



VOLVO PENTA

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
NADINE URCIUOLI [SAM MUIR]
Machine Id
VOLVO PENTA 3950007258
Component
Starboard IPS
Fluid
VOLVO API GL-5 SAE 75W90 (4 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VPA061549	VPA057135	VPA060767
Sample Date		Client Info		21 Jun 2024	15 May 2024	25 Mar 2024
Machine Age	hrs	Client Info		290	274	274
Oil Age	hrs	Client Info		290	274	274
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ		ASTM D8184		14	15	15
Iron	ppm	ASTM D5185m	>275	18	16	94
Chromium	ppm	ASTM D5185m	>4	0	0	1
Nickel	ppm	ASTM D5185m	>4	1	0	1
Titanium	ppm	ASTM D5185m	>3	0	0	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>10	1	<1	6
Lead	ppm	ASTM D5185m	>4	0	<1	2
Copper	ppm	ASTM D5185m	>30	3	<1	12
Tin	ppm	ASTM D5185m	>3	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

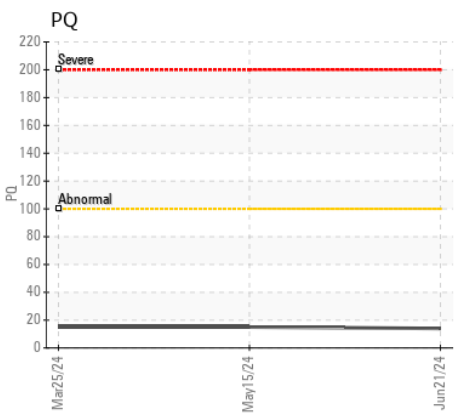
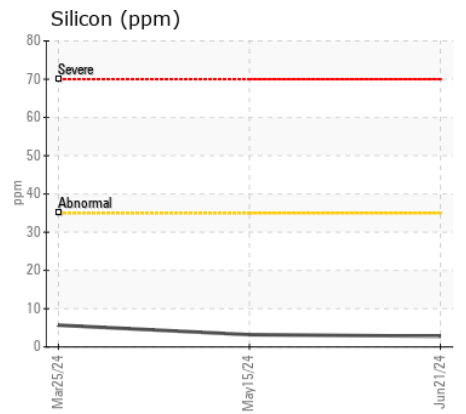
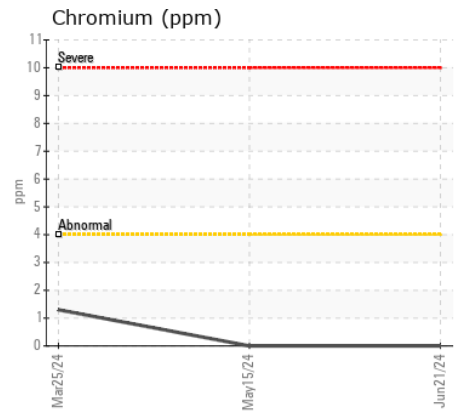
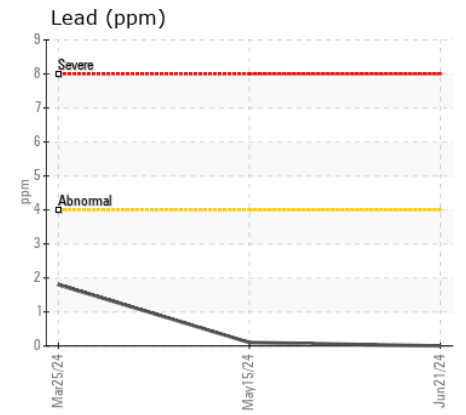
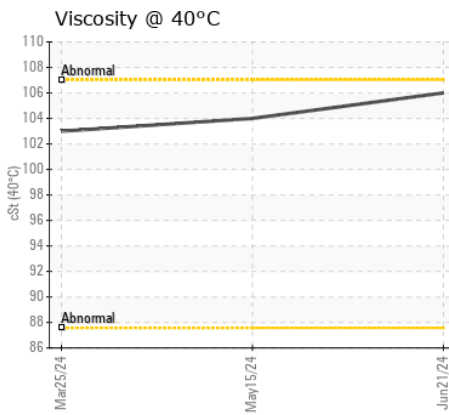
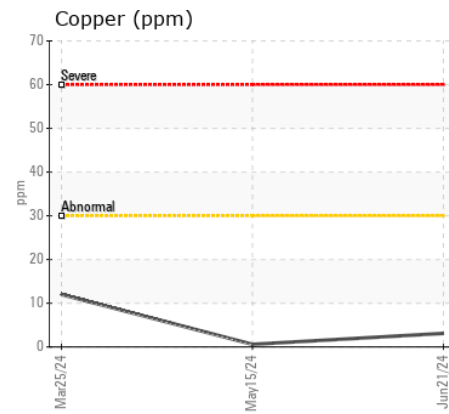
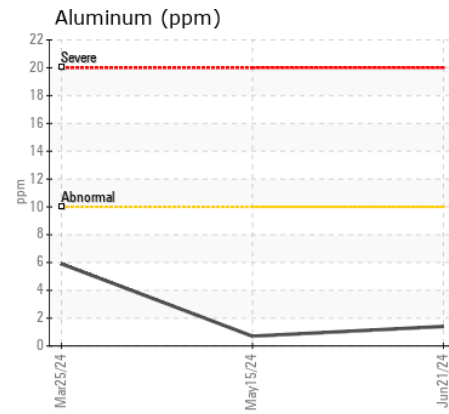
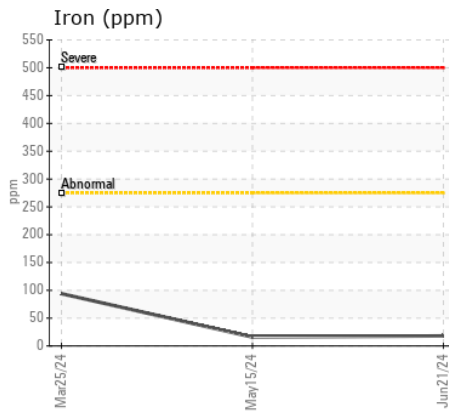
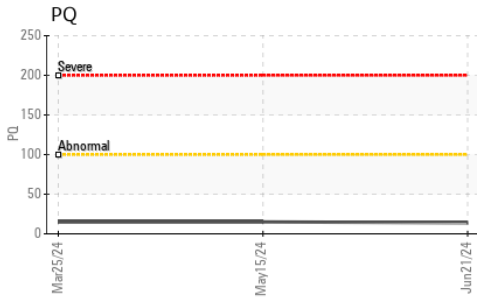
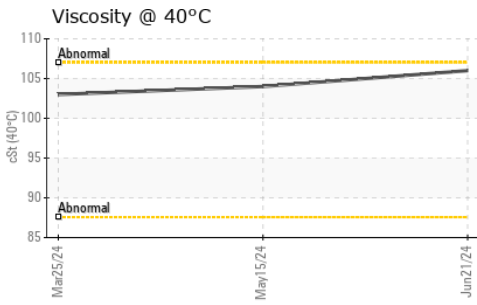
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>35	3	3	6
Potassium	ppm	ASTM D5185m	>20	4	0	3
Water		WC Method	>0.2	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		8	4	17
Boron	ppm	ASTM D5185m		282	328	227
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	0	<1
Manganese	ppm	ASTM D5185m		2	1	6
Magnesium	ppm	ASTM D5185m		2	0	11
Calcium	ppm	ASTM D5185m		2	0	12
Phosphorus	ppm	ASTM D5185m		1436	1386	1380
Zinc	ppm	ASTM D5185m		8	11	117
Sulfur	ppm	ASTM D5185m		29289	27562	26863
Visc @ 40°C	cSt	ASTM D445		106	104	103



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VPA061549 **Received** : 28 Jun 2024
Lab Number : 06223781 **Tested** : 01 Jul 2024
Unique Number : 11101978 **Diagnosed** : 01 Jul 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: