



OIL ANALYSIS REPORT

Sample Rating Trend

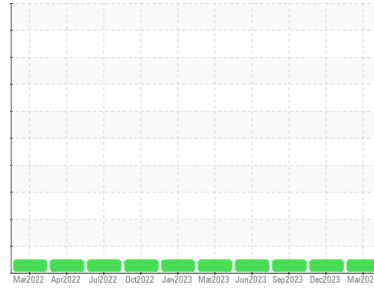
NORMAL



Area
[1236174]
Machine Id
810053

Component
Diesel Engine
Fluid

PETRO CANADA DURON SHP 15W40 (--- GAL)



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

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	GFL0093960	GFL0093938	GFL0093925
Sample Date	Client Info	04 Mar 2024	18 Dec 2023	17 Sep 2023
Machine Age	hrs	Client Info	5147	0
Oil Age	hrs	Client Info	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
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) >100	21	27	25
Chromium	ppm ASTM D5185(m) >20	<1	<1	<1
Nickel	ppm ASTM D5185(m) >4	<1	<1	<1
Titanium	ppm ASTM D5185(m)	0	0	0
Silver	ppm ASTM D5185(m) >3	0	0	<1
Aluminum	ppm ASTM D5185(m) >20	6	10	8
Lead	ppm ASTM D5185(m) >40	0	<1	<1
Copper	ppm ASTM D5185(m) >330	2	2	2
Tin	ppm ASTM D5185(m) >15	0	<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	6	4	5
Barium	ppm ASTM D5185(m) 0	0	0	0
Molybdenum	ppm ASTM D5185(m) 60	59	60	59
Manganese	ppm ASTM D5185(m) 0	0	0	<1
Magnesium	ppm ASTM D5185(m) 1010	924	945	950
Calcium	ppm ASTM D5185(m) 1070	1111	1169	1065
Phosphorus	ppm ASTM D5185(m) 1150	987	1021	1058
Zinc	ppm ASTM D5185(m) 1270	1150	1188	1187
Sulfur	ppm ASTM D5185(m) 2060	2566	2610	2443
Lithium	ppm ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

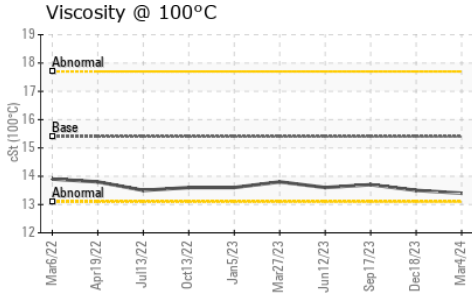
method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >25	4	7	4
Sodium	ppm ASTM D5185(m)	9	9	9
Potassium	ppm ASTM D5185(m) >20	7	13	12

INFRA-RED

method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >3	0.4	0.5	0.5
Nitration	Abs/cm ASTM D7624* >20	9.7	9.8	9.7
Sulfation	Abs.1mm ASTM D7415* >30	20.5	21.0	21.0



OIL ANALYSIS REPORT



FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	17.7	17.8

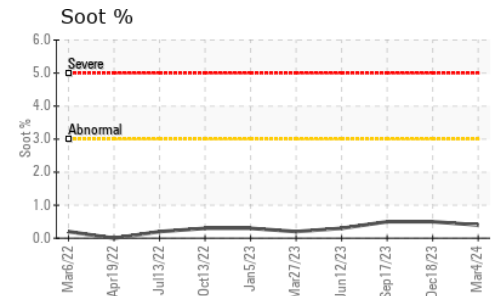
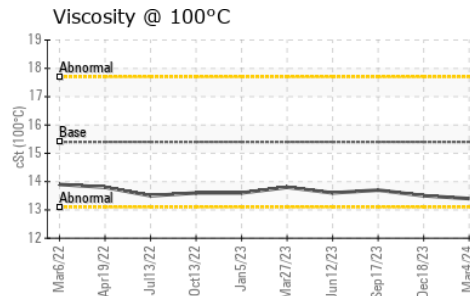
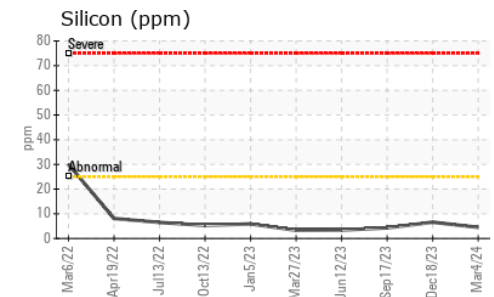
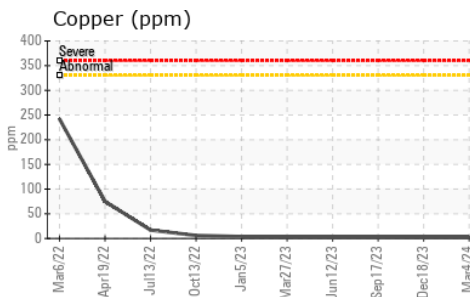
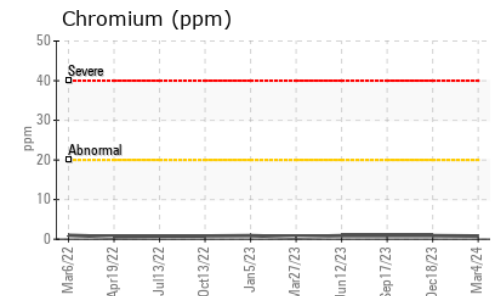
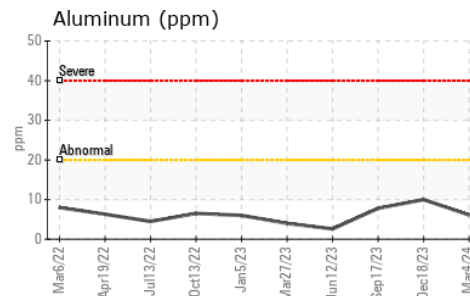
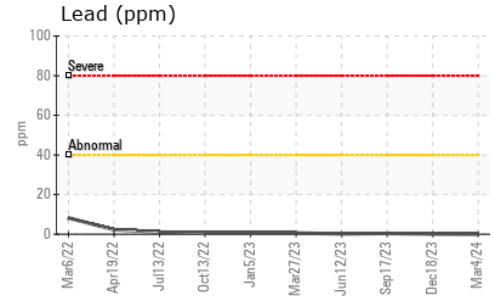
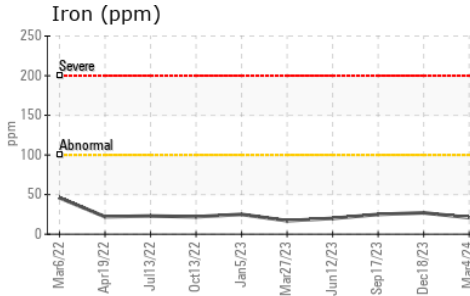
VISUAL

	method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	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	13.4	13.5

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 777 - Belleville-Municipal waste**
Sample No. : GFL0093960 **Received** : 08 Mar 2024 **197 Putman Industrial Road**
Lab Number : 02620744 **Tested** : 08 Mar 2024 **Belleville, ON**
Unique Number : 5737854 **Diagnosed** : 08 Mar 2024 - 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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