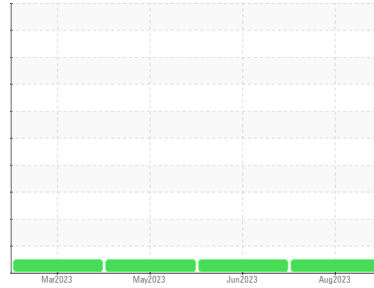




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
2213

Component
Natural Gas Engine

Fluid
DIESEL ENGINE OIL SAE 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		WC0830252	WC0811507	WC0791353
Sample Date	Client Info		11 Aug 2023	30 Jun 2023	16 May 2023
Machine Age	kms	Client Info	38778	30712	22183
Oil Age	kms	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			NORMAL	NORMAL	NORMAL

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>50	9	10	11
Chromium	ppm	ASTM D5185(m)	>4	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		<1	<1	<1
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>9	1	1	2
Lead	ppm	ASTM D5185(m)	>30	<1	<1	<1
Copper	ppm	ASTM D5185(m)	>35	1	1	3
Tin	ppm	ASTM D5185(m)	>4	<1	<1	<1
Antimony	ppm	ASTM D5185(m)		<1	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)	250	12	11	10
Barium	ppm	ASTM D5185(m)	10	0	0	0
Molybdenum	ppm	ASTM D5185(m)	100	51	51	51
Manganese	ppm	ASTM D5185(m)		<1	<1	1
Magnesium	ppm	ASTM D5185(m)	450	791	796	774
Calcium	ppm	ASTM D5185(m)	3000	1202	1225	1263
Phosphorus	ppm	ASTM D5185(m)	1150	680	680	675
Zinc	ppm	ASTM D5185(m)	1350	860	842	842
Sulfur	ppm	ASTM D5185(m)	4250	1962	1928	1979
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>+100	6	6	9
Sodium	ppm	ASTM D5185(m)	>158	2	3	3
Potassium	ppm	ASTM D5185(m)	>20	0	<1	0

INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*		0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	11.1	11.8	11.6
Sulfation	Abs/.1mm	ASTM D7415*	>30	21.8	21.3	21.8

FLUID DEGRADATION

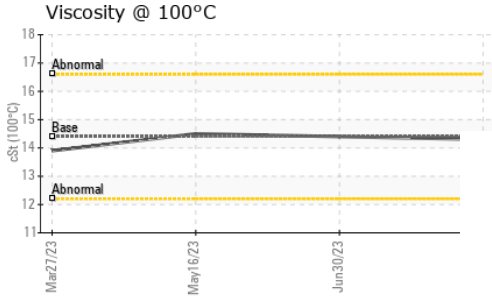
	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414*	>25	18.6	19.7	20.3

