



VOLVO

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
[12288]
Machine Id
VOLVO ECR235D 210657
Component
Diesel Engine
Fluid
MOBIL 15W40 (--- GAL)

RECOMMENDATION

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		VCP444366	VCP364131	VCP375219
Sample Date		Client Info		14 Mar 2024	18 Oct 2022	20 Jul 2022
Machine Age	hrs	Client Info		2459	1996	1906
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		Changed	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	47	14	31
Chromium	ppm	ASTM D5185m	>10	<1	1	<1
Nickel	ppm	ASTM D5185m	>10	<1	0	<1
Titanium	ppm	ASTM D5185m		4	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>10	6	<1	4
Lead	ppm	ASTM D5185m	>20	<1	1	<1
Copper	ppm	ASTM D5185m	>15	2	<1	<1
Tin	ppm	ASTM D5185m	>10	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

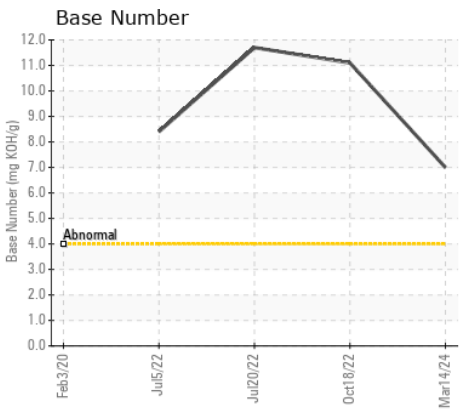
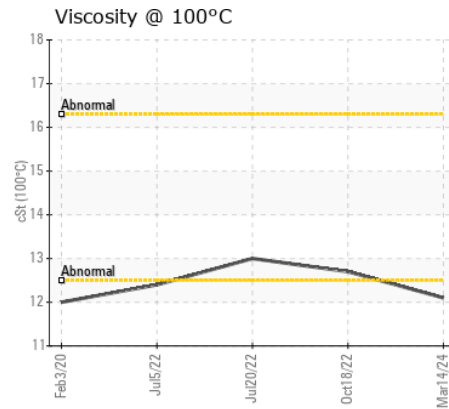
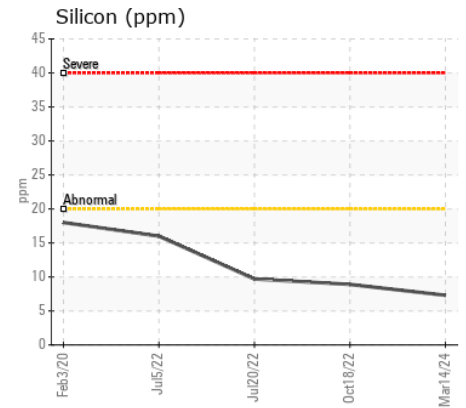
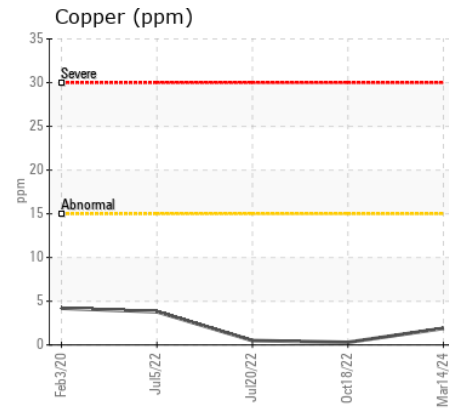
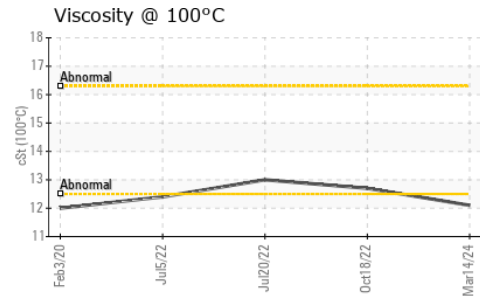
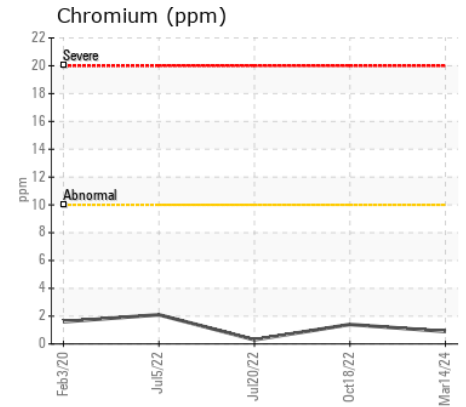
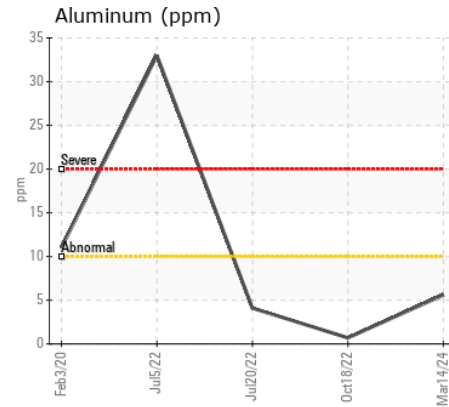
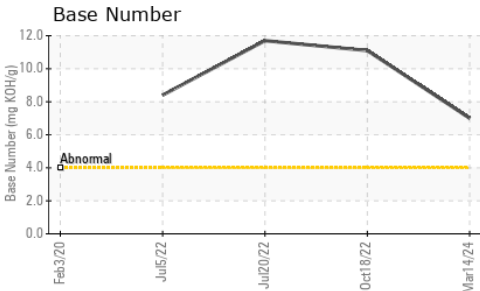
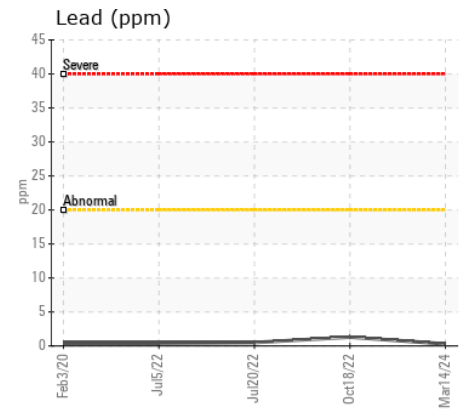
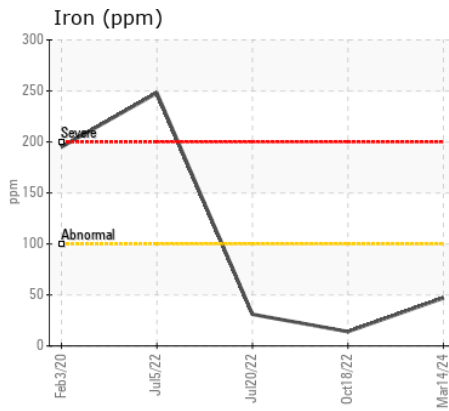
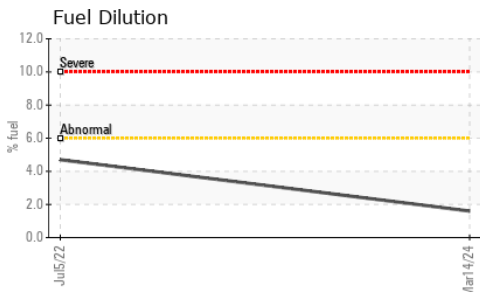
Light fuel dilution occurring. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185m	>20	7	9	10
Potassium	ppm	ASTM D5185m	>20	2	0	<1
Fuel	%	ASTM D3524	>6.0	1.6	<1.0	<1.0
Water		WC Method	>0.1	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	6.9	5.7	5.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.0	22.6	22.5
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	>0.1	NEG	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	>118	2	3	2
Boron	ppm	ASTM D5185m		19	56	83
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		14	43	43
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		193	502	499
Calcium	ppm	ASTM D5185m		2000	1622	1645
Phosphorus	ppm	ASTM D5185m		870	892	862
Zinc	ppm	ASTM D5185m		1038	1108	1053
Sulfur	ppm	ASTM D5185m		3621	3261	3538
Oxidation	Abs/.1mm	*ASTM D7414	>25	11.5	19.8	19.4
Base Number (BN)	mg KOH/g	ASTM D2896		7.0	11.1	11.7
Visc @ 100°C	cSt	ASTM D445		12.1	12.7	13.0



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP444366 **Received** : 20 Mar 2024
Lab Number : 06123427 **Tested** : 22 Mar 2024
Unique Number : 10937578 **Diagnosed** : 22 Mar 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel, 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)