



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
901108
 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		GFL0096814	GFL0050572	GFL0050457
Sample Date		Client Info		18 May 2024	22 Feb 2023	04 Aug 2022
Machine Age	hrs	Client Info		0	20643	19333
Oil Age	hrs	Client Info		0	600	1200
Filter Age	hrs	Client Info		0	600	1200
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>110	4	53	42
Chromium	ppm	ASTM D5185(m)	>4	<1	2	2
Nickel	ppm	ASTM D5185(m)	>2	0	<1	0
Titanium	ppm	ASTM D5185(m)		<1	<1	<1
Silver	ppm	ASTM D5185(m)	>2	<1	0	0
Aluminum	ppm	ASTM D5185(m)	>25	<1	8	5
Lead	ppm	ASTM D5185(m)	>45	0	4	6
Copper	ppm	ASTM D5185(m)	>85	7	34	164
Tin	ppm	ASTM D5185(m)	>4	0	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	VLITE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

CONTAMINATION

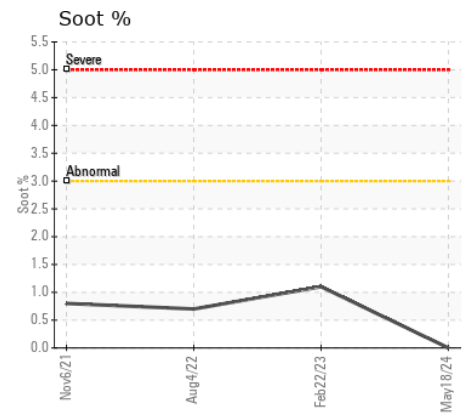
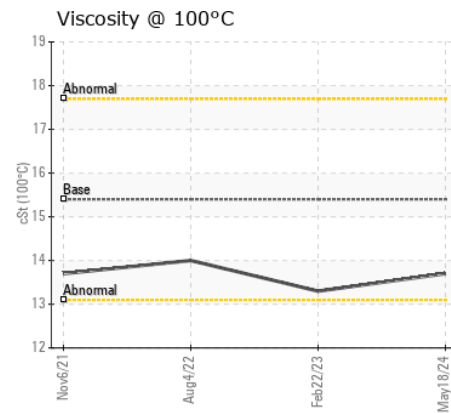
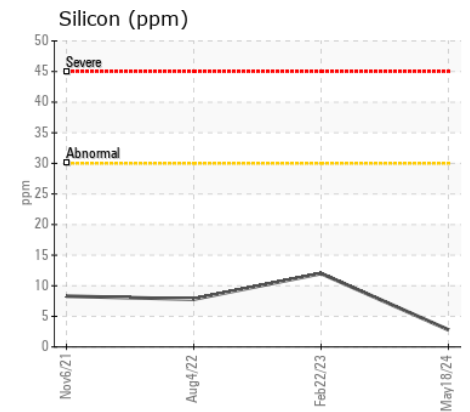
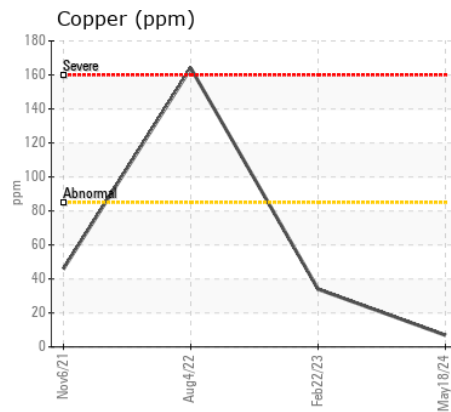
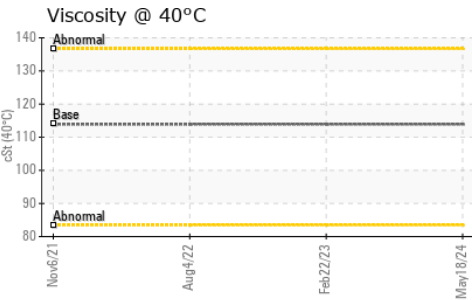
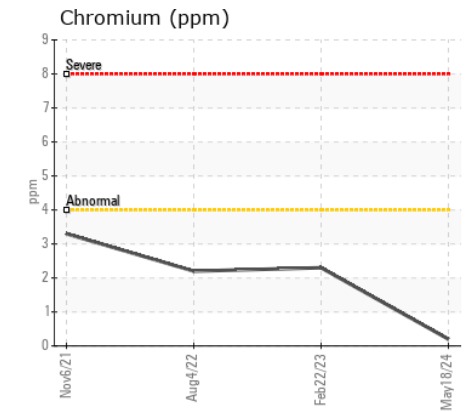
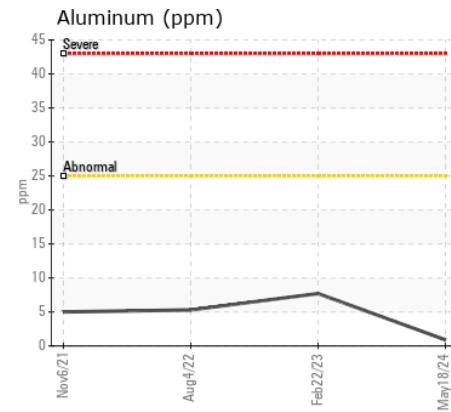
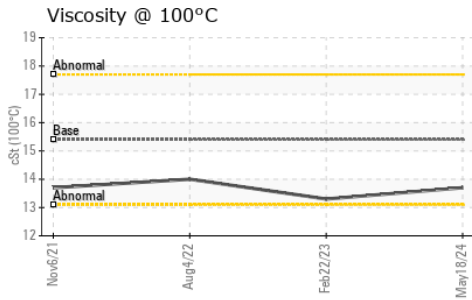
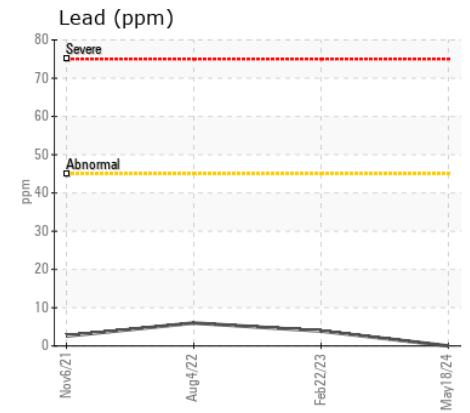
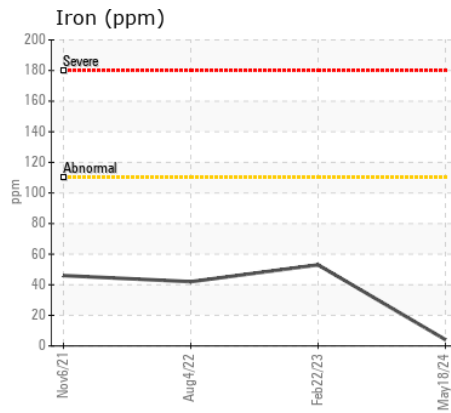
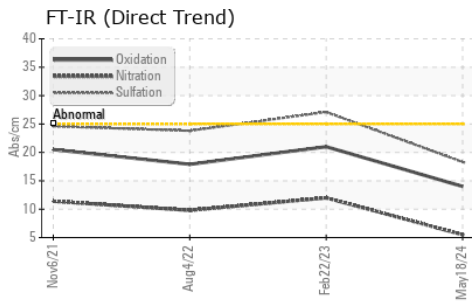
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>30	3	12	8
Potassium	ppm	ASTM D5185(m)	>20	<1	10	7
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	0.0	0.0
Soot %	%	ASTM D7844*	>3	0	1.1	0.7
Nitration	Abs/cm	ASTM D7624*	>20	5.5	12.0	9.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	18.3	27.1	23.8
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
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)		4	12	52
Boron	ppm	ASTM D5185(m)	0	2	2	2
Barium	ppm	ASTM D5185(m)	0	<1	0	<1
Molybdenum	ppm	ASTM D5185(m)	60	55	61	59
Manganese	ppm	ASTM D5185(m)	0	0	<1	1
Magnesium	ppm	ASTM D5185(m)	1010	920	939	943
Calcium	ppm	ASTM D5185(m)	1070	1020	1104	1059
Phosphorus	ppm	ASTM D5185(m)	1150	958	944	918
Zinc	ppm	ASTM D5185(m)	1270	1153	1160	1177
Sulfur	ppm	ASTM D5185(m)	2060	2541	2314	2338
Oxidation	Abs/.1mm	ASTM D7414*	>25	14.0	21.0	17.9
Visc @ 40°C	cSt	ASTM D7279(m)	113.9	98.3	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	13.7	13.3	14.0
Viscosity Index (VI)	Scale	ASTM D2270*	142	140	---	---



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0096814
Lab Number : 02642255
Unique Number : 5799794
Test Package : MOB 1 (Additional Tests: KV40, VI, Visual)

GFL Environmental - 574 - Coquitlam
 70 Golden Drive,
 Coquitlam, BC
 CA V3K 6B5
 Contact: Sanjay Kisun
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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.