



VOLVO PENTA

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
[MASCARO]
Machine Id
VOLVO PENTA IPS 20-D 3950003688
Component
Port IPS
Fluid
GEAR OIL SAE 75W90 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. Please note that this is a corrected copy for data entry updates for component type.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VPA059670	VPA031053	VPA032908
Sample Date		Client Info		16 Apr 2024	23 Jun 2023	02 Dec 2020
Machine Age	hrs	Client Info		473	0	308
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	N/A	Not Changd
Filter Changed		Client Info		Not Changd	N/A	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ		ASTM D8184		25	19	25
Iron	ppm	ASTM D5185m	>200	15	20	42
Chromium	ppm	ASTM D5185m	>10	0	<1	<1
Nickel	ppm	ASTM D5185m	>10	<1	<1	<1
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m		0	0	<1
Aluminum	ppm	ASTM D5185m		<1	<1	2
Lead	ppm	ASTM D5185m		0	0	<1
Copper	ppm	ASTM D5185m		4	4	9
Tin	ppm	ASTM D5185m		0	<1	<1
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

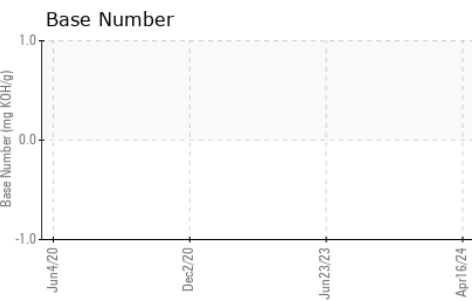
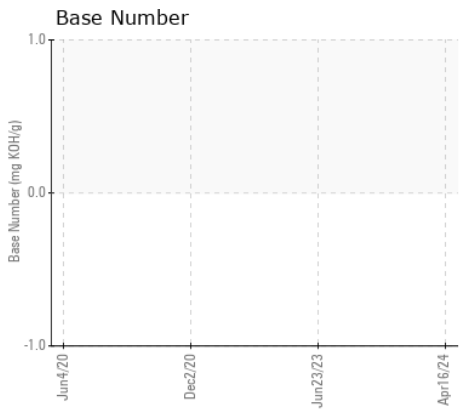
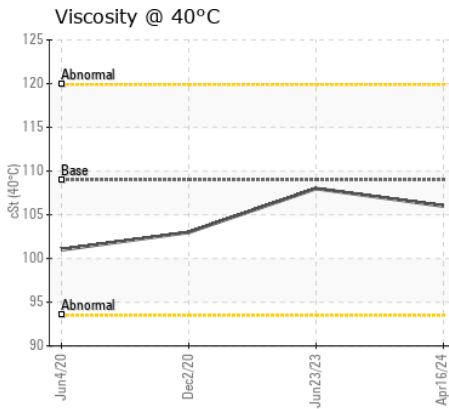
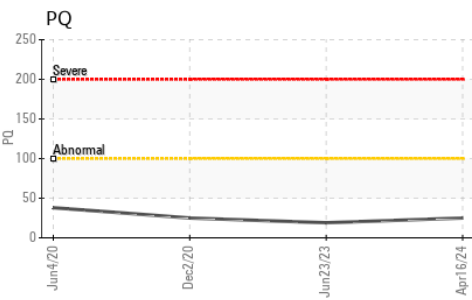
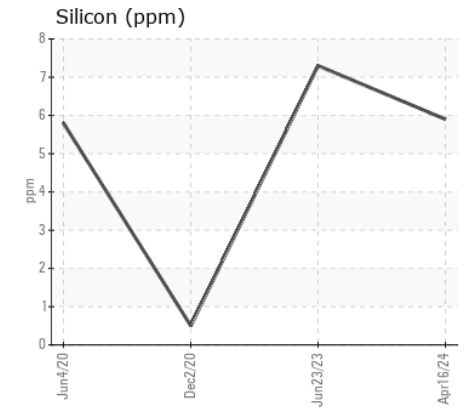
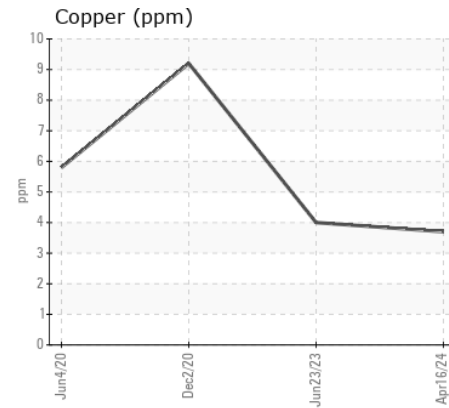
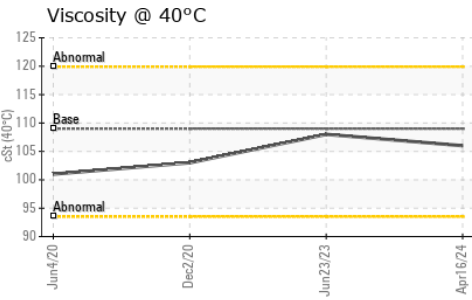
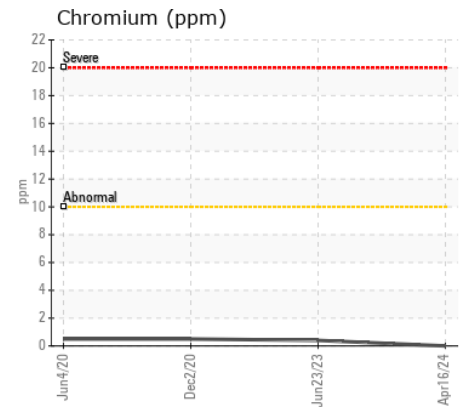
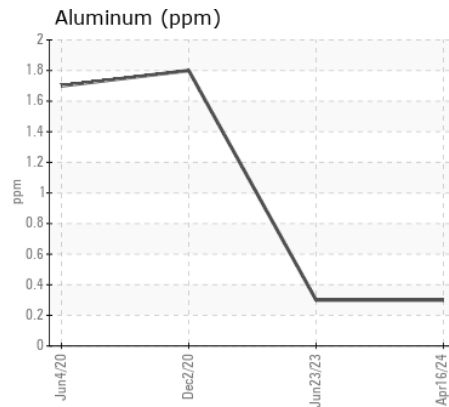
