



WEAR	SEVERE
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
JOHN M RIVERS
Machine Id
[JOHN M RIVERS] 006 633894-6
Component
Starboard Reduction Gear
Fluid
CHEVRON MEROPA 320 (--- GAL)

RECOMMENDATION

We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW0058709	MW0065756	MW0066189
Sample Date		Client Info		01 May 2024	01 Apr 2024	01 Feb 2024
Machine Age	hrs	Client Info		74285	73637	73432
Oil Age	hrs	Client Info		3905	73637	3043
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	None
Sample Status				SEVERE	NORMAL	NORMAL

WEAR

Gear wear is indicated. Clutch wear is indicated.

Iron	ppm	ASTM D5185m	>150	▲ 570	16	9
Chromium	ppm	ASTM D5185m	>10	9	<1	<1
Nickel	ppm	ASTM D5185m	>10	2	0	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m		<1	<1	0
Aluminum	ppm	ASTM D5185m	>25	2	1	<1
Lead	ppm	ASTM D5185m	>100	12	25	22
Copper	ppm	ASTM D5185m	>50	▲ 174	2	<1
Tin	ppm	ASTM D5185m	>10	▲ 20	<1	0
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

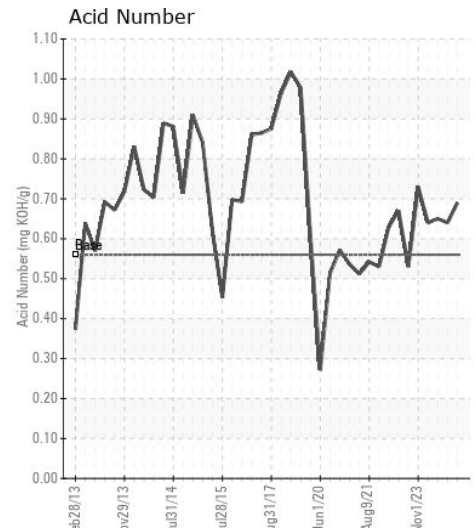
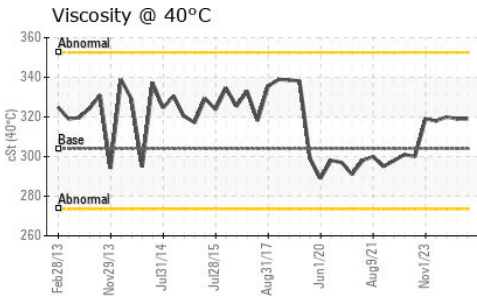
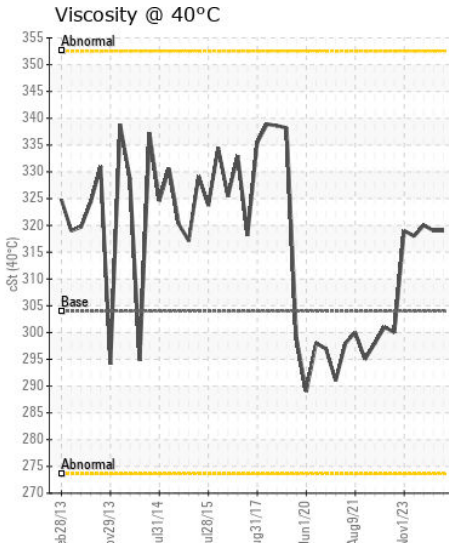
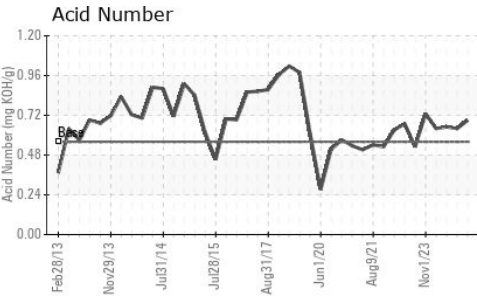
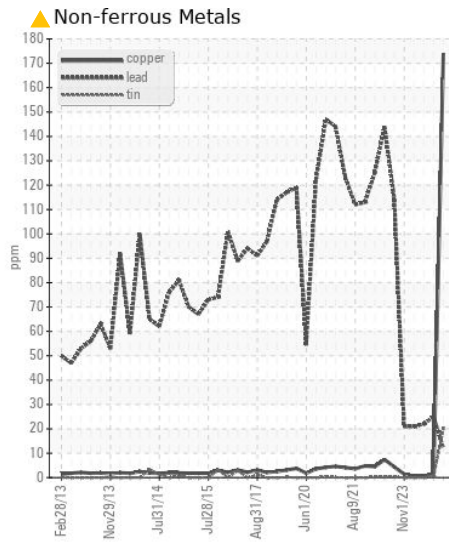
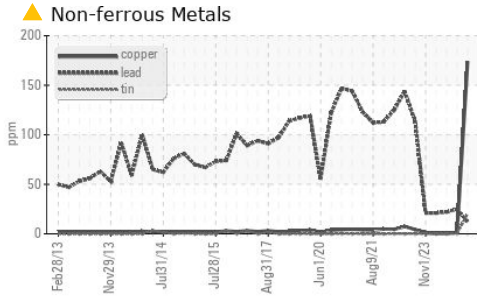
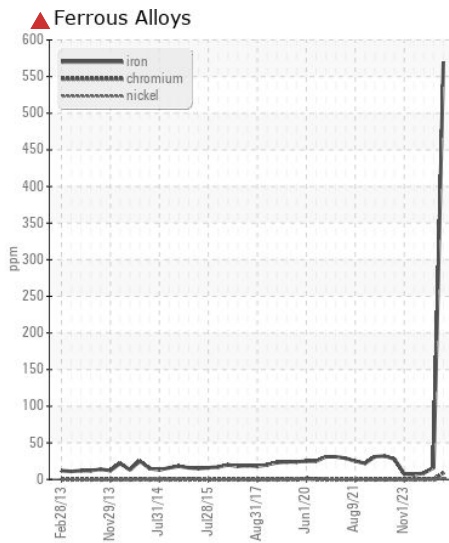
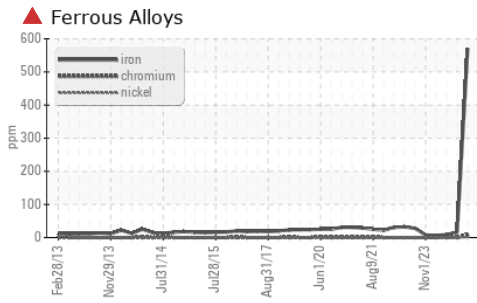
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>50	8	2	2
Potassium	ppm	ASTM D5185m	>20	2	2	0
Water		WC Method	>0.1	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	LIGHT
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.

Sodium	ppm	ASTM D5185m		4	2	2
Boron	ppm	ASTM D5185m	20	14	11	17
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m	0	1	<1	0
Manganese	ppm	ASTM D5185m		6	0	<1
Magnesium	ppm	ASTM D5185m		1	2	2
Calcium	ppm	ASTM D5185m	25	28	47	61
Phosphorus	ppm	ASTM D5185m	235	198	305	308
Zinc	ppm	ASTM D5185m		29	3	6
Sulfur	ppm	ASTM D5185m		4561	6925	5812
Acid Number (AN)	mg KOH/g	ASTM D8045	0.56	0.69	0.64	0.65
Visc @ 40°C	cSt	ASTM D445	304	319	319	320



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0058709
Lab Number : 06186357
Unique Number : 11043109
Test Package : MAR 2

Received : 21 May 2024
Tested : 23 May 2024
Diagnosed : 23 May 2024 - Jonathan Hester

INGRAM BARGE
 900 S 3RD ST
 PADUCAH, KY
 US 42003

Contact: JEFF BISHOP
 jeff.bishop@ingrambarga.com

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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