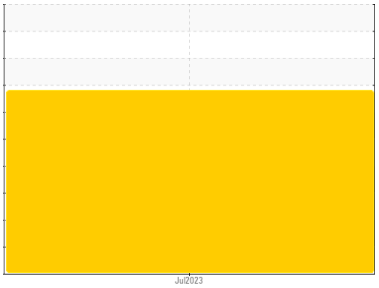
OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Machine Id
WL0415
Component
Rear Left Wheel Hub
Fluid
GEAR OIL LS 80W90 (--- GAL)

DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) GEAR OIL LS 80W90. Please confirm.

Wear

Lead ppm levels are severe. Copper ppm levels are abnormal. Bearing and/or bushing wear is indicated.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**GFL0088318**	---	---
Sample Date		Client Info		**12 Jul 2023**	---	---
Machine Age	kms	Client Info		**5138**	---	---
Oil Age	kms	Client Info		**1000**	---	---
Oil Changed		Client Info		**Changed**	---	---
Sample Status				**SEVERE**	---	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>500	**272**	---	---
Chromium	ppm	ASTM D5185(m)	>8	**3**	---	---
Nickel	ppm	ASTM D5185(m)	>5	**0**	---	---
Titanium	ppm	ASTM D5185(m)		**<1**	---	---
Silver	ppm	ASTM D5185(m)		**0**	---	---
Aluminum	ppm	ASTM D5185(m)	>5	**2**	---	---
Lead	ppm	ASTM D5185(m)	>5	**13**	---	---
Copper	ppm	ASTM D5185(m)	>50	**524**	---	---
Tin	ppm	ASTM D5185(m)		**0**	---	---
Antimony	ppm	ASTM D5185(m)	>5	**0**	---	---
Vanadium	ppm	ASTM D5185(m)		**0**	---	---
Beryllium	ppm	ASTM D5185(m)		**0**	---	---
Cadmium	ppm	ASTM D5185(m)		**0**	---	---

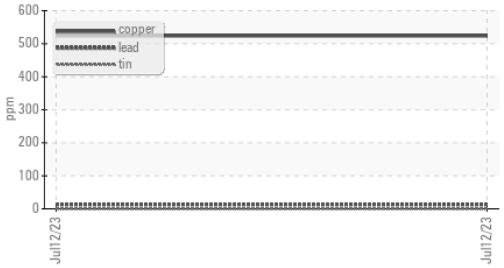
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	150	**93**	---	---
Barium	ppm	ASTM D5185(m)		**3**	---	---
Molybdenum	ppm	ASTM D5185(m)		**0**	---	---
Manganese	ppm	ASTM D5185(m)		**4**	---	---
Magnesium	ppm	ASTM D5185(m)	10	**<1**	---	---
Calcium	ppm	ASTM D5185(m)	70	**54**	---	---
Phosphorus	ppm	ASTM D5185(m)	2000	**1133**	---	---
Zinc	ppm	ASTM D5185(m)	50	**292**	---	---
Sulfur	ppm	ASTM D5185(m)	20000	**26672**	---	---
Lithium	ppm	ASTM D5185(m)		**<1**	---	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	**20**	---	---
Sodium	ppm	ASTM D5185(m)		**1**	---	---
Potassium	ppm	ASTM D5185(m)	>20	**1**	---	---

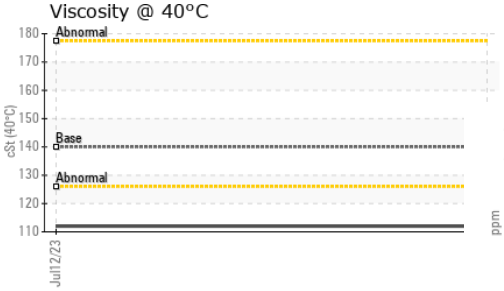
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**VLITE**	---	---
Yellow Metal	scalar	Visual*	NONE	**NONE**	---	---
Precipitate	scalar	Visual*	NONE	**NONE**	---	---
Silt	scalar	Visual*	NONE	**VLITE**	---	---
Debris	scalar	Visual*	NONE	**VLITE**	---	---
Sand/Dirt	scalar	Visual*	NONE	**NONE**	---	---
Appearance	scalar	Visual*	NORML	**NORML**	---	---
Odor	scalar	Visual*	NORML	**NORML**	---	---
Emulsified Water	scalar	Visual*	>0.2	**NEG**	---	---
Free Water	scalar	Visual*		**NEG**	---	---

OIL ANALYSIS REPORT

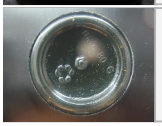
Non-ferrous Metals



Viscosity @ 40°C

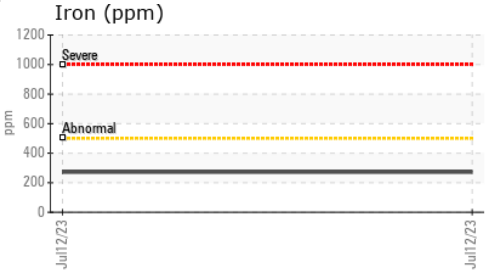


FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	140	**112**	---	---

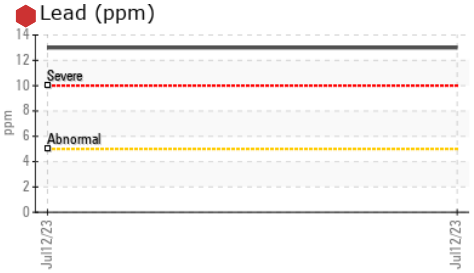
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				*no image*	*no image*
Bottom				*no image*	*no image*

GRAPHS

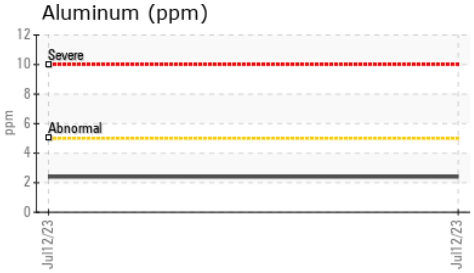
Iron (ppm)



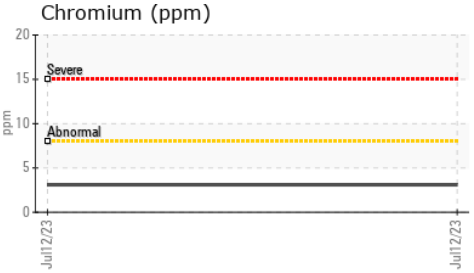
Lead (ppm)



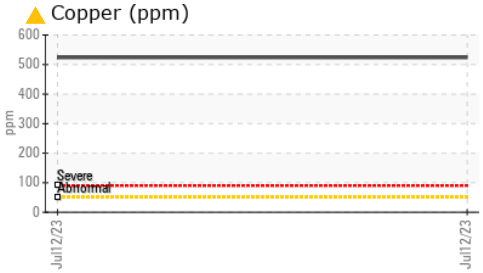
Aluminum (ppm)



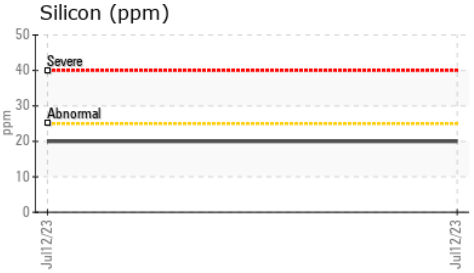
Chromium (ppm)



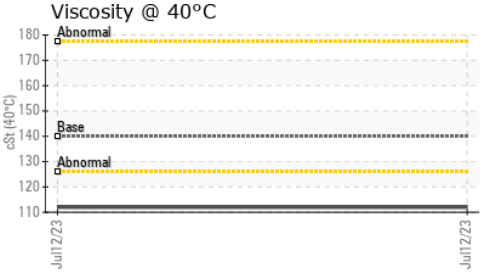
Copper (ppm)



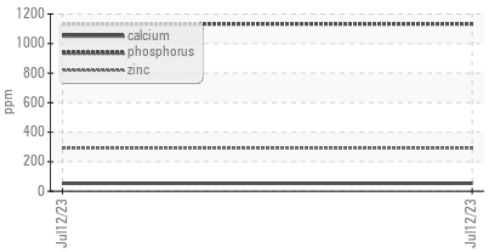
Silicon (ppm)



Viscosity @ 40°C



Additives



ISO 17025:2017 Accredited Laboratory

Laboratory	: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9			
Sample No.	: GFL0088318	**Received**	: 14 Aug 2023	
Lab Number	: 02575773	**Diagnosed**	: 14 Aug 2023	
Unique Number	: 5620824	**Diagnostician**	: Kevin Marson	
Test Package	: MOB 1			

GFL Environmental - Boylston
151 Waste Management Road Hiwy 16
Boylston, NS
CA B0H 1G0
Contact: Bruce Avery
bruce.avery@gflenv.com
T:
F:

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.