



# OIL ANALYSIS REPORT

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

Machine Id  
**22040**

Component  
**Diesel Engine**

Fluid  
**SHELL ROTELLA T 10W30 (--- 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>WC0909777</b>	WC0866862	WC0866883
Sample Date		Client Info		<b>18 Mar 2024</b>	13 Feb 2024	19 Jan 2024
Machine Age	hrs	Client Info		<b>211142</b>	14640	10633
Oil Age	hrs	Client Info		<b>5407</b>	278	10633
Filter Age	hrs	Client Info		<b>5407</b>	0	10633
Oil Changed		Client Info		<b>Changed</b>	Changed	N/A
Filter Changed		Client Info		<b>Changed</b>	Changed	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>6</b>	3	8
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	1	2
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

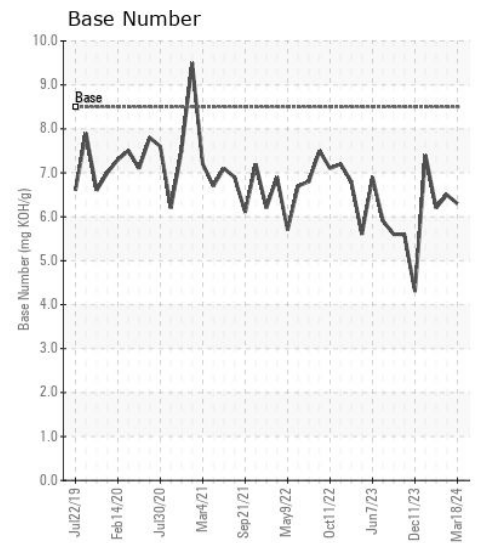
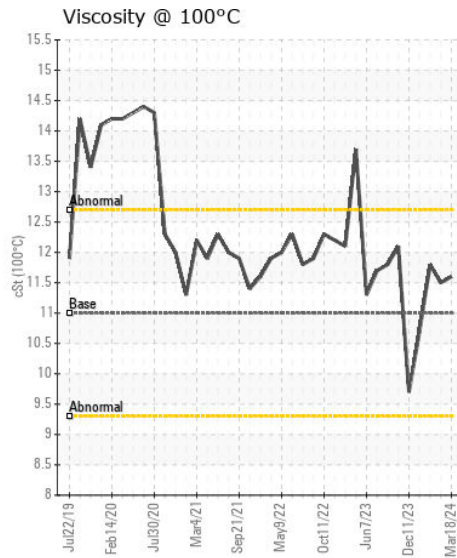
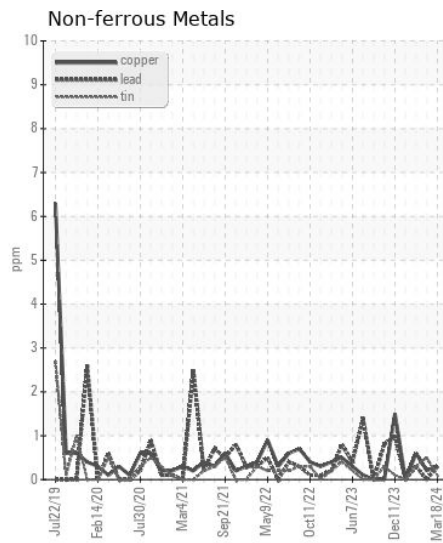
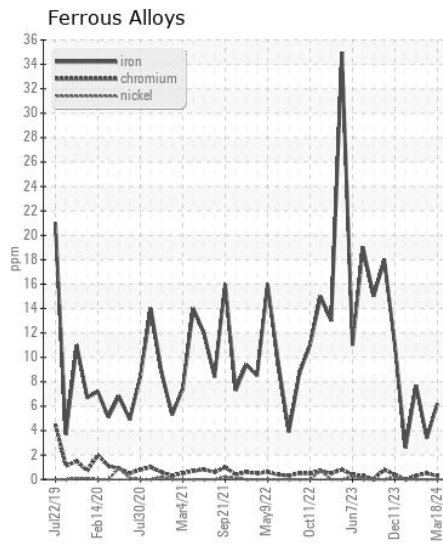
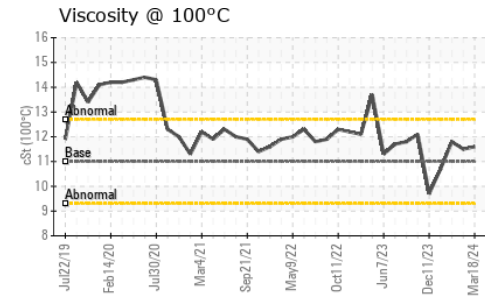
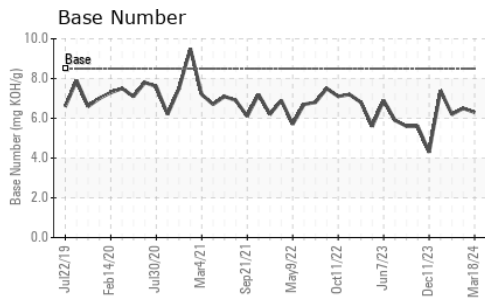
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>4</b>	2	2
Potassium	ppm	ASTM D5185m	>20	<b>5</b>	6	6
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>0.3</b>	0.1	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.7</b>	8.4	8.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.7</b>	20.1	21.9
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>&lt;1</b>	2	0
Boron	ppm	ASTM D5185m	269	<b>128</b>	133	127
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	0	<b>3</b>	4	4
Manganese	ppm	ASTM D5185m		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185m	20	<b>23</b>	39	25
Calcium	ppm	ASTM D5185m	1521	<b>2198</b>	1931	2038
Phosphorus	ppm	ASTM D5185m	948	<b>1027</b>	923	892
Zinc	ppm	ASTM D5185m	893	<b>1212</b>	1106	1108
Sulfur	ppm	ASTM D5185m		<b>3514</b>	3245	3401
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>18.5</b>	16.4	18.6
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>6.3</b>	6.5	6.2
Visc @ 100°C	cSt	ASTM D445	11.0	<b>11.6</b>	11.5	11.8



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0909777  
**Lab Number** : 06125487  
**Unique Number** : 10939638  
**Test Package** : FLEET

**Received** : 21 Mar 2024  
**Tested** : 22 Mar 2024  
**Diagnosed** : 22 Mar 2024 - Wes Davis

**GUY M TURNER & TURNER TRANSFER**  
 4505 SOUTH HOLDEN ROAD  
 GREENSBORO, NC  
 US 27406

Contact: ROGER HIXSON  
 rhixson@guymtturner.com

T: (336)294-4660  
 F: (336)294-6644

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)