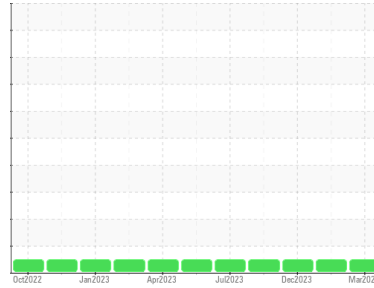




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**2110**

Component  
**Natural Gas Engine**

Fluid  
**VALVOLINE PREMIUM BLUE 9200 15W40 (--- 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

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		<b>WC0917645</b>	WC0891091	WC0849894
Sample Date	Client Info		<b>08 Mar 2024</b>	24 Jan 2024	07 Dec 2023
Machine Age	kms	Client Info	<b>112523</b>	102393	93801
Oil Age	kms	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>Changed</b>	N/A	N/A
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.1	<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>50	<b>7</b>	7	8
Chromium	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>9	<b>2</b>	1	1
Lead	ppm	ASTM D5185(m)	>30	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185(m)	>35	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	0	0
Antimony	ppm	ASTM D5185(m)		<b>0</b>	0	0
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)		<b>10</b>	13	15
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185(m)		<b>55</b>	52	54
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)		<b>794</b>	762	805
Calcium	ppm	ASTM D5185(m)		<b>1185</b>	1209	1230
Phosphorus	ppm	ASTM D5185(m)		<b>630</b>	652	701
Zinc	ppm	ASTM D5185(m)		<b>857</b>	851	884
Sulfur	ppm	ASTM D5185(m)		<b>2052</b>	2082	1984
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

## CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>+100	<b>3</b>	4	4
Sodium	ppm	ASTM D5185(m)		<b>5</b>	5	3
Potassium	ppm	ASTM D5185(m)	>20	<b>29</b>	<1	0
Glycol	%	ASTM D7922*		<b>0.0</b>	---	---

## INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*		<b>0</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>12.1</b>	12.0	12.0
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>22.6</b>	21.7	21.4

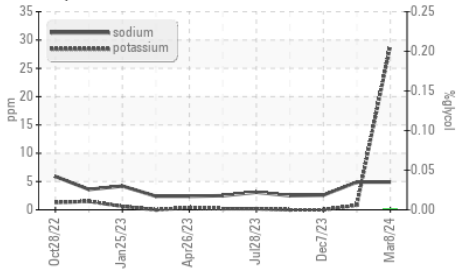
## FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>20.2</b>	19.3	19.2

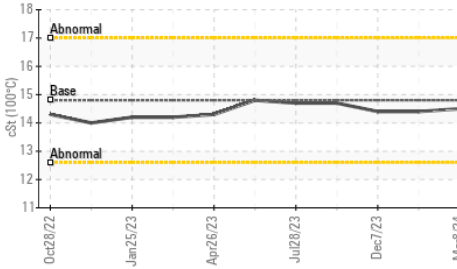


# OIL ANALYSIS REPORT

## Glycol Contamination



## Viscosity @ 100°C

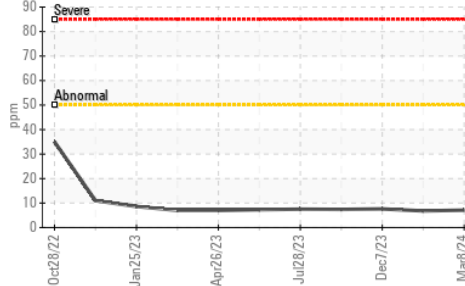


VISUAL	method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

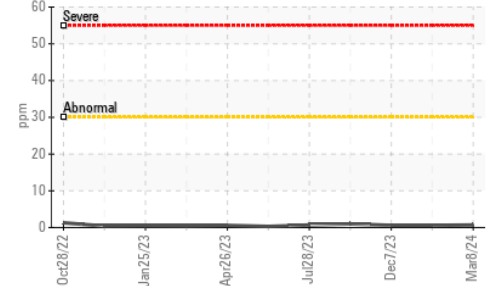
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	14.8	14.4	14.4

