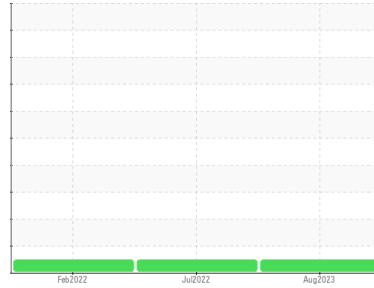




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
939000

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		GFL0084202	GFL0050575	GFL0039264
Sample Date	Client Info		08 Aug 2023	07 Jul 2022	27 Feb 2022
Machine Age	hrs	Client Info	9814	6907	0
Oil Age	hrs	Client Info	600	1200	0
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			NORMAL	NORMAL	NORMAL

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>50	3	8	14
Chromium	ppm	ASTM D5185(m)	>4	<1	<1	1
Nickel	ppm	ASTM D5185(m)	>2	0	0	<1
Titanium	ppm	ASTM D5185(m)		0	<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	4	4
Copper	ppm	ASTM D5185(m)	>35	<1	2	2
Tin	ppm	ASTM D5185(m)	>4	0	<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)	50	25	10	12
Barium	ppm	ASTM D5185(m)	5	0	0	0
Molybdenum	ppm	ASTM D5185(m)	50	45	53	55
Manganese	ppm	ASTM D5185(m)	0	<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	560	532	589	664
Calcium	ppm	ASTM D5185(m)	1510	1471	1681	1694
Phosphorus	ppm	ASTM D5185(m)	780	744	741	842
Zinc	ppm	ASTM D5185(m)	870	841	953	1004
Sulfur	ppm	ASTM D5185(m)	2040	1936	2180	2160
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>+100	3	5	6
Sodium	ppm	ASTM D5185(m)		5	4	8
Potassium	ppm	ASTM D5185(m)	>20	0	<1	<1

INFRA-RED

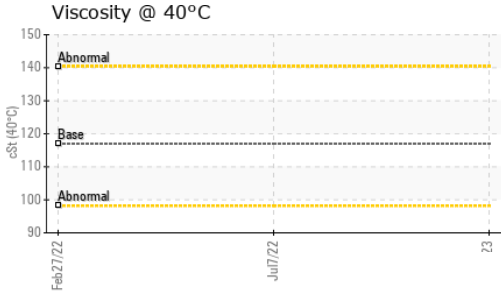
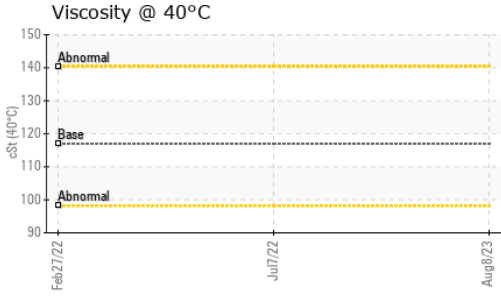
	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*		0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	8.9	5.7	4.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	22.3	16.0	15.5

FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414*	>25	17.8	9.9	8.2



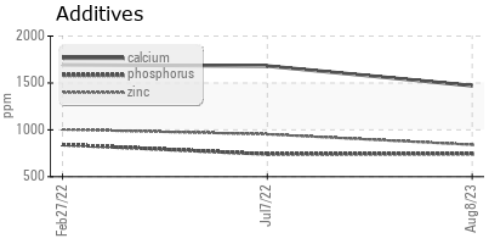
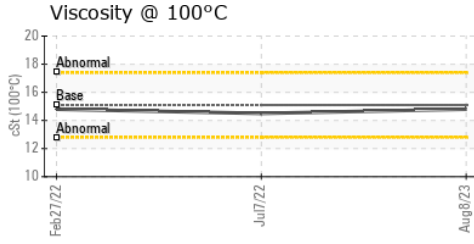
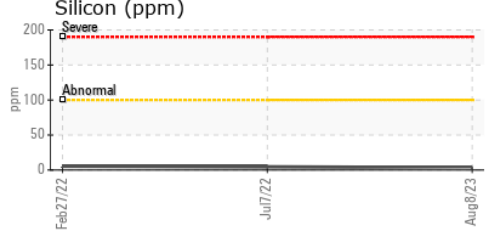
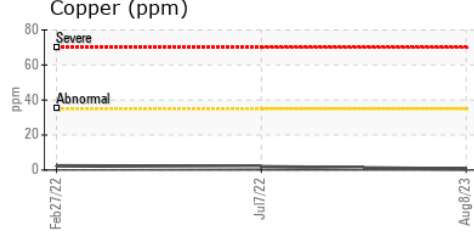
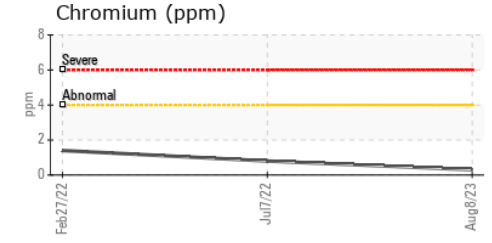
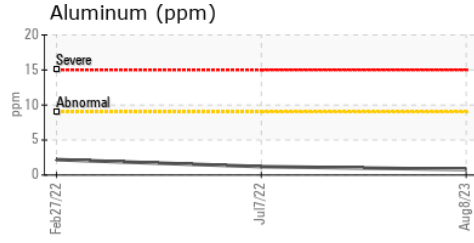
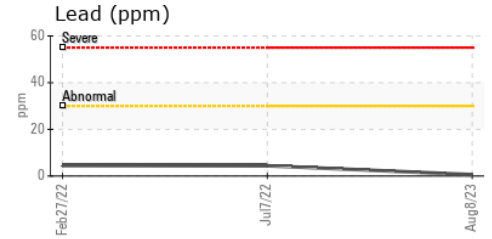
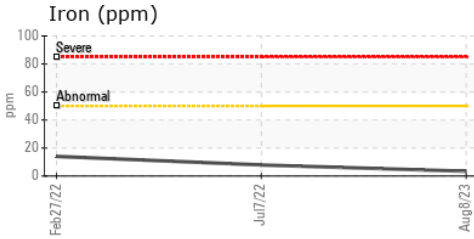
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	Visual*	NONE	NONE	---	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	---	NONE
Precipitate	scalar	Visual*	NONE	NONE	---	NONE
Silt	scalar	Visual*	NONE	NONE	---	NONE
Debris	scalar	Visual*	NONE	NONE	---	VLITE
Sand/Dirt	scalar	Visual*	NONE	NONE	---	NONE
Appearance	scalar	Visual*	NORML	NORML	---	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D7279(m)	117.0	113	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.1	14.8	14.5	14.8
Viscosity Index (VI)	Scale	ASTM D2270*	134	135	---	---

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 573 - Vancouver Hauling
Sample No. : GFL0084202 **Received** : 08 Sep 2023 70 Golden Drive,
Lab Number : 02581085 **Diagnosed** : 08 Sep 2023 Coquitlam, BC
Unique Number : 5642150 **Diagnostician** : Wes Davis CA V3K 6B5
Test Package : MOB 1 (Additional Tests: KV40, VI, Visual) Contact: Catia Klagenberg Alves
cklagenbergalves@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.