MOB I

VOLVO

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Area
[47847]
Machine Id
VOLVO EC350E 314512
Component
Diesel Engine
Fluid
VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- 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.

WEAR

All component wear rates are normal.

CONTAMINATION

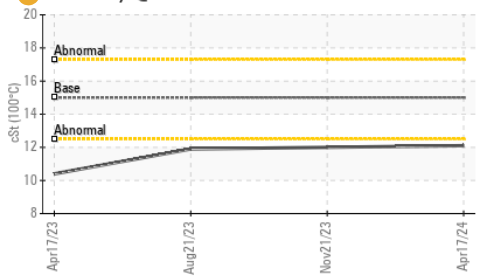
There is no indication of any contamination in the oil.

FLUID CONDITION

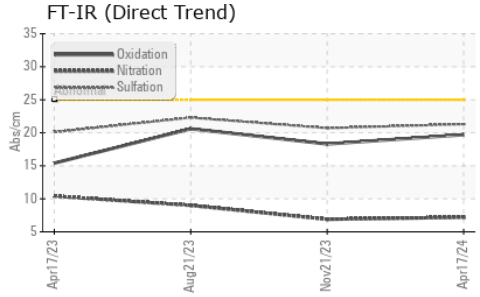
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP417909	VCP402651	VCP408251
Sample Date		Client Info		17 Apr 2024	21 Nov 2023	21 Aug 2023
Machine Age	hrs	Client Info		2041	1660	1179
Oil Age	hrs	Client Info		500	500	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ATTENTION	ATTENTION	ATTENTION
Iron	ppm	ASTM D5185m	>100	5	3	6
Chromium	ppm	ASTM D5185m	>20	<1	0	0
Nickel	ppm	ASTM D5185m	>2	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	2	0	0
Lead	ppm	ASTM D5185m	>40	<1	0	1
Copper	ppm	ASTM D5185m	>330	11	11	71
Tin	ppm	ASTM D5185m	>15	1	<1	1
Vanadium	ppm	ASTM D5185m		<1	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	6	5	13
Potassium	ppm	ASTM D5185m	>20	2	0	1
Fuel		WC Method	>6.0	<1.0	<1.0	0.4
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	7.2	6.9	9.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.3	20.7	22.3
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		1	2	3
Boron	ppm	ASTM D5185m	2.5	56	56	19
Barium	ppm	ASTM D5185m	0.0	2	0	0
Molybdenum	ppm	ASTM D5185m	0.7	40	45	44
Manganese	ppm	ASTM D5185m	0.0	<1	<1	1
Magnesium	ppm	ASTM D5185m	256	478	439	478
Calcium	ppm	ASTM D5185m	2057	1653	1777	1801
Phosphorus	ppm	ASTM D5185m	935	953	958	906
Zinc	ppm	ASTM D5185m	1223	1099	1100	1131
Sulfur	ppm	ASTM D5185m	4079	3314	2831	3534
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.7	18.3	20.6
Base Number (BN)	mg KOH/g	ASTM D2896	10	9.4	9.0	8.4
Visc @ 100°C	cSt	ASTM D445	15.0	12.1	12.0	11.9

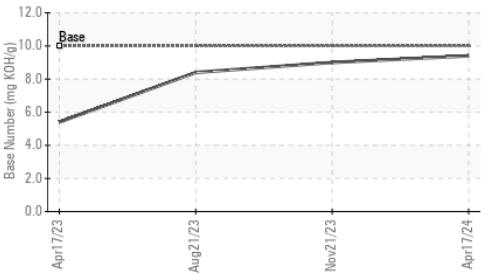
Viscosity @ 100°C



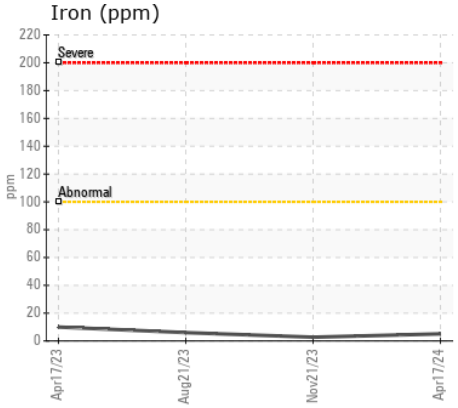
FT-IR (Direct Trend)



