



Machine Id
FREIGHTLINER 811013
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Check for low coolant level. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0056304	GFL0056313	GFL0056361
Sample Date		Client Info		28 Dec 2023	05 Jun 2023	05 May 2023
Machine Age	kms	Client Info		172429	142204	138030
Oil Age	kms	Client Info		0	0	0
Filter Age	kms	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ATTENTION	NORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>75	35	18	54
Chromium	ppm	ASTM D5185(m)	>5	2	<1	2
Nickel	ppm	ASTM D5185(m)	>4	<1	0	<1
Titanium	ppm	ASTM D5185(m)	>2	0	<1	<1
Silver	ppm	ASTM D5185(m)	>2	<1	0	0
Aluminum	ppm	ASTM D5185(m)	>15	6	3	8
Lead	ppm	ASTM D5185(m)	>25	<1	<1	<1
Copper	ppm	ASTM D5185(m)	>100	2	1	3
Tin	ppm	ASTM D5185(m)	>4	<1	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

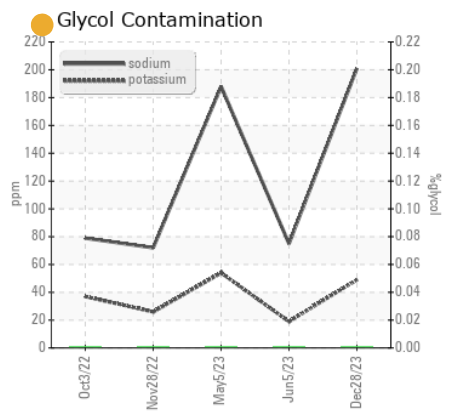
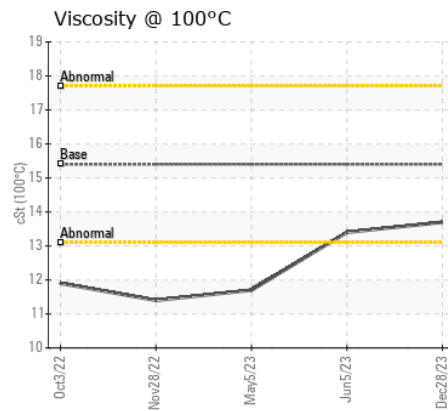
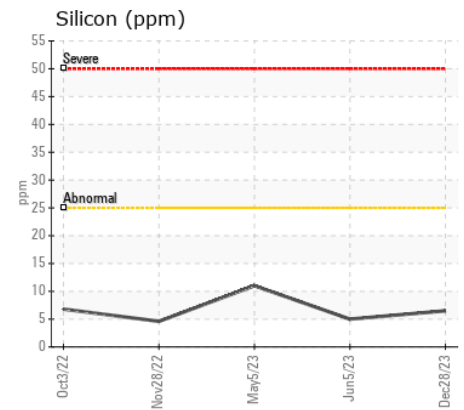
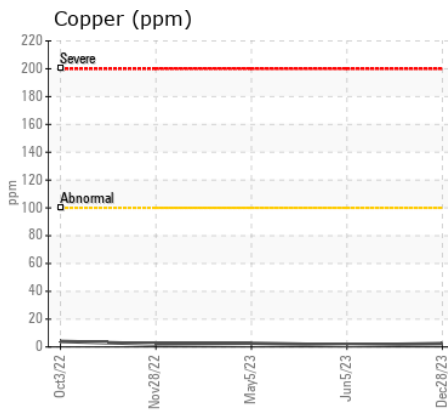
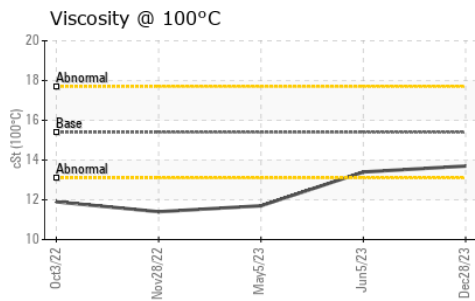
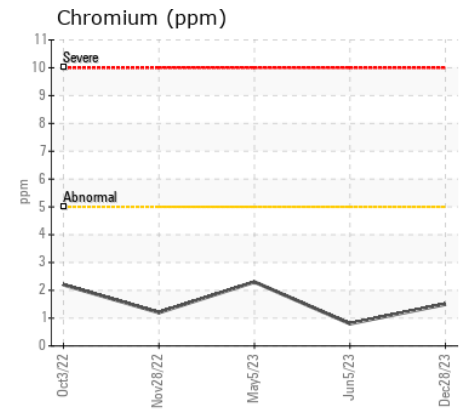
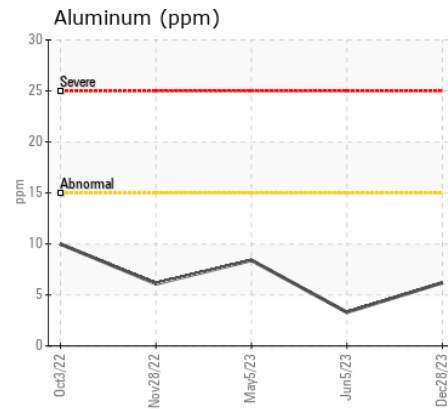
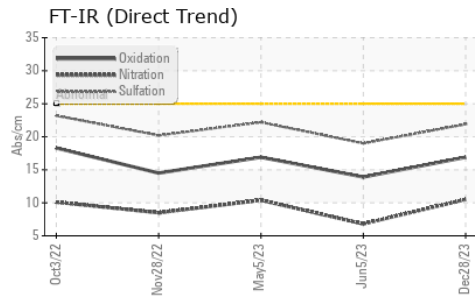
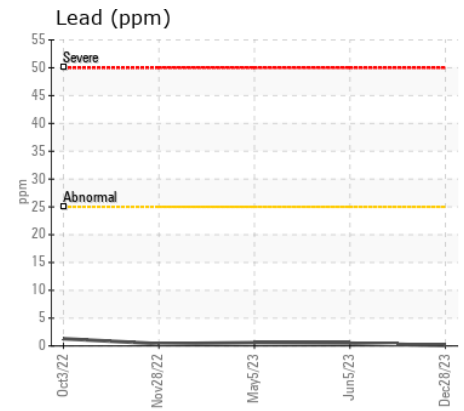
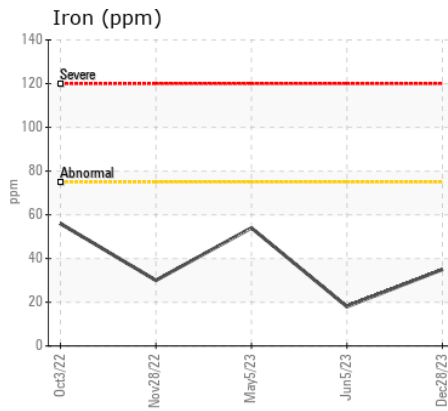
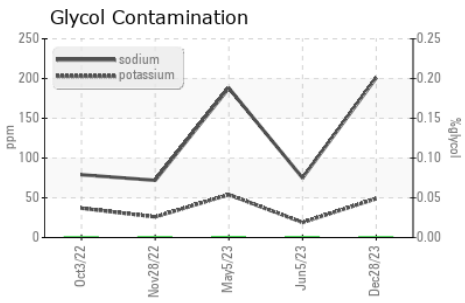
Water treatment chemicals present, indicating slow coolant leak. Test for glycol is negative. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	6	5	11
Potassium	ppm	ASTM D5185(m)	>20	49	19	54
Fuel		WC Method	>3.0	<1.0	<1.0	1.7
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	ASTM D7922*		0.0	0.0	0.0
Soot %	%	ASTM D7844*	>6	1	0.4	1
Nitration	Abs/cm	ASTM D7624*	>20	10.5	6.8	10.4
Sulfation	Abs/.1mm	ASTM D7415*	>30	21.9	19.0	22.2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

The condition of the oil is acceptable for the time in service (see recommendation).

Sodium	ppm	ASTM D5185(m)		201	75	188
Boron	ppm	ASTM D5185(m)	0	5	13	15
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	68	65	69
Manganese	ppm	ASTM D5185(m)	0	0	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	970	918	856
Calcium	ppm	ASTM D5185(m)	1070	1085	1105	1179
Phosphorus	ppm	ASTM D5185(m)	1150	1012	1045	981
Zinc	ppm	ASTM D5185(m)	1270	1199	1129	1088
Sulfur	ppm	ASTM D5185(m)	2060	2641	2636	2489
Oxidation	Abs/.1mm	ASTM D7414*	>25	16.9	13.9	16.9
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	13.7	13.4	11.7



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0056304
Lab Number : 02605748
Unique Number : 5698833
Test Package : MOB 1 (Additional Tests: Glycol)

GFL Environmental - 255 - Blind River
 9 Industrial Park Road East
 Blind River, ON
 CA P0R 1B0
 Contact: Jason Haman
 jhaman@gflenv.com
 T: (705)356-4118
 F:

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.