



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
GREG NOVOTNY & KRISTA PEARSON [SR00100068]

Machine Id
VOLVO PENTA A952845

Component
Center Diesel Engine

Fluid
VOLVO VDS-4.5 Premium Motor Oil 15W40 (3 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VPA062577	VPA061737	---
Sample Date		Client Info		12 Jun 2024	10 May 2024	---
Machine Age	hrs	Client Info		304	301	---
Oil Age	hrs	Client Info		304	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	Not Changed	---
Filter Changed		Client Info		Changed	Not Changed	---
Sample Status				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>80	12	12	---
Chromium	ppm	ASTM D5185m	>6	<1	<1	---
Nickel	ppm	ASTM D5185m	>2	0	0	---
Titanium	ppm	ASTM D5185m	>2	<1	<1	---
Silver	ppm	ASTM D5185m	>2	0	0	---
Aluminum	ppm	ASTM D5185m	>20	2	1	---
Lead	ppm	ASTM D5185m	>95	1	<1	---
Copper	ppm	ASTM D5185m	>85	3	3	---
Tin	ppm	ASTM D5185m	>9	0	<1	---
Vanadium	ppm	ASTM D5185m		<1	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

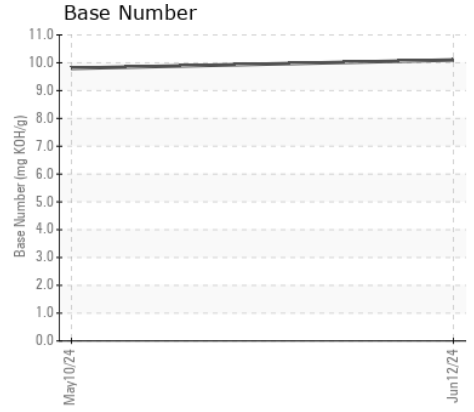
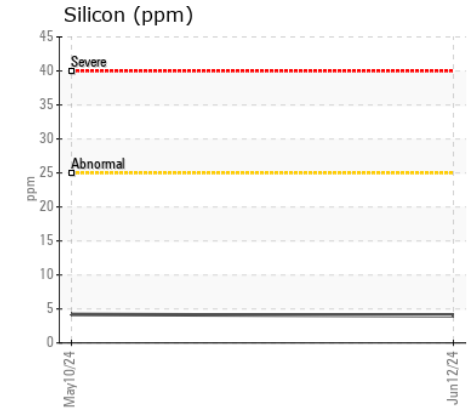
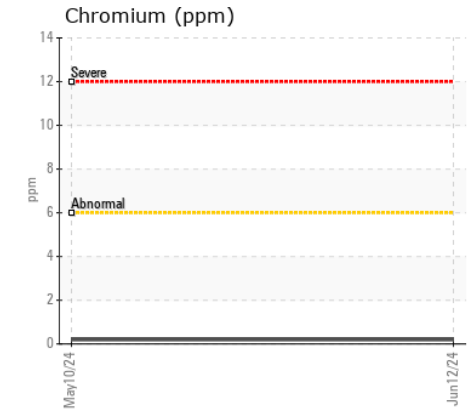
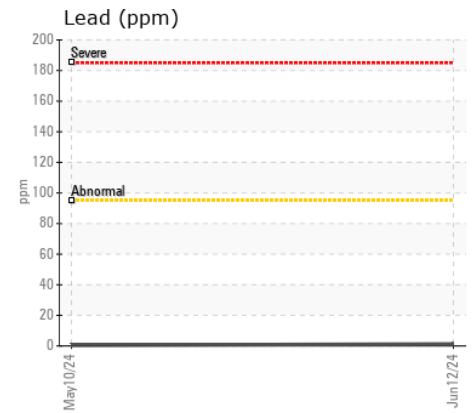
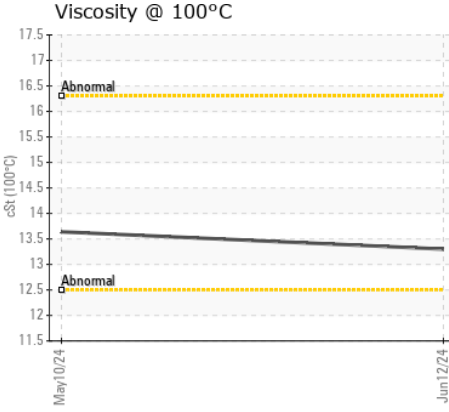
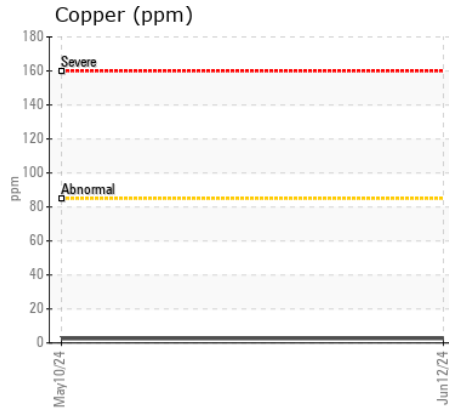
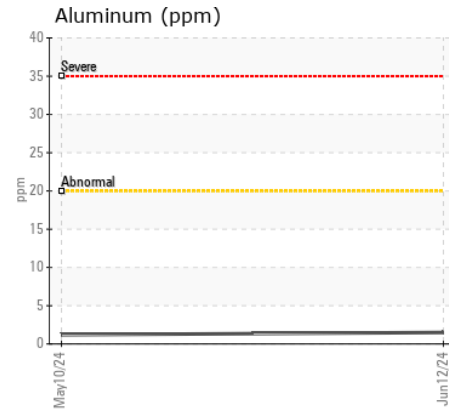
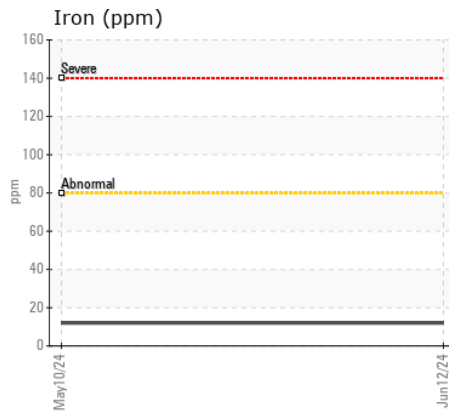
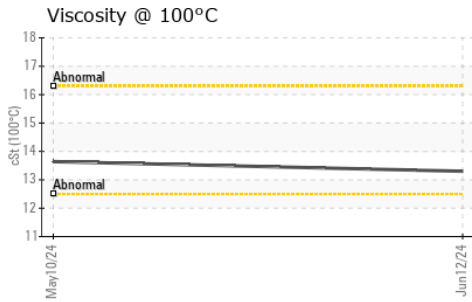
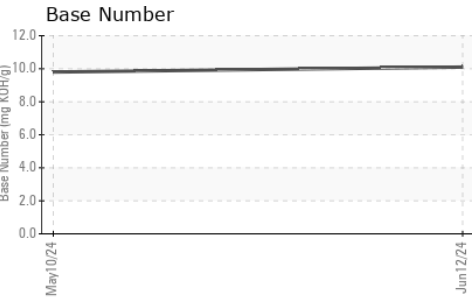
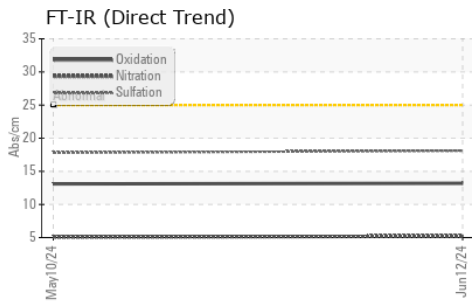
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	4	4	---
Potassium	ppm	ASTM D5185m	>20	2	<1	---
Fuel		WC Method	>4.0	<1.0	<1.0	---
Water		WC Method	>0.1	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844		0.2	0.2	---
Nitration	Abs/cm	*ASTM D7624	>20	5.2	5.1	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.1	17.8	---
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		2	1	---
Boron	ppm	ASTM D5185m		7	11	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		58	59	---
Manganese	ppm	ASTM D5185m		<1	<1	---
Magnesium	ppm	ASTM D5185m		1051	1053	---
Calcium	ppm	ASTM D5185m		1245	1191	---
Phosphorus	ppm	ASTM D5185m		1156	1140	---
Zinc	ppm	ASTM D5185m		1405	1373	---
Sulfur	ppm	ASTM D5185m		4308	4319	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.2	13.1	---
Base Number (BN)	mg KOH/g	ASTM D2896		10.1	9.8	---
Visc @ 100°C	cSt	ASTM D445		13.3	13.64	---



Certificate L2367

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

Sample No. : VPA062577

Lab Number : 06215592

Unique Number : 11088456

Test Package : MOB 1 (Additional Tests: TBN)

Received : 20 Jun 2024

Tested : 21 Jun 2024

Diagnosed : 22 Jun 2024 - Don Baldrige

Pacific Power Group - VP981534

7215 S 228th St

Kent, WA

US 98032

Contact: PAT RYAN

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F:

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)