



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

Area

**A J MORRIS**

Machine Id

**[A J MORRIS] 008 550220-8**

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>MW0064578</b>	MW0062847	MW0061503
Sample Date		Client Info		<b>01 Jan 2024</b>	01 Dec 2023	05 Oct 2023
Machine Age	hrs	Client Info		<b>25994</b>	25612	19949
Oil Age	hrs	Client Info		<b>0</b>	0	24
Filter Age	hrs	Client Info		<b>0</b>	0	24
Oil Changed		Client Info		<b>Not Changd</b>	Changed	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	Changed	Not Changd
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	<b>2</b>	6	4
Chromium	ppm	ASTM D5185m	>4	<b>0</b>	<1	0
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	<1	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>2</b>	3	2
Lead	ppm	ASTM D5185m	>17	<b>0</b>	5	<1
Copper	ppm	ASTM D5185m	>70	<b>&lt;1</b>	6	2
Tin	ppm	ASTM D5185m	>15	<b>0</b>	<1	0
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**

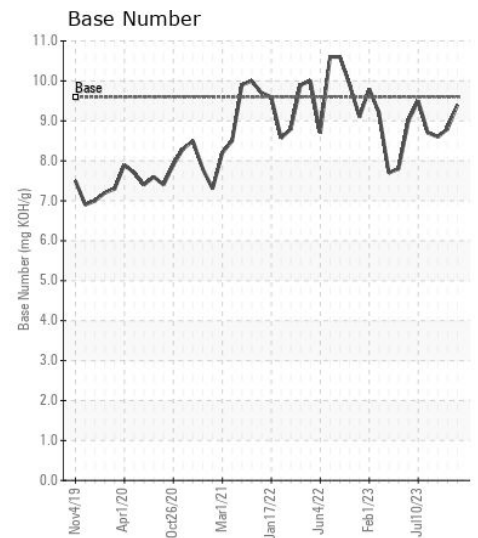
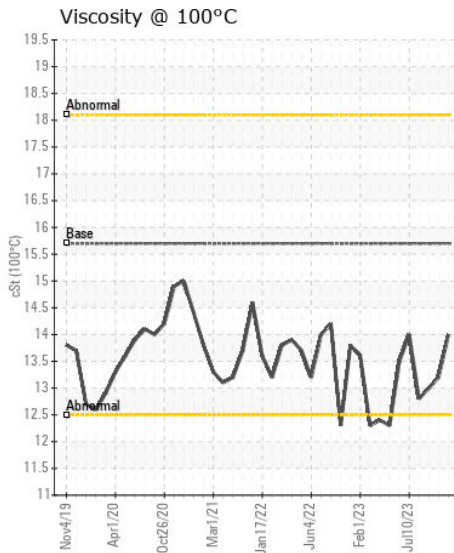
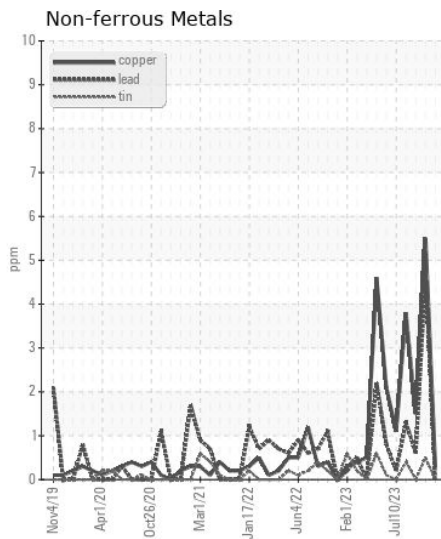
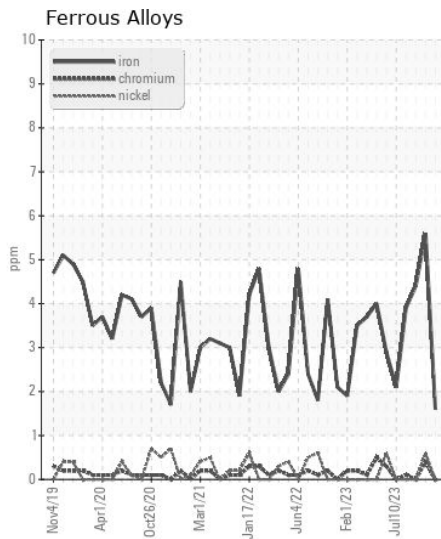
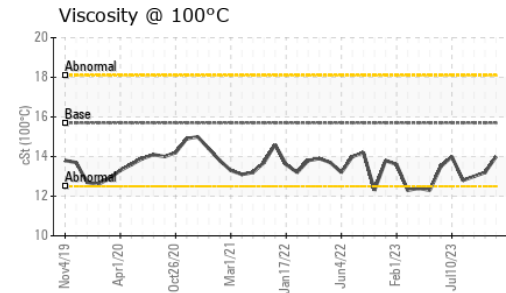
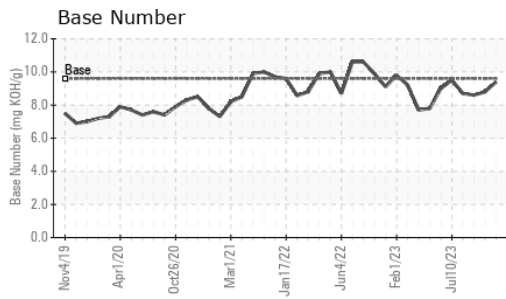
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>7</b>	6	6
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	2	<1
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</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>4.7</b>	7.4	6.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>22.1</b>	22.9	21.5
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>&lt;1</b>	0	1
Boron	ppm	ASTM D5185m		<b>344</b>	345	306
Barium	ppm	ASTM D5185m		<b>0</b>	11	0
Molybdenum	ppm	ASTM D5185m		<b>120</b>	119	118
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m		<b>657</b>	583	599
Calcium	ppm	ASTM D5185m		<b>1621</b>	1575	1602
Phosphorus	ppm	ASTM D5185m	1200	<b>690</b>	617	605
Zinc	ppm	ASTM D5185m	1300	<b>810</b>	759	738
Sulfur	ppm	ASTM D5185m	3200	<b>2532</b>	2886	2423
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.0</b>	17.3	15.4
Base Number (BN)	mg KOH/g	ASTM D2896	9.6	<b>9.4</b>	8.8	8.6
Visc @ 100°C	cSt	ASTM D445	15.7	<b>14.0</b>	13.2	13.0



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : MW0064578 **Received** : 12 Jan 2024  
**Lab Number** : 06060006 **Diagnosed** : 15 Jan 2024  
**Unique Number** : 10831388 **Diagnostician** : Wes Davis  
**Test Package** : MAR 2

**INGRAM BARGE**  
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 PADUCAH, KY  
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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)