



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id  
**L4168**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0847895</b>	WC0759983	WC0759974
Sample Date		Client Info		<b>06 Jan 2024</b>	01 Jun 2023	10 Jan 2023
Machine Age	hrs	Client Info		<b>8903</b>	7310	6962
Oil Age	hrs	Client Info		<b>1593</b>	6962	0
Filter Age	hrs	Client Info		<b>1593</b>	6962	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	<b>27</b>	9	9
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	1	1
Lead	ppm	ASTM D5185m	>40	<b>3</b>	1	<1
Copper	ppm	ASTM D5185m	>330	<b>2</b>	1	1
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	1	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

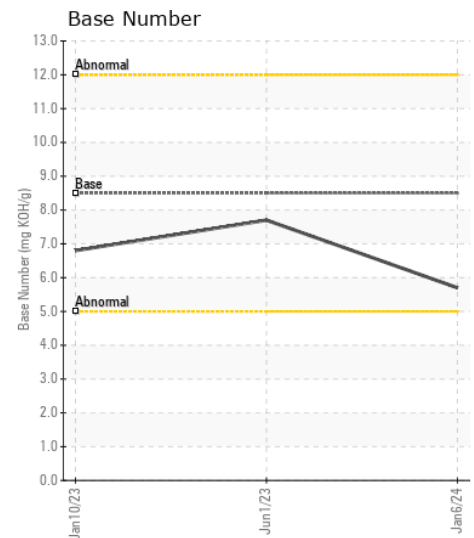
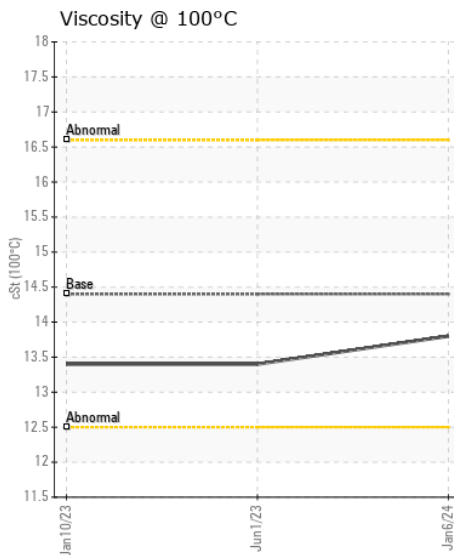
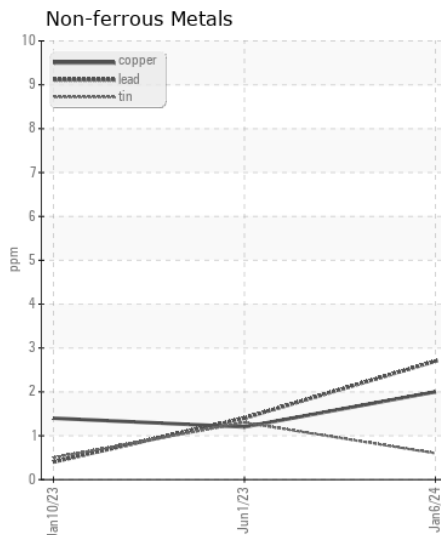
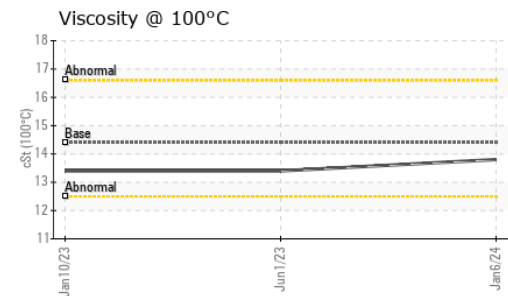
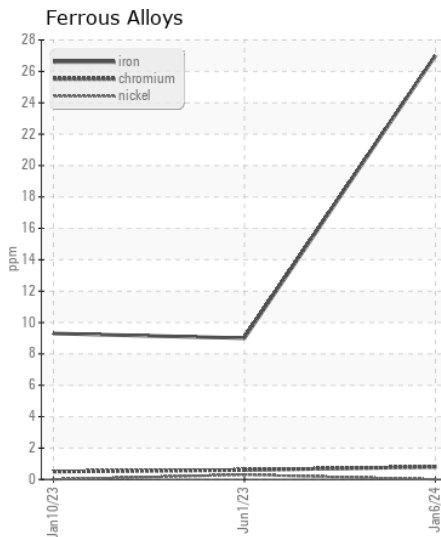
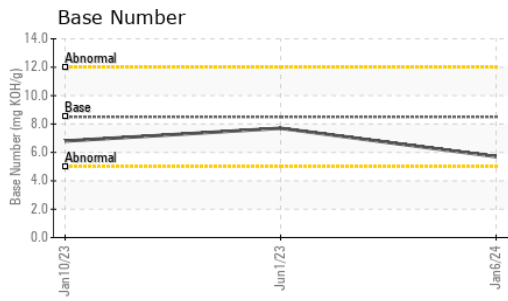
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>4</b>	3	3
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	3	2
Fuel		WC Method	>3.0	<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	>4	<b>0.7</b>	0.4	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.5</b>	7.9	8.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>23.1</b>	19.2	19.8
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>10</b>	6	5
Boron	ppm	ASTM D5185m	250	<b>4</b>	9	2
Barium	ppm	ASTM D5185m	10	<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185m	100	<b>65</b>	63	61
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	450	<b>915</b>	920	864
Calcium	ppm	ASTM D5185m	3000	<b>1254</b>	1237	1140
Phosphorus	ppm	ASTM D5185m	1150	<b>985</b>	988	955
Zinc	ppm	ASTM D5185m	1350	<b>1246</b>	1229	1183
Sulfur	ppm	ASTM D5185m	4250	<b>2610</b>	3477	2960
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>19.5</b>	14.2	14.9
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>5.7</b>	7.7	6.8
Visc @ 100°C	cSt	ASTM D445	14.4	<b>13.8</b>	13.4	13.4



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0847895 **Received** : 16 Jan 2024  
**Lab Number** : 06061806 **Diagnosed** : 18 Jan 2024  
**Unique Number** : 10833188 **Diagnostician** : Wes Davis  
**Test Package** : CONST ( Additional Tests: TBN )

**Apple Valley Waste - Chambersburg Location**  
 5436 Sunset Pike  
 Chambersburg, PA  
 US 17202  
 Contact: Service Manager

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)

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F: