OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Machine Id
KENWORTH 3155
Component
Diesel Engine
Fluid
CHEVRON DELO 400 XLE 15W40 (44 QTS)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

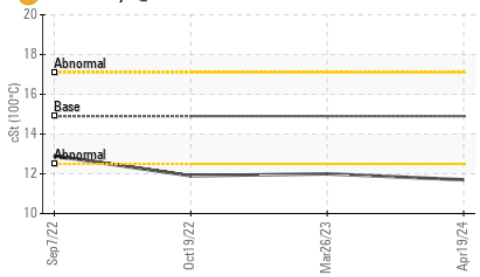
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

FLUID CONDITION

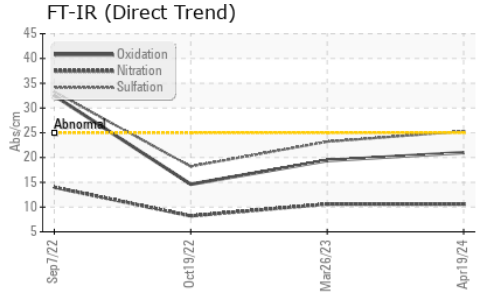
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WCMFB92794	WCMFB92812	WCMFB92526
Sample Date		Client Info		19 Apr 2024	26 Mar 2023	19 Oct 2022
Machine Age	mls	Client Info		218430	171236	128340
Oil Age	mls	Client Info		0	0	0
Filter Age	mls	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ATTENTION	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>100	28	38	23
Chromium	ppm	ASTM D5185m	>20	<1	0	0
Nickel	ppm	ASTM D5185m	>4	7	3	6
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	18	33	13
Lead	ppm	ASTM D5185m	>40	<1	0	0
Copper	ppm	ASTM D5185m	>330	16	12	8
Tin	ppm	ASTM D5185m	>15	<1	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	8	8	6
Potassium	ppm	ASTM D5185m	>20	47	77	34
Fuel	%	ASTM D3524	>5	<1.0	0.5	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	0.0	NEG
Soot %	%	*ASTM D7844	>3	0.5	0.5	0.2
Nitration	Abs/cm	*ASTM D7624	>20	10.6	10.6	8.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	25.3	23.2	18.2
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		38	32	12
Boron	ppm	ASTM D5185m		27	32	85
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		18	14	10
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		689	823	778
Calcium	ppm	ASTM D5185m		1387	1595	1530
Phosphorus	ppm	ASTM D5185m	760	706	803	773
Zinc	ppm	ASTM D5185m	830	857	974	956
Sulfur	ppm	ASTM D5185m	2770	3026	3477	3536
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.0	19.4	14.6
Base Number (BN)	mg KOH/g	ASTM D2896	10.7	4.9	4.1	6.7
Visc @ 100°C	cSt	ASTM D445	14.9	11.7	12.0	11.9

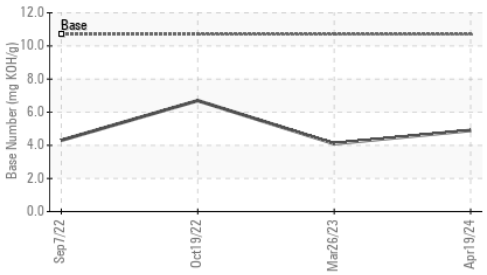
Viscosity @ 100°C



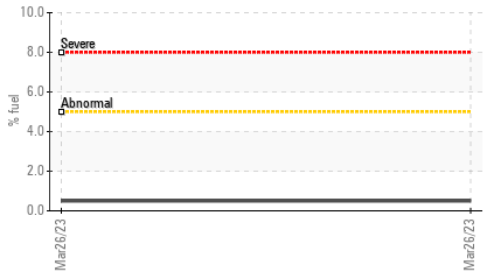
FT-IR (Direct Trend)



