OIL ANALYSIS REPORT

Sample Rating Trend

FUEL

Machine Id
31
Component
Diesel Engine
Fluid
PETRO CANADA DURON HP 15W40 (--- GAL)

DIAGNOSIS

Recommendation

We advise that you check the fuel injection system. We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

There is a high amount of fuel present in the oil. 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.

Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0867919**	---	---
Sample Date		Client Info		**16 Feb 2024**	---	---
Machine Age	mls	Client Info		**0**	---	---
Oil Age	mls	Client Info		**0**	---	---
Oil Changed		Client Info		**Not Changd**	---	---
Sample Status				**SEVERE**	---	---

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.2	**NEG**	---	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>130	**32**	---	---
Chromium	ppm	ASTM D5185m	>10	**1**	---	---
Nickel	ppm	ASTM D5185m	>4	**0**	---	---
Titanium	ppm	ASTM D5185m	>2	**0**	---	---
Silver	ppm	ASTM D5185m	>2	**0**	---	---
Aluminum	ppm	ASTM D5185m	>20	**5**	---	---
Lead	ppm	ASTM D5185m	>20	**0**	---	---
Copper	ppm	ASTM D5185m	>125	**1**	---	---
Tin	ppm	ASTM D5185m	>4	**0**	---	---
Vanadium	ppm	ASTM D5185m		**0**	---	---
Cadmium	ppm	ASTM D5185m		**0**	---	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**4**	---	---
Barium	ppm	ASTM D5185m		**0**	---	---
Molybdenum	ppm	ASTM D5185m		**53**	---	---
Manganese	ppm	ASTM D5185m		**<1**	---	---
Magnesium	ppm	ASTM D5185m		**745**	---	---
Calcium	ppm	ASTM D5185m		**1069**	---	---
Phosphorus	ppm	ASTM D5185m		**833**	---	---
Zinc	ppm	ASTM D5185m		**1057**	---	---
Sulfur	ppm	ASTM D5185m		**2795**	---	---

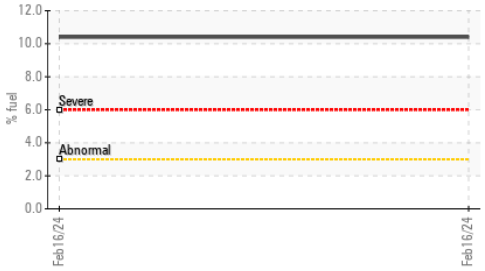
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**4**	---	---
Sodium	ppm	ASTM D5185m		**4**	---	---
Potassium	ppm	ASTM D5185m	>20	**53**	---	---
Fuel	%	ASTM D3524	>3.0	**10.4**	---	---
Glycol	%	*ASTM D2982		**NEG**	---	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>6	**1.1**	---	---
Nitration	Abs/cm	*ASTM D7624	>20	**10.3**	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	**21.9**	---	---

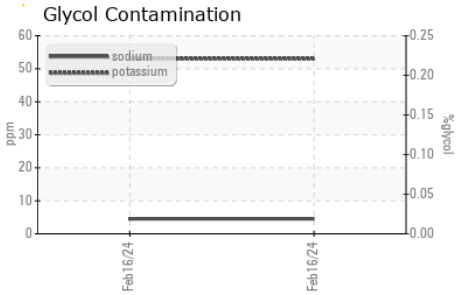
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**21.1**	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	**6.3**	---	---

