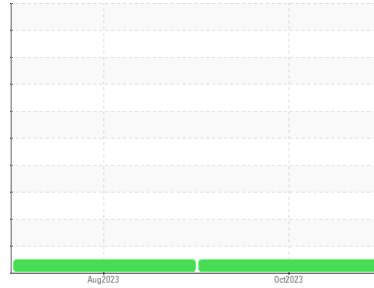




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
[6326]
 Machine Id
73

Component
Diesel Engine
 Fluid

DIESEL ENGINE OIL SAE 10W30 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

Metal levels are typical for a new component breaking in.

Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. 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			WC0846135	WC0790235	---
Sample Date	Client Info			23 Oct 2023	11 Aug 2023	---
Machine Age	mls	Client Info		18927	9398	---
Oil Age	mls	Client Info		0	0	---
Oil Changed	Client Info			Not Chngd	Not Chngd	---
Sample Status				NORMAL	NORMAL	---

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method		>3.0	<1.0	<1.0	---
Glycol	WC Method			NEG	NEG	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>90	31	68	---
Chromium	ppm	ASTM D5185(m)	>20	2	2	---
Nickel	ppm	ASTM D5185(m)	>2	0	<1	---
Titanium	ppm	ASTM D5185(m)	>2	0	<1	---
Silver	ppm	ASTM D5185(m)	>2	<1	<1	---
Aluminum	ppm	ASTM D5185(m)	>20	9	12	---
Lead	ppm	ASTM D5185(m)	>40	2	4	---
Copper	ppm	ASTM D5185(m)	>330	6	32	---
Tin	ppm	ASTM D5185(m)	>15	<1	3	---
Antimony	ppm	ASTM D5185(m)		0	0	---
Vanadium	ppm	ASTM D5185(m)		0	0	---
Beryllium	ppm	ASTM D5185(m)		0	0	---
Cadmium	ppm	ASTM D5185(m)		0	0	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	250	34	39	---
Barium	ppm	ASTM D5185(m)	10	<1	6	---
Molybdenum	ppm	ASTM D5185(m)	100	2	10	---
Manganese	ppm	ASTM D5185(m)		<1	6	---
Magnesium	ppm	ASTM D5185(m)	450	662	724	---
Calcium	ppm	ASTM D5185(m)	3000	1424	1359	---
Phosphorus	ppm	ASTM D5185(m)	1150	702	754	---
Zinc	ppm	ASTM D5185(m)	1350	799	818	---
Sulfur	ppm	ASTM D5185(m)	4250	2480	2400	---
Lithium	ppm	ASTM D5185(m)		<1	<1	---

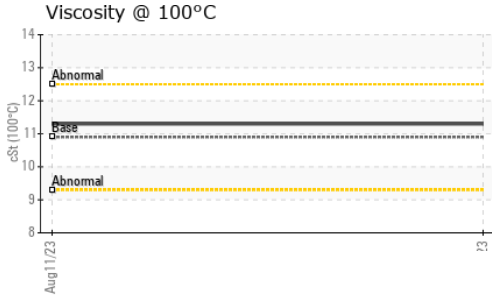
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	11	43	---
Sodium	ppm	ASTM D5185(m)		4	7	---
Potassium	ppm	ASTM D5185(m)	>20	28	44	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>6	0.1	0.2	---
Nitration	Abs/cm	ASTM D7624*	>20	9.9	10.6	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	25.3	24.0	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	25.3	20.9	---



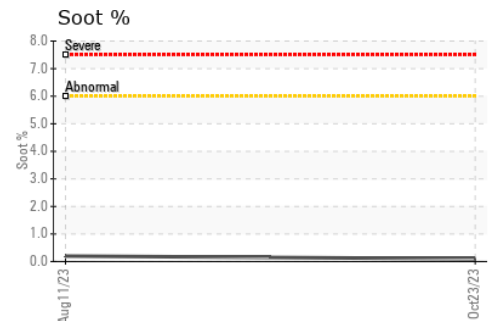
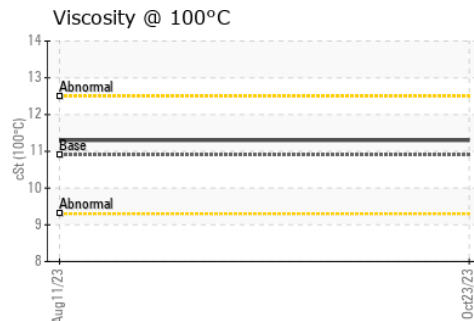
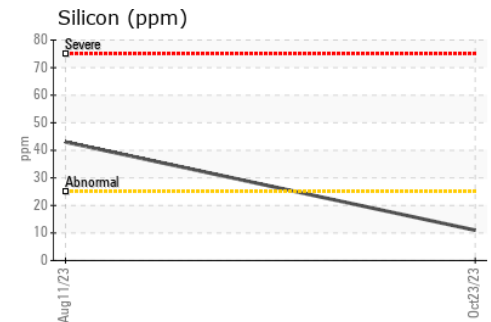
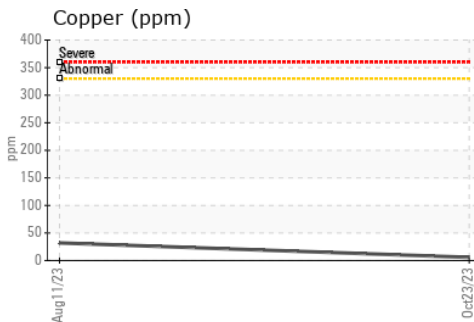
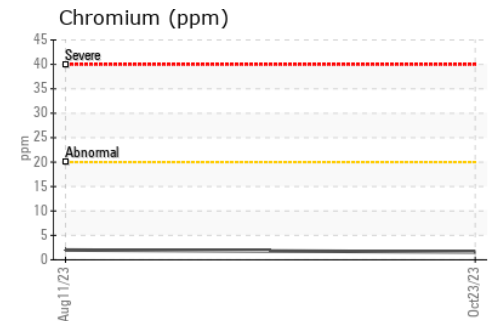
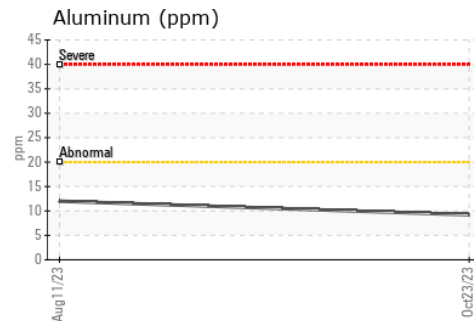
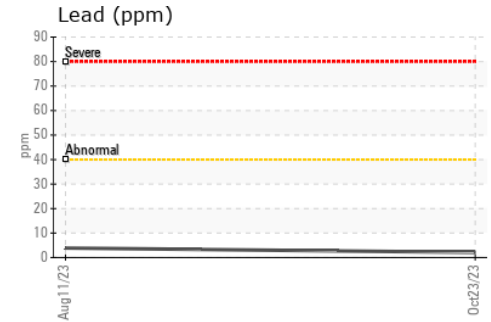
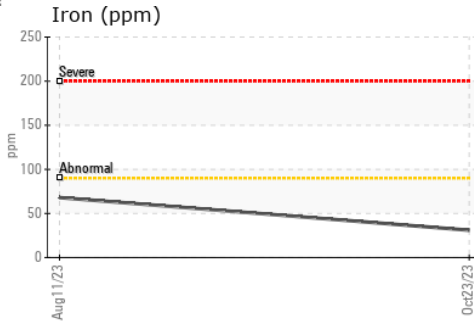
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	10.9	11.3	11.3

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0846135 **Received** : 25 Oct 2023
Lab Number : 02591605 **Diagnosed** : 25 Oct 2023
Unique Number : 5668684 **Diagnostician** : Kevin Marson
Test Package : MOB 1

CANADA CLEAN FUELS
 4425 CHESSWOOD DR
 TORONTO, ON
 CA M3J 2C2
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 rgrant@canadacleanfuels.com
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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.