



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

CARSTENSEN [JB]

Machine Id

VOLVO PENTA A165674

Component

Port Diesel Engine

Fluid

VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VPA051544	VPA040212	---
Sample Date		Client Info		13 Mar 2024	17 Sep 2021	---
Machine Age	hrs	Client Info		897	570	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>80	12	11	---
Chromium	ppm	ASTM D5185m	>6	0	<1	---
Nickel	ppm	ASTM D5185m	>2	0	2	---
Titanium	ppm	ASTM D5185m	>2	0	0	---
Silver	ppm	ASTM D5185m	>2	0	<1	---
Aluminum	ppm	ASTM D5185m	>20	<1	4	---
Lead	ppm	ASTM D5185m	>95	0	4	---
Copper	ppm	ASTM D5185m	>85	6	13	---
Tin	ppm	ASTM D5185m	>9	0	2	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

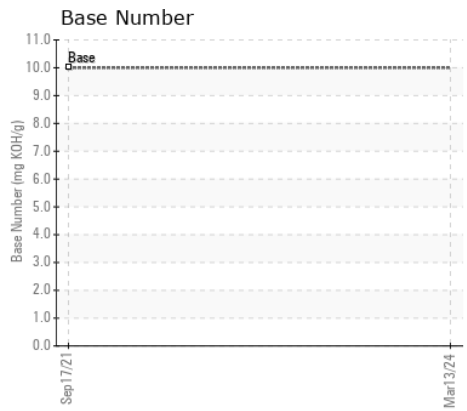
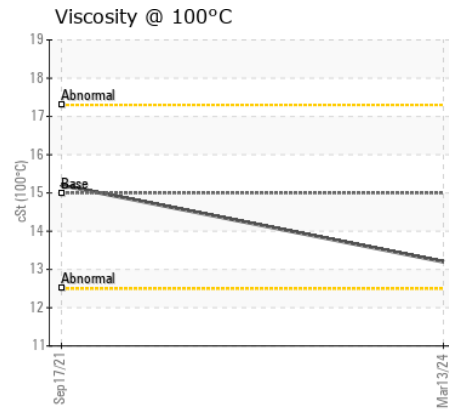
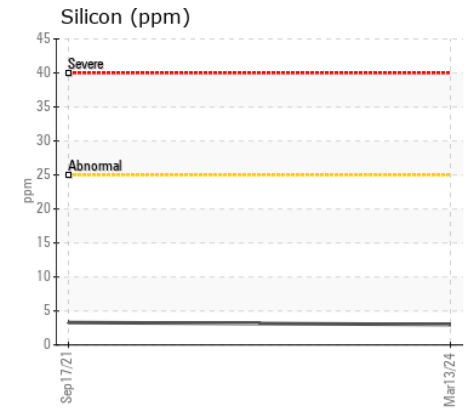
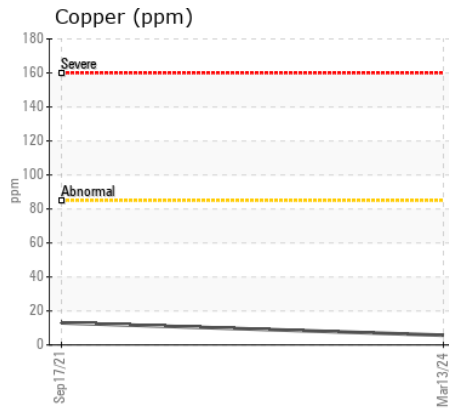
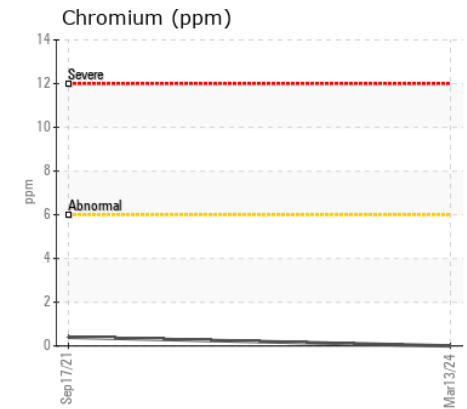
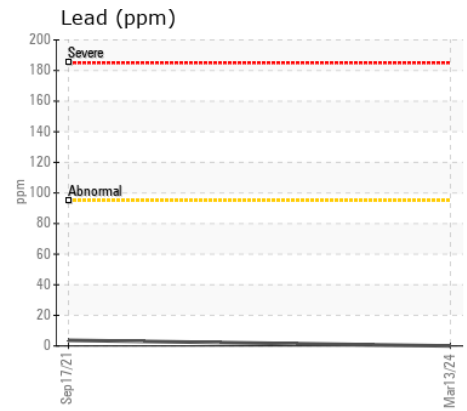
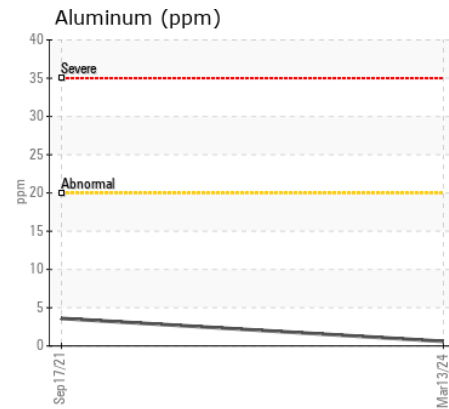
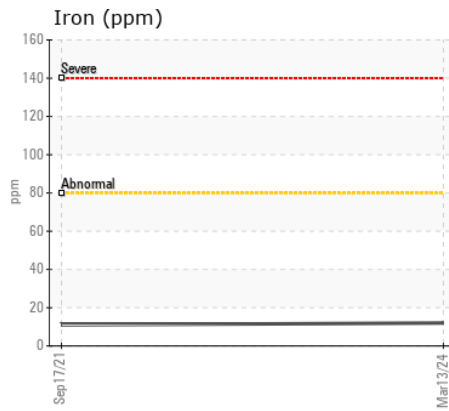
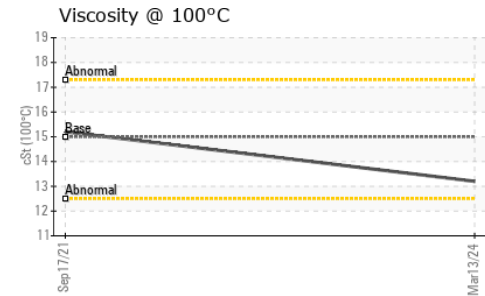
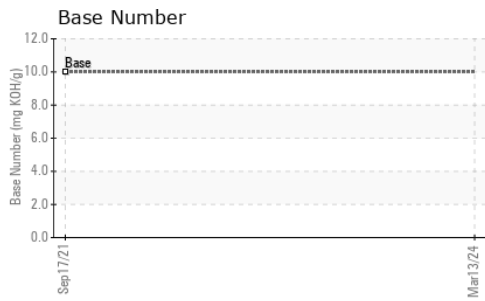
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	3	3	---
Potassium	ppm	ASTM D5185m	>20	<1	7	---
Fuel		WC Method	>4.0	<1.0	<1.0	---
Water		WC Method	>0.1	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844		0.3	0.4	---
Nitration	Abs/cm	*ASTM D7624	>20	6.6	10.2	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.5	23.2	---
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 suitable for further service.

