



Machine Id
731029
Component
Natural Gas Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

We advise that you check for the source of water entry. The oil change at the time of sampling has been noted. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0100720	GFL0079558	GFL0041620
Sample Date		Client Info		07 Feb 2024	04 May 2023	13 Dec 2022
Machine Age	kms	Client Info		118286	4979	3096
Oil Age	kms	Client Info		0	1122	1122
Filter Age	kms	Client Info		0	1122	1122
Oil Changed		Client Info		Changed	Changed	N/A
Filter Changed		Client Info		Changed	Changed	N/A
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>50	22	11	13
Chromium	ppm	ASTM D5185(m)	>4	2	<1	2
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	<1	<1
Silver	ppm	ASTM D5185(m)	>3	<1	0	0
Aluminum	ppm	ASTM D5185(m)	>9	8	2	3
Lead	ppm	ASTM D5185(m)	>30	3	1	7
Copper	ppm	ASTM D5185(m)	>35	4	<1	1
Tin	ppm	ASTM D5185(m)	>4	<1	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

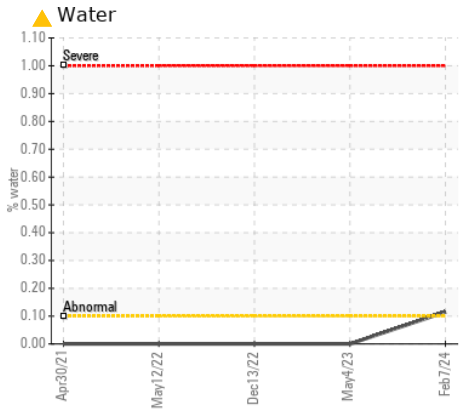
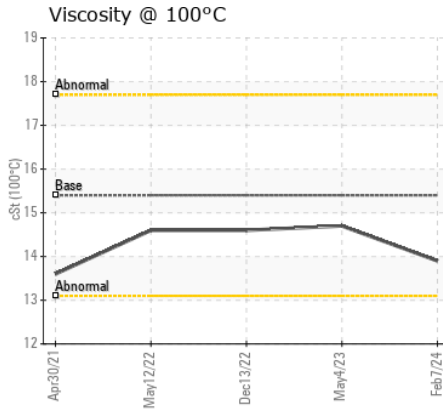
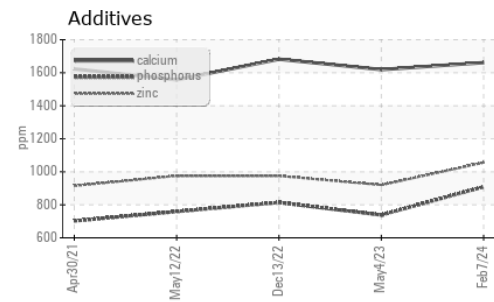
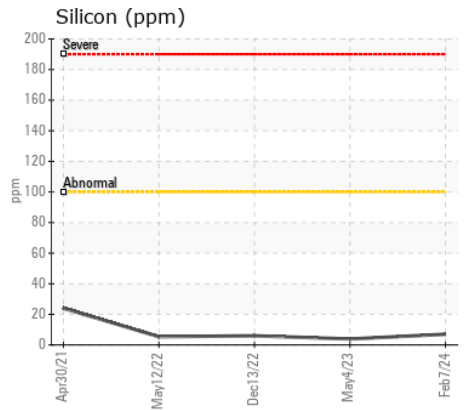
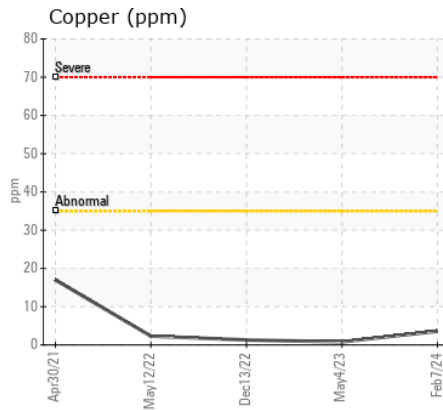
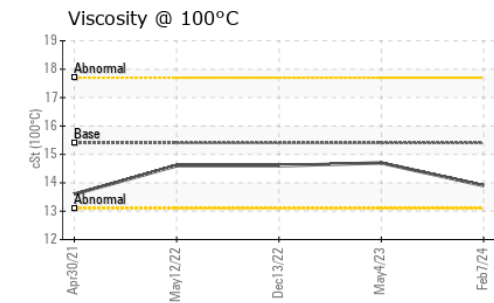
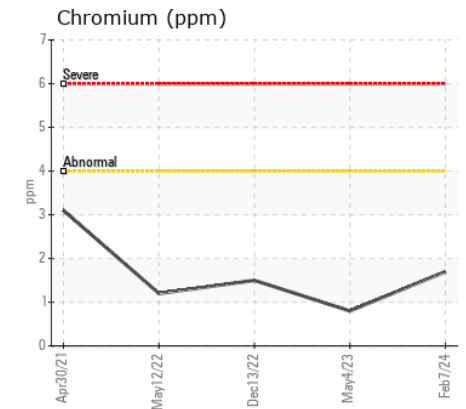
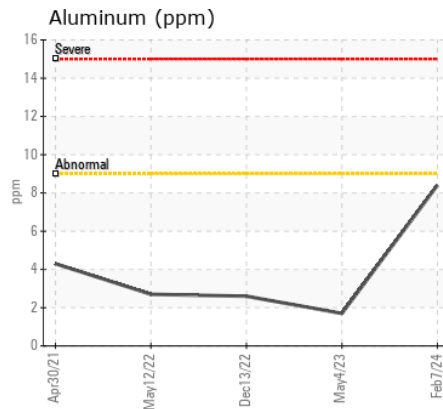
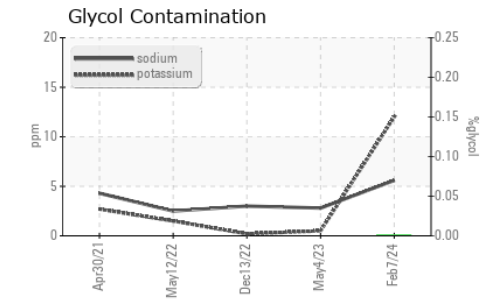
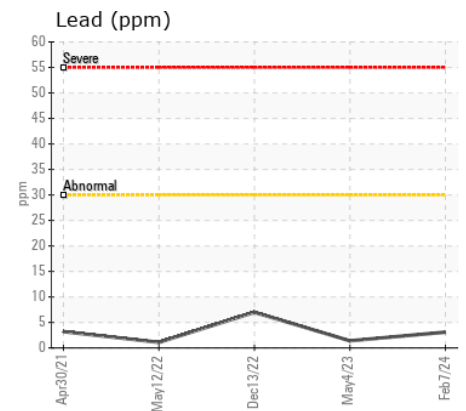
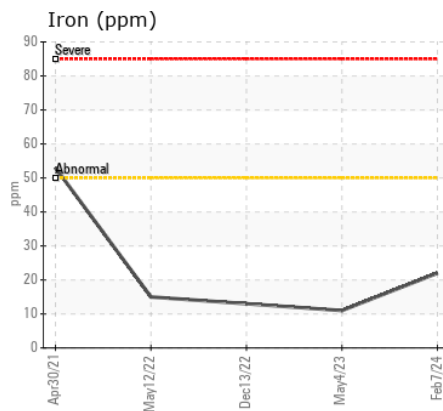
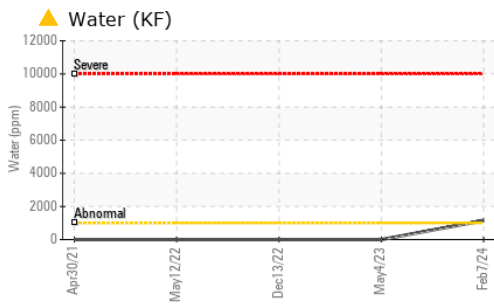
There is a moderate concentration of water present in the oil. Test for glycol is negative.

Silicon	ppm	ASTM D5185(m)	>+100	7	4	6
Potassium	ppm	ASTM D5185(m)	>20	12	<1	<1
Water	%	ASTM D6304*	>0.1	▲ 0.115	---	---
ppm Water	ppm	ASTM D6304*	>1000	▲ 1151	---	---
Glycol	%	ASTM D7922*		0.0	---	---
Soot %	%	ASTM D7844*		0.2	0	0
Nitration	Abs/cm	ASTM D7624*	>20	11.8	11.9	12.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	24.8	24.1	27.3
Emulsified Water	scalar	Visual*	>0.1	.2%	NEG	NEG

FLUID CONDITION

Additive levels indicate the addition of a different brand, or type of oil. 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)	0	30	6	6
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	66	53	56
Manganese	ppm	ASTM D5185(m)	0	<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	534	554	623
Calcium	ppm	ASTM D5185(m)	1070	1661	1619	1682
Phosphorus	ppm	ASTM D5185(m)	1150	909	738	814
Zinc	ppm	ASTM D5185(m)	1270	1056	920	975
Sulfur	ppm	ASTM D5185(m)	2060	2604	2058	2098
Oxidation	Abs/.1mm	ASTM D7414*	>25	20.8	19.7	21.9
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	13.9	14.7	14.6



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0100720
Lab Number : 02616177
Unique Number : 5733287
Test Package : MOB 1 (Additional Tests: Glycol, KF)

GFL Environmental - 277 - Niagara Regional
 C/O Metro Truck Niagara Inc., 411 Glendale Avenue
 St. Catharines, ON
 CA L2P 3Y1
 Contact: Kelly Bremner
 kbremner@gflenv.com
 T: (437)235-6849
 F:

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.