



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

Machine Id  
**SIGNET RESOLUTE**  
Component  
**Starboard Main Engine**  
Fluid  
**CHEVRON DELO 710 LE (240 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>MW0052027</b>	MW0052011	MW0051967
Sample Date		Client Info		<b>12 Jan 2024</b>	17 Oct 2023	17 Jul 2023
Machine Age	hrs	Client Info		<b>0</b>	0	0
Oil Age	hrs	Client Info		<b>0</b>	400	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
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	>75	<b>43</b>	37	36
Chromium	ppm	ASTM D5185m	>8	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	>3	<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	0
Aluminum	ppm	ASTM D5185m	>15	<b>1</b>	2	1
Lead	ppm	ASTM D5185m	>18	<b>4</b>	4	2
Copper	ppm	ASTM D5185m	>80	<b>9</b>	10	7
Tin	ppm	ASTM D5185m	>14	<b>2</b>	2	2
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

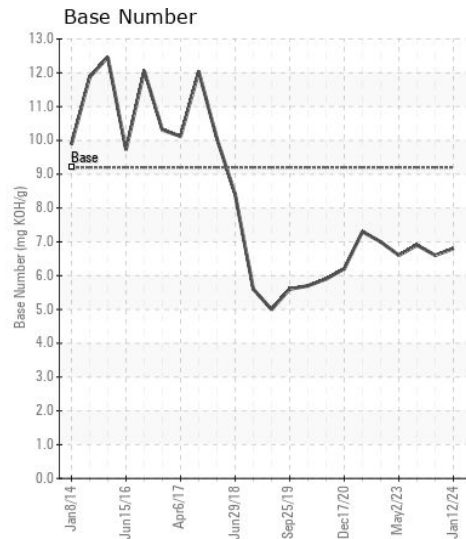
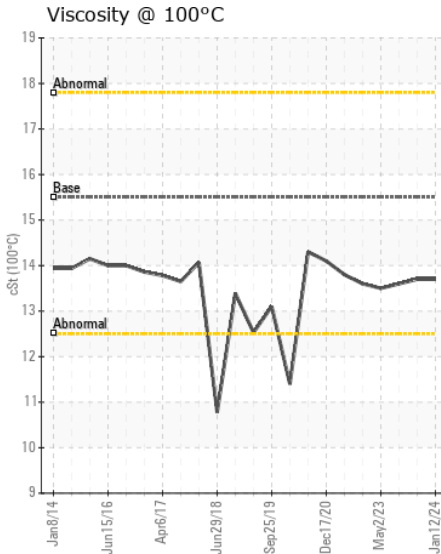
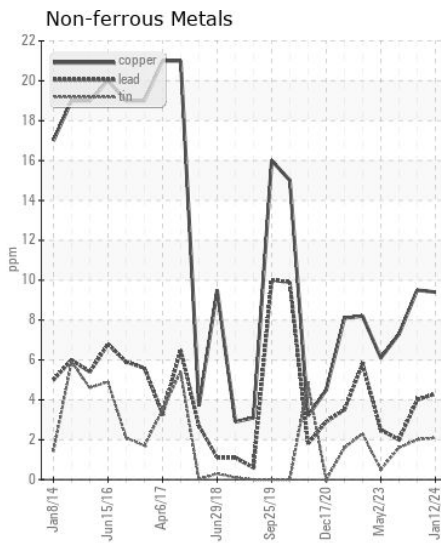
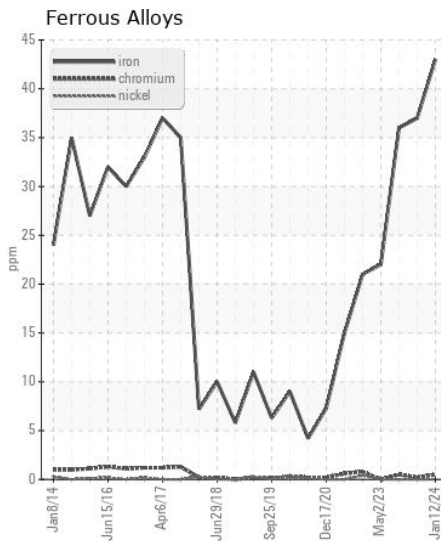
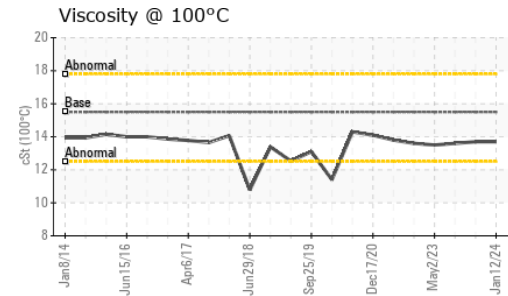
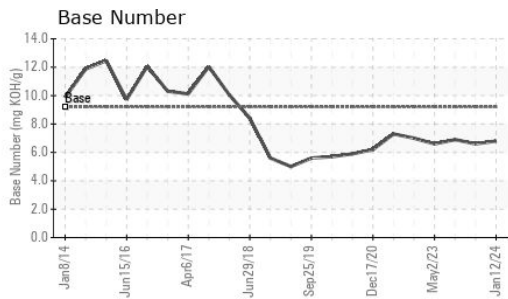
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>4</b>	3	3
Potassium	ppm	ASTM D5185m	>20	<b>&lt;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	>3	<b>0.4</b>	0.4	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>5.5</b>	5.2	5.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>13.9</b>	13.7	13.6
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	>75	<b>9</b>	6	7
Boron	ppm	ASTM D5185m		<b>30</b>	31	34
Barium	ppm	ASTM D5185m		<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185m		<b>45</b>	46	40
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m		<b>15</b>	12	14
Calcium	ppm	ASTM D5185m		<b>2974</b>	3110	2887
Phosphorus	ppm	ASTM D5185m		<b>19</b>	8	26
Zinc	ppm	ASTM D5185m	10	<b>10</b>	15	17
Sulfur	ppm	ASTM D5185m		<b>2294</b>	2471	2427
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>6.2</b>	6.0	6.0
Base Number (BN)	mg KOH/g	ASTM D2896	9.2	<b>6.8</b>	6.6	6.9
Visc @ 100°C	cSt	ASTM D445	15.5	<b>13.7</b>	13.7	13.6



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : MW0052027 **Received** : 19 Jan 2024  
**Lab Number** : 06065322 **Diagnosed** : 20 Jan 2024  
**Unique Number** : 10836704 **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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