## GRAPHS

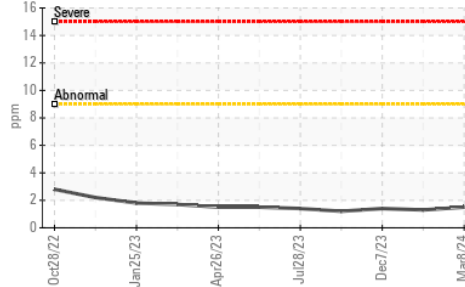
### Iron (ppm)



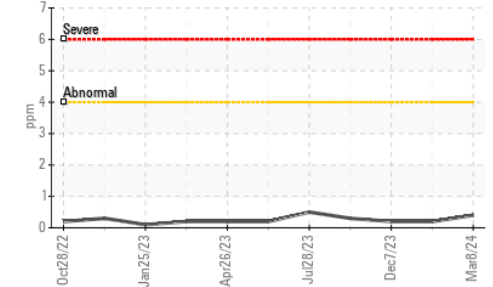
### Lead (ppm)



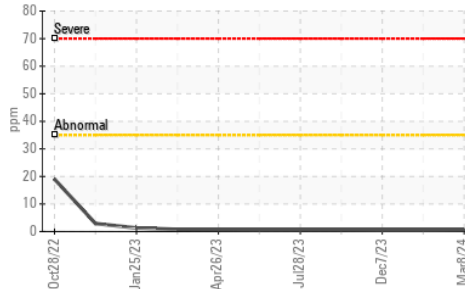
### Aluminum (ppm)



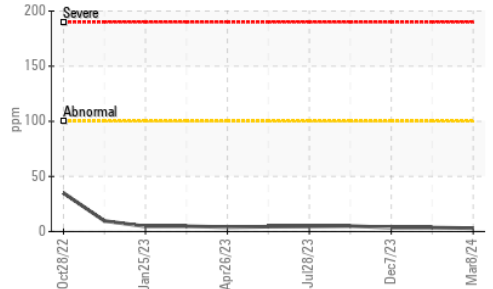
### Chromium (ppm)



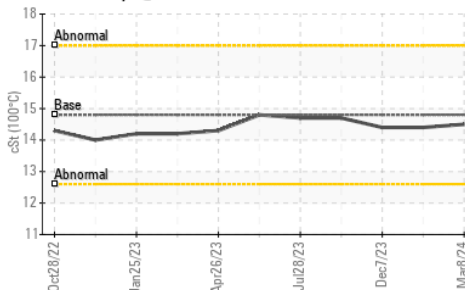
### Copper (ppm)



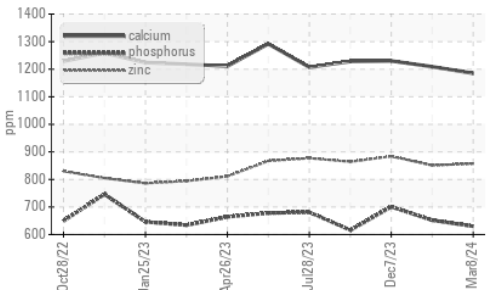
### Silicon (ppm)



### Viscosity @ 100°C



### Additives



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0917645  
**Lab Number** : 02621740  
**Unique Number** : 5746859  
**Test Package** : MOB 1 ( Additional Tests: Glycol )

**CITY OF HAMILTON**  
 2200 UPPER JAMES., MOUNTAIN TRANSIT STOREROOM  
 MOUNT HOPE, ON  
 CA L0R 1W0  
 Contact: Jeff Parr  
 jeff.parr@hamilton.ca  
 T: (905)546-2424  
 F: (905)679-4502

*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.*