OIL ANALYSIS REPORT

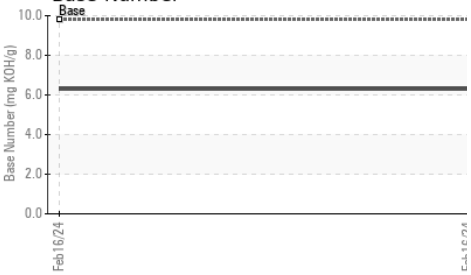
Fuel Dilution



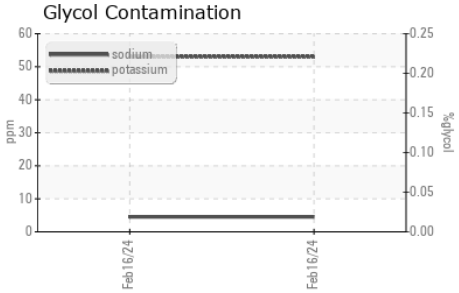
Glycol Contamination



Base Number



Glycol Contamination

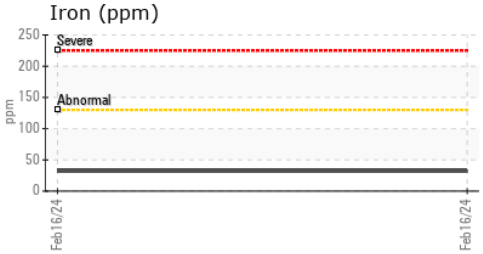


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	---	---
Yellow Metal	scalar	*Visual	NONE	**NONE**	---	---
Precipitate	scalar	*Visual	NONE	**NONE**	---	---
Silt	scalar	*Visual	NONE	**NONE**	---	---
Debris	scalar	*Visual	NONE	**NONE**	---	---
Sand/Dirt	scalar	*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**	---	---

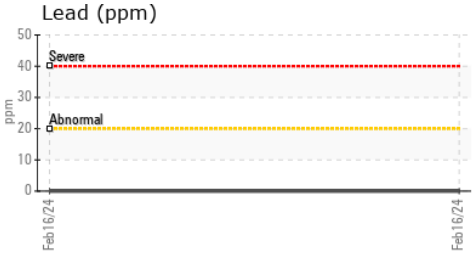
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.6	▲ **11.3**	---	---

GRAPHS

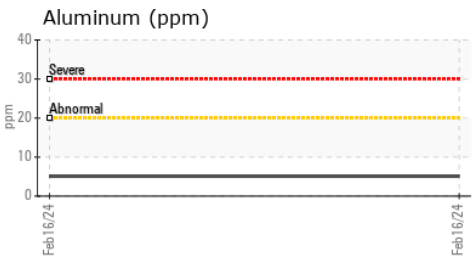
Iron (ppm)



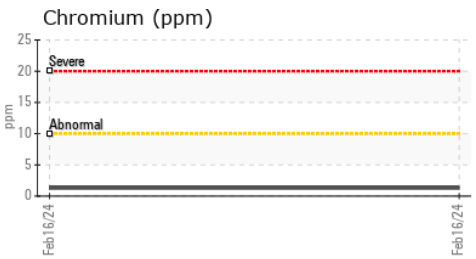
Lead (ppm)



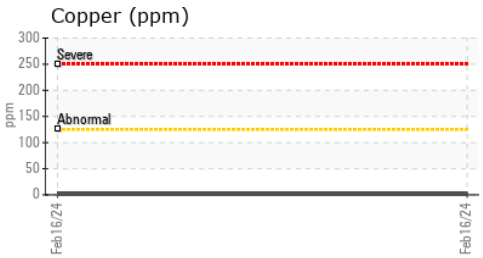
Aluminum (ppm)



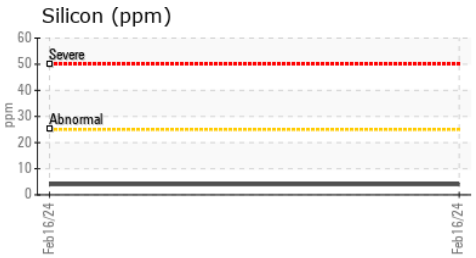
Chromium (ppm)



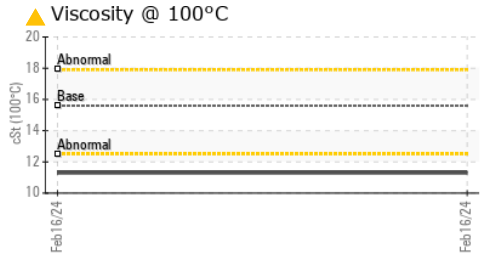
Copper (ppm)



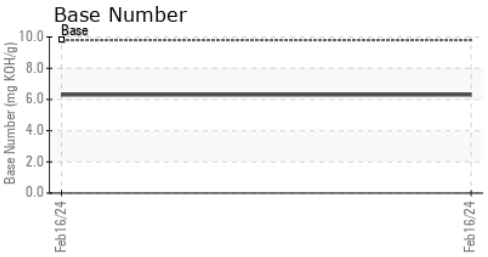
Silicon (ppm)



▲ Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0867919 **Received** : 23 Feb 2024
Lab Number : 06098958 **Tested** : 27 Feb 2024
Unique Number : 10897188 **Diagnosed** : 27 Feb 2024 - Sean Felton
Test Package : MOB 1 (Additional Tests: FuelDilution, Glycol, PercentFuel, TBN)

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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