



WEAR

NORMAL

CONTAMINATION

SEVERE

FLUID CONDITION

SEVERE



Area

[1280221]

Machine Id

201069

Component

Diesel Engine

Fluid

PETRO CANADA DURON SHP 15W40 (20 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		GFL0118522	GFL0102711	GFL0089026
Sample Date		Client Info		21 May 2024	08 Jan 2024	03 Oct 2023
Machine Age	hrs	Client Info		17058	16585	15976
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	N/A	Changed
Filter Changed		Client Info		Changed	N/A	N/A
Sample Status				SEVERE	SEVERE	SEVERE

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>75	29	46	27
Chromium	ppm	ASTM D5185(m)	>5	1	2	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	1	3	2
Lead	ppm	ASTM D5185(m)	>25	0	<1	<1
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

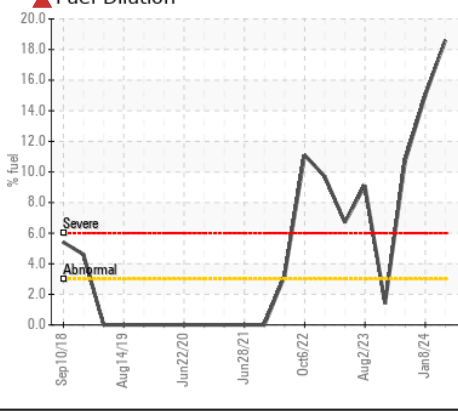
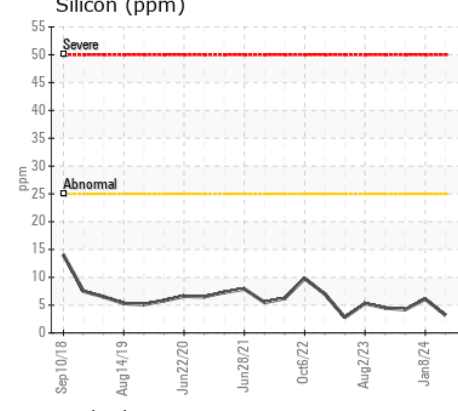
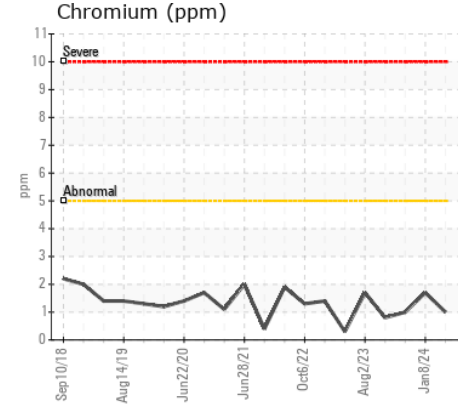
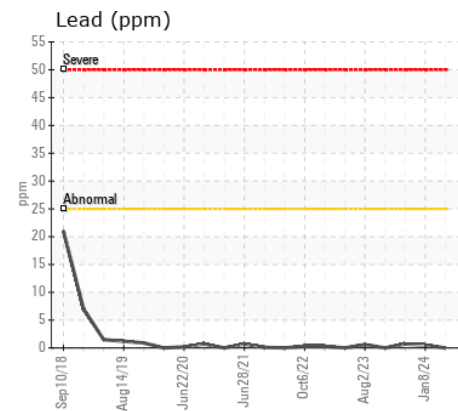
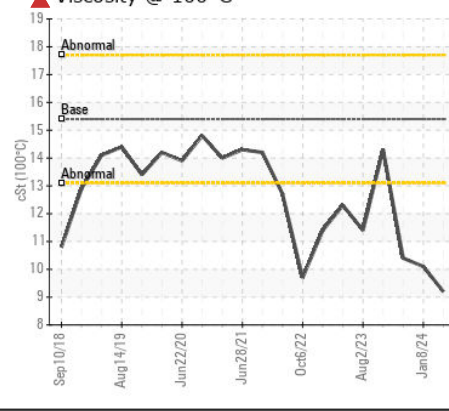
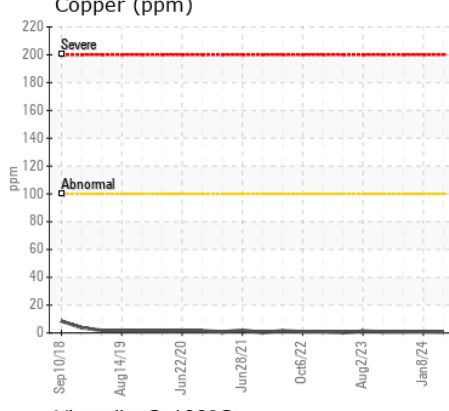
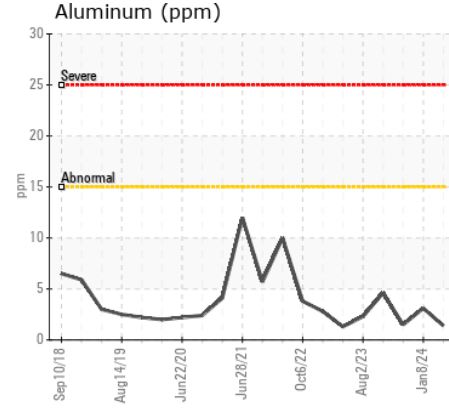
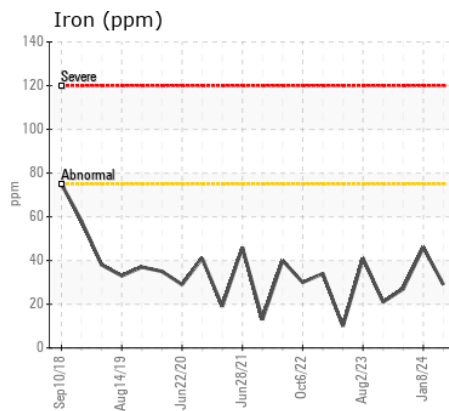
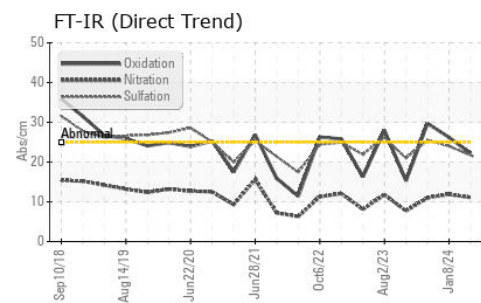
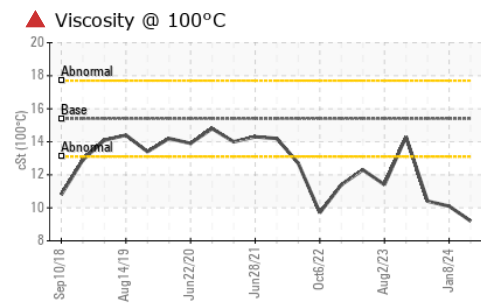
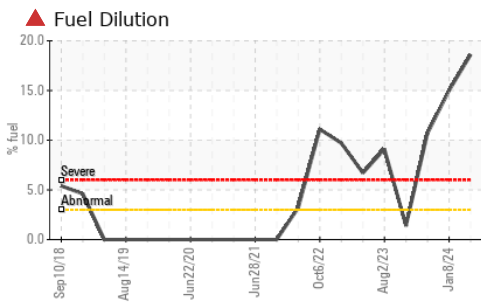
