



WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	ATTENTION



Machine Id
828007
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (22 GAL)

RECOMMENDATION

Check for low coolant level. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. No other corrective action is recommended at this time.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0117882	GFL0107115	GFL0107146
Sample Date		Client Info		24 Apr 2024	25 Jan 2024	16 Jan 2024
Machine Age	hrs	Client Info		11604	11067	11067
Oil Age	hrs	Client Info		600	0	0
Filter Age	hrs	Client Info		600	0	0
Oil Changed		Client Info		Changed	Not Chngd	Changed
Filter Changed		Client Info		Changed	Not Chngd	Changed
Sample Status				ATTENTION	NORMAL	MARGINAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>80	18	6	20
Chromium	ppm	ASTM D5185(m)	>5	<1	0	<1
Nickel	ppm	ASTM D5185(m)	>2	0	<1	<1
Titanium	ppm	ASTM D5185(m)		<1	0	0
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>30	4	3	5
Lead	ppm	ASTM D5185(m)	>30	0	0	0
Copper	ppm	ASTM D5185(m)	>150	2	<1	1
Tin	ppm	ASTM D5185(m)	>5	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	VLITE	---
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	---

CONTAMINATION

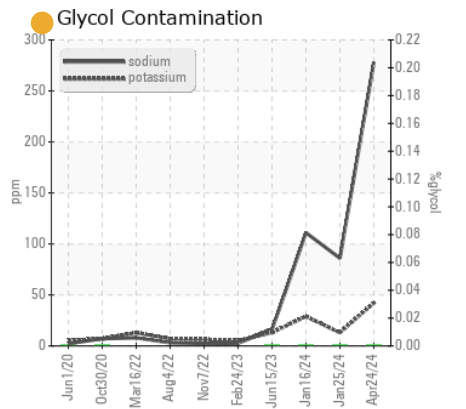
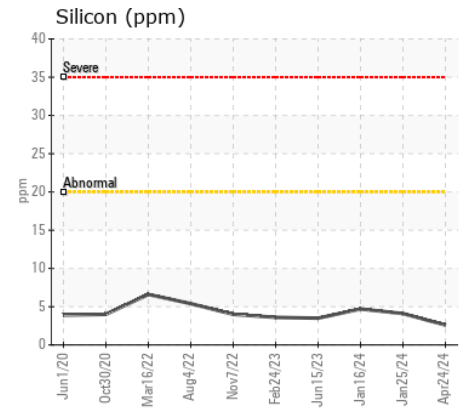
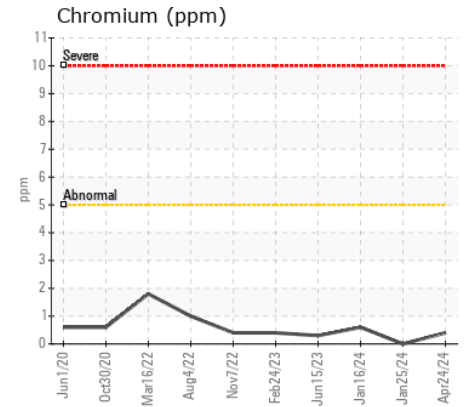
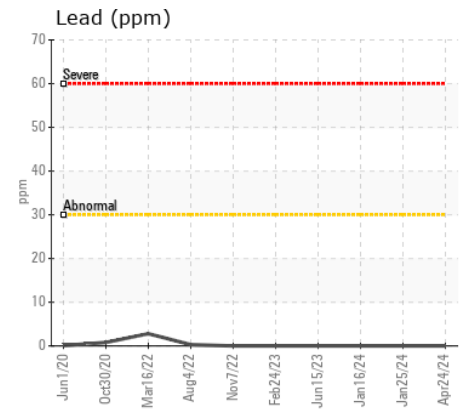
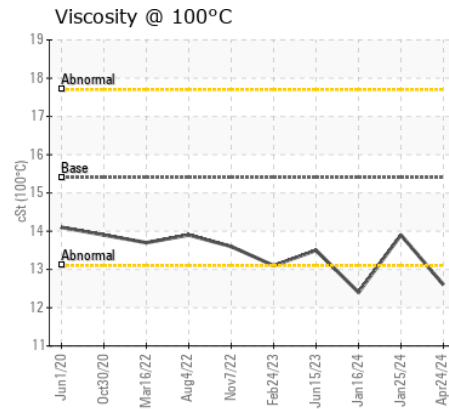
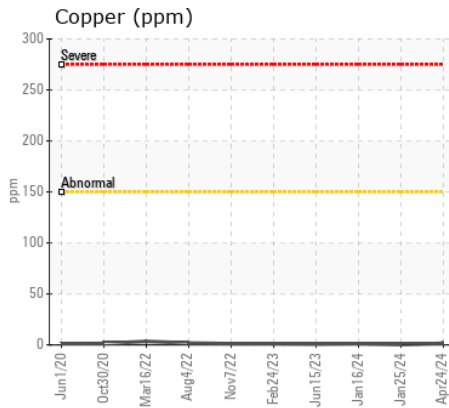
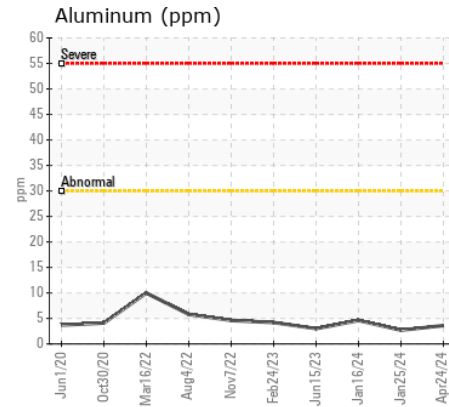
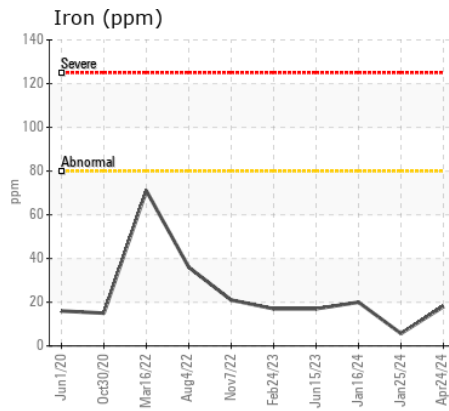
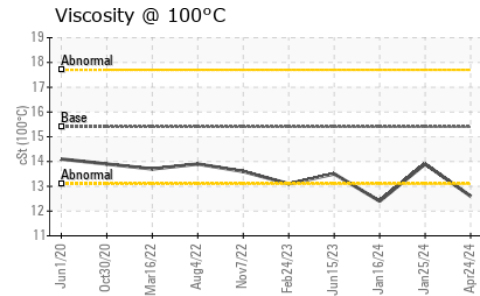
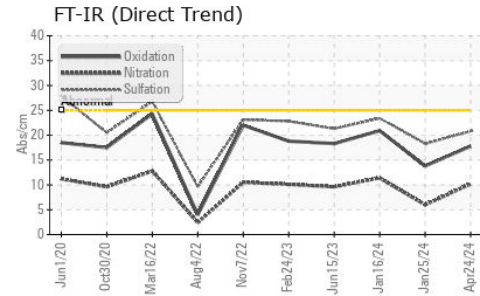
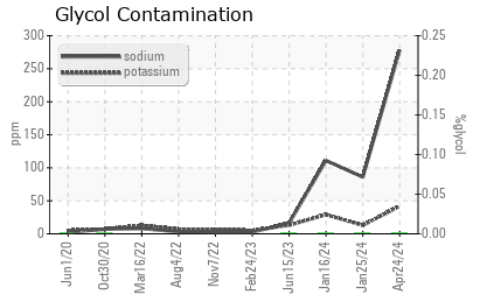
