

Area
[1227832]
Machine Id
217009
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0110654	GFL0094539	GFL0088988
Sample Date		Client Info		15 Feb 2024	15 Nov 2023	25 Aug 2023
Machine Age	hrs	Client Info		28932	28316	27773
Oil Age	hrs	Client Info		0	0	0
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	MARGINAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	2	2	2
Chromium	ppm	ASTM D5185(m)	>20	0	0	0
Nickel	ppm	ASTM D5185(m)	>4	<1	0	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	2	1	1
Lead	ppm	ASTM D5185(m)	>40	<1	<1	<1
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.

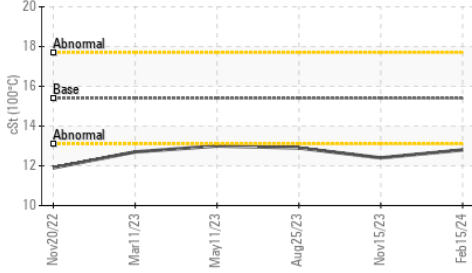
Silicon	ppm	ASTM D5185(m)	>25	2	3	4
Potassium	ppm	ASTM D5185(m)	>20	<1	0	<1
Fuel	%	ASTM D7593*	>5	▲ 2.8	▲ 3.1	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	5.5	5.2	5.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	18.2	18.7	18.8
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

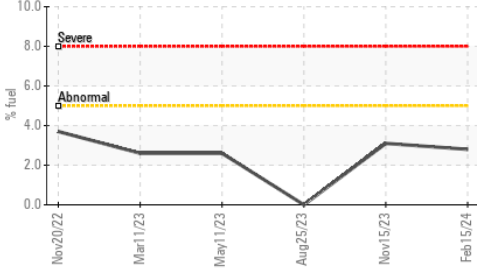
Fuel is present in the oil and is lowering the viscosity. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		1	3	2
Boron	ppm	ASTM D5185(m)	0	3	4	7
Barium	ppm	ASTM D5185(m)	0	0	<1	0
Molybdenum	ppm	ASTM D5185(m)	60	55	52	57
Manganese	ppm	ASTM D5185(m)	0	0	0	0
Magnesium	ppm	ASTM D5185(m)	1010	921	913	941
Calcium	ppm	ASTM D5185(m)	1070	1051	998	1000
Phosphorus	ppm	ASTM D5185(m)	1150	992	974	1033
Zinc	ppm	ASTM D5185(m)	1270	1134	1127	1137
Sulfur	ppm	ASTM D5185(m)	2060	2699	2490	2582
Oxidation	Abs/.1mm	ASTM D7414*	>25	14.1	14.8	13.3
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	▲ 12.8	12.4	12.9

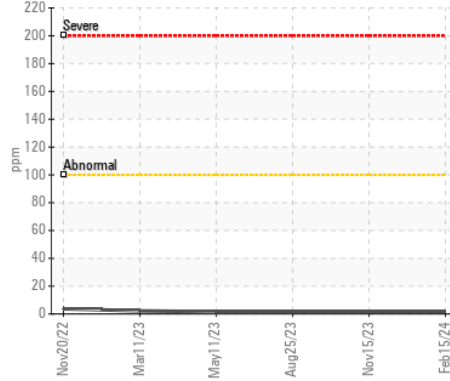
▲ Viscosity @ 100°C



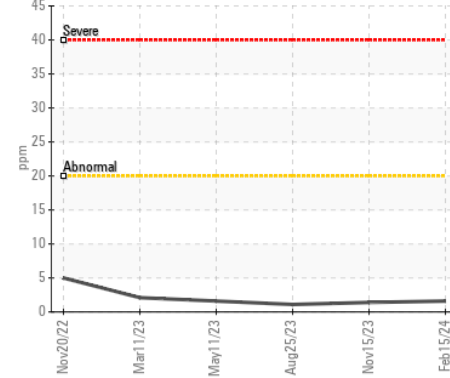
▲ Fuel Dilution



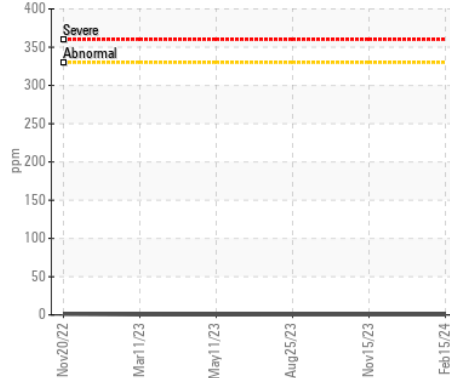
Iron (ppm)



