



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
ANDREW PRUSSACK
 Machine Id
VOLVO PENTA 7011349487
 Component
Port Diesel Engine
 Fluid
VOLVO PENTA VDS 4.5 (--- 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		VPA033631	---	---
Sample Date		Client Info		12 Jul 2023	---	---
Machine Age	hrs	Client Info		491	---	---
Oil Age	hrs	Client Info		41	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Not Changd	---	---
Filter Changed		Client Info		Not Changd	---	---
Sample Status				NORMAL	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>80	10	---	---
Chromium	ppm	ASTM D5185m	>6	<1	---	---
Nickel	ppm	ASTM D5185m	>2	0	---	---
Titanium	ppm	ASTM D5185m	>2	<1	---	---
Silver	ppm	ASTM D5185m	>2	0	---	---
Aluminum	ppm	ASTM D5185m	>20	2	---	---
Lead	ppm	ASTM D5185m	>95	2	---	---
Copper	ppm	ASTM D5185m	>85	15	---	---
Tin	ppm	ASTM D5185m	>9	<1	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

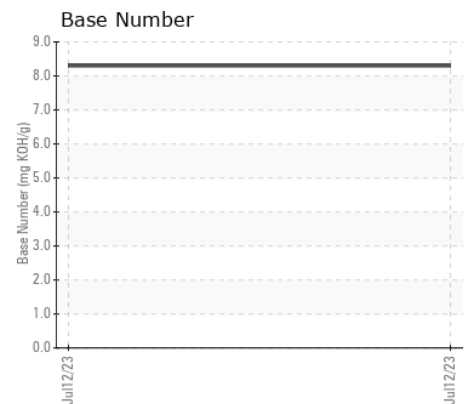
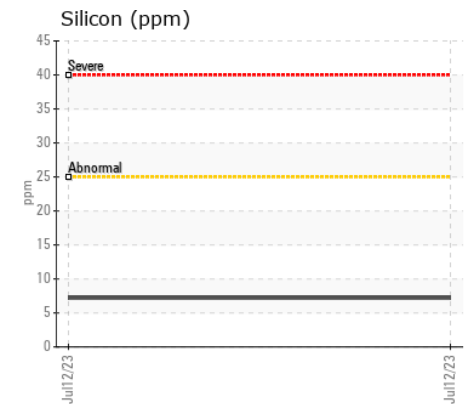
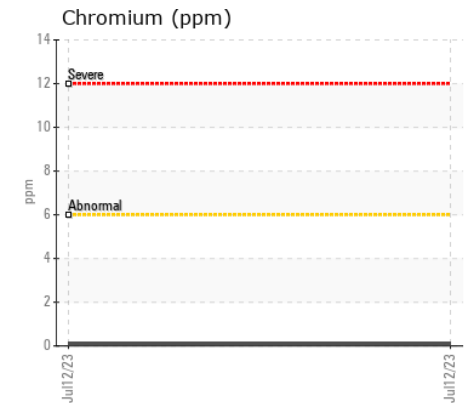
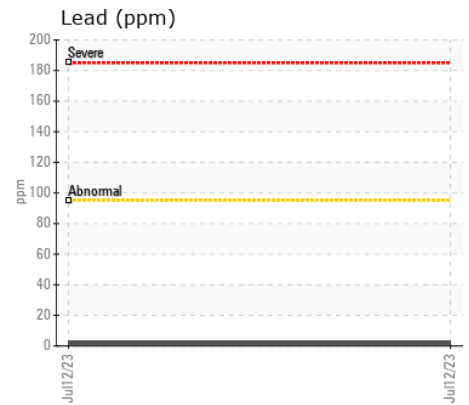
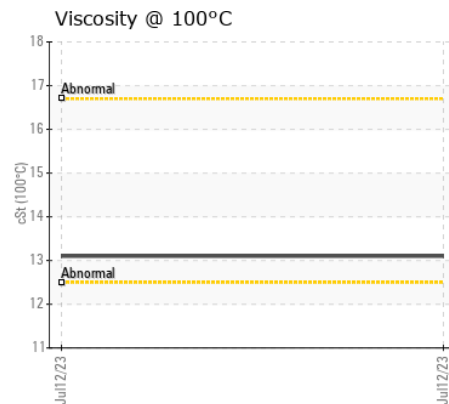
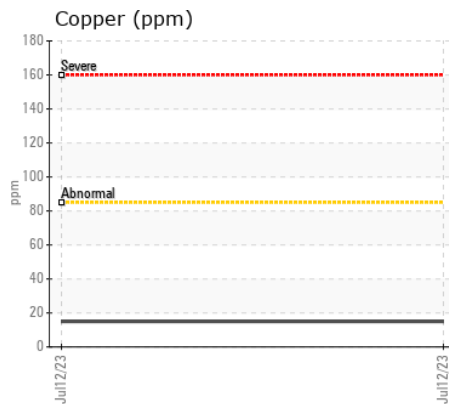
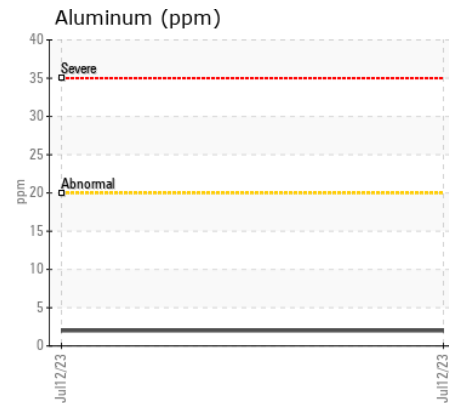
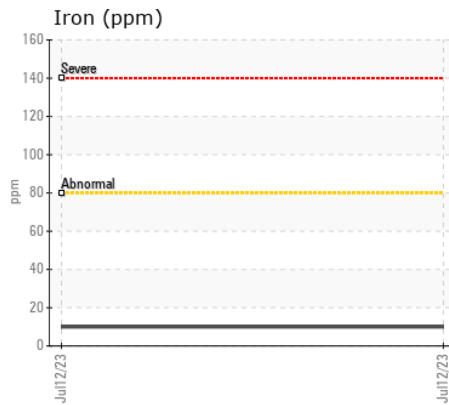
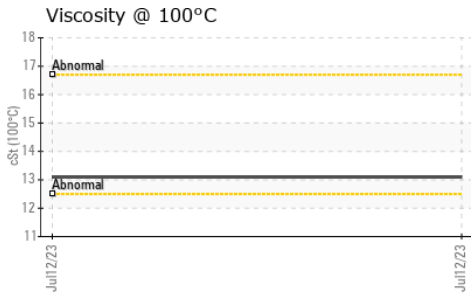
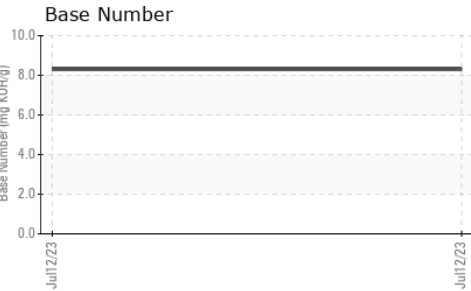
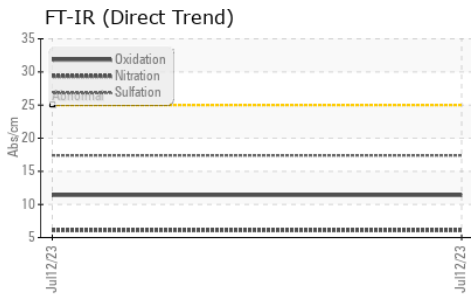
