



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

Machine Id  
**NDA**  
Component  
**Starboard Reduction Gear**  
Fluid  
**CHEVRON MEROPA 320 (275 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>MW0060751</b>	MW0050563	MW0054724
Sample Date		Client Info		<b>22 Jan 2024</b>	21 Oct 2023	20 Jul 2023
Machine Age	hrs	Client Info		<b>19014</b>	16670	0
Oil Age	hrs	Client Info		<b>19014</b>	16670	14388
Filter Age	hrs	Client Info		<b>19014</b>	16670	0
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>None</b>	Not Changd	None
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>150	<b>28</b>	25	27
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	>10	<b>&lt;1</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>4</b>	3	1
Lead	ppm	ASTM D5185m	>100	<b>2</b>	0	0
Copper	ppm	ASTM D5185m	>50	<b>4</b>	3	3
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	0
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**

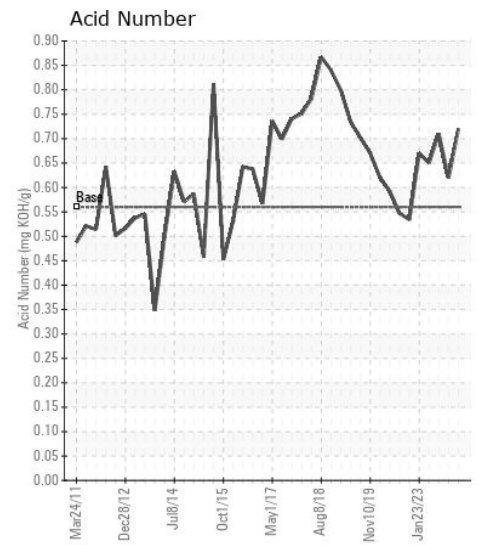
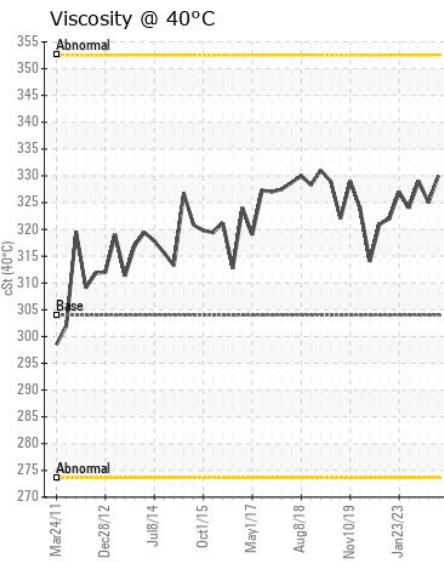
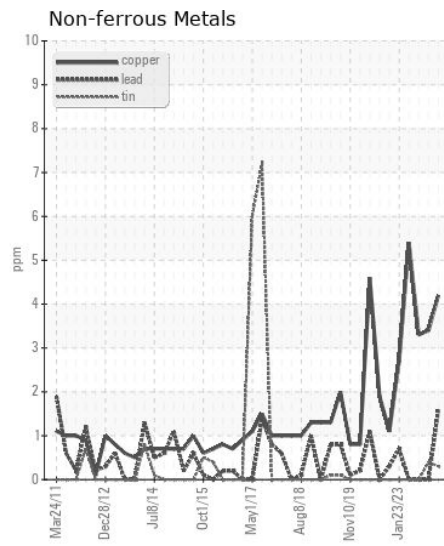
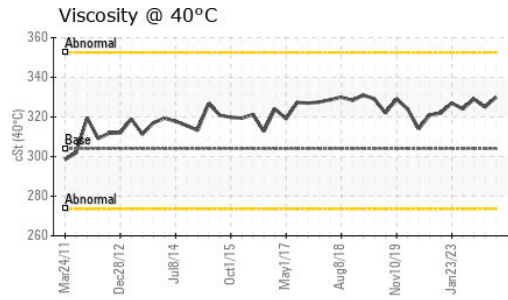
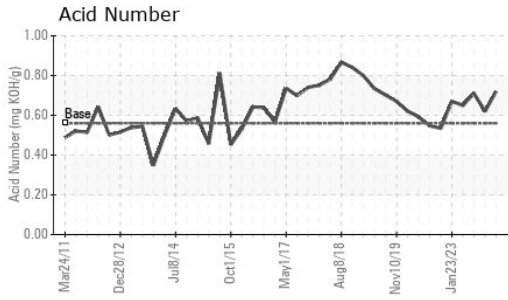
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>50	<b>1</b>	<1	<1
Potassium	ppm	ASTM D5185m	>20	<b>5</b>	1	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>2</b>	<1	2
Boron	ppm	ASTM D5185m	20	<b>6</b>	6	6
Barium	ppm	ASTM D5185m		<b>7</b>	7	8
Molybdenum	ppm	ASTM D5185m	0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>3</b>	2	2
Calcium	ppm	ASTM D5185m	25	<b>7</b>	11	15
Phosphorus	ppm	ASTM D5185m	235	<b>261</b>	250	249
Zinc	ppm	ASTM D5185m		<b>0</b>	0	6
Sulfur	ppm	ASTM D5185m		<b>6499</b>	6173	7235
Acid Number (AN)	mg KOH/g	ASTM D8045	0.56	<b>0.72</b>	0.62	0.71
Visc @ 40°C	cSt	ASTM D445	304	<b>330</b>	325	329



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : MW0060751 **Received** : 30 Jan 2024  
**Lab Number** : 06074965 **Diagnosed** : 31 Jan 2024  
**Unique Number** : 10857056 **Diagnostician** : Wes Davis  
**Test Package** : MAR 2

**AMERICAN RIVER TRANSPORTATION CO.**  
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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)