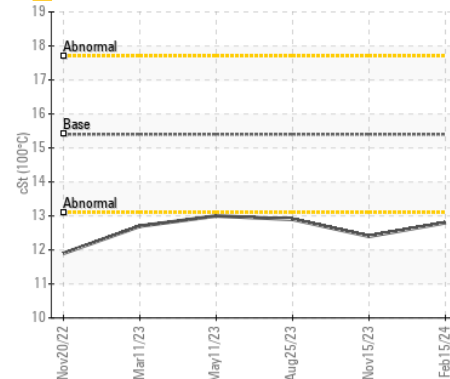
Aluminum (ppm)



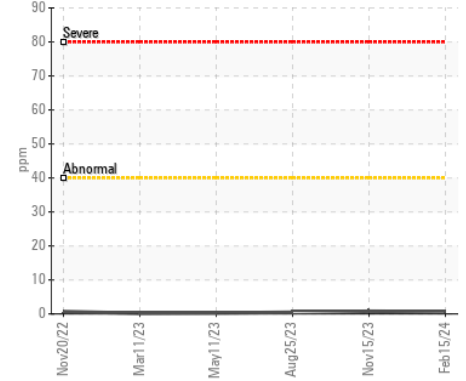
Copper (ppm)



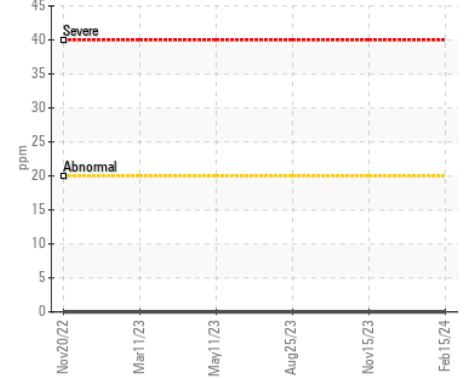
▲ Viscosity @ 100°C



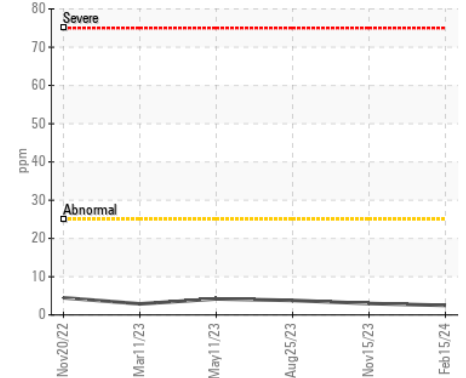
Lead (ppm)



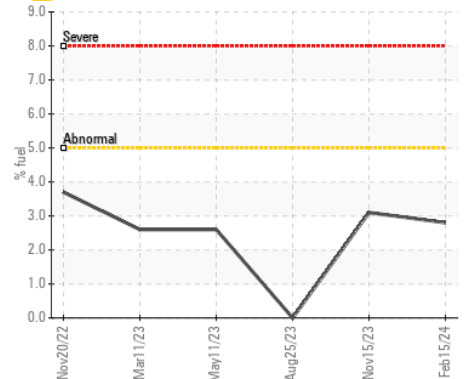
Chromium (ppm)



Silicon (ppm)



▲ Fuel Dilution



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9

Sample No. : GFL0110654

Lab Number : 02616605

Unique Number : 5733715

Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel)

Received : 20 Feb 2024

Tested : 22 Feb 2024

Diagnosed : 22 Feb 2024 - Wes Davis

GFL Environmental - 207 - Pickering SW

1034 TOY AVENUE, PICKERING YARD

PICKERING, ON

CA L1W 3P1

Contact: Ian Patton

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T: (905)831-6297

F: (905)426-3577

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.