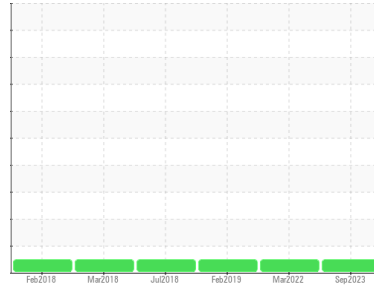




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
901013

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	GFL0090592	GFL0041497	GFL11990918	
Sample Date	Client Info	17 Sep 2023	22 Mar 2022	14 Feb 2019	
Machine Age	hrs	Client Info	0	18957	5433
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info	N/A	Changed	Changed	
Sample Status		NORMAL	NORMAL	NORMAL	

WEAR METALS

method	limit/base	current	history1	history2		
Iron	ppm	ASTM D5185(m)	>50	16	45	28
Chromium	ppm	ASTM D5185(m)	>4	1	4	3
Nickel	ppm	ASTM D5185(m)	>2	<1	1	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>9	2	5	2
Lead	ppm	ASTM D5185(m)	>30	0	11	0
Copper	ppm	ASTM D5185(m)	>35	<1	4	3
Tin	ppm	ASTM D5185(m)	>4	0	2	2
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	---

ADDITIVES

method	limit/base	current	history1	history2		
Boron	ppm	ASTM D5185(m)	50	29	12	10
Barium	ppm	ASTM D5185(m)	5	0	0	0
Molybdenum	ppm	ASTM D5185(m)	50	49	69	137
Manganese	ppm	ASTM D5185(m)	0	<1	2	---
Magnesium	ppm	ASTM D5185(m)	560	550	702	257
Calcium	ppm	ASTM D5185(m)	1510	1503	1969	2240
Phosphorus	ppm	ASTM D5185(m)	780	769	968	877
Zinc	ppm	ASTM D5185(m)	870	849	1142	1060
Sulfur	ppm	ASTM D5185(m)	2040	1944	2209	---
Lithium	ppm	ASTM D5185(m)		<1	<1	0

CONTAMINANTS

method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185(m)	>+100	6	7	5
Sodium	ppm	ASTM D5185(m)		11	13	7
Potassium	ppm	ASTM D5185(m)	>20	<1	2	0

INFRA-RED

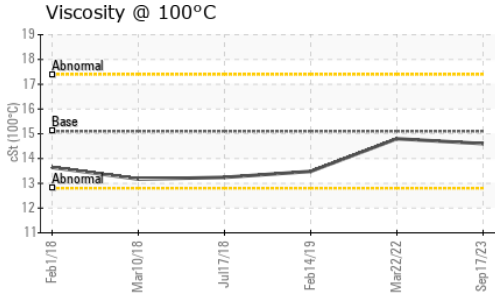
method	limit/base	current	history1	history2		
Soot %	%	ASTM D7844*		0	0	---
Nitration	Abs/cm	ASTM D7624*	>20	8.1	5.5	16.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	18.8	17.3	8.7

FLUID DEGRADATION

method	limit/base	current	history1	history2		
Oxidation	Abs/.1mm	ASTM D7414*	>25	16.0	9.3	8.7



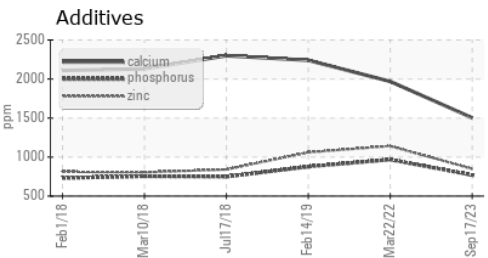
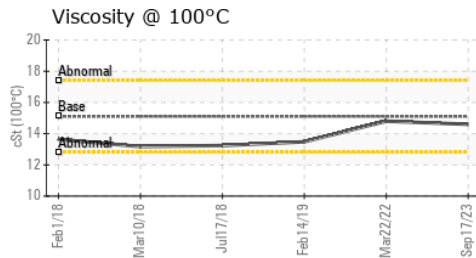
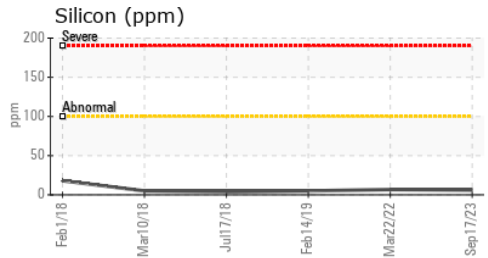
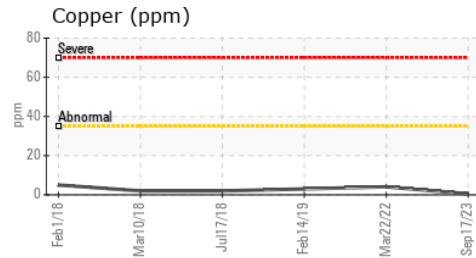
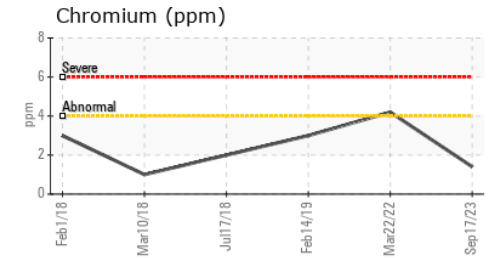
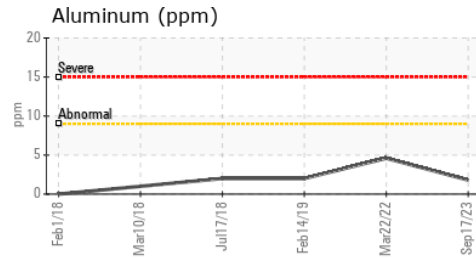
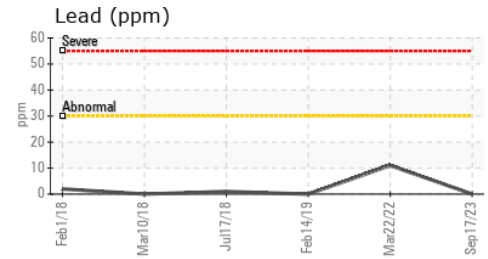
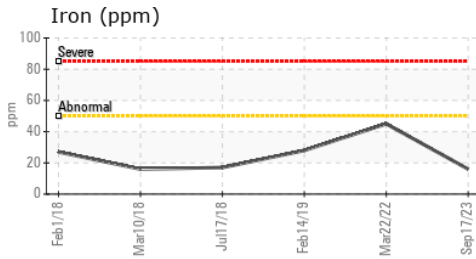
OIL ANALYSIS REPORT



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

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.1	14.6	14.8	13.48

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 554 - Edmonton SW**
Sample No. : GFL0090592 **Received** : 18 Sep 2023 **8409 -15th Street NW**
Lab Number : **02583117** **Diagnosed** : 18 Sep 2023 **Edmonton, AB**
Unique Number : 5644182 **Diagnostician** : Wes Davis **CA T6P 0B8**
Test Package : MOB 1 (Additional Tests: Visual) **Contact: Antonio De Rosa**
aderosa@gflenv.com

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.

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