MOB I

VOLVO PENTA

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
MATT GRAF
Machine Id
A1094590
Component
Starboard Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

Metal levels are typical for a new component breaking in.

CONTAMINATION

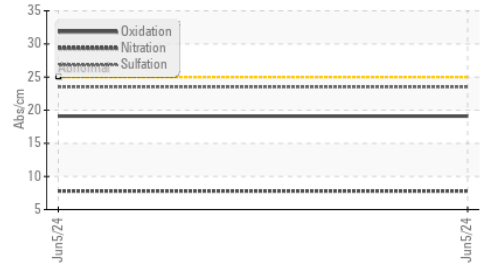
There is no indication of any contamination in the oil.

FLUID CONDITION

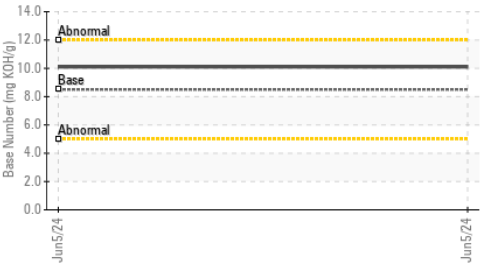
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VPA060932	---	---
Sample Date		Client Info		05 Jun 2024	---	---
Machine Age	hrs	Client Info		376	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		N/A	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				NORMAL	---	---
Iron	ppm	ASTM D5185m	>80	34	---	---
Chromium	ppm	ASTM D5185m	>6	<1	---	---
Nickel	ppm	ASTM D5185m	>2	<1	---	---
Titanium	ppm	ASTM D5185m	>2	0	---	---
Silver	ppm	ASTM D5185m	>2	0	---	---
Aluminum	ppm	ASTM D5185m	>20	3	---	---
Lead	ppm	ASTM D5185m	>95	0	---	---
Copper	ppm	ASTM D5185m	>85	4	---	---
Tin	ppm	ASTM D5185m	>9	<1	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---
Silicon	ppm	ASTM D5185m	>25	9	---	---
Potassium	ppm	ASTM D5185m	>20	<1	---	---
Fuel		WC Method	>4.0	<1.0	---	---
Water		WC Method	>0.1	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844		1.3	---	---
Nitration	Abs/cm	*ASTM D7624	>20	7.8	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.5	---	---
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	---	---
Sodium	ppm	ASTM D5185m	>216	2	---	---
Boron	ppm	ASTM D5185m	250	41	---	---
Barium	ppm	ASTM D5185m	10	0	---	---
Molybdenum	ppm	ASTM D5185m	100	42	---	---
Manganese	ppm	ASTM D5185m		<1	---	---
Magnesium	ppm	ASTM D5185m	450	581	---	---
Calcium	ppm	ASTM D5185m	3000	1800	---	---
Phosphorus	ppm	ASTM D5185m	1150	892	---	---
Zinc	ppm	ASTM D5185m	1350	990	---	---
Sulfur	ppm	ASTM D5185m	4250	3102	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.1	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	10.1	---	---
Visc @ 100°C	cSt	ASTM D445	14.4	14.1	---	---

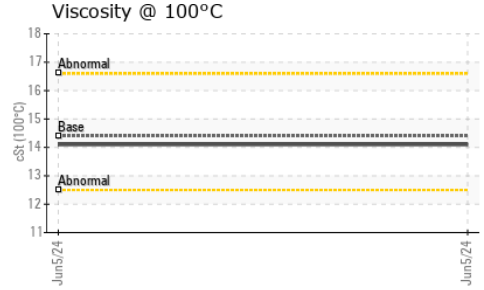
FT-IR (Direct Trend)



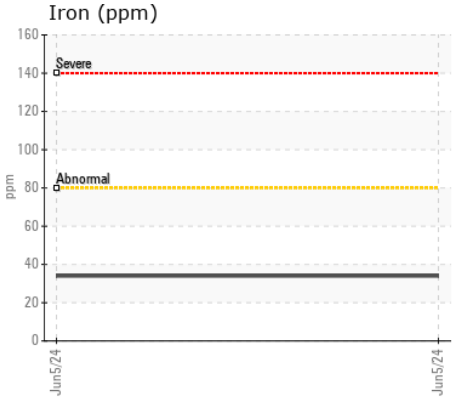
Base Number



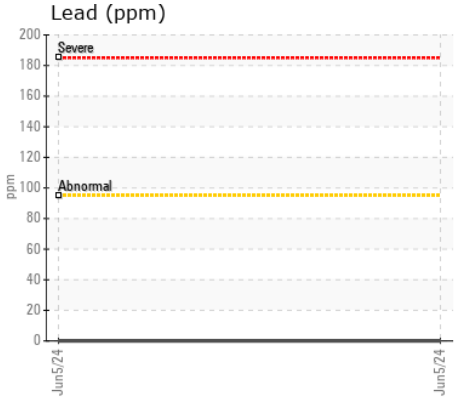
Viscosity @ 100°C



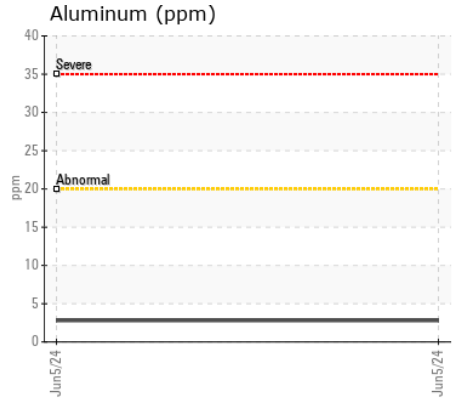
Iron (ppm)



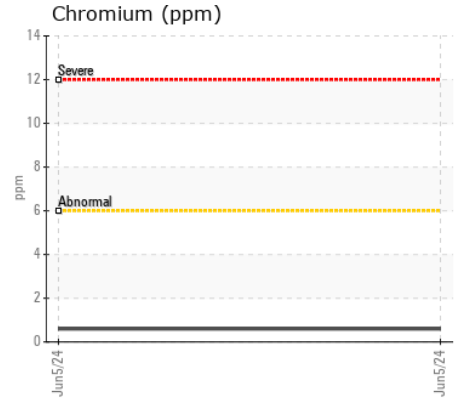
Lead (ppm)



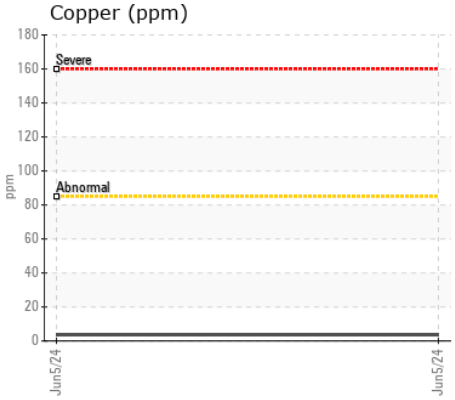
Aluminum (ppm)



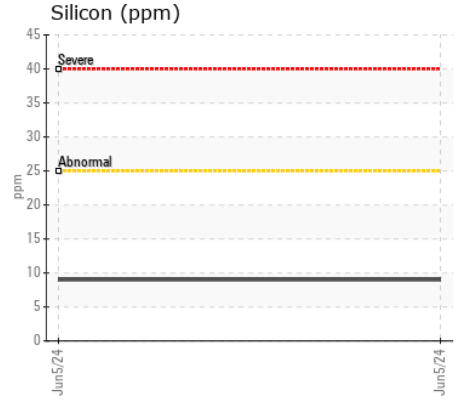
Chromium (ppm)



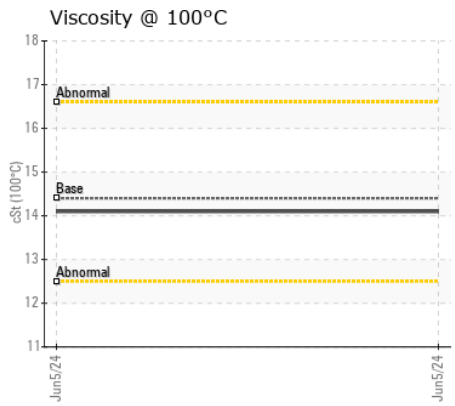
Copper (ppm)



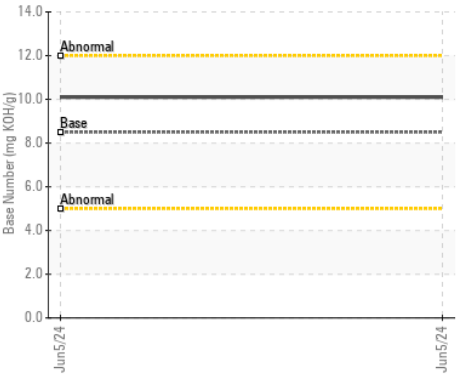
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VPA060932
Lab Number : 06211203
Unique Number : 11084067
Test Package : MOB 1 (Additional Tests: TBN)

Received : 17 Jun 2024
Tested : 19 Jun 2024
Diagnosed : 19 Jun 2024 - Sean Felton

MMRS - MOBILE MARINE KEY WEST
5680 1ST AVE, UNIT 4
KEY WEST, FL
US 33040
Contact: Matt Graf

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)

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F: