



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

Area  
**EVEY T**  
Machine Id  
[EVEY T] 003 558474-3  
Component  
Starboard Main Engine  
Fluid  
CHEVRON DELO 710 LS (312 GAL)

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>MW0070775</b>	MW0068547	MW0063253
Sample Date		Client Info		<b>01 May 2024</b>	01 Apr 2024	02 Mar 2024
Machine Age	hrs	Client Info		<b>19204</b>	18487	17773
Oil Age	hrs	Client Info		<b>19204</b>	18487	17773
Filter Age	hrs	Client Info		<b>375</b>	273	0
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	Not Changd	None
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>75	<b>19</b>	15	19
Chromium	ppm	ASTM D5185m	>8	<b>3</b>	2	2
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>15	<b>1</b>	2	1
Lead	ppm	ASTM D5185m	>18	<b>9</b>	8	9
Copper	ppm	ASTM D5185m	>80	<b>23</b>	22	21
Tin	ppm	ASTM D5185m	>14	<b>9</b>	10	9
Vanadium	ppm	ASTM D5185m		<b>0</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.

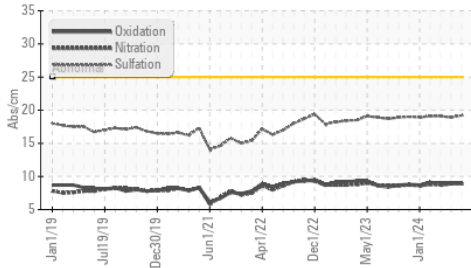
Silicon	ppm	ASTM D5185m	>20	<b>5</b>	5	5
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	0
Fuel		WC Method	>4.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>1.2</b>	1.2	1.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.9</b>	8.9	8.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.2</b>	18.9	19.1
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**

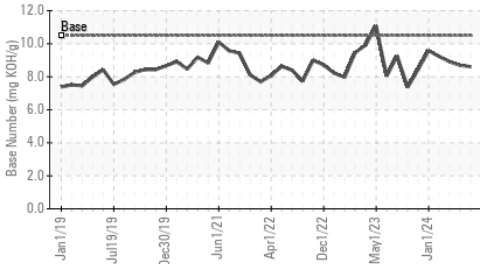
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>75	<b>3</b>	3	3
Boron	ppm	ASTM D5185m		<b>45</b>	39	39
Barium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>48</b>	47	50
Manganese	ppm	ASTM D5185m		<b>3</b>	3	2
Magnesium	ppm	ASTM D5185m		<b>13</b>	30	14
Calcium	ppm	ASTM D5185m		<b>3524</b>	3557	3803
Phosphorus	ppm	ASTM D5185m		<b>8</b>	0	8
Zinc	ppm	ASTM D5185m		<b>22</b>	7	3
Sulfur	ppm	ASTM D5185m		<b>2756</b>	2343	2672
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>9.0</b>	9.0	8.9
Base Number (BN)	mg KOH/g	ASTM D2896	10.5	<b>8.61</b>	8.69	8.91
Visc @ 100°C	cSt	ASTM D445	15.5	<b>14.9</b>	15.0	15.0

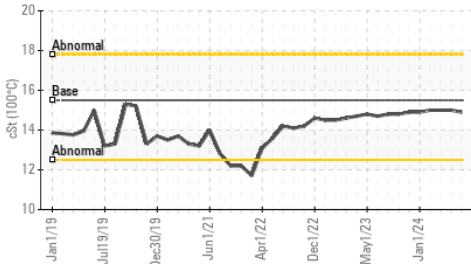
**FT-IR (Direct Trend)**



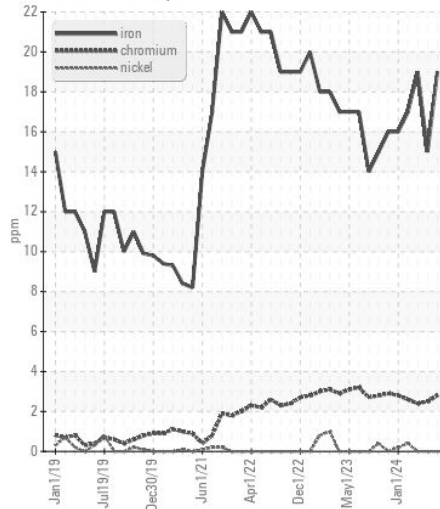
**Base Number**



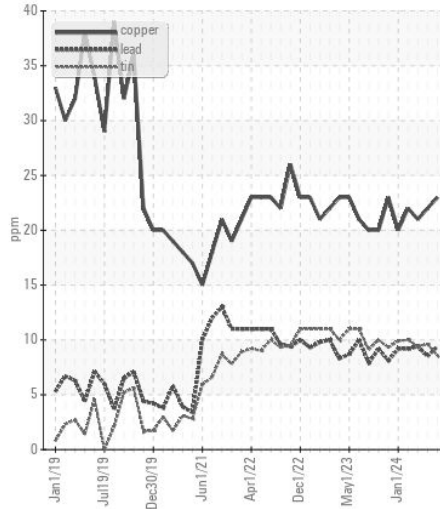
**Viscosity @ 100°C**



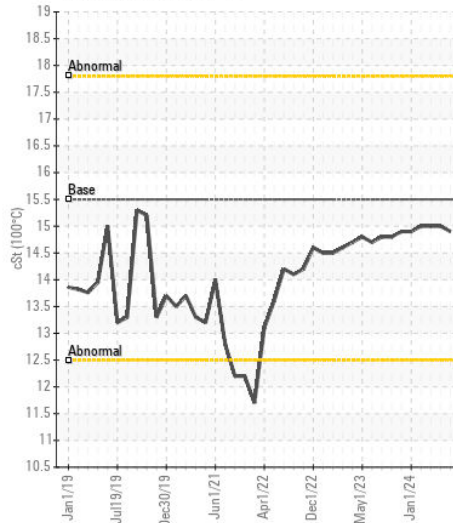
**Ferrous Alloys**



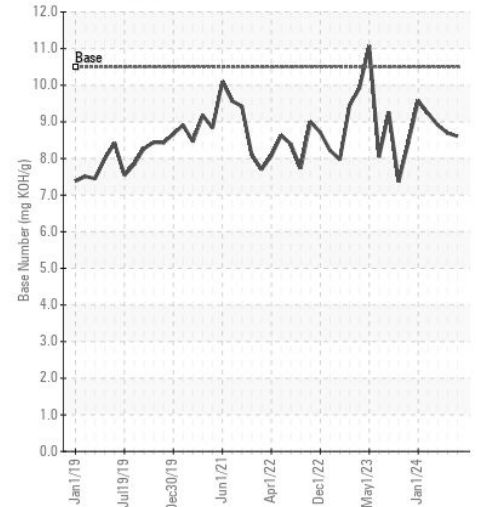
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513

**Sample No.** : MW0070775

**Lab Number** : 06176264

**Unique Number** : 11022317

**Test Package** : MAR 2

**Received** : 10 May 2024

**Tested** : 13 May 2024

**Diagnosed** : 13 May 2024 - Wes Davis

**INGRAM BARGE**

900 S 3RD ST

PADUCAH, KY

US 42003

Contact: JUSTIN WHEELER

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F: (615)695-3697

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)