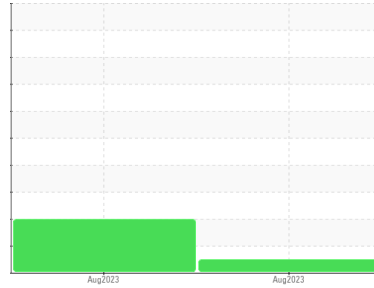




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id

331

Component

Diesel Engine

Fluid

DIESEL ENGINE OIL SAE 40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENGINE OIL SAE 40. Please confirm. Please specify the component make and model with your next sample.

Wear

All component wear rates are normal.

Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

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.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	KL0012756	KL0012547	---
Sample Date	Client Info	18 Aug 2023	04 Aug 2023	---
Machine Age	mls	Client Info	806620	804009
Oil Age	mls	Client Info	2611	0
Oil Changed	Client Info	N/A	N/A	---
Sample Status		NORMAL	ABNORMAL	---

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<1.0	<1.0	---
Glycol	WC Method	NEG	NEG	---

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >100	3	9	---
Chromium	ppm ASTM D5185m >20	0	<1	---
Nickel	ppm ASTM D5185m >4	0	<1	---
Titanium	ppm ASTM D5185m	<1	0	---
Silver	ppm ASTM D5185m >3	0	0	---
Aluminum	ppm ASTM D5185m >20	2	5	---
Lead	ppm ASTM D5185m >40	0	0	---
Copper	ppm ASTM D5185m >330	<1	1	---
Tin	ppm ASTM D5185m >15	<1	0	---
Vanadium	ppm ASTM D5185m	<1	<1	---
Cadmium	ppm ASTM D5185m	0	0	---

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 250	455	363	---
Barium	ppm ASTM D5185m 10	0	0	---
Molybdenum	ppm ASTM D5185m 100	84	87	---
Manganese	ppm ASTM D5185m	<1	<1	---
Magnesium	ppm ASTM D5185m 450	398	378	---
Calcium	ppm ASTM D5185m 3000	1546	1439	---
Phosphorus	ppm ASTM D5185m 1150	1086	1026	---
Zinc	ppm ASTM D5185m 1350	1319	1275	---
Sulfur	ppm ASTM D5185m 4250	4127	3295	---

CONTAMINANTS

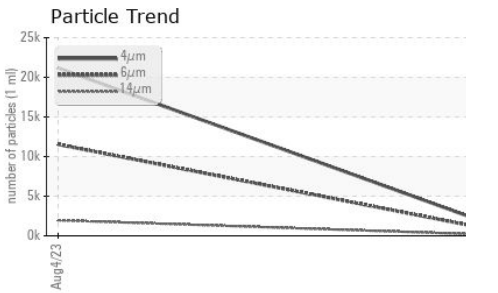
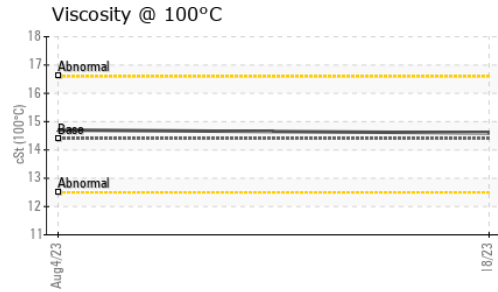
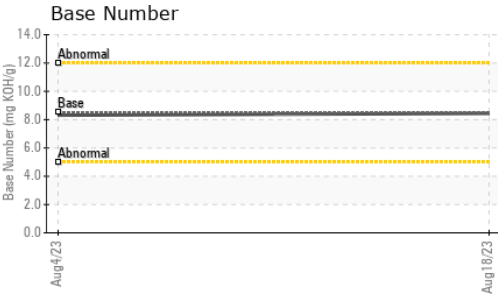
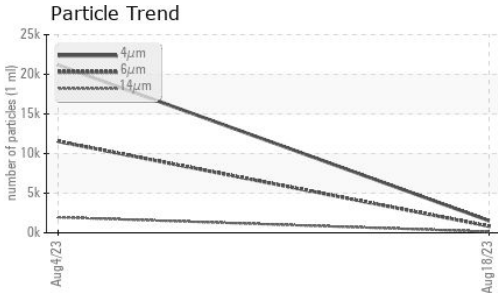
method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	4	6	---
Sodium	ppm ASTM D5185m >216	<1	4	---
Potassium	ppm ASTM D5185m >20	1	3	---

