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OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
FREIGHTLINER 341
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 10W30 (11 GAL)

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

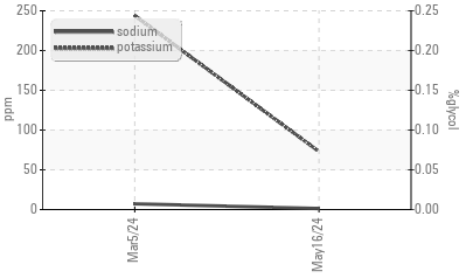
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

FLUID CONDITION

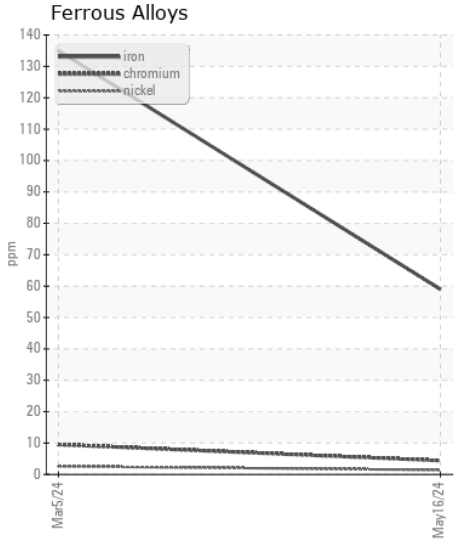
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LW0009182	LW0008962	---
Sample Date		Client Info		16 May 2024	05 Mar 2024	---
Machine Age	mls	Client Info		152071	90645	---
Oil Age	mls	Client Info		61426	50000	---
Filter Age	mls	Client Info		61426	25000	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				NORMAL	ABNORMAL	---
Iron	ppm	ASTM D5185m	>80	59	▲ 135	---
Chromium	ppm	ASTM D5185m	>5	4	▲ 10	---
Nickel	ppm	ASTM D5185m	>2	1	3	---
Titanium	ppm	ASTM D5185m		<1	2	---
Silver	ppm	ASTM D5185m	>3	1	<1	---
Aluminum	ppm	ASTM D5185m	>30	34	117	---
Lead	ppm	ASTM D5185m	>30	<1	<1	---
Copper	ppm	ASTM D5185m	>150	47	144	---
Tin	ppm	ASTM D5185m	>5	3	8	---
Vanadium	ppm	ASTM D5185m		<1	<1	---
White Metal	scalar	*Visual	NONE	NONE	LIGHT	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---
Silicon	ppm	ASTM D5185m	>20	10	15	---
Potassium	ppm	ASTM D5185m	>20	73	244	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.9	1.4	---
Nitration	Abs/cm	*ASTM D7624	>20	11.6	16.4	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.3	27.7	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	---
Sodium	ppm	ASTM D5185m		1	7	---
Boron	ppm	ASTM D5185m	2	2	25	---
Barium	ppm	ASTM D5185m	0	0	0	---
Molybdenum	ppm	ASTM D5185m	50	71	53	---
Manganese	ppm	ASTM D5185m	0	2	6	---
Magnesium	ppm	ASTM D5185m	950	1037	642	---
Calcium	ppm	ASTM D5185m	1050	1393	1830	---
Phosphorus	ppm	ASTM D5185m	995	1084	823	---
Zinc	ppm	ASTM D5185m	1180	1374	985	---
Sulfur	ppm	ASTM D5185m	2600	2474	2013	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	23.5	34.5	---
Base Number (BN)	mg KOH/g	ASTM D2896		6.4	4.4	---
Visc @ 100°C	cSt	ASTM D445	12.00	11.5	10.8	---

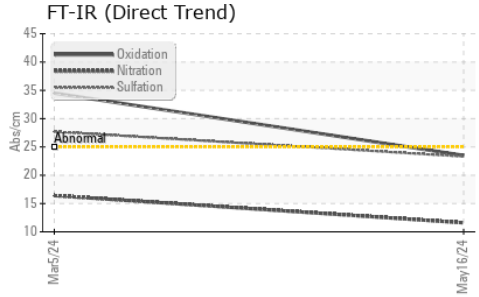
Glycol Contamination



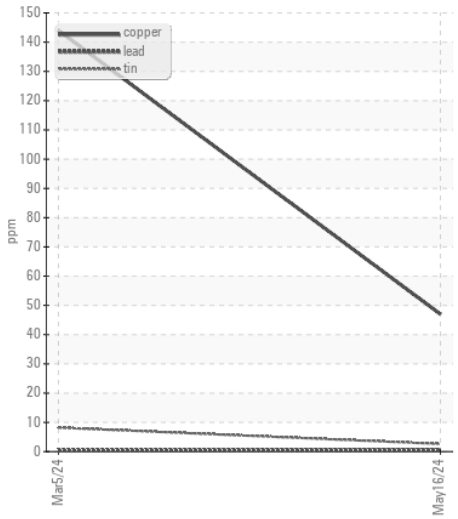
Ferrous Alloys



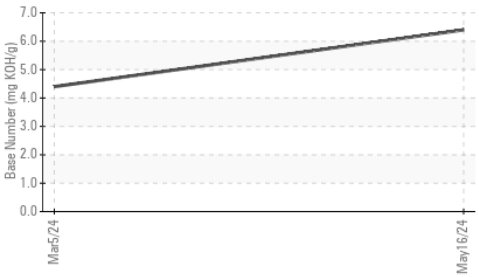
FT-IR (Direct Trend)



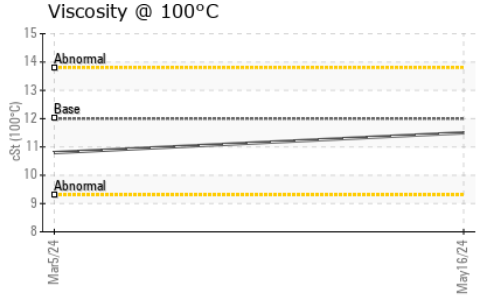
Non-ferrous Metals



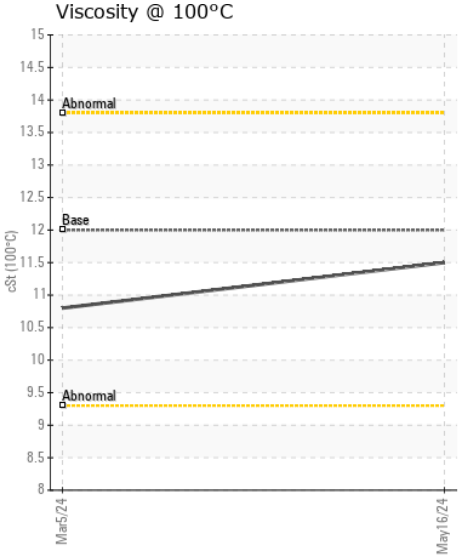
Base Number



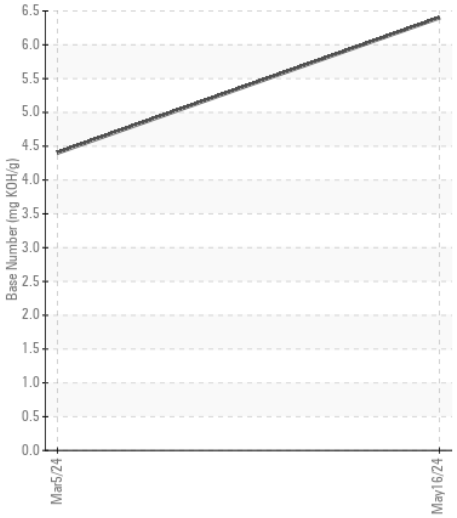
Viscosity @ 100°C



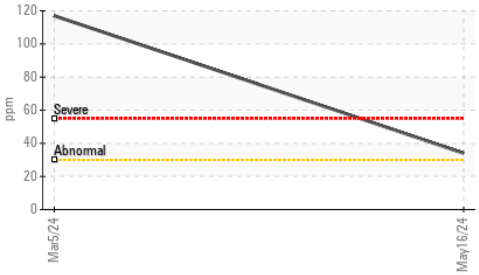
Viscosity @ 100°C



Base Number



Aluminum (ppm)



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LW0009182
Lab Number : 06189925
Unique Number : 11046677
Test Package : FLEET

Received : 23 May 2024
Tested : 25 May 2024
Diagnosed : 29 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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