



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

Area  
**MARK C**  
Machine Id  
**[MARK C] 008 543154-8**  
Component  
**Starboard Genset**  
Fluid  
**CHEVRON DELO 400 LE 15W40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>MW06098085</b>	MW0061697	MW0061705
Sample Date		Client Info		<b>10 Jan 2024</b>	02 Dec 2023	03 Nov 2023
Machine Age	hrs	Client Info		<b>2194</b>	6515	6017
Oil Age	hrs	Client Info		<b>276</b>	384	237
Filter Age	hrs	Client Info		<b>0</b>	384	237
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	<b>5</b>	5	5
Chromium	ppm	ASTM D5185m	>4	<b>0</b>	<1	0
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>12	<b>4</b>	3	3
Lead	ppm	ASTM D5185m	>17	<b>&lt;1</b>	<1	0
Copper	ppm	ASTM D5185m	>70	<b>5</b>	<1	0
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	0	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**

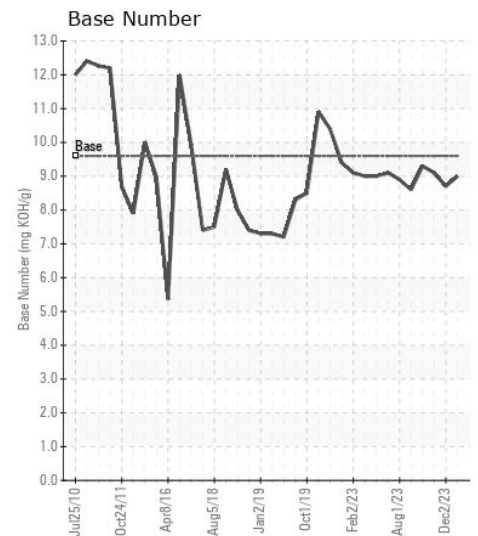
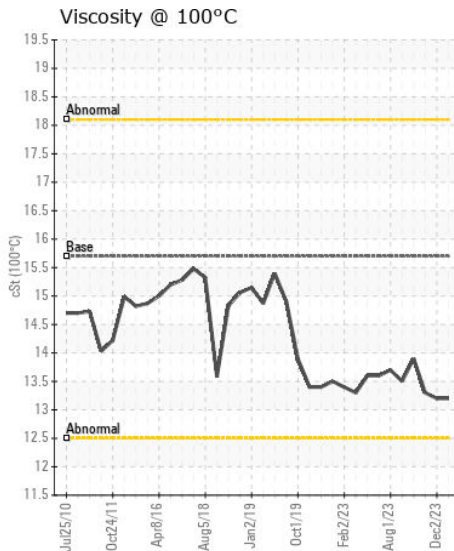
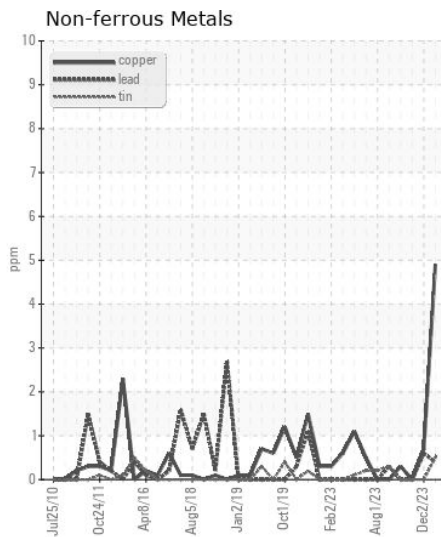
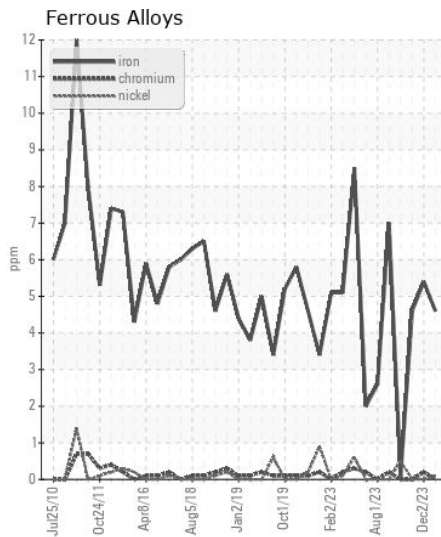
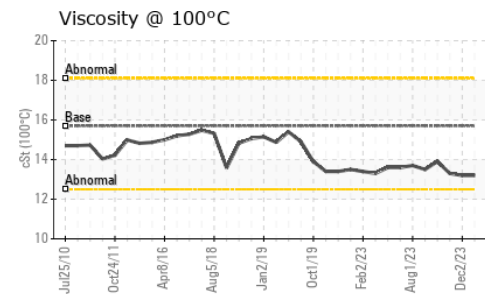
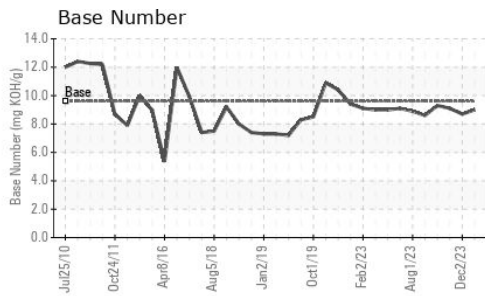
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>6</b>	5	5
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	2	0
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>0.1</b>	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.0</b>	7.6	6.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>22.9</b>	23.3	22.8
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>2</b>	0	<1
Boron	ppm	ASTM D5185m		<b>322</b>	322	353
Barium	ppm	ASTM D5185m		<b>0</b>	10	0
Molybdenum	ppm	ASTM D5185m		<b>117</b>	117	128
Manganese	ppm	ASTM D5185m		<b>2</b>	<1	0
Magnesium	ppm	ASTM D5185m		<b>610</b>	566	722
Calcium	ppm	ASTM D5185m		<b>1490</b>	1495	1782
Phosphorus	ppm	ASTM D5185m	1200	<b>610</b>	698	786
Zinc	ppm	ASTM D5185m	1300	<b>730</b>	716	983
Sulfur	ppm	ASTM D5185m	3200	<b>2215</b>	2666	2894
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.0</b>	17.7	16.8
Base Number (BN)	mg KOH/g	ASTM D2896	9.6	<b>9.0</b>	8.7	9.1
Visc @ 100°C	cSt	ASTM D445	15.7	<b>13.2</b>	13.2	13.3



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : MW06098085 **Received** : 23 Feb 2024  
**Lab Number** : 06098085 **Tested** : 25 Feb 2024  
**Unique Number** : 10896315 **Diagnosed** : 26 Feb 2024 - Don Baldrige  
**Test Package** : MAR 2

**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)