



# WEAR CHECK

## OIL ANALYSIS REPORT

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

Machine Id  
**3770**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 10W30 (--- QTS)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0878599</b>	WC0854025	WC0653865
Sample Date		Client Info		<b>21 Dec 2023</b>	13 Sep 2023	06 Jan 2022
Machine Age	mls	Client Info		<b>6406</b>	0	210
Oil Age	mls	Client Info		<b>786</b>	1046	210
Filter Age	mls	Client Info		<b>786</b>	1046	210
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	>100	<b>21</b>	30	37
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>3</b>	<1	4
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185m	>330	<b>0</b>	2	22
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	<1
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

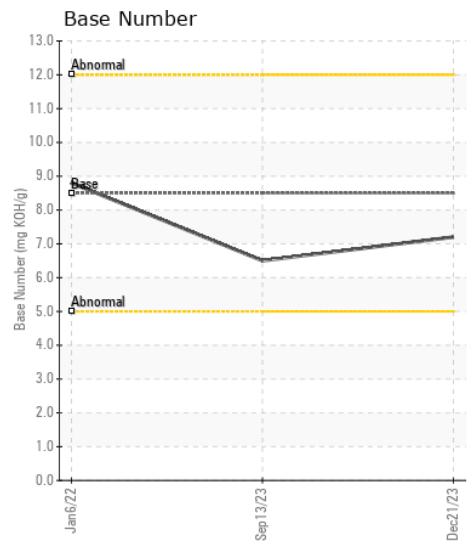
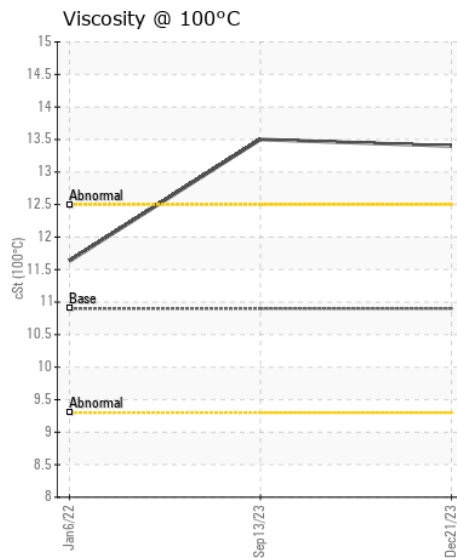
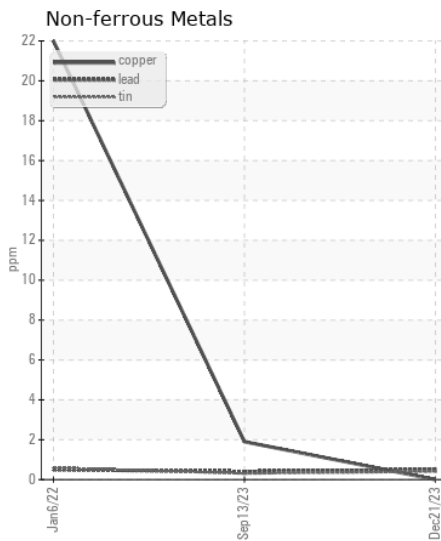
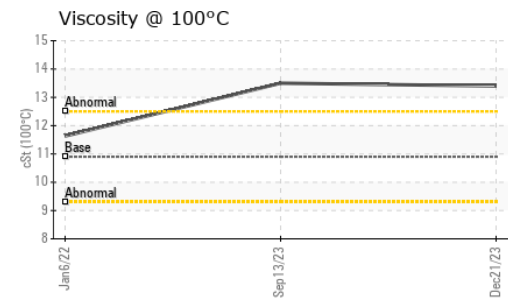
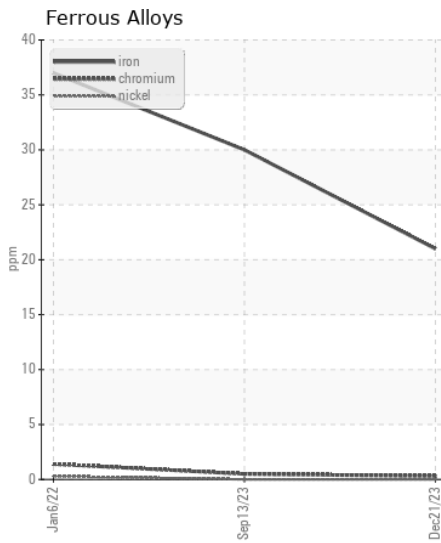
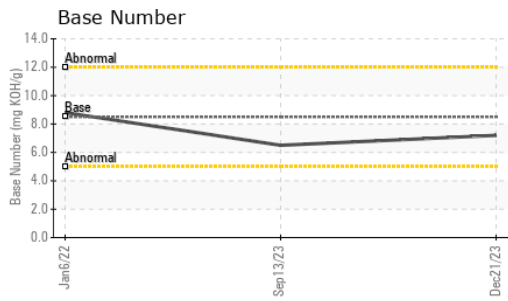
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>4</b>	5	23
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	2	4
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	1.1
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	0.8
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.6</b>	8.4	11.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>17.9</b>	18.9	22.2
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>0</b>	<1	6
Boron	ppm	ASTM D5185m	250	<b>39</b>	26	41
Barium	ppm	ASTM D5185m	10	<b>0</b>	0	6
Molybdenum	ppm	ASTM D5185m	100	<b>15</b>	20	46
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	5
Magnesium	ppm	ASTM D5185m	450	<b>96</b>	122	787
Calcium	ppm	ASTM D5185m	3000	<b>2109</b>	2121	1294
Phosphorus	ppm	ASTM D5185m	1150	<b>1009</b>	946	784
Zinc	ppm	ASTM D5185m	1350	<b>1140</b>	1194	942
Sulfur	ppm	ASTM D5185m	4250	<b>3606</b>	3772	2670
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>11.2</b>	11.7	19.6
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>7.2</b>	6.5	8.8
Visc @ 100°C	cSt	ASTM D445	10.9	<b>13.4</b>	13.5	▲ 11.63



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0878599 **Received** : 16 Jan 2024  
**Lab Number** : 06060780 **Diagnosed** : 17 Jan 2024  
**Unique Number** : 10832162 **Diagnostician** : Jonathan Hester  
**Test Package** : FLEET

**CARCO TRANSPORTATION**  
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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)