

#### Machine Id **30617** Component **Diesel Engine** Fluid **DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

## RECOMMENDATION

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

### **WEAR**

All component wear rates are normal.

# CONTAMINATION

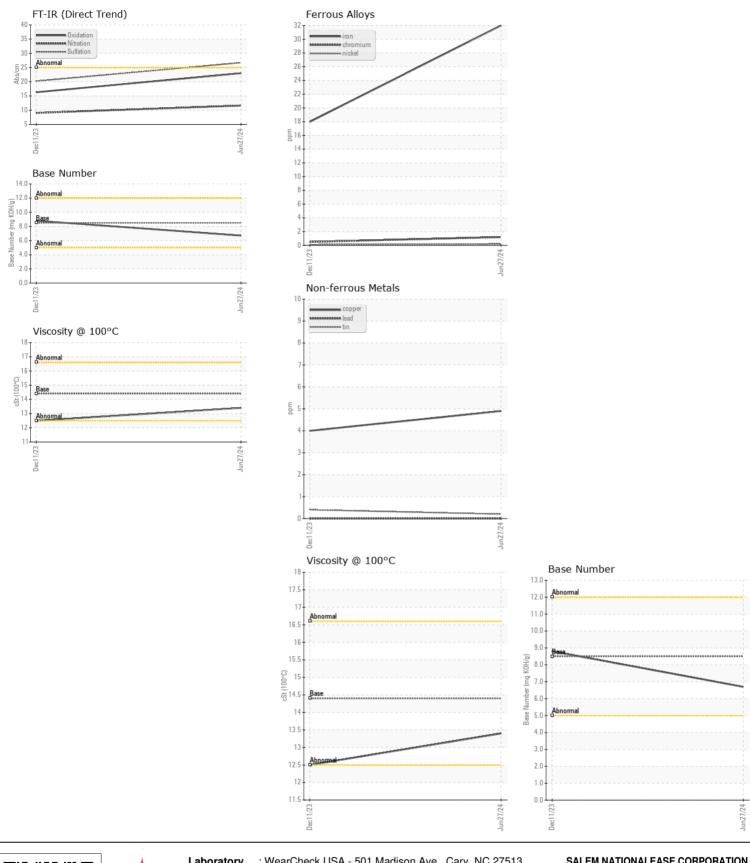
Elevated aluminum (AI) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0936763	WC0882367	
Sample Date		Client Info		27 Jun 2024	11 Dec 2023	
Machine Age	mls	Client Info		147146	121037	
Oil Age	mls	Client Info		13490	0	
Filter Age	mls	Client Info		13490	0	
Oil Changed		Client Info		Changed	Changed	
Filter Changed		Client Info		Changed	Changed	
Sample Status				NORMAL	NORMAL	
			400	•••	4.0	
Iron	ppm	ASTM D5185m	>100	32	18	
Chromium	ppm	ASTM D5185m	>20	1	<1	
Nickel	ppm	ASTM D5185m	>4	<1	<1	
Titanium	ppm	ASTM D5185m	0	<1	<1	
Silver	ppm	ASTM D5185m	>3	<1	0	
Aluminum	ppm	ASTM D5185m	>20	10	3	
Lead	ppm	ASTM D5185m	>40	0	0	
Copper	ppm	ASTM D5185m	>330	5	4	
Tin	ppm	ASTM D5185m	>15	<1	<1	
Vanadium	ppm	ASTM D5185m	NONE	<1	0	
White Metal	scalar	*Visual	NONE	NONE	NONE	
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
Silicon	ppm	ASTM D5185m	>25	12	6	
Potassium	ppm	ASTM D5185m	>20	16	11	
Fuel	lele	WC Method	>5	<1.0	<1.0	
Water		WC Method	>0.2	NEG	NEG	
Glycol		WC Method		NEG	NEG	
Soot %	%	*ASTM D7844	>3	0.9	0.6	
Nitration	Abs/cm	*ASTM D7624	>20	11.6	9.0	
Sulfation	Abs/.1mm	*ASTM D7415	>30	26.7	20.2	
Silt	scalar	*Visual	NONE	NONE	NONE	
Debris	scalar	*Visual	NONE	NONE	NONE	
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
Appearance	scalar	*Visual	NORML	NORML	NORML	
Odor	scalar	*Visual	NORML	NORML	NORML	
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	
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Sodium	ppm	ASTM D5185m	>158	<1	0	
Boron	ppm	ASTM D5185m	250	60	2	
Barium	ppm	ASTM D5185m	10	<1	9	
Molybdenum	ppm	ASTM D5185m	100	133	66	
Manganese	ppm	ASTM D5185m	450	<1	<1	
Magnesium	ppm	ASTM D5185m	450	770	954	
Calcium	ppm	ASTM D5185m ASTM D5185m	3000	1626	1114 1056	
Phosphorus Zinc	ppm		1150	820		
Sulfur	ppm	ASTM D5185m	1350	972 2507	1231 3192	
	ppm	ASTM D5185m	4250	2597		
Oxidation Base Number (BN)	Abs/.1mm mg KOH/g	*ASTM D7414 ASTM D2896	>25 8.5	23.0 6.7	16.3 8.8	
Visc @ 100°C	cSt	ASTM D2696 ASTM D445	o.5 14.4	6.7 13.4	12.5	
	ισι	AG HVI D440	14.4	13.4	12.0	

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#### 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.



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 SALEM NATIONALEASE CORPORATION Sample No. : WC0936763 Received 198 PARK PLAZA DRIVE : 28 Jun 2024 Lab Number : 06224224 Tested WINSTON SALEM, NC : 01 Jul 2024 Diagnosed Unique Number : 11102421 : 01 Jul 2024 - Wes Davis US 27105 Test Package : FLEET **Contact: Audrey Hopkins** Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. Audrey.Hopkins@salemcorp.com \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (336)767-9642 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: x:

Contact/Location: Audrey Hopkins - SALWIN Page 2 of 2