There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185(m)	>25	3	6	4
Potassium	ppm	ASTM D5185(m)	>20	2	4	2
Fuel	%	ASTM D7593*	>3.0	▲ 18.6	▲ 15	▲ 10.7
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>6	0.2	0.4	0.3
Nitration	Abs/cm	ASTM D7624*	>20	11.1	11.9	11.0
Sulfation	Abs/.1mm	ASTM D7415*	>30	21.7	24.0	25.5
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	6	7
Boron	ppm	ASTM D5185(m)	0	3	1	2
Barium	ppm	ASTM D5185(m)	0	0	0	<1
Molybdenum	ppm	ASTM D5185(m)	60	47	47	51
Manganese	ppm	ASTM D5185(m)	0	<1	0	0
Magnesium	ppm	ASTM D5185(m)	1010	776	760	815
Calcium	ppm	ASTM D5185(m)	1070	834	860	886
Phosphorus	ppm	ASTM D5185(m)	1150	773	810	830
Zinc	ppm	ASTM D5185(m)	1270	948	964	1002
Sulfur	ppm	ASTM D5185(m)	2060	1908	2039	2087
Oxidation	Abs/.1mm	ASTM D7414*	>25	22.2	26.2	29.7
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	▲ 9.2	▲ 10.1	▲ 10.4



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0118522 **Received** : 23 May 2024
Lab Number : 02637056 **Tested** : 24 May 2024
Unique Number : 5786218 **Diagnosed** : 24 May 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: PercentFuel)

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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.