



Machine Id
801028
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (19 LTR)

RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0117917	GFL0107123	GFL0094187
Sample Date		Client Info		01 Apr 2024	18 Jan 2024	01 Nov 2023
Machine Age	hrs	Client Info		15552	15552	9432
Oil Age	hrs	Client Info		600	0	0
Filter Age	hrs	Client Info		600	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	N/A
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>80	23	21	29
Chromium	ppm	ASTM D5185(m)	>5	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	0	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	0	<1
Aluminum	ppm	ASTM D5185(m)	>30	2	2	3
Lead	ppm	ASTM D5185(m)	>30	0	<1	<1
Copper	ppm	ASTM D5185(m)	>150	<1	<1	1
Tin	ppm	ASTM D5185(m)	>5	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

Light fuel dilution occurring.

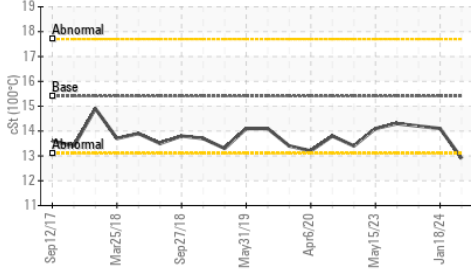
Silicon	ppm	ASTM D5185(m)	>20	2	4	5
Potassium	ppm	ASTM D5185(m)	>20	1	2	1
Fuel	%	ASTM D7593*	>5	▲ 4.8	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	0.3	0.3	0.4
Nitration	Abs/cm	ASTM D7624*	>20	10.5	10.1	11.0
Sulfation	Abs/.1mm	ASTM D7415*	>30	21.4	21.4	22.9
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

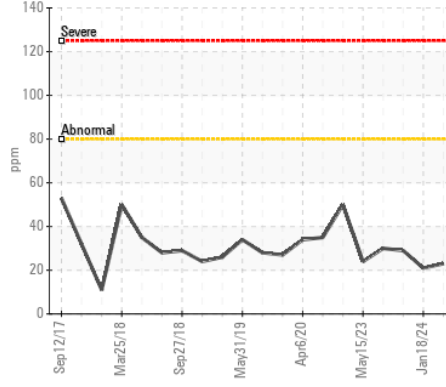
Fuel is present in the oil and is lowering the viscosity. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		9	10	10
Boron	ppm	ASTM D5185(m)	0	7	10	10
Barium	ppm	ASTM D5185(m)	0	0	0	<1
Molybdenum	ppm	ASTM D5185(m)	60	60	63	67
Manganese	ppm	ASTM D5185(m)	0	<1	0	0
Magnesium	ppm	ASTM D5185(m)	1010	954	969	995
Calcium	ppm	ASTM D5185(m)	1070	1046	1125	1156
Phosphorus	ppm	ASTM D5185(m)	1150	968	1036	1039
Zinc	ppm	ASTM D5185(m)	1270	1182	1222	1297
Sulfur	ppm	ASTM D5185(m)	2060	2356	2606	2483
Oxidation	Abs/.1mm	ASTM D7414*	>25	18.5	17.7	19.8
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	▲ 12.9	14.1	14.2

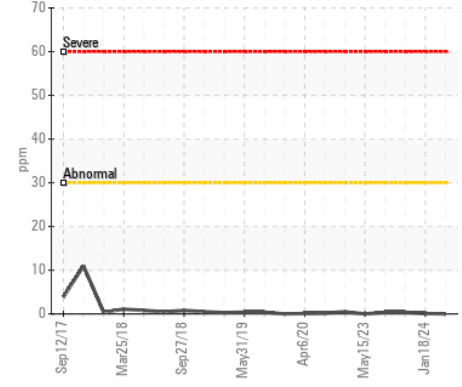
▲ Viscosity @ 100°C



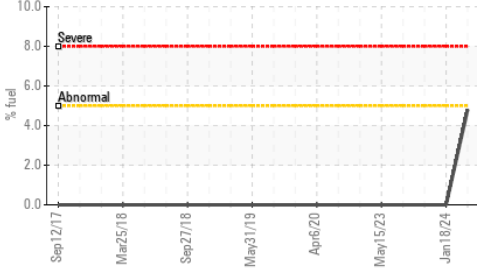
Iron (ppm)



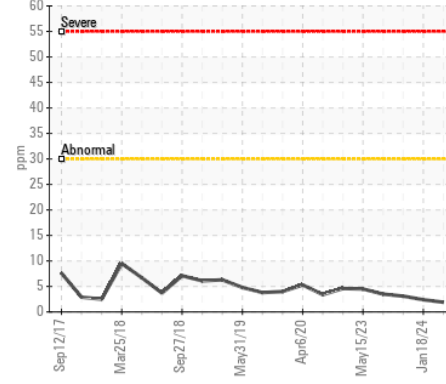
Lead (ppm)



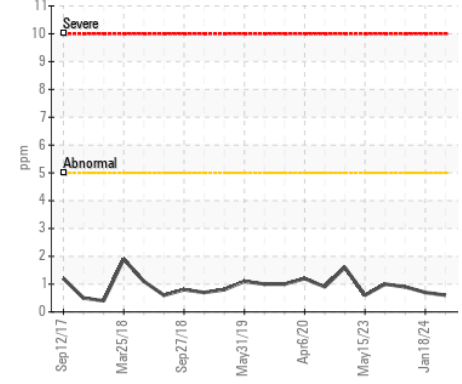
▲ Fuel Dilution



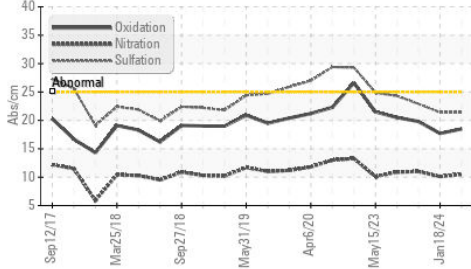
Aluminum (ppm)



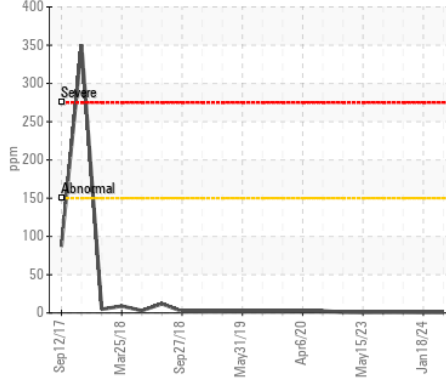
Chromium (ppm)



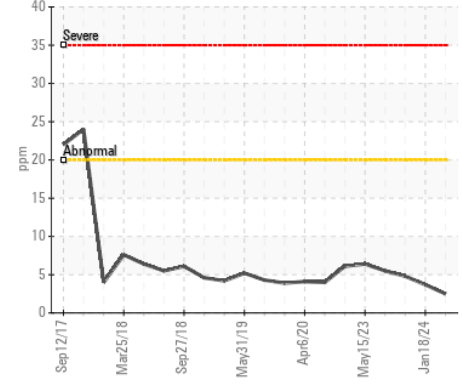
FT-IR (Direct Trend)



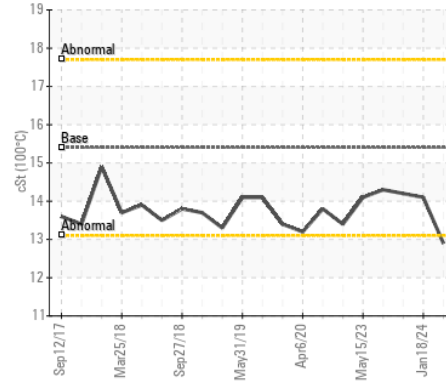
Copper (ppm)



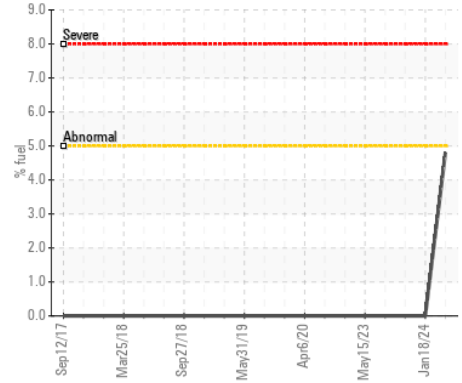
Silicon (ppm)



▲ Viscosity @ 100°C



▲ Fuel Dilution



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0117917
Lab Number : 02628324
Unique Number : 5761456
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel)

GFL Environmental - 217 - Aurora
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 AURORA, ON
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 Contact: Mike Havens
 MHavens@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.

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