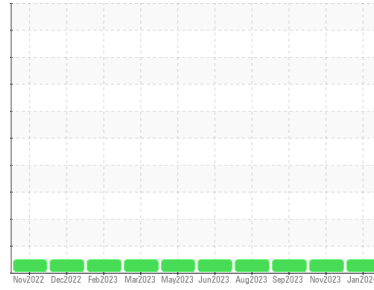




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
2113

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		WC0891132	WC0877912	WC0849922
Sample Date	Client Info		02 Jan 2024	03 Nov 2023	29 Sep 2023
Machine Age	kms	Client Info	90198	78349	71325
Oil Age	kms	Client Info	0	0	0
Oil Changed	Client Info		Changed	N/A	N/A
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

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

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>50	9	8	8
Chromium	ppm	ASTM D5185(m)	>4	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	<1	<1
Aluminum	ppm	ASTM D5185(m)	>9	2	1	<1
Lead	ppm	ASTM D5185(m)	>30	<1	<1	<1
Copper	ppm	ASTM D5185(m)	>35	2	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)		10	11	11
Barium	ppm	ASTM D5185(m)		0	<1	<1
Molybdenum	ppm	ASTM D5185(m)		56	54	56
Manganese	ppm	ASTM D5185(m)		0	0	0
Magnesium	ppm	ASTM D5185(m)		806	790	830
Calcium	ppm	ASTM D5185(m)		1305	1232	1294
Phosphorus	ppm	ASTM D5185(m)		659	630	678
Zinc	ppm	ASTM D5185(m)		918	880	916
Sulfur	ppm	ASTM D5185(m)		2132	1937	2004
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>+100	4	4	4
Sodium	ppm	ASTM D5185(m)		4	2	4
Potassium	ppm	ASTM D5185(m)	>20	<1	0	0

INFRA-RED

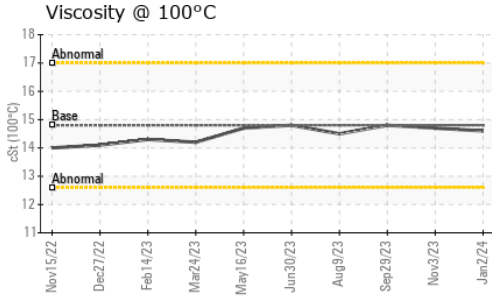
	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*		0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	13.0	12.2	11.6
Sulfation	Abs/.1mm	ASTM D7415*	>30	24.1	22.3	21.9

FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414*	>25	21.0	20.2	19.7



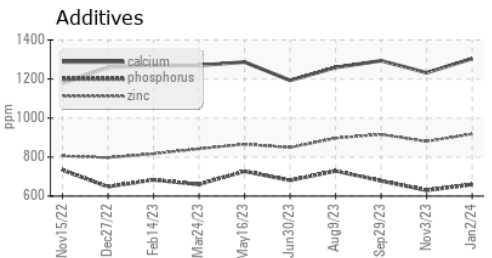
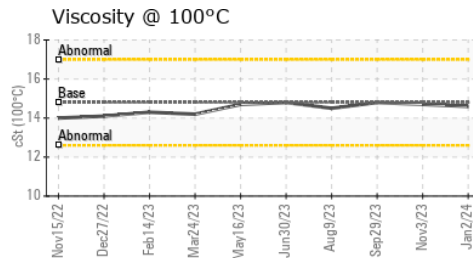
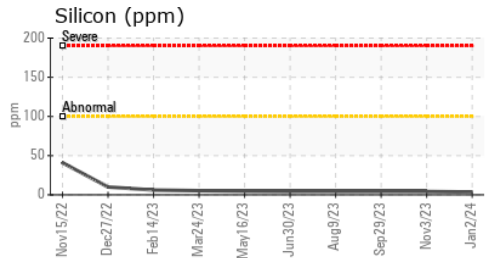
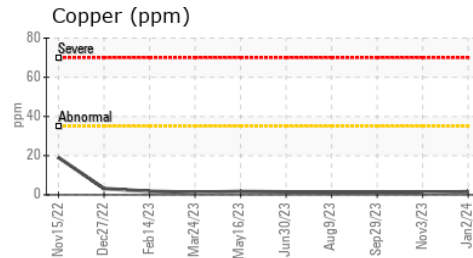
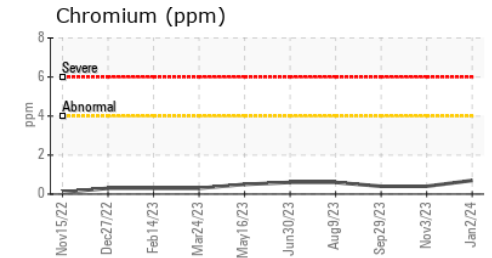
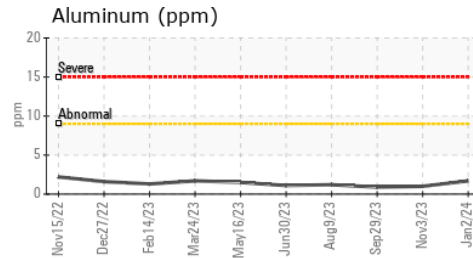
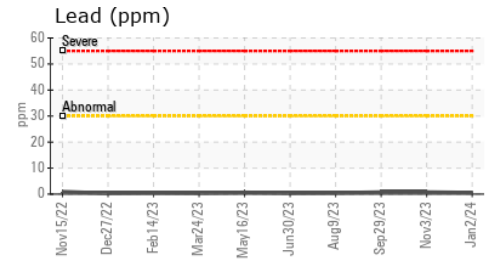
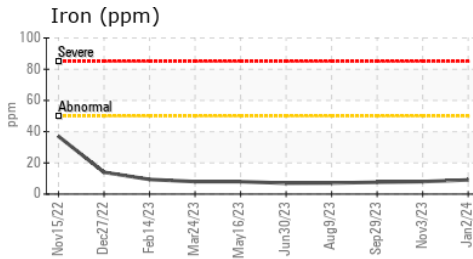
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	---	---
Precipitate	scalar	Visual*	NONE	---	---
Silt	scalar	Visual*	NONE	---	---
Debris	scalar	Visual*	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	---	---
Appearance	scalar	Visual*	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	NORML
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	14.6	14.7

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0891132 **Received** : 05 Jan 2024
Lab Number : 02606753 **Diagnosed** : 05 Jan 2024
Unique Number : 5707839 **Diagnostician** : Wes Davis
Test Package : MOB 1 (Additional Tests: Visual)

CITY OF HAMILTON
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 MOUNT HOPE, ON
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 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.