



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ATTENTION
FLUID CONDITION	NORMAL

Machine Id  
**Cummins Cummins generator (S/N 01)**

Component  
**2 Diesel Engine**

Fluid  
**{not provided} (91 LTR)**

## RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor. ( Customer Sample Comment: First oil sample taken after Kleen oil system installation. Oil was changed and system installed @14517 hrs )

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		KL0013072	---	---
Sample Date		Client Info		08 Jan 2024	---	---
Machine Age	hrs	Client Info		14517	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		N/A	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				ATTENTION	---	---

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>90	2	---	---
Chromium	ppm	ASTM D5185m	>20	<1	---	---
Nickel	ppm	ASTM D5185m	>2	0	---	---
Titanium	ppm	ASTM D5185m	>2	<1	---	---
Silver	ppm	ASTM D5185m	>2	0	---	---
Aluminum	ppm	ASTM D5185m	>20	2	---	---
Lead	ppm	ASTM D5185m	>40	<1	---	---
Copper	ppm	ASTM D5185m	>330	<1	---	---
Tin	ppm	ASTM D5185m	>15	<1	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

## CONTAMINATION

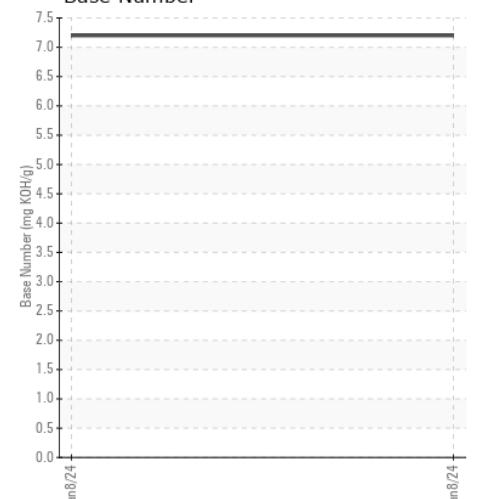
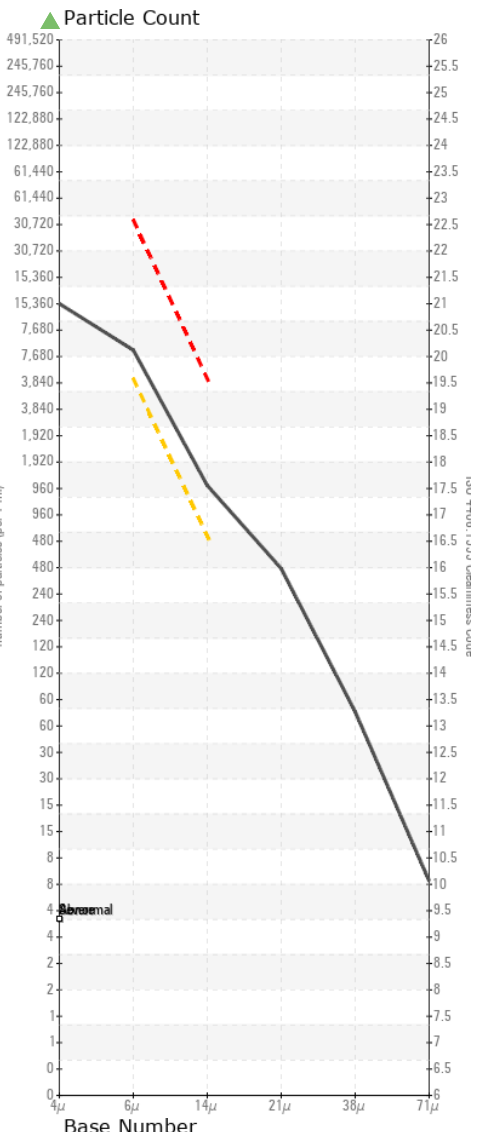
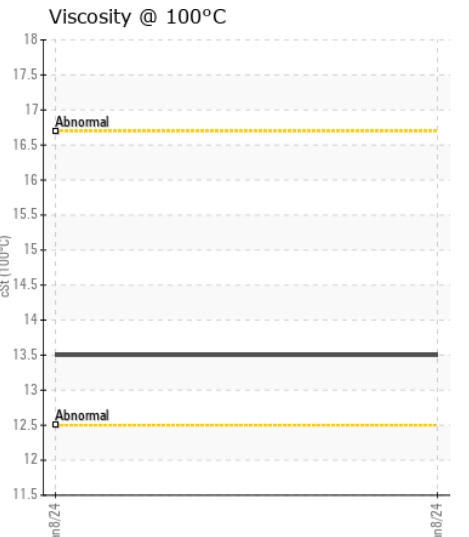
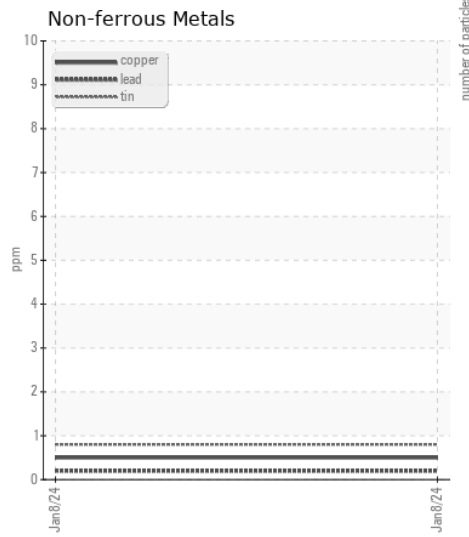
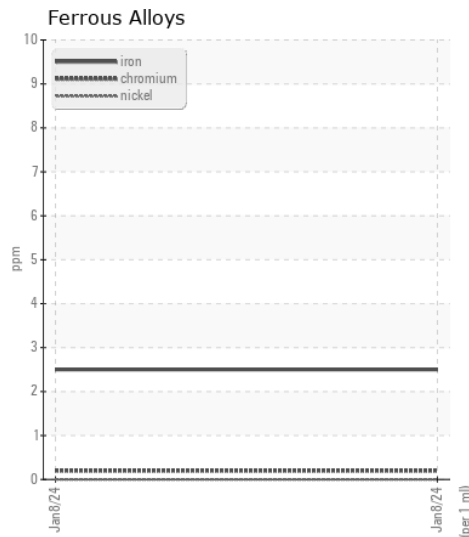
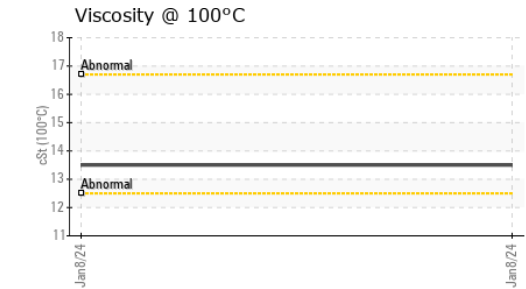
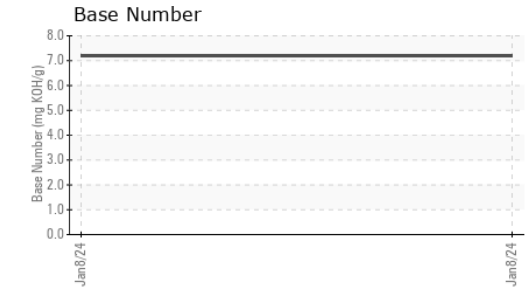
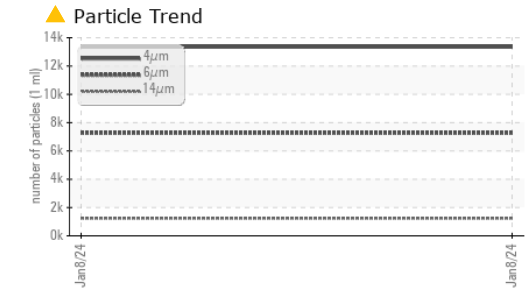
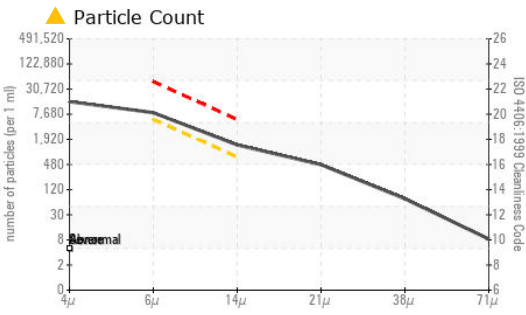
There is a moderate amount of particulates present in the oil. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185m	>25	6	---	---
Potassium	ppm	ASTM D5185m	>20	0	---	---
Fuel		WC Method	>3.0	<1.0	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844	>6	0.1	---	---
Nitration	Abs/cm	*ASTM D7624	>20	8.2	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.4	---	---
Particles >4µm		ASTM D7647		13345	---	---
Particles >6µm		ASTM D7647	>5000	▲ 7270	---	---
Particles >14µm		ASTM D7647	>640	▲ 1237	---	---
Particles >21µm		ASTM D7647	>160	▲ 417	---	---
Particles >38µm		ASTM D7647	>40	▲ 64	---	---
Particles >71µm		ASTM D7647	>10	7	---	---
Oil Cleanliness		ISO 4406 (c)	>19/16	▲ 20/17	---	---
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 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		2	---	---
Boron	ppm	ASTM D5185m		79	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		85	---	---
Manganese	ppm	ASTM D5185m		<1	---	---
Magnesium	ppm	ASTM D5185m		116	---	---
Calcium	ppm	ASTM D5185m		2121	---	---
Phosphorus	ppm	ASTM D5185m		1056	---	---
Zinc	ppm	ASTM D5185m		1221	---	---
Sulfur	ppm	ASTM D5185m		4276	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.6	---	---
Base Number (BN)	mg KOH/g	ASTM D2896		7.2	---	---
Visc @ 100°C	cSt	ASTM D445		13.5	---	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KL0013072 **Received** : 12 Jan 2024  
**Lab Number** : 06060089 **Diagnosed** : 01 Feb 2024  
**Unique Number** : 10831471 **Diagnostician** : Doug Bogart  
**Test Package** : MOB 2 ( Additional Tests: PrtCount )

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)

**INNOVATIVE SOLUTIONS**  
 14026 COUNTY RD 3  
 WIGGINS, CO  
 US 80654  
 Contact: STEVEN DEIKER  
 sdeiker@innovate-solve.com

T:  
F: