



# OIL ANALYSIS REPORT

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

Machine Id  
**INTERNATIONAL 2**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 10W30 (44 QTS)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0878615</b>	WCMF413263	WCMF413348
Sample Date		Client Info		<b>24 Feb 2024</b>	03 Jun 2009	26 Mar 2009
Machine Age	mls	Client Info		<b>47437</b>	662144	844229
Oil Age	mls	Client Info		<b>47437</b>	0	1524
Filter Age	mls	Client Info		<b>47437</b>	0	1524
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>33</b>	20	20
Chromium	ppm	ASTM D5185m	>20	<b>3</b>	2	3
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>6</b>	3	3
Lead	ppm	ASTM D5185m	>40	<b>3</b>	4	9
Copper	ppm	ASTM D5185m	>330	<b>2</b>	2	<1
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	0	2
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

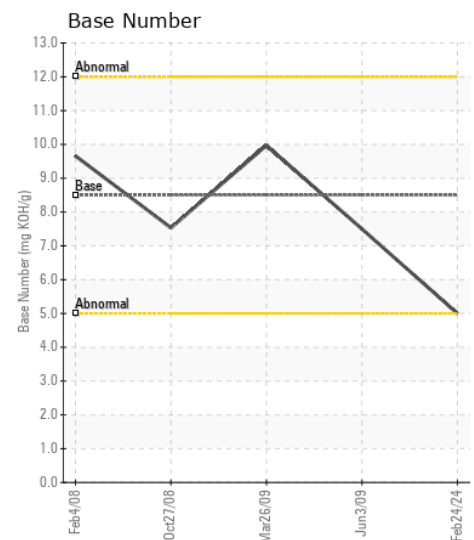
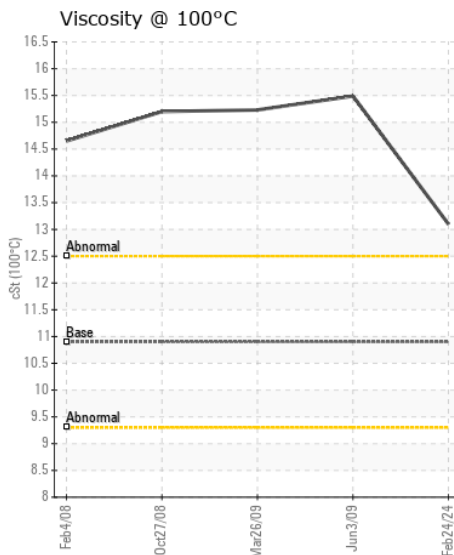
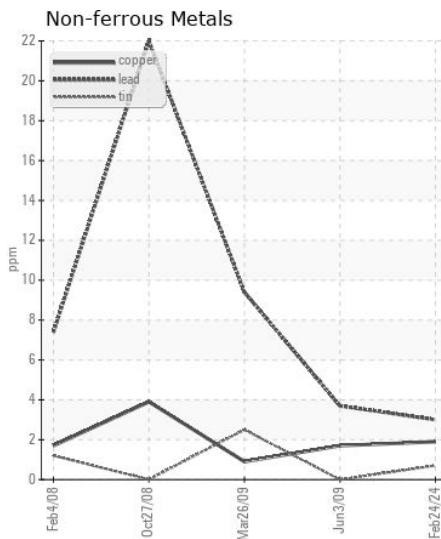
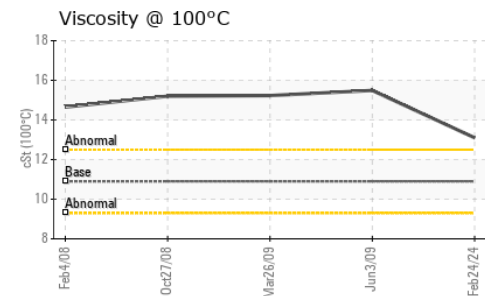
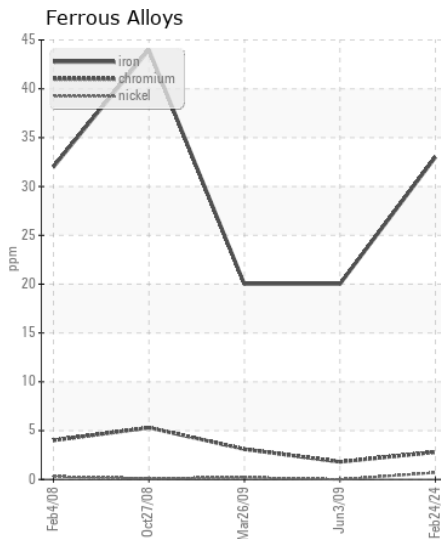
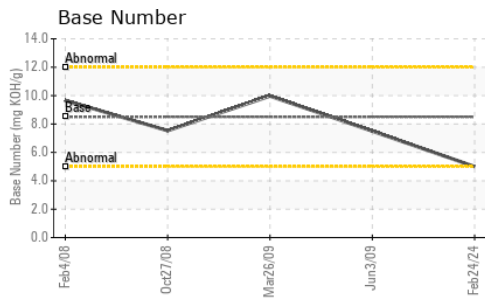
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>7</b>	3	8
Potassium	ppm	ASTM D5185m	>20	<b>8</b>	4	0
Fuel		WC Method	>2.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.6</b>	0.7	1.8
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.8</b>	8.	9.
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>24.1</b>	20.	21.
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	>0.2	<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>5</b>	2	6
Boron	ppm	ASTM D5185m	250	<b>15</b>	18	27
Barium	ppm	ASTM D5185m	10	<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185m	100	<b>69</b>	2	39
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	5
Magnesium	ppm	ASTM D5185m	450	<b>444</b>	37	741
Calcium	ppm	ASTM D5185m	3000	<b>1901</b>	2236	1104
Phosphorus	ppm	ASTM D5185m	1150	<b>1158</b>	1015	902
Zinc	ppm	ASTM D5185m	1350	<b>1362</b>	1153	1033
Sulfur	ppm	ASTM D5185m	4250	<b>3578</b>	3551	3560
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>19.9</b>	15.	13.
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>5.0</b>	7.50	9.97
Visc @ 100°C	cSt	ASTM D445	10.9	<b>13.1</b>	15.49	15.23



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0878615  
**Lab Number** : 06121464  
**Unique Number** : 10930297  
**Test Package** : FLEET  
**Received** : 18 Mar 2024  
**Tested** : 19 Mar 2024  
**Diagnosed** : 21 Mar 2024 - Jonathan Hester

**CARCO TRANSPORTATION**  
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 LITTLE ROCK, AR  
 US 72206  
 Contact: DENNIS CATES  
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 T: (800)967-0777  
 F:

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)