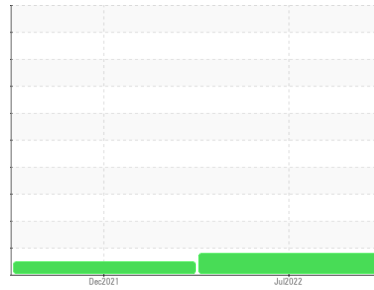




OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Machine Id
PORT STEERING (S/N 115841-080001)
 Component
Port Steering
 Fluid
CASTROL ALPHA SP100 (800 LTR)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. We recommend an early resample to monitor this condition. 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 AN to determine the suitability of the fluid for continued use. this testkit includes Particle Count to determine the ISO cleanliness of the fluid.

Wear

Lead ppm levels are noted. All other component wear rates are normal.

Contamination

There is no indication of any contamination in the fluid.

Fluid Condition

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

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0474242	WC0643446	---
Sample Date	Client Info		11 Jul 2022	14 Dec 2021	---
Machine Age	hrs	Client Info	0	0	---
Oil Age	hrs	Client Info	0	0	---
Oil Changed	Client Info		Not Chngd	Not Chngd	---
Sample Status			ATTENTION	NORMAL	---

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method		NEG	NEG	---

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184*		0	---	---
Iron	ppm	ASTM D5185(m) >60	46	8	---
Chromium	ppm	ASTM D5185(m) >12	0	0	---
Nickel	ppm	ASTM D5185(m) >6	<1	<1	---
Titanium	ppm	ASTM D5185(m)	0	0	---
Silver	ppm	ASTM D5185(m)	0	0	---
Aluminum	ppm	ASTM D5185(m) >4	<1	<1	---
Lead	ppm	ASTM D5185(m) >12	15	<1	---
Copper	ppm	ASTM D5185(m) >30	3	2	---
Tin	ppm	ASTM D5185(m)	<1	<1	---
Antimony	ppm	ASTM D5185(m)	<1	<1	---
Vanadium	ppm	ASTM D5185(m)	0	0	---
Beryllium	ppm	ASTM D5185(m)	0	0	---
Cadmium	ppm	ASTM D5185(m)	<1	0	---

ADDITIVES

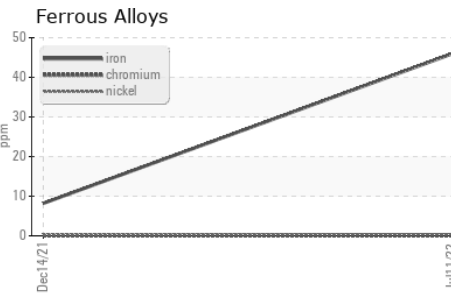
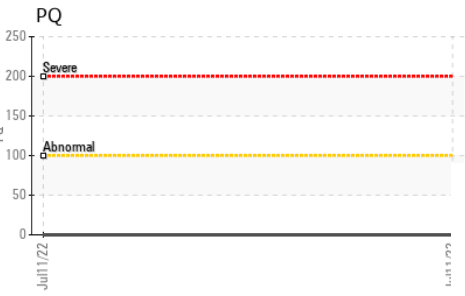
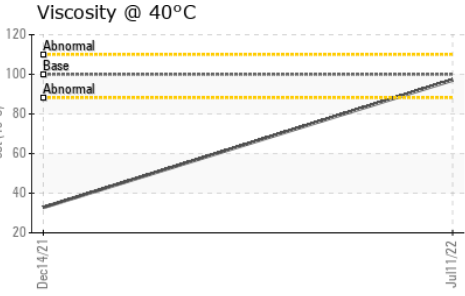
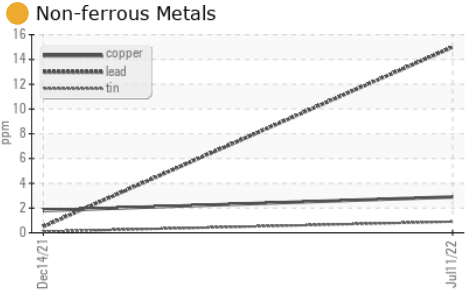
	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	2	<1	---
Barium	ppm	ASTM D5185(m)	0	0	---
Molybdenum	ppm	ASTM D5185(m)	0	0	---
Manganese	ppm	ASTM D5185(m)	<1	<1	---
Magnesium	ppm	ASTM D5185(m)	<1	2	---
Calcium	ppm	ASTM D5185(m)	3	46	---
Phosphorus	ppm	ASTM D5185(m)	493	384	---
Zinc	ppm	ASTM D5185(m)	14	426	---
Sulfur	ppm	ASTM D5185(m)	9978	3801	---
Lithium	ppm	ASTM D5185(m)	<1	<1	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >10	1	<1	---
Sodium	ppm	ASTM D5185(m)	1	<1	---
Potassium	ppm	ASTM D5185(m) >20	0	<1	---



OIL ANALYSIS REPORT



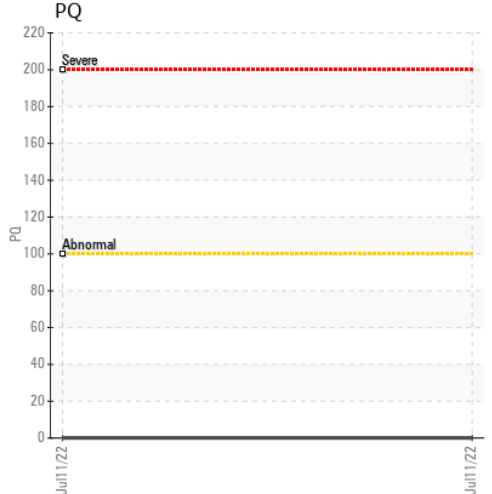
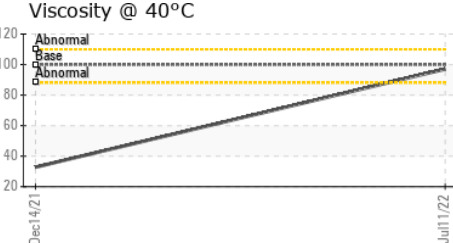
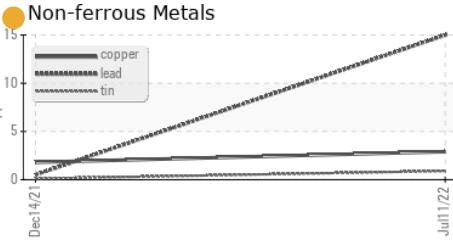
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	---
Precipitate	scalar	Visual*	NONE	NONE	---
Silt	scalar	Visual*	NONE	NONE	---
Debris	scalar	Visual*	NONE	VLITE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	---
Appearance	scalar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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	100	97.1	32.8

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **Horizon Maritime Services Ltd. - K.J. Gardner**
Sample No. : WC0474242 **Received** : 21 Jul 2022 101 Research Drive, Main Floor
Lab Number : 02501103 **Tested** : 21 Jul 2022 Dartmouth, NS
Unique Number : 5434064 **Diagnosed** : 22 Jul 2022 - Kevin Marson CA B2Y 4T6
Test Package : MAR 1 (Additional Tests: PQ) Contact: Engine Room

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