



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
[320385]
 Machine Id
YANMAR E04909
 Component
Port Main Engine
 Fluid
SHELL ROTELLA T4 15W40 (7 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VPA055497	---	---
Sample Date		Client Info		16 Feb 2024	---	---
Machine Age	hrs	Client Info		3075	---	---
Oil Age	hrs	Client Info		2	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Not Changd	---	---
Filter Changed		Client Info		Not Changd	---	---
Sample Status				NORMAL	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>75	4	---	---
Chromium	ppm	ASTM D5185(m)	>8	<1	---	---
Nickel	ppm	ASTM D5185(m)	>2	<1	---	---
Titanium	ppm	ASTM D5185(m)	>3	0	---	---
Silver	ppm	ASTM D5185(m)	>2	0	---	---
Aluminum	ppm	ASTM D5185(m)	>15	2	---	---
Lead	ppm	ASTM D5185(m)	>18	1	---	---
Copper	ppm	ASTM D5185(m)	>80	<1	---	---
Tin	ppm	ASTM D5185(m)	>14	0	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---

CONTAMINATION

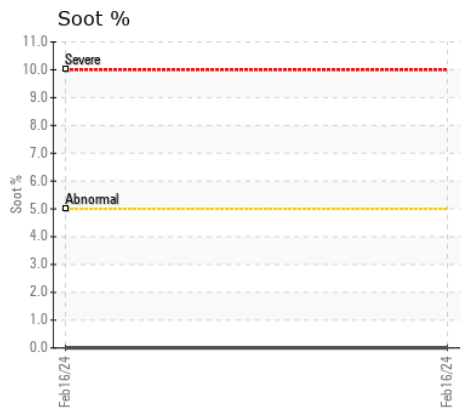
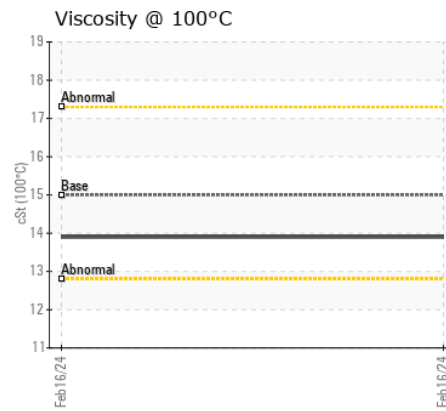
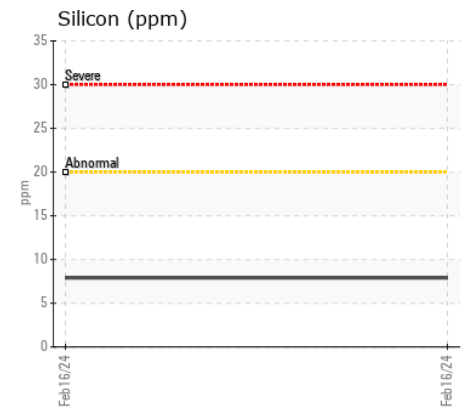
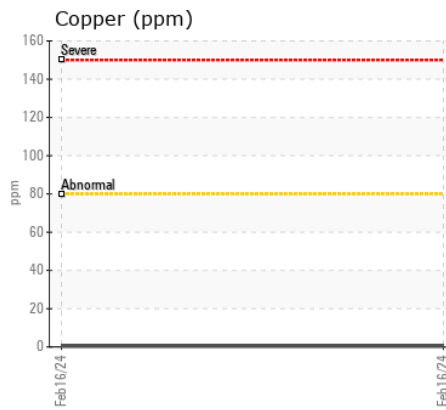
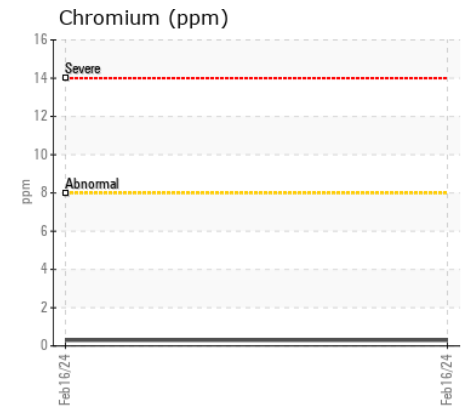
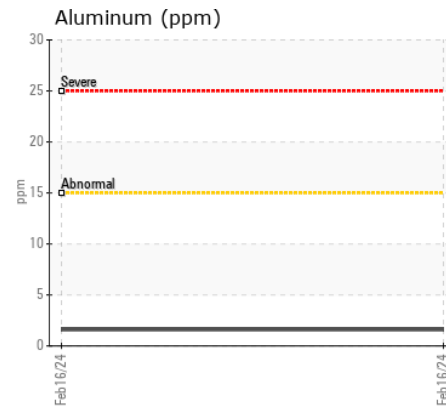
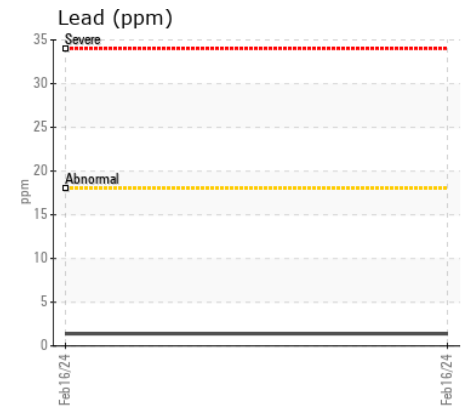
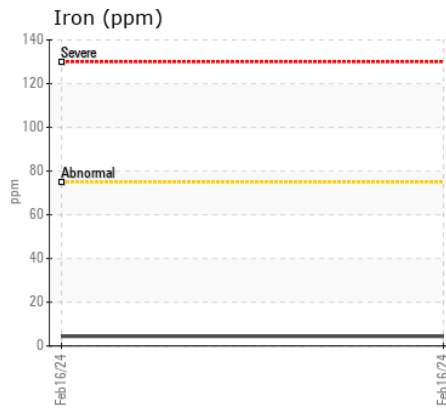
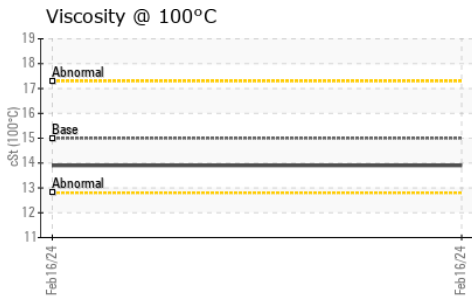
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>20	8	---	---
Potassium	ppm	ASTM D5185(m)	>20	6	---	---
Fuel		WC Method	>4.0	<1.0	---	---
Water		WC Method	>0.1	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	ASTM D7844*		0	---	---
Nitration	Abs/cm	ASTM D7624*	>20	5.8	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.9	---	---
Emulsified Water	scalar	Visual*	>0.1	NEG	---	---

FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)	>75	2	---	---
Boron	ppm	ASTM D5185(m)		150	---	---
Barium	ppm	ASTM D5185(m)		0	---	---
Molybdenum	ppm	ASTM D5185(m)		9	---	---
Manganese	ppm	ASTM D5185(m)		0	---	---
Magnesium	ppm	ASTM D5185(m)		60	---	---
Calcium	ppm	ASTM D5185(m)		2015	---	---
Phosphorus	ppm	ASTM D5185(m)		917	---	---
Zinc	ppm	ASTM D5185(m)		1035	---	---
Sulfur	ppm	ASTM D5185(m)		2827	---	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	16.1	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	15	13.9	---	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : VPA055497
Lab Number : 02618890
Unique Number : 5736000
Test Package : MOB 1

Received : 29 Feb 2024
Tested : 29 Feb 2024
Diagnosed : 29 Feb 2024 - Kevin Marson

HINDSON MARINE SERVICE INC
 79 CHAMPLAIN ROAD, P.O. BOX 5025
 Penetanguishene, ON
 CA L9M 2G2
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To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.