



OIL ANALYSIS REPORT

Sample Rating Trend

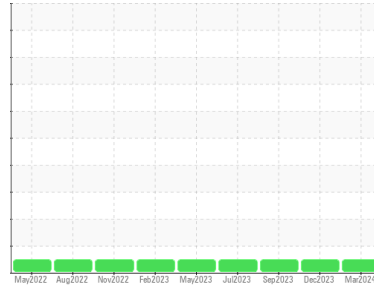
NORMAL



Area
[1242322]
Machine Id
810054

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			GFL0093966	GFL0093937	GFL0093931
Sample Date	Client Info			14 Mar 2024	19 Dec 2023	27 Sep 2023
Machine Age	hrs Client Info			5474	4993	4373
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
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		26	31	25
Chromium	ppm ASTM D5185(m)	>20		1	2	1
Nickel	ppm ASTM D5185(m)	>4		0	<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		4	8	5
Lead	ppm ASTM D5185(m)	>40		0	<1	0
Copper	ppm ASTM D5185(m)	>330		2	2	2
Tin	ppm ASTM D5185(m)	>15		0	<1	0
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

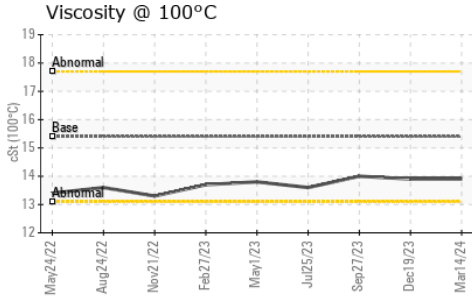
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm ASTM D5185(m)	0		5	5	6
Barium	ppm ASTM D5185(m)	0		0	0	<1
Molybdenum	ppm ASTM D5185(m)	60		63	62	61
Manganese	ppm ASTM D5185(m)	0		0	0	0
Magnesium	ppm ASTM D5185(m)	1010		990	959	954
Calcium	ppm ASTM D5185(m)	1070		1164	1171	1087
Phosphorus	ppm ASTM D5185(m)	1150		987	991	974
Zinc	ppm ASTM D5185(m)	1270		1209	1201	1196
Sulfur	ppm ASTM D5185(m)	2060		2384	2582	2412
Lithium	ppm ASTM D5185(m)			<1	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m)	>25		5	6	4
Sodium	ppm ASTM D5185(m)			7	8	8
Potassium	ppm ASTM D5185(m)	>20		6	18	9

INFRA-RED		method	limit/base	current	history1	history2
Soot %	% ASTM D7844*	>3		0.4	0.6	0.4
Nitration	Abs/cm ASTM D7624*	>20		10.9	10.8	9.9
Sulfation	Abs.1mm ASTM D7415*	>30		22.1	22.5	20.6



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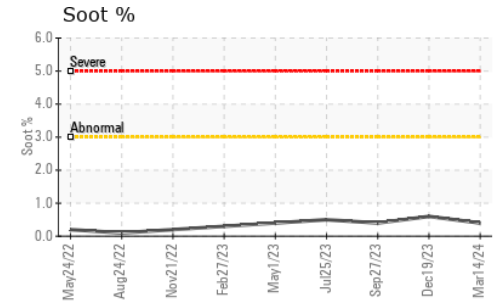
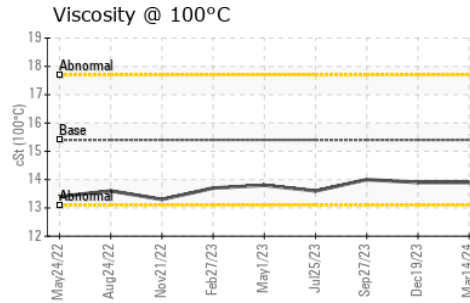
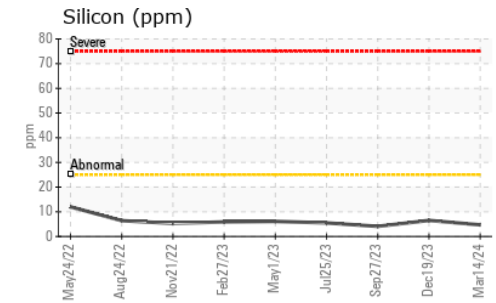
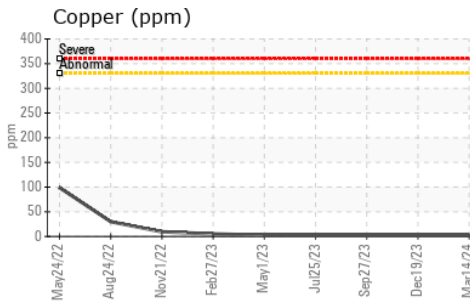
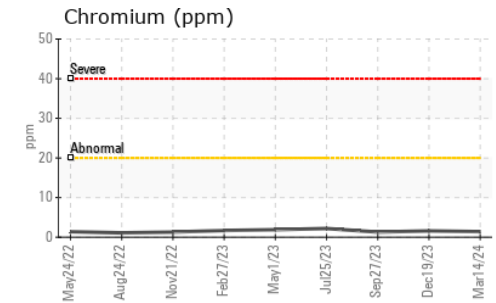
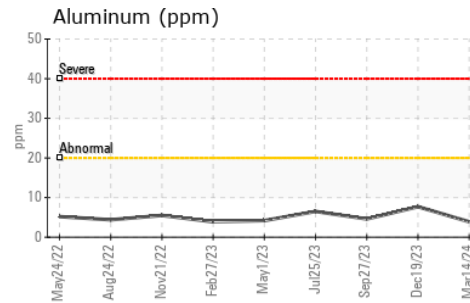
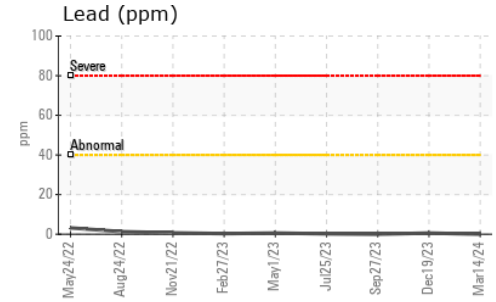
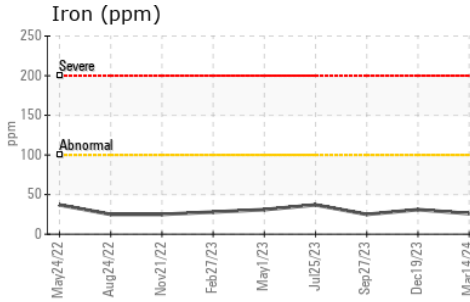


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	19.2	19.2	17.0

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	13.9	13.9	14.0

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0093966 **Received** : 25 Mar 2024
Lab Number : **02624124** **Tested** : 25 Mar 2024
Unique Number : 5749243 **Diagnosed** : 25 Mar 2024 - Wes Davis
Test Package : MOB 1

GFL Environmental - 777 - Belleville-Municipal waste
 197 Putman Industrial Road
 Belleville, ON
 CA K8N 4Z6
 Contact: Andrea Michael
 amichael@gflenv.com
 T: (613)962-7144
 F: (613)962-1994

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.