



VOLVO PENTA

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
BELLINGHAM YACHT SALES [6778]

Machine Id
VOLVO PENTA D4-260I-F A884729

Component
Diesel Engine

Fluid
DIESEL ENGINE OIL SAE 40 (--- 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		VPA049022	VPA033871	---
Sample Date		Client Info		15 Jul 2024	29 Oct 2020	---
Machine Age	hrs	Client Info		203	115	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Not Chngd	Not Chngd	---
Filter Changed		Client Info		Not Chngd	Not Chngd	---
Sample Status				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>80	15	21	---
Chromium	ppm	ASTM D5185m	>6	2	1	---
Nickel	ppm	ASTM D5185m	>2	1	1	---
Titanium	ppm	ASTM D5185m	>2	0	<1	---
Silver	ppm	ASTM D5185m	>2	0	<1	---
Aluminum	ppm	ASTM D5185m	>20	6	7	---
Lead	ppm	ASTM D5185m	>95	<1	2	---
Copper	ppm	ASTM D5185m	>85	8	5	---
Tin	ppm	ASTM D5185m	>9	<1	<1	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

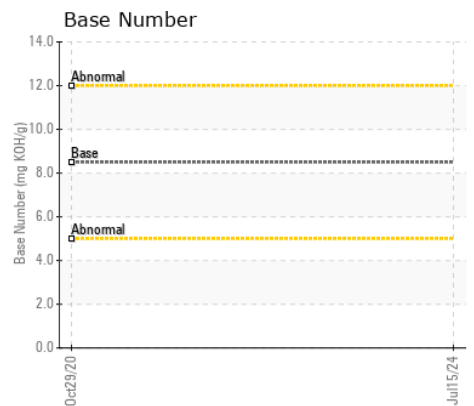
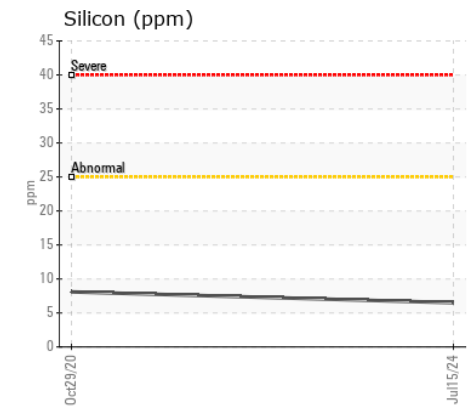
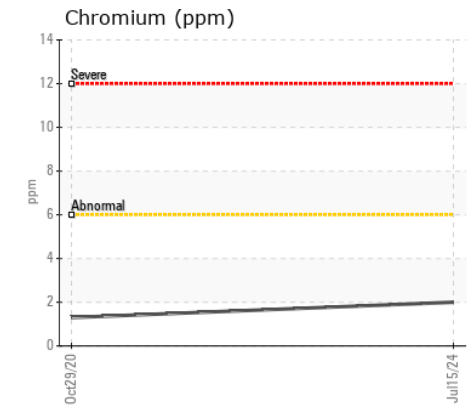
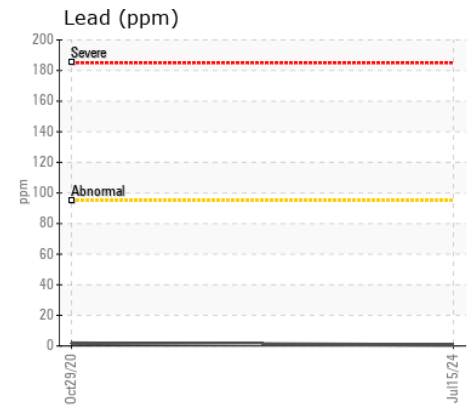
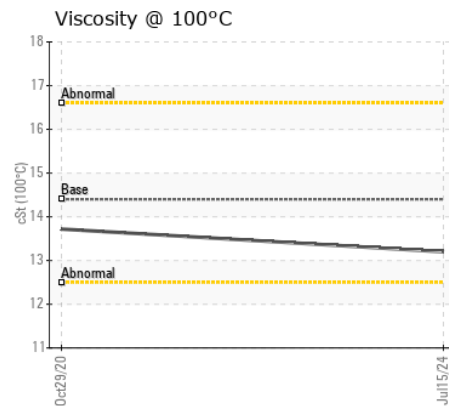
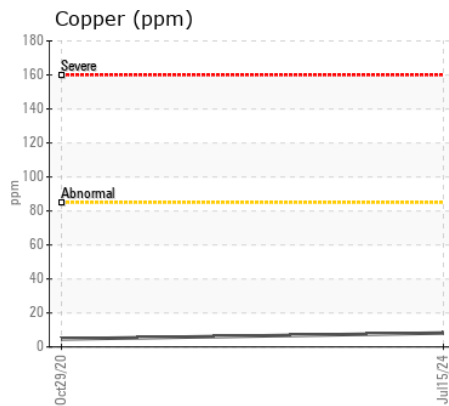
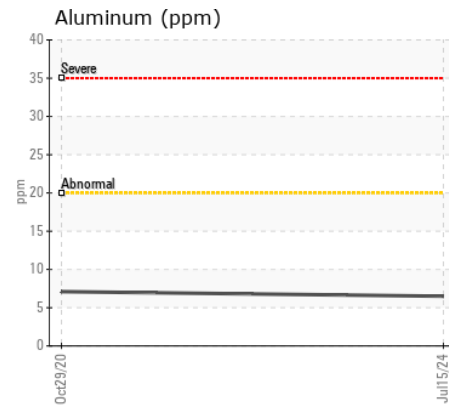
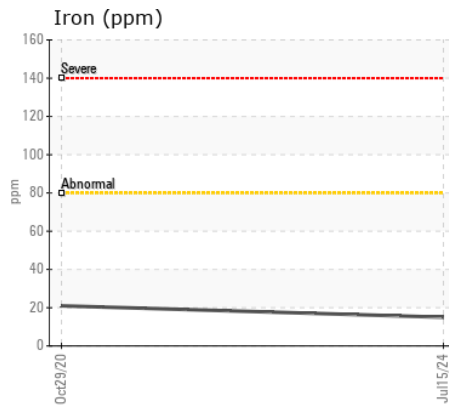
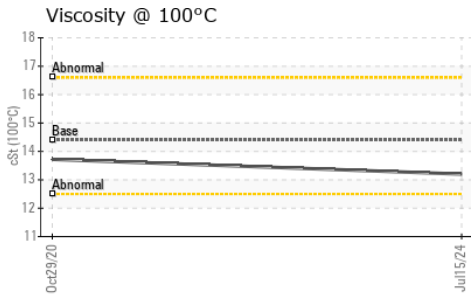
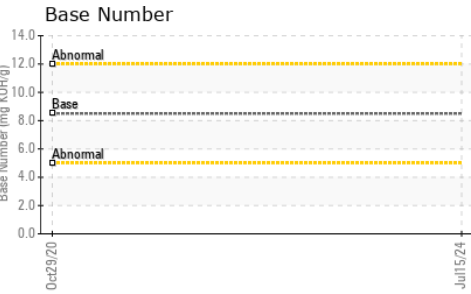
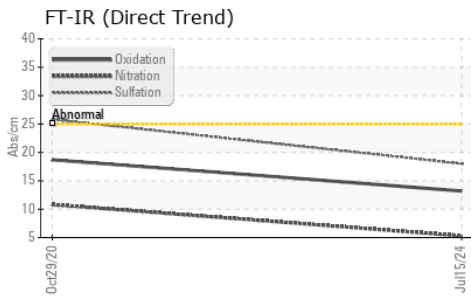
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	6	8	---
Potassium	ppm	ASTM D5185m	>20	2	3	---
Fuel		WC Method	>4.0	<1.0	<1.0	---
Water		WC Method	>0.1	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844		0.1	0.9	---
Nitration	Abs/cm	*ASTM D7624	>20	5.3	10.8	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.0	25.8	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.1	NEG	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	>216	2	2	---
Boron	ppm	ASTM D5185m	250	5	69	---
Barium	ppm	ASTM D5185m	10	0	0	---
Molybdenum	ppm	ASTM D5185m	100	58	11	---
Manganese	ppm	ASTM D5185m		0	<1	---
Magnesium	ppm	ASTM D5185m	450	1019	685	---
Calcium	ppm	ASTM D5185m	3000	1092	1143	---
Phosphorus	ppm	ASTM D5185m	1150	1110	743	---
Zinc	ppm	ASTM D5185m	1350	1349	840	---
Sulfur	ppm	ASTM D5185m	4250	4522	3344	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.2	18.7	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	9.8	---	---
Visc @ 100°C	cSt	ASTM D445	14.4	13.2	13.72	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VPA049022 **Received** : 18 Jul 2024
Lab Number : 06240023 **Tested** : 19 Jul 2024
Unique Number : 11128857 **Diagnosed** : 19 Jul 2024 - Sean Felton
Test Package : MOB 1 (Additional Tests: TBN)

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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)