



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

Area  
**AHE**  
Machine Id  
Component  
**AHE**  
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>MW0054982</b>	MW0054985	MW0054994
Sample Date		Client Info		<b>20 Jun 2024</b>	25 May 2024	22 Jun 2023
Machine Age	hrs	Client Info		<b>605</b>	286	28023
Oil Age	hrs	Client Info		<b>319</b>	286	343
Filter Age	hrs	Client Info		<b>319</b>	28	343
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	ATTENTION	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	<b>6</b>	14	4
Chromium	ppm	ASTM D5185m	>4	<b>0</b>	<1	1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	<1
Silver	ppm	ASTM D5185m	>5	<b>0</b>	1	<1
Aluminum	ppm	ASTM D5185m	>12	<b>1</b>	3	2
Lead	ppm	ASTM D5185m	>17	<b>0</b>	1	<1
Copper	ppm	ASTM D5185m	>70	<b>11</b>	14	2
Tin	ppm	ASTM D5185m	>15	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

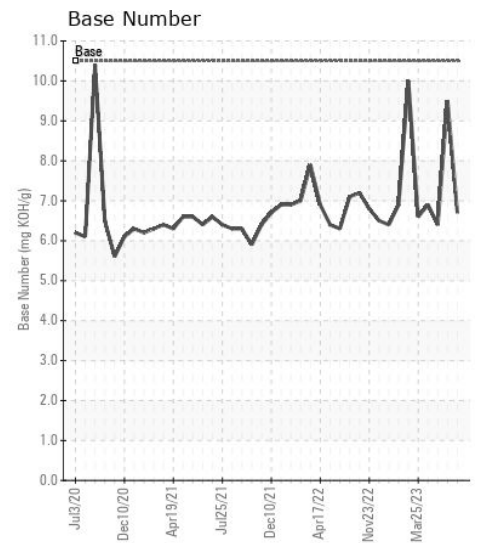
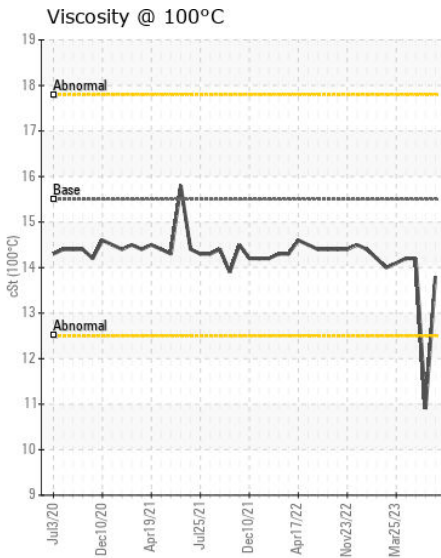
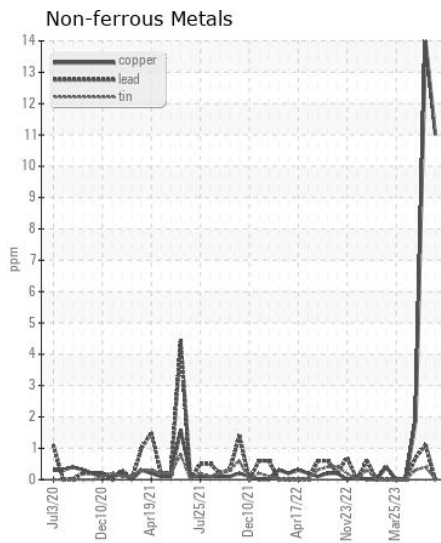
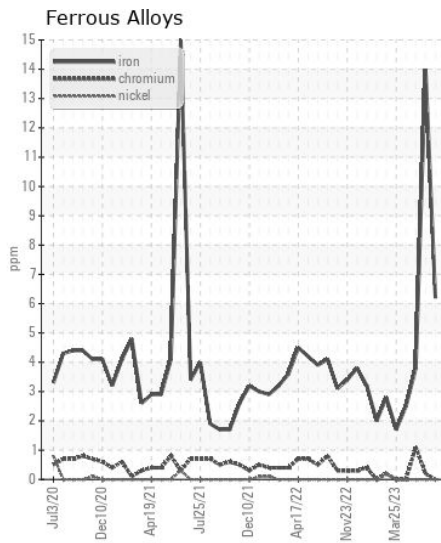
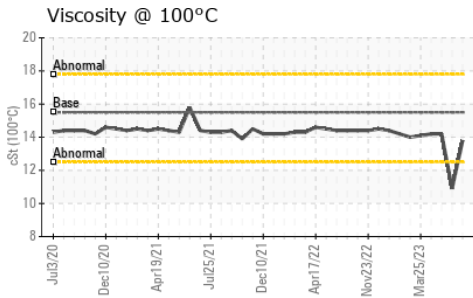
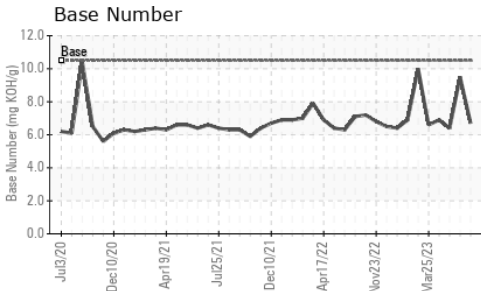
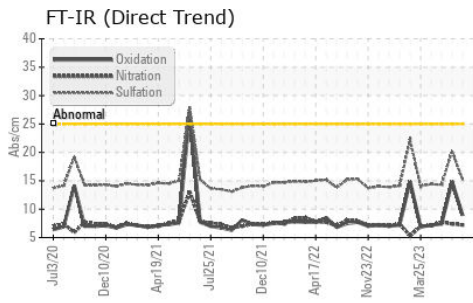
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>3</b>	8	3
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	17	<1
Fuel		WC Method	>4.0	<b>&lt;1.0</b>	0.0	<1.0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844		<b>0.1</b>	0.1	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.2</b>	7.4	7.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>15.2</b>	20.2	14.3
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>4</b>	7	3
Boron	ppm	ASTM D5185m		<b>63</b>	227	44
Barium	ppm	ASTM D5185m		<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185m		<b>69</b>	234	44
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>115</b>	773	15
Calcium	ppm	ASTM D5185m		<b>3081</b>	1876	3262
Phosphorus	ppm	ASTM D5185m		<b>128</b>	867	6
Zinc	ppm	ASTM D5185m		<b>151</b>	1053	0
Sulfur	ppm	ASTM D5185m		<b>2490</b>	3525	2432
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>8.9</b>	14.9	7.4
Base Number (BN)	mg KOH/g	ASTM D2896	10.5	<b>6.7</b>	9.5	6.4
Visc @ 100°C	cSt	ASTM D445	15.5	<b>13.8</b>	10.9	14.2



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : MW0054982  
 Lab Number : 06234198  
 Unique Number : 11123032  
 Test Package : MAR 2

Received : 11 Jul 2024  
 Tested : 12 Jul 2024  
 Diagnosed : 14 Jul 2024 - Don Baldridge

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)

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