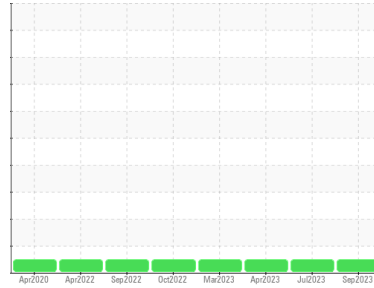




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
829004
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- 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		GFL0093932	GFL0062926	GFL0062917
Sample Date	Client Info		24 Sep 2023	18 Jul 2023	04 Apr 2023
Machine Age	hrs	Client Info	8792	8396	7849
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

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

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >80	14	17	6
Chromium	ppm	ASTM D5185(m) >5	<1	<1	0
Nickel	ppm	ASTM D5185(m) >2	0	0	<1
Titanium	ppm	ASTM D5185(m)	0	0	<1
Silver	ppm	ASTM D5185(m) >3	<1	0	0
Aluminum	ppm	ASTM D5185(m) >30	4	3	2
Lead	ppm	ASTM D5185(m) >30	<1	0	0
Copper	ppm	ASTM D5185(m) >150	<1	1	<1
Tin	ppm	ASTM D5185(m) >5	0	0	<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	8	13
Barium	ppm	ASTM D5185(m) 0	0	0	0
Molybdenum	ppm	ASTM D5185(m) 60	58	59	59
Manganese	ppm	ASTM D5185(m) 0	0	<1	<1
Magnesium	ppm	ASTM D5185(m) 1010	909	928	911
Calcium	ppm	ASTM D5185(m) 1070	1033	1037	1069
Phosphorus	ppm	ASTM D5185(m) 1150	941	992	1040
Zinc	ppm	ASTM D5185(m) 1270	1140	1143	1086
Sulfur	ppm	ASTM D5185(m) 2060	2405	2444	2656
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >20	4	5	4
Sodium	ppm	ASTM D5185(m)	7	7	4
Potassium	ppm	ASTM D5185(m) >20	8	3	2

INFRA-RED

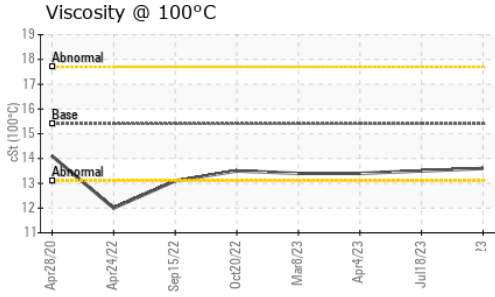
	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >3	0.2	0.3	0
Nitration	Abs/cm	ASTM D7624* >20	8.9	9.7	7.0
Sulfation	Abs/.1mm	ASTM D7415* >30	19.7	21.0	20.9

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414* >25	16.3	17.4	14.2



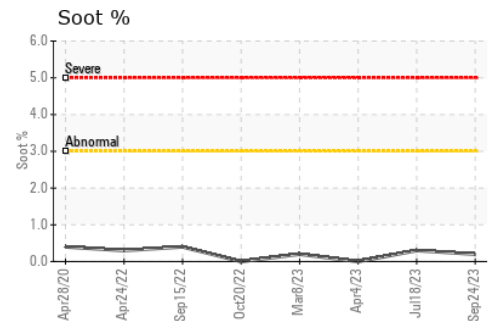
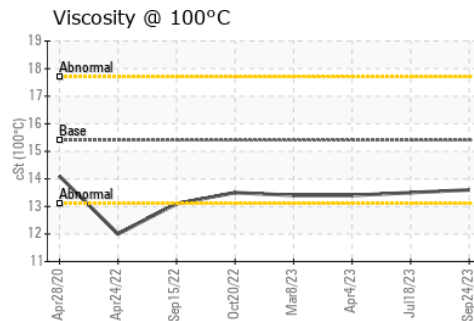
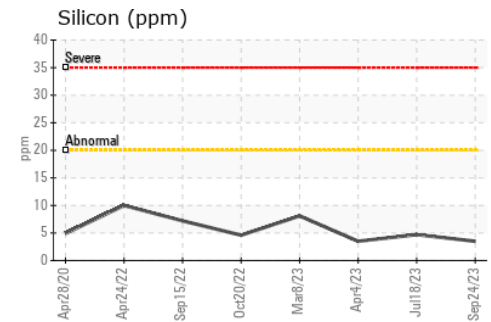
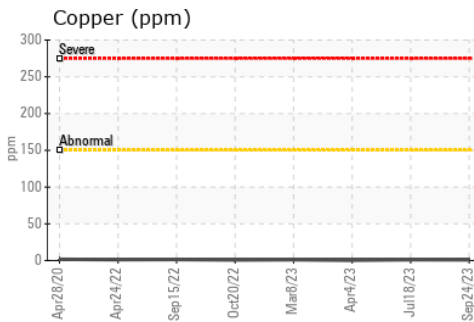
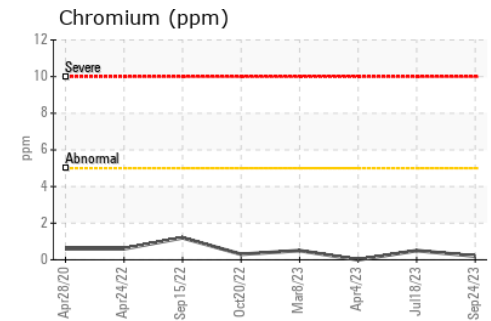
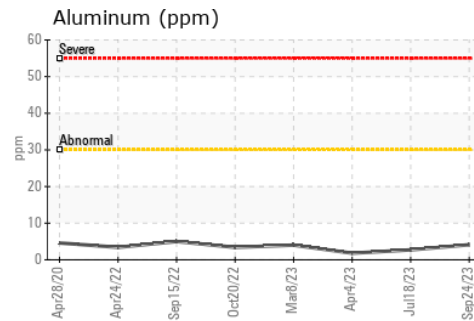
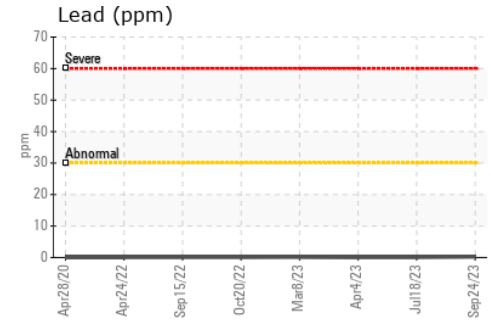
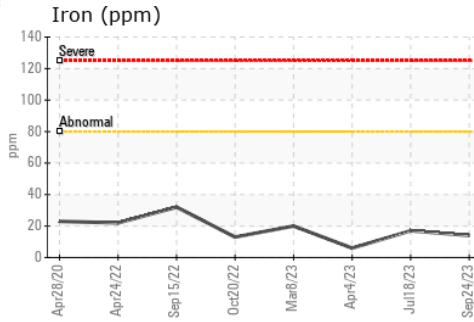
OIL ANALYSIS REPORT



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

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

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 777 - Belleville-Municipal waste
Sample No. : GFL0093932 **Received** : 25 Sep 2023 197 Putman Industrial Road
Lab Number : 02584848 **Diagnosed** : 25 Sep 2023 Belleville, ON
Unique Number : 5645913 **Diagnostician** : Wes Davis CA K8N 4Z6
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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