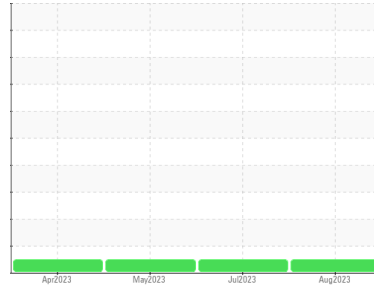




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id

2219

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		WC0830275	WC0830309	WC0811600
Sample Date	Client Info		17 Aug 2023	05 Jul 2023	24 May 2023
Machine Age	kms	Client Info	40173	31995	0
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	7	8	13
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	0	<1
Copper	ppm	ASTM D5185(m)	>35	<1	1	2
Tin	ppm	ASTM D5185(m)	>4	<1	<1	<1
Antimony	ppm	ASTM D5185(m)		0	0	<1
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	16	16	13
Barium	ppm	ASTM D5185(m)	10	0	0	0
Molybdenum	ppm	ASTM D5185(m)	100	52	50	52
Manganese	ppm	ASTM D5185(m)		<1	<1	2
Magnesium	ppm	ASTM D5185(m)	450	818	775	763
Calcium	ppm	ASTM D5185(m)	3000	1217	1196	1239
Phosphorus	ppm	ASTM D5185(m)	1150	735	665	679
Zinc	ppm	ASTM D5185(m)	1350	872	825	839
Sulfur	ppm	ASTM D5185(m)	4250	1961	1865	1947
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>+100	5	6	9
Sodium	ppm	ASTM D5185(m)	>158	2	3	4
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	<1

INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*		0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	10.9	11.0	12.0
Sulfation	Abs/.1mm	ASTM D7415*	>30	22.2	21.4	22.2

FLUID DEGRADATION

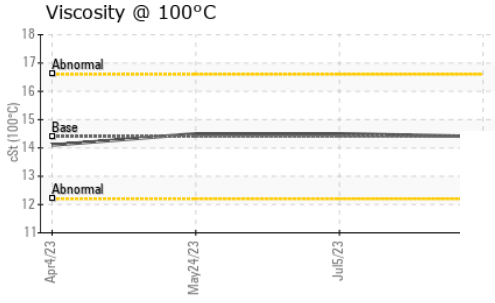
	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414*	>25	18.8	19.5	19.9

VISUAL

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

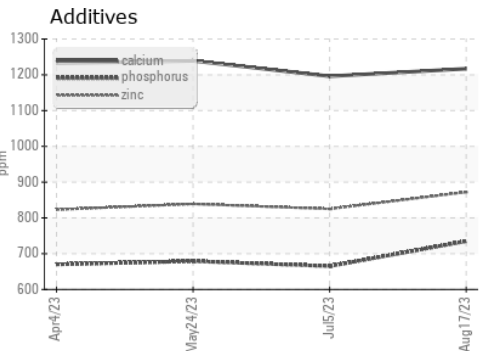
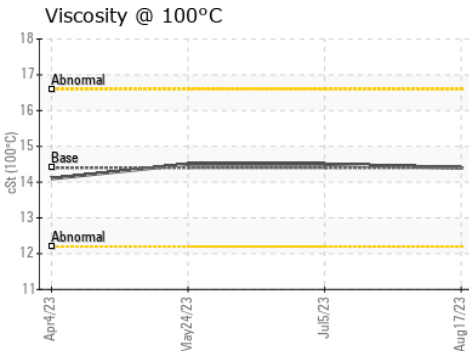
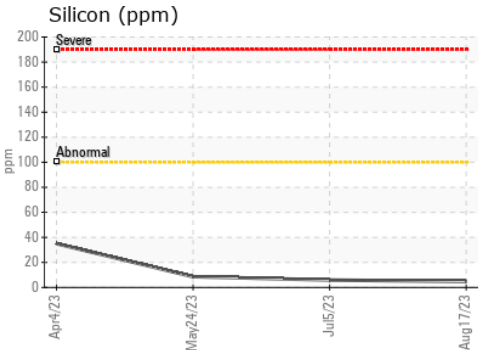
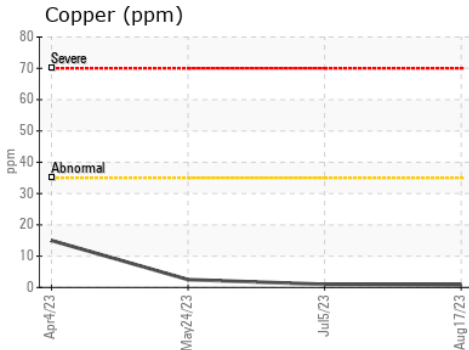
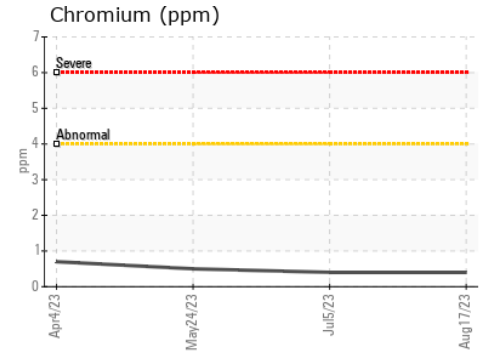
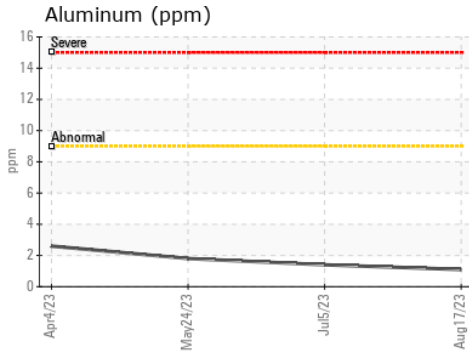
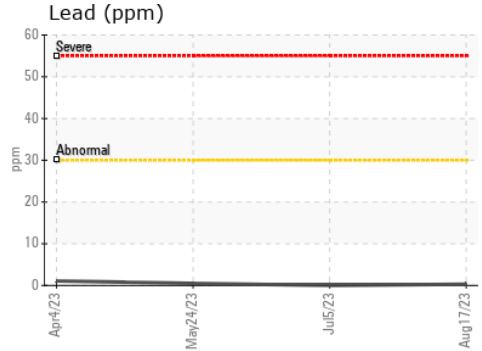
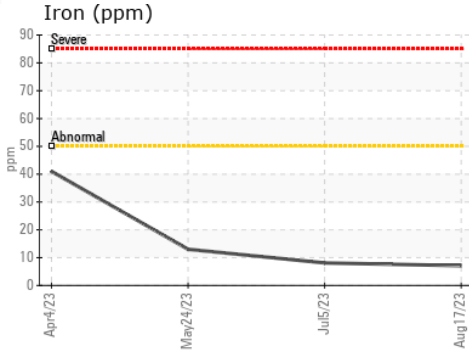


OIL ANALYSIS REPORT



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

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0830275 **Received** : 22 Aug 2023
Lab Number : 02577408 **Diagnosed** : 22 Aug 2023
Unique Number : 5630468 **Diagnostician** : Wes Davis
Test Package : MOB 1

CITY OF HAMILTON
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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.