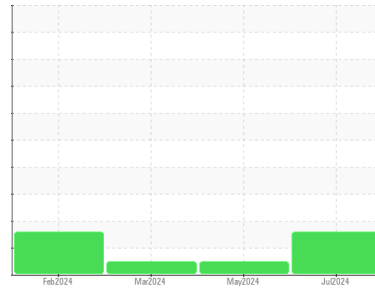




# OIL ANALYSIS REPORT

Sample Rating Trend



**WATER**



Machine Id

**2280**

Component

**Natural Gas Engine**

Fluid

**VALVOLINE PREMIUM BLUE 9200 15W40 (--- GAL)**

## DIAGNOSIS

### Recommendation

We advise that you check for the source of water entry. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. 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 a moderate concentration of water present in the oil. Test for glycol is negative.

### 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>WC0937120</b>	WC0937087	WC0917536
Sample Date	Client Info		<b>02 Jul 2024</b>	06 May 2024	24 Mar 2024
Machine Age	kms	Client Info	<b>44974</b>	32451	23188
Oil Age	kms	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>ABNORMAL</b>	NORMAL	NORMAL

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>50	<b>11</b>	8	16
Chromium	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	0	<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>1</b>	2	1
Lead	ppm	ASTM D5185(m)	>30	<b>&lt;1</b>	<1	0
Copper	ppm	ASTM D5185(m)	>35	<b>1</b>	1	3
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>9</b>	9	14
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185(m)		<b>57</b>	52	54
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)		<b>844</b>	774	811
Calcium	ppm	ASTM D5185(m)		<b>1285</b>	1219	1241
Phosphorus	ppm	ASTM D5185(m)		<b>642</b>	582	681
Zinc	ppm	ASTM D5185(m)		<b>891</b>	837	856
Sulfur	ppm	ASTM D5185(m)		<b>1936</b>	1848	1906
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>5</b>	5	7
Sodium	ppm	ASTM D5185(m)		<b>3</b>	2	3
Potassium	ppm	ASTM D5185(m)	>20	<b>0</b>	0	<1
Water	%	ASTM D6304*	>0.1	<b>▲ 0.113</b>	---	---
ppm Water	ppm	ASTM D6304*	>1000	<b>▲ 1131</b>	---	---
Glycol	%	ASTM D7922*		<b>0.0</b>	---	---

## INFRA-RED

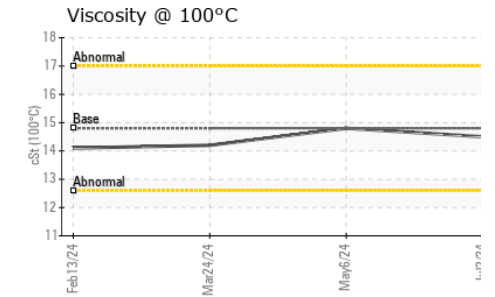
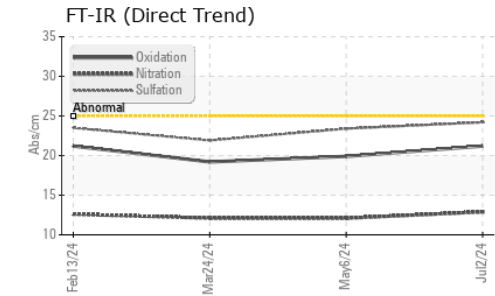
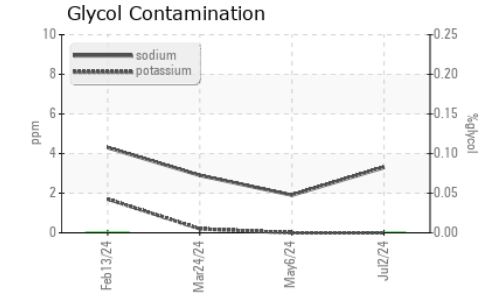
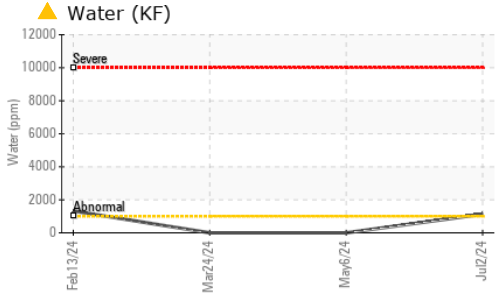
	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*		<b>0</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>12.9</b>	12.1	12.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>24.2</b>	23.4	21.9

## FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>21.2</b>	19.9	19.2



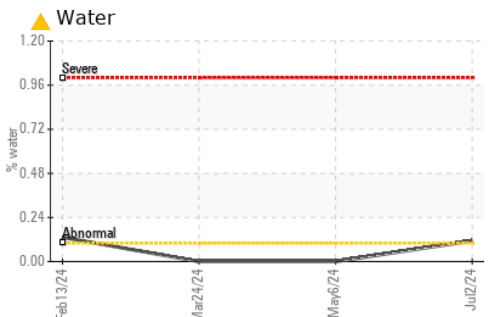
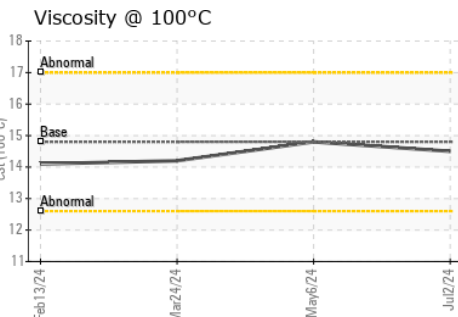
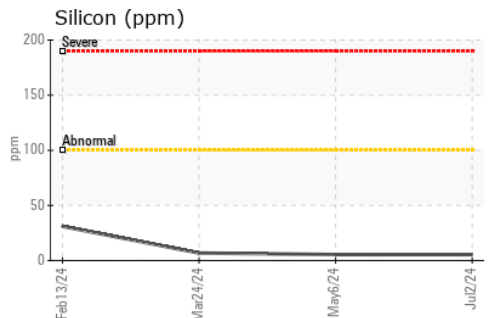
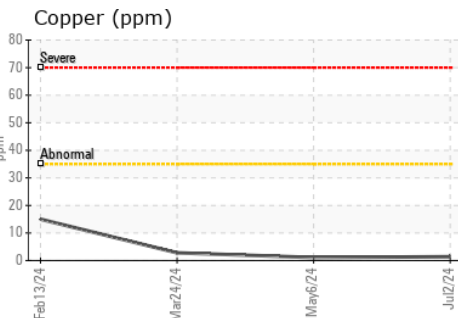
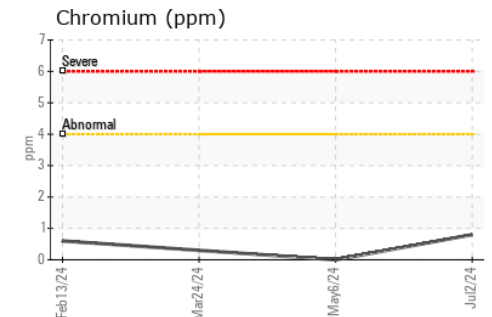
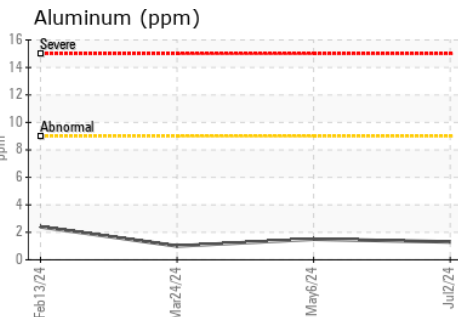
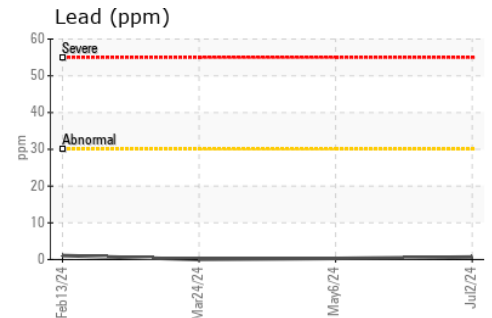
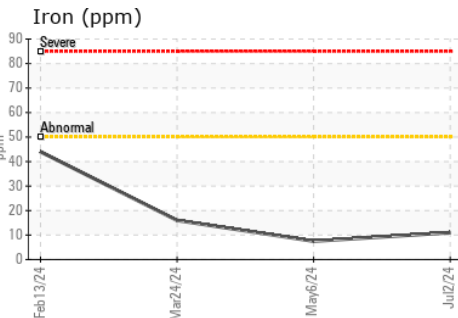
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.1	▲ .2%	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	14.8	14.5	14.8

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0937120      **Received** : 05 Jul 2024  
**Lab Number** : 02645768      **Tested** : 08 Jul 2024  
**Unique Number** : 5803307      **Diagnosed** : 08 Jul 2024 - Kevin Marson  
**Test Package** : MOB 1 ( Additional Tests: Glycol, KF )

**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.