



Machine Id
9122
Component
Natural Gas Engine
Fluid
PETRO CANADA DURON GEO LD 15W40 (24 LTR)

RECOMMENDATION

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		GFL0118899	GFL0094381	GFL0086757
Sample Date		Client Info		21 May 2024	30 Nov 2023	15 Jun 2023
Machine Age	hrs	Client Info		20637	19418	18253
Oil Age	hrs	Client Info		20637	600	18253
Filter Age	hrs	Client Info		20637	600	18253
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	MARGINAL

WEAR

Chromium ppm levels are abnormal. Ring wear is indicated.

Iron	ppm	ASTM D5185(m)	>50	29	28	30
Chromium	ppm	ASTM D5185(m)	>4	▲ 6	▲ 5	▲ 4
Nickel	ppm	ASTM D5185(m)	>2	1	<1	1
Titanium	ppm	ASTM D5185(m)		0	0	<1
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>9	3	3	3
Lead	ppm	ASTM D5185(m)	>30	6	4	6
Copper	ppm	ASTM D5185(m)	>35	2	2	2
Tin	ppm	ASTM D5185(m)	>4	<1	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

CONTAMINATION

There is no indication of any contamination in the oil.

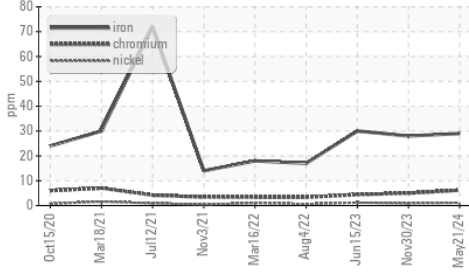
Silicon	ppm	ASTM D5185(m)	>+100	4	9	14
Potassium	ppm	ASTM D5185(m)	>20	1	<1	1
Water		WC Method	>0.1	NEG	NEG	NEG
Soot %	%	ASTM D7844*		0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	12.9	13.2	12.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	29.0	26.7	29.5
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	VLITE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	NEG

FLUID CONDITION

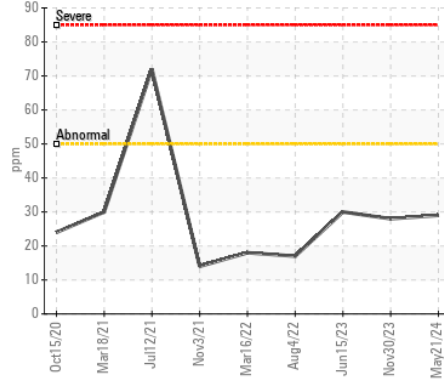
The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Sodium	ppm	ASTM D5185(m)		6	6	8
Boron	ppm	ASTM D5185(m)	50	6	8	6
Barium	ppm	ASTM D5185(m)	5	0	<1	0
Molybdenum	ppm	ASTM D5185(m)	50	61	59	61
Manganese	ppm	ASTM D5185(m)	0	<1	<1	1
Magnesium	ppm	ASTM D5185(m)	560	629	592	617
Calcium	ppm	ASTM D5185(m)	1510	1764	1702	1737
Phosphorus	ppm	ASTM D5185(m)	780	823	808	872
Zinc	ppm	ASTM D5185(m)	870	1030	998	983
Sulfur	ppm	ASTM D5185(m)	2040	2180	2125	2189
Oxidation	Abs/.1mm	ASTM D7414*	>25	23.2	22.1	24.0
Visc @ 100°C	cSt	ASTM D7279(m)	15.1	14.3	14.7	14.5

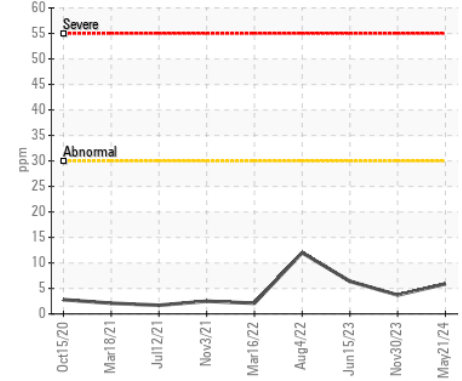
▲ Ferrous Alloys



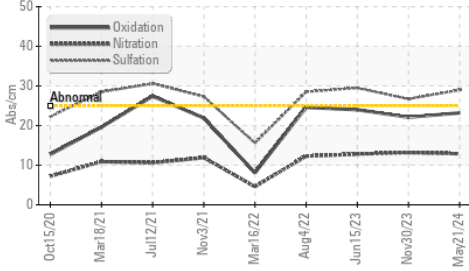
Iron (ppm)



