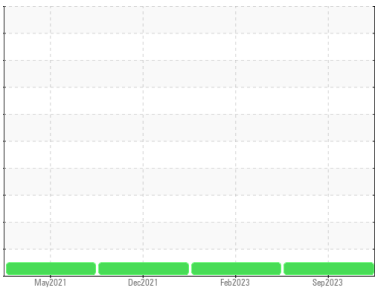
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
731007
Component
Natural Gas Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

DIAGNOSIS

Recommendation
Confirm the source of the lubricant being utilized for top-up/fill. 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
Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**GFL0079572**	GFL0041668	GFL0031982
Sample Date		Client Info		**07 Sep 2023**	07 Feb 2023	17 Dec 2021
Machine Age	kms	Client Info		**91002**	67587	1562
Oil Age	kms	Client Info		**0**	0	0
Oil Changed		Client Info		**Changed**	N/A	Changed
Sample Status				**NORMAL**	NORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>50	**16**	11	24
Chromium	ppm	ASTM D5185(m)	>4	**1**	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	**<1**	<1	<1
Titanium	ppm	ASTM D5185(m)		**0**	<1	0
Silver	ppm	ASTM D5185(m)	>3	**0**	0	<1
Aluminum	ppm	ASTM D5185(m)	>9	**2**	2	3
Lead	ppm	ASTM D5185(m)	>30	**6**	<1	1
Copper	ppm	ASTM D5185(m)	>35	**1**	<1	4
Tin	ppm	ASTM D5185(m)	>4	**<1**	<1	1
Antimony	ppm	ASTM D5185(m)		**0**	<1	<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)	0	**6**	7	9
Barium	ppm	ASTM D5185(m)	0	**0**	0	<1
Molybdenum	ppm	ASTM D5185(m)	60	**61**	49	61
Manganese	ppm	ASTM D5185(m)	0	**<1**	<1	2
Magnesium	ppm	ASTM D5185(m)	1010	**660**	508	574
Calcium	ppm	ASTM D5185(m)	1070	**1791**	1608	1675
Phosphorus	ppm	ASTM D5185(m)	1150	**867**	709	822
Zinc	ppm	ASTM D5185(m)	1270	**1040**	905	1051
Sulfur	ppm	ASTM D5185(m)	2060	**2165**	2116	2296
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>+100	**5**	4	7
Sodium	ppm	ASTM D5185(m)		**4**	3	4
Potassium	ppm	ASTM D5185(m)	>20	**<1**	<1	1

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*		**0**	0	0
Nitration	Abs/cm	ASTM D7624*	>20	**12.6**	8.3	10.7
Sulfation	Abs/.1mm	ASTM D7415*	>30	**28.3**	19.8	22.1

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**24.5**	13.1	17.1

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.1	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

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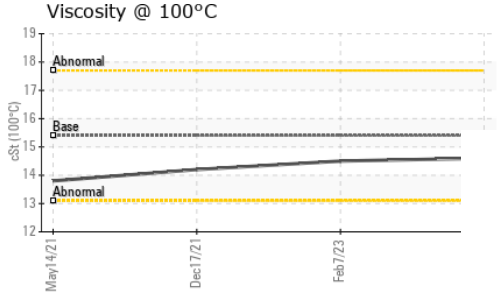
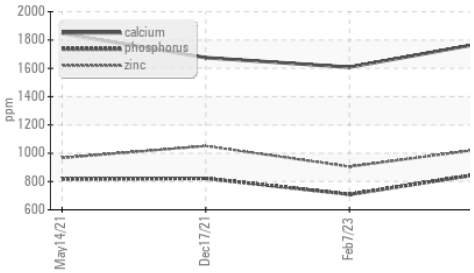
Viscosity @ 100°C



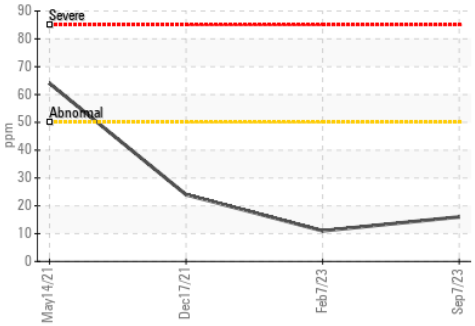
Additives



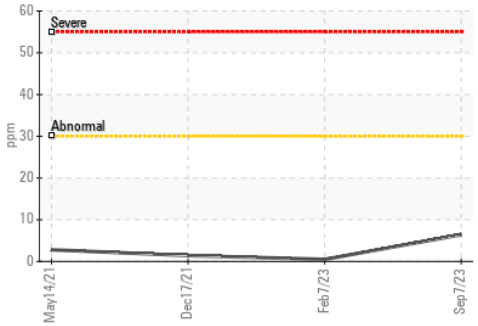
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	**14.6**	14.5	14.2

GRAPHS

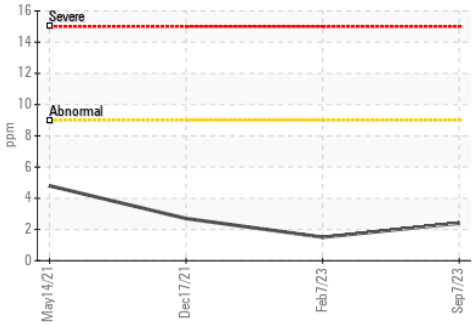
Iron (ppm)



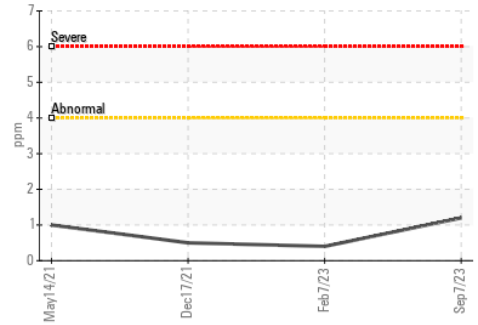
Lead (ppm)



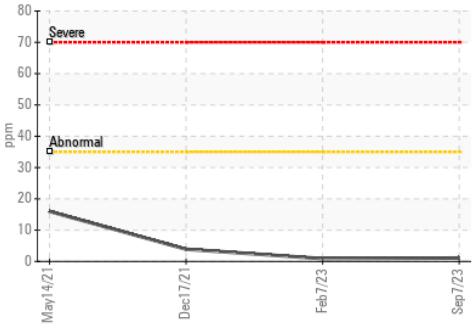
Aluminum (ppm)



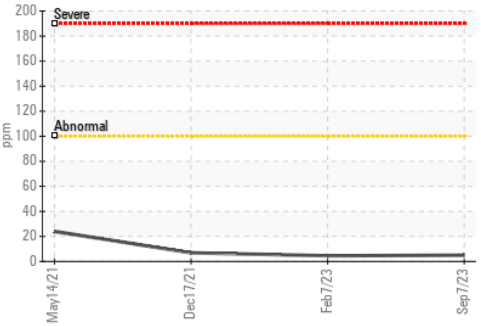
Chromium (ppm)



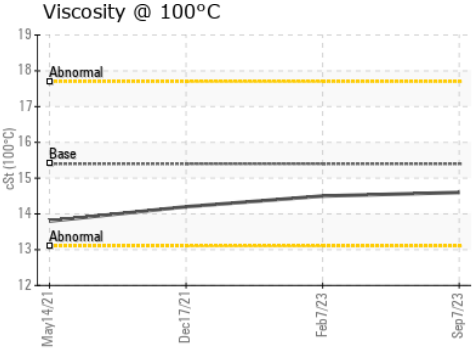
Copper (ppm)



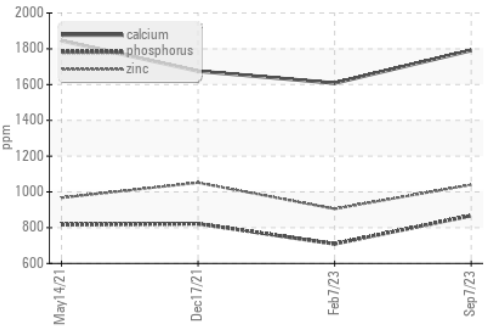
Silicon (ppm)



Viscosity @ 100°C



Additives



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 277 - Niagara Regional**
Sample No. : GFL0079572 **Received** : 12 Sep 2023 C/O Metro Truck Niagara Inc., 411 Glendale Avenue
Lab Number : 02581727 **Diagnosed** : 12 Sep 2023 St. Catharines, ON
Unique Number : 5642792 **Diagnostician** : Wes Davis CA L2P 3Y1
Test Package : MOB 1 Contact: Kelly Bremner

To discuss this sample report, contact Customer Service at 1-800-268-2131. kbremner@gflenv.com
Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. T: (437)235-6849
Validity of results and interpretation are based on the sample and information as supplied. F: