



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
TIFFINE TOLLEN [SAM]
Machine Id
VOLVO PENTA 7008494612
Component
Port Diesel Engine
Fluid
VOLVO PENTA SAE 15W40 (9 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VPA060416	VPA047650	---
Sample Date		Client Info		23 Feb 2024	13 Feb 2023	---
Machine Age	hrs	Client Info		688	586	---
Oil Age	hrs	Client Info		102	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	N/A	---
Filter Changed		Client Info		Changed	N/A	---
Sample Status				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>80	8	4	---
Chromium	ppm	ASTM D5185m	>6	1	<1	---
Nickel	ppm	ASTM D5185m	>2	1	<1	---
Titanium	ppm	ASTM D5185m	>2	<1	<1	---
Silver	ppm	ASTM D5185m	>2	<1	<1	---
Aluminum	ppm	ASTM D5185m	>20	2	<1	---
Lead	ppm	ASTM D5185m	>95	<1	<1	---
Copper	ppm	ASTM D5185m	>85	15	12	---
Tin	ppm	ASTM D5185m	>9	<1	<1	---
Vanadium	ppm	ASTM D5185m		<1	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

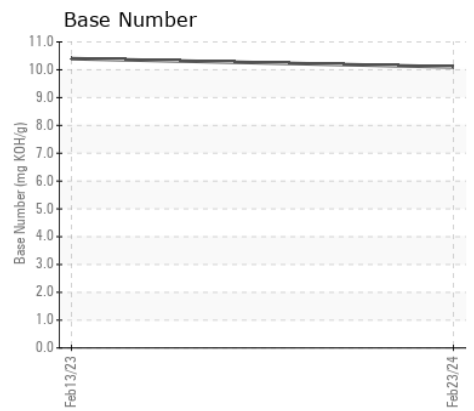
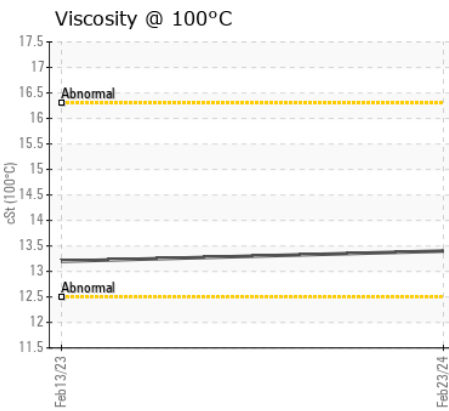
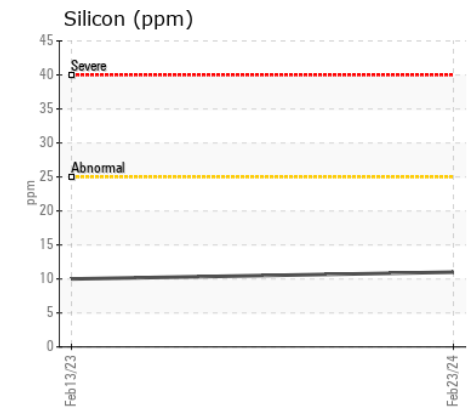
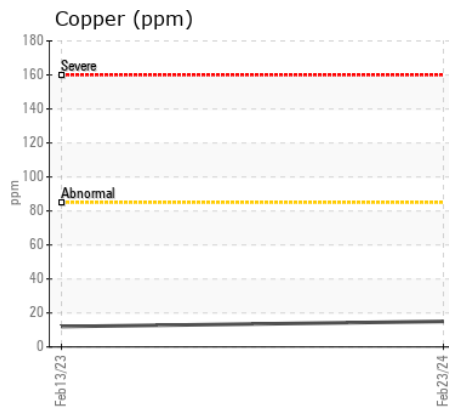
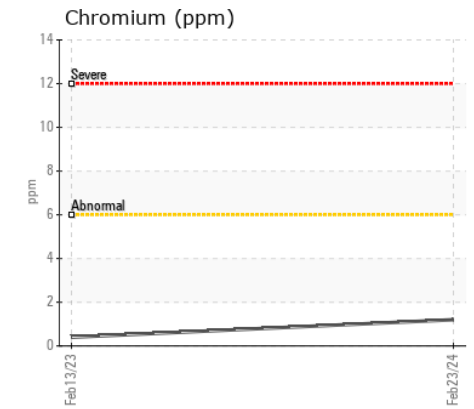
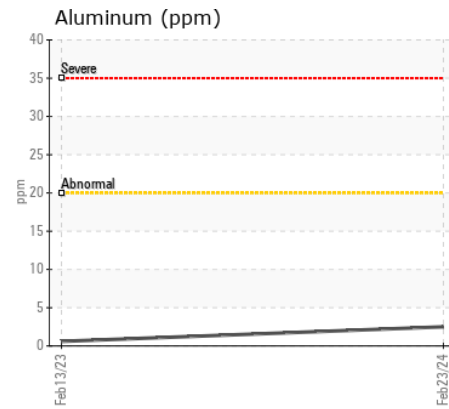
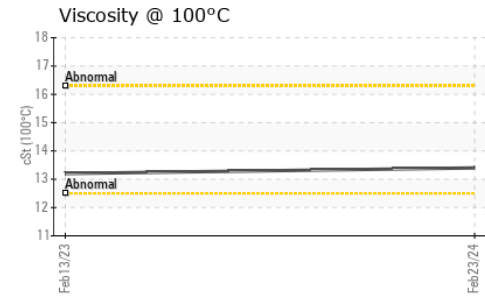
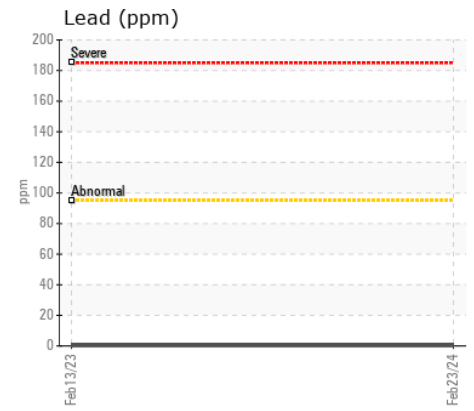
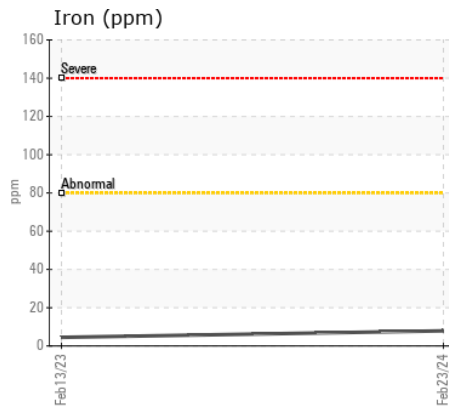
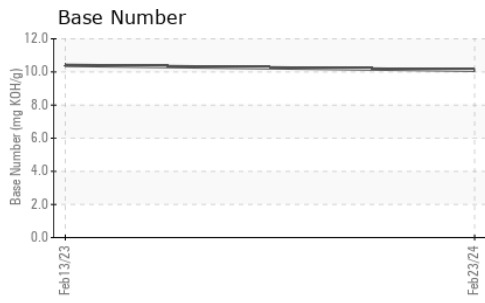
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	11	10	---
Potassium	ppm	ASTM D5185m	>20	2	0	---
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	0.2	---
Nitration	Abs/cm	*ASTM D7624	>20	5.3	5.5	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.8	18.9	---
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		2	<1	---
Boron	ppm	ASTM D5185m		44	3	---
Barium	ppm	ASTM D5185m		1	0	---
Molybdenum	ppm	ASTM D5185m		46	62	---
Manganese	ppm	ASTM D5185m		1	<1	---
Magnesium	ppm	ASTM D5185m		610	939	---
Calcium	ppm	ASTM D5185m		1420	1077	---
Phosphorus	ppm	ASTM D5185m		847	1030	---
Zinc	ppm	ASTM D5185m		996	1264	---
Sulfur	ppm	ASTM D5185m		2982	3877	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.0	13.7	---
Base Number (BN)	mg KOH/g	ASTM D2896		10.1	10.4	---
Visc @ 100°C	cSt	ASTM D445		13.4	13.2	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VPA060416 **Received** : 28 Feb 2024
Lab Number : 06102668 **Tested** : 29 Feb 2024
Unique Number : 10900898 **Diagnosed** : 29 Feb 2024 - Don Baldrige
Test Package : MOB 1 (Additional Tests: 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)