MOB I VOLVO

OIL ANALYSIS REPORT

WEAR	ATTENTION
CONTAMINATION	SEVERE
FLUID CONDITION	ABNORMAL

Area
[5095 ASH]
Machine Id
VOLVO EC950F 410045
Component
Diesel Engine
Fluid
CHEVRON 15W40 (--- GAL)

RECOMMENDATION

We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

WEAR

An increase in the copper level is noted. All other component wear rates are normal.

CONTAMINATION

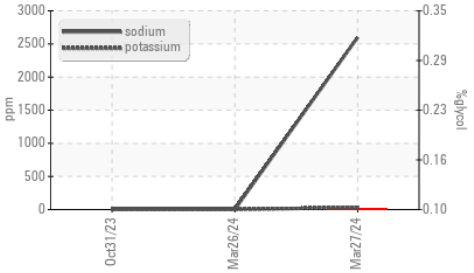
Sodium and/or potassium levels are high. Test for glycol is positive. There is a high concentration of glycol present in the oil.

FLUID CONDITION

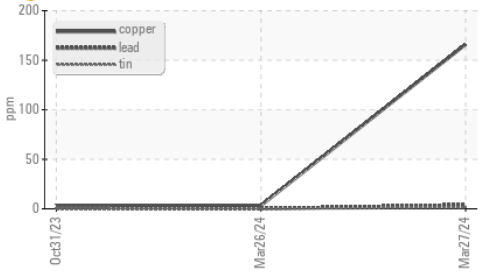
The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP434273	VCP434267	VCP401826
Sample Date		Client Info		27 Mar 2024	26 Mar 2024	31 Oct 2023
Machine Age	hrs	Client Info		4934	4494	3928
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	N/A	N/A
Sample Status				SEVERE	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>100	31	7	10
Chromium	ppm	ASTM D5185m	>20	2	<1	<1
Nickel	ppm	ASTM D5185m	>2	4	<1	<1
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>25	8	4	5
Lead	ppm	ASTM D5185m	>40	4	0	<1
Copper	ppm	ASTM D5185m	>330	● 166	3	3
Tin	ppm	ASTM D5185m	>15	1	0	<1
Vanadium	ppm	ASTM D5185m		<1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	9	4	7
Potassium	ppm	ASTM D5185m	>20	▲ 31	2	4
Fuel		WC Method	>6.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		▲ 0.10	NEG	NEG
Soot %	%	*ASTM D7844	>3	1.8	0.6	0.9
Nitration	Abs/cm	*ASTM D7624	>20	14.4	9.5	9.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	28.5	23.4	23.0
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
Sodium	ppm	ASTM D5185m	>50	▲ 2600	3	3
Boron	ppm	ASTM D5185m		98	157	132
Barium	ppm	ASTM D5185m		0	<1	<1
Molybdenum	ppm	ASTM D5185m		152	95	98
Manganese	ppm	ASTM D5185m		1	<1	0
Magnesium	ppm	ASTM D5185m		475	611	694
Calcium	ppm	ASTM D5185m		1230	1563	1519
Phosphorus	ppm	ASTM D5185m		506	640	794
Zinc	ppm	ASTM D5185m		722	880	1004
Sulfur	ppm	ASTM D5185m		2826	3062	3216
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.3	18.1	17.4
Base Number (BN)	mg KOH/g	ASTM D2896		11.9	7.5	7.6
Visc @ 100°C	cSt	ASTM D445	14.4	13.4	12.6	13.1

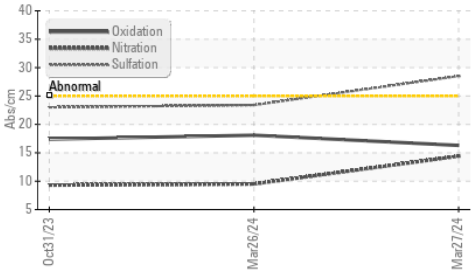
Glycol Contamination



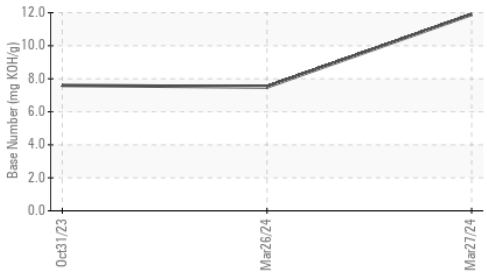
Non-ferrous Metals



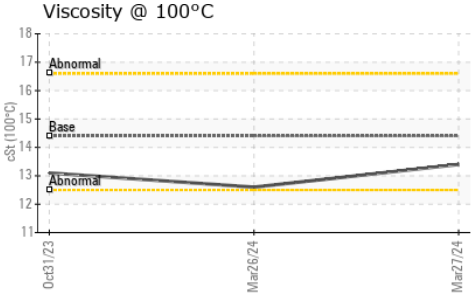
FT-IR (Direct Trend)



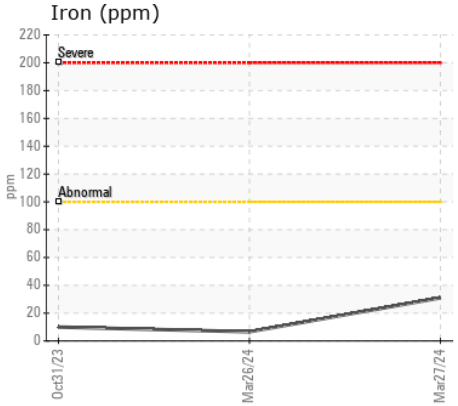
Base Number



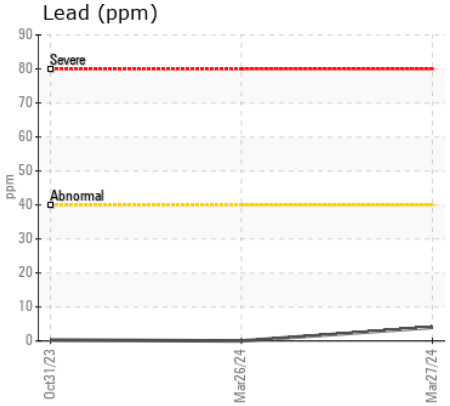
Viscosity @ 100°C



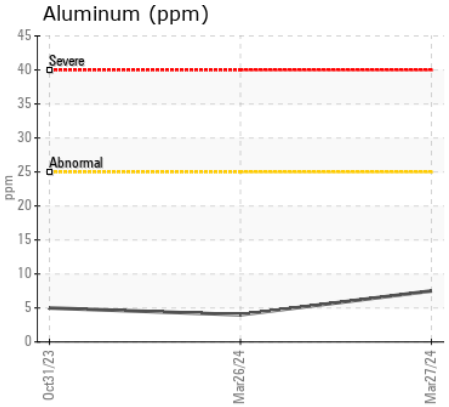
Iron (ppm)



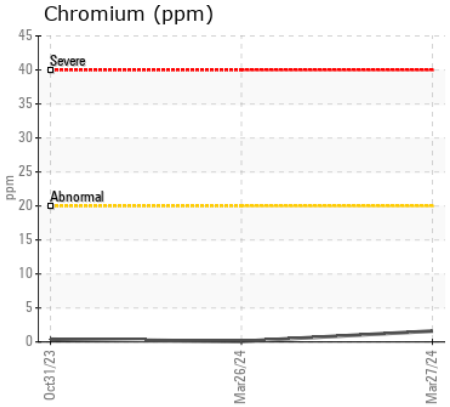
Lead (ppm)



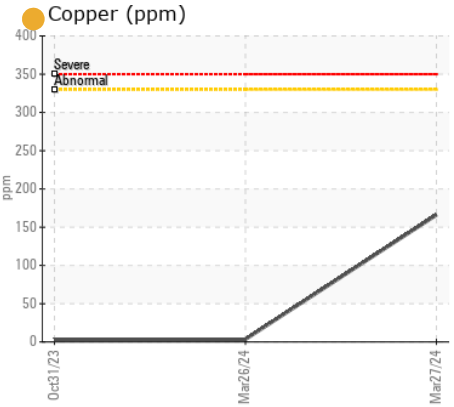
Aluminum (ppm)



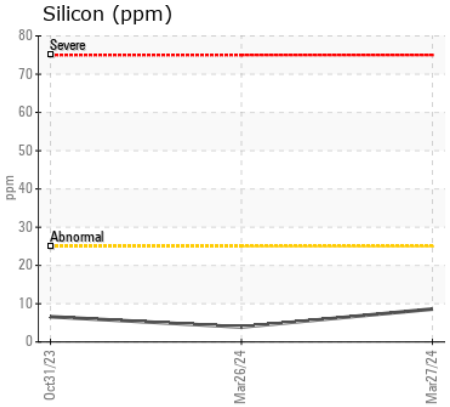
Chromium (ppm)



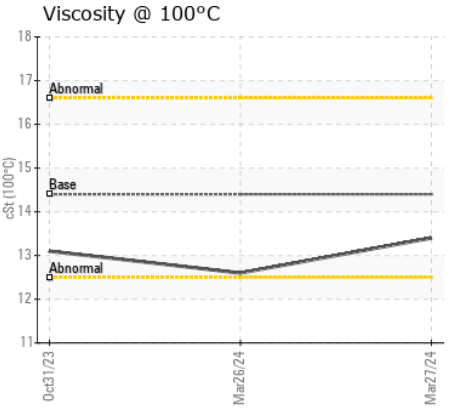
Copper (ppm)



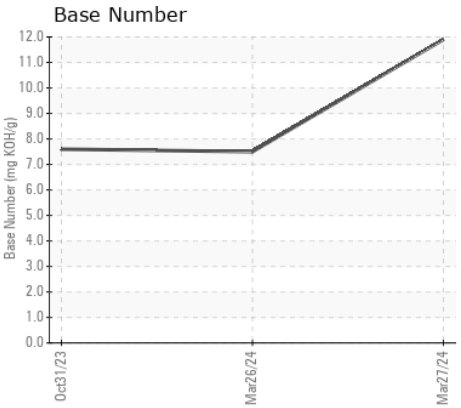
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP434273
Lab Number : 06154056
Unique Number : 10989479
Test Package : MOB 1 (Additional Tests: Glycol, TBN)

Received : 19 Apr 2024
Tested : 23 Apr 2024
Diagnosed : 23 Apr 2024 - Don Baldridge

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)

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