Sodium	ppm	ASTM D5185m		44	2	---
Boron	ppm	ASTM D5185m	2.5	5	124	---
Barium	ppm	ASTM D5185m	0.0	0	0	---
Molybdenum	ppm	ASTM D5185m	0.7	57	7	---
Manganese	ppm	ASTM D5185m	0.0	0	<1	---
Magnesium	ppm	ASTM D5185m	256	1012	23	---
Calcium	ppm	ASTM D5185m	2057	1099	2409	---
Phosphorus	ppm	ASTM D5185m	935	1085	1040	---
Zinc	ppm	ASTM D5185m	1223	1255	1397	---
Sulfur	ppm	ASTM D5185m	4079	3951	3530	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.8	20	---
Base Number (BN)	mg KOH/g	ASTM D2896	10	9.7	---	---
Visc @ 100°C	cSt	ASTM D445	15.0	13.2	15.2	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VPA051544 **Received** : 19 Mar 2024
Lab Number : 06122043 **Tested** : 19 Mar 2024
Unique Number : 10936194 **Diagnosed** : 21 Mar 2024 - Jonathan Hester
Test Package : MOB 1 (Additional Tests: TBN)

Point Judith Marina
 360 Gooseberry Road
 WAKEFIELD, RI
 US 02879

Contact: MATT ST. ANGELO
 service@pjmarina.com; canastasio@wearcheckusa.com

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)

T: (401)789-7189
 F: (401)783-5350