



# OIL ANALYSIS REPORT

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

Machine Id  
**8696**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 15W40 (--- QTS)**

## RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0842172</b>	WC0841773	WC0742063
Sample Date		Client Info		<b>21 Mar 2024</b>	12 Aug 2023	10 Jan 2023
Machine Age	mls	Client Info		<b>64431</b>	55110	48841
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>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>ATTENTION</b>	NORMAL	MARGINAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>19</b>	18	16
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>20</b>	14	17
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>330	<b>2</b>	1	1
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

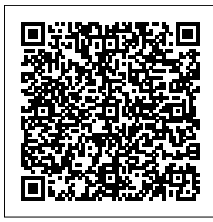
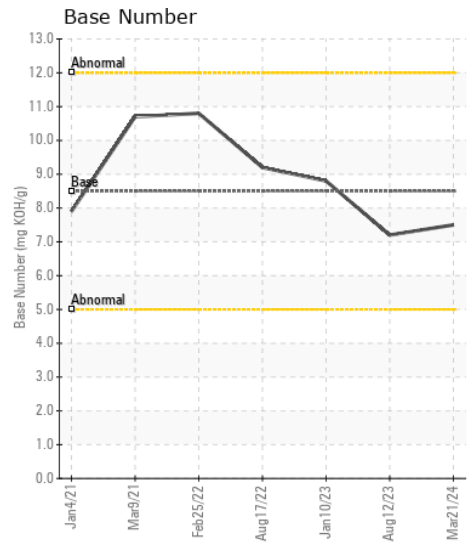
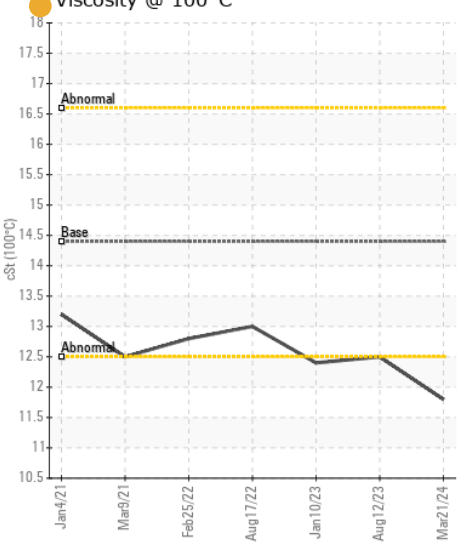
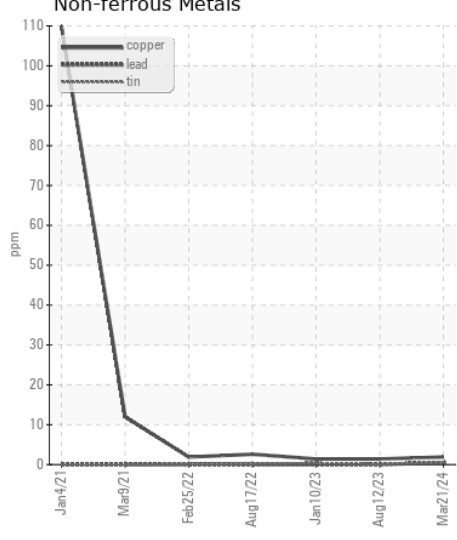
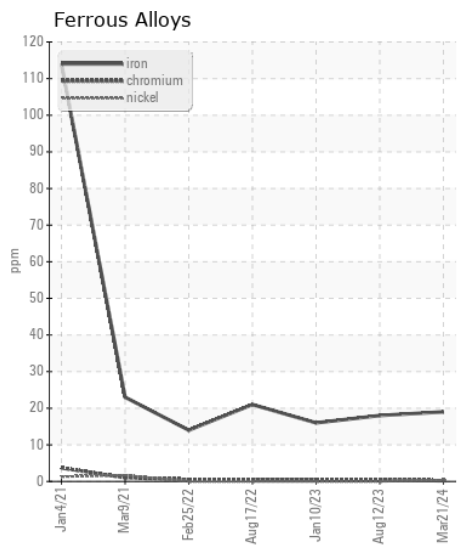
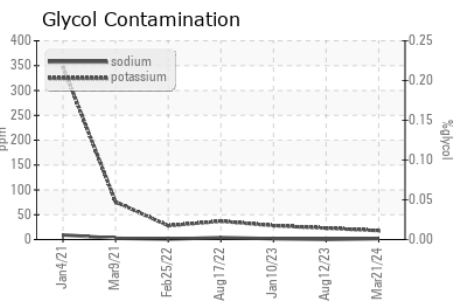
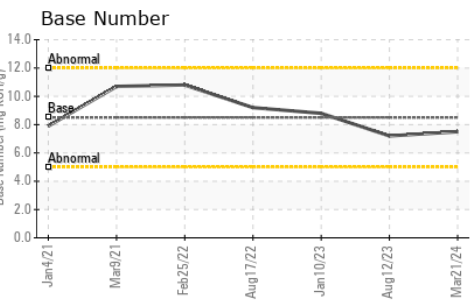
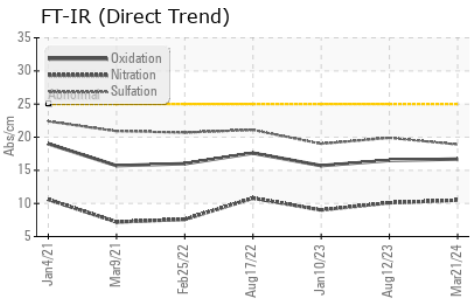
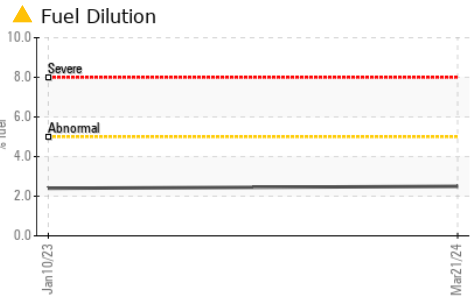
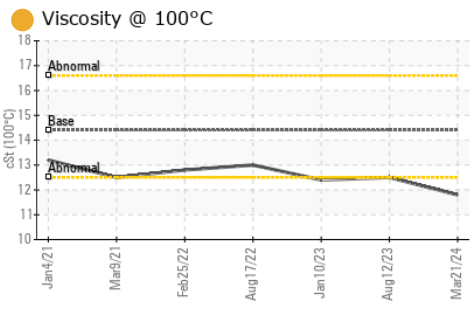
Light fuel dilution occurring.

Silicon	ppm	ASTM D5185m	>25	<b>6</b>	6	5
Potassium	ppm	ASTM D5185m	>20	<b>18</b>	23	28
Fuel	%	ASTM D3524	>5	<b>▲ 2.5</b>	<1.0	▲ 2.4
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	%	*ASTM D2982		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.5</b>	0.4	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.5</b>	10.1	9.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.9</b>	19.9	19.0
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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m	>158	<b>2</b>	<1	2
Boron	ppm	ASTM D5185m	250	<b>7</b>	<1	1
Barium	ppm	ASTM D5185m	10	<b>0</b>	2	0
Molybdenum	ppm	ASTM D5185m	100	<b>65</b>	64	63
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	450	<b>953</b>	899	915
Calcium	ppm	ASTM D5185m	3000	<b>1079</b>	1164	1049
Phosphorus	ppm	ASTM D5185m	1150	<b>1010</b>	980	1002
Zinc	ppm	ASTM D5185m	1350	<b>1257</b>	1214	1201
Sulfur	ppm	ASTM D5185m	4250	<b>3742</b>	3700	3757
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.7</b>	16.5	15.7
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>7.5</b>	7.2	8.8
Visc @ 100°C	cSt	ASTM D445	14.4	<b>● 11.8</b>	12.5	▲ 12.4



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0842172  
**Lab Number** : 06190123  
**Unique Number** : 11046875  
**Test Package** : FLEET ( Additional Tests: FuelDilution, Glycol, PercentFuel )

**SALEM NATIONALEASE CORPORATION**  
 198 PARK PLAZA DRIVE  
 WINSTON SALEM, NC  
 US 27105

**Received** : 23 May 2024  
**Tested** : 30 May 2024  
**Diagnosed** : 30 May 2024 - Jonathan Hester

Contact: Audrey Hopkins  
 Audrey.Hopkins@salemcorp.com  
 T: (336)767-9642

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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