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	7	---	---
Potassium	ppm	ASTM D5185m	>20	7	---	---
Fuel		WC Method	>4.0	<1.0	---	---
Water		WC Method	>0.1	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844		0.1	---	---
Nitration	Abs/cm	*ASTM D7624	>20	6.1	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.4	---	---
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 acceptable for the time in service.

Sodium	ppm	ASTM D5185m		2	---	---
Boron	ppm	ASTM D5185m		62	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		14	---	---
Manganese	ppm	ASTM D5185m		<1	---	---
Magnesium	ppm	ASTM D5185m		108	---	---
Calcium	ppm	ASTM D5185m		2174	---	---
Phosphorus	ppm	ASTM D5185m		891	---	---
Zinc	ppm	ASTM D5185m		1079	---	---
Sulfur	ppm	ASTM D5185m		4671	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	11.4	---	---
Base Number (BN)	mg KOH/g	ASTM D2896		8.3	---	---
Visc @ 100°C	cSt	ASTM D445		13.1	---	---



Certificate L2367

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

Sample No. : VPA033631

Lab Number : 05897114

Unique Number : 10552924

Test Package : MOB 1 (Additional Tests: TBN)

Received : 13 Jul 2023

Tested : 13 Jul 2023

Diagnosed : 14 Jul 2023 - Sean Felton

TOTAL MARINE OF MARYLAND INC

106 WELLS COVE ROAD SUITE 2

GRASONVILLE, MD

US 21638

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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)