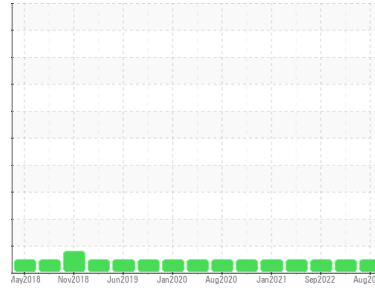




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
801057
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (20 LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

Metal levels are typical for a new component breaking in.

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		GFL0091030	GFL0068360	GFL0059514
Sample Date	Client Info		04 Aug 2023	19 Dec 2022	21 Sep 2022
Machine Age	kms	Client Info	59468	59468	10387
Oil Age	kms	Client Info	10387	0	0
Oil Changed	Client Info		Changed	N/A	Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	<1.0	<1.0

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >80	45	31	36
Chromium	ppm	ASTM D5185(m) >5	1	<1	1
Nickel	ppm	ASTM D5185(m) >2	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	<1	<1	<1
Silver	ppm	ASTM D5185(m) >3	0	0	0
Aluminum	ppm	ASTM D5185(m) >30	9	3	5
Lead	ppm	ASTM D5185(m) >30	0	0	<1
Copper	ppm	ASTM D5185(m) >150	2	2	2
Tin	ppm	ASTM D5185(m) >5	0	0	<1
Antimony	ppm	ASTM D5185(m)	0	<1	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) 0	8	5	3
Barium	ppm	ASTM D5185(m) 0	0	0	0
Molybdenum	ppm	ASTM D5185(m) 60	62	59	59
Manganese	ppm	ASTM D5185(m) 0	<1	<1	<1
Magnesium	ppm	ASTM D5185(m) 1010	964	924	939
Calcium	ppm	ASTM D5185(m) 1070	1077	1097	1097
Phosphorus	ppm	ASTM D5185(m) 1150	1055	1027	1007
Zinc	ppm	ASTM D5185(m) 1270	1229	1162	1175
Sulfur	ppm	ASTM D5185(m) 2060	2367	2367	2293
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >20	10	6	10
Sodium	ppm	ASTM D5185(m)	33	56	57
Potassium	ppm	ASTM D5185(m) >20	16	3	6
Glycol	%	ASTM D7922*	0.0	NEG	0.0

INFRA-RED

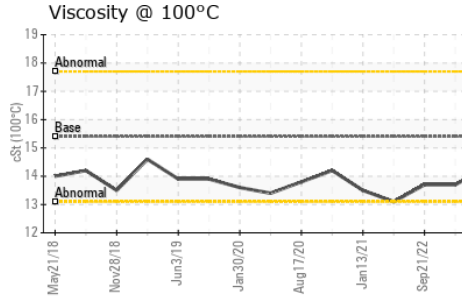
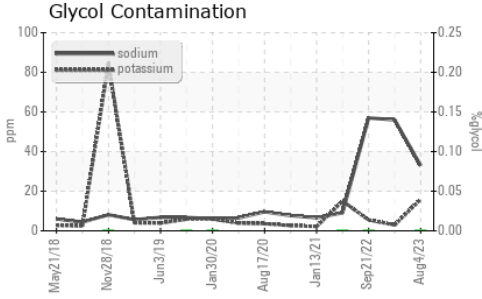
	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >3	0.9	0.5	0.5
Nitration	Abs/cm	ASTM D7624* >20	10.9	10.3	10.7
Sulfation	Abs/.1mm	ASTM D7415* >30	23.8	23.2	22.9

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414* >25	19.2	18.9	20.5



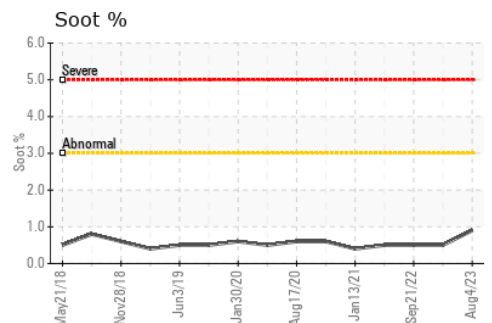
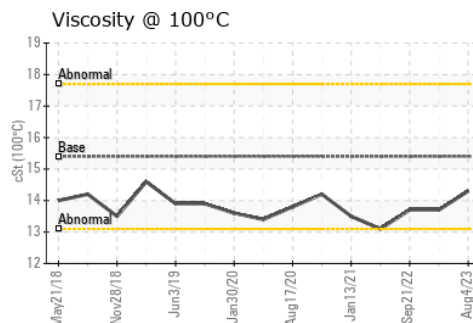
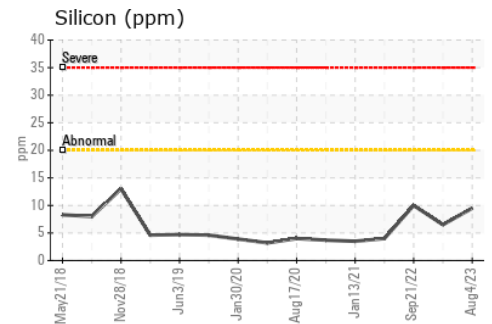
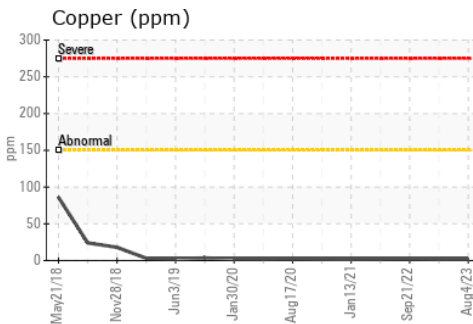
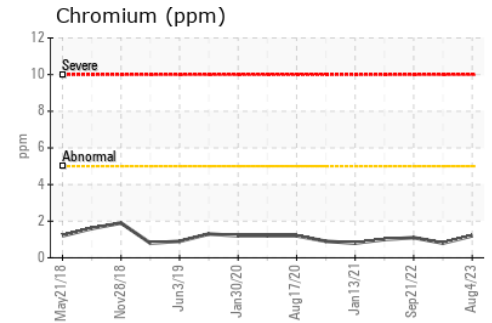
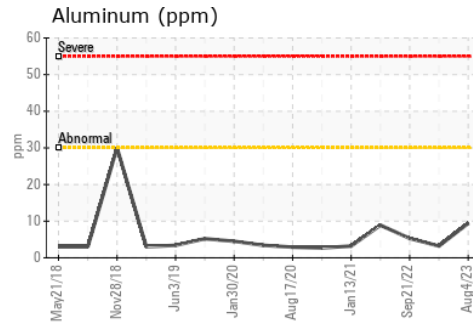
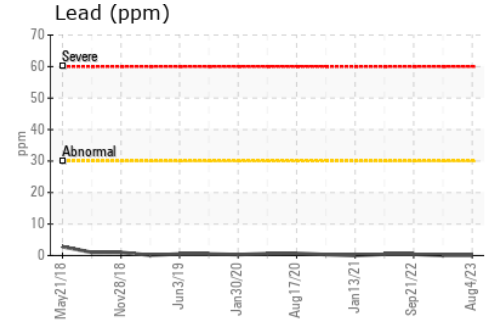
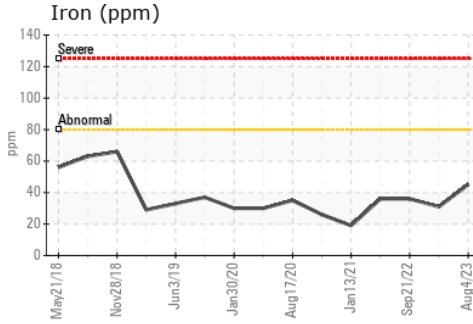
OIL ANALYSIS REPORT



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

PARAMETER	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	14.3	13.7

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0091030 **Received** : 16 Aug 2023
Lab Number : 02576143 **Diagnosed** : 16 Aug 2023
Unique Number : 5629203 **Diagnostician** : Wes Davis
Test Package : MOB 1 (Additional Tests: Glycol)

GFL Environmental - 217 - Aurora
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 AURORA, ON
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 Contact: Mike Havens
 MHavens@gflenv.com
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 F: (905)713-2445

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.