



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

Machine Id  
**GST**  
Component  
**Starboard Genset**  
Fluid  
**CHEVRON DELO 710 LS (8 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>MW0065596</b>	MW0060866	MW0060856
Sample Date		Client Info		<b>26 May 2024</b>	07 Apr 2024	19 Oct 2023
Machine Age	hrs	Client Info		<b>0</b>	9754	7770
Oil Age	hrs	Client Info		<b>297</b>	248	285
Filter Age	hrs	Client Info		<b>297</b>	248	285
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	ATTENTION

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	<b>5</b>	5	4
Chromium	ppm	ASTM D5185m	>4	<b>0</b>	<1	0
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>5	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>12	<b>&lt;1</b>	1	1
Lead	ppm	ASTM D5185m	>17	<b>1</b>	2	<1
Copper	ppm	ASTM D5185m	>70	<b>0</b>	0	0
Tin	ppm	ASTM D5185m	>15	<b>0</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**

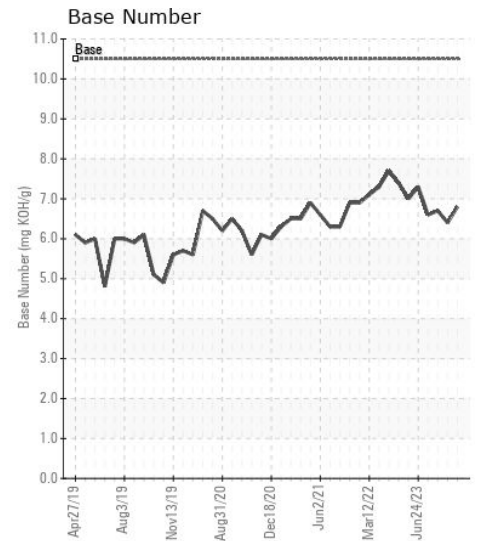
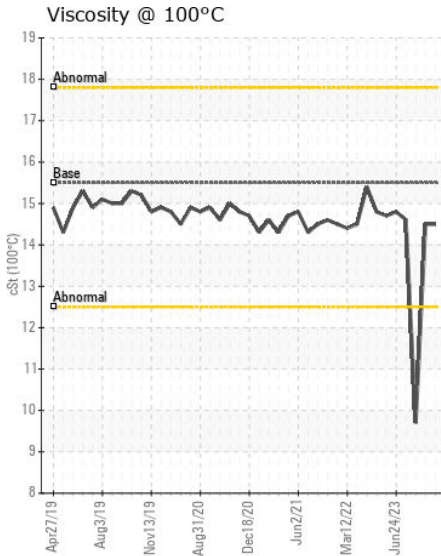
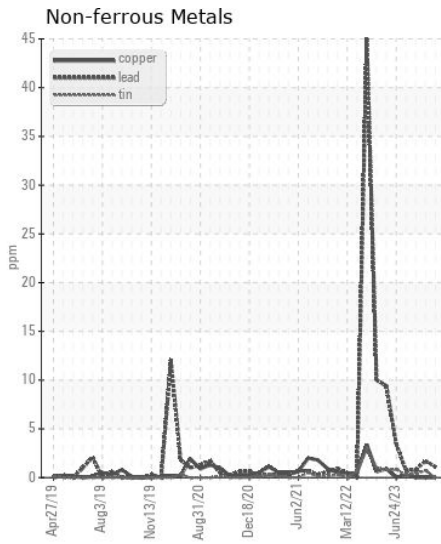
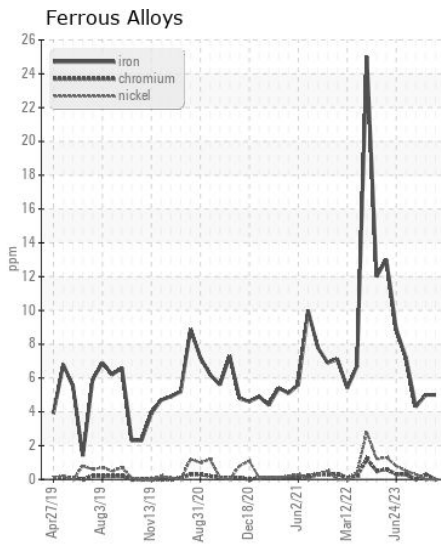
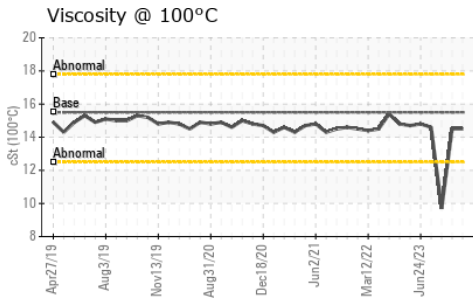
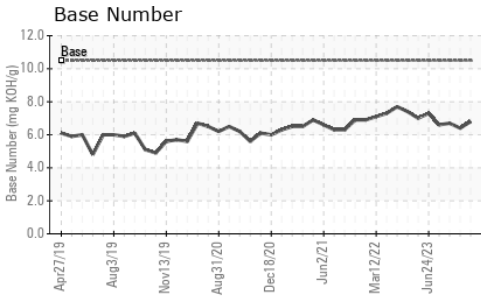
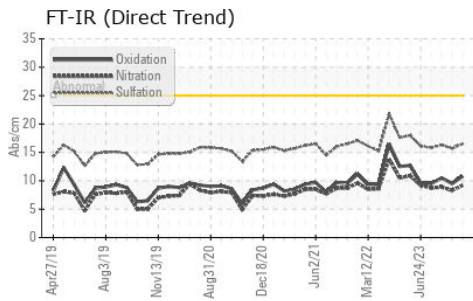
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>2</b>	2	2
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	<1	<1
Fuel		WC Method	>4.0	<b>&lt;1.0</b>	<1.0	0.3
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>	0.3	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.2</b>	8.3	8.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>16.5</b>	15.7	16.3
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		<b>2</b>	2	0
Boron	ppm	ASTM D5185m		<b>32</b>	38	37
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>49</b>	48	49
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m		<b>8</b>	9	10
Calcium	ppm	ASTM D5185m		<b>3551</b>	3332	3375
Phosphorus	ppm	ASTM D5185m		<b>5</b>	5	5
Zinc	ppm	ASTM D5185m		<b>0</b>	0	0
Sulfur	ppm	ASTM D5185m		<b>2395</b>	2398	2273
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>10.8</b>	9.5	10.5
Base Number (BN)	mg KOH/g	ASTM D2896	10.5	<b>6.8</b>	6.4	6.7
Visc @ 100°C	cSt	ASTM D445	15.5	<b>14.5</b>	14.5	9.7



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : MW0065596  
**Lab Number** : 06234217  
**Unique Number** : 11123051  
**Test Package** : MAR 2

**Received** : 11 Jul 2024  
**Tested** : 12 Jul 2024  
**Diagnosed** : 12 Jul 2024 - Wes Davis

**AMERICAN RIVER TRANSPORTATION CO.**  
 P.O. BOX 2889  
 ST. LOUIS, MO  
 US 63111  
 Contact: BRIAN GRIEWING  
 brian.griewing@adm.com

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)

T:  
 F: (314)481-5278