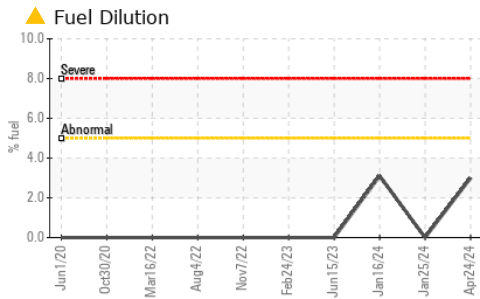
Light fuel dilution occurring. Water treatment chemicals present, indicating slow coolant leak. Test for glycol is negative. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185(m)	>20	3	4	5
Potassium	ppm	ASTM D5185(m)	>20	42	13	29
Fuel	%	ASTM D7593*	>5	▲ 3	<1.0	▲ 3.1
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	ASTM D7922*		0.0	0.0	0.0
Soot %	%	ASTM D7844*	>3	0.3	0	0.5
Nitration	Abs/cm	ASTM D7624*	>20	10.2	6.0	11.4
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.8	18.3	23.4
Silt	scalar	Visual*	NONE	NONE	NONE	---
Debris	scalar	Visual*	NONE	NONE	VLITE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	---
Appearance	scalar	Visual*	NORML	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

The condition of the oil is acceptable for the time in service (see recommendation).

Sodium	ppm	ASTM D5185(m)		● 278	86	111
Boron	ppm	ASTM D5185(m)	0	9	13	22
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	59	59	64
Manganese	ppm	ASTM D5185(m)	0	<1	0	0
Magnesium	ppm	ASTM D5185(m)	1010	902	935	967
Calcium	ppm	ASTM D5185(m)	1070	966	1006	1026
Phosphorus	ppm	ASTM D5185(m)	1150	936	988	943
Zinc	ppm	ASTM D5185(m)	1270	1130	1143	1145
Sulfur	ppm	ASTM D5185(m)	2060	2368	2763	2657
Oxidation	Abs/.1mm	ASTM D7414*	>25	17.8	13.8	20.9
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	12.6	13.9	12.4



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0117882
Lab Number : 02631317
Unique Number : 5772470
Test Package : MOB 1 (Additional Tests: FuelDilution, Glycol, PercentFuel, Visual)
 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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