VISUAL

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

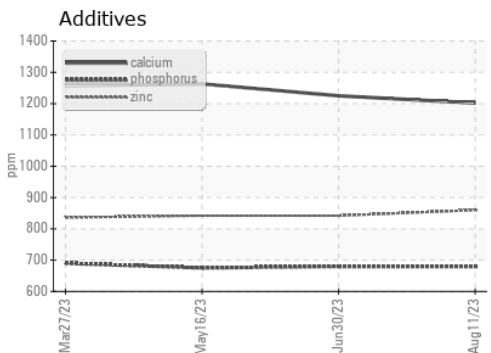
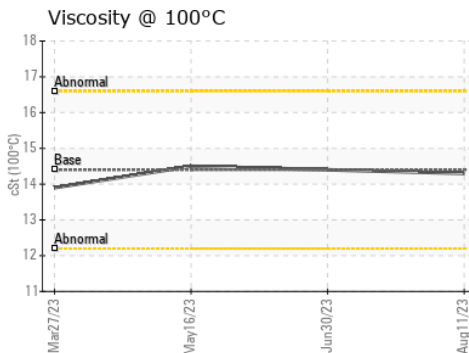
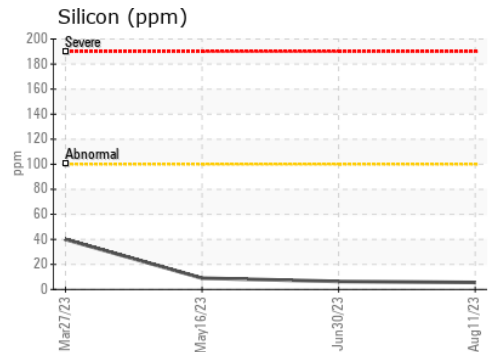
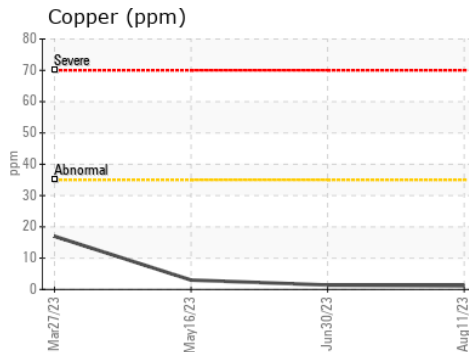
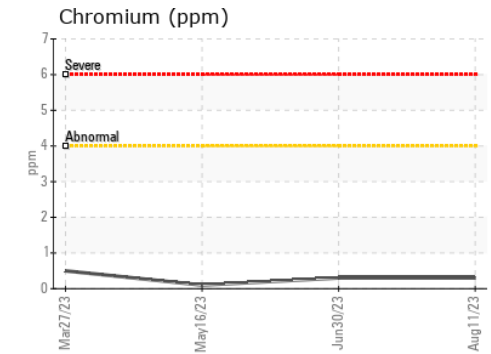
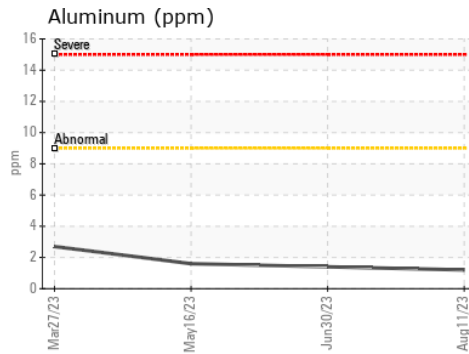
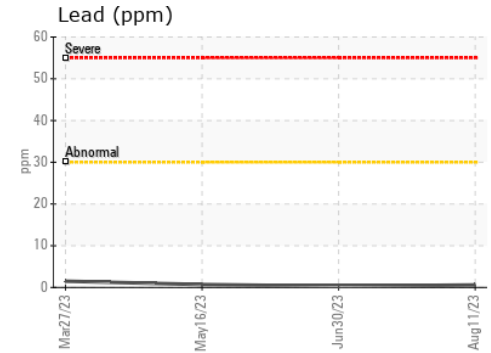
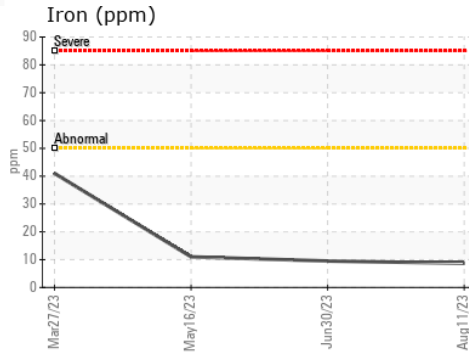


OIL ANALYSIS REPORT



FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	14.3	14.4	14.5

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0830252 **Received** : 15 Aug 2023
Lab Number : 02575842 **Diagnosed** : 15 Aug 2023
Unique Number : 5628902 **Diagnostician** : Wes Davis
Test Package : MOB 1

CITY OF HAMILTON
 2200 UPPER JAMES., MOUNTAIN TRANSIT STOREROOM
 MOUNT HOPE, ON
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 Contact: Cliff Bird
 cliff.bird@hamilton.ca
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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.