



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION



Machine Id
VOLVO A40G 353276
Component
Diesel Engine
Fluid
VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (13 GAL)

RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		ML0002083	VCP426097	---
Sample Date		Client Info		19 Jun 2024	26 Sep 2023	---
Machine Age	hrs	Client Info		1102	568	---
Oil Age	hrs	Client Info		534	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		N/A	Changed	---
Sample Status				ATTENTION	ABNORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>200	7	14	---
Chromium	ppm	ASTM D5185m	>20	<1	<1	---
Nickel	ppm	ASTM D5185m	>10	5	<1	---
Titanium	ppm	ASTM D5185m		<1	0	---
Silver	ppm	ASTM D5185m	>2	<1	0	---
Aluminum	ppm	ASTM D5185m	>30	3	<1	---
Lead	ppm	ASTM D5185m	>40	0	0	---
Copper	ppm	ASTM D5185m	>20	15	▲ 89	---
Tin	ppm	ASTM D5185m	>20	0	2	---
Vanadium	ppm	ASTM D5185m		<1	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

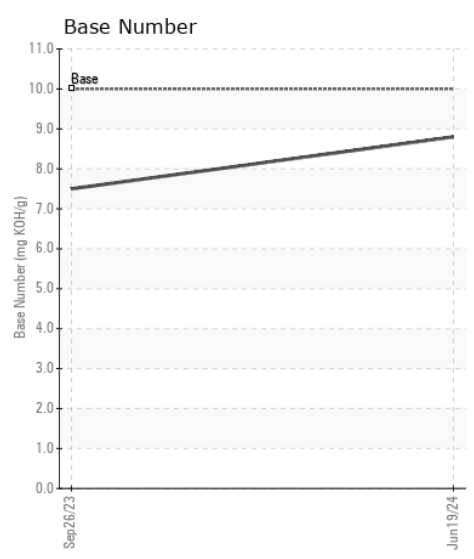
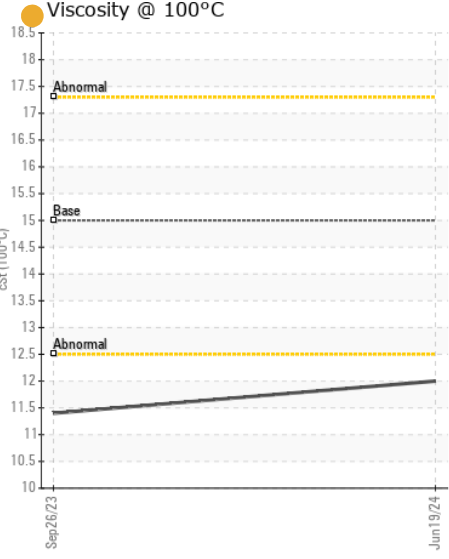
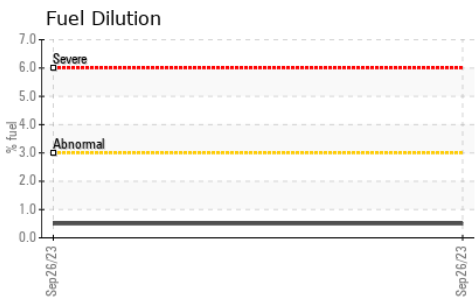
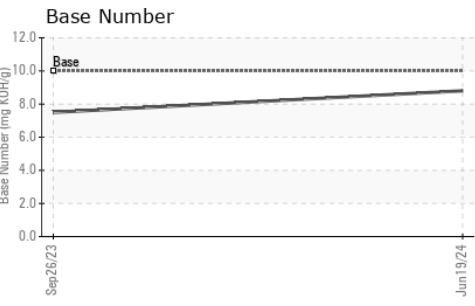
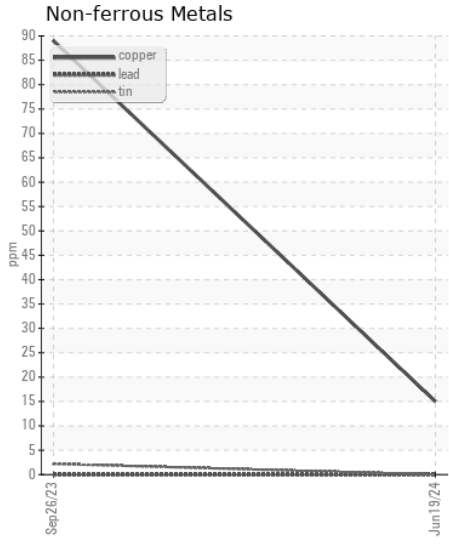
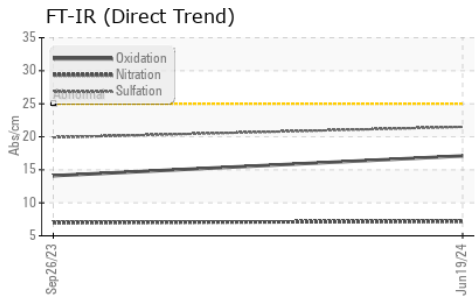
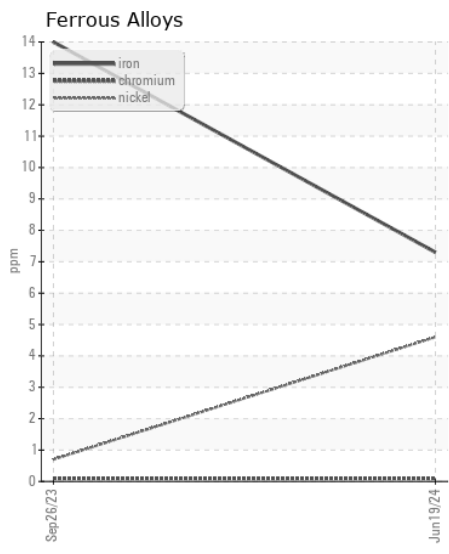
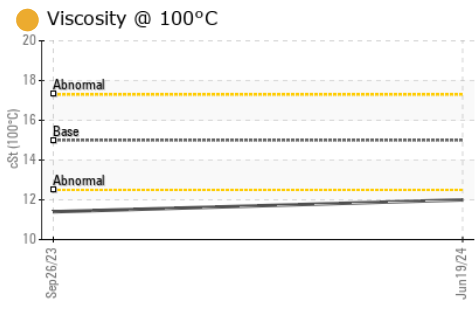
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	8	20	---
Potassium	ppm	ASTM D5185m	>20	3	3	---
Fuel	%	ASTM D3524	>3.0	<1.0	0.5	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.2	0.1	---
Nitration	Abs/cm	*ASTM D7624	>20	7.2	7.0	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.5	19.9	---
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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m		2	34	---
Boron	ppm	ASTM D5185m	2.5	140	47	---
Barium	ppm	ASTM D5185m	0.0	0	0	---
Molybdenum	ppm	ASTM D5185m	0.7	76	46	---
Manganese	ppm	ASTM D5185m	0.0	1	3	---
Magnesium	ppm	ASTM D5185m	256	583	300	---
Calcium	ppm	ASTM D5185m	2057	1718	1793	---
Phosphorus	ppm	ASTM D5185m	935	994	1038	---
Zinc	ppm	ASTM D5185m	1223	1207	1253	---
Sulfur	ppm	ASTM D5185m	4079	3796	3665	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.1	14.1	---
Base Number (BN)	mg KOH/g	ASTM D2896	10	8.8	7.5	---
Visc @ 100°C	cSt	ASTM D445	15.0	● 12.0	● 11.4	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ML0002083 **Received** : 27 Jun 2024
Lab Number : 06223037 **Tested** : 30 Jun 2024
Unique Number : 11101234 **Diagnosed** : 30 Jun 2024 - Don Baldrige
Test Package : CONST (Additional Tests: FuelDilution, 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)