



VOLVO

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
VOLVO EC300EL 314178
Component
Diesel Engine
Fluid
VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Oil and filter 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		VCP437752	VCP350797	---
Sample Date		Client Info		11 Apr 2024	24 Feb 2022	---
Machine Age	hrs	Client Info		2342	336	---
Oil Age	hrs	Client Info		0	336	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				ABNORMAL	ABNORMAL	---

WEAR

The aluminum level has decreased, but is still abnormal. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	18	23	---
Chromium	ppm	ASTM D5185m	>10	1	3	---
Nickel	ppm	ASTM D5185m	>10	1	5	---
Titanium	ppm	ASTM D5185m		<1	<1	---
Silver	ppm	ASTM D5185m	>2	0	1	---
Aluminum	ppm	ASTM D5185m	>10	▲ 12	▲ 37	---
Lead	ppm	ASTM D5185m	>20	1	3	---
Copper	ppm	ASTM D5185m	>15	4	11	---
Tin	ppm	ASTM D5185m	>10	2	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.

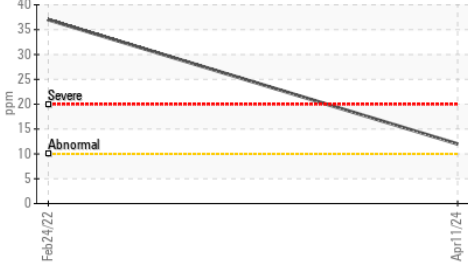
Silicon	ppm	ASTM D5185m	>20	9	17	---
Potassium	ppm	ASTM D5185m	>20	19	10	---
Fuel		WC Method	>6.0	<1.0	<1.0	---
Water		WC Method	>0.1	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.2	0.1	---
Nitration	Abs/cm	*ASTM D7624	>20	9.0	7.4	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.1	17.6	---
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	>0.1	NEG	NEG	---

FLUID CONDITION

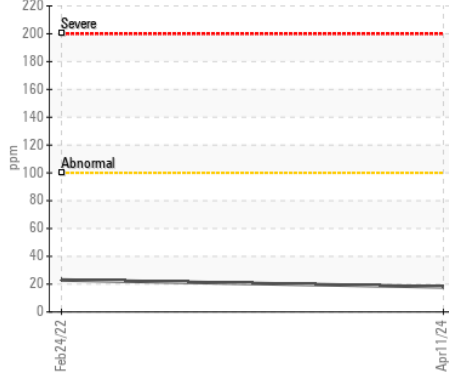
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		10	3	---
Boron	ppm	ASTM D5185m	2.5	28	10	---
Barium	ppm	ASTM D5185m	0.0	0	0	---
Molybdenum	ppm	ASTM D5185m	0.7	54	2	---
Manganese	ppm	ASTM D5185m	0.0	<1	3	---
Magnesium	ppm	ASTM D5185m	256	631	289	---
Calcium	ppm	ASTM D5185m	2057	1846	2094	---
Phosphorus	ppm	ASTM D5185m	935	1050	1043	---
Zinc	ppm	ASTM D5185m	1223	1243	1156	---
Sulfur	ppm	ASTM D5185m	4079	3324	4722	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.2	10.5	---
Base Number (BN)	mg KOH/g	ASTM D2896	10	9.2	8.1	---
Visc @ 100°C	cSt	ASTM D445	15.0	13.0	12.6	---

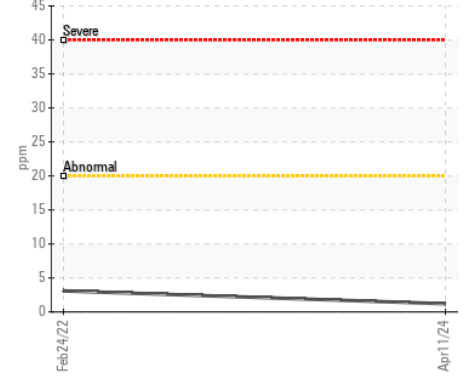
▲ Aluminum (ppm)



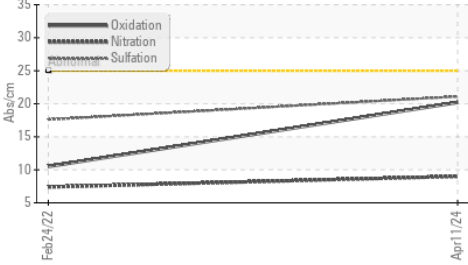
Iron (ppm)



