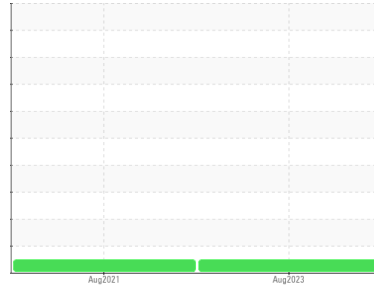




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**PROVISION CRANE (S/N SP2228-1)**

Component  
**Starboard Hydraulic System**

Fluid  
**CASTROL HYSPIN AWH-M ISO 46 (350 LTR)**

## DIAGNOSIS

### Recommendation

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. Please specify the component make and model with your next sample. 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 Particle Count to determine the ISO cleanliness of the fluid. 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 component(unconfirmed).

### Fluid Condition

Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service (unconfirmed).

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0754028</b>	WC0587322	---
Sample Date	Client Info		<b>12 Aug 2023</b>	04 Aug 2021	---
Machine Age	hrs	Client Info	<b>1581</b>	1474	---
Oil Age	hrs	Client Info	<b>1581</b>	1474	---
Oil Changed	Client Info		<b>Not Chngd</b>	Not Chngd	---
Sample Status			<b>NORMAL</b>	NORMAL	---

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>20	<b>2</b>	1	---
Chromium	ppm	ASTM D5185(m)	>10	<b>0</b>	0	---
Nickel	ppm	ASTM D5185(m)	>10	<b>0</b>	<1	---
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Silver	ppm	ASTM D5185(m)		<b>0</b>	<1	---
Aluminum	ppm	ASTM D5185(m)	>10	<b>0</b>	0	---
Lead	ppm	ASTM D5185(m)	>10	<b>&lt;1</b>	<1	---
Copper	ppm	ASTM D5185(m)	>75	<b>&lt;1</b>	<1	---
Tin	ppm	ASTM D5185(m)	>10	<b>0</b>	0	---
Antimony	ppm	ASTM D5185(m)		<b>0</b>	0	---
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	0	---

## ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	---
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185(m)		<b>0</b>	0	---
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0	---
Magnesium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	---
Calcium	ppm	ASTM D5185(m)		<b>67</b>	69	---
Phosphorus	ppm	ASTM D5185(m)		<b>380</b>	376	---
Zinc	ppm	ASTM D5185(m)		<b>82</b>	77	---
Sulfur	ppm	ASTM D5185(m)		<b>1890</b>	1856	---
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	---

## CONTAMINANTS

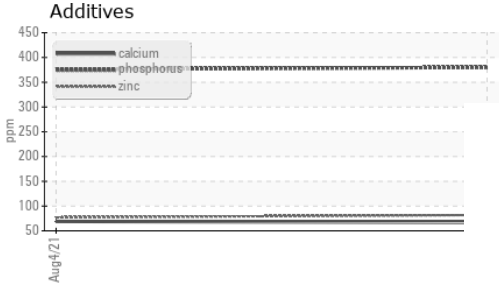
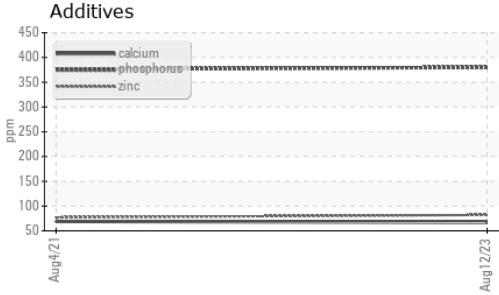
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	---
Sodium	ppm	ASTM D5185(m)		<b>1</b>	<1	---
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	---

## VISUAL

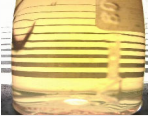

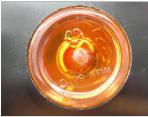
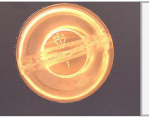
	method	limit/base	current	history1	history2	
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	Visual*	>0.1	<b>NEG</b>	NEG	---
Free Water	scalar	Visual*		<b>NEG</b>	NEG	---



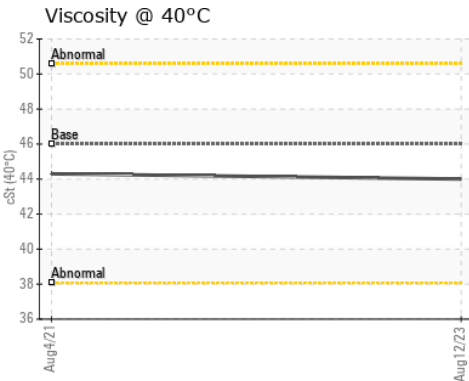
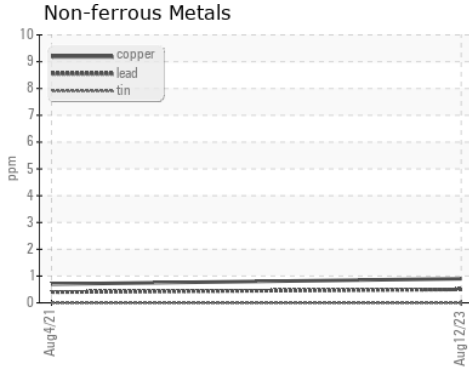
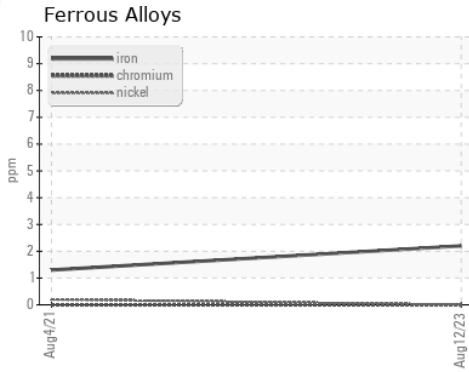
# OIL ANALYSIS REPORT



FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	46.0	<b>44.0</b>	44.3	---

SAMPLE IMAGES		method	limit/base	current	history1	history2
Color						no image
Bottom						no image

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Horizon Maritime Services Ltd. - Horizon Enabler  
**Sample No.** : WC0754028 **Received** : 06 Sep 2023 87 Water Street, 2nd Floor  
**Lab Number** : 02580691 **Diagnosed** : 06 Sep 2023 St. John's, NL  
**Unique Number** : 5633751 **Diagnostician** : Kevin Marson CA A1C 1A5  
**Test Package** : MAR 1

To discuss this sample report, contact Customer Service at 1-800-268-2131. Contact: Andrew Whalen  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab. chiefeng.enabler@horizonmaritime.com  
 Validity of results and interpretation are based on the sample and information as supplied. T:  
F: