

Machine Id
901093
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		GFL0100590	GFL0054655	GFL0035410
Sample Date		Client Info		21 Jan 2024	14 Sep 2022	31 Oct 2021
Machine Age	hrs	Client Info		12754	9802	7898
Oil Age	hrs	Client Info		9802	715	0
Filter Age	hrs	Client Info		9802	715	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	MARGINAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>90	47	43	28
Chromium	ppm	ASTM D5185(m)	>20	2	2	2
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	<1	0
Silver	ppm	ASTM D5185(m)	>2	0	0	<1
Aluminum	ppm	ASTM D5185(m)	>20	10	7	7
Lead	ppm	ASTM D5185(m)	>40	<1	0	0
Copper	ppm	ASTM D5185(m)	>330	2	3	2
Tin	ppm	ASTM D5185(m)	>15	0	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

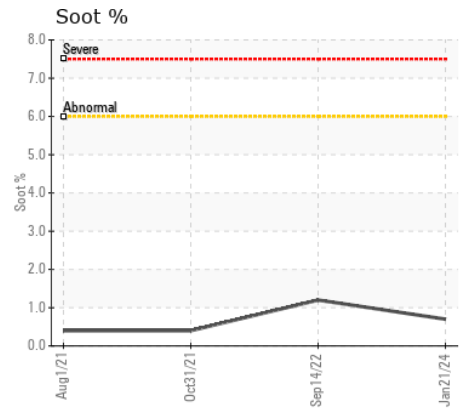
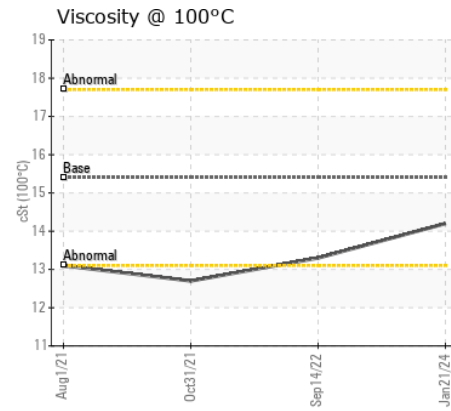
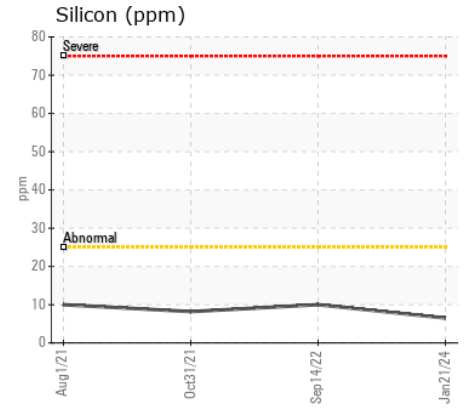
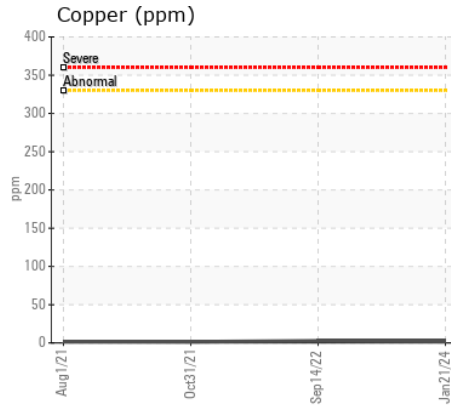
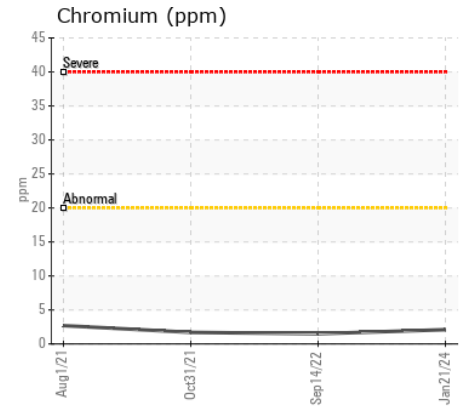
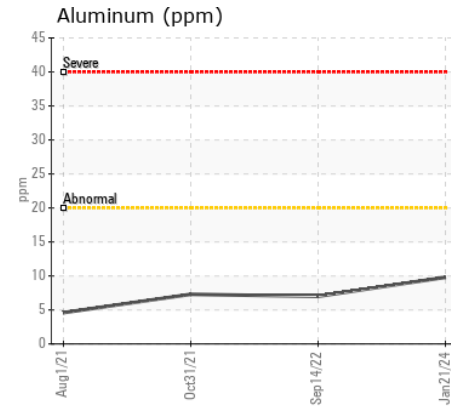
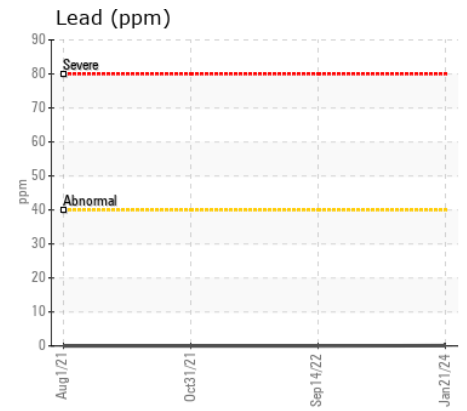
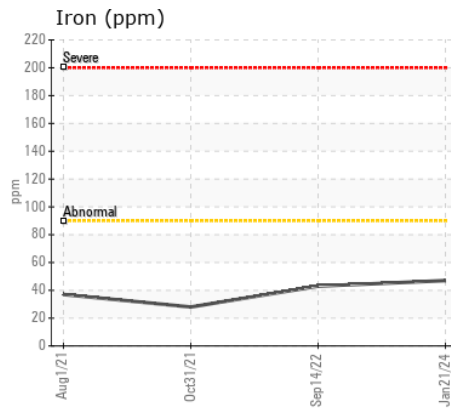
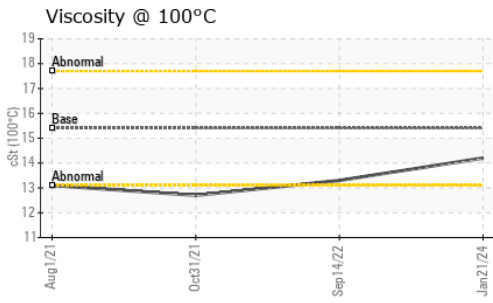
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	6	10	8
Potassium	ppm	ASTM D5185(m)	>20	4	6	11
Fuel		WC Method	>3.0	<1.0	<1.0	▲ 2.4
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	0.0	NEG
Soot %	%	ASTM D7844*	>6	0.7	1.2	0.4
Nitration	Abs/cm	ASTM D7624*	>20	8.3	11.9	9.7
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.3	25.5	21.8
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)		6	8	6
Boron	ppm	ASTM D5185(m)	0	3	2	4
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	59	59	58
Manganese	ppm	ASTM D5185(m)	0	0	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	947	933	982
Calcium	ppm	ASTM D5185(m)	1070	1063	1054	1044
Phosphorus	ppm	ASTM D5185(m)	1150	1010	999	1040
Zinc	ppm	ASTM D5185(m)	1270	1159	1158	1202
Sulfur	ppm	ASTM D5185(m)	2060	2705	2419	2527
Oxidation	Abs/.1mm	ASTM D7414*	>25	15.4	20.7	17.8
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	14.2	13.3	12.7



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 575 - Squamish Hauling
Sample No. : GFL0100590 **Received** : 24 Jan 2024 38950 Queens Way,
Lab Number : 02610825 **Diagnosed** : 24 Jan 2024 Squamish, BC
Unique Number : 5711911 **Diagnostician** : Wes Davis CA V8B 0K8
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.

Contact: Dean Imbeau
 dimbeau@gflenv.com
 T: (604)892-5604
 F: (604)892-5238