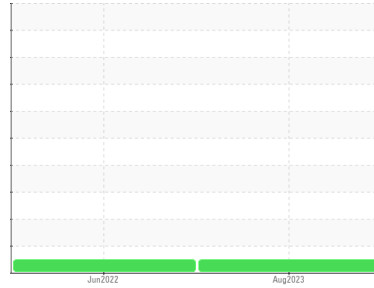




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
225003

Component
Diesel Engine

Fluid
PETRO CANADA 10W30 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

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		GFL0090737	GFL0053252	---
Sample Date	Client Info		17 Aug 2023	06 Jun 2022	---
Machine Age	hrs	Client Info	4063	96240	---
Oil Age	hrs	Client Info	600	7500	---
Oil Changed	Client Info		Changed	Changed	---
Sample Status			NORMAL	NORMAL	---

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	<1.0	---
Water	WC Method	>0.2	NEG	NEG	---
Glycol	WC Method		NEG	NEG	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	5	3
Chromium	ppm	ASTM D5185(m)	>20	0	0
Nickel	ppm	ASTM D5185(m)	>4	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0
Silver	ppm	ASTM D5185(m)	>3	0	0
Aluminum	ppm	ASTM D5185(m)	>20	1	1
Lead	ppm	ASTM D5185(m)	>40	<1	<1
Copper	ppm	ASTM D5185(m)	>330	<1	<1
Tin	ppm	ASTM D5185(m)	>15	0	<1
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)		2	3
Barium	ppm	ASTM D5185(m)		0	0
Molybdenum	ppm	ASTM D5185(m)		58	54
Manganese	ppm	ASTM D5185(m)		0	<1
Magnesium	ppm	ASTM D5185(m)		941	913
Calcium	ppm	ASTM D5185(m)		1052	1121
Phosphorus	ppm	ASTM D5185(m)		1000	1058
Zinc	ppm	ASTM D5185(m)		1148	1158
Sulfur	ppm	ASTM D5185(m)		2731	2700
Lithium	ppm	ASTM D5185(m)		<1	0

CONTAMINANTS

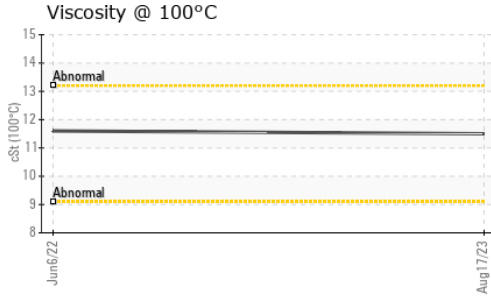
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	2	2
Sodium	ppm	ASTM D5185(m)		2	1
Potassium	ppm	ASTM D5185(m)	>20	<1	<1

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	0	0
Nitration	Abs/cm	ASTM D7624*	>20	4.8	5.0
Sulfation	Abs./1mm	ASTM D7415*	>30	17.5	20.0



OIL ANALYSIS REPORT

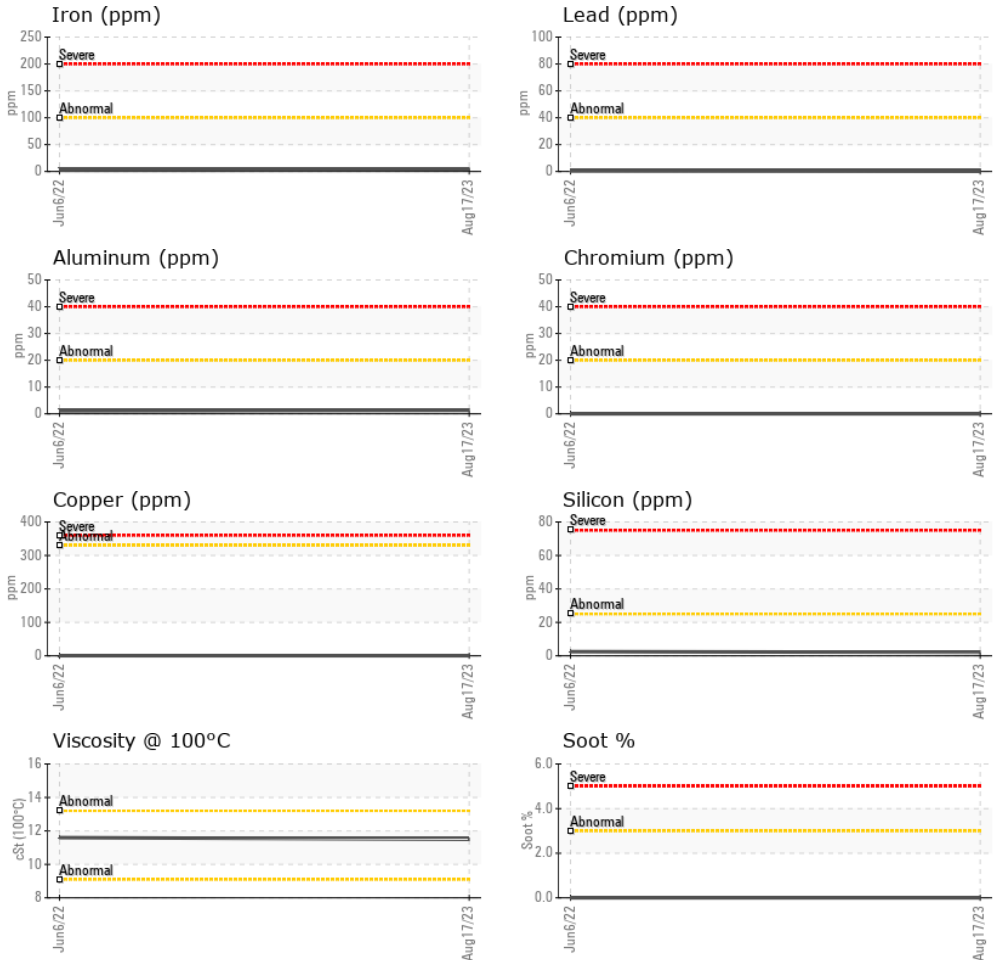


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	13.4	14.0	---

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
Precipitate	scalar	Visual*	NONE	NONE	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	NORML	---
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)		11.5	11.6	---

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 504 - Edmonton
Sample No. : GFL0090737 **Received** : 20 Dec 2023 12015 28 Street NE
Lab Number : **02604327** **Diagnosed** : 20 Dec 2023 Edmonton, AB
Unique Number : 5697412 **Diagnostician** : Wes Davis CA T6S 1E2
Test Package : MOB 1 (Additional Tests: Visual) Contact: Jerrod Adair

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.

jerrodadair@gflenv.com
 T:
 F: