



# OIL ANALYSIS REPORT

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

Machine Id  
**781-142**  
 Component  
**Diesel Engine**  
 Fluid  
**DIESEL ENGINE OIL SAE 40 (--- LTR)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>RPL06063998</b>	RPL05975481	RPL05861702
Sample Date		Client Info		<b>09 Jan 2024</b>	10 Oct 2023	25 May 2023
Machine Age	mls	Client Info		<b>250752</b>	232047	215628
Oil Age	mls	Client Info		<b>9637</b>	17419	50000
Filter Age	mls	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	ABNORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>26</b>	13	55
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>5</b>	20	11
Lead	ppm	ASTM D5185m	>40	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m	>330	<b>3</b>	2	5
Tin	ppm	ASTM D5185m	>15	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

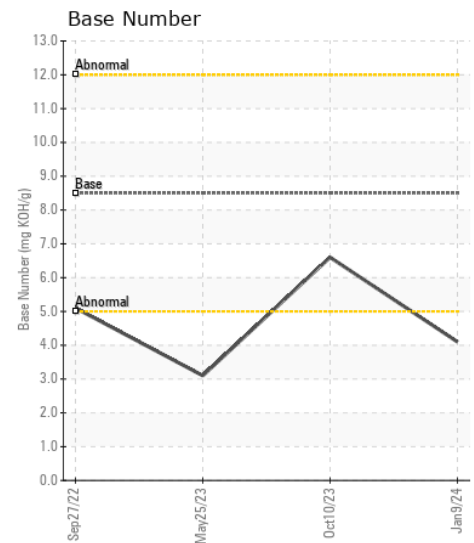
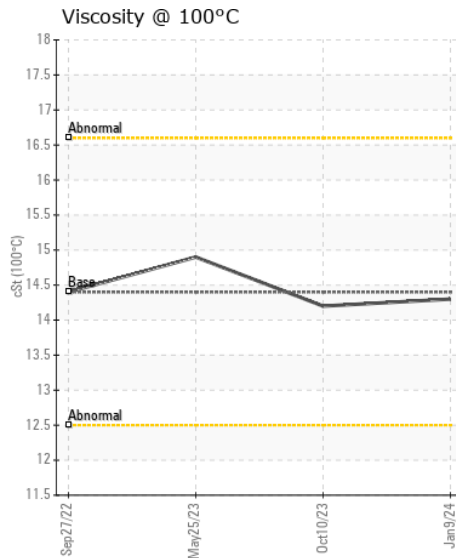
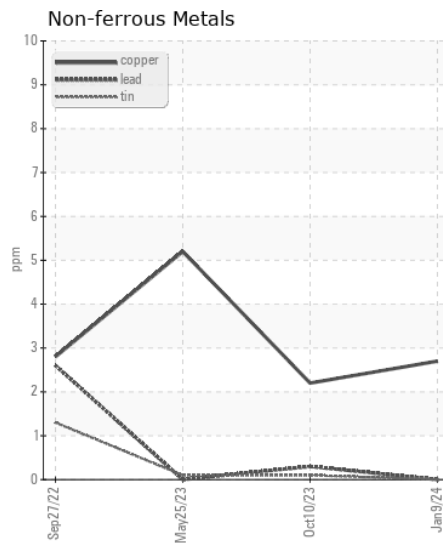
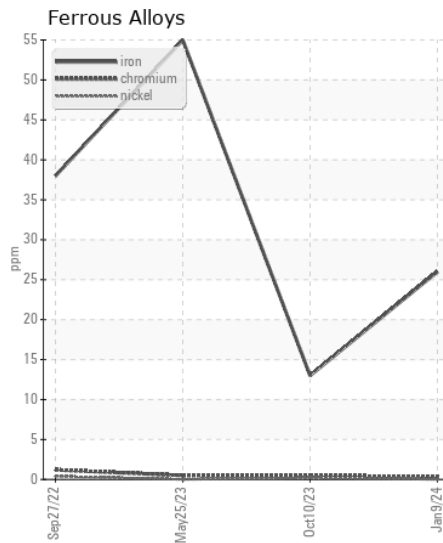
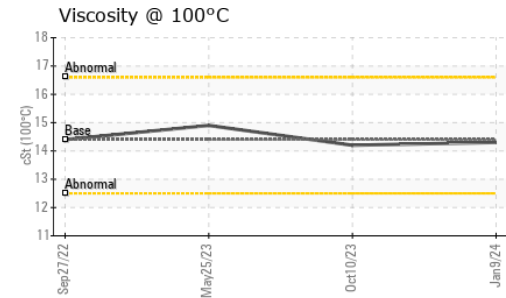
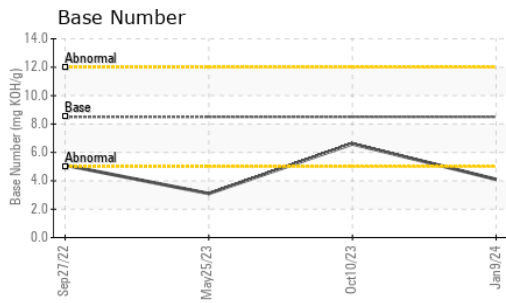
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>10</b>	12	16
Potassium	ppm	ASTM D5185m	>20	<b>7</b>	7	15
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	0.9
Nitration	Abs/cm	*ASTM D7624	>20	<b>11.1</b>	10.1	14.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>27.0</b>	23.9	31.4
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	>216	<b>0</b>	3	2
Boron	ppm	ASTM D5185m	250	<b>59</b>	170	29
Barium	ppm	ASTM D5185m	10	<b>3</b>	3	0
Molybdenum	ppm	ASTM D5185m	100	<b>138</b>	163	117
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m	450	<b>731</b>	832	659
Calcium	ppm	ASTM D5185m	3000	<b>1547</b>	1906	1633
Phosphorus	ppm	ASTM D5185m	1150	<b>708</b>	873	687
Zinc	ppm	ASTM D5185m	1350	<b>910</b>	1071	901
Sulfur	ppm	ASTM D5185m	4250	<b>2448</b>	3332	2686
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>26.4</b>	20.6	33.6
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>4.1</b>	6.6	▲ 3.1
Visc @ 100°C	cSt	ASTM D445	14.4	<b>14.3</b>	14.2	14.9



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : RPL06063998 **Received** : 18 Jan 2024  
**Lab Number** : 06063998 **Diagnosed** : 20 Jan 2024  
**Unique Number** : 10835380 **Diagnostician** : Don Baldrige  
**Test Package** : FLEET

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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)