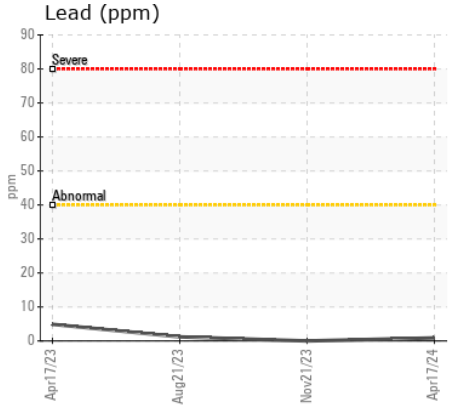
Base Number



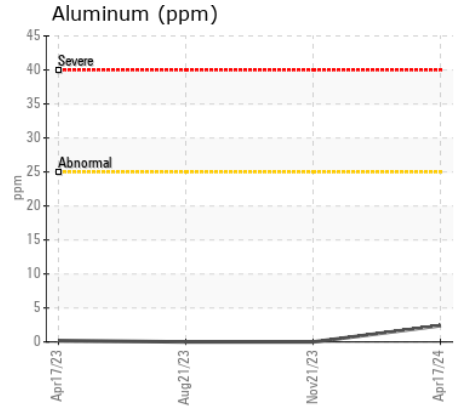
Iron (ppm)



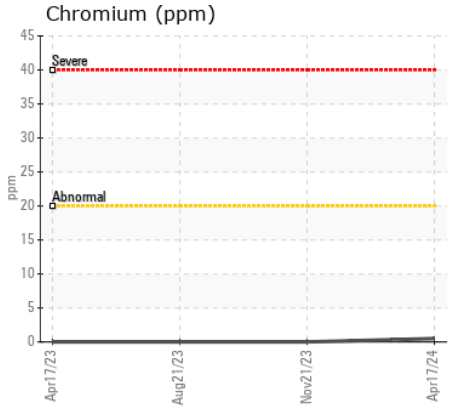
Lead (ppm)



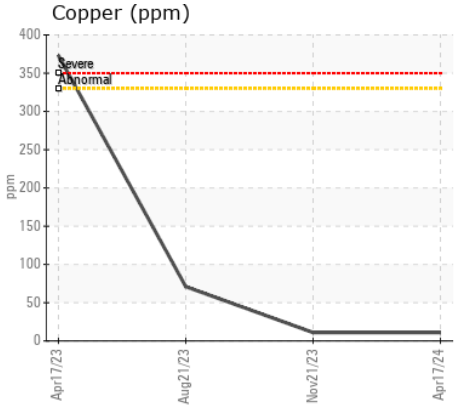
Aluminum (ppm)



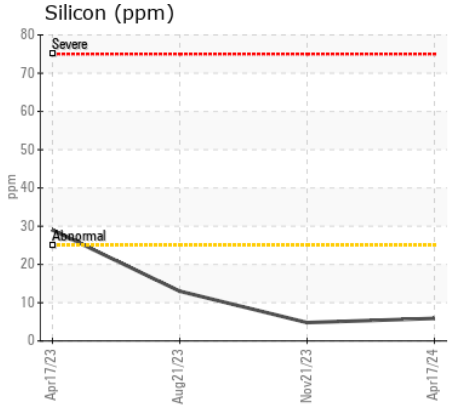
Chromium (ppm)



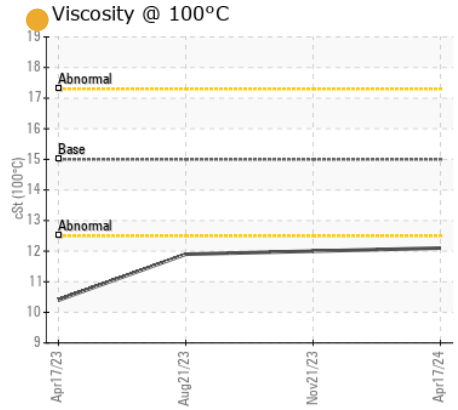
Copper (ppm)



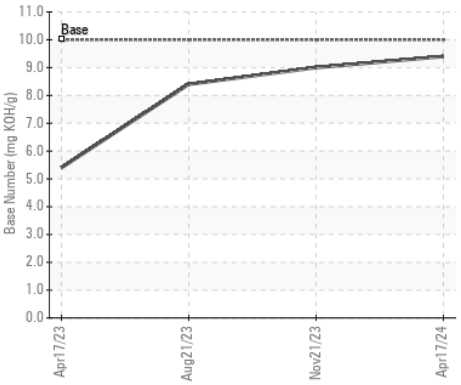
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP417909
Lab Number : 06161255
Unique Number : 10996678
Test Package : MOB 1 (Additional Tests: TBN)

Received : 26 Apr 2024
Tested : 27 Apr 2024
Diagnosed : 29 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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