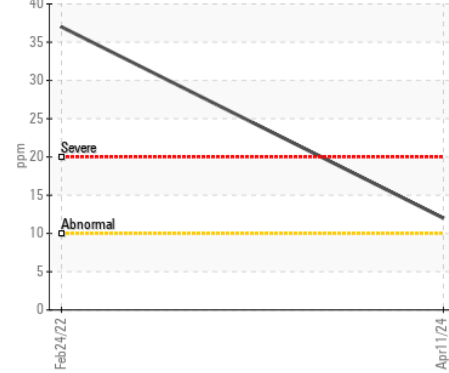
Lead (ppm)



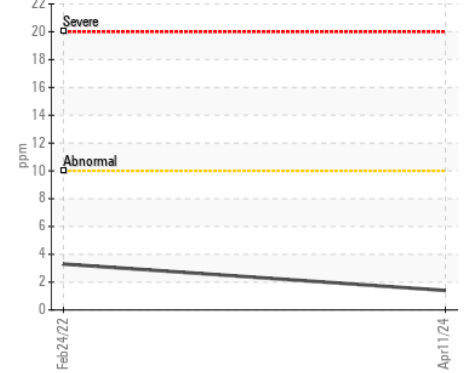
FT-IR (Direct Trend)



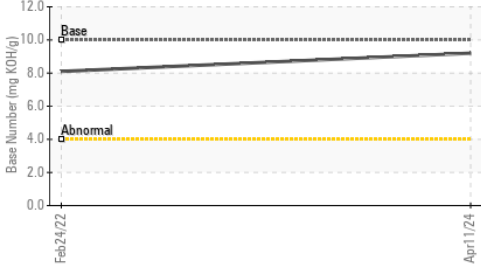
▲ Aluminum (ppm)



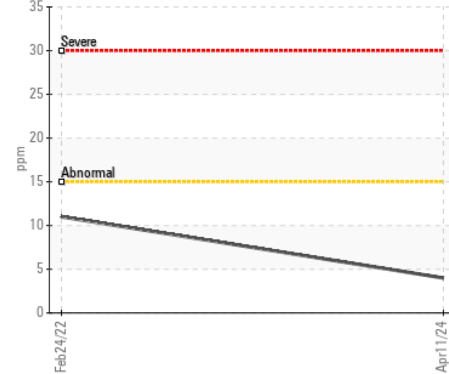
Chromium (ppm)



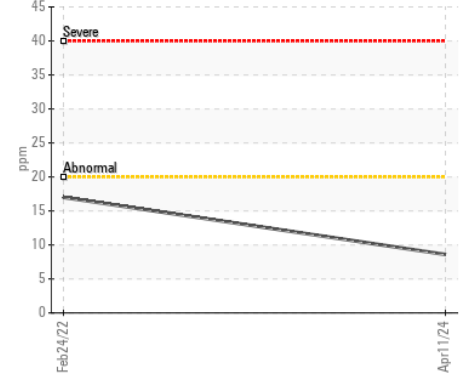
Base Number



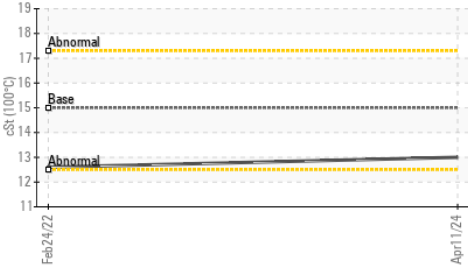
Copper (ppm)



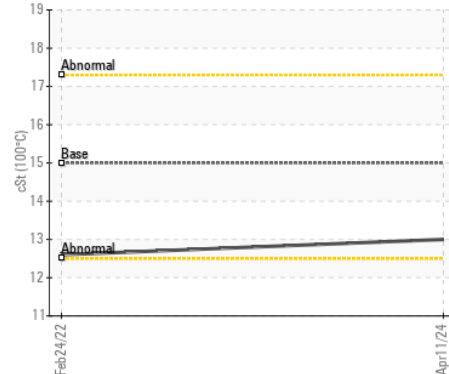
Silicon (ppm)



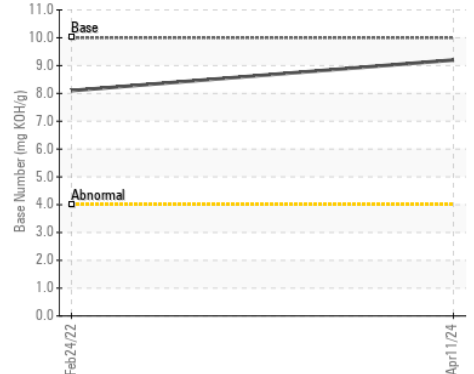
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : VCP437752

Lab Number : 06148373

Unique Number : 10978451

Test Package : MOB 1 (Additional Tests: TBN)

Received : 15 Apr 2024

Tested : 15 Apr 2024

Diagnosed : 17 Apr 2024 - Sean Felton

ALTA EQUIPMENT COMPANY

5151 DR MARTIN LUTHER KING BLVD

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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)