



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

Area

**BRIAN RAFFERTY**

Machine Id

**[BRIAN RAFFERTY] 006 566616-6**

Component

**Starboard Reduction Gear**

Fluid

**CHEVRON MEROPA 320 (135 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>MW0062793</b>	MW0062802	MW0062797
Sample Date		Client Info		<b>01 May 2024</b>	18 Apr 2024	01 Apr 2024
Machine Age	hrs	Client Info		<b>30698</b>	30362	29954
Oil Age	hrs	Client Info		<b>30698</b>	30362	29954
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	ATTENTION

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>150	<b>48</b>	50	110
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>18</b>	18	16
Lead	ppm	ASTM D5185m	>100	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>50	<b>41</b>	40	40
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<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

**CONTAMINATION**

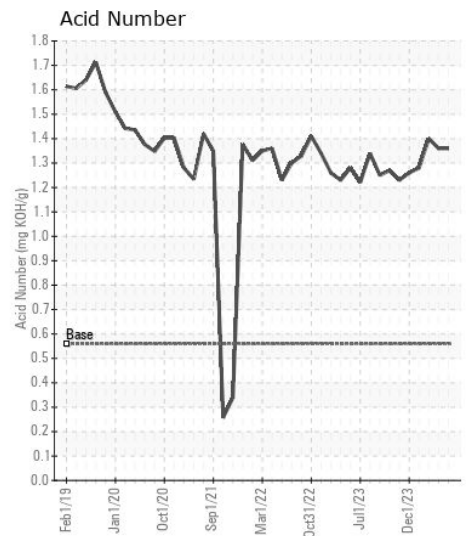
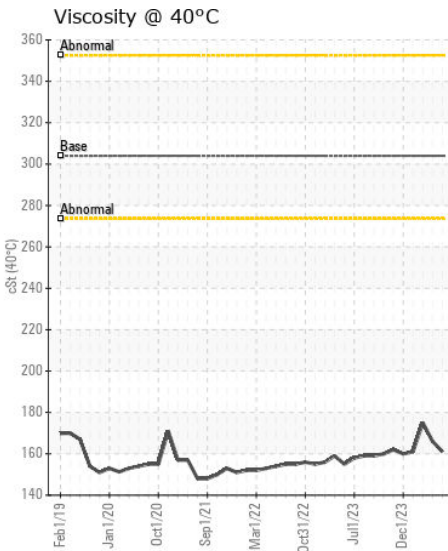
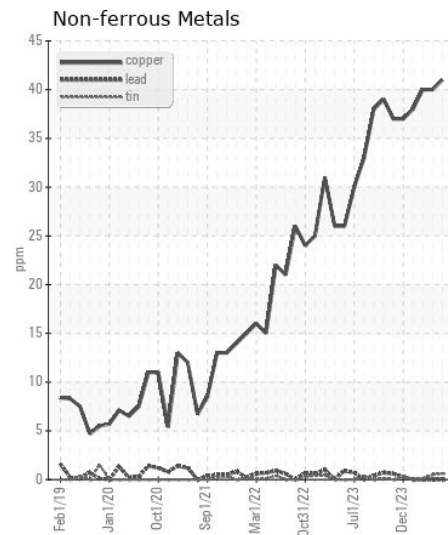
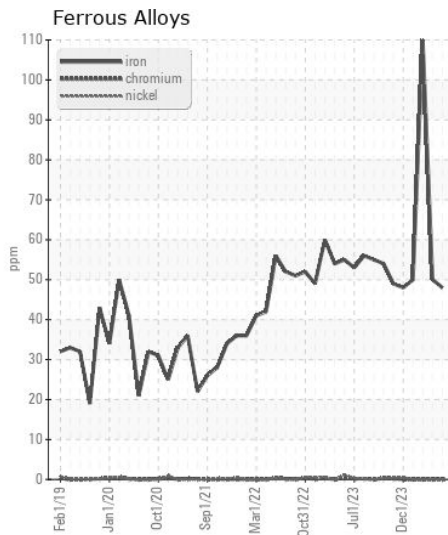
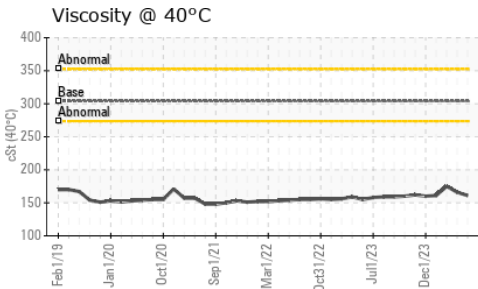
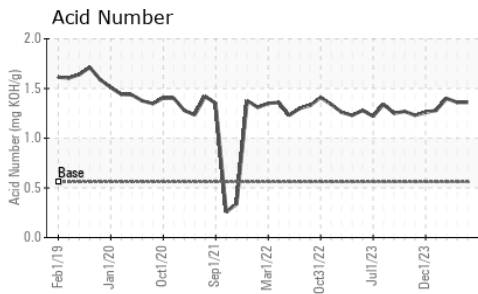
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>50	<b>18</b>	18	22
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	0	<1
Water		WC Method	>0.1	<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	>0.1	<b>NEG</b>	NEG	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		<b>9</b>	9	10
Boron	ppm	ASTM D5185m	20	<b>18</b>	10	14
Barium	ppm	ASTM D5185m		<b>2</b>	1	<1
Molybdenum	ppm	ASTM D5185m	0	<b>295</b>	285	247
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	1
Magnesium	ppm	ASTM D5185m		<b>6</b>	2	3
Calcium	ppm	ASTM D5185m	25	<b>113</b>	68	91
Phosphorus	ppm	ASTM D5185m	235	<b>711</b>	752	708
Zinc	ppm	ASTM D5185m		<b>64</b>	53	57
Sulfur	ppm	ASTM D5185m		<b>23483</b>	23045	21250
Acid Number (AN)	mg KOH/g	ASTM D8045	0.56	<b>1.36</b>	1.36	1.40
Visc @ 40°C	cSt	ASTM D445	304	<b>161</b>	166	175



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513

**Sample No.** : MW0062793

**Lab Number** : 06176189

**Unique Number** : 11022242

**Test Package** : MAR 2

**Received** : 10 May 2024

**Tested** : 13 May 2024

**Diagnosed** : 14 May 2024 - Sean Felton

**INGRAM BARGE**

900 S 3RD ST

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)