OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

Machine Id
KENWORTH 2036
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 10W30 (--- GAL)

DIAGNOSIS

Recommendation
Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor.

Wear
Metal levels are typical for a components first oil change.

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
Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PC0075846**	---	---
Sample Date		Client Info		**24 Nov 2023**	---	---
Machine Age	kms	Client Info		**25000**	---	---
Oil Age	kms	Client Info		**25000**	---	---
Oil Changed		Client Info		**Changed**	---	---
Sample Status				**NORMAL**	---	---

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

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	**63**	---	---
Chromium	ppm	ASTM D5185(m)	>20	**2**	---	---
Nickel	ppm	ASTM D5185(m)	>4	**<1**	---	---
Titanium	ppm	ASTM D5185(m)		**0**	---	---
Silver	ppm	ASTM D5185(m)	>3	**1**	---	---
Aluminum	ppm	ASTM D5185(m)	>20	**26**	---	---
Lead	ppm	ASTM D5185(m)	>40	**4**	---	---
Copper	ppm	ASTM D5185(m)	>330	**24**	---	---
Tin	ppm	ASTM D5185(m)	>15	**3**	---	---
Antimony	ppm	ASTM D5185(m)		**0**	---	---
Vanadium	ppm	ASTM D5185(m)		**0**	---	---
Beryllium	ppm	ASTM D5185(m)		**0**	---	---
Cadmium	ppm	ASTM D5185(m)		**0**	---	---

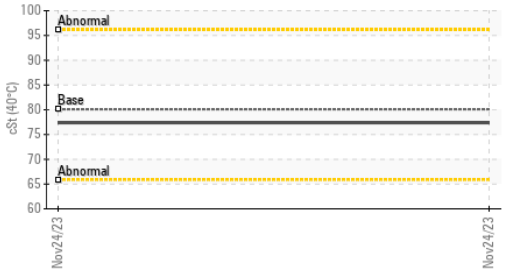
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	2	**31**	---	---
Barium	ppm	ASTM D5185(m)	0	**5**	---	---
Molybdenum	ppm	ASTM D5185(m)	50	**10**	---	---
Manganese	ppm	ASTM D5185(m)	0	**5**	---	---
Magnesium	ppm	ASTM D5185(m)	950	**683**	---	---
Calcium	ppm	ASTM D5185(m)	1050	**1290**	---	---
Phosphorus	ppm	ASTM D5185(m)	995	**645**	---	---
Zinc	ppm	ASTM D5185(m)	1180	**763**	---	---
Sulfur	ppm	ASTM D5185(m)	2600	**2221**	---	---
Lithium	ppm	ASTM D5185(m)		**<1**	---	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	**41**	---	---
Sodium	ppm	ASTM D5185(m)		**6**	---	---
Potassium	ppm	ASTM D5185(m)	>20	**98**	---	---

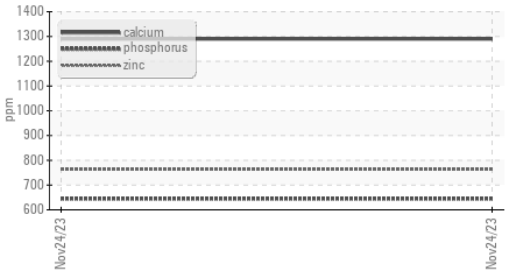
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	**0.2**	---	---
Nitration	Abs/cm	ASTM D7624*	>20	**10.2**	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	**21.6**	---	---

OIL ANALYSIS REPORT

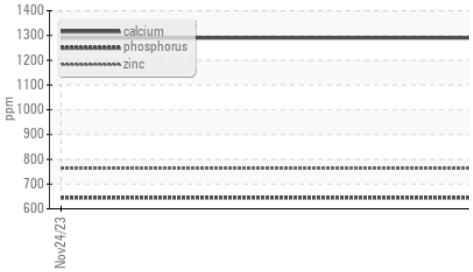
Viscosity @ 40°C



Additives



Additives



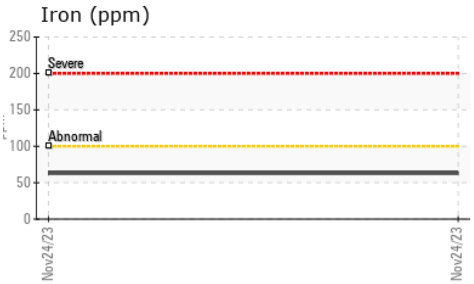
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**16.9**	---	---

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	**NEG**	---	---
Free Water	scalar	Visual*		**NEG**	---	---

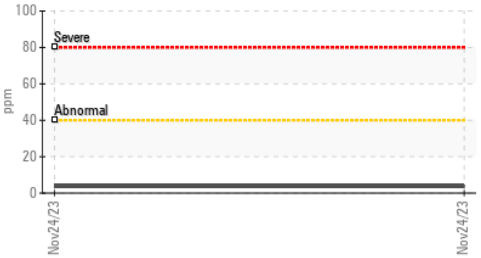
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	80.1	**77.4**	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	**11.3**	---	---
Viscosity Index (VI)	Scale	ASTM D2270*	144	**136**	---	---

GRAPHS

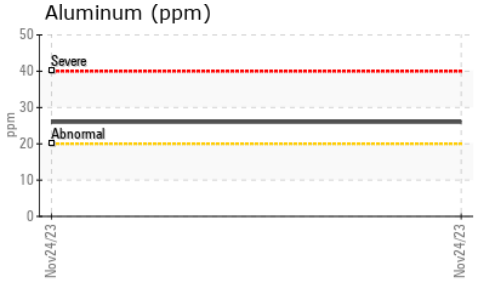
Iron (ppm)



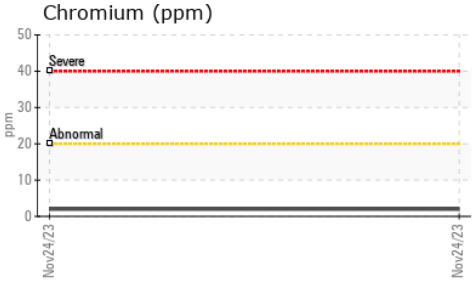
Lead (ppm)



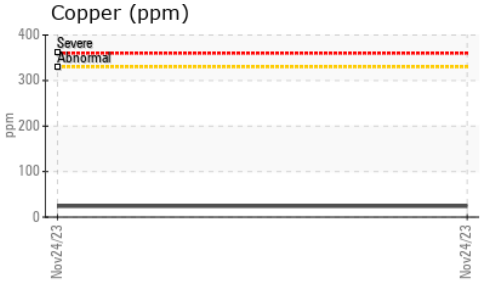
Aluminum (ppm)



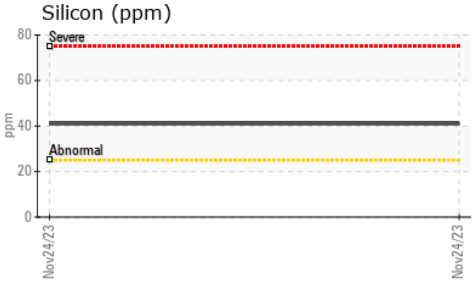
Chromium (ppm)



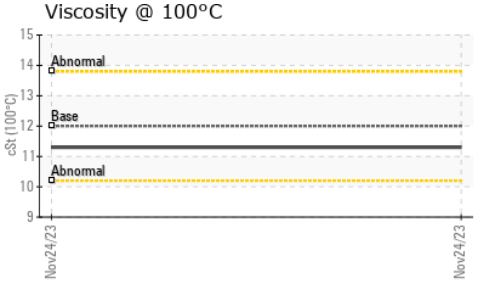
Copper (ppm)



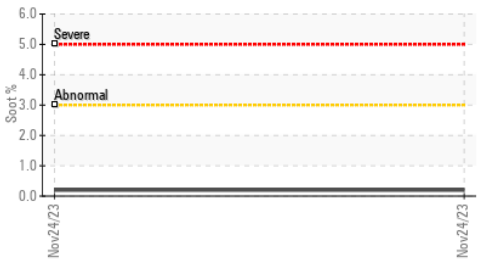
Silicon (ppm)



Viscosity @ 100°C



Soot %



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0075846 **Received** : 28 Nov 2023
Lab Number : 02599255 **Diagnosed** : 28 Nov 2023
Unique Number : 5684335 **Diagnostician** : Kevin Marson
Test Package : MOB 1 (Additional Tests: KV40, VI)

To discuss this sample report, contact Customer Service at 1-800-268-2131.
Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
Validity of results and interpretation are based on the sample and information as supplied.

B FREGEAU & FILS INC
402 RUE ST DENIS
ST ALEXANDRE, QC
CA J0J 1S0
Contact: Steve M.
stevem@bfregeau.com
T:
F: