



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

Area  
**LOUISIANA BELLE**  
Machine Id  
**LBE**  
Component  
**Port Main Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>MW0065090</b>	MW0065058	MW0065112
Sample Date		Client Info		<b>08 May 2024</b>	27 Mar 2024	13 Feb 2024
Machine Age	hrs	Client Info		<b>6928</b>	5933	4954
Oil Age	hrs	Client Info		<b>0</b>	0	0
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>7</b>	6	8
Chromium	ppm	ASTM D5185m	>8	<b>&lt;1</b>	<1	1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>15	<b>2</b>	1	2
Lead	ppm	ASTM D5185m	>18	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185m	>80	<b>&lt;1</b>	0	<1
Tin	ppm	ASTM D5185m	>14	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

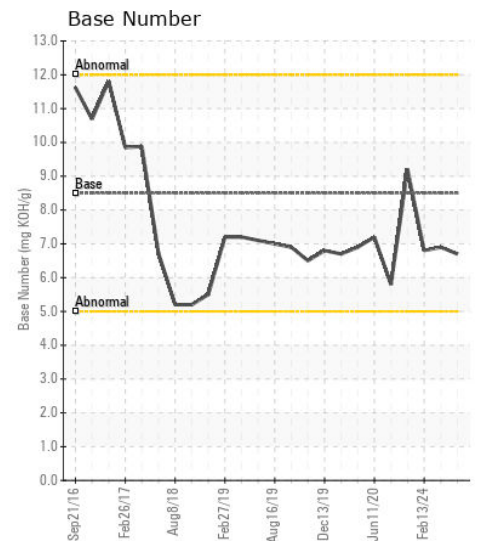
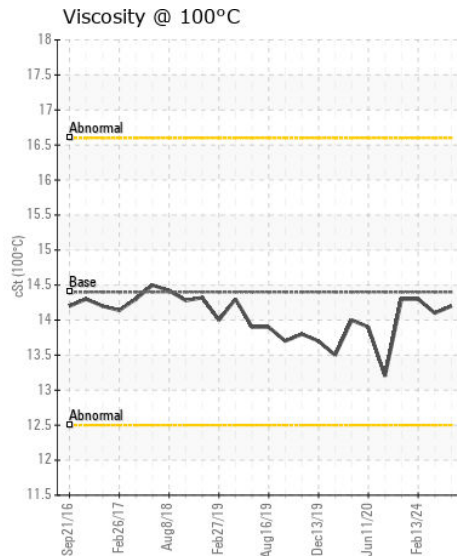
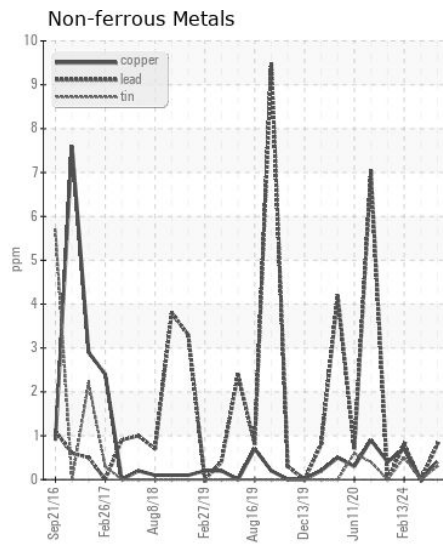
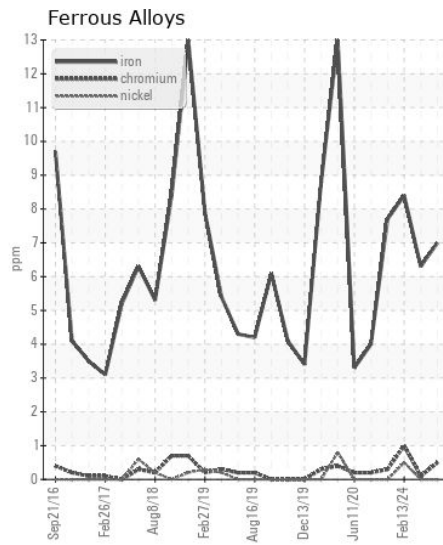
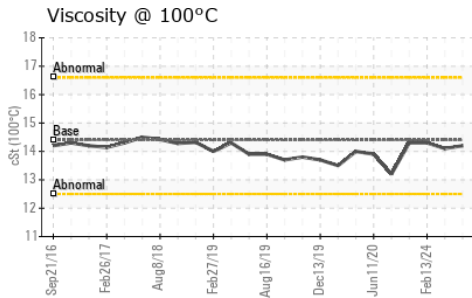
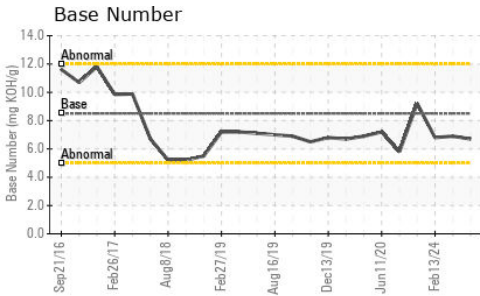
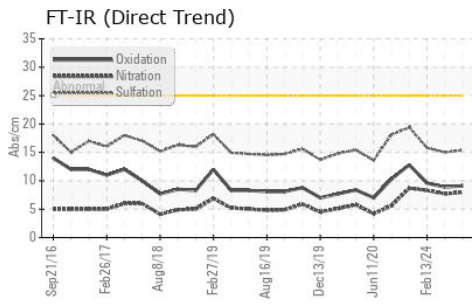
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>4</b>	3	4
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	0	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>0.2</b>	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.0</b>	7.7	8.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>15.4</b>	15.0	15.8
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	>158	<b>1</b>	1	2
Boron	ppm	ASTM D5185m	250	<b>44</b>	48	31
Barium	ppm	ASTM D5185m	10	<b>0</b>	0	34
Molybdenum	ppm	ASTM D5185m	100	<b>45</b>	45	39
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m	450	<b>8</b>	10	7
Calcium	ppm	ASTM D5185m	3000	<b>3353</b>	3584	2723
Phosphorus	ppm	ASTM D5185m	1150	<b>12</b>	<1	38
Zinc	ppm	ASTM D5185m	1350	<b>0</b>	0	29
Sulfur	ppm	ASTM D5185m	4250	<b>3254</b>	2745	2017
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>9.1</b>	8.9	9.6
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>6.7</b>	6.9	6.8
Visc @ 100°C	cSt	ASTM D445	14.4	<b>14.2</b>	14.1	14.3



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : MW0065090  
**Lab Number** : 06185922  
**Unique Number** : 11042674  
**Test Package** : MAR 2

**Received** : 21 May 2024  
**Tested** : 22 May 2024  
**Diagnosed** : 23 May 2024 - Jonathan Hester

**AMERICAN RIVER TRANSPORTATION CO.**  
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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)