



Machine Id
4784
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 10W30 (--- GAL)

RECOMMENDATION

We advise that you check the fuel injection system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0112534	GFL0097636	GFL0097603
Sample Date		Client Info		08 Apr 2024	15 Nov 2023	03 Nov 2023
Machine Age	hrs	Client Info		2519	952	8522
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				SEVERE	MARGINAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>110	52	8	6
Chromium	ppm	ASTM D5185(m)	>4	2	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	<1	0	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	<1	<1
Aluminum	ppm	ASTM D5185(m)	>25	2	1	1
Lead	ppm	ASTM D5185(m)	>45	6	<1	1
Copper	ppm	ASTM D5185(m)	>85	4	1	2
Tin	ppm	ASTM D5185(m)	>4	<1	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

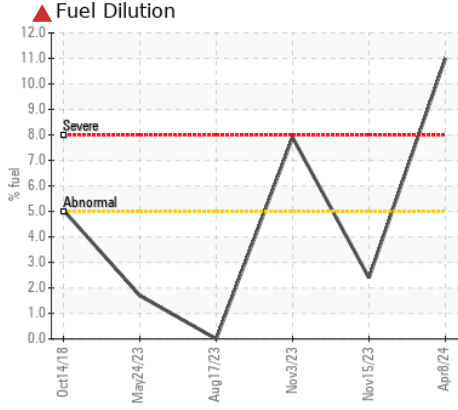
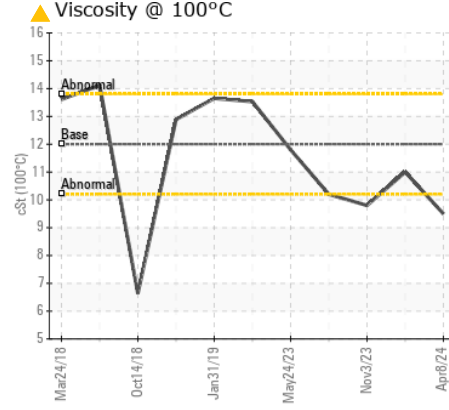
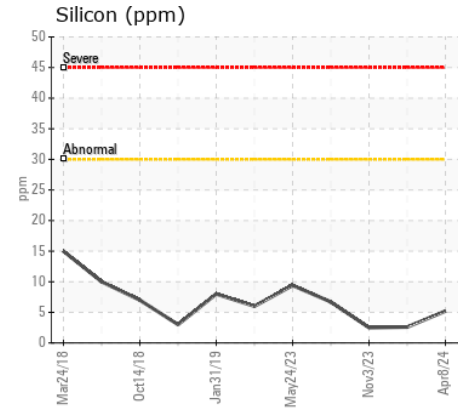
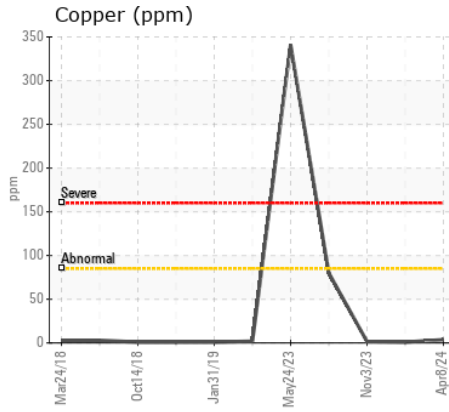
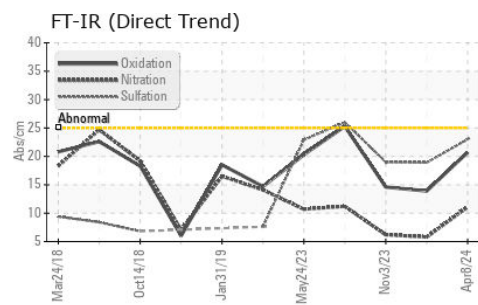
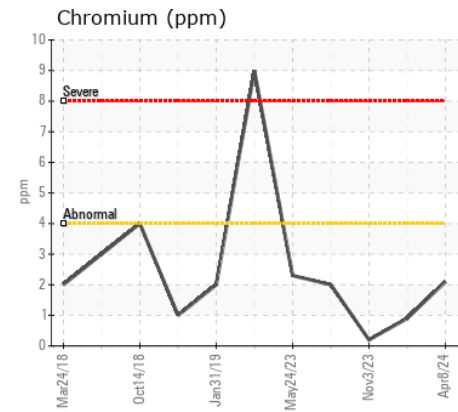
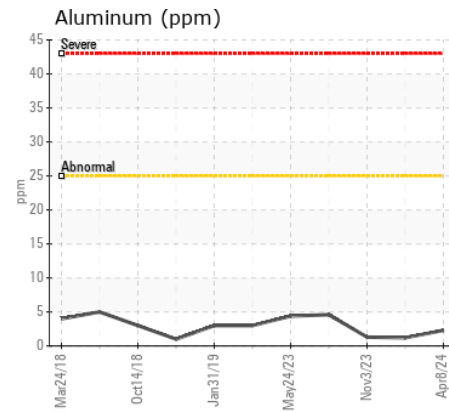
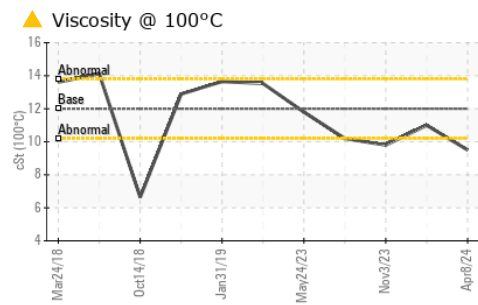
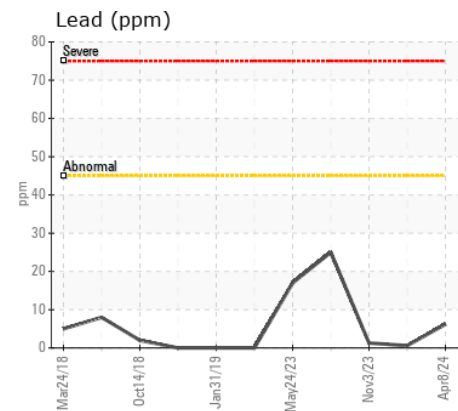
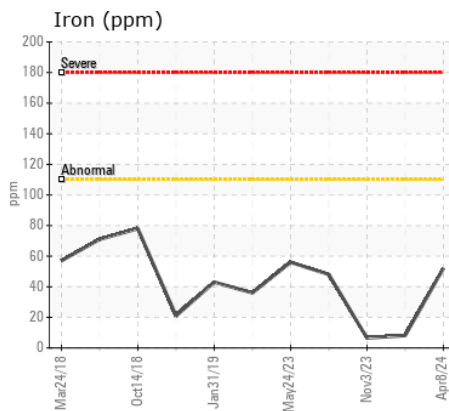
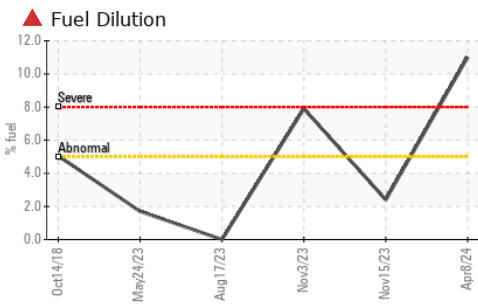
There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185(m)	>30	5	3	2
Potassium	ppm	ASTM D5185(m)	>20	<1	0	0
Fuel	%	ASTM D7593*	>5	▲ 11	▲ 2.4	▲ 7.9
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	1.2	0.2	0.1
Nitration	Abs/cm	ASTM D7624*	>20	11.1	5.8	6.2
Sulfation	Abs/.1mm	ASTM D7415*	>30	23.0	18.9	19.0
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185(m)		6	3	3
Boron	ppm	ASTM D5185(m)	2	2	3	2
Barium	ppm	ASTM D5185(m)	0	0	0	<1
Molybdenum	ppm	ASTM D5185(m)	50	52	56	54
Manganese	ppm	ASTM D5185(m)	0	<1	0	0
Magnesium	ppm	ASTM D5185(m)	950	830	926	863
Calcium	ppm	ASTM D5185(m)	1050	938	995	936
Phosphorus	ppm	ASTM D5185(m)	995	847	951	896
Zinc	ppm	ASTM D5185(m)	1180	1042	1123	1082
Sulfur	ppm	ASTM D5185(m)	2600	1982	2456	2339
Oxidation	Abs/.1mm	ASTM D7414*	>25	20.7	13.9	14.6
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	▲ 9.5	11.0	▲ 9.8



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0112534
Lab Number : 02627577
Unique Number : 5760709
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel)

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 8409 -15th Street NW
 Edmonton, AB
 CA T6P 0B8
 Contact: Tim Greig
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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.