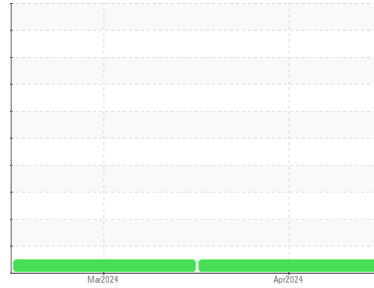




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
FREIGHTLINER 1233
 Component
Diesel Engine
 Fluid
 DIESEL ENGINE OIL SAE 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Elevated aluminum (Al) 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.

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			WC0906147	WC0906088	---
Sample Date	Client Info			07 Apr 2024	14 Mar 2024	---
Machine Age	mls	Client Info		131904	100866	---
Oil Age	mls	Client Info		0	0	---
Oil Changed	Client Info			Changed	Changed	---
Sample Status				NORMAL	NORMAL	---

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>5		<1.0	<1.0	---
Water	WC Method	>0.2		NEG	NEG	---
Glycol	WC Method			NEG	NEG	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>80	10	13	---
Chromium	ppm	ASTM D5185m	>5	2	1	---
Nickel	ppm	ASTM D5185m	>2	1	0	---
Titanium	ppm	ASTM D5185m		<1	0	---
Silver	ppm	ASTM D5185m	>3	<1	0	---
Aluminum	ppm	ASTM D5185m	>30	5	4	---
Lead	ppm	ASTM D5185m	>30	1	0	---
Copper	ppm	ASTM D5185m	>150	4	1	---
Tin	ppm	ASTM D5185m	>5	1	0	---
Vanadium	ppm	ASTM D5185m		<1	<1	---
Cadmium	ppm	ASTM D5185m		1	0	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	250	1	0	---
Barium	ppm	ASTM D5185m	10	0	0	---
Molybdenum	ppm	ASTM D5185m	100	56	64	---
Manganese	ppm	ASTM D5185m		1	<1	---
Magnesium	ppm	ASTM D5185m	450	888	1091	---
Calcium	ppm	ASTM D5185m	3000	1056	1224	---
Phosphorus	ppm	ASTM D5185m	1150	958	1143	---
Zinc	ppm	ASTM D5185m	1350	1194	1369	---
Sulfur	ppm	ASTM D5185m	4250	3232	3678	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	4	4	---
Sodium	ppm	ASTM D5185m	>158	<1	<1	---
Potassium	ppm	ASTM D5185m	>20	11	6	---

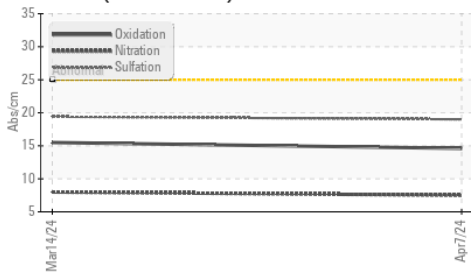
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.5	0.5	---
Nitration	Abs/cm	*ASTM D7624	>20	7.5	8.0	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.0	19.4	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.6	15.5	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	8.2	8.5	---

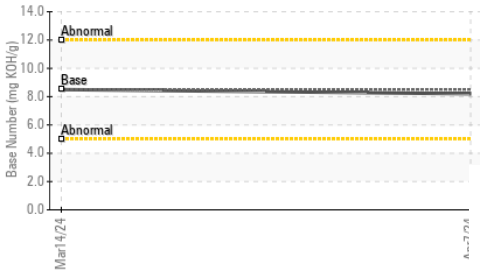


OIL ANALYSIS REPORT

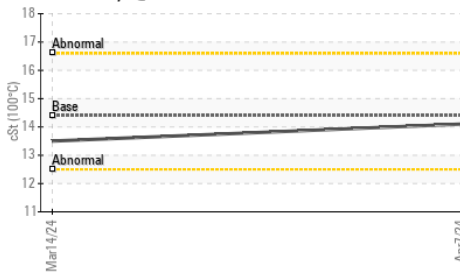
FT-IR (Direct Trend)



