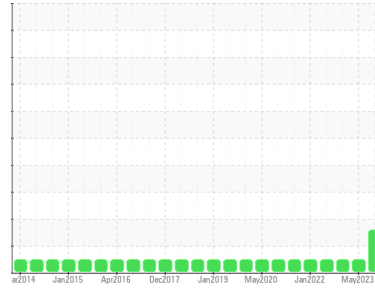




# OIL ANALYSIS REPORT

Sample Rating Trend

**DIRT**



Machine Id  
**NOVA BUS 60059**  
 Component  
**Rear Diesel Engine**  
 Fluid  
**VALVOLINE 15W40 (23 LTR)**

## DIAGNOSIS

### Recommendation

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

### Wear

All component wear rates are normal.

### Contamination

There is a moderate concentration of dirt present in the oil.

### Fluid Condition

The oil is no longer serviceable due to the presence of contaminants.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0809121</b>	WC0770731	WC0734903
Sample Date	Client Info		<b>25 Oct 2023</b>	11 May 2023	28 Sep 2022
Machine Age	kms	Client Info	<b>546709</b>	519979	496458
Oil Age	kms	Client Info	<b>10000</b>	10000	10000
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>ABNORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>75	<b>18</b>	17	17
Chromium	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	<1	0
Silver	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	<1	0
Aluminum	ppm	ASTM D5185(m)	>15	<b>2</b>	2	2
Lead	ppm	ASTM D5185(m)	>25	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185(m)	>100	<b>3</b>	3	2
Tin	ppm	ASTM D5185(m)	>4	<b>0</b>	<1	0
Antimony	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)	39	<b>1</b>	3	3
Barium	ppm	ASTM D5185(m)	1	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	49	<b>67</b>	61	61
Manganese	ppm	ASTM D5185(m)	1	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)	616	<b>1091</b>	976	991
Calcium	ppm	ASTM D5185(m)	1554	<b>1182</b>	1207	1121
Phosphorus	ppm	ASTM D5185(m)	899	<b>1089</b>	1109	1082
Zinc	ppm	ASTM D5185(m)	1069	<b>1361</b>	1240	1226
Sulfur	ppm	ASTM D5185(m)	2624	<b>2738</b>	2654	2529
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

## CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	<b>▲ 41</b>	7	6
Sodium	ppm	ASTM D5185(m)		<b>7</b>	7	9
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	<1

## INFRA-RED

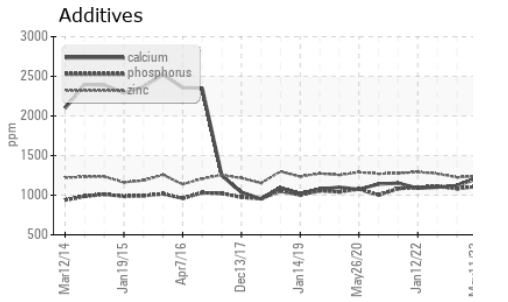
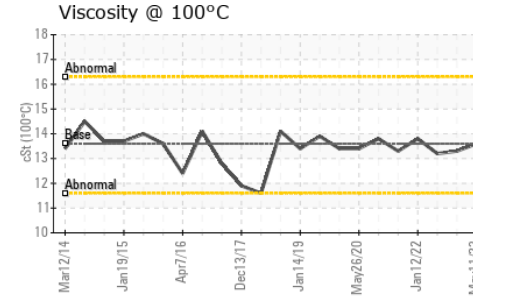
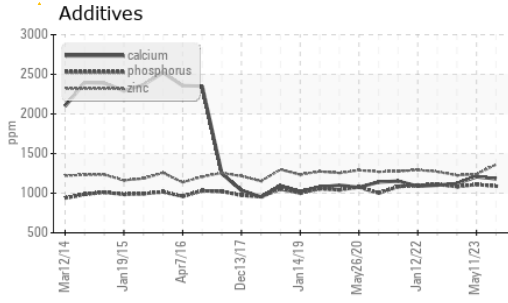
	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>6	<b>0.1</b>	0.1	0.1
Nitration	Abs/cm	ASTM D7624*	>20	<b>8.5</b>	8.3	9.2
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>20.9</b>	20.4	21.8

## FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>18.8</b>	16.7	19.4



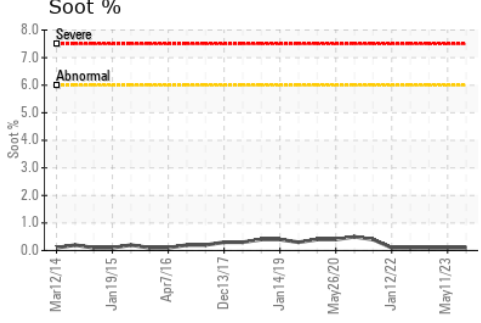
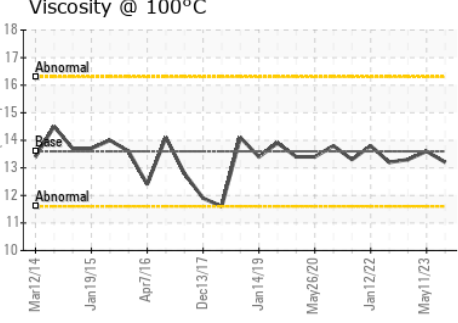
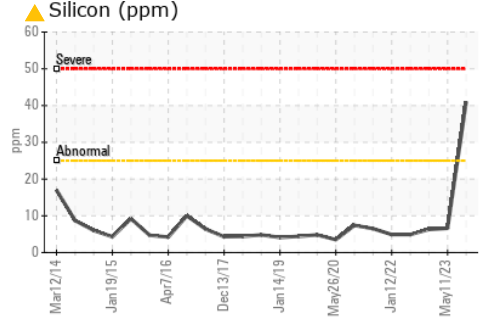
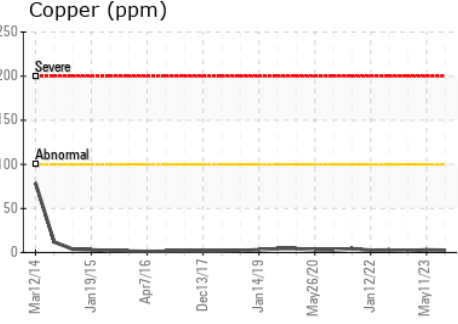
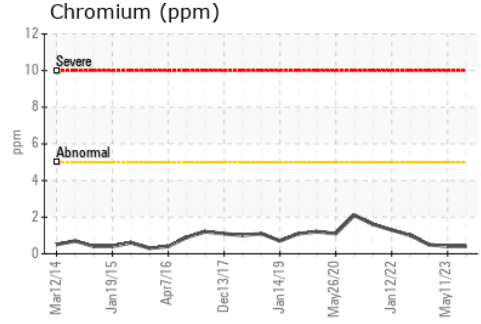
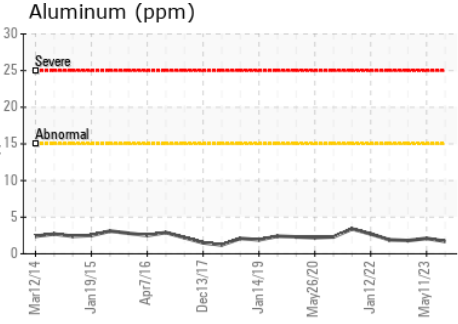
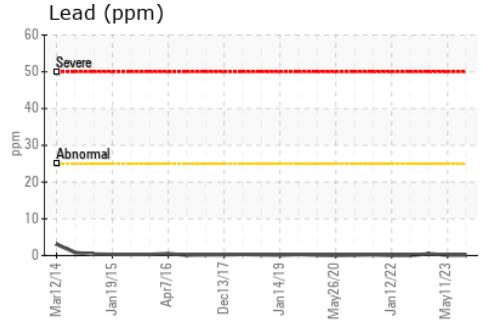
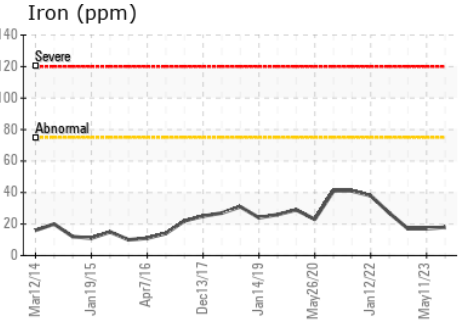
# OIL ANALYSIS REPORT



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)	13.6	13.6	13.3

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0809121  
**Lab Number** : 02592880  
**Unique Number** : 5669959  
**Test Package** : MOB 1

**CITY OF PETERBOROUGH**  
 791 WEBBER AVENUE., MUNICIPAL OPERATIONS CENTRE  
 PETERBOROUGH, ON  
 CA K9J 8N3  
 Contact: Frank Curran  
 fcurran@peterborough.ca  
 T: (705)742-7777  
 F: (705)743-3223

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.