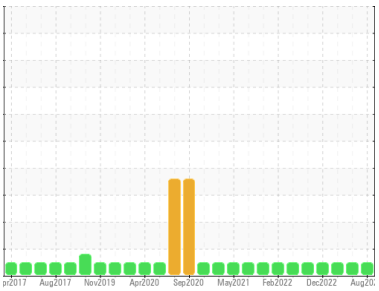
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
NOVA BUS 1633
Component
Natural Gas Engine
Fluid
VALVOLINE PREMIUM BLUE 9200 15W40 (--- GAL)

DIAGNOSIS

Recommendation
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 condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0849881**	WC0811481	WC0748319
Sample Date		Client Info		**25 Aug 2023**	29 May 2023	17 Feb 2023
Machine Age	kms	Client Info		**0**	425146	405368
Oil Age	kms	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**NORMAL**	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Glycol		WC Method		**---**	---	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>50	**15**	12	9
Chromium	ppm	ASTM D5185(m)	>4	**1**	1	<1
Nickel	ppm	ASTM D5185(m)	>2	**0**	<1	<1
Titanium	ppm	ASTM D5185(m)		**<1**	1	3
Silver	ppm	ASTM D5185(m)	>3	**0**	0	0
Aluminum	ppm	ASTM D5185(m)	>9	**2**	2	2
Lead	ppm	ASTM D5185(m)	>30	**9**	7	2
Copper	ppm	ASTM D5185(m)	>35	**<1**	<1	<1
Tin	ppm	ASTM D5185(m)	>4	**<1**	<1	<1
Antimony	ppm	ASTM D5185(m)		**0**	0	0
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
Beryllium	ppm	ASTM D5185(m)		**0**	0	0
Cadmium	ppm	ASTM D5185(m)		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		**5**	8	15
Barium	ppm	ASTM D5185(m)		**0**	0	0
Molybdenum	ppm	ASTM D5185(m)		**53**	55	51
Manganese	ppm	ASTM D5185(m)		**<1**	<1	<1
Magnesium	ppm	ASTM D5185(m)		**884**	880	813
Calcium	ppm	ASTM D5185(m)		**1294**	1364	1316
Phosphorus	ppm	ASTM D5185(m)		**748**	756	739
Zinc	ppm	ASTM D5185(m)		**913**	905	856
Sulfur	ppm	ASTM D5185(m)		**1953**	1978	1967
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>+100	**6**	5	5
Sodium	ppm	ASTM D5185(m)		**5**	4	5
Potassium	ppm	ASTM D5185(m)	>20	**6**	6	6

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*		**0**	0	0
Nitration	Abs/cm	ASTM D7624*	>20	**13.9**	13.4	6.0
Sulfation	Abs/.1mm	ASTM D7415*	>30	**26.9**	25.5	17.2

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**23.5**	23.1	9.8

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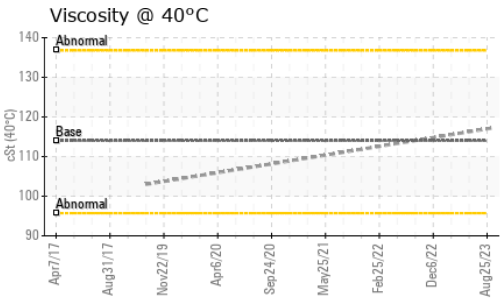
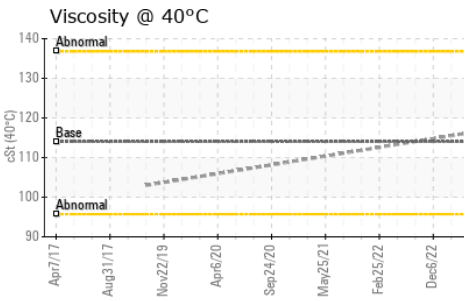
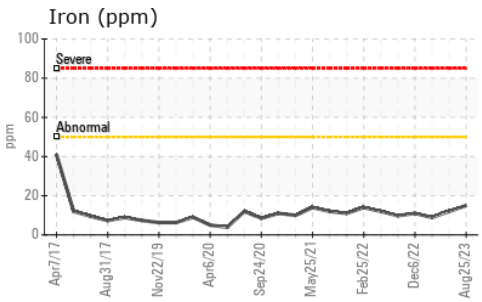


