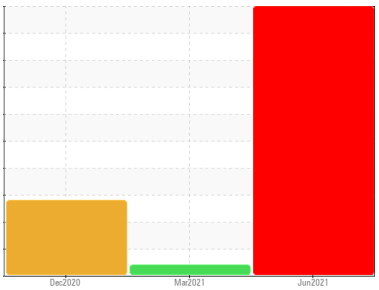
PROBLEM SUMMARY

Sample Rating Trend

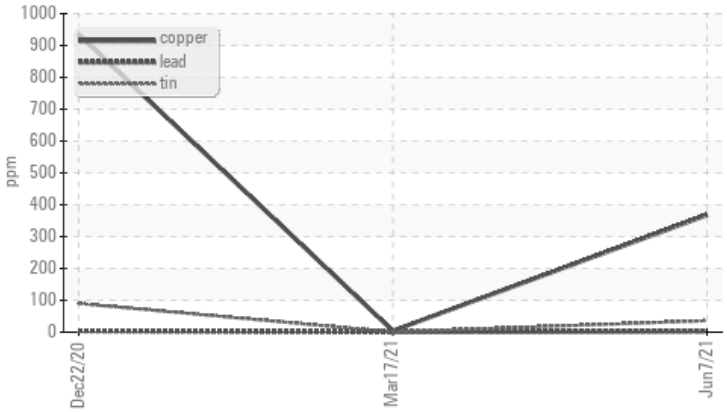


WEAR

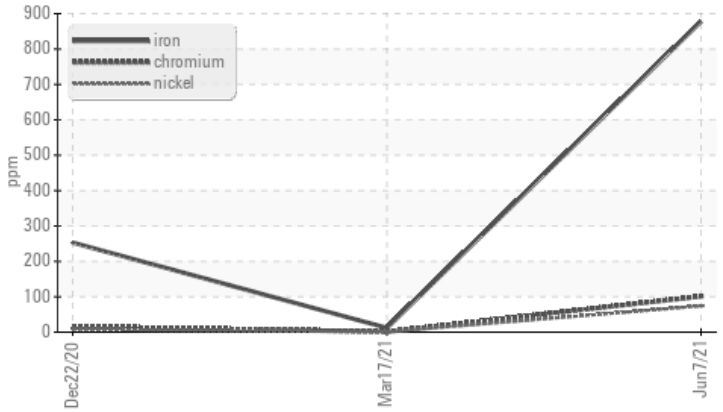
Machine Id
OSV HERCULES 2PH
Component
Starboard Wheel Hub
Fluid
SHELL OMALA S2 G100 (25 GAL)

COMPONENT CONDITION SUMMARY

▲ Non-ferrous Metals



▲ Ferrous Alloys



RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	ABNORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>500	▲ **878**	12	253
Chromium	ppm	ASTM D5185m	>8	▲ **101**	1	16
Nickel	ppm	ASTM D5185m	>5	▲ **74**	<1	8
Copper	ppm	ASTM D5185m	>50	▲ **368**	4	▲ 935
Tin	ppm	ASTM D5185m		▲ **36**	<1	▲ 90

Customer Id: ALADUT
Sample No.: WC0541061
Lab Number: 05281606
Test Package: MAR 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldridge +1
don.b505@comcast.net

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Inspect Wear Source	MISSED	Nov 03 2021	?	We advise that you inspect for the source(s) of wear.
Change Fluid	MISSED	Nov 03 2021	?	We recommend that you drain the oil from the component if this has not already been done.
Resample	MISSED	Nov 03 2021	?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS

17 Mar 2021 Diag: Doug Bogart

VIS DEBRIS

We suspect abnormal contamination may be due to sampling method. We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.All component wear rates are normal. Moderate concentration of visible dirt/debris present in the oil. The AN level is acceptable for this fluid.

view report

22 Dec 2020 Diag: Jonathan Hester

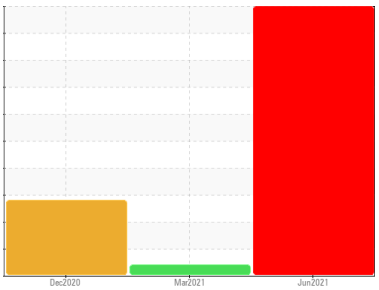
VISUAL METAL

No corrective action is recommended at this time. We recommend an early resample to monitor this condition.Moderate concentration of visible metal present. Bearing and/or bushing wear is indicated. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Machine Id
OSV HERCULES 2PH
Component
Starboard Wheel Hub
Fluid
SHELL OMALA S2 G100 (25 GAL)

DIAGNOSIS

▲ Recommendation
We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

▲ Wear
Bearing and/or bushing wear is indicated. Gear wear is indicated.

Contamination
No other contaminants were detected in the oil.

Fluid Condition
The AN level is acceptable for this fluid. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0541061**	WC0541048	WC0423675
Sample Date		Client Info		**07 Jun 2021**	17 Mar 2021	22 Dec 2020
Machine Age	hrs	Client Info		**18666**	18087	17476
Oil Age	hrs	Client Info		**0**	195	4977
Oil Changed		Client Info		**N/A**	Not Changd	Not Changd
Sample Status				**SEVERE**	ABNORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.2	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>500	▲ **878**	12	253
Chromium	ppm	ASTM D5185m	>8	▲ **101**	1	16
Nickel	ppm	ASTM D5185m	>5	▲ **74**	<1	8
Titanium	ppm	ASTM D5185m		**1**	0	<1
Silver	ppm	ASTM D5185m		**<1**	<1	<1
Aluminum	ppm	ASTM D5185m	>5	**6**	4	7
Lead	ppm	ASTM D5185m	>5	**3**	<1	4
Copper	ppm	ASTM D5185m	>50	▲ **368**	4	▲ 935
Tin	ppm	ASTM D5185m		▲ **36**	<1	▲ 90
Antimony	ppm	ASTM D5185m		**0**	0	0
Vanadium	ppm	ASTM D5185m		**<1**	0	0
Cadmium	ppm	ASTM D5185m		**<1**	0	0

