



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

Machine Id  
**MV FRAN C**  
Component  
**Starboard Genset**  
Fluid  
**CHEVRON URSA SUPER PLUS EC 15W40 (2 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>MW0057112</b>	MW0062710	MW0036728
Sample Date		Client Info		<b>09 Feb 2024</b>	16 Nov 2023	16 Jun 2023
Machine Age	hrs	Client Info		<b>6605</b>	6263	5633
Oil Age	hrs	Client Info		<b>1000</b>	500	500
Filter Age	hrs	Client Info		<b>1000</b>	500	500
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	ABNORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	<b>8</b>	6	22
Chromium	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>12	<b>5</b>	5	7
Lead	ppm	ASTM D5185m	>17	<b>&lt;1</b>	0	2
Copper	ppm	ASTM D5185m	>70	<b>1</b>	1	2
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</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**

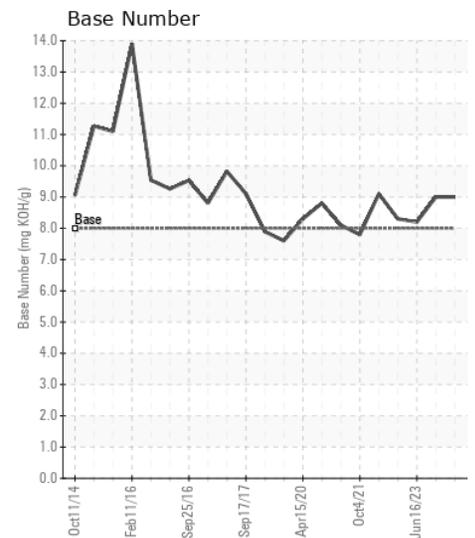
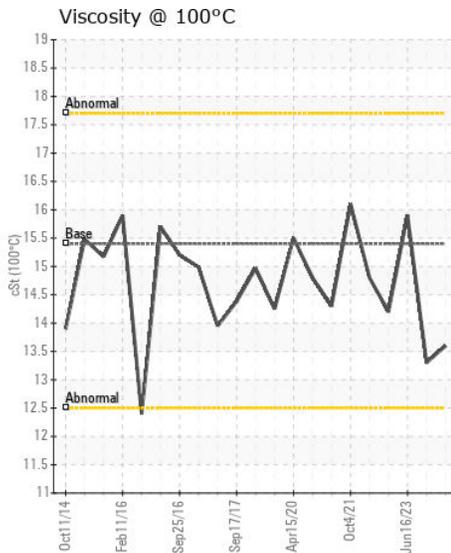
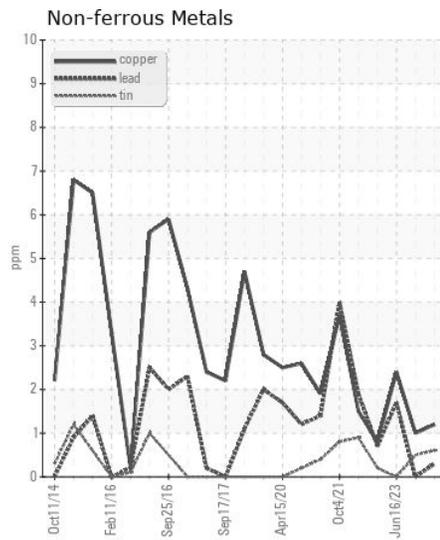
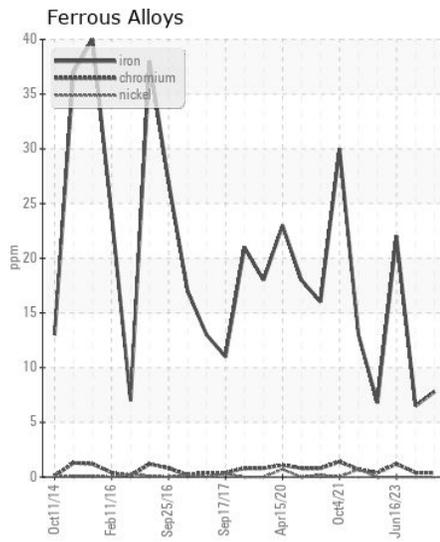
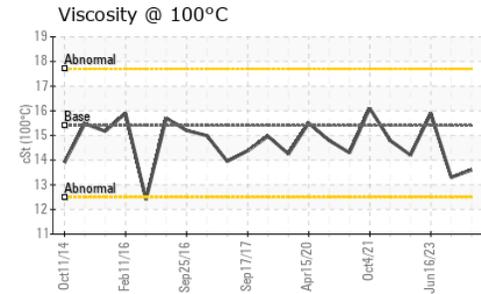
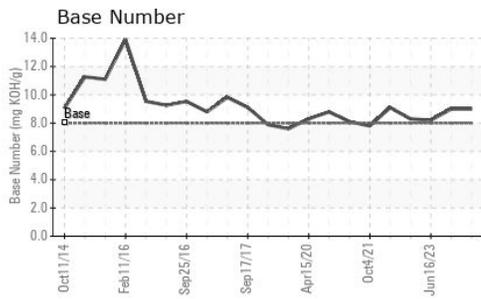
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>6</b>	6	11
Potassium	ppm	ASTM D5185m	>20	<b>6</b>	9	▲ 171
Fuel		WC Method	>4.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844		<b>0.3</b>	0.3	0.7
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.8</b>	7.3	10.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>22.9</b>	23.2	26.3
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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>3</b>	4	▲ 55
Boron	ppm	ASTM D5185m		<b>222</b>	299	115
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>113</b>	109	125
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>711</b>	583	544
Calcium	ppm	ASTM D5185m		<b>1632</b>	1743	2226
Phosphorus	ppm	ASTM D5185m	1200	<b>875</b>	708	1004
Zinc	ppm	ASTM D5185m	1300	<b>1063</b>	905	1279
Sulfur	ppm	ASTM D5185m		<b>2835</b>	2392	3594
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.6</b>	17.3	20.9
Base Number (BN)	mg KOH/g	ASTM D2896	8.0	<b>9.0</b>	9.0	8.2
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.6</b>	13.3	15.9



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : MW0057112  
**Lab Number** : 06089283  
**Unique Number** : 10876728  
**Test Package** : MAR 2

**Received** : 14 Feb 2024  
**Tested** : 15 Feb 2024  
**Diagnosed** : 15 Feb 2024 - Wes Davis

**C & B MARINE**  
 50 E RIVERCENTER BLVD, SUITE 1180  
 COVINGTON, KY  
 US 41011

Contact: DAVID WESTRICH  
 dwestrich@carlislebray.com

T: (812)290-4063  
 F: (859)655-7504

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)