



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Machine Id  
**REDUCTION GEAR STARBOARD**

Component  
**Starboard Gearbox**

Fluid  
**CASTROL HYPIN AWS HYDRAULIC 100 (1200 LTR)**

## RECOMMENDATION

Resample at the next service interval to monitor. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using MAR 2 test kits, this testkit includes AN to determine the suitability of the oil for continued use.

## WEAR

All component wear rates are normal.

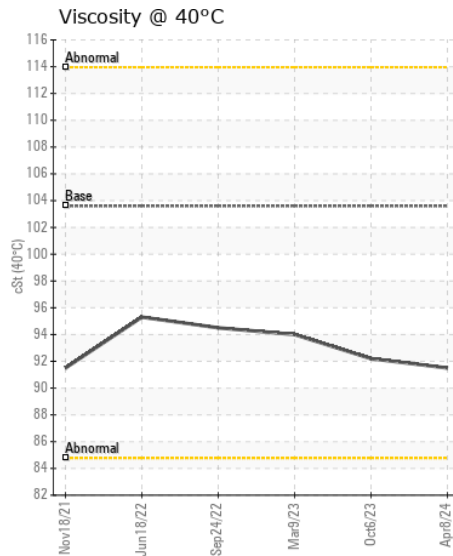
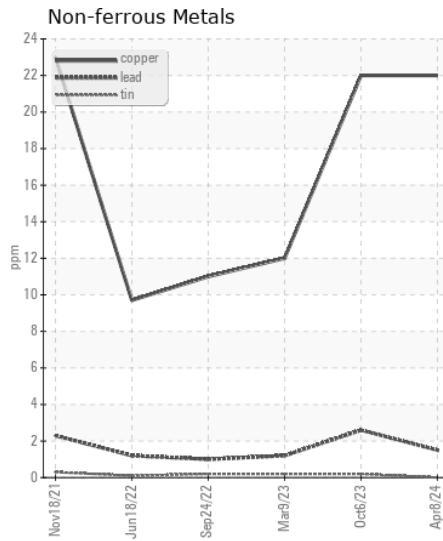
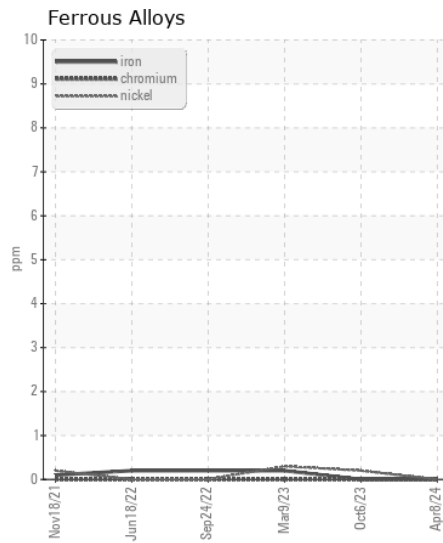
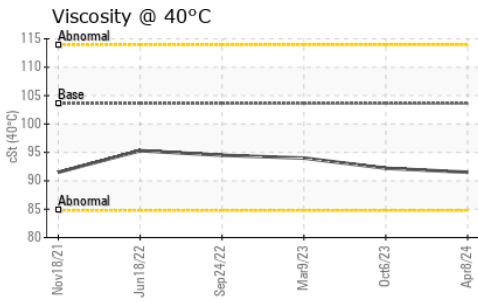
## CONTAMINATION

There is no indication of any contamination in the oil.

## FLUID CONDITION

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0902416</b>	WC0773495	WC
Sample Date		Client Info		<b>08 Apr 2024</b>	06 Oct 2023	09 Mar 2023
Machine Age	hrs	Client Info		<b>40394</b>	28163	25342
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL
Iron	ppm	ASTM D5185(m)	>200	<b>0</b>	0	<1
Chromium	ppm	ASTM D5185(m)	>10	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m)	>10	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)		<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185(m)	>25	<b>0</b>	0	0
Lead	ppm	ASTM D5185(m)	>50	<b>2</b>	3	1
Copper	ppm	ASTM D5185(m)	>200	<b>22</b>	22	12
Tin	ppm	ASTM D5185(m)	>10	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Silicon	ppm	ASTM D5185(m)	>50	<b>0</b>	<1	<1
Potassium	ppm	ASTM D5185(m)	>20	<b>0</b>	0	0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG
Sodium	ppm	ASTM D5185(m)		<b>0</b>	<1	0
Boron	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)		<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)		<b>&lt;1</b>	0	0
Calcium	ppm	ASTM D5185(m)		<b>46</b>	47	49
Phosphorus	ppm	ASTM D5185(m)		<b>386</b>	391	435
Zinc	ppm	ASTM D5185(m)		<b>480</b>	489	484
Sulfur	ppm	ASTM D5185(m)		<b>4998</b>	5189	5413
Visc @ 40°C	cSt	ASTM D7279(m)	103.6	<b>91.5</b>	92.2	94.0



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0902416  
**Lab Number** : 02630951  
**Unique Number** : 5772104  
**Test Package** : MAR 1

**Horizon Maritime Services Ltd. - Horizon Arctic**  
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 ST. JOHNS, NL  
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 Contact: Horizon Arctic Chief Engineer  
 chiefeng.arctic@horizonvessel.com

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.

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 F: