OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
FREIGHTLINER 307E
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 40 (29 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

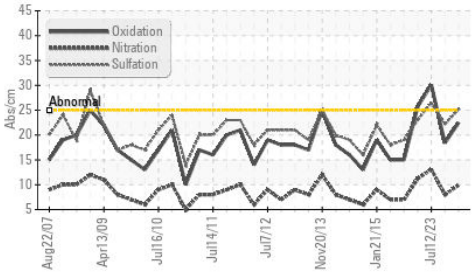
There is no indication of any contamination in the oil.

FLUID CONDITION

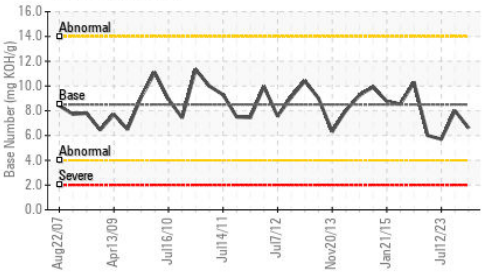
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		KL0013579	KL0013278	KL0011653
Sample Date		Client Info		06 Jun 2024	26 Jan 2024	12 Jul 2023
Machine Age	hrs	Client Info		2775	13390	1608
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>80	28	14	62
Chromium	ppm	ASTM D5185m	>5	0	<1	1
Nickel	ppm	ASTM D5185m	>2	<1	<1	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>30	3	4	4
Lead	ppm	ASTM D5185m	>30	0	<1	0
Copper	ppm	ASTM D5185m	>150	1	2	11
Tin	ppm	ASTM D5185m	>5	<1	<1	1
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>20	7	7	14
Potassium	ppm	ASTM D5185m	>20	1	2	<1
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.7	0.4	0.9
Nitration	Abs/cm	*ASTM D7624	>20	9.9	8.0	13.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	25.2	22.2	26.5
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Sodium	ppm	ASTM D5185m	>216	3	1	5
Boron	ppm	ASTM D5185m	250	169	258	80
Barium	ppm	ASTM D5185m	10	0	0	3
Molybdenum	ppm	ASTM D5185m	100	113	111	67
Manganese	ppm	ASTM D5185m		1	1	6
Magnesium	ppm	ASTM D5185m	450	520	501	622
Calcium	ppm	ASTM D5185m	3000	1378	1275	1765
Phosphorus	ppm	ASTM D5185m	1150	1154	1133	819
Zinc	ppm	ASTM D5185m	1350	1354	1328	1040
Sulfur	ppm	ASTM D5185m	4250	4329	3879	2936
Oxidation	Abs/.1mm	*ASTM D7414	>25	22.5	18.4	30.1
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	6.6	8.0	5.7
Visc @ 100°C	cSt	ASTM D445	14.4	13.5	13.3	14.2

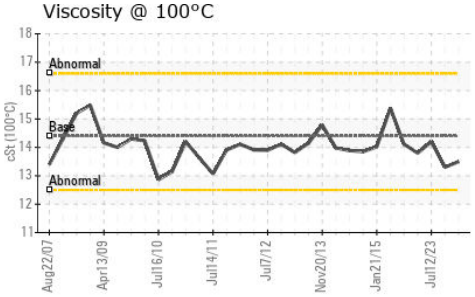
FT-IR (Direct Trend)



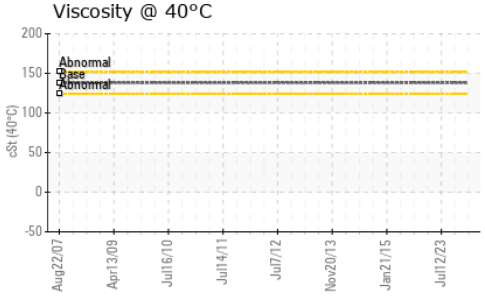
Base Number



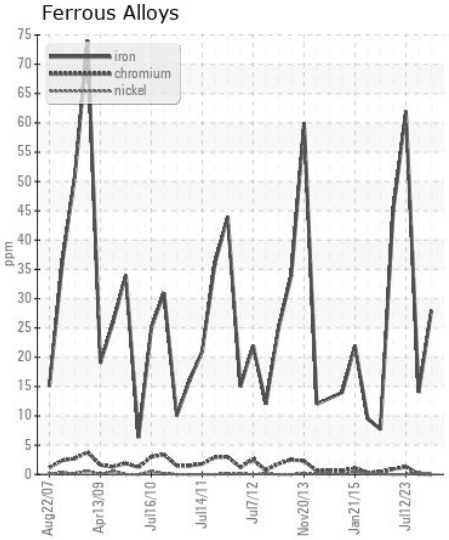
Viscosity @ 100°C



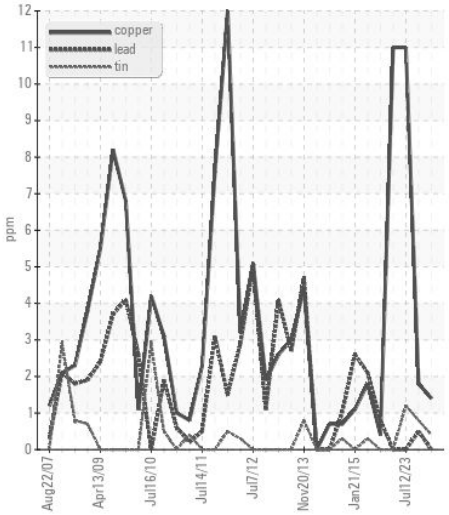
Viscosity @ 40°C



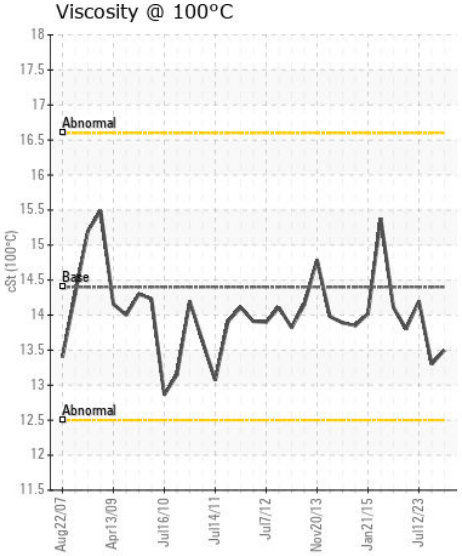
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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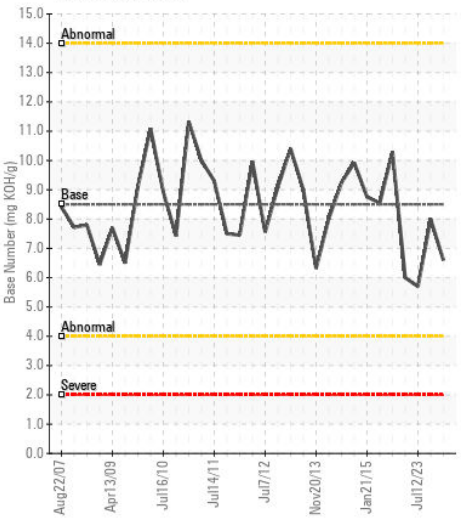

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KL0013579 **Received** : 02 Jul 2024
Lab Number : 06226864 **Tested** : 05 Jul 2024
Unique Number : 11110357 **Diagnosed** : 05 Jul 2024 - Jonathan Hester
Test Package : FLEET (Additional Tests: KV40)

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)

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