INFRA-RED

method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	0.1	0.1	---
Nitration	Abs/cm *ASTM D7624 >20	6.6	7.5	---
Sulfation	Abs/.1mm *ASTM D7415 >30	20.1	22.7	---



OIL ANALYSIS REPORT



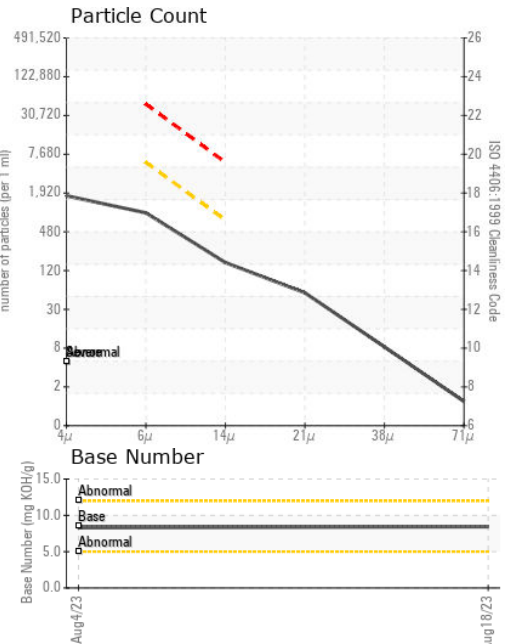
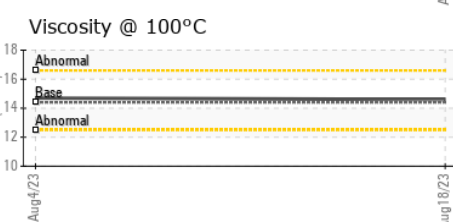
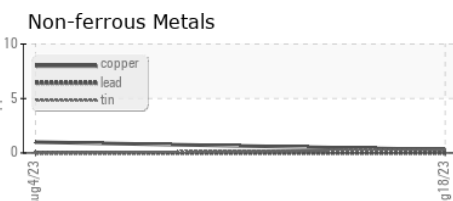
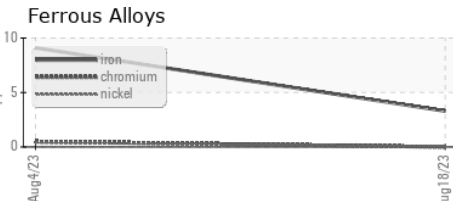
FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		1522	21175	---
Particles >6µm	ASTM D7647	>5000	829	▲ 11535	---
Particles >14µm	ASTM D7647	>640	141	▲ 1963	---
Particles >21µm	ASTM D7647	>160	48	▲ 661	---
Particles >38µm	ASTM D7647	>40	7	▲ 102	---
Particles >71µm	ASTM D7647	>10	1	10	---
Oil Cleanliness	ISO 4406 (c)	>19/16	17/14	▲ 21/18	---

FLUID DEGRADATION	method	limit/base	current	history1	history2	
Oxidation	Abs./1mm	*ASTM D7414	>25	14.8	17.8	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	8.44	8.31	---

VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
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	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	14.4	14.6	14.7	---

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KL0012756 **Received** : 28 Aug 2023
Lab Number : **05936334** **Diagnosed** : 29 Aug 2023
Unique Number : 10621605 **Diagnostician** : Wes Davis
Test Package : MOB 2 (Additional Tests: PrtCount)

FEVID TRANSPORT
 10800 W CR 72
 MIDLAND, TX
 US 79707
 Contact: Service Manager

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)

T:
F: