



Machine Id
722002
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. The fluid was specified as PETRO CANADA DURON SHP 15W40, however, a fluid match indicates that this fluid is SAE 30 Diesel Engine Oil. Please confirm the oil type and grade on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0102875	GFL0053572	GFL0090865
Sample Date		Client Info		08 Jan 2024	27 Sep 2023	22 Sep 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		27714	27131	27095
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	NORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>120	10	7	8
Chromium	ppm	ASTM D5185(m)	>20	<1	0	0
Nickel	ppm	ASTM D5185(m)	>5	2	0	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	<1	<1
Aluminum	ppm	ASTM D5185(m)	>20	4	1	2
Lead	ppm	ASTM D5185(m)	>40	2	<1	<1
Copper	ppm	ASTM D5185(m)	>330	<1	<1	2
Tin	ppm	ASTM D5185(m)	>15	<1	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

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

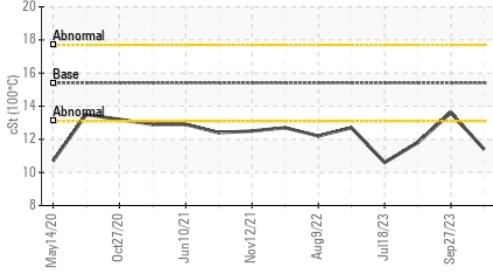
Silicon	ppm	ASTM D5185(m)	>25	4	7	4
Potassium	ppm	ASTM D5185(m)	>20	2	1	3
Fuel	%	ASTM D7593*	>3.0	2.4	1.1	▲ 4.1
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>4	0.2	0	0.4
Nitration	Abs/cm	ASTM D7624*	>20	9.2	5.7	6.2
Sulfation	Abs/.1mm	ASTM D7415*	>30	22.6	18.1	19.8
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

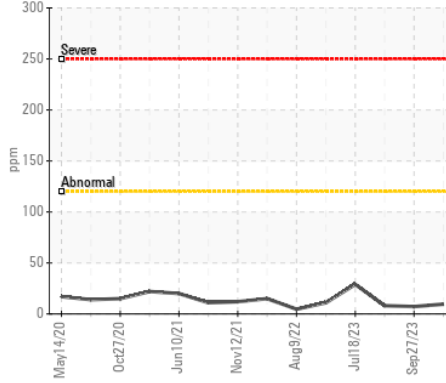
Viscosity of sample indicates oil is within SAE 30 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		2	3	3
Boron	ppm	ASTM D5185(m)	0	25	8	28
Barium	ppm	ASTM D5185(m)	0	0	<1	0
Molybdenum	ppm	ASTM D5185(m)	60	42	57	46
Manganese	ppm	ASTM D5185(m)	0	0	0	0
Magnesium	ppm	ASTM D5185(m)	1010	495	909	682
Calcium	ppm	ASTM D5185(m)	1070	1607	1070	1271
Phosphorus	ppm	ASTM D5185(m)	1150	729	959	839
Zinc	ppm	ASTM D5185(m)	1270	879	1130	994
Sulfur	ppm	ASTM D5185(m)	2060	2059	2504	2273
Oxidation	Abs/.1mm	ASTM D7414*	>25	21.6	14.2	15.5
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	▲ 11.4	13.6	▲ 11.8

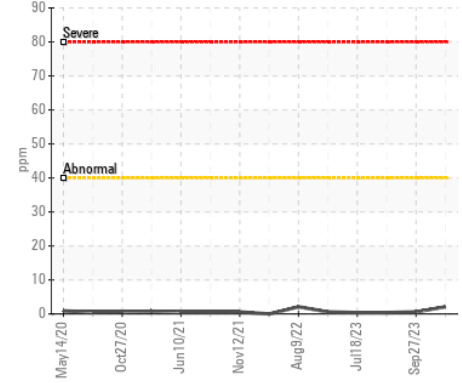
▲ Viscosity @ 100°C



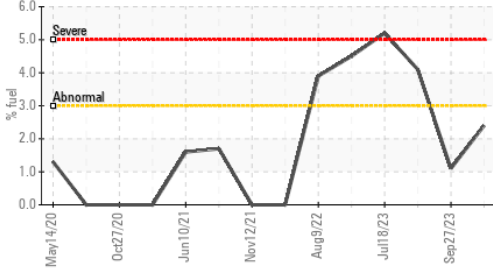
Iron (ppm)



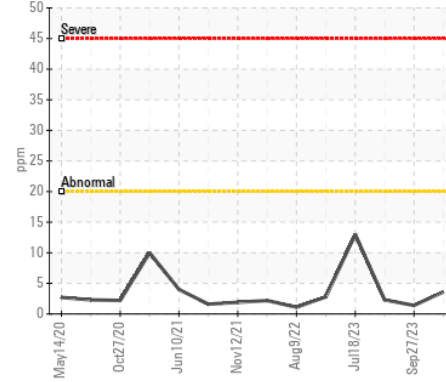
Lead (ppm)



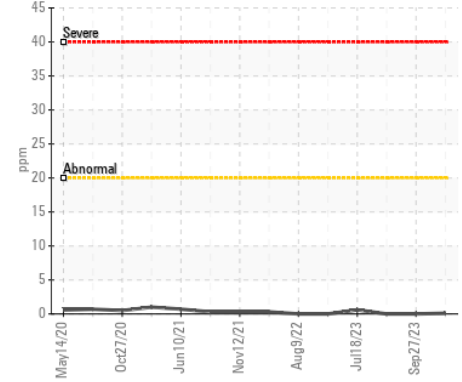
Fuel Dilution



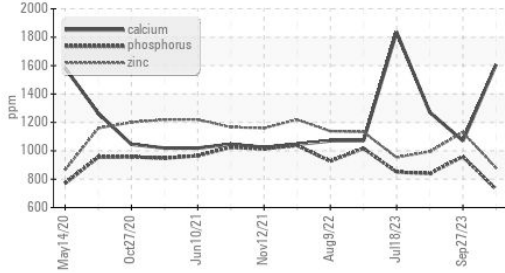
Aluminum (ppm)



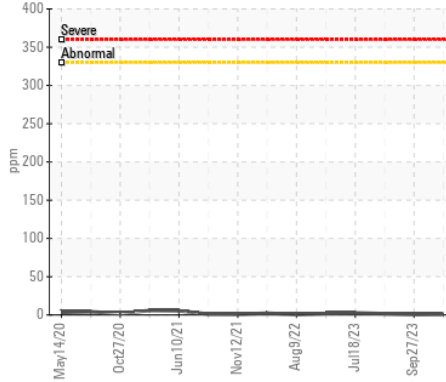
Chromium (ppm)



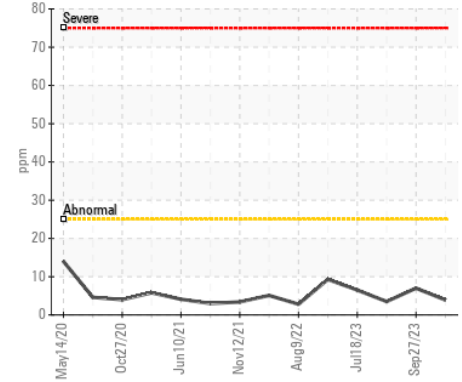
Additives



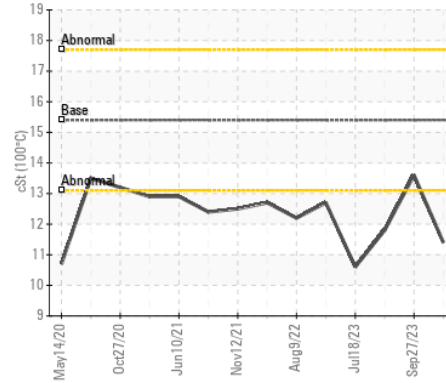
Copper (ppm)



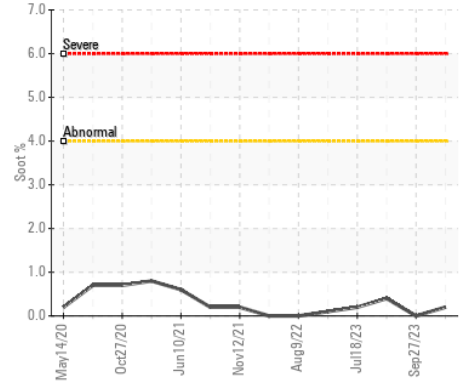
Silicon (ppm)



▲ Viscosity @ 100°C



Soot %



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 246 - Windsor**
Sample No. : GFL0102875 **Received** : 10 Jan 2024
Lab Number : 02607662 **Diagnosed** : 11 Jan 2024
Unique Number : 5708748 **Diagnostician** : Kevin Marson
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel)

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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