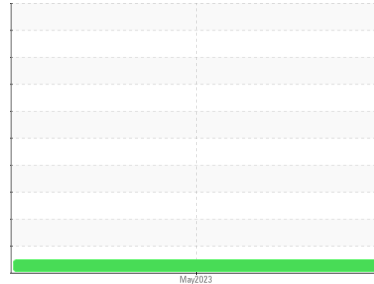


# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**PORT MAIN ENGINE**

Component  
**Port Main Engine**

Fluid  
**SHELL ROTELLA T4 15W40 (--- LTR)**

**DIAGNOSIS**

**Recommendation**

Resample at the next service interval to monitor.

**Wear**

All component wear rates are normal.

**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.

**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>WA0019683</b>	---	---
Sample Date	Client Info			<b>15 May 2023</b>	---	---
Machine Age	hrs	Client Info		<b>607</b>	---	---
Oil Age	hrs	Client Info		<b>115</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>	---	---
Glycol	WC Method			<b>NEG</b>	---	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>75	<b>9</b>	---	---
Chromium	ppm	ASTM D5185(m)	>8	<b>&lt;1</b>	---	---
Nickel	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	---	---
Titanium	ppm	ASTM D5185(m)	>3	<b>3</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>6</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>&lt;1</b>	---	---
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	---	---
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	---	---

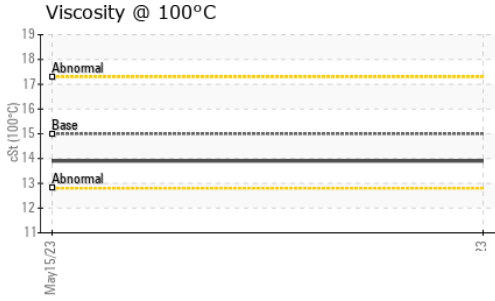
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		<b>134</b>	---	---
Barium	ppm	ASTM D5185(m)		<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185(m)		<b>21</b>	---	---
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	---	---
Magnesium	ppm	ASTM D5185(m)		<b>248</b>	---	---
Calcium	ppm	ASTM D5185(m)		<b>2247</b>	---	---
Phosphorus	ppm	ASTM D5185(m)		<b>1010</b>	---	---
Zinc	ppm	ASTM D5185(m)		<b>1105</b>	---	---
Sulfur	ppm	ASTM D5185(m)		<b>3030</b>	---	---
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	---	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>20	<b>3</b>	---	---
Sodium	ppm	ASTM D5185(m)	>75	<b>2</b>	---	---
Potassium	ppm	ASTM D5185(m)	>20	<b>6</b>	---	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*		<b>0.2</b>	---	---
Nitration	Abs/cm	ASTM D7624*	>20	<b>8.6</b>	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>21.7</b>	---	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>17.6</b>	---	---

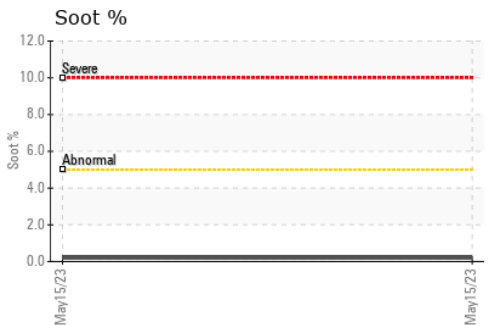
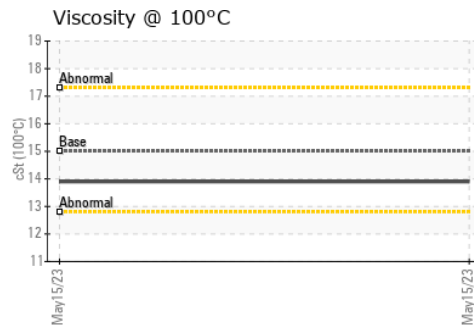
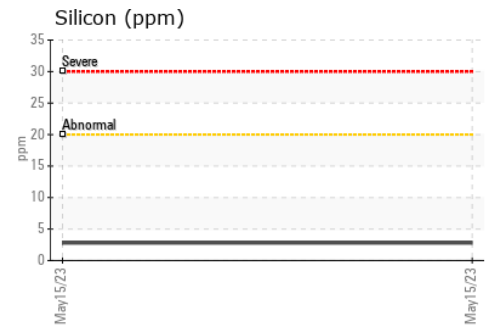
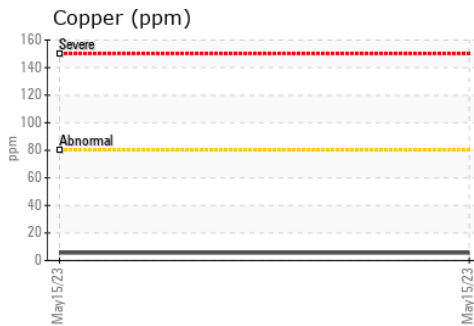
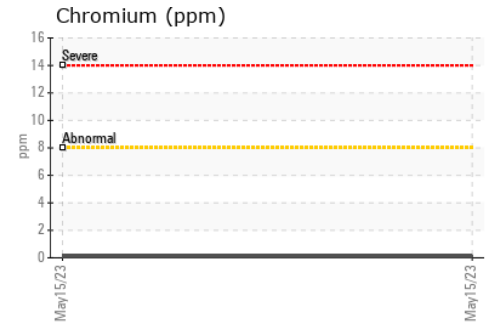
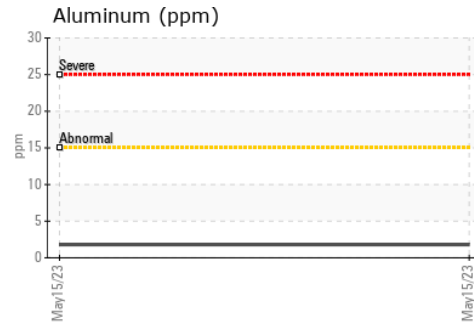
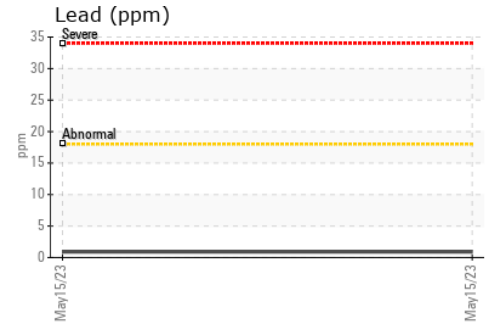
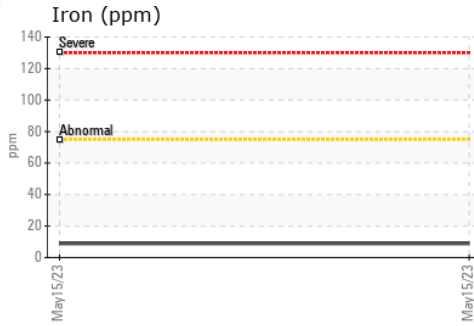
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.1	NEG	---
Free Water	scalar	Visual*		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15	13.9	---

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WA0019683      **Received** : 23 May 2023  
**Lab Number** : 02558839      **Diagnosed** : 23 May 2023  
**Unique Number** : 5579879      **Diagnostician** : Wes Davis  
**Test Package** : MOB 1

**CCGS LA POILE BAY**  
 21 LOWER WARREN STREET  
 LOUISBOURG, NS  
 CA B1L 1B5  
 Contact: Service Manager  
 spindrifteng.ccs@dg-mpo.gc.ca  
 T: (902)733-3700  
 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.