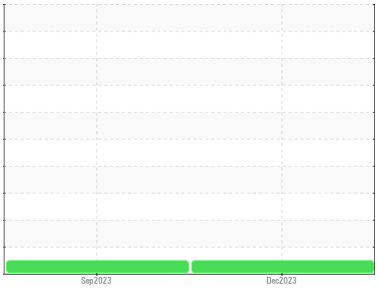
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
3301
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 10W30 (--- GAL)

DIAGNOSIS

Recommendation
Resample at the next service interval to monitor. Please specify the component make and model with 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. There is no indication of any contamination in the oil.

Fluid Condition
The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0828271**	WC0848029	---
Sample Date		Client Info		**16 Dec 2023**	23 Sep 2023	---
Machine Age	mls	Client Info		**43036**	21780	---
Oil Age	mls	Client Info		**21256**	21381	---
Oil Changed		Client Info		**Changed**	Changed	---
Sample Status				**NORMAL**	NORMAL	---

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

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	**38**	66	---
Chromium	ppm	ASTM D5185(m)	>20	**<1**	1	---
Nickel	ppm	ASTM D5185(m)	>4	**<1**	<1	---
Titanium	ppm	ASTM D5185(m)		**0**	0	---
Silver	ppm	ASTM D5185(m)	>3	**0**	<1	---
Aluminum	ppm	ASTM D5185(m)	>20	**13**	12	---
Lead	ppm	ASTM D5185(m)	>40	**0**	<1	---
Copper	ppm	ASTM D5185(m)	>330	**3**	20	---
Tin	ppm	ASTM D5185(m)	>15	**<1**	1	---
Antimony	ppm	ASTM D5185(m)		**0**	0	---
Vanadium	ppm	ASTM D5185(m)		**0**	0	---
Beryllium	ppm	ASTM D5185(m)		**0**	0	---
Cadmium	ppm	ASTM D5185(m)		**0**	0	---

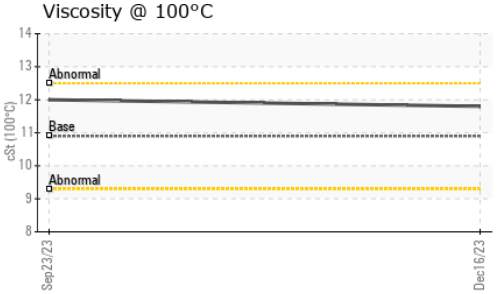
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	250	**2**	23	---
Barium	ppm	ASTM D5185(m)	10	**<1**	5	---
Molybdenum	ppm	ASTM D5185(m)	100	**61**	55	---
Manganese	ppm	ASTM D5185(m)		**<1**	6	---
Magnesium	ppm	ASTM D5185(m)	450	**1002**	870	---
Calcium	ppm	ASTM D5185(m)	3000	**1133**	1215	---
Phosphorus	ppm	ASTM D5185(m)	1150	**1041**	739	---
Zinc	ppm	ASTM D5185(m)	1350	**1225**	916	---
Sulfur	ppm	ASTM D5185(m)	4250	**2601**	1949	---
Lithium	ppm	ASTM D5185(m)		**<1**	<1	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	**5**	19	---
Sodium	ppm	ASTM D5185(m)		**2**	6	---
Potassium	ppm	ASTM D5185(m)	>20	**19**	20	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	**0.5**	0.6	---
Nitration	Abs/cm	ASTM D7624*	>20	**11.0**	13.0	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	**22.7**	25.7	---

OIL ANALYSIS REPORT

Viscosity @ 100°C



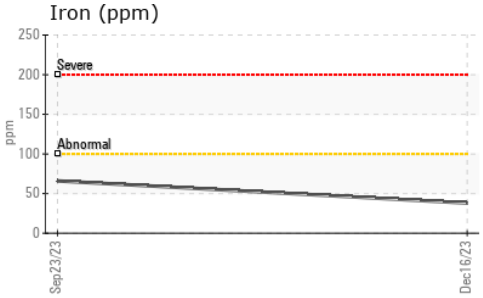
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**21.1**	28.6	---

