



VOLVO PENTA

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
DAVE HOLT [PATRICK/502207-5750]

Machine Id
ONAN L160124932

Component
Genset

Fluid
VOLVO VDS-4.5 Premium Motor Oil 15W40 (2 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		VPA062543	---	---
Sample Date		Client Info		21 May 2024	---	---
Machine Age	hrs	Client Info		576	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				NORMAL	---	---

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>50	3	---	---
Chromium	ppm	ASTM D5185m	>4	<1	---	---
Nickel	ppm	ASTM D5185m	>2	<1	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m	>5	<1	---	---
Aluminum	ppm	ASTM D5185m	>12	1	---	---
Lead	ppm	ASTM D5185m	>17	<1	---	---
Copper	ppm	ASTM D5185m	>70	<1	---	---
Tin	ppm	ASTM D5185m	>15	<1	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

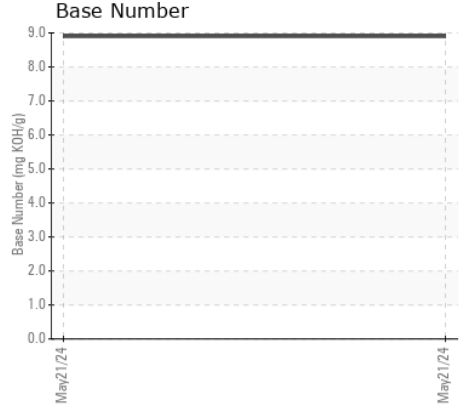
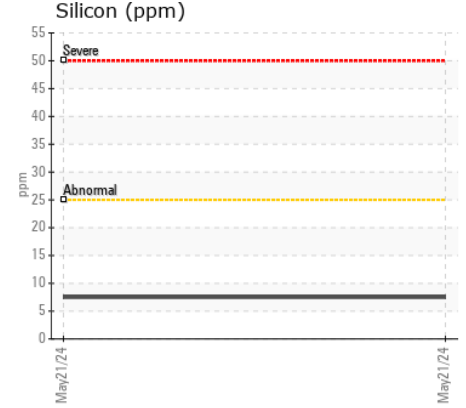
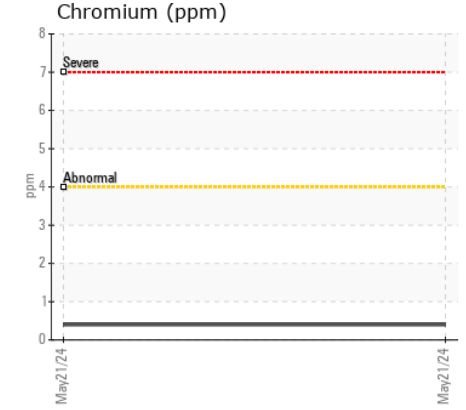
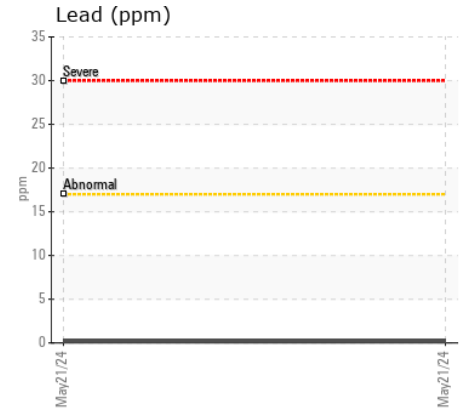
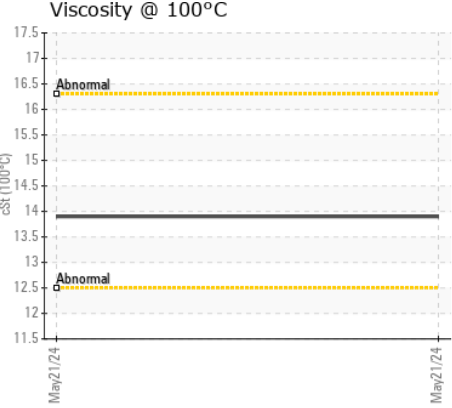
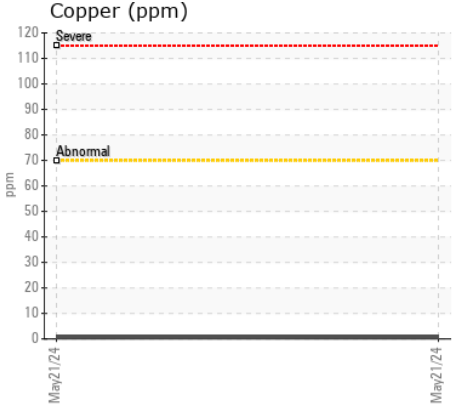
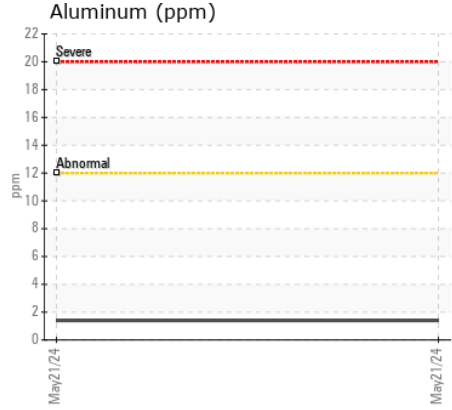
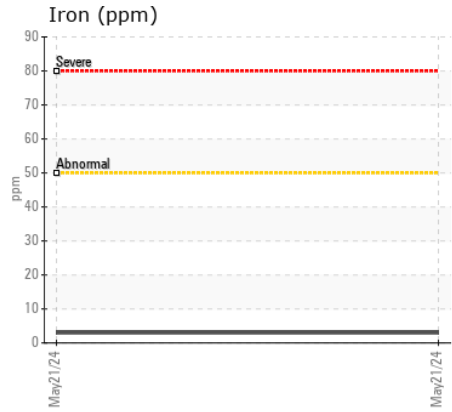
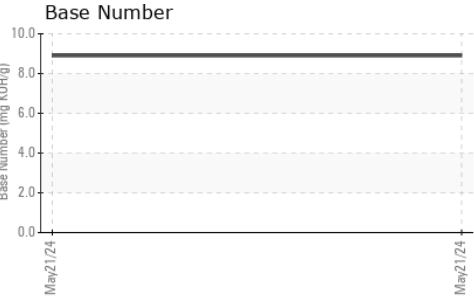
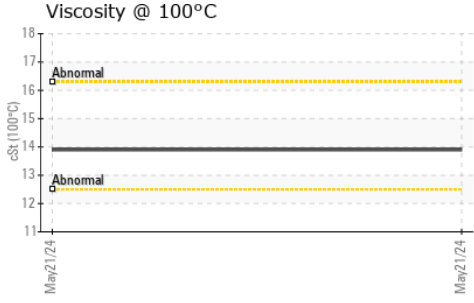
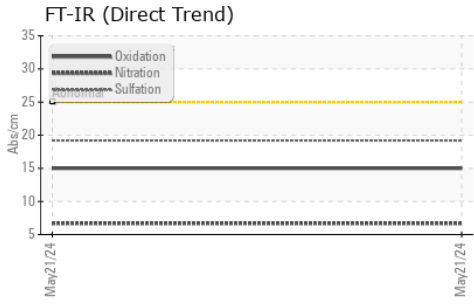
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	8	---	---
Potassium	ppm	ASTM D5185m	>20	2	---	---
Fuel		WC Method	>4.0	<1.0	---	---
Water		WC Method	>0.1	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844		0.2	---	---
Nitration	Abs/cm	*ASTM D7624	>20	6.7	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.2	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.1	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		3	---	---
Boron	ppm	ASTM D5185m		74	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		42	---	---
Manganese	ppm	ASTM D5185m		0	---	---
Magnesium	ppm	ASTM D5185m		771	---	---
Calcium	ppm	ASTM D5185m		1184	---	---
Phosphorus	ppm	ASTM D5185m		718	---	---
Zinc	ppm	ASTM D5185m		889	---	---
Sulfur	ppm	ASTM D5185m		2633	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.0	---	---
Base Number (BN)	mg KOH/g	ASTM D2896		8.9	---	---
Visc @ 100°C	cSt	ASTM D445		13.9	---	---



Certificate L2367

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

Sample No. : VPA062543

Lab Number : 06188741

Unique Number : 11045493

Test Package : MOB 1 (Additional Tests: TBN)

Received : 23 May 2024

Tested : 24 May 2024

Diagnosed : 28 May 2024 - Sean Felton

Endor Marine LLC - Coastal Marine - 152124

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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)