



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

Area  
**CRYSTAL D TAYLOR**  
Machine Id  
[CRYSTAL D TAYLOR] 003 503329-3  
Component  
Starboard Main Engine  
Fluid  
CHEVRON DELO 710 LS (250 GAL)

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>MW0055625</b>	MW0055621	MW0055618
Sample Date		Client Info		<b>12 Jun 2024</b>	29 May 2024	15 May 2024
Machine Age	hrs	Client Info		<b>49867</b>	49543	49203
Oil Age	hrs	Client Info		<b>0</b>	0	1642
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	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>75	<b>9</b>	9	8
Chromium	ppm	ASTM D5185m	>8	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185m	>3	<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	<1
Aluminum	ppm	ASTM D5185m	>15	<b>3</b>	3	3
Lead	ppm	ASTM D5185m	>18	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185m	>80	<b>2</b>	2	2
Tin	ppm	ASTM D5185m	>14	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
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.

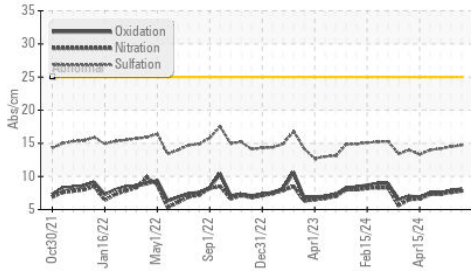
Silicon	ppm	ASTM D5185m	>20	<b>5</b>	4	4
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	3	3
Fuel		WC Method	>4.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844		<b>0.4</b>	0.4	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.8</b>	7.6	7.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>14.7</b>	14.5	14.2
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**

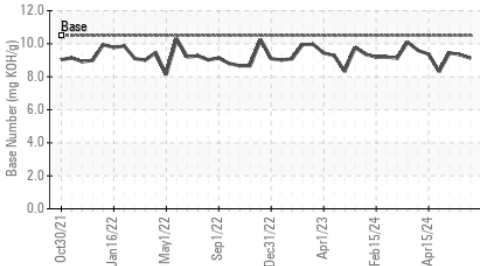
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>75	<b>6</b>	5	3
Boron	ppm	ASTM D5185m		<b>46</b>	42	43
Barium	ppm	ASTM D5185m		<b>1</b>	1	1
Molybdenum	ppm	ASTM D5185m		<b>47</b>	48	46
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>16</b>	12	12
Calcium	ppm	ASTM D5185m		<b>3285</b>	3336	3307
Phosphorus	ppm	ASTM D5185m		<b>45</b>	19	25
Zinc	ppm	ASTM D5185m		<b>28</b>	8	8
Sulfur	ppm	ASTM D5185m		<b>2229</b>	2305	2445
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>8.1</b>	7.9	7.5
Base Number (BN)	mg KOH/g	ASTM D2896	10.5	<b>9.12</b>	9.33	9.45
Visc @ 100°C	cSt	ASTM D445	15.5	<b>14.0</b>	14.0	14.1

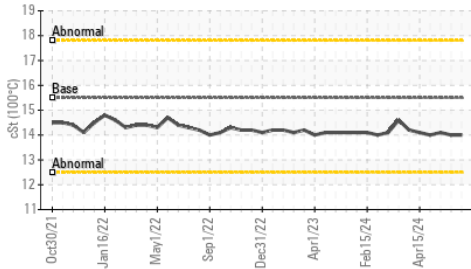
**FT-IR (Direct Trend)**



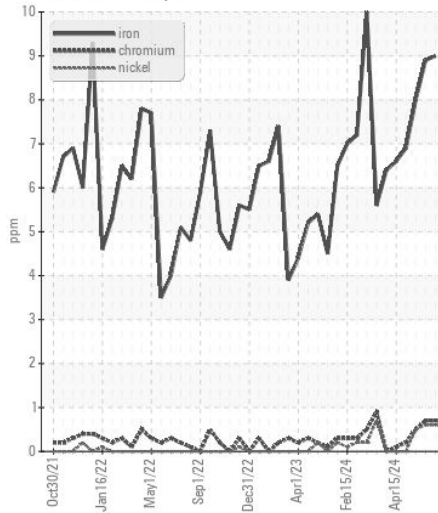
**Base Number**



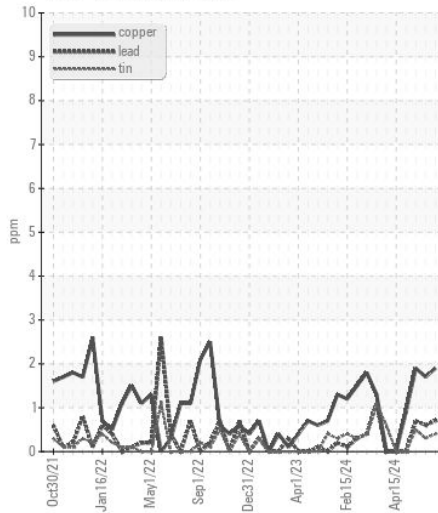
**Viscosity @ 100°C**



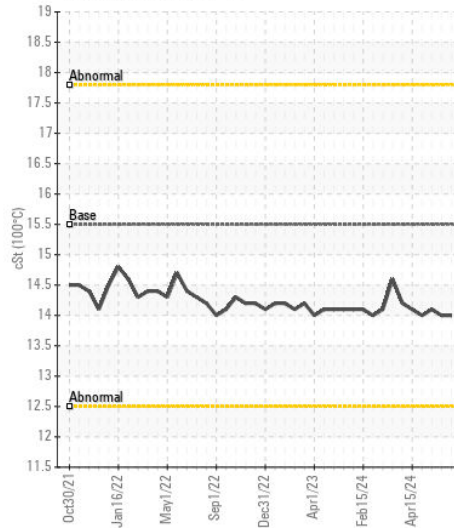
**Ferrous Alloys**



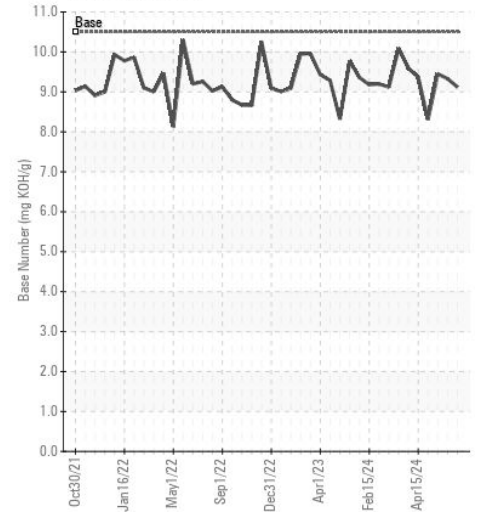
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : MW0055625 **Received** : 24 Jun 2024  
**Lab Number** : 06218898 **Tested** : 25 Jun 2024  
**Unique Number** : 11097095 **Diagnosed** : 26 Jun 2024 - Sean Felton  
**Test Package** : MAR 2

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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)