



WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	NORMAL

Machine Id
901096
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0100601	GFL0077018	GFL0024426
Sample Date		Client Info		15 Feb 2024	18 Oct 2023	27 Mar 2022
Machine Age	hrs	Client Info		200717	11975	8342
Oil Age	hrs	Client Info		109427	1216	600
Filter Age	hrs	Client Info		109427	1216	600
Oil Changed		Client Info		N/A	Changed	Changed
Filter Changed		Client Info		N/A	Changed	Changed
Sample Status				MARGINAL	ABNORMAL	MARGINAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>110	50	84	38
Chromium	ppm	ASTM D5185(m)	>4	1	2	3
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	<1	<1
Aluminum	ppm	ASTM D5185(m)	>25	12	11	10
Lead	ppm	ASTM D5185(m)	>45	0	<1	0
Copper	ppm	ASTM D5185(m)	>85	3	4	4
Tin	ppm	ASTM D5185(m)	>4	0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

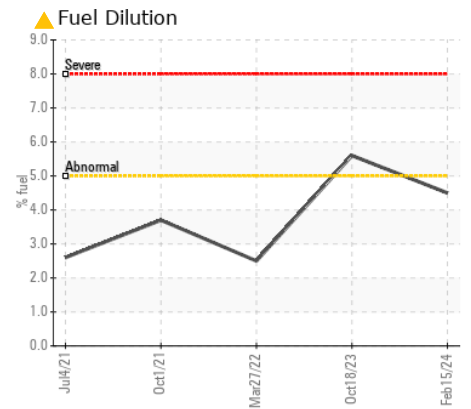
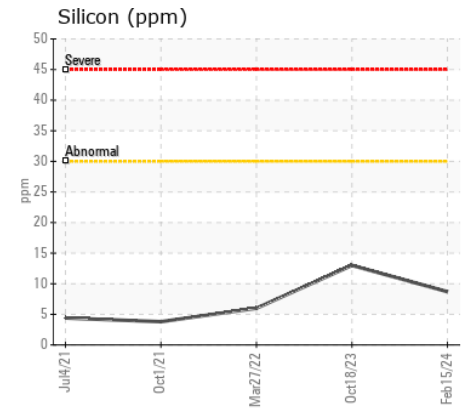
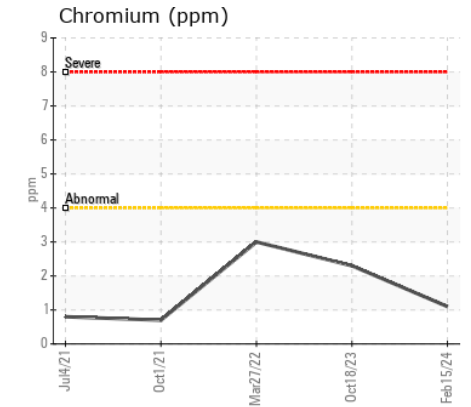
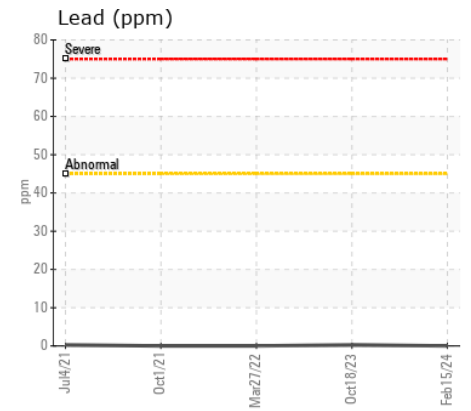
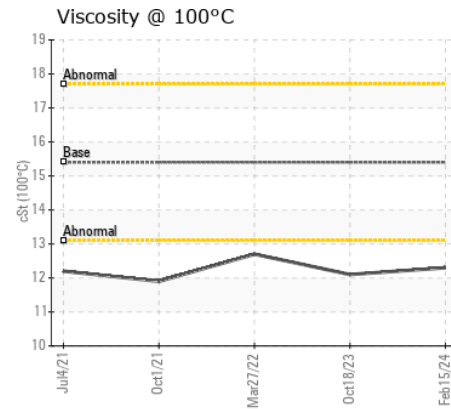
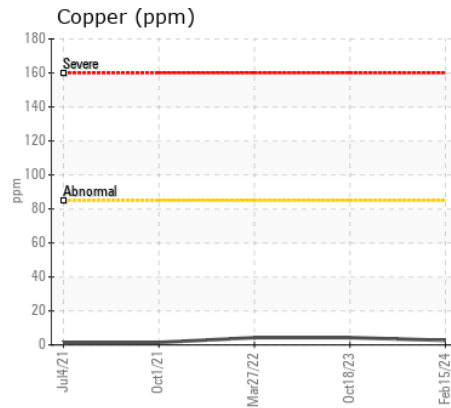
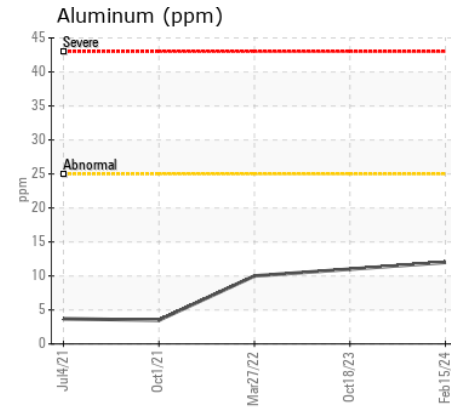
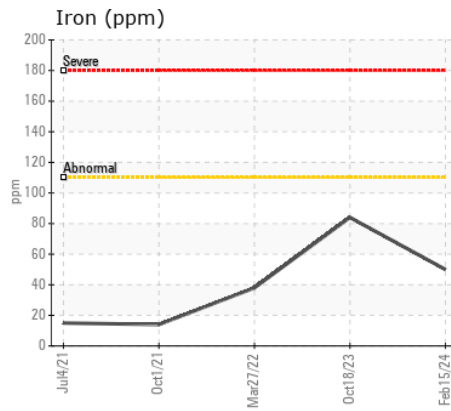
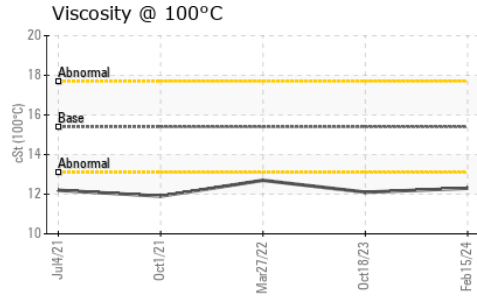
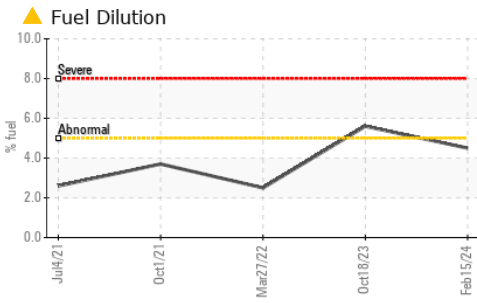
Light fuel dilution occurring. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185(m)	>30	9	13	6
Potassium	ppm	ASTM D5185(m)	>20	3	5	9
Fuel	%	ASTM D7593*	>5	▲ 4.5	▲ 5.6	▲ 2.5
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	0.0	0.0
Soot %	%	ASTM D7844*	>3	1.1	1.5	0.4
Nitration	Abs/cm	ASTM D7624*	>20	12.6	12.9	10.3
Sulfation	Abs/.1mm	ASTM D7415*	>30	21.3	26.7	20.6
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	8	5
Boron	ppm	ASTM D5185(m)	0	2	2	3
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	58	62	60
Manganese	ppm	ASTM D5185(m)	0	0	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	923	957	997
Calcium	ppm	ASTM D5185(m)	1070	1032	1084	1032
Phosphorus	ppm	ASTM D5185(m)	1150	1023	950	1086
Zinc	ppm	ASTM D5185(m)	1270	1132	1200	1217
Sulfur	ppm	ASTM D5185(m)	2060	2650	2424	2610
Oxidation	Abs/.1mm	ASTM D7414*	>25	18.3	23.1	16.0
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	12.3	▲ 12.1	12.7



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0100601
Lab Number : 02616931
Unique Number : 5734041
Test Package : MOB 1 (Additional Tests: PercentFuel)

GFL Environmental - 575 - Squamish Hauling
 38950 Queens Way,
 Squamish, BC
 CA V8B 0K8
 Contact: Dean Imbeau
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 T: (604)892-5604
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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.