



# OIL ANALYSIS REPORT

WEAR	ATTENTION
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Machine Id  
**77080**  
 Component  
**Diesel Engine**  
 Fluid  
**DIESEL ENGINE OIL SAE 5W30 (--- QTS)**

## RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. 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		WC0875945	---	---
Sample Date		Client Info		03 Jun 2024	---	---
Machine Age	mls	Client Info		307037	---	---
Oil Age	mls	Client Info		0	---	---
Filter Age	mls	Client Info		0	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				ABNORMAL	---	---

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	53	---	---
Chromium	ppm	ASTM D5185m	>20	2	---	---
Nickel	ppm	ASTM D5185m	>4	0	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m	>3	0	---	---
Aluminum	ppm	ASTM D5185m	>20	9	---	---
Lead	ppm	ASTM D5185m	>40	16	---	---
Copper	ppm	ASTM D5185m	>330	17	---	---
Tin	ppm	ASTM D5185m	>15	2	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

## CONTAMINATION

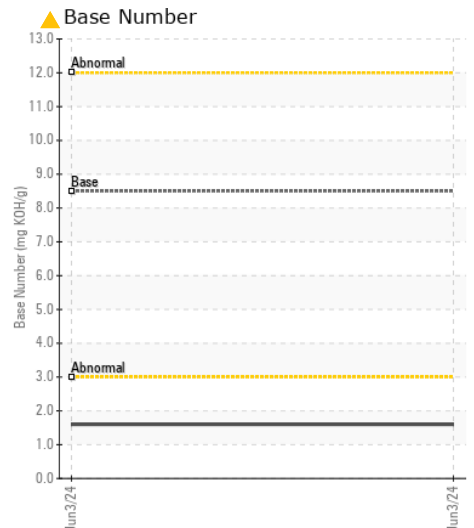
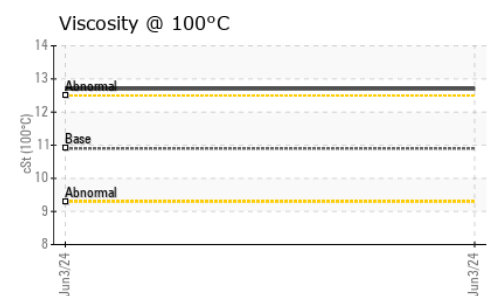
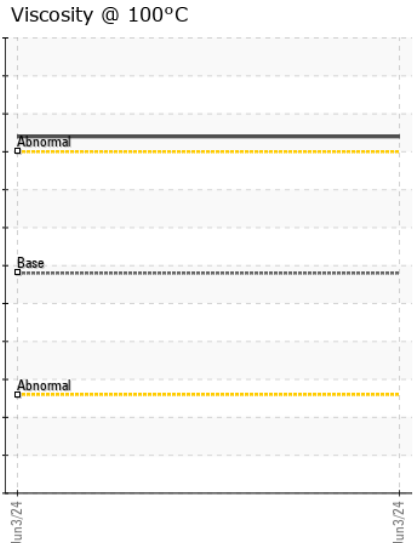
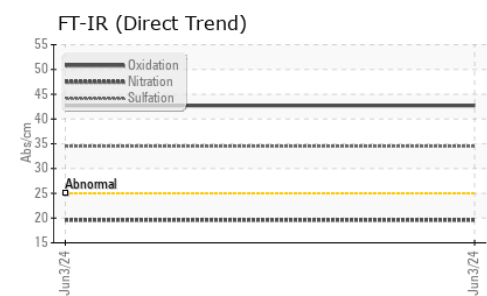
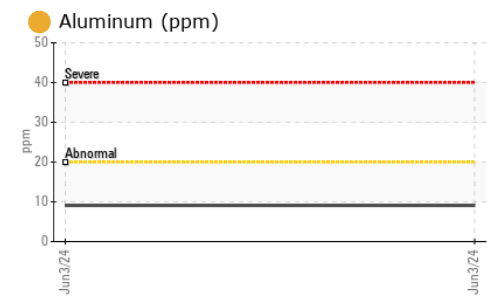
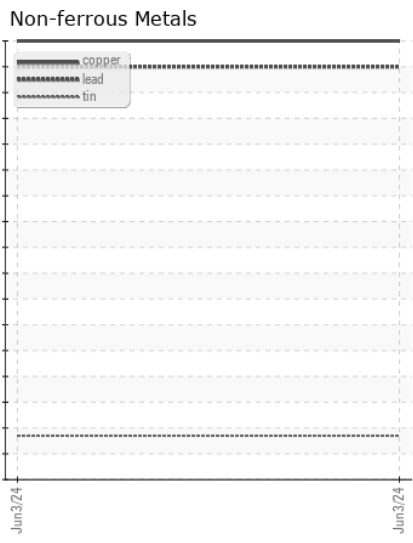
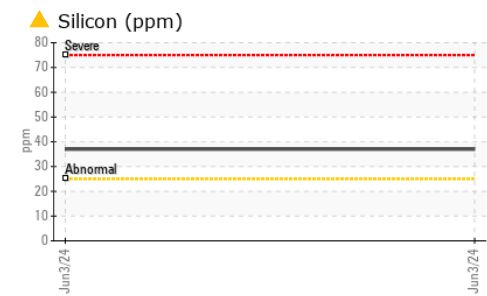
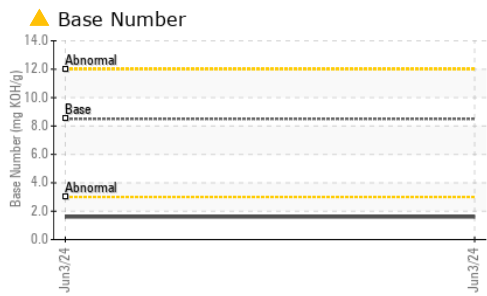
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Silicon	ppm	ASTM D5185m	>25	37	---	---
Potassium	ppm	ASTM D5185m	>20	2	---	---
Fuel		WC Method	>5	<1.0	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844	>3	0.1	---	---
Nitration	Abs/cm	*ASTM D7624	>20	19.6	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	34.5	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---	---

## FLUID CONDITION

The BN level is low.

Sodium	ppm	ASTM D5185m		9	---	---
Boron	ppm	ASTM D5185m	250	21	---	---
Barium	ppm	ASTM D5185m	10	0	---	---
Molybdenum	ppm	ASTM D5185m	100	104	---	---
Manganese	ppm	ASTM D5185m		84	---	---
Magnesium	ppm	ASTM D5185m	450	755	---	---
Calcium	ppm	ASTM D5185m	3000	908	---	---
Phosphorus	ppm	ASTM D5185m	1150	745	---	---
Zinc	ppm	ASTM D5185m	1350	912	---	---
Sulfur	ppm	ASTM D5185m	4250	2463	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	42.7	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	1.6	---	---
Visc @ 100°C	cSt	ASTM D445	10.9	12.7	---	---



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0875945 **Received** : 11 Jul 2024  
**Lab Number** : 06234351 **Tested** : 12 Jul 2024  
**Unique Number** : 11123185 **Diagnosed** : 14 Jul 2024 - Don Baldridge  
**Test Package** : FLEET

**SALEM NATIONALEASE CORPORATION**  
 198 PARK PLAZA DRIVE  
 WINSTON SALEM, NC  
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Certificate L2367  
 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)