



WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	NORMAL

Machine Id
NOT GIVEN MW0053429 MW 0053429

Component
Starboard Reduction Gear

Fluid
CETUS DE 68 (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW0053429	---	---
Sample Date		Client Info		09 Nov 2023	---	---
Machine Age	hrs	Client Info		12663	---	---
Oil Age	hrs	Client Info		2092	---	---
Filter Age	hrs	Client Info		2092	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				MARGINAL	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>150	12	---	---
Chromium	ppm	ASTM D5185m	>10	<1	---	---
Nickel	ppm	ASTM D5185m	>10	<1	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m		0	---	---
Aluminum	ppm	ASTM D5185m	>25	2	---	---
Lead	ppm	ASTM D5185m	>100	<1	---	---
Copper	ppm	ASTM D5185m	>50	6	---	---
Tin	ppm	ASTM D5185m	>10	<1	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

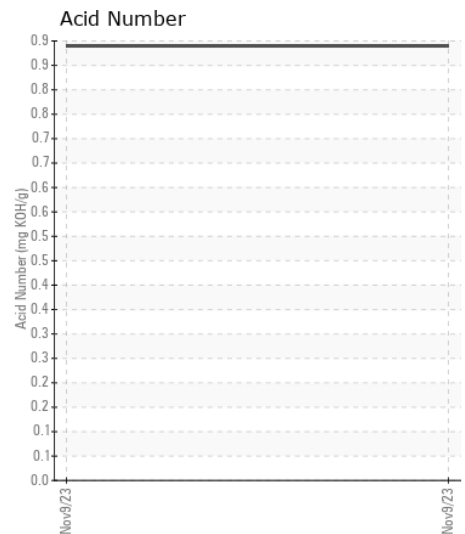
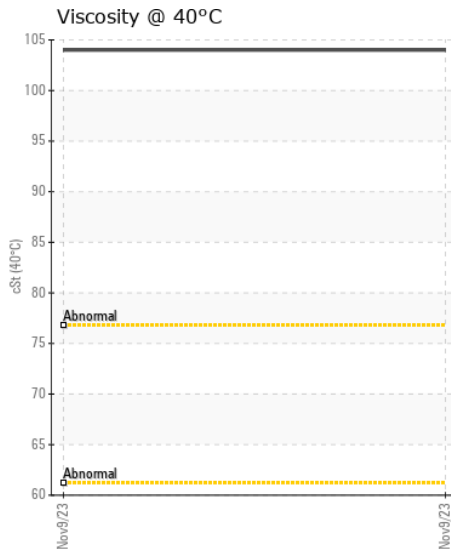
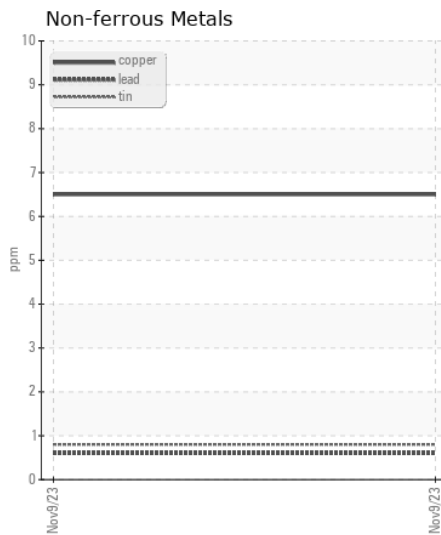
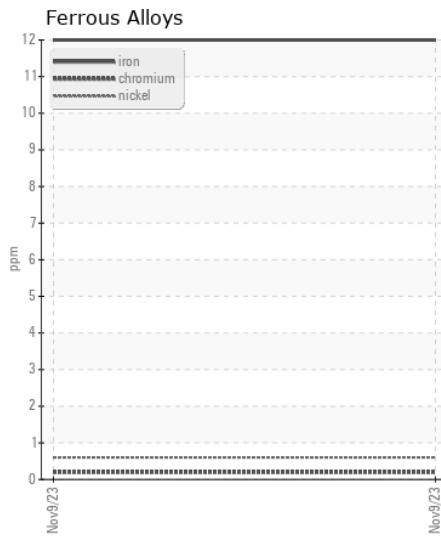
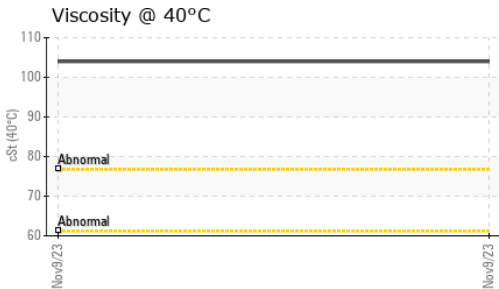
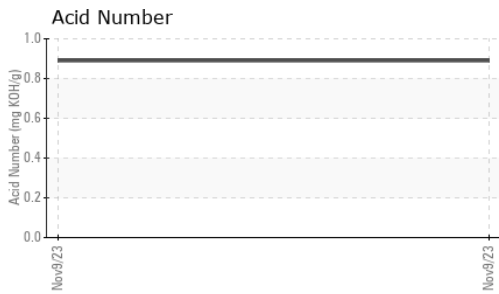
Moderate concentration of visible dirt/debris present in the oil.

Silicon	ppm	ASTM D5185m	>50	7	---	---
Potassium	ppm	ASTM D5185m	>20	2	---	---
Water		WC Method	>0.1	NEG	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	▲ MODER	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.1	NEG	---	---

FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		0	---	---
Boron	ppm	ASTM D5185m		169	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		12	---	---
Manganese	ppm	ASTM D5185m		<1	---	---
Magnesium	ppm	ASTM D5185m		25	---	---
Calcium	ppm	ASTM D5185m		3535	---	---
Phosphorus	ppm	ASTM D5185m		556	---	---
Zinc	ppm	ASTM D5185m		615	---	---
Sulfur	ppm	ASTM D5185m		3239	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045		0.89	---	---
Visc @ 40°C	cSt	ASTM D445		104	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0053429 **Received** : 08 Jan 2024
Lab Number : 06054997 **Diagnosed** : 15 Jan 2024
Unique Number : 10820946 **Diagnostician** : Doug Bogart
Test Package : MAR 2

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 PADUCAH, KY
 US 42003

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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)