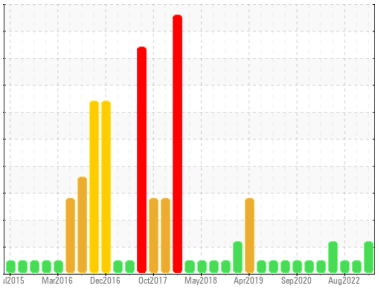
OIL ANALYSIS REPORT

Area
[3085]
Machine Id
NEW FLYER 1304
Component
Diesel Engine
Fluid
VALVOLINE 15W40 (--- GAL)

Sample Rating Trend



SOOT

DIAGNOSIS

Recommendation

We recommend that you drain the oil from the component if this has not already been done. Confirm the source of the lubricant being utilized for top-up/fill. The fluid was specified as VALVOLINE 15W40, however, a fluid match indicates that this fluid is SAE 50 Diesel Engine Oil. Please confirm the oil type and grade on your next sample.

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. Light concentration of carbon/soot present in the oil.

Fluid Condition

The oil viscosity is higher than normal. Viscosity of sample indicates oil is within SAE 50 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0805050**	WC0737214	WC0693906
Sample Date		Client Info		**12 Jul 2023**	22 Oct 2022	26 Aug 2022
Machine Age	kms	Client Info		**339920**	320957	312023
Oil Age	kms	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ABNORMAL**	NORMAL	NORMAL

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

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	**59**	18	20
Chromium	ppm	ASTM D5185(m)	>20	**2**	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	**<1**	<1	0
Titanium	ppm	ASTM D5185(m)		**0**	<1	<1
Silver	ppm	ASTM D5185(m)	>3	**<1**	0	0
Aluminum	ppm	ASTM D5185(m)	>20	**3**	2	1
Lead	ppm	ASTM D5185(m)	>40	**<1**	<1	<1
Copper	ppm	ASTM D5185(m)	>330	**2**	<1	<1
Tin	ppm	ASTM D5185(m)	>15	**0**	0	0
Antimony	ppm	ASTM D5185(m)		**0**	0	<1
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
Beryllium	ppm	ASTM D5185(m)		**0**	0	0
Cadmium	ppm	ASTM D5185(m)		**0**	0	0

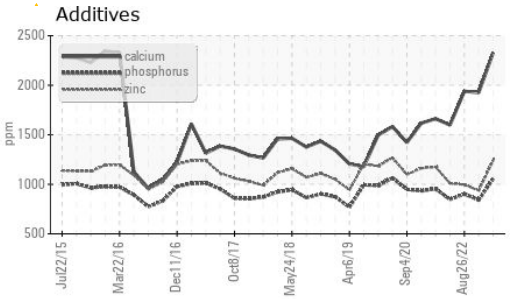
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		**44**	61	49
Barium	ppm	ASTM D5185(m)		**0**	0	0
Molybdenum	ppm	ASTM D5185(m)		**19**	11	12
Manganese	ppm	ASTM D5185(m)		**<1**	<1	<1
Magnesium	ppm	ASTM D5185(m)		**86**	97	114
Calcium	ppm	ASTM D5185(m)		**2328**	1926	1939
Phosphorus	ppm	ASTM D5185(m)		**1055**	842	903
Zinc	ppm	ASTM D5185(m)		**1241**	937	996
Sulfur	ppm	ASTM D5185(m)		**2900**	2536	2596
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

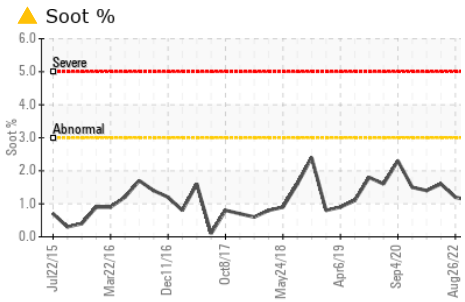
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	**13**	3	4
Sodium	ppm	ASTM D5185(m)		**8**	3	3
Potassium	ppm	ASTM D5185(m)	>20	**5**	2	3

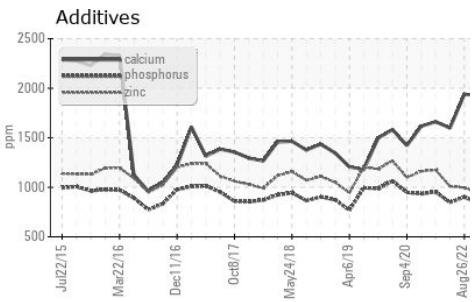
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	▲ **3.3**	1.1	1.2
Nitration	Abs/cm	ASTM D7624*	>20	**15.8**	11.9	11.5
Sulfation	Abs/.1mm	ASTM D7415*	>30	**37.1**	29.0	26.9

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**29.7**	27.7	23.0

OIL ANALYSIS REPORT



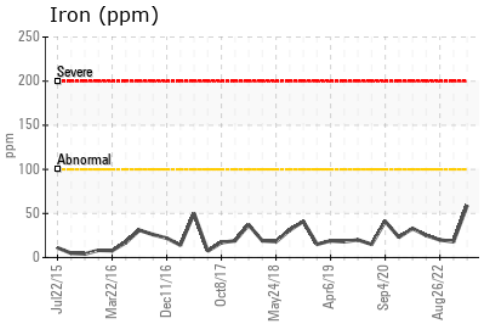


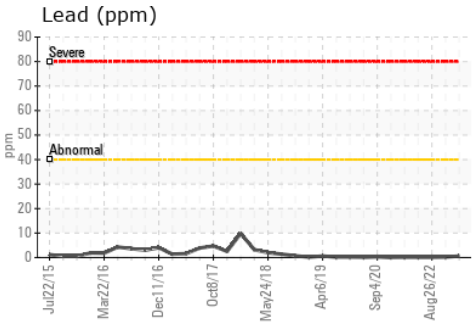


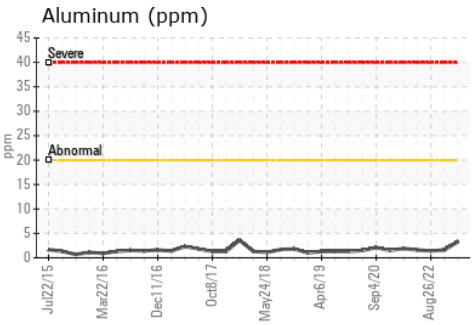
VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

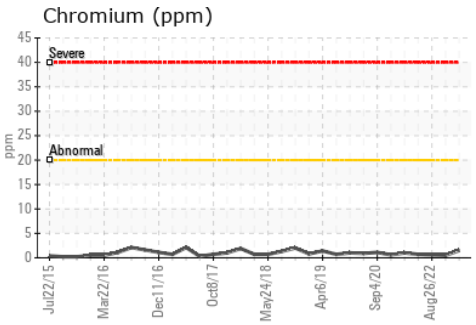
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)		▲ **16.4**	12.0	12.9

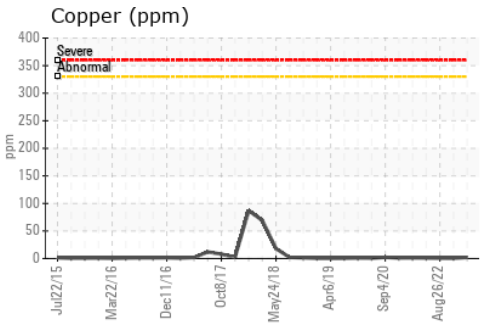
GRAPHS

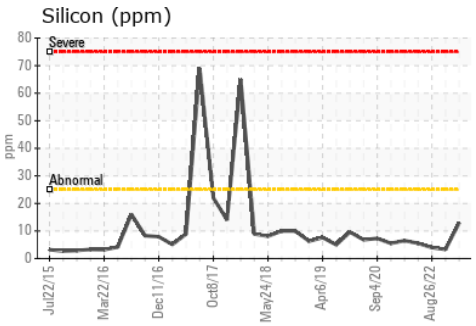


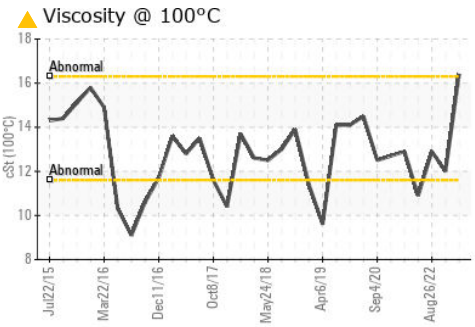


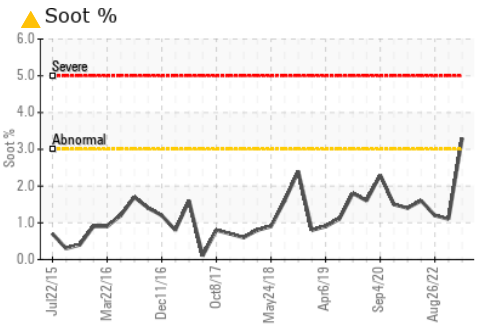












ISO 17025:2017 Accredited Laboratory

Laboratory	: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9		
Sample No.	: WC0805050	**Received**	: 14 Aug 2023
Lab Number	: 02575617	**Diagnosed**	: 14 Aug 2023
Unique Number	: 5620668	**Diagnostician**	: Kevin Marson
Test Package	: MOB 1		

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.

MVT Canadian Bus
133 Welham Road
Barrie, ON
CA L4N 8Y3
Contact: Frank Mastromarco
frank.mastromarco@mvtransit.com
T: (709)792-5033
F: