



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
SAMUEL B RICHMOND
Machine Id
[**SAMUEL B RICHMOND**] 006 652589-6
Component
Starboard Reduction Gear
Fluid
CHEVRON MEROPA 320 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW0053853	MW0053848	MW0053842
Sample Date		Client Info		01 Dec 2023	01 Nov 2023	01 Oct 2023
Machine Age	hrs	Client Info		38537	37839	37124
Oil Age	hrs	Client Info		38537	37839	37124
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	Not Changd
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>150	25	21	23
Chromium	ppm	ASTM D5185m	>10	<1	0	0
Nickel	ppm	ASTM D5185m	>10	<1	0	0
Titanium	ppm	ASTM D5185m		2	<1	2
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	2	1	2
Lead	ppm	ASTM D5185m	>100	<1	0	0
Copper	ppm	ASTM D5185m	>50	8	7	7
Tin	ppm	ASTM D5185m	>10	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

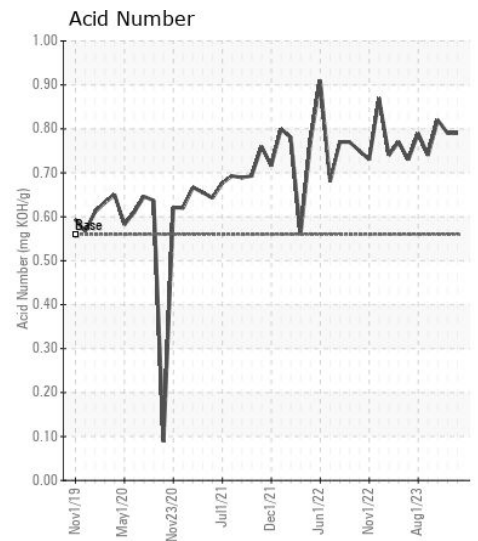
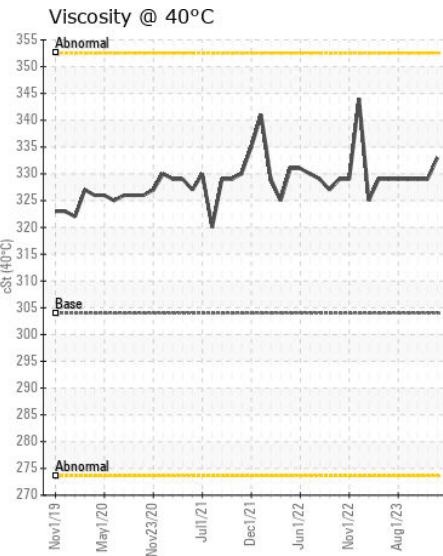
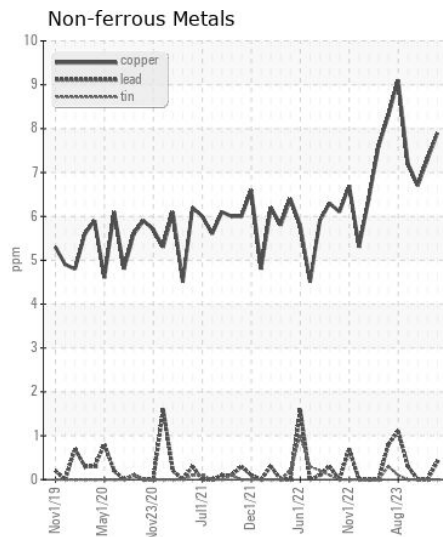
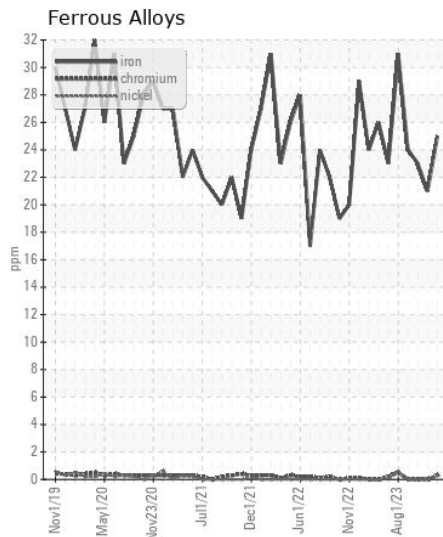
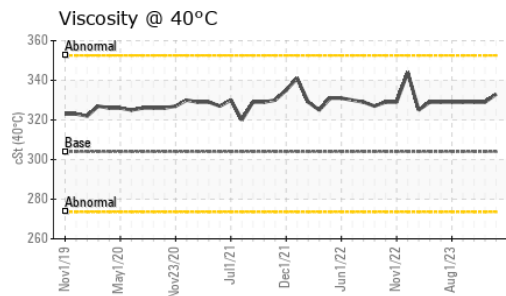
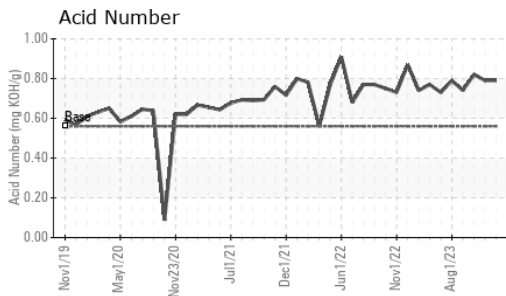
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>50	3	2	3
Potassium	ppm	ASTM D5185m	>20	2	0	2
Water		WC Method	>0.1	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	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	>0.1	NEG	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		6	7	9
Boron	ppm	ASTM D5185m	20	8	12	8
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m	0	<1	0	<1
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m		2	<1	6
Calcium	ppm	ASTM D5185m	25	63	93	60
Phosphorus	ppm	ASTM D5185m	235	294	235	260
Zinc	ppm	ASTM D5185m		7	33	19
Sulfur	ppm	ASTM D5185m		9115	7508	8058
Acid Number (AN)	mg KOH/g	ASTM D8045	0.56	0.79	0.79	0.82
Visc @ 40°C	cSt	ASTM D445	304	333	329	329



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0053853 **Recieved** : 11 Jan 2024
Lab Number : 06058816 **Diagnosed** : 12 Jan 2024
Unique Number : 10830198 **Diagnostician** : Wes Davis
Test Package : MAR 2

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)

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