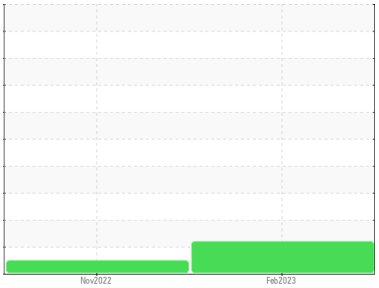
PROBLEM SUMMARY

Sample Rating Trend

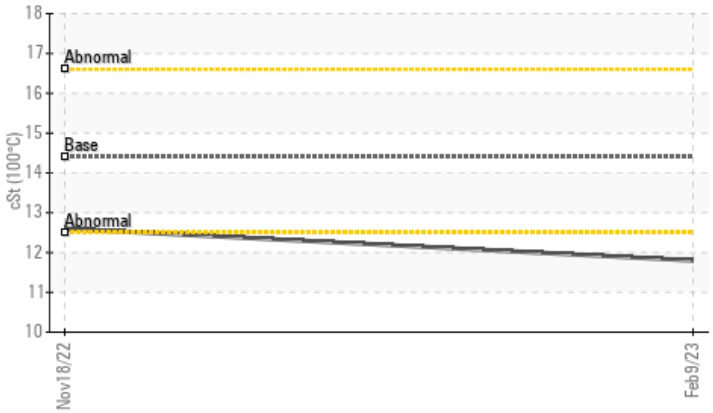


FUEL

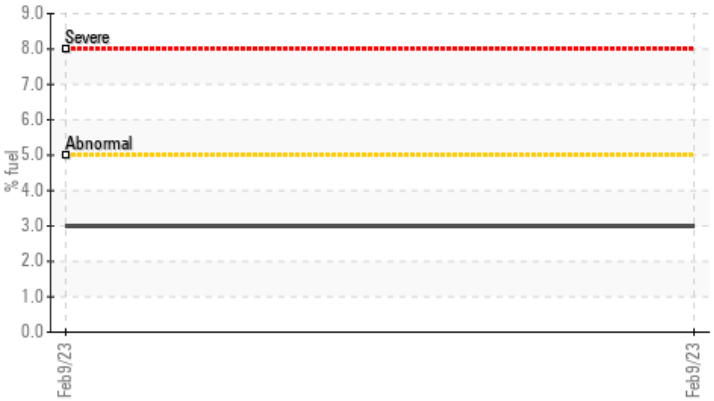
Area
[62005508247]
Machine Id
7
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 40 (--- QTS)

COMPONENT CONDITION SUMMARY

▲ Viscosity @ 100°C



▲ Fuel Dilution



RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	NORMAL	---
Fuel	%	ASTM D3524	>5	▲ **3.0**	<1.0	---
Visc @ 100°C	cSt	ASTM D445	14.4	▲ **11.8**	12.6	---

Customer Id: CASYANNC
Sample No.: WC0723398
Lab Number: 05830668
Test Package: FLEET

To manage this report scan the QR code

To discuss the diagnosis or test data:
Wes Davis +1 905-569-8600 x223
wesd@wearcheck.ca

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Information Required	---	---	?	Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the component make and model with your next sample.

HISTORICAL DIAGNOSIS

18 Nov 2022 Diag: Wes Davis

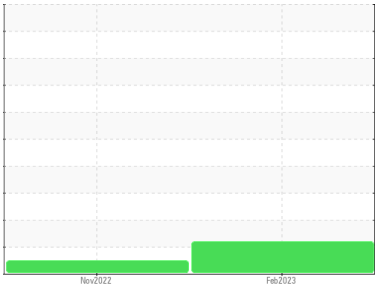
NORMAL

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENGINE OIL SAE 40. Please confirm. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the component make and model with your next sample.Metal levels are typical for a new component breaking in. 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. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



FUEL

Area
[62005508247]
Machine Id
7
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 40 (--- QTS)

DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

Metal levels are typical for a new component breaking in.

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. Light fuel dilution occurring.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0723398**	WC0723380	---
Sample Date		Client Info		**09 Feb 2023**	18 Nov 2022	---
Machine Age	mls	Client Info		**39506**	34480	---
Oil Age	mls	Client Info		**0**	0	---
Oil Changed		Client Info		**Changed**	Not Changd	---
Sample Status				**ABNORMAL**	NORMAL	---

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

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	**22**	14	---
Chromium	ppm	ASTM D5185m	>20	**<1**	<1	---
Nickel	ppm	ASTM D5185m	>4	**0**	<1	---
Titanium	ppm	ASTM D5185m		**0**	<1	---
Silver	ppm	ASTM D5185m	>3	**0**	<1	---
Aluminum	ppm	ASTM D5185m	>20	**12**	8	---
Lead	ppm	ASTM D5185m	>40	**0**	<1	---
Copper	ppm	ASTM D5185m	>330	**10**	9	---
Tin	ppm	ASTM D5185m	>15	**0**	<1	---
Vanadium	ppm	ASTM D5185m		**0**	<1	---
Cadmium	ppm	ASTM D5185m		**0**	0	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	250	**56**	79	---
Barium	ppm	ASTM D5185m	10	**0**	0	---
Molybdenum	ppm	ASTM D5185m	100	**9**	10	---
Manganese	ppm	ASTM D5185m		**1**	<1	---
Magnesium	ppm	ASTM D5185m	450	**686**	688	---
Calcium	ppm	ASTM D5185m	3000	**1298**	1358	---
Phosphorus	ppm	ASTM D5185m	1150	**977**	1012	---
Zinc	ppm	ASTM D5185m	1350	**1185**	1214	---
Sulfur	ppm	ASTM D5185m	4250	**3867**	3893	---

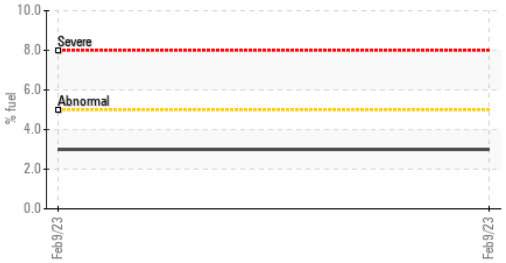
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**9**	7	---
Sodium	ppm	ASTM D5185m	>216	**3**	3	---
Potassium	ppm	ASTM D5185m	>20	**27**	19	---
Fuel	%	ASTM D3524	>5	▲ **3.0**	<1.0	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	**0.2**	0.2	---
Nitration	Abs/cm	*ASTM D7624	>20	**9.3**	8.9	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	**20.7**	20.9	---

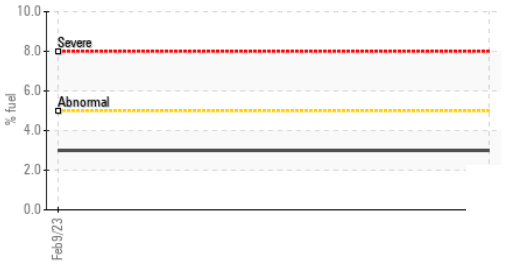
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**14.3**	13.6	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	**7.2**	9.4	---

OIL ANALYSIS REPORT

Fuel Dilution



Fuel Dilution



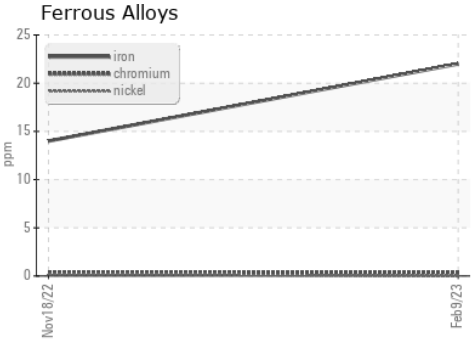
Base Number

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	---
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	---
Free Water	scalar	*Visual		**NEG**	NEG	---

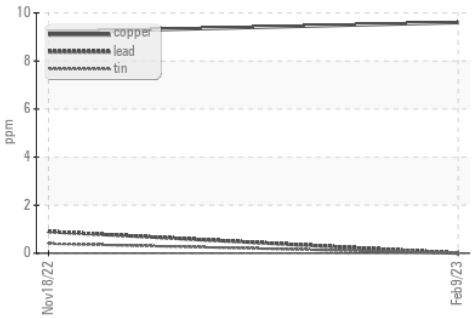
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.4	▲ **11.8**	12.6	---

GRAPHS

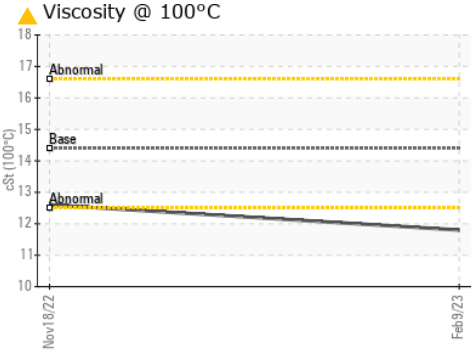
Ferrous Alloys



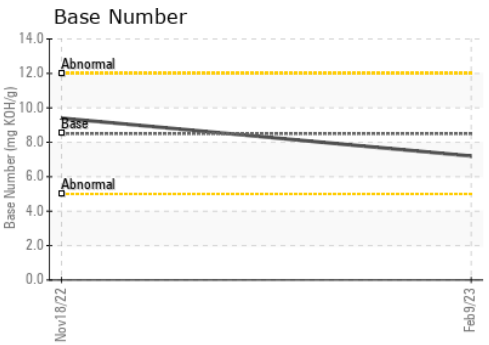
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0723398 **Received** : 26 Apr 2023
Lab Number : 05830668 **Diagnosed** : 28 Apr 2023
Unique Number : 10444161 **Diagnostician** : Wes Davis
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

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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