



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**1276**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 15W40 (--- QTS)**

## RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0870675</b>	WC0821380	WC0761192
Sample Date		Client Info		<b>04 Dec 2023</b>	12 Jun 2023	14 Dec 2022
Machine Age	mls	Client Info		<b>249511</b>	244083	234538
Oil Age	mls	Client Info		<b>0</b>	0	0
Filter Age	mls	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Sample Status				<b>NORMAL</b>	NORMAL	ATTENTION

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>36</b>	16	35
Chromium	ppm	ASTM D5185m	>20	<b>1</b>	<1	1
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>4</b>	3	5
Lead	ppm	ASTM D5185m	>40	<b>2</b>	<1	2
Copper	ppm	ASTM D5185m	>330	<b>2</b>	<1	2
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</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

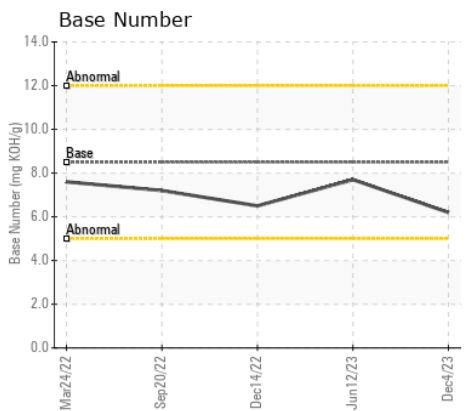
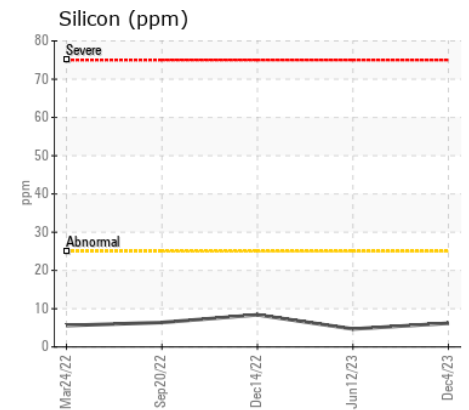
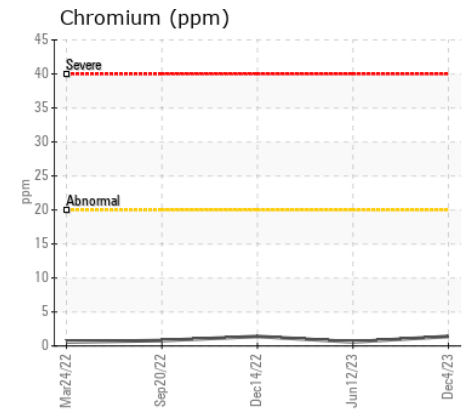
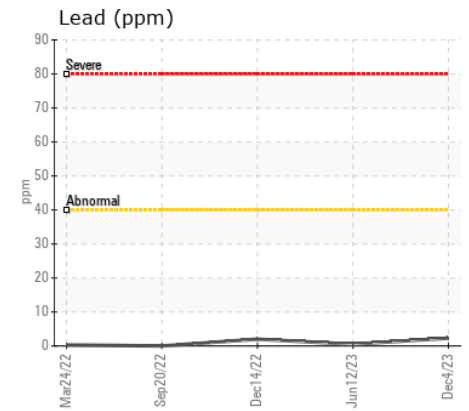
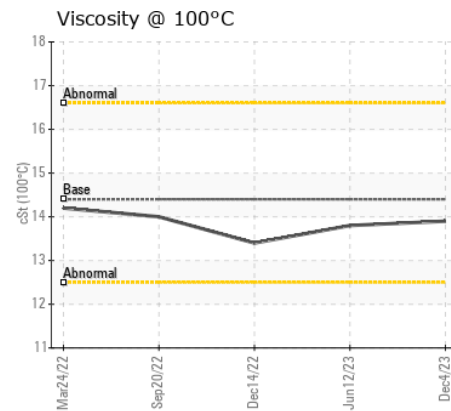
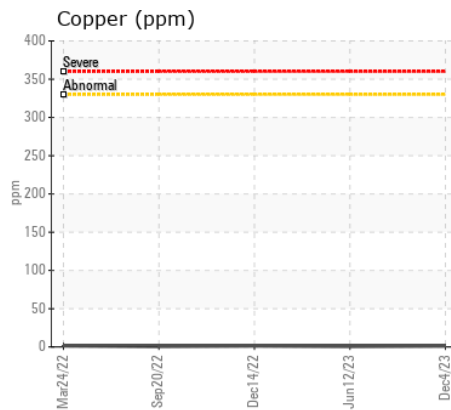
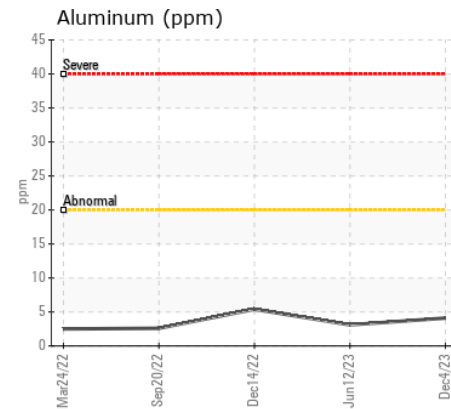
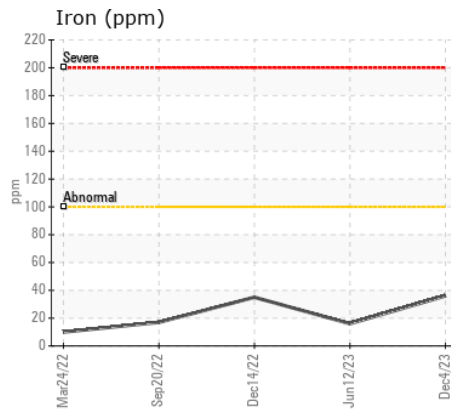
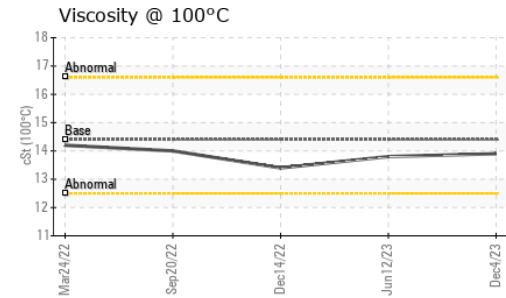
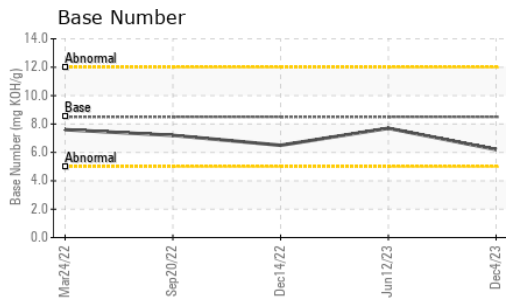
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>6</b>	5	8
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	1	▲ 52
Fuel		WC Method	>5	<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>	0.4	0.6
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.9</b>	9.3	11.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.5</b>	19.0	21.1
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	>158	<b>3</b>	3	▲ 65
Boron	ppm	ASTM D5185m	250	<b>15</b>	37	14
Barium	ppm	ASTM D5185m	10	<b>4</b>	0	1
Molybdenum	ppm	ASTM D5185m	100	<b>80</b>	84	57
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	450	<b>130</b>	136	86
Calcium	ppm	ASTM D5185m	3000	<b>2042</b>	2278	1973
Phosphorus	ppm	ASTM D5185m	1150	<b>976</b>	1069	851
Zinc	ppm	ASTM D5185m	1350	<b>1187</b>	1278	1078
Sulfur	ppm	ASTM D5185m	4250	<b>3639</b>	4413	3745
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.5</b>	14.6	16.0
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>6.2</b>	7.7	6.5
Visc @ 100°C	cSt	ASTM D445	14.4	<b>13.9</b>	13.8	13.4



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0870675 **Received** : 12 Jan 2024  
**Lab Number** : 06059852 **Diagnosed** : 15 Jan 2024  
**Unique Number** : 10831234 **Diagnostician** : Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**WAKE COUNTY PUBLIC SCHOOL SYSTEM**  
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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)