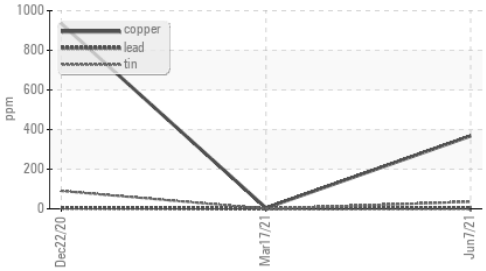
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**5**	2	<1
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**9**	0	<1
Manganese	ppm	ASTM D5185m		**23**	<1	4
Magnesium	ppm	ASTM D5185m		**9**	2	3
Calcium	ppm	ASTM D5185m		**15**	22	4
Phosphorus	ppm	ASTM D5185m		**245**	197	244
Zinc	ppm	ASTM D5185m		**2**	0	0
Sulfur	ppm	ASTM D5185m		**7205**	5229	7276

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**14**	2	6
Sodium	ppm	ASTM D5185m		**15**	1	24
Potassium	ppm	ASTM D5185m	>20	**0**	0	<1

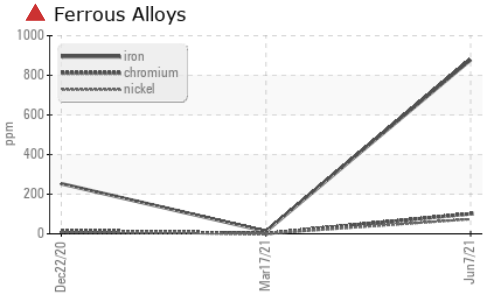
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.207**	0.289	0.182

OIL ANALYSIS REPORT

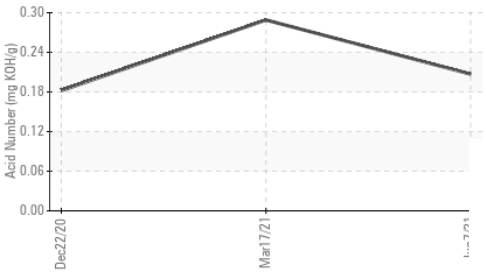
Non-ferrous Metals



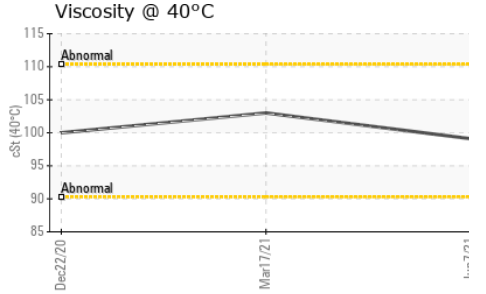
Ferrous Alloys



Acid Number



Viscosity @ 40°C



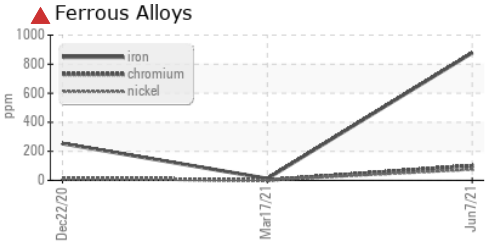
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	▲ MODER
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**LIGHT**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	▲ MODER	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		**99.1**	103	100

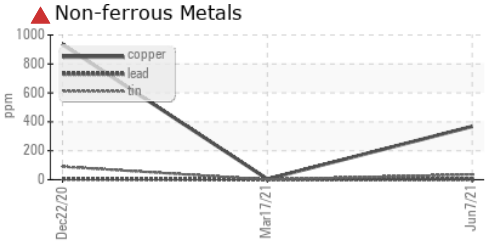
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color			*no image*	*no image*	*no image*
Bottom			*no image*	*no image*	*no image*

GRAPHS

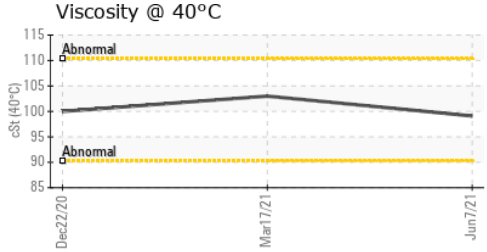
Ferrous Alloys



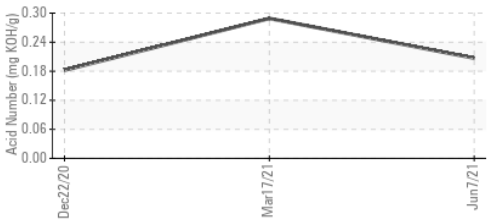
Non-ferrous Metals



Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0541061
Lab Number : 05281606
Unique Number : 9545539
Test Package : MAR 2

Received : 17 Jun 2021
Tested : 18 Jun 2021
Diagnosed : 18 Jun 2021 - Don Baldridge

To discuss this sample report, contact Customer Service at 1-800-237-1369.
** - Denotes test methods that are outside of the ISO 17025 scope of accreditation.*
Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

ALASKA VESSEL AGENTS
PO BOX 920785
DUTCH HARBOR, AK
US 99692
Contact: MONIKA BERGERT
monika.bergert@alaskavesselagents.com
T: (907)581-4591
F: