



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

Area  
**CRAIG E PHILIP**  
Machine Id  
**[CRAIG E PHILIP] 008 565024-8**  
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>MW0064586</b>	MW0060315	MW0060305
Sample Date		Client Info		<b>03 Jan 2024</b>	04 Nov 2023	10 Sep 2023
Machine Age	hrs	Client Info		<b>42866</b>	42218	41673
Oil Age	hrs	Client Info		<b>368</b>	349	368
Filter Age	hrs	Client Info		<b>0</b>	0	0
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	ATTENTION

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	<b>10</b>	8	16
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>	0	0
Silver	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>12	<b>3</b>	3	5
Lead	ppm	ASTM D5185m	>17	<b>&lt;1</b>	0	3
Copper	ppm	ASTM D5185m	>70	<b>3</b>	2	3
Tin	ppm	ASTM D5185m	>15	<b>0</b>	0	1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

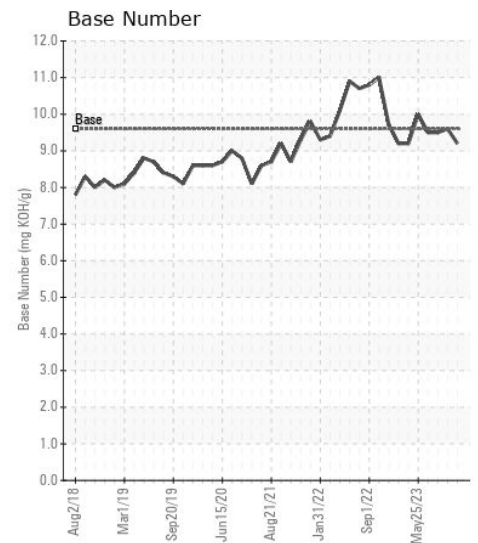
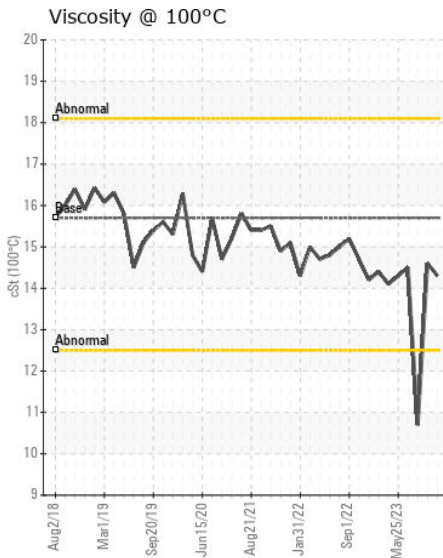
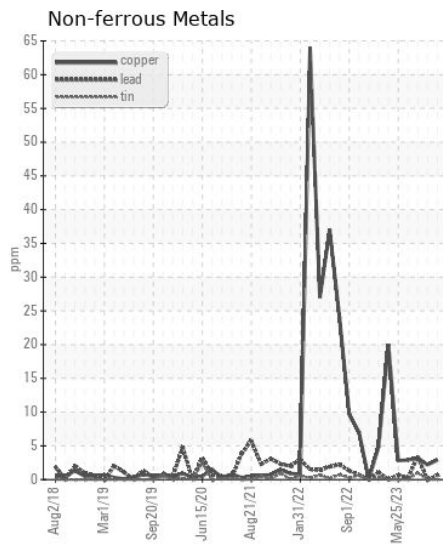
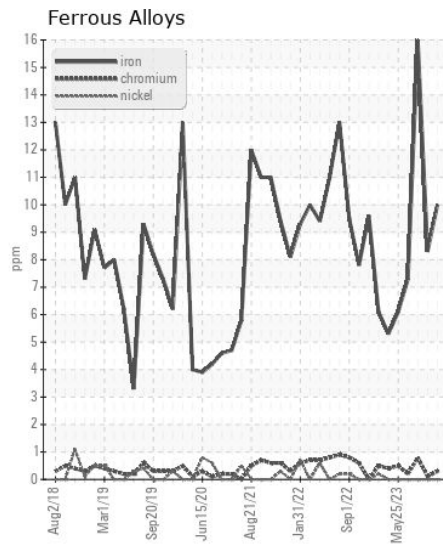
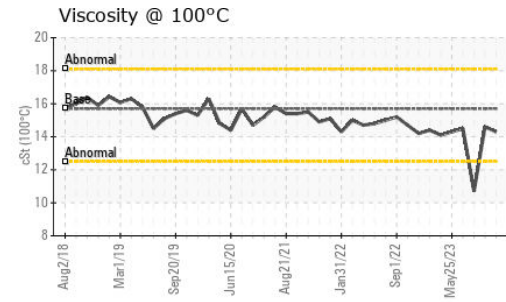
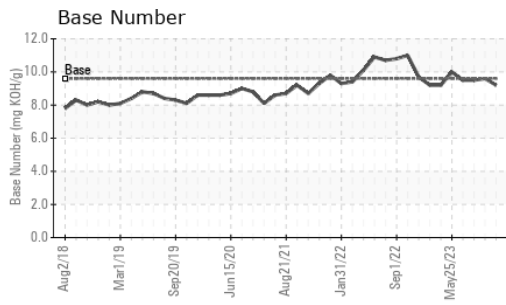
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>9</b>	9	6
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	2	13
Fuel		WC Method	>4.0	<b>&lt;1.0</b>	<1.0	0.4
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>	0.4	0.6
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.5</b>	9.4	10.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>25.6</b>	25.9	26.4
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>	1	6
Boron	ppm	ASTM D5185m		<b>326</b>	351	30
Barium	ppm	ASTM D5185m		<b>0</b>	2	0
Molybdenum	ppm	ASTM D5185m		<b>145</b>	141	54
Manganese	ppm	ASTM D5185m		<b>2</b>	<1	1
Magnesium	ppm	ASTM D5185m		<b>740</b>	699	690
Calcium	ppm	ASTM D5185m		<b>1880</b>	1752	1133
Phosphorus	ppm	ASTM D5185m	1200	<b>813</b>	769	674
Zinc	ppm	ASTM D5185m	1300	<b>994</b>	949	825
Sulfur	ppm	ASTM D5185m	3200	<b>2663</b>	2789	2304
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>21.4</b>	21.2	21.4
Base Number (BN)	mg KOH/g	ASTM D2896	9.6	<b>9.2</b>	9.6	9.5
Visc @ 100°C	cSt	ASTM D445	15.7	<b>14.3</b>	14.6	▲ 10.7



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : MW0064586 **Received** : 16 Jan 2024  
**Lab Number** : 06061822 **Diagnosed** : 18 Jan 2024  
**Unique Number** : 10833204 **Diagnostician** : Wes Davis  
**Test Package** : MAR 2

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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