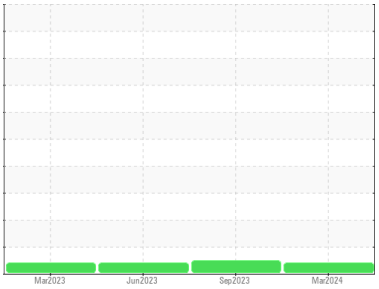
OIL ANALYSIS REPORT

Area
GFL234
Machine Id
429014
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

Sample Rating Trend



VISCOSITY

DIAGNOSIS

Recommendation
No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
Fuel content negligible. There is no indication of any contamination in the oil.

Fluid Condition
Viscosity of sample indicates oil is within SAE 30 range, advise investigate. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**GFL0110651**	GFL0035518	GFL0035514
Sample Date		Client Info		**20 Mar 2024**	19 Sep 2023	22 Jun 2023
Machine Age	hrs	Client Info		**10663**	9953	9630
Oil Age	hrs	Client Info		**600**	600	9630
Oil Changed		Client Info		**Changed**	Changed	Changed
Sample Status				**ABNORMAL**	NORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.2	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	0.0	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>120	**5**	13	18
Chromium	ppm	ASTM D5185(m)	>20	**0**	0	<1
Nickel	ppm	ASTM D5185(m)	>5	**0**	<1	0
Titanium	ppm	ASTM D5185(m)	>2	**0**	0	0
Silver	ppm	ASTM D5185(m)	>2	**0**	0	<1
Aluminum	ppm	ASTM D5185(m)	>20	**1**	2	2
Lead	ppm	ASTM D5185(m)	>40	**0**	<1	2
Copper	ppm	ASTM D5185(m)	>330	**2**	4	6
Tin	ppm	ASTM D5185(m)	>15	**0**	0	<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	**6**	103	29
Barium	ppm	ASTM D5185(m)	0	**0**	0	<1
Molybdenum	ppm	ASTM D5185(m)	60	**58**	14	86
Manganese	ppm	ASTM D5185(m)	0	**0**	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	**871**	42	31
Calcium	ppm	ASTM D5185(m)	1070	**1116**	2100	2084
Phosphorus	ppm	ASTM D5185(m)	1150	**1000**	971	1035
Zinc	ppm	ASTM D5185(m)	1270	**1169**	1104	1146
Sulfur	ppm	ASTM D5185(m)	2060	**2624**	2824	2945
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	**<1**	4	4
Sodium	ppm	ASTM D5185(m)		**3**	6	7
Potassium	ppm	ASTM D5185(m)	>20	**<1**	7	2
Fuel	%	ASTM D7593*	>3.0	**0.8**	<1.0	1

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>4	**0**	0	0.2
Nitration	Abs/cm	ASTM D7624*	>20	**5.4**	7.3	9.6
Sulfation	Abs/.1mm	ASTM D7415*	>30	**18.1**	19.9	19.8

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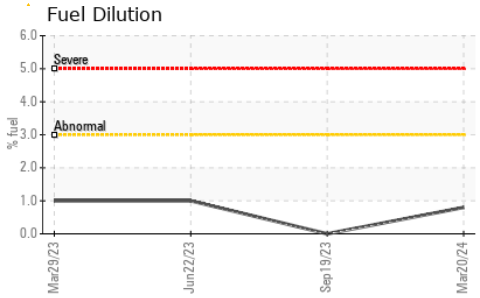
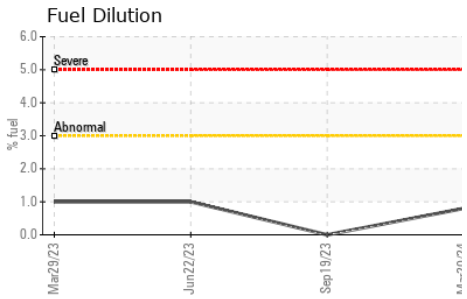


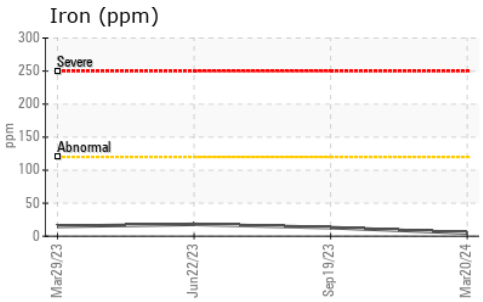


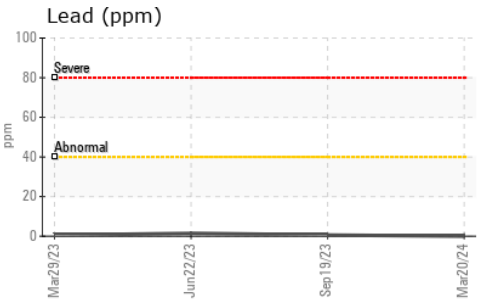
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**13.7**	15.5	15.2

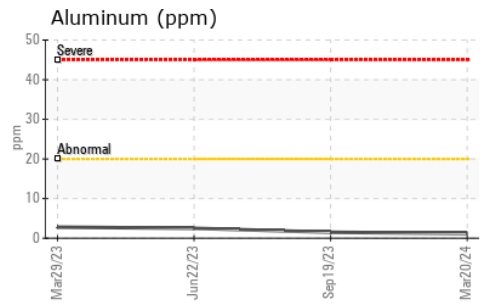
VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

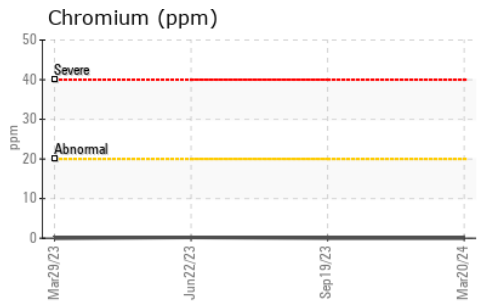
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	▲ **11.5**	14.0	▲ 11.1

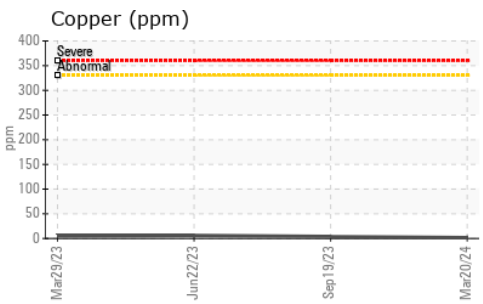
GRAPHS

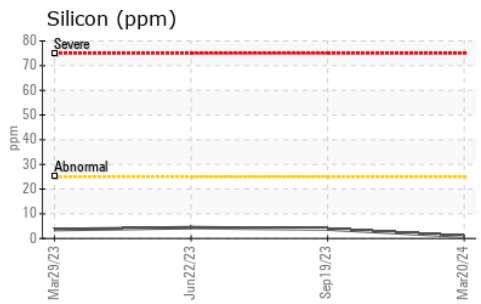


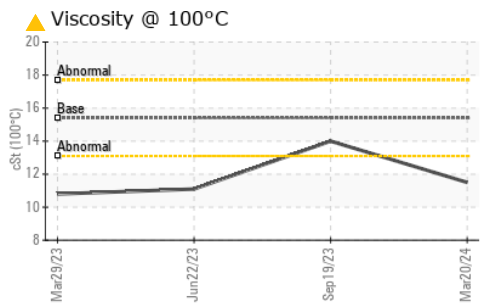


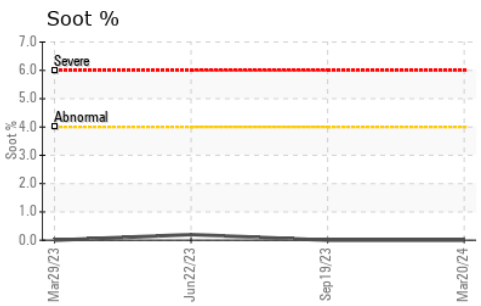












ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0110651
Lab Number : 02624557
Unique Number : 5749676
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel)

Received : 26 Mar 2024
Tested : 27 Mar 2024
Diagnosed : 27 Mar 2024 - Kevin Marson

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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