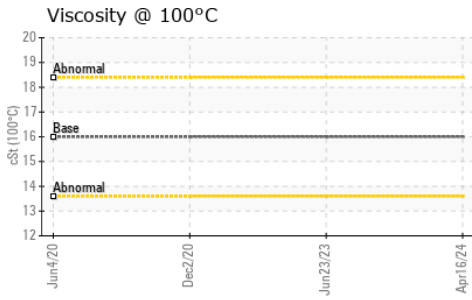
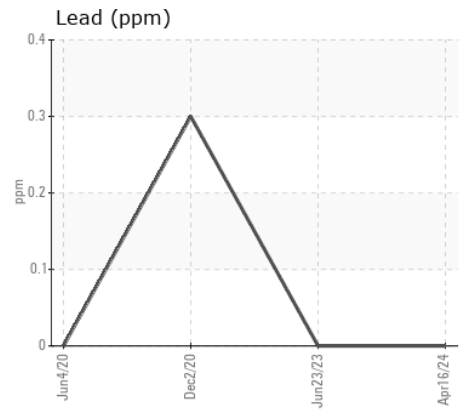
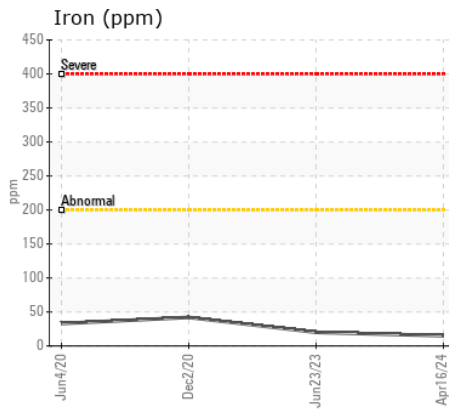
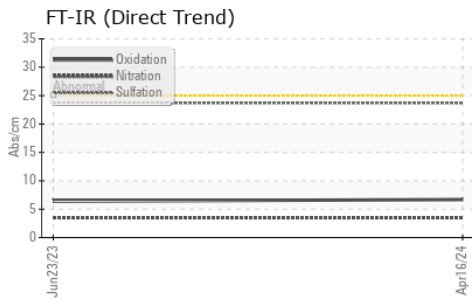
The water content is negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m		6	7	<1
Potassium	ppm	ASTM D5185m	>20	0	6	3
Water		WC Method	>0.2	NEG	NEG	NEG
Soot %	%	*ASTM D7844		0.1	---	---
Nitration	Abs/cm	*ASTM D7624		3.5	3.5	---
Sulfation	Abs/.1mm	*ASTM D7415		23.7	23.7	---
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		<1	2	3
Boron	ppm	ASTM D5185m	400	219	367	421
Barium	ppm	ASTM D5185m	200	<1	1	0
Molybdenum	ppm	ASTM D5185m	12	0	2	<1
Manganese	ppm	ASTM D5185m		2	4	4
Magnesium	ppm	ASTM D5185m	12	14	40	280
Calcium	ppm	ASTM D5185m	150	16	28	16
Phosphorus	ppm	ASTM D5185m	1650	1141	1439	1487
Zinc	ppm	ASTM D5185m	125	4	31	<1
Sulfur	ppm	ASTM D5185m	22500	23524	25056	21439
Oxidation	Abs/.1mm	*ASTM D7414		6.7	6.4	---
Visc @ 40°C	cSt	ASTM D445	109	106	108	103
Visc @ 100°C	cSt	ASTM D445	16.0	14.85	---	---
Viscosity Index (VI)	Scale	ASTM D2270	157	145	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VPA059670 **Received** : 17 Apr 2024
Lab Number : 06152511 **Tested** : 18 Apr 2024
Unique Number : 10982589 **Diagnosed** : 18 Apr 2024 - Doug Bogart
Test Package : MOB 1 (Additional Tests: FT-IR, KV100, PQ, TBN, VI)

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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)