



VOLVO

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL



Machine Id
VOLVO A40F 12382
Component
Diesel Engine
Fluid
MOBIL 15W40 (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP307505	VCP339735	VCP312560
Sample Date		Client Info		30 Jan 2024	10 Oct 2023	01 Sep 2023
Machine Age	hrs	Client Info		14544	14258	13992
Oil Age	hrs	Client Info		286	266	300
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>200	11	6	7
Chromium	ppm	ASTM D5185m	>20	<1	<1	0
Nickel	ppm	ASTM D5185m	>10	1	<1	<1
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>30	10	7	6
Lead	ppm	ASTM D5185m	>40	<1	<1	<1
Copper	ppm	ASTM D5185m	>20	2	<1	<1
Tin	ppm	ASTM D5185m	>20	<1	0	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

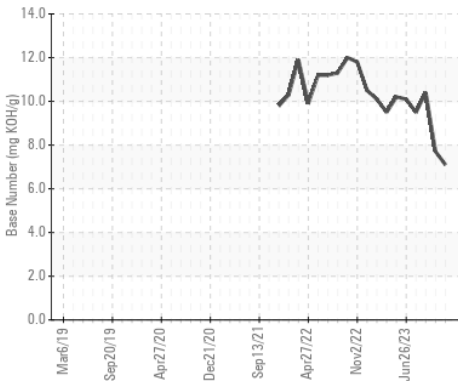
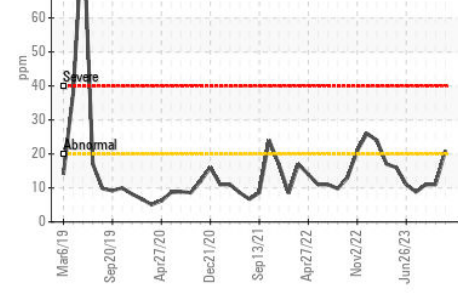
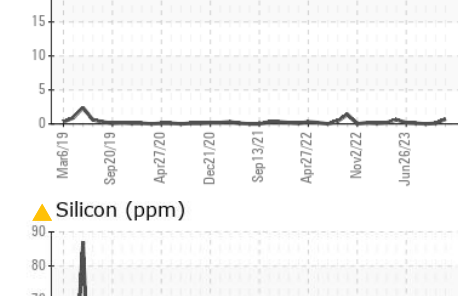
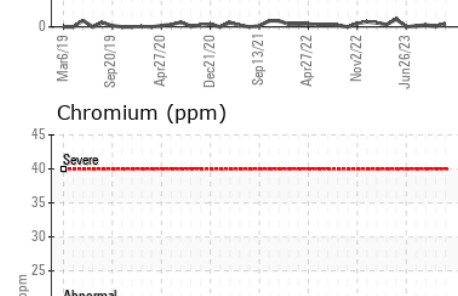
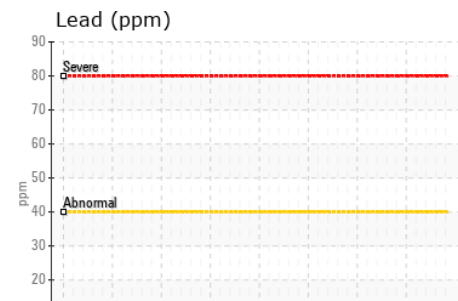
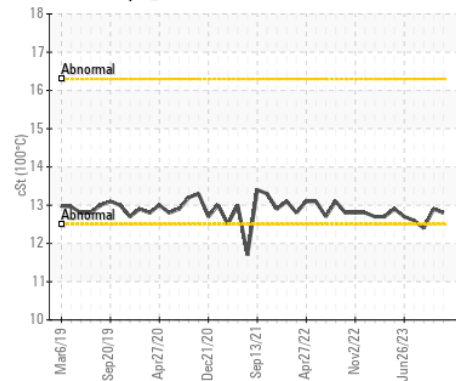
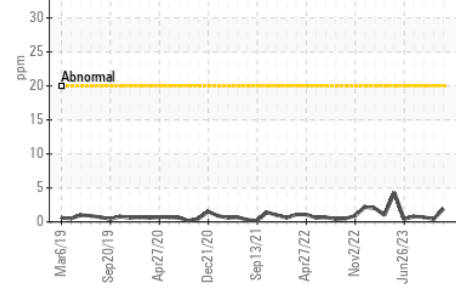
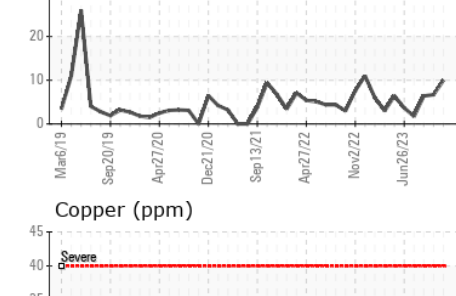
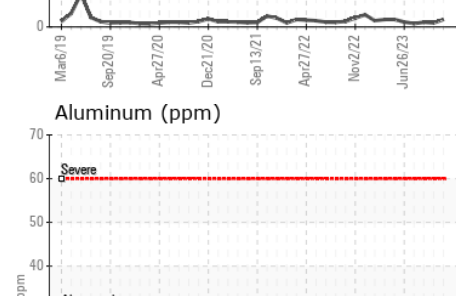
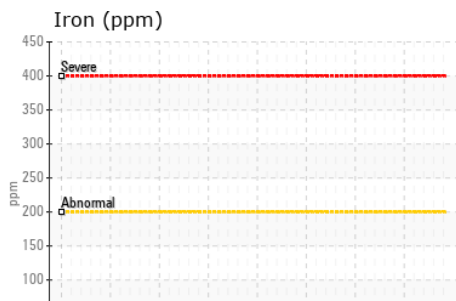
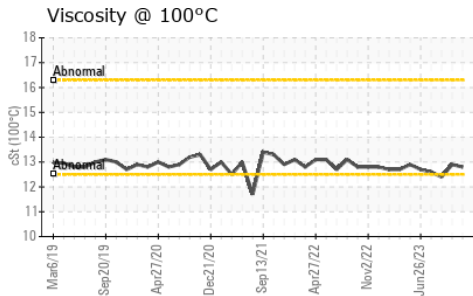
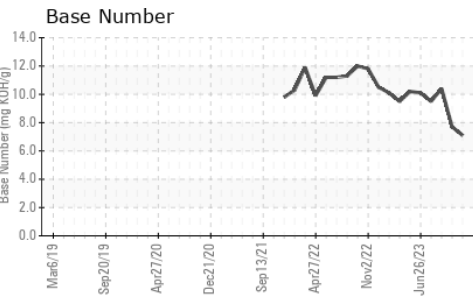
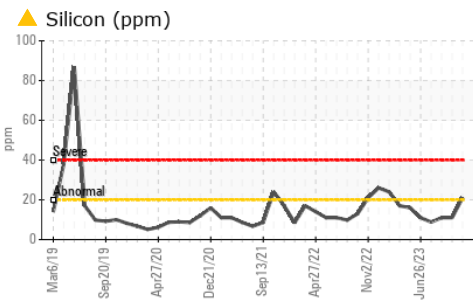
Elemental level of silicon (Si) above normal.

Silicon	ppm	ASTM D5185m	>20	▲ 21	11	11
Potassium	ppm	ASTM D5185m	>20	3	2	2
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	8.1	7.2	6.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.0	18.4	21.8
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m	>118	4	2	<1
Boron	ppm	ASTM D5185m		105	103	54
Barium	ppm	ASTM D5185m		34	0	0
Molybdenum	ppm	ASTM D5185m		122	100	42
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m		573	611	469
Calcium	ppm	ASTM D5185m		1039	1353	1658
Phosphorus	ppm	ASTM D5185m		583	743	735
Zinc	ppm	ASTM D5185m		747	869	904
Sulfur	ppm	ASTM D5185m		2668	3338	2961
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.4	15.5	19.7
Base Number (BN)	mg KOH/g	ASTM D2896		7.1	7.7	10.4
Visc @ 100°C	cSt	ASTM D445		12.8	12.9	12.4



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP307505 **Received** : 26 Feb 2024
Lab Number : 06099960 **Tested** : 27 Feb 2024
Unique Number : 10898190 **Diagnosed** : 27 Feb 2024 - Don Baldrige
Test Package : MOB 1 (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)