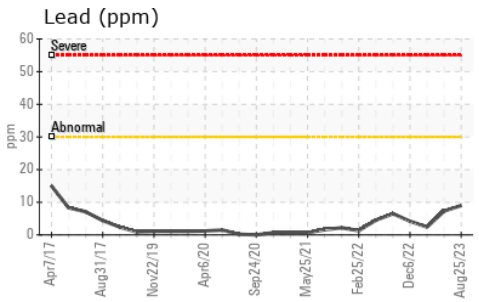


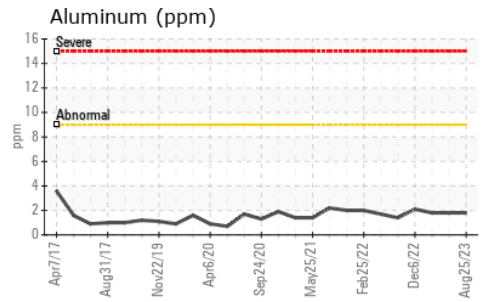
VISUAL		method	limit/base	current	history1	history2
Odor	scalar	Visual*	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

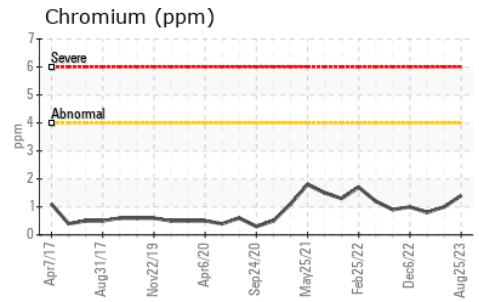
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	114	**117**	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	14.8	**14.8**	14.7	14.5
Viscosity Index (VI)	Scale	ASTM D2270*	133	**129**	---	---

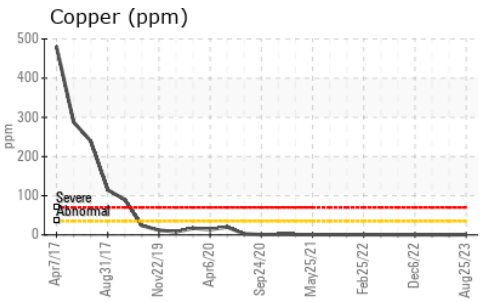
GRAPHS

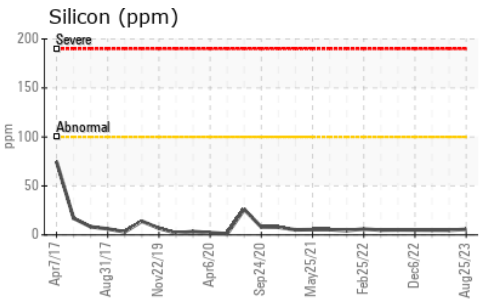


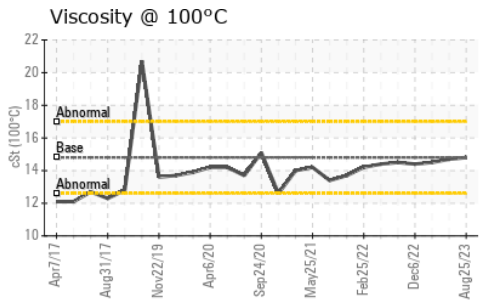


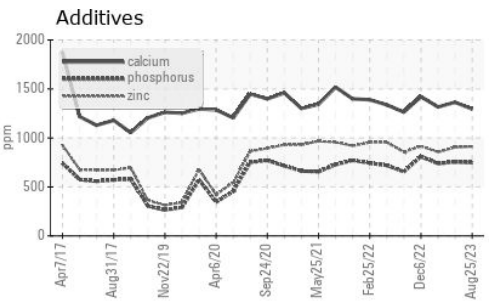












ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0849881 **Received** : 30 Aug 2023
Lab Number : 02579288 **Diagnosed** : 30 Aug 2023
Unique Number : 5632348 **Diagnostician** : Kevin Marson
Test Package : MOB 1 (Additional Tests: KV40, VI, Visual)

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.

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