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

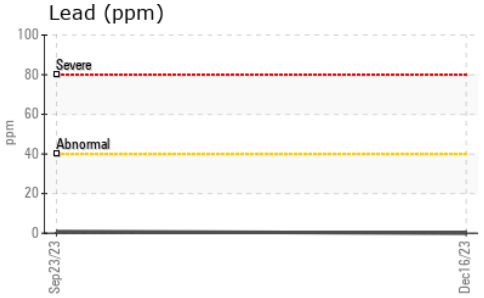
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	10.9	**11.8**	12.0	---

GRAPHS

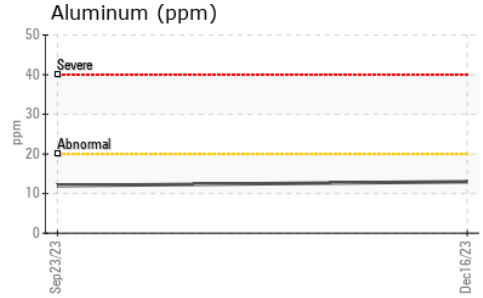
Iron (ppm)



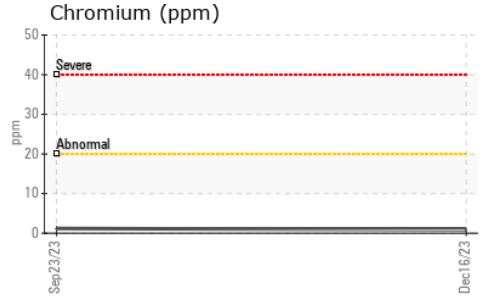
Lead (ppm)



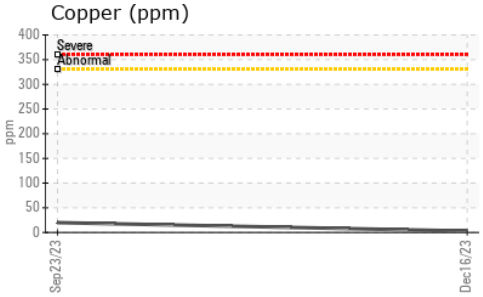
Aluminum (ppm)



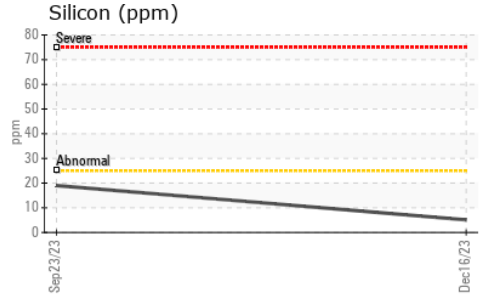
Chromium (ppm)



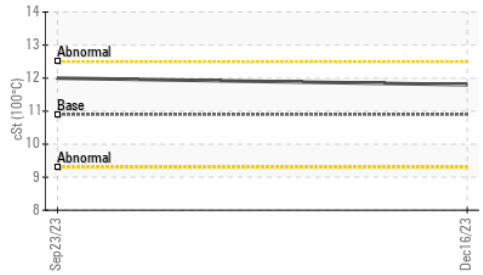
Copper (ppm)



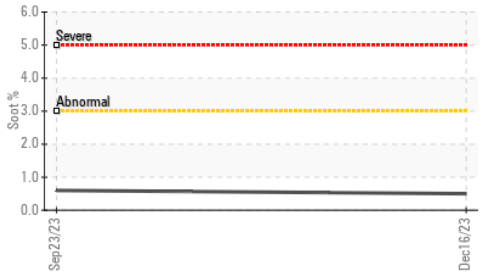
Silicon (ppm)



Viscosity @ 100°C



Soot %



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **MANITOULIN TRANSPORT (GARAGE)**
Sample No. : WC0828271 **Recieved** : 22 Dec 2023 1335 SHAWSON DRIVE
Lab Number : 02604902 **Diagnosed** : 22 Dec 2023 MISSISSAUGA, ON
Unique Number : 5697987 **Diagnostician** : Wes Davis CA L4W 1C4
Test Package : MOB 1 Contact: Patrick Morin

To discuss this sample report, contact Customer Service at 1-800-268-2131. pmorin@manitoulintransport.com
Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. T:
Validity of results and interpretation are based on the sample and information as supplied. F: (905)564-6361