



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

Machine Id  
**CWR**  
Component  
**Starboard Genset**  
Fluid  
**CHEVRON URSA SUPER PLUS 40 (--- GAL)**

**RECOMMENDATION**

We advise that you check the fuel injection system. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>MW05877878</b>	MW05749257	MW05685053
Sample Date		Client Info		<b>19 Jun 2023</b>	24 Jan 2023	03 Nov 2022
Machine Age	hrs	Client Info		<b>25571</b>	25250	24895
Oil Age	hrs	Client Info		<b>676</b>	355	738
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>ABNORMAL</b>	ABNORMAL	ABNORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>25	<b>7</b>	10	10
Chromium	ppm	ASTM D5185m	>5	<b>&lt;1</b>	1	<1
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>1</b>	2	4
Silver	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>10	<b>2</b>	4	2
Lead	ppm	ASTM D5185m	>10	<b>0</b>	1	1
Copper	ppm	ASTM D5185m	>20	<b>0</b>	<1	<1
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	<1
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**

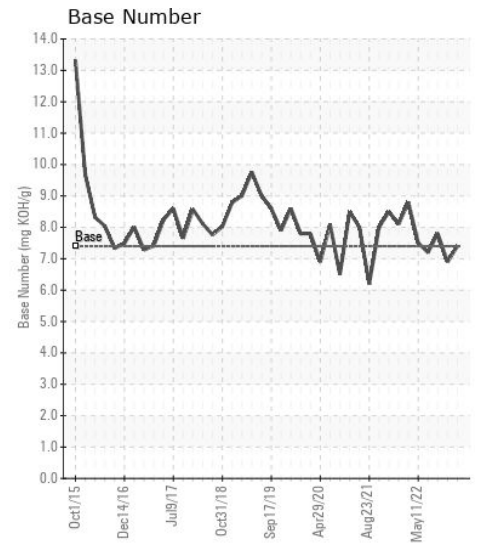
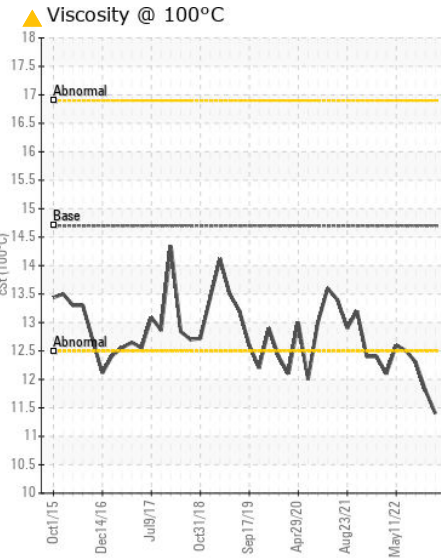
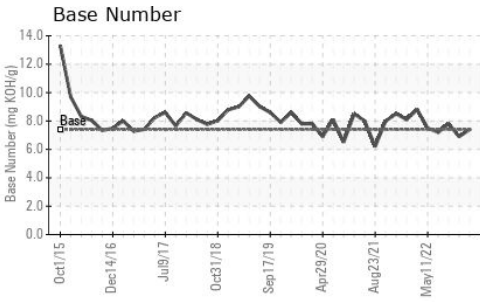
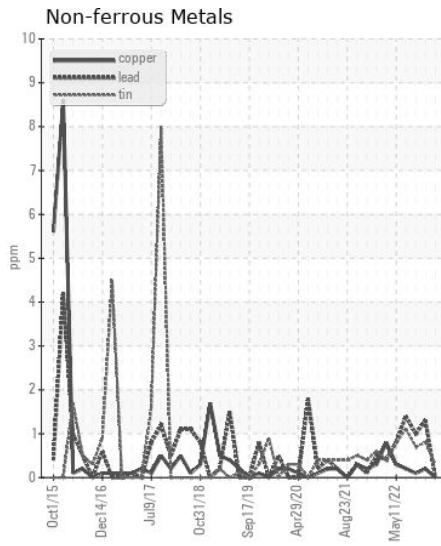
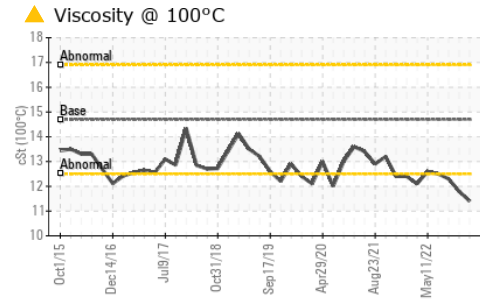
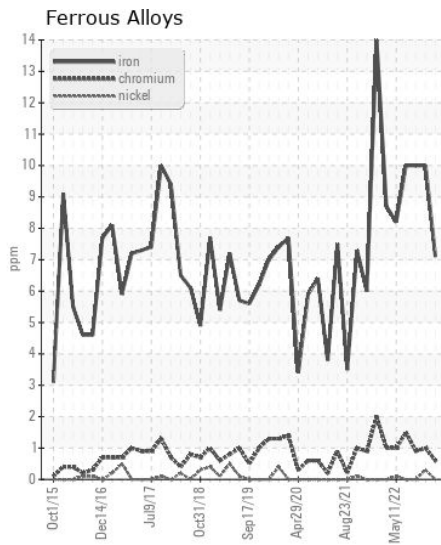
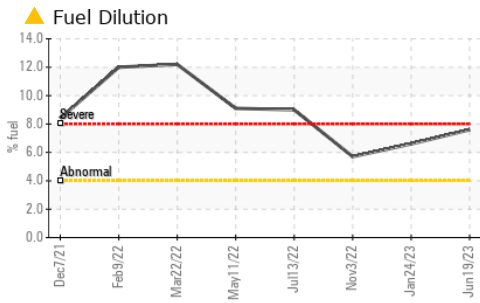
There is a moderate amount of fuel present in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>5</b>	6	5
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	1	2
Fuel	%	ASTM D3524	>4.0	<b>▲ 7.6</b>	▲ 6.6	▲ 5.7
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>	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.8</b>	10.2	12.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>25.1</b>	24.3	27.7
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**

Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

Sodium	ppm	ASTM D5185m		<b>0</b>	0	2
Boron	ppm	ASTM D5185m		<b>280</b>	268	196
Barium	ppm	ASTM D5185m		<b>2</b>	<1	0
Molybdenum	ppm	ASTM D5185m		<b>100</b>	95	87
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>536</b>	574	628
Calcium	ppm	ASTM D5185m		<b>1544</b>	1661	1609
Phosphorus	ppm	ASTM D5185m	1000	<b>730</b>	727	786
Zinc	ppm	ASTM D5185m	1090	<b>892</b>	910	996
Sulfur	ppm	ASTM D5185m		<b>2694</b>	2885	3250
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>26.8</b>	26.1	31.7
Base Number (BN)	mg KOH/g	ASTM D2896	7.4	<b>7.4</b>	6.9	7.8
Visc @ 100°C	cSt	ASTM D445	14.7	<b>▲ 11.4</b>	▲ 11.8	▲ 12.3



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : MW05877878 **Received** : 20 Jun 2023  
**Lab Number** : 05877878 **Tested** : 21 Jun 2023  
**Unique Number** : 10522981 **Diagnosed** : 21 Jun 2023 - Sean Felton  
**Test Package** : MAR 2 ( Additional Tests: PercentFuel )

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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)