



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

Area

**WILLARD HAMMOND**

Machine Id

**[WILLARD HAMMOND] 006 587215-6**

Component

**Starboard Reduction Gear**

Fluid

**CHEVRON URSA SUPER PLUS 40 (--- 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		<b>MW0070935</b>	MW0068074	MW0068066
Sample Date		Client Info		<b>01 May 2024</b>	31 Mar 2024	14 Mar 2024
Machine Age	hrs	Client Info		<b>63171</b>	62341	61900
Oil Age	hrs	Client Info		<b>1595</b>	708	0
Filter Age	hrs	Client Info		<b>1595</b>	708	0
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	N/A
Filter Changed		Client Info		<b>Not Changd</b>	Not Changd	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>150	<b>4</b>	4	2
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	<1	0
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Aluminum	ppm	ASTM D5185m	>25	<b>&lt;1</b>	1	<1
Lead	ppm	ASTM D5185m	>100	<b>&lt;1</b>	1	0
Copper	ppm	ASTM D5185m	>50	<b>41</b>	49	47
Tin	ppm	ASTM D5185m	>10	<b>0</b>	1	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

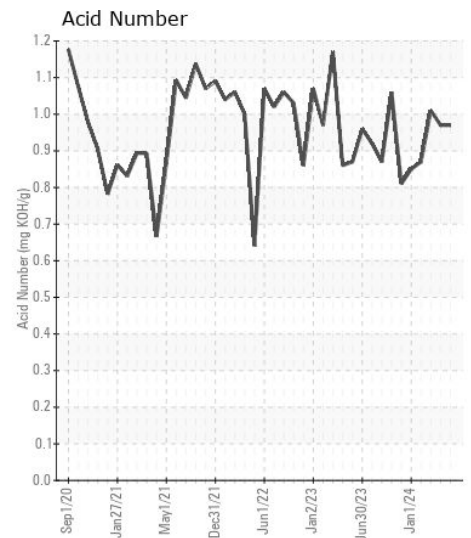
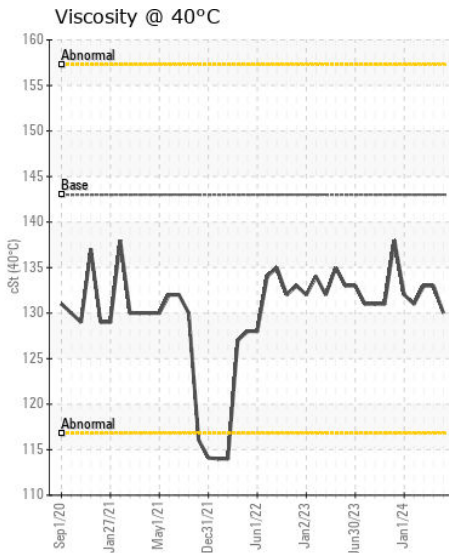
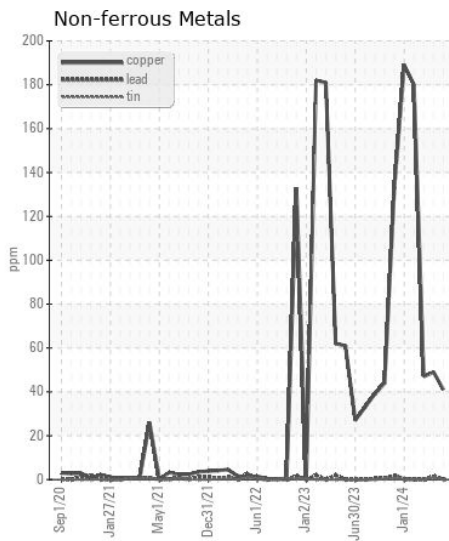
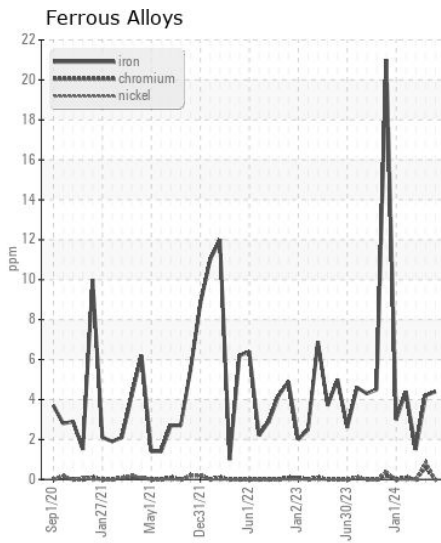
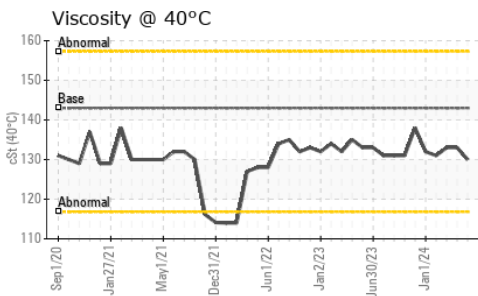
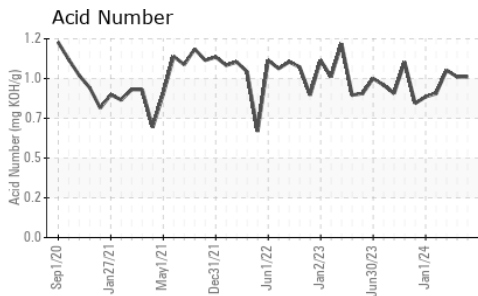
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>50	<b>4</b>	4	3
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	2	0
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>0</b>	<1	2
Boron	ppm	ASTM D5185m		<b>329</b>	373	310
Barium	ppm	ASTM D5185m		<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185m		<b>30</b>	32	28
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>8</b>	8	9
Calcium	ppm	ASTM D5185m		<b>2271</b>	2448	2260
Phosphorus	ppm	ASTM D5185m	1000	<b>625</b>	711	687
Zinc	ppm	ASTM D5185m	1090	<b>727</b>	755	738
Sulfur	ppm	ASTM D5185m		<b>2741</b>	2924	3061
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.97</b>	0.97	1.01
Visc @ 40°C	cSt	ASTM D445	143	<b>130</b>	133	133



Certificate L2367

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

**Sample No.** : MW0070935

**Lab Number** : 06192958

**Unique Number** : 11049710

**Test Package** : MAR 2

**Received** : 28 May 2024

**Tested** : 30 May 2024

**Diagnosed** : 30 May 2024 - Wes Davis

**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)