Base Number



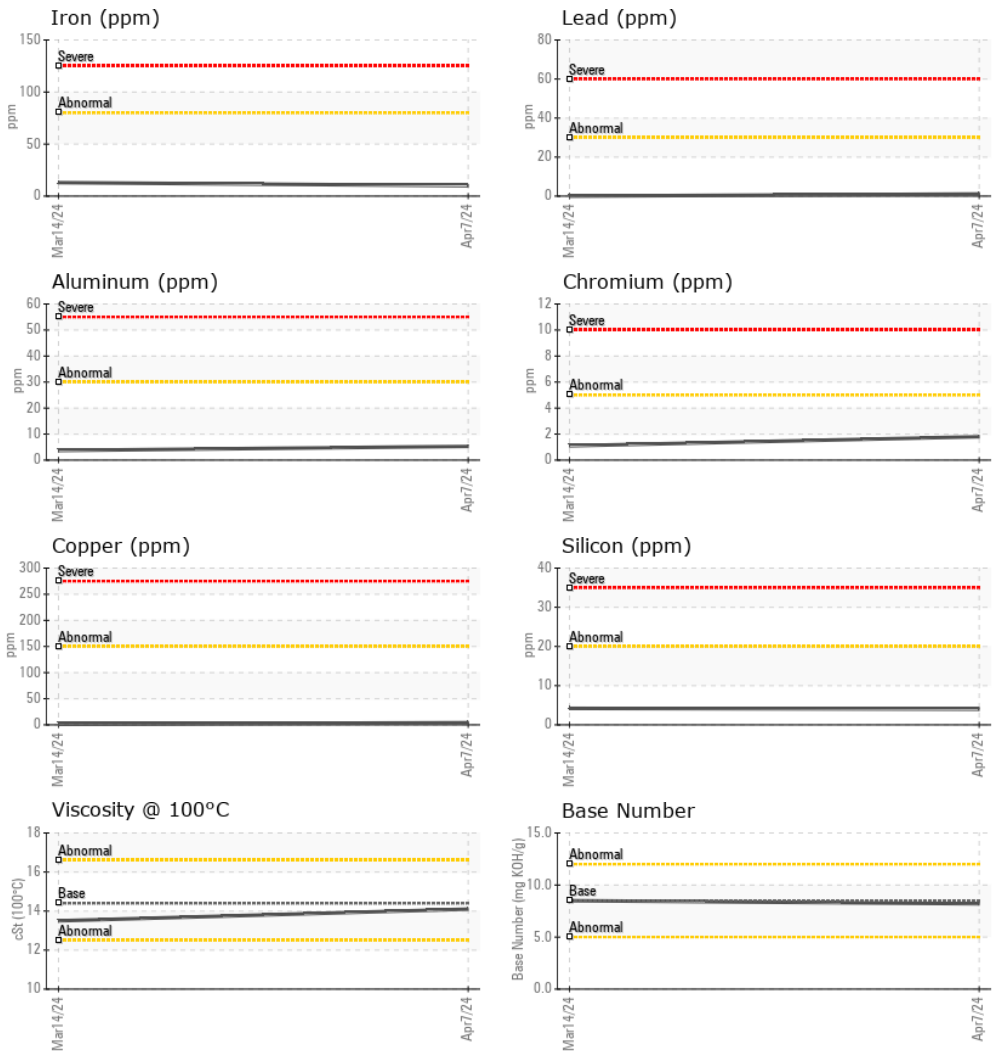
Viscosity @ 100°C



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	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.4	14.1	13.5

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0906147
Lab Number : 06152794
Unique Number : 10982872
Test Package : MOB 1 (Additional Tests: TBN)

CONCRETE SERVICE CO - FAY BLOCK
 161 BUILDERS BLVD
 FAYETTEVILLE, NC
 US 28301

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)

Contact: BRYAN VANNIMAN
 bryanvanniman@fayblock.com
 T: (800)326-9198

F: