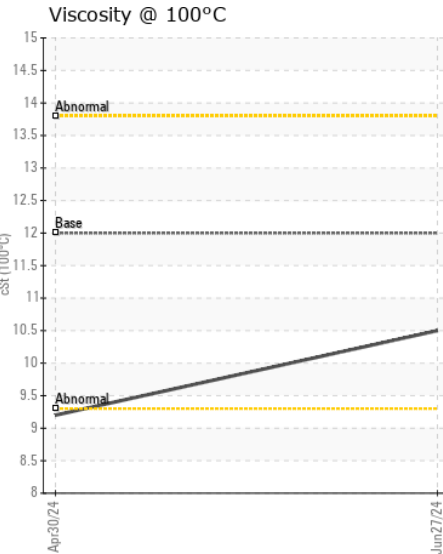
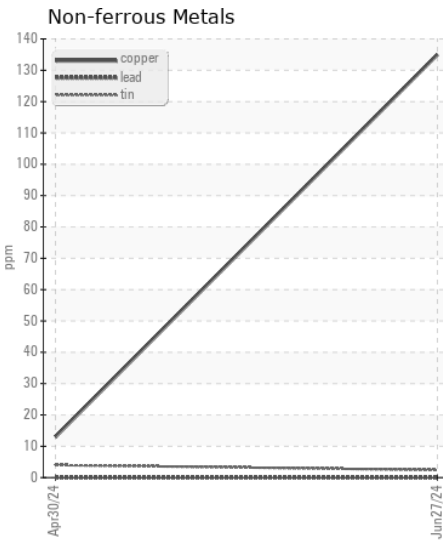
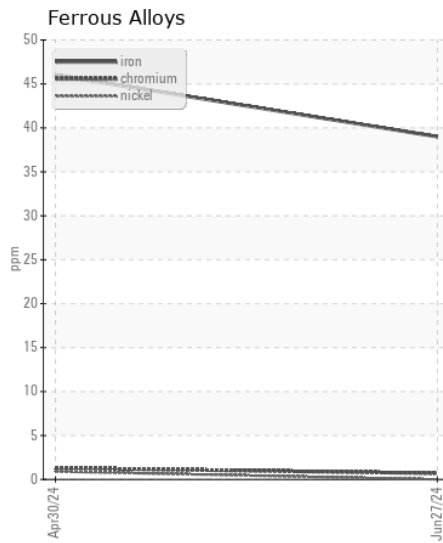
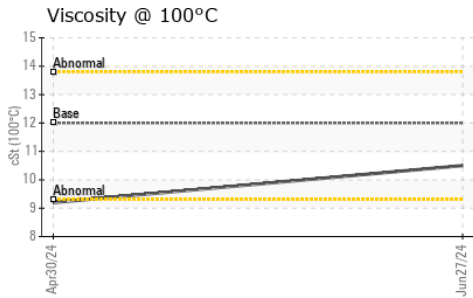
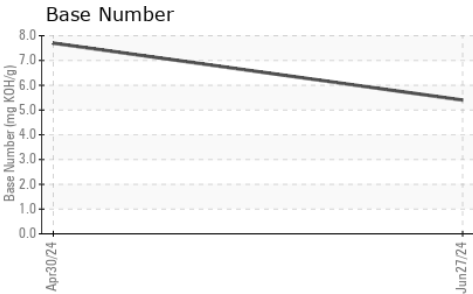
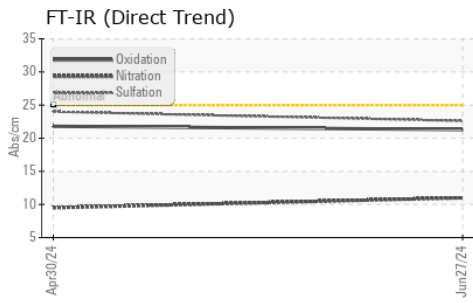
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	15	74	---
Potassium	ppm	ASTM D5185m	>20	46	58	---
Fuel		WC Method	>6.0	<1.0	0.4	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.3	0.2	---
Nitration	Abs/cm	*ASTM D7624	>20	11.0	9.5	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.6	24.0	---
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		3	4	---
Boron	ppm	ASTM D5185m	2	6	204	---
Barium	ppm	ASTM D5185m	0	0	<1	---
Molybdenum	ppm	ASTM D5185m	50	64	121	---
Manganese	ppm	ASTM D5185m	0	1	4	---
Magnesium	ppm	ASTM D5185m	950	933	688	---
Calcium	ppm	ASTM D5185m	1050	1156	1686	---
Phosphorus	ppm	ASTM D5185m	995	966	754	---
Zinc	ppm	ASTM D5185m	1180	1191	846	---
Sulfur	ppm	ASTM D5185m	2600	2435	2784	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.3	21.8	---
Base Number (BN)	mg KOH/g	ASTM D2896		5.4	7.7	---
Visc @ 100°C	cSt	ASTM D445	12.00	10.5	9.2	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LW0009402
Lab Number : 06225594
Unique Number : 11103791
Test Package : FLEET

Received : 01 Jul 2024
Tested : 03 Jul 2024
Diagnosed : 03 Jul 2024 - Wes Davis

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 9809 INDUSTRIAL DRIVE
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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)