



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
429065
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0090389	GFL0071501	GFL0054323
Sample Date		Client Info		04 Jan 2024	11 Jul 2023	07 Mar 2023
Machine Age	kms	Client Info		332532	306406	306406
Oil Age	kms	Client Info		0	0	0
Filter Age	kms	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	N/A
Filter Changed		Client Info		Changed	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>80	10	7	5
Chromium	ppm	ASTM D5185(m)	>5	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	<1	0	<1
Titanium	ppm	ASTM D5185(m)		0	0	<1
Silver	ppm	ASTM D5185(m)	>3	0	<1	0
Aluminum	ppm	ASTM D5185(m)	>30	3	2	2
Lead	ppm	ASTM D5185(m)	>30	<1	0	0
Copper	ppm	ASTM D5185(m)	>150	4	6	1
Tin	ppm	ASTM D5185(m)	>5	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

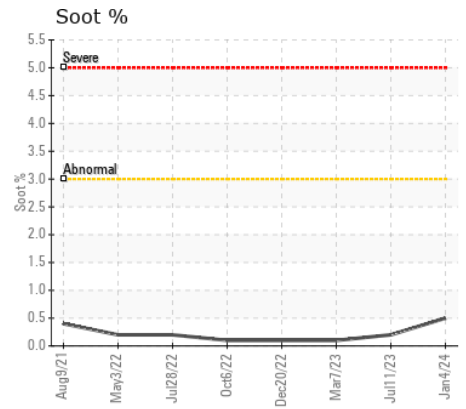
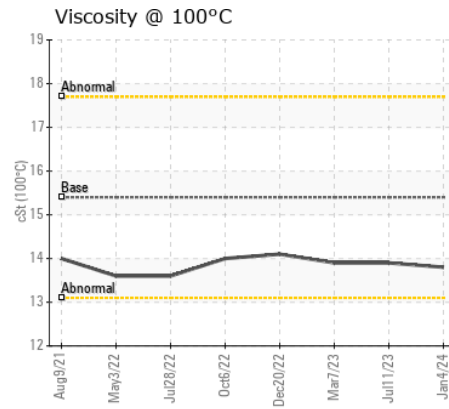
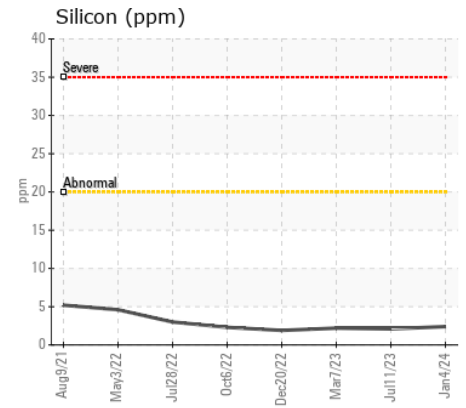
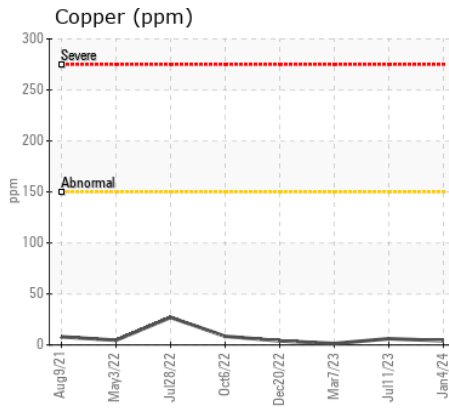
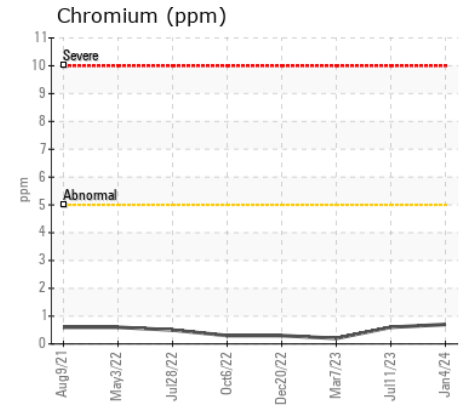
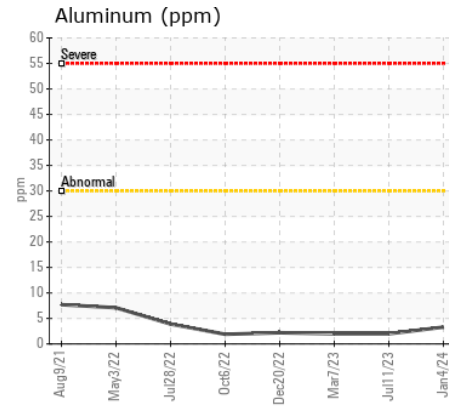
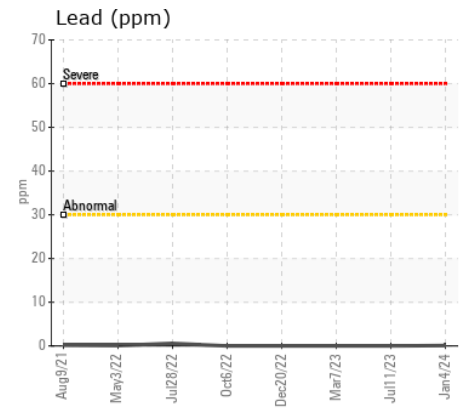
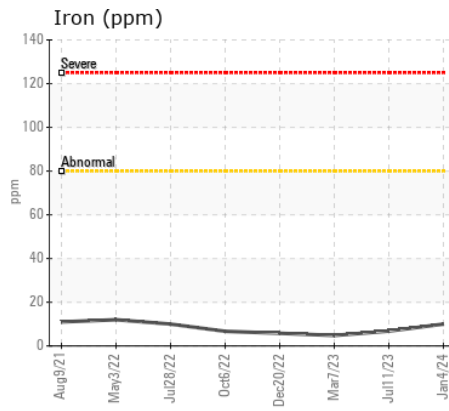
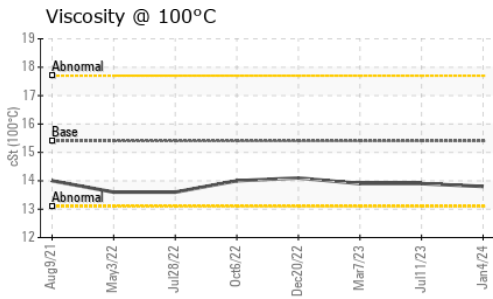
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>20	2	2	2
Potassium	ppm	ASTM D5185(m)	>20	5	2	<1
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	0.5	0.2	0.1
Nitration	Abs/cm	ASTM D7624*	>20	8.7	7.5	6.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.0	19.2	20.9
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		2	3	1
Boron	ppm	ASTM D5185(m)	0	2	5	3
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	59	60	60
Manganese	ppm	ASTM D5185(m)	0	0	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	959	985	955
Calcium	ppm	ASTM D5185(m)	1070	1078	1053	1100
Phosphorus	ppm	ASTM D5185(m)	1150	984	1045	1062
Zinc	ppm	ASTM D5185(m)	1270	1190	1197	1182
Sulfur	ppm	ASTM D5185(m)	2060	2429	2519	2637
Oxidation	Abs/.1mm	ASTM D7414*	>25	17.0	15.2	14.6
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	13.8	13.9	13.9



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0090389 **Received** : 11 Jan 2024
Lab Number : 02608095 **Diagnosed** : 11 Jan 2024
Unique Number : 5709181 **Diagnostician** : Wes Davis
Test Package : MOB 1

GFL Environmental - 216M
 2475 Beryl Drive
 Oakville, ON
 CA L6J 7X4
 Contact: Matthew Guinness
 mgunness@gflenv.com

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.

T:
F: