



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



Machine Id  
**RP GETTLFINGER (S/N TSJ00161)**  
Component  
**Starboard Main Engine**  
Fluid  
**CHEVRON DELO 400 XLE 15W40 (225 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>MW0055945</b>	MW0056025	MW0050460
Sample Date		Client Info		<b>06 Feb 2024</b>	27 Dec 2023	05 Jul 2023
Machine Age	hrs	Client Info		<b>88228</b>	87282	83614
Oil Age	hrs	Client Info		<b>5</b>	855	958
Filter Age	hrs	Client Info		<b>5</b>	855	958
Oil Changed		Client Info		<b>Changed</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Changed</b>	Not Changd	Not Changd
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>75	<b>2</b>	4	6
Chromium	ppm	ASTM D5185m	>8	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m	>3	<b>14</b>	14	16
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	1
Lead	ppm	ASTM D5185m	>18	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>80	<b>0</b>	<1	8
Tin	ppm	ASTM D5185m	>14	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

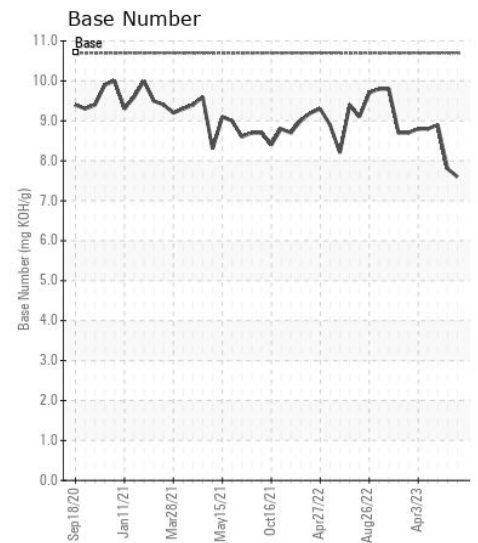
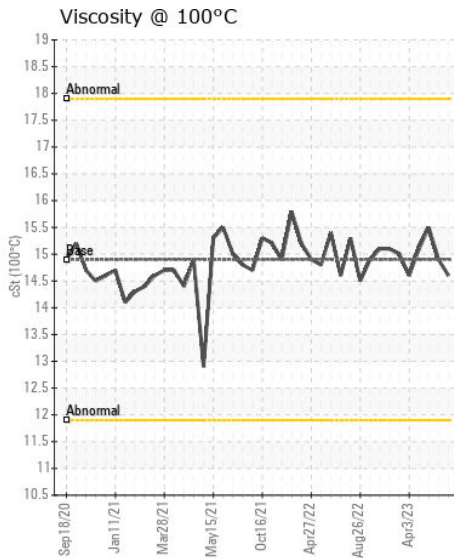
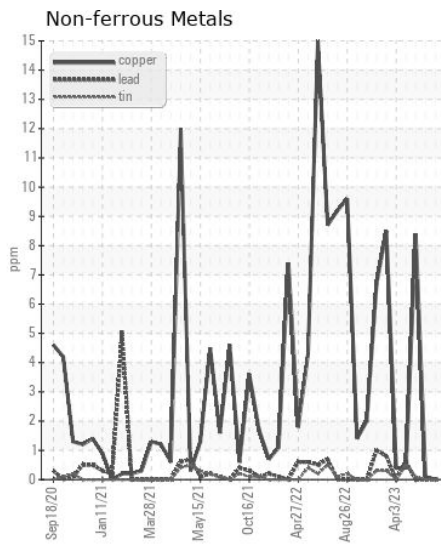
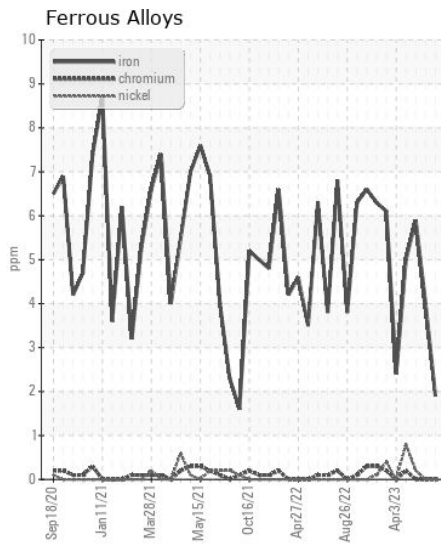
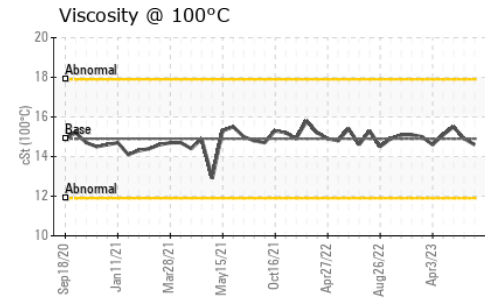
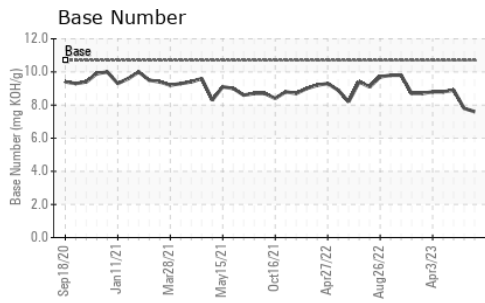
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>5</b>	3	4
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	2	2
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>0.3</b>	0.8	1.7
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.3</b>	8.3	9.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.7</b>	19.4	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	>75	<b>2</b>	<1	2
Boron	ppm	ASTM D5185m		<b>99</b>	85	77
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>28</b>	31	31
Manganese	ppm	ASTM D5185m		<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m		<b>694</b>	766	796
Calcium	ppm	ASTM D5185m		<b>1390</b>	1578	1703
Phosphorus	ppm	ASTM D5185m	760	<b>687</b>	718	735
Zinc	ppm	ASTM D5185m	830	<b>779</b>	875	866
Sulfur	ppm	ASTM D5185m	2770	<b>2952</b>	3169	3771
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.1</b>	12.8	14.0
Base Number (BN)	mg KOH/g	ASTM D2896	10.7	<b>7.6</b>	7.8	8.9
Visc @ 100°C	cSt	ASTM D445	14.9	<b>14.6</b>	14.9	15.5



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : MW0055945  
**Lab Number** : 06097543  
**Unique Number** : 10890396  
**Test Package** : MAR 2

**Received** : 22 Feb 2024  
**Tested** : 23 Feb 2024  
**Diagnosed** : 24 Feb 2024 - Don Baldrige

**AMERICAN COMMERCIAL LINES**  
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 US 47130  
 Contact: RONALD SCHNEIDER  
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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)

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