



Area
GFL207
Machine Id
800014
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (20 LTR)

RECOMMENDATION

Check for low coolant level. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0110659	GFL0102698	GFL0094509
Sample Date		Client Info		06 Mar 2024	27 Dec 2023	12 Oct 2023
Machine Age	hrs	Client Info		18461	17881	17275
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	Changed	Changed
Filter Changed		Client Info		N/A	Changed	Changed
Sample Status				ABNORMAL	NORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>75	23	27	10
Chromium	ppm	ASTM D5185(m)	>5	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	0	<1
Aluminum	ppm	ASTM D5185(m)	>15	2	2	1
Lead	ppm	ASTM D5185(m)	>25	0	0	0
Copper	ppm	ASTM D5185(m)	>100	1	1	<1
Tin	ppm	ASTM D5185(m)	>4	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

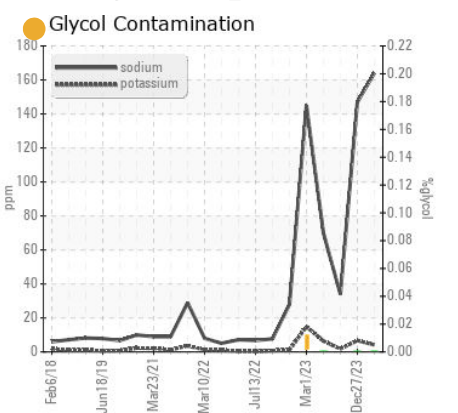
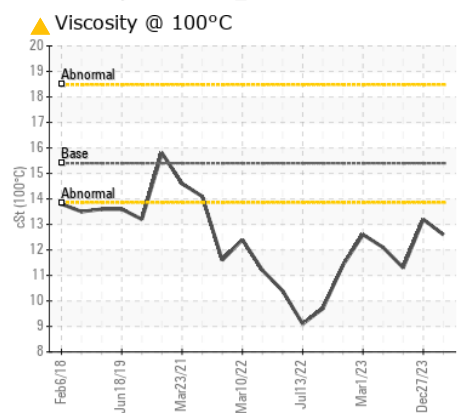
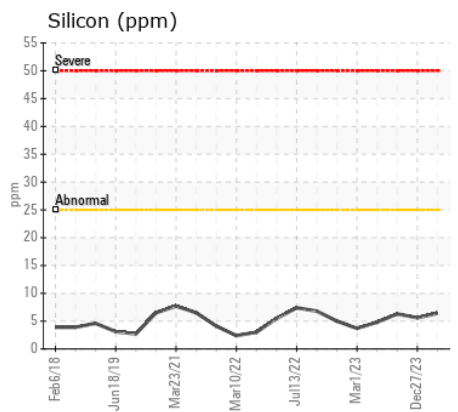
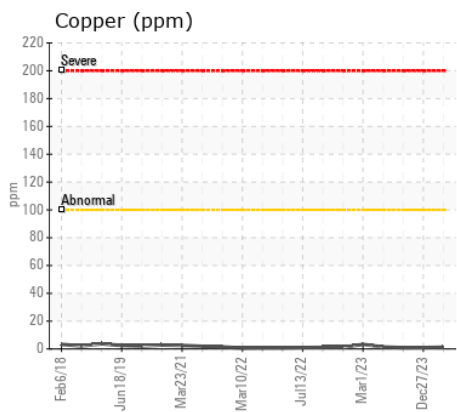
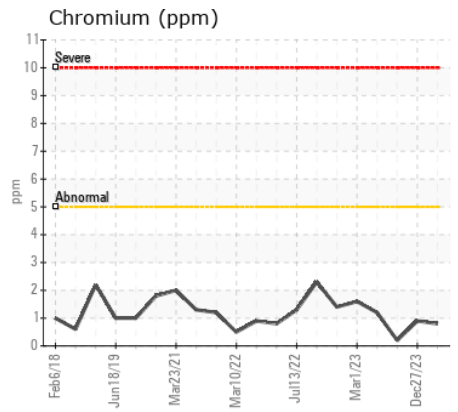
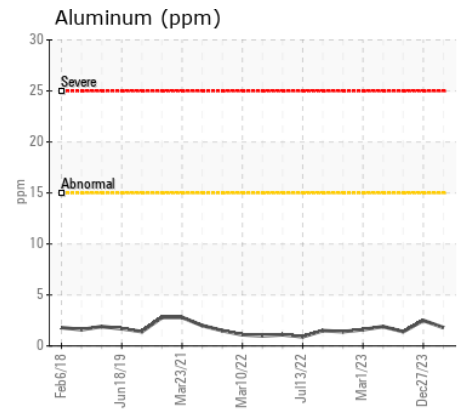
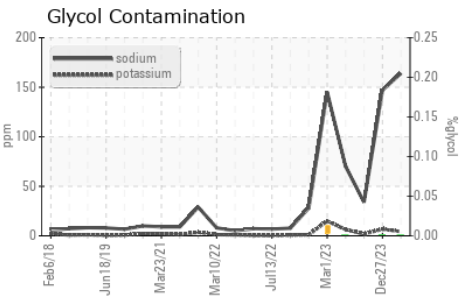
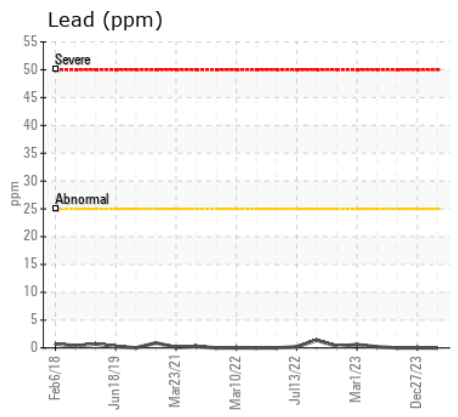
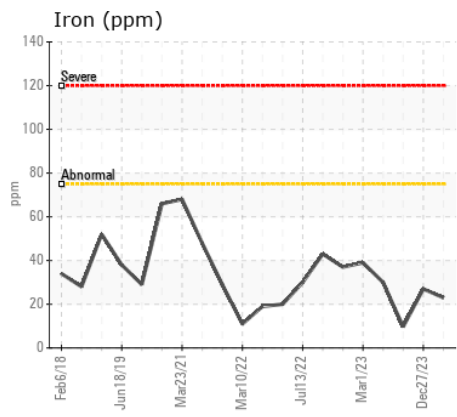
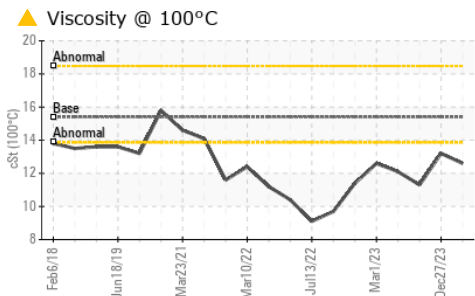
Water treatment chemicals present, indicating slow coolant leak. Test for glycol is negative. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	6	6	6
Potassium	ppm	ASTM D5185(m)	>20	4	7	2
Fuel		WC Method	>3.0	<1.0	<1.0	▲ 4.5
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	ASTM D7922*		0.0	0.0	NEG
Soot %	%	ASTM D7844*	>6	0.6	0.7	0.2
Nitration	Abs/cm	ASTM D7624*	>20	13.4	14.1	10.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	24.2	26.5	24.2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

Viscosity of sample indicates oil is within SAE 40 range, advise investigate. The condition of the oil is acceptable for the time in service (see recommendation).

Sodium	ppm	ASTM D5185(m)		● 164	147	34
Boron	ppm	ASTM D5185(m)	0	2	2	20
Barium	ppm	ASTM D5185(m)	0	0	0	<1
Molybdenum	ppm	ASTM D5185(m)	60	73	67	46
Manganese	ppm	ASTM D5185(m)	0	0	0	0
Magnesium	ppm	ASTM D5185(m)	1010	811	807	501
Calcium	ppm	ASTM D5185(m)	1070	929	1051	1518
Phosphorus	ppm	ASTM D5185(m)	1150	845	827	687
Zinc	ppm	ASTM D5185(m)	1270	1022	1029	835
Sulfur	ppm	ASTM D5185(m)	2060	2239	2278	1865
Oxidation	Abs/.1mm	ASTM D7414*	>25	22.5	27.4	26.0
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	▲ 12.6	13.2	▲ 11.3



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0110659
Lab Number : 02620742
Unique Number : 5737852
Test Package : MOB 1 (Additional Tests: Glycol)
Received : 08 Mar 2024
Tested : 08 Mar 2024
Diagnosed : 25 Mar 2024 - Kevin Marson

GFL Environmental - 227 - Pickering MTCE
 1034 Toy Ave
 Pickering, ON
 CA L1W 3P1
 Contact: Maintenance

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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F: