



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

NADINE URCIUOLI [DICK ROBINSON]

Machine Id

VOLVO PENTA 51220350983 - INBOARD

Component

Center Gearbox

Fluid

VOLVO AUTOMATIC TRANSMISSION FLUID AT102 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VPA051575	---	---
Sample Date		Client Info		20 May 2024	---	---
Machine Age	hrs	Client Info		148	---	---
Oil Age	hrs	Client Info		148	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				NORMAL	---	---

WEAR

All component wear rates are normal.

PQ		ASTM D8184		35	---	---
Iron	ppm	ASTM D5185m	>150	47	---	---
Chromium	ppm	ASTM D5185m	>10	<1	---	---
Nickel	ppm	ASTM D5185m	>10	0	---	---
Titanium	ppm	ASTM D5185m		0	---	---
Silver	ppm	ASTM D5185m		0	---	---
Aluminum	ppm	ASTM D5185m	>5	1	---	---
Lead	ppm	ASTM D5185m	>65	<1	---	---
Copper	ppm	ASTM D5185m	>80	13	---	---
Tin	ppm	ASTM D5185m	>8	<1	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

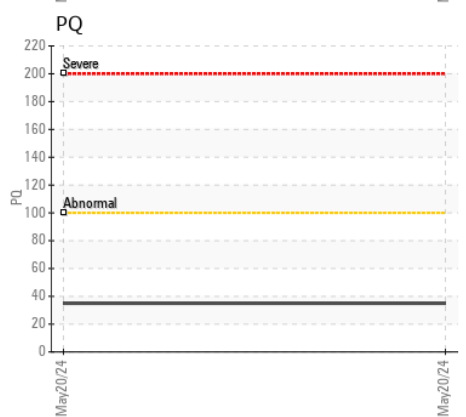
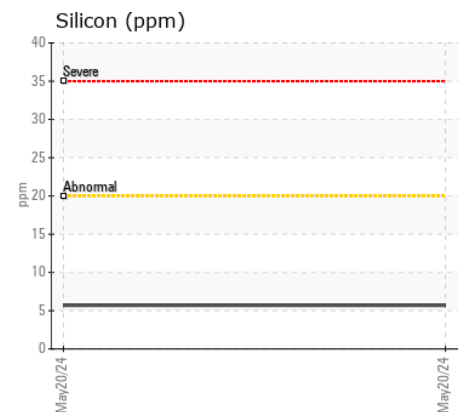
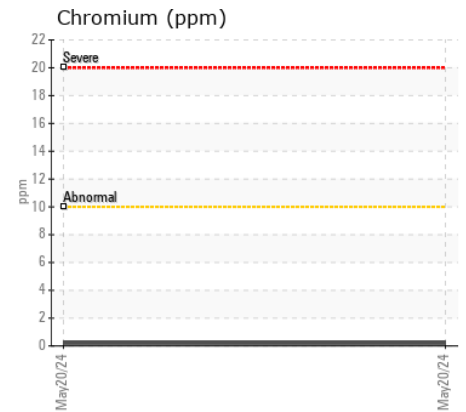
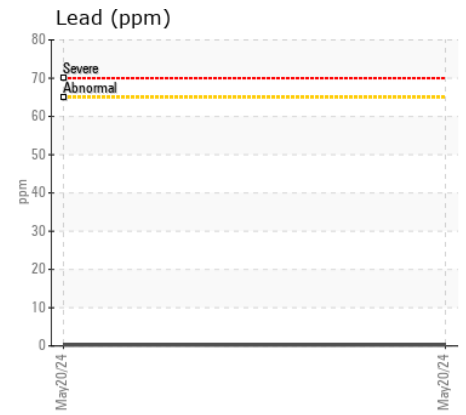
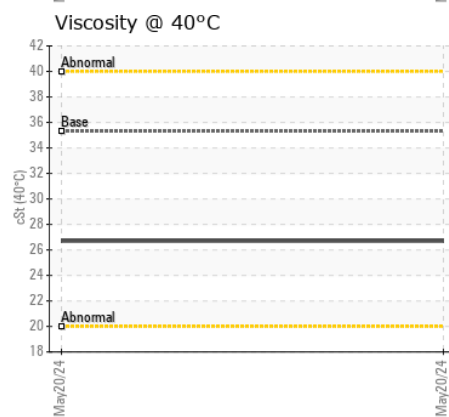
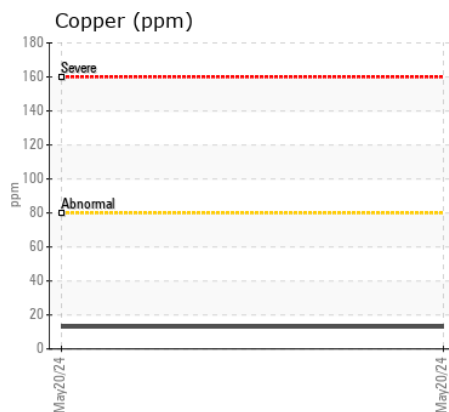
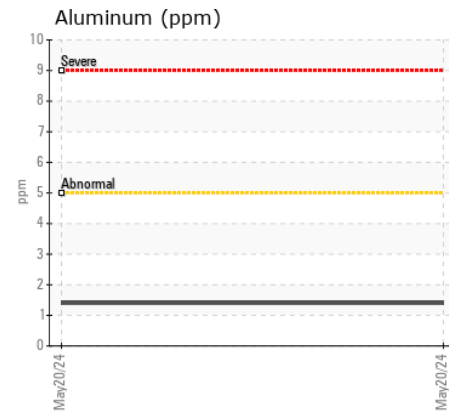
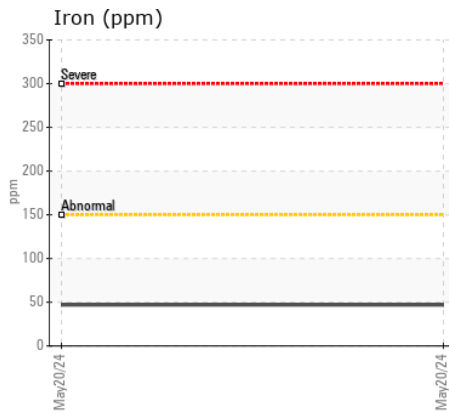
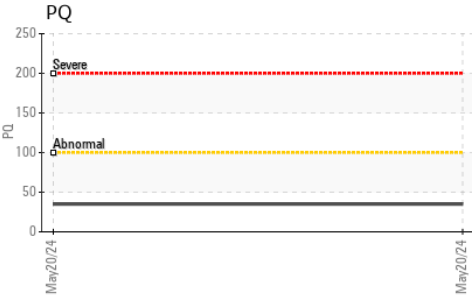
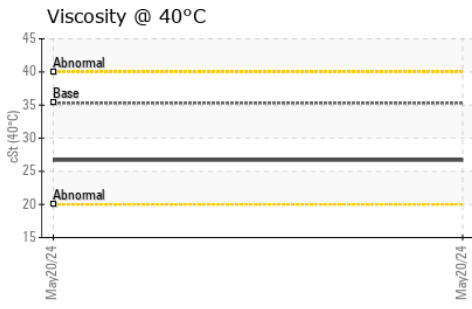
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	6	---	---
Potassium	ppm	ASTM D5185m	>20	2	---	---
Water		WC Method	>0.2	NEG	---	---
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	>0.2	NEG	---	---

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		3	---	---
Boron	ppm	ASTM D5185m	187	100	---	---
Barium	ppm	ASTM D5185m	0.0	1	---	---
Molybdenum	ppm	ASTM D5185m	0.0	3	---	---
Manganese	ppm	ASTM D5185m	0.0	<1	---	---
Magnesium	ppm	ASTM D5185m	6.8	27	---	---
Calcium	ppm	ASTM D5185m	215	234	---	---
Phosphorus	ppm	ASTM D5185m	445	166	---	---
Zinc	ppm	ASTM D5185m	56	43	---	---
Sulfur	ppm	ASTM D5185m	1336	1389	---	---
Visc @ 40°C	cSt	ASTM D445	35.3	26.7	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : VPA051575 Received : 30 May 2024
 Lab Number : 06195708 Tested : 03 Jun 2024
 Unique Number : 11057831 Diagnosed : 03 Jun 2024 - Don Baldrige
 Test Package : MOB 1 (Additional Tests: PQ)

Helmuts Marine Service
 619 Canal Street
 SAN RAFAEL, CA
 US 94901-3545

Contact: NADINE URUIOLI
 SERVICE@HELMUTSMARINE.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: x:
 F: x: