



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**1243**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 15W40 (--- QTS)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0870686</b>	WC0447074	---
Sample Date		Client Info		<b>03 Jan 2024</b>	09 Jun 2020	---
Machine Age	mls	Client Info		<b>0</b>	189842	---
Oil Age	mls	Client Info		<b>0</b>	0	---
Filter Age	mls	Client Info		<b>0</b>	0	---
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	---
Filter Changed		Client Info		<b>Not Changd</b>	Not Changd	---
Sample Status				<b>NORMAL</b>	SEVERE	---

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>22</b>	75	---
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	3	---
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	1	---
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	---
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>20	<b>3</b>	6	---
Lead	ppm	ASTM D5185m	>40	<b>0</b>	3	---
Copper	ppm	ASTM D5185m	>330	<b>1</b>	18	---
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	0	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

## CONTAMINATION

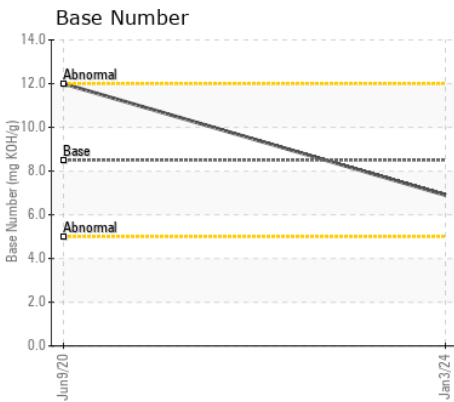
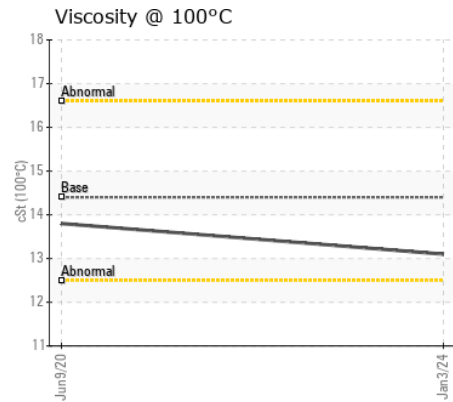
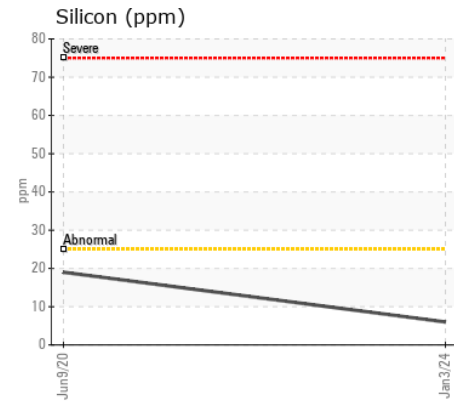
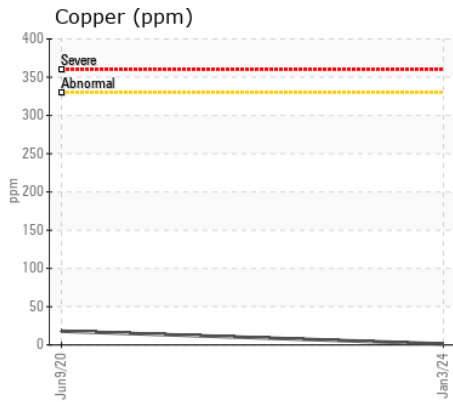
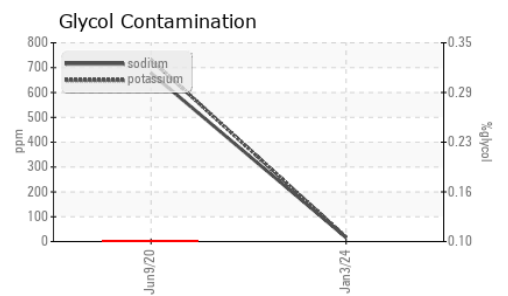
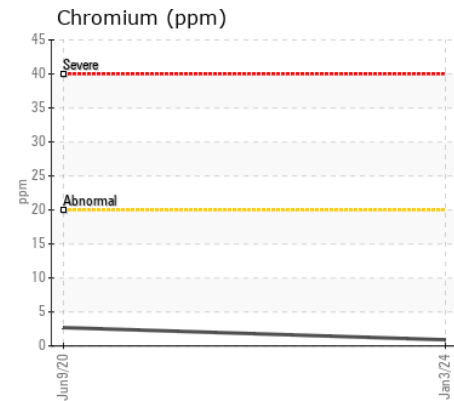
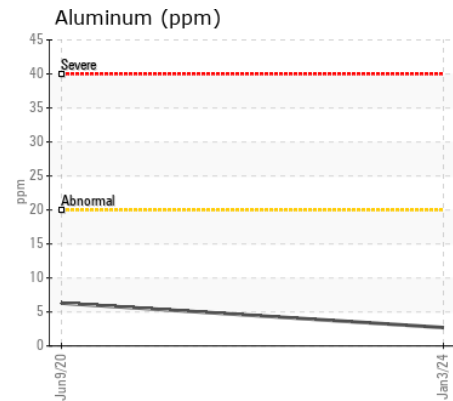
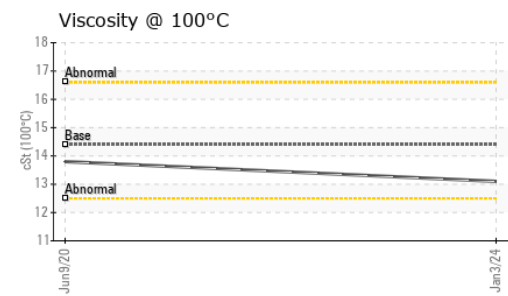
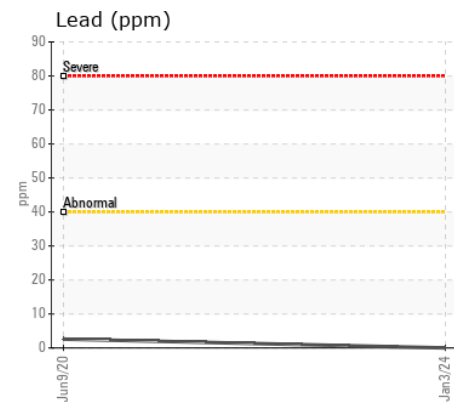
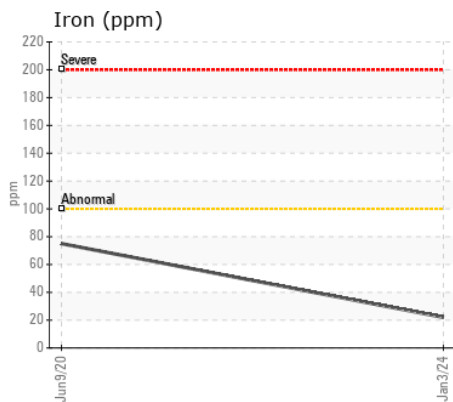
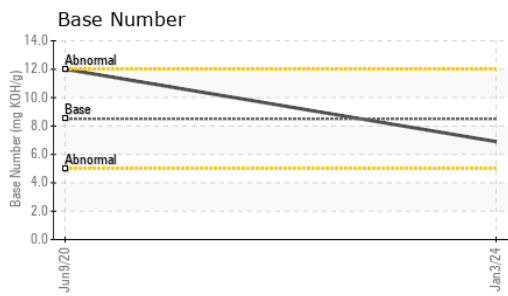
No evidence of coolant present in the oil. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>6</b>	19	---
Potassium	ppm	ASTM D5185m	>20	<b>18</b>	▲ 732	---
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	---
Water		WC Method	>0.2	<b>NEG</b>	NEG	---
Glycol	%	*ASTM D2982		<b>NEG</b>	🔴 0.10	---
Soot %	%	*ASTM D7844	>3	<b>0.5</b>	0.3	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.9</b>	15.4	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.9</b>	21.2	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	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>16</b>	▲ 678	---
Boron	ppm	ASTM D5185m	250	<b>30</b>	28	---
Barium	ppm	ASTM D5185m	10	<b>3</b>	<1	---
Molybdenum	ppm	ASTM D5185m	100	<b>75</b>	102	---
Manganese	ppm	ASTM D5185m		<b>0</b>	2	---
Magnesium	ppm	ASTM D5185m	450	<b>156</b>	191	---
Calcium	ppm	ASTM D5185m	3000	<b>1806</b>	1938	---
Phosphorus	ppm	ASTM D5185m	1150	<b>922</b>	943	---
Zinc	ppm	ASTM D5185m	1350	<b>1103</b>	1126	---
Sulfur	ppm	ASTM D5185m	4250	<b>3432</b>	2697	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>18.5</b>	16.4	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>6.9</b>	12	---
Visc @ 100°C	cSt	ASTM D445	14.4	<b>13.1</b>	13.8	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0870686 **Received** : 12 Jan 2024  
**Lab Number** : 06059845 **Diagnosed** : 18 Jan 2024  
**Unique Number** : 10831227 **Diagnostician** : Jonathan Hester  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**WAKE COUNTY PUBLIC SCHOOL SYSTEM**  
 1551 ROCK QUARRY ROAD  
 RALEIGH, NC  
 US 27610  
 Contact: DEVIN WEBER  
 dweber@wcpss.net  
 T: (919)856-8076  
 F: x:

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)