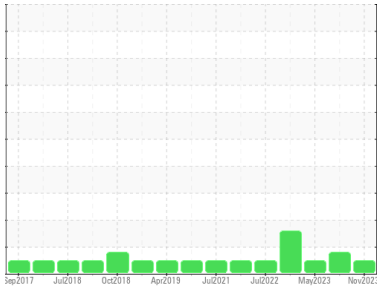
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
8134
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 10W30 (--- GAL)

DIAGNOSIS

Recommendation
Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. 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		**GFL0097612**	GFL0090620	GFL0077987
Sample Date		Client Info		**05 Nov 2023**	22 Aug 2023	11 May 2023
Machine Age	hrs	Client Info		**11656**	112688	10781
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	Changed
Sample Status				**NORMAL**	ABNORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>5	**<1.0**	<1.0	<1.0
Glycol		WC Method		**NEG**	0.0	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>80	**73**	▲ 92	41
Chromium	ppm	ASTM D5185(m)	>5	**2**	3	2
Nickel	ppm	ASTM D5185(m)	>2	**2**	2	1
Titanium	ppm	ASTM D5185(m)		**0**	<1	<1
Silver	ppm	ASTM D5185(m)	>3	**<1**	<1	0
Aluminum	ppm	ASTM D5185(m)	>30	**11**	10	4
Lead	ppm	ASTM D5185(m)	>30	**5**	8	<1
Copper	ppm	ASTM D5185(m)	>150	**2**	3	3
Tin	ppm	ASTM D5185(m)	>5	**<1**	<1	<1
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	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	2	**2**	2	2
Barium	ppm	ASTM D5185(m)	0	**0**	0	0
Molybdenum	ppm	ASTM D5185(m)	50	**58**	56	58
Manganese	ppm	ASTM D5185(m)	0	**0**	<1	<1
Magnesium	ppm	ASTM D5185(m)	950	**924**	897	937
Calcium	ppm	ASTM D5185(m)	1050	**988**	964	1057
Phosphorus	ppm	ASTM D5185(m)	995	**946**	970	1047
Zinc	ppm	ASTM D5185(m)	1180	**1161**	1096	1136
Sulfur	ppm	ASTM D5185(m)	2600	**2332**	2316	2570
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>20	**10**	14	8
Sodium	ppm	ASTM D5185(m)		**8**	12	4
Potassium	ppm	ASTM D5185(m)	>20	**13**	16	4

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	**1.2**	1	0.4
Nitration	Abs/cm	ASTM D7624*	>20	**11.3**	11.1	7.0
Sulfation	Abs/.1mm	ASTM D7415*	>30	**23.7**	25.2	20.0

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**22.0**	23.4	15.4

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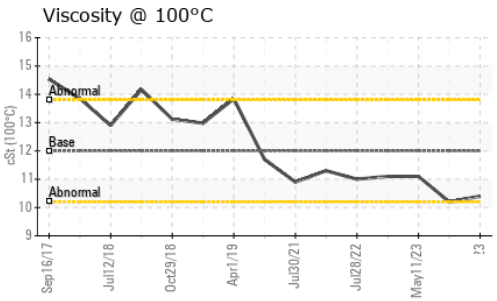
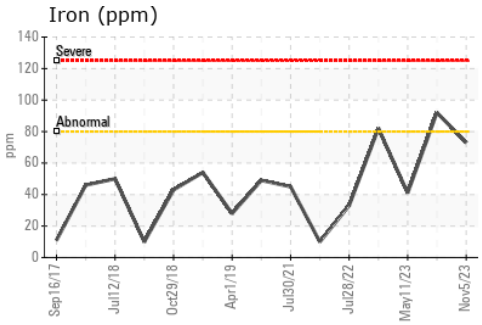
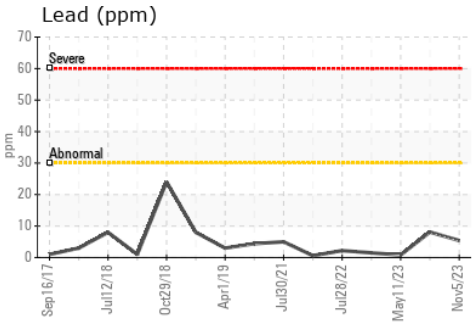


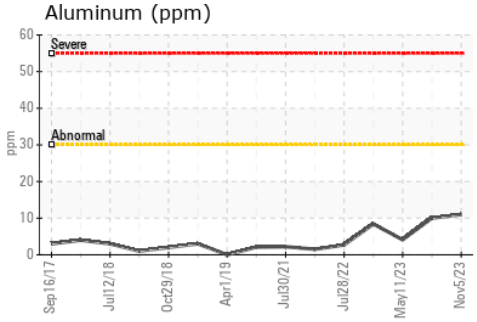
VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

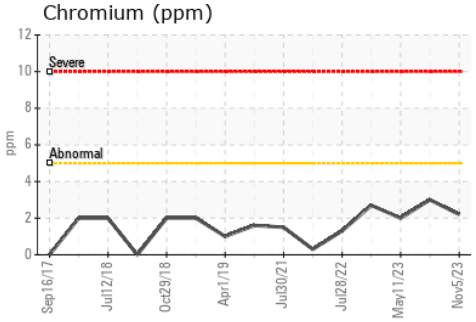
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	**10.4**	10.2	11.1

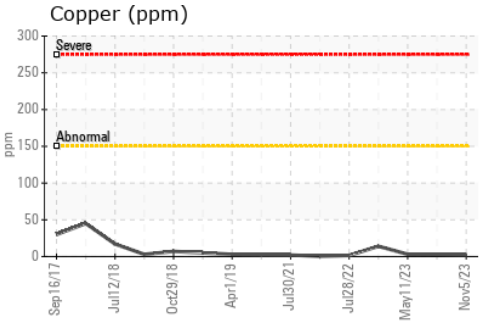
GRAPHS

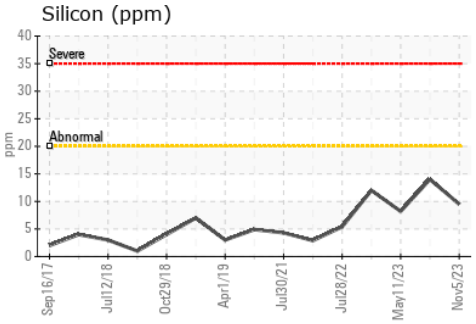


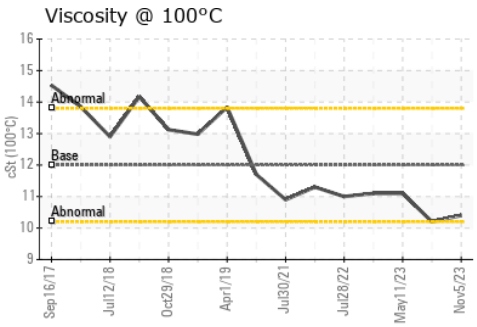


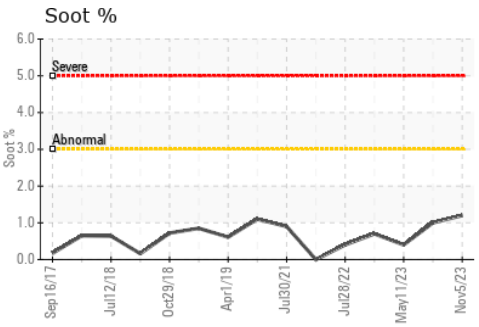












CALA Testing Accreditation No. 1005078
ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 554 - Edmonton SW**
Sample No. : GFL0097612 **Received** : 13 Nov 2023
Lab Number : 02595718 **Diagnosed** : 13 Nov 2023
Unique Number : 5672797 **Diagnostician** : Wes Davis
Test Package : MOB 1

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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.