

# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**MTU STBDMAINENG**

Component  
**Starboard Main Engine**  
Fluid  
**SAE 15W40 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>WA0021041</b>	---	---
Sample Date	Client Info			<b>23 Dec 2023</b>	---	---
Machine Age	hrs	Client Info		<b>600</b>	---	---
Oil Age	hrs	Client Info		<b>150</b>	---	---
Oil Changed	Client Info			<b>Not Chngd</b>	---	---
Sample Status				<b>NORMAL</b>	---	---

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>4.0		<b>&lt;1.0</b>	---	---
Water	WC Method	>0.1		<b>NEG</b>	---	---
Glycol	WC Method			<b>NEG</b>	---	---

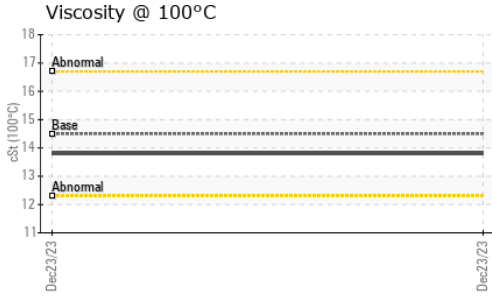
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>75	<b>6</b>	---	---
Chromium	ppm	ASTM D5185(m)	>8	<b>0</b>	---	---
Nickel	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	---	---
Titanium	ppm	ASTM D5185(m)	>3	<b>&lt;1</b>	---	---
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	---	---
Aluminum	ppm	ASTM D5185(m)	>15	<b>2</b>	---	---
Lead	ppm	ASTM D5185(m)	>18	<b>&lt;1</b>	---	---
Copper	ppm	ASTM D5185(m)	>80	<b>9</b>	---	---
Tin	ppm	ASTM D5185(m)	>14	<b>&lt;1</b>	---	---
Antimony	ppm	ASTM D5185(m)		<b>0</b>	---	---
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	---	---
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	---	---
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	---	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		<b>138</b>	---	---
Barium	ppm	ASTM D5185(m)		<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185(m)		<b>4</b>	---	---
Manganese	ppm	ASTM D5185(m)		<b>0</b>	---	---
Magnesium	ppm	ASTM D5185(m)		<b>85</b>	---	---
Calcium	ppm	ASTM D5185(m)		<b>2205</b>	---	---
Phosphorus	ppm	ASTM D5185(m)		<b>986</b>	---	---
Zinc	ppm	ASTM D5185(m)		<b>1139</b>	---	---
Sulfur	ppm	ASTM D5185(m)		<b>3166</b>	---	---
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	---	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>20	<b>2</b>	---	---
Sodium	ppm	ASTM D5185(m)	>57	<b>2</b>	---	---
Potassium	ppm	ASTM D5185(m)	>20	<b>9</b>	---	---

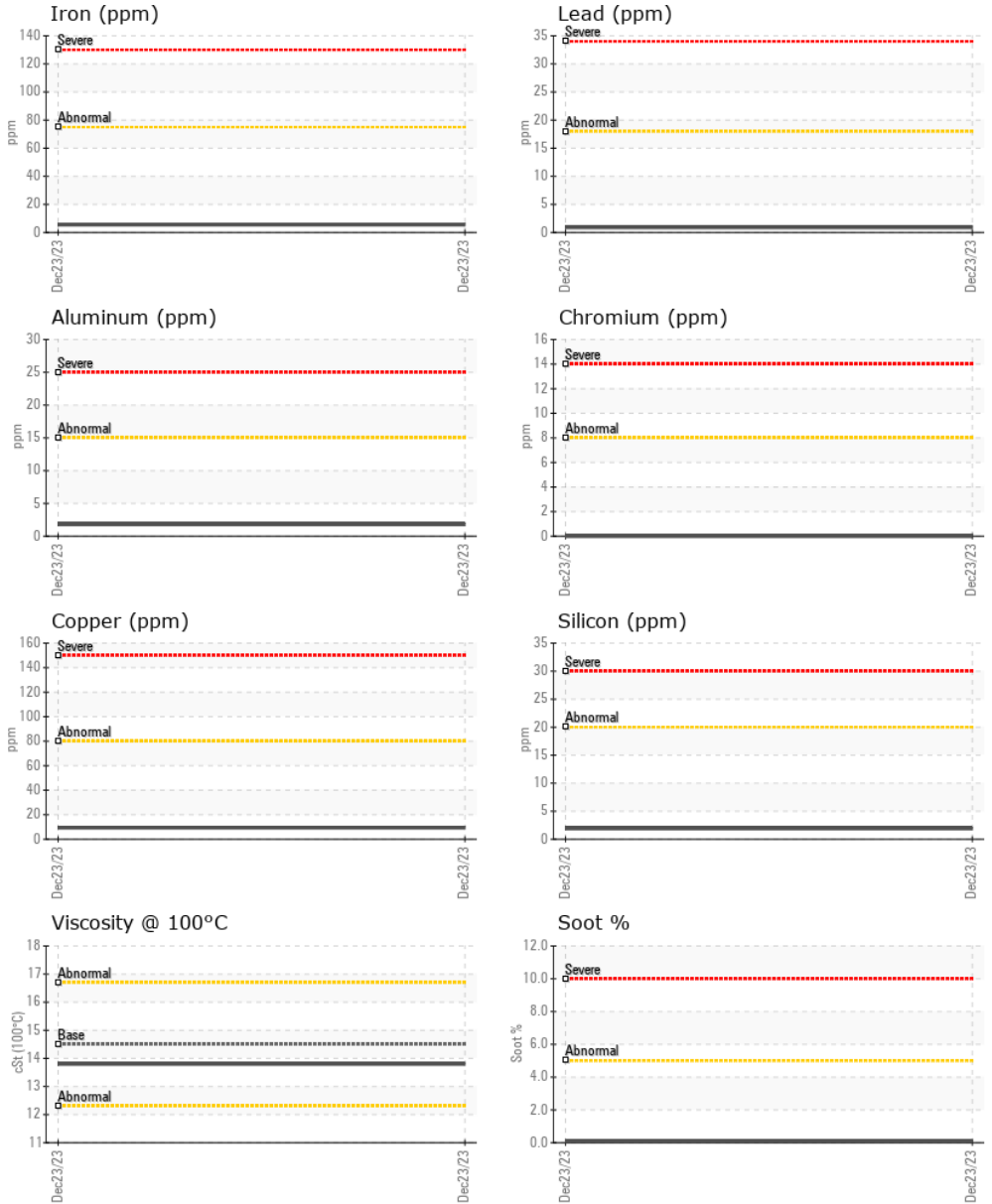
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*		<b>0.1</b>	---	---
Nitration	Abs/cm	ASTM D7624*	>20	<b>7.5</b>	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>21.2</b>	---	---

# OIL ANALYSIS REPORT



FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>16.9</b>	---	---
VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.1	<b>NEG</b>	---	---
Free Water	scalar	Visual*		<b>NEG</b>	---	---
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	14.5	<b>13.8</b>	---	---

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WA0021041 **Received** : 02 Jan 2024  
**Lab Number** : **02605845** **Diagnosed** : 02 Jan 2024  
**Unique Number** : 5706931 **Diagnostician** : Wes Davis  
**Test Package** : MOB 1

**Canadian Coast Guard**  
 93 BOUNDARY ST  
 CLARK'S HARBOUR, NS  
 CA B0W 1P0  
 Contact: Service Manager  
 CLARKS-HARBOUR.CCGS@dfp-mpo.gc.ca  
 T:  
 F:

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.