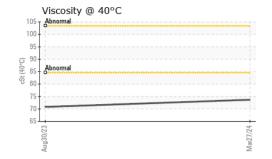
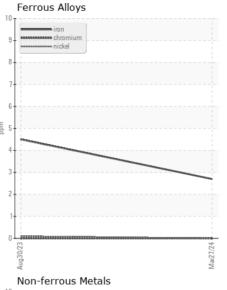
**WEAR** CONTAMINATION **FLUID CONDITION**  **NORMAL NORMAL NORMAL** 

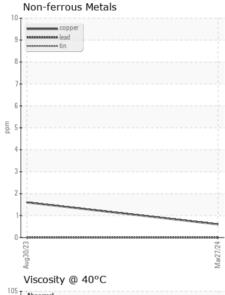
## **STBD GEARBOX**

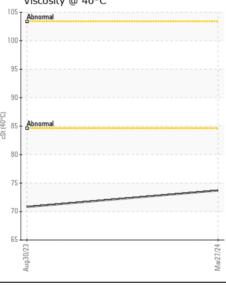
Component Starboard Gearbox

Starboard Gearbox							
SHELL 15W40 ( GAL)							
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.	Sample Number		Client Info		WC0916616	WC0754206	
	Sample Date		Client Info		27 Mar 2024	30 Aug 2023	
	Machine Age	hrs	Client Info		2538	2268	
	Oil Age	hrs	Client Info		278	500	
	Filter Age	hrs	Client Info		278	500	
	Oil Changed		Client Info		Changed	Changed	
	Filter Changed		Client Info		Changed	Changed	
	Sample Status				NORMAL	NORMAL	
WEAR	Iron	ppm	ASTM D5185(m)	>150	3	4	
All component wear rates are normal.	Chromium	ppm	ASTM D5185(m)	>10	0	0	
	Nickel	ppm	ASTM D5185(m)	>10	0	<1	
	Titanium	ppm	ASTM D5185(m)		0	0	
	Silver	ppm	ASTM D5185(m)		0	0	
	Aluminum	ppm	ASTM D5185(m)	>5	<1	<1	
	Lead	ppm	ASTM D5185(m)	>65	0	0	
	Copper	ppm	ASTM D5185(m)	>80	<1	2	
	Tin	ppm	ASTM D5185(m)	>8	0	0	
	Vanadium	ppm	ASTM D5185(m)		0	0	
	White Metal	scalar	Visual*	NONE	NONE	NONE	
	Yellow Metal	scalar	Visual*	NONE	NONE	NONE	
CONTAMINATION	Silicon	ppm	ASTM D5185(m)	>20	<1	3	
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185(m)	>20	8	7	
	Water		WC Method	>0.2	NEG	NEG	
	Silt	scalar	Visual*	NONE	NONE	NONE	
	Debris	scalar	Visual*	NONE	VLITE	NONE	
	Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	
	Appearance	scalar	Visual*	NORML	NORML	NORML	
	Odor	scalar	Visual*	NORML	NORML	NORML	
	Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	
FLUID CONDITION	Sodium	ppm	ASTM D5185(m)	>150	2	2	
Viscosity of sample indicates oil is within SAE 30 range, advise investigate. The condition of the oil is acceptable for the time in service.	Boron	ppm	ASTM D5185(m)		195	181	
	Barium	ppm	ASTM D5185(m)		0	0	
	Molybdenum	ppm	ASTM D5185(m)		0	9	
	Manganese	ppm	ASTM D5185(m)		0	0	
	Magnesium	ppm	ASTM D5185(m)		13	25	
	Calcium	ppm	ASTM D5185(m)		2212	2172	
	Phosphorus	ppm	ASTM D5185(m)		1038	1096	
	Zinc	ppm	ASTM D5185(m)		1143	1126	
	Sulfur	ppm	ASTM D5185(m)		3222	3267	
	Visc @ 40°C	cSt	ASTM D7279(m)		73.7	70.8	











CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No.

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 : WC0916616 Lab Number : 02626178 Unique Number : 5759310 Test Package : MAR 1

Received **Tested** 

: 02 Apr 2024 Diagnosed

: 02 Apr 2024 : 03 Apr 2024 - Kevin Marson

**CANADIAN COAST GUARD** CCGS CARIBOUS ISLE, 867 Lakeshore Rd Burlington, ON

CA L7S 1A1 Contact: Chief Engineer CariboulsleCE@ccgs-ngcc.gc.ca T:

F: (705)942-5739

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.