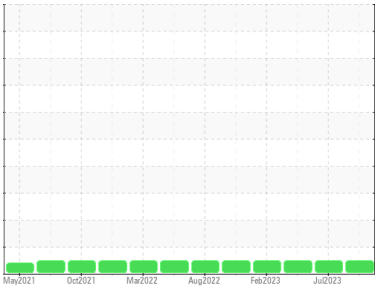
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
411002
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- LTR)

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		**GFL0090387**	GFL0071503	GFL0071490
Sample Date		Client Info		**15 Jan 2024**	12 Jul 2023	20 Apr 2023
Machine Age	kms	Client Info		**124708**	107544	98112
Oil Age	kms	Client Info		**0**	0	0
Oil Changed		Client Info		**Changed**	N/A	N/A
Sample Status				**NORMAL**	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	**<1.0**	<1.0	<1.0
Water		WC Method	>0.2	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>120	**16**	6	5
Chromium	ppm	ASTM D5185(m)	>20	**<1**	<1	0
Nickel	ppm	ASTM D5185(m)	>5	**1**	0	<1
Titanium	ppm	ASTM D5185(m)	>2	**0**	0	<1
Silver	ppm	ASTM D5185(m)	>2	**0**	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	**3**	1	2
Lead	ppm	ASTM D5185(m)	>40	**<1**	<1	<1
Copper	ppm	ASTM D5185(m)	>330	**13**	1	5
Tin	ppm	ASTM D5185(m)	>15	**<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)	0	**1**	2	3
Barium	ppm	ASTM D5185(m)	0	**0**	0	0
Molybdenum	ppm	ASTM D5185(m)	60	**58**	58	58
Manganese	ppm	ASTM D5185(m)	0	**0**	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	**937**	977	948
Calcium	ppm	ASTM D5185(m)	1070	**1039**	1042	1070
Phosphorus	ppm	ASTM D5185(m)	1150	**912**	1038	1051
Zinc	ppm	ASTM D5185(m)	1270	**1157**	1184	1154
Sulfur	ppm	ASTM D5185(m)	2060	**2284**	2487	2583
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	**3**	3	2
Sodium	ppm	ASTM D5185(m)		**4**	4	5
Potassium	ppm	ASTM D5185(m)	>20	**6**	2	2

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>4	**0.3**	0.1	0.1
Nitration	Abs/cm	ASTM D7624*	>20	**9.7**	7.0	7.0
Sulfation	Abs/.1mm	ASTM D7415*	>30	**21.5**	19.4	18.5

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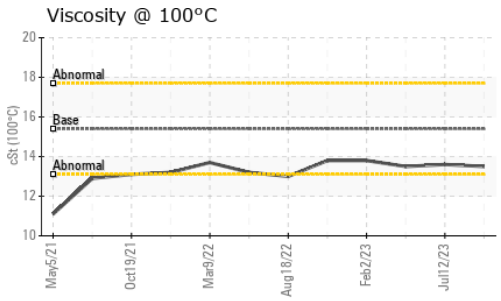
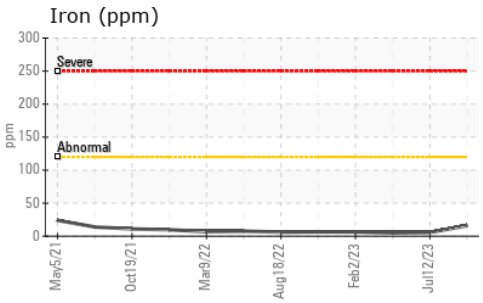


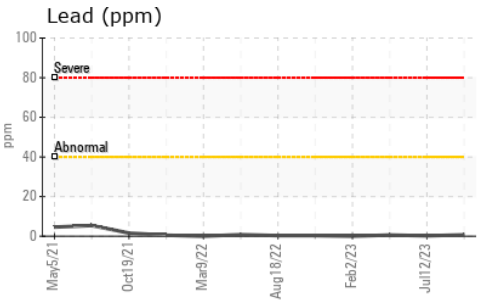
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**17.7**	15.0	14.6

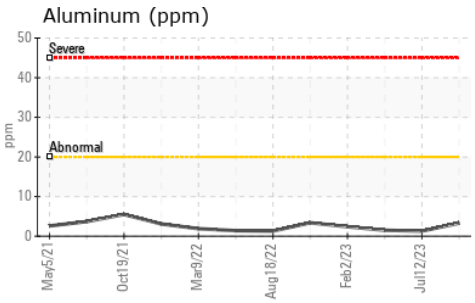
VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

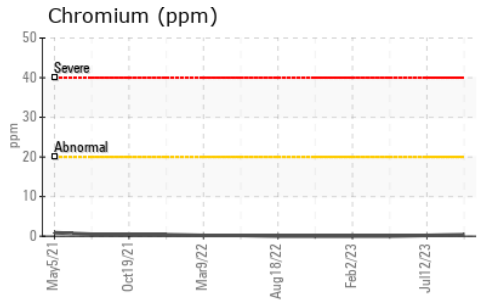
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	**13.5**	13.6	13.5

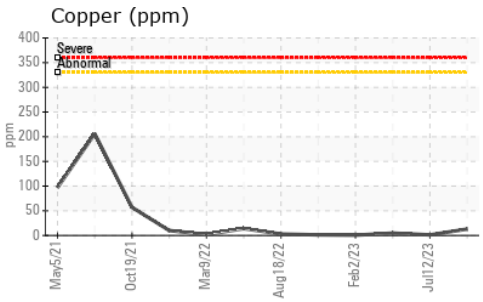
GRAPHS

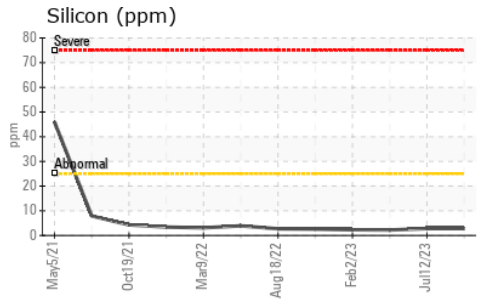


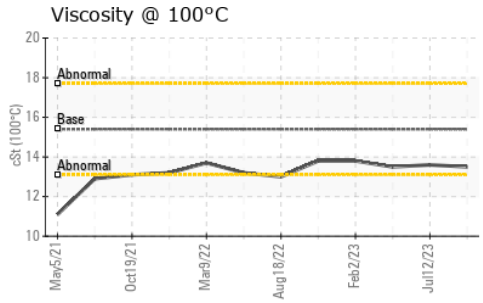


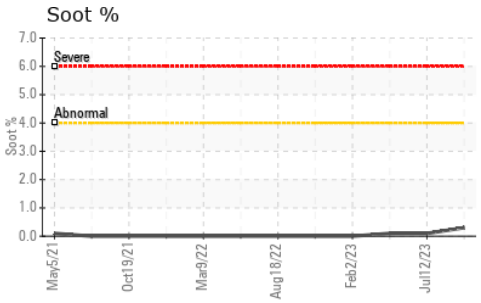












ISO 17025:2017 Accredited Laboratory

Laboratory	: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9		
Sample No.	: GFL0090387	**Recieved**	: 17 Jan 2024
Lab Number	: 02609203	**Diagnosed**	: 17 Jan 2024
Unique Number	: 5710289	**Diagnostician**	: Wes Davis
Test Package	: MOB 1		

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.

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