



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id  
**38731**  
 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>WC0946020</b>	WC0824182	WC0810936
Sample Date		Client Info		<b>30 May 2024</b>	20 Jul 2023	27 Apr 2023
Machine Age	mls	Client Info		<b>0</b>	0	0
Oil Age	mls	Client Info		<b>0</b>	0	0
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>ABNORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>40</b>	17	30
Chromium	ppm	ASTM D5185m	>20	<b>2</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>4</b>	2	3
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>330	<b>73</b>	2	4
Tin	ppm	ASTM D5185m	>15	<b>1</b>	<1	0
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

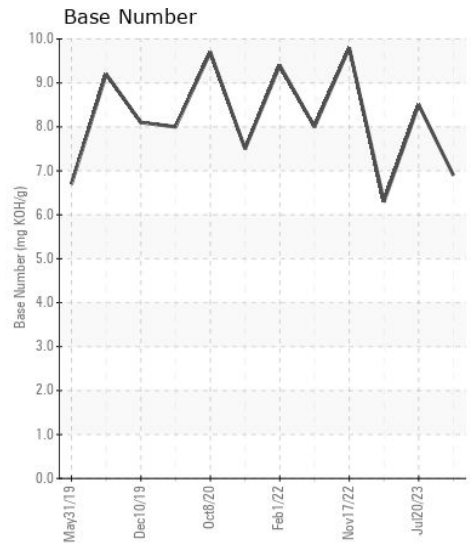
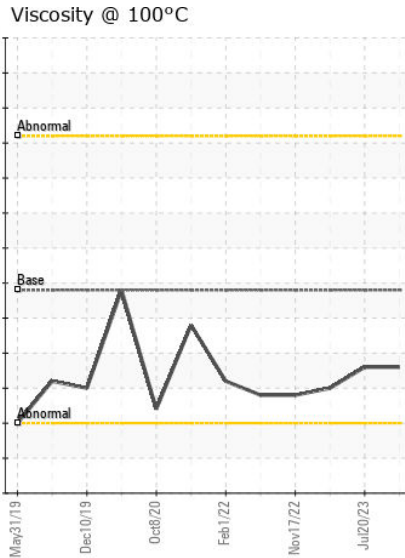
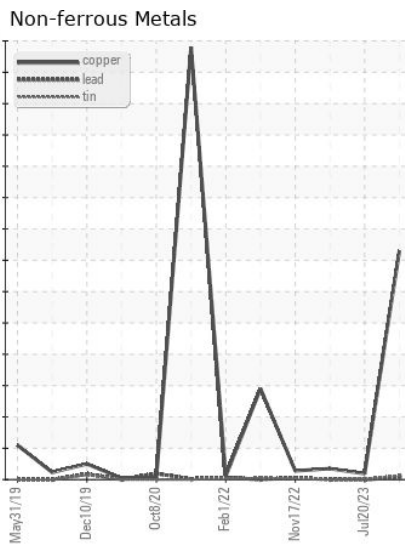
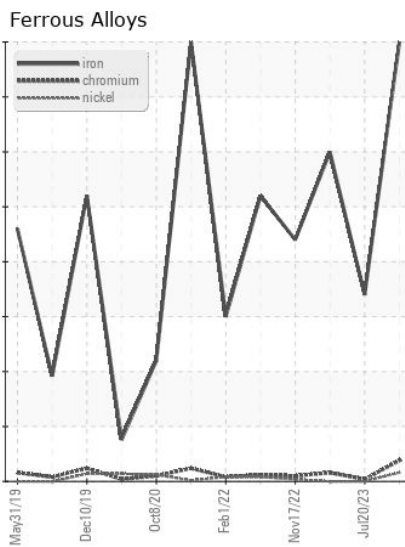
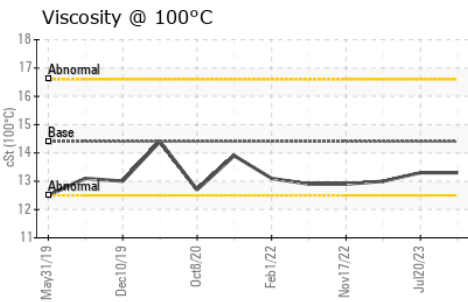
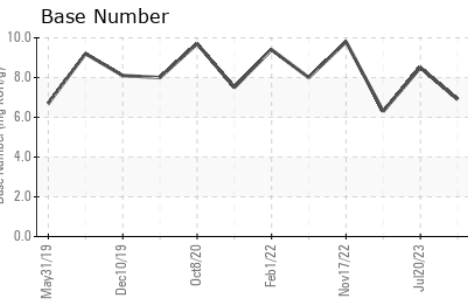
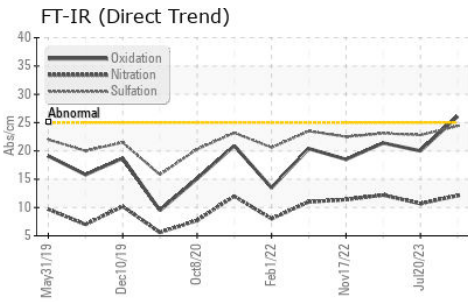
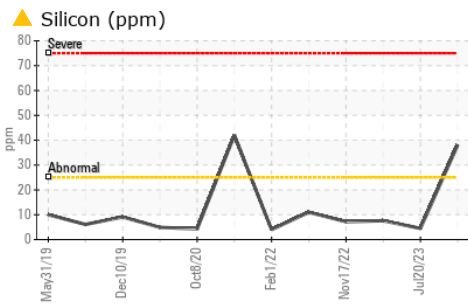
Elemental level of silicon (Si) above normal

Silicon	ppm	ASTM D5185m	>25	<b>▲ 38</b>	4	8
Potassium	ppm	ASTM D5185m	>20	<b>5</b>	3	2
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>0.4</b>	0.7	0.9
Nitration	Abs/cm	*ASTM D7624	>20	<b>12.1</b>	10.7	12.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>24.4</b>	22.8	23.1
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 acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>6</b>	0	<1
Boron	ppm	ASTM D5185m		<b>28</b>	5	8
Barium	ppm	ASTM D5185m		<b>17</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>44</b>	78	66
Manganese	ppm	ASTM D5185m		<b>6</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>641</b>	968	1015
Calcium	ppm	ASTM D5185m		<b>1558</b>	1245	1201
Phosphorus	ppm	ASTM D5185m		<b>768</b>	1075	1059
Zinc	ppm	ASTM D5185m		<b>925</b>	1310	1347
Sulfur	ppm	ASTM D5185m		<b>2683</b>	3396	3638
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>26.1</b>	20.0	21.4
Base Number (BN)	mg KOH/g	ASTM D2896		<b>6.9</b>	8.5	6.3
Visc @ 100°C	cSt	ASTM D445	14.4	<b>13.3</b>	13.3	13.0



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0946020  
**Lab Number** : 06213037  
**Unique Number** : 11085901  
**Test Package** : FLEET

**SALEM NATIONALEASE CORPORATION**  
 198 PARK PLAZA DRIVE  
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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)