



Machine Id
925006
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0102872	GFL0078517	GFL0065883
Sample Date		Client Info		08 Jan 2024	08 Jul 2023	29 Nov 2022
Machine Age	hrs	Client Info		0	0	19796
Oil Age	hrs	Client Info		22027	21010	1391
Filter Age	hrs	Client Info		0	0	1391
Oil Changed		Client Info		N/A	N/A	Changed
Filter Changed		Client Info		N/A	N/A	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>120	7	4	2
Chromium	ppm	ASTM D5185(m)	>20	0	0	0
Nickel	ppm	ASTM D5185(m)	>5	2	1	2
Titanium	ppm	ASTM D5185(m)	>2	0	<1	<1
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	2	2	1
Lead	ppm	ASTM D5185(m)	>40	<1	0	0
Copper	ppm	ASTM D5185(m)	>330	<1	<1	<1
Tin	ppm	ASTM D5185(m)	>15	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

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

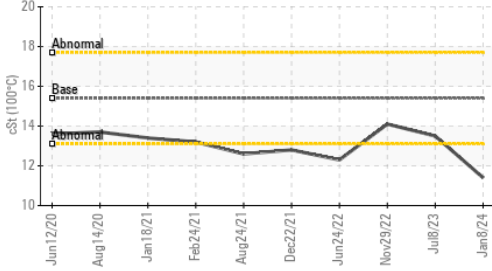
Silicon	ppm	ASTM D5185(m)	>25	6	9	6
Potassium	ppm	ASTM D5185(m)	>20	1	5	0
Fuel	%	ASTM D7593*	>3.0	2.3	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>4	0.3	0.1	0
Nitration	Abs/cm	ASTM D7624*	>20	7.9	7.8	5.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	22.2	21.0	19.1
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

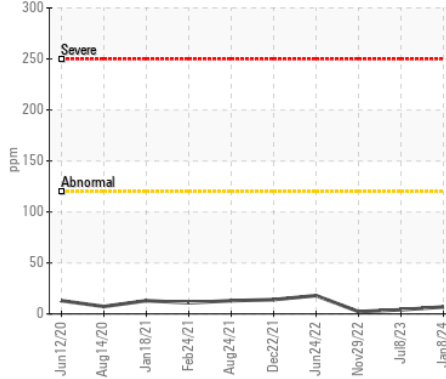
Viscosity of sample indicates oil is within SAE 30 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		2	2	2
Boron	ppm	ASTM D5185(m)	0	36	106	6
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	35	7	57
Manganese	ppm	ASTM D5185(m)	0	0	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	431	76	913
Calcium	ppm	ASTM D5185(m)	1070	1663	2055	1077
Phosphorus	ppm	ASTM D5185(m)	1150	725	1008	1051
Zinc	ppm	ASTM D5185(m)	1270	851	1122	1137
Sulfur	ppm	ASTM D5185(m)	2060	2140	2796	2632
Oxidation	Abs/.1mm	ASTM D7414*	>25	20.2	17.0	14.1
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	▲ 11.4	13.5	14.1

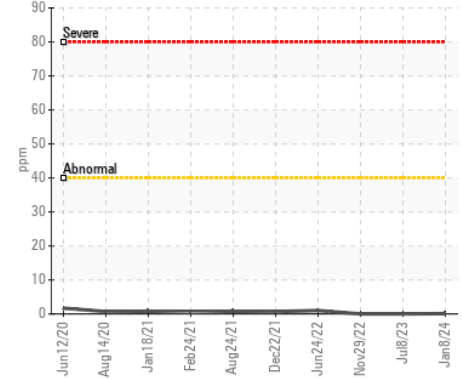
▲ Viscosity @ 100°C



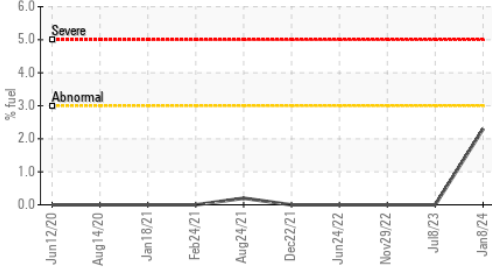
Iron (ppm)



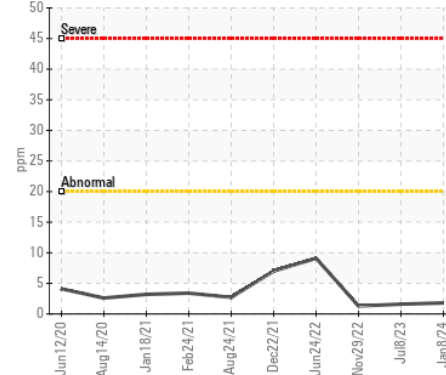
Lead (ppm)



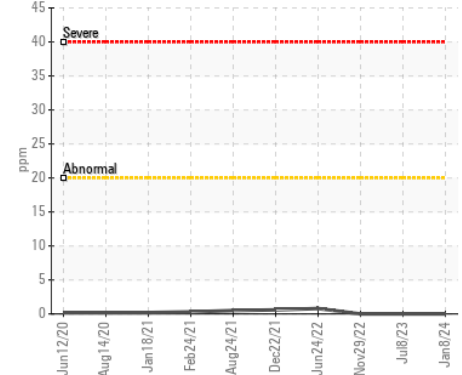
Fuel Dilution



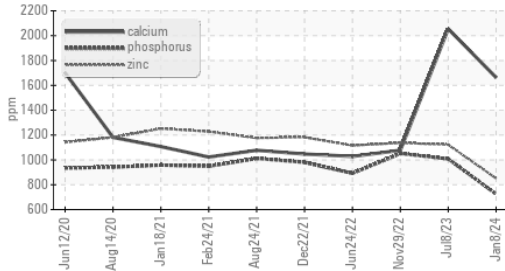
Aluminum (ppm)



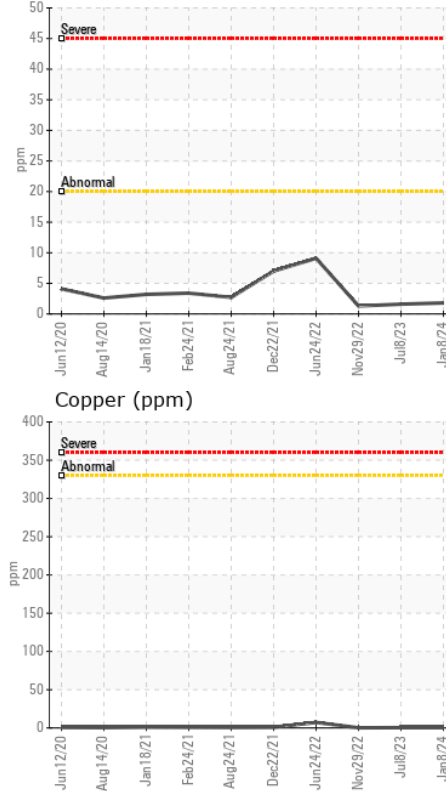
Chromium (ppm)



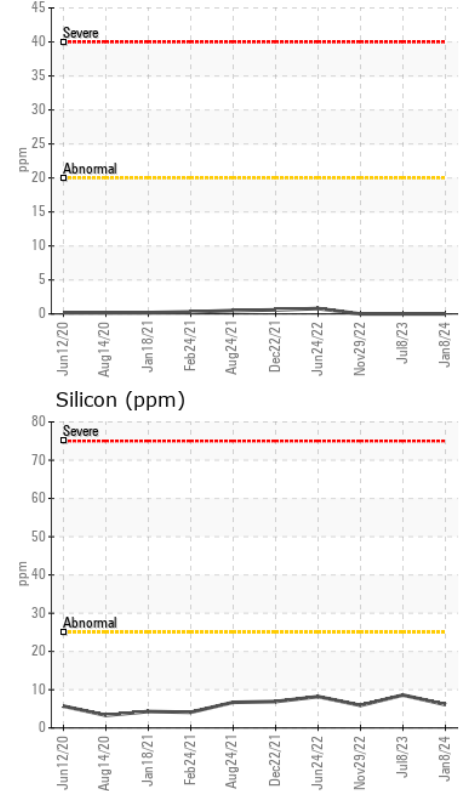
Additives



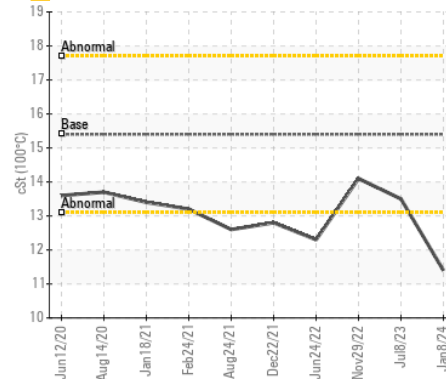
Copper (ppm)



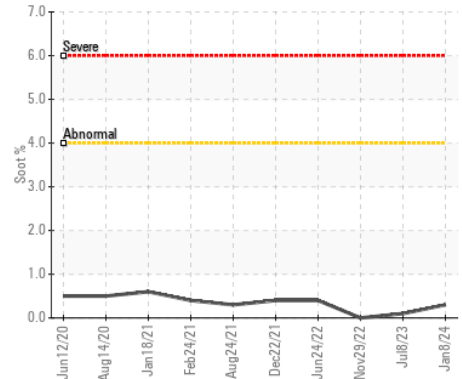
Silicon (ppm)



▲ Viscosity @ 100°C



Soot %



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 246 - Windsor**
Sample No. : GFL0102872 **Received** : 10 Jan 2024 2700 Deziel Dr
Lab Number : 02607660 **Diagnosed** : 11 Jan 2024 Windsor, ON
Unique Number : 5708746 **Diagnostician** : Kevin Marson CA N8W 5H8
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel) Contact: Dave Varga
 dvarga@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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