



# OIL ANALYSIS REPORT

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

Machine Id  
**19969**  
Component  
**Diesel Engine**  
Fluid  
**EXXON 15W40 (--- QTS)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0847837</b>	WC0847807	WC0817627
Sample Date		Client Info		<b>08 Feb 2024</b>	06 Sep 2023	20 Jun 2023
Machine Age	mls	Client Info		<b>182008</b>	173184	166410
Oil Age	mls	Client Info		<b>10000</b>	6774	25000
Filter Age	mls	Client Info		<b>10000</b>	6774	25000
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>38</b>	18	25
Chromium	ppm	ASTM D5185m	>20	<b>1</b>	<1	1
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	<1
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>4</b>	0	5
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185m	>330	<b>1</b>	<1	2
Tin	ppm	ASTM D5185m	>15	<b>1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

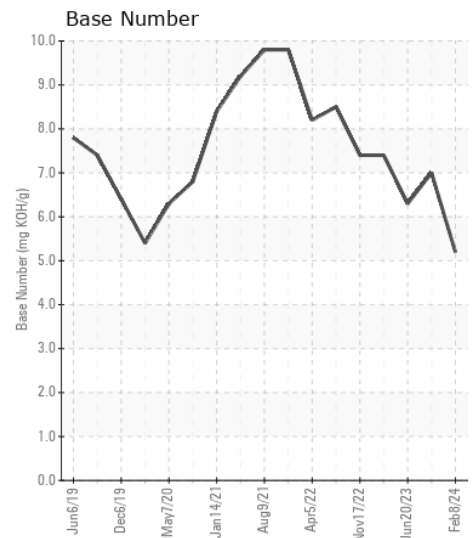
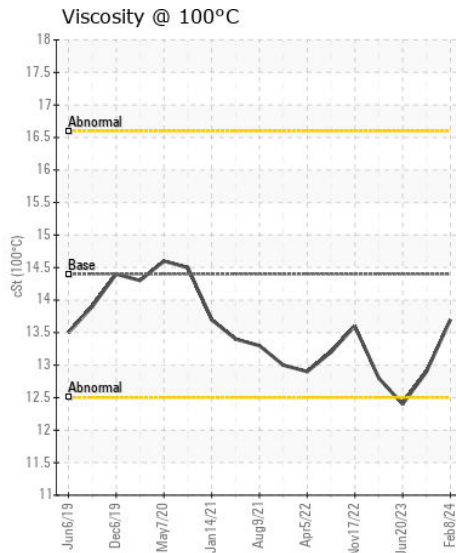
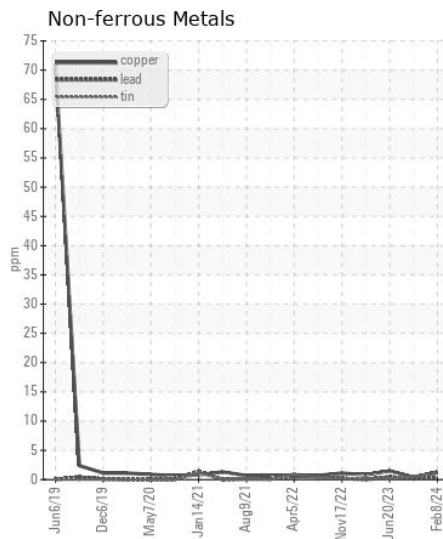
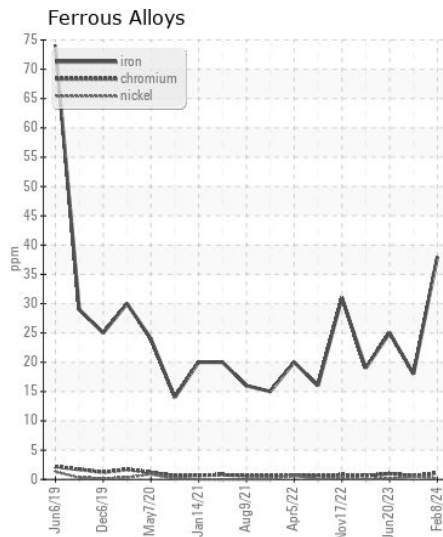
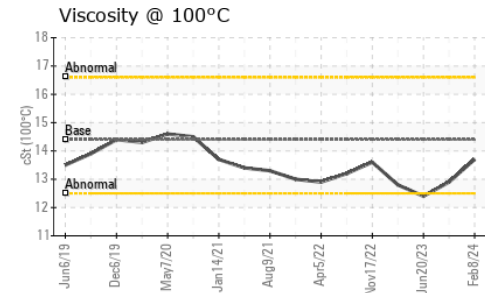
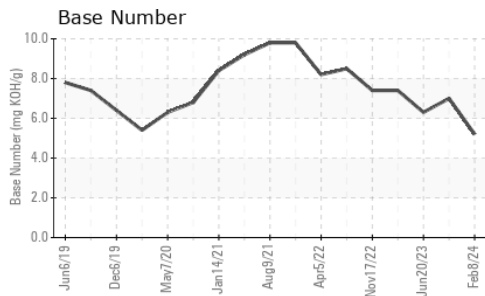
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>5</b>	5	5
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	2	2
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	1.2
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.8</b>	0.4	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>13.8</b>	11.3	11.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>29.1</b>	21.4	23.9
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>1</b>	1	2
Boron	ppm	ASTM D5185m		<b>42</b>	9	7
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>78</b>	72	70
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>942</b>	1023	981
Calcium	ppm	ASTM D5185m		<b>1331</b>	1248	1190
Phosphorus	ppm	ASTM D5185m		<b>1086</b>	1135	1046
Zinc	ppm	ASTM D5185m		<b>1376</b>	1390	1322
Sulfur	ppm	ASTM D5185m		<b>2945</b>	3927	3501
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>27.6</b>	18.1	22.0
Base Number (BN)	mg KOH/g	ASTM D2896		<b>5.2</b>	7.0	6.3
Visc @ 100°C	cSt	ASTM D445	14.4	<b>13.7</b>	12.9	12.4



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513

**Sample No.** : WC0847837

**Lab Number** : 06097439

**Unique Number** : 10890292

**Test Package** : FLEET

**Received** : 22 Feb 2024

**Tested** : 23 Feb 2024

**Diagnosed** : 24 Feb 2024 - Don Baldrige

**SALEM NATIONALEASE CORPORATION**

198 PARK PLAZA DRIVE

WINSTON SALEM, NC

US 27105

Contact: Audrey Hopkins

Audrey.Hopkins@salemcorp.com

T: (336)767-9642

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)