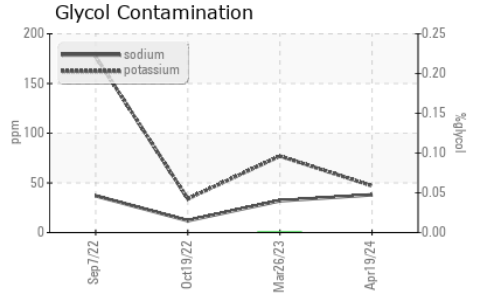
Base Number



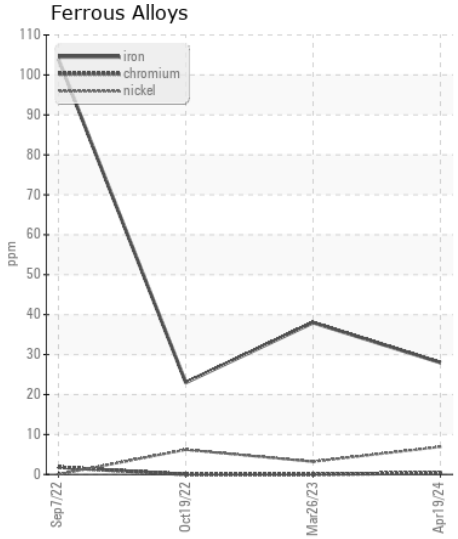
Fuel Dilution



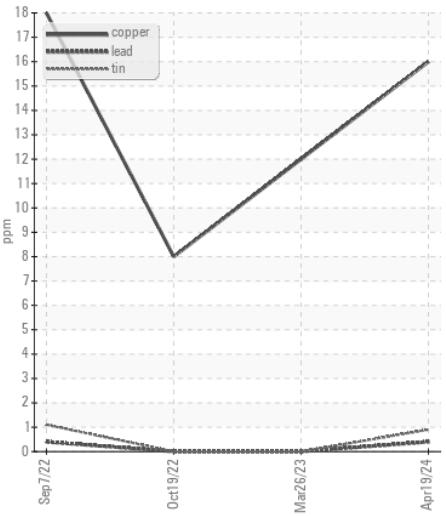
Glycol Contamination



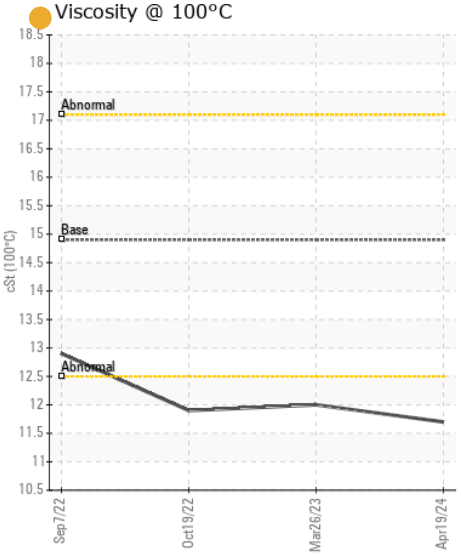
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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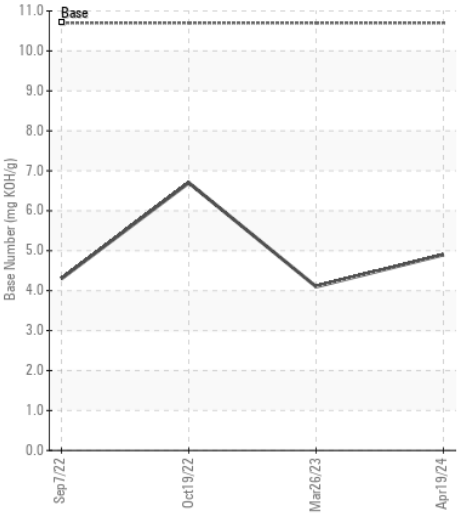

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WCMFB92794
Lab Number : 06178044
Unique Number : 11029370
Test Package : FLEET (Additional Tests: FuelDilution, Glycol)

Received : 13 May 2024
Tested : 15 May 2024
Diagnosed : 15 May 2024 - Sean Felton

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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