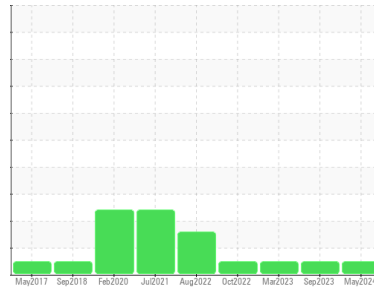




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
9172
 Component
Natural Gas Engine
 Fluid
PETRO CANADA DURON GEO LD 15W40 (--- 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		GFL0117106	GFL0085905	GFL0064334
Sample Date	Client Info		24 May 2024	28 Sep 2023	22 Mar 2023
Machine Age	kms	Client Info	296189	275225	1584
Oil Age	kms	Client Info	0	2400	600
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.1	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>50	28	17	23
Chromium	ppm	ASTM D5185(m)	>4	2	<1	2
Nickel	ppm	ASTM D5185(m)	>2	<1	0	<1
Titanium	ppm	ASTM D5185(m)		0	0	<1
Silver	ppm	ASTM D5185(m)	>3	0	<1	0
Aluminum	ppm	ASTM D5185(m)	>9	4	2	5
Lead	ppm	ASTM D5185(m)	>30	4	2	1
Copper	ppm	ASTM D5185(m)	>35	5	18	6
Tin	ppm	ASTM D5185(m)	>4	1	<1	<1
Antimony	ppm	ASTM D5185(m)		0	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)	50	5	29	10
Barium	ppm	ASTM D5185(m)	5	<1	<1	0
Molybdenum	ppm	ASTM D5185(m)	50	62	108	54
Manganese	ppm	ASTM D5185(m)	0	1	<1	<1
Magnesium	ppm	ASTM D5185(m)	560	526	121	575
Calcium	ppm	ASTM D5185(m)	1510	1640	1817	1700
Phosphorus	ppm	ASTM D5185(m)	780	688	653	767
Zinc	ppm	ASTM D5185(m)	870	913	812	941
Sulfur	ppm	ASTM D5185(m)	2040	1936	2169	2042
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>+100	6	13	10
Sodium	ppm	ASTM D5185(m)		10	3	8
Potassium	ppm	ASTM D5185(m)	>20	<1	0	0

INFRA-RED

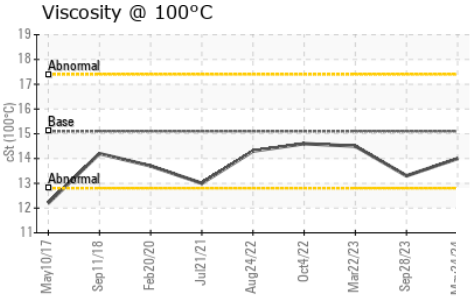
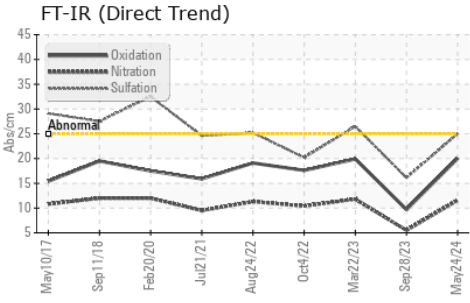
	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*		0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	11.6	5.5	11.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	25.0	16.1	26.5

FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414*	>25	20.0	9.7	19.9



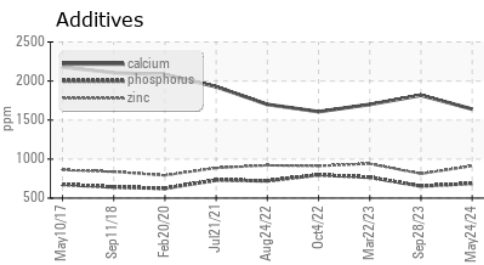
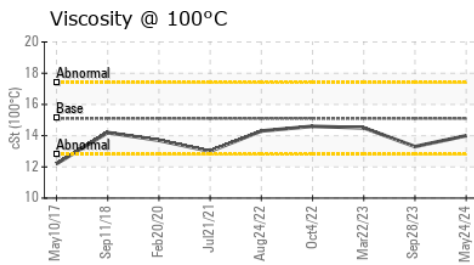
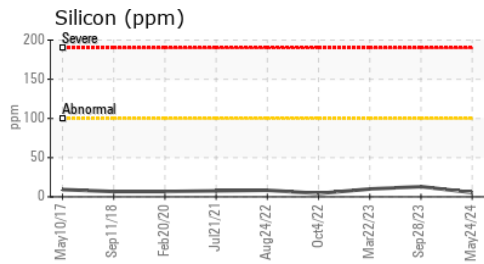
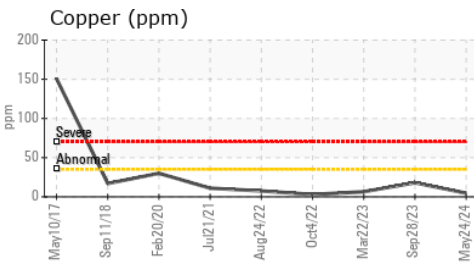
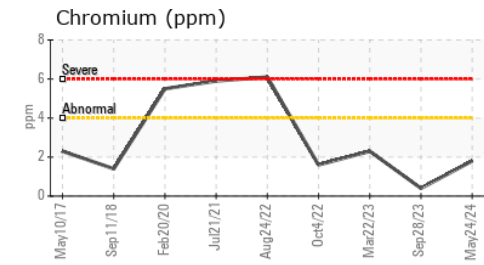
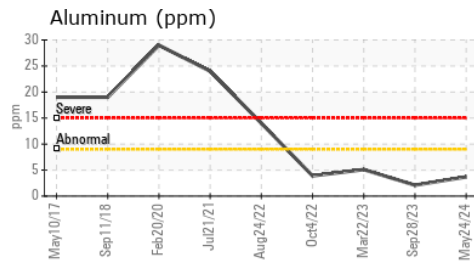
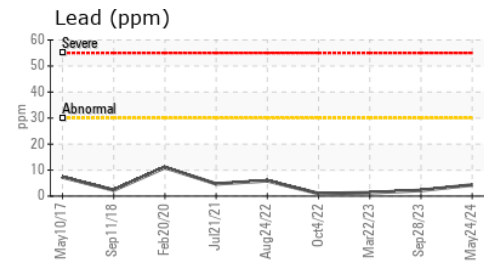
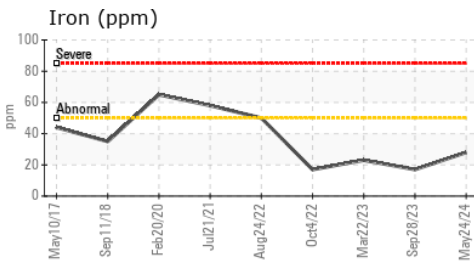
OIL ANALYSIS REPORT



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*	>0.1	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.1	14.0	13.3

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0117106
Lab Number : 02643137
Unique Number : 5800676
Test Package : MOB 1 (Additional Tests: Visual)
Received : 20 Jun 2024
Tested : 20 Jun 2024
Diagnosed : 20 Jun 2024 - Wes Davis

GFL Environmental - 209 - Hamilton
 560 Seaman Street
 Stoney Creek, ON
 CA L8E 3X7
 Contact: Fred Carleton
 fred.carleton@gflenv.com
 T: (289)925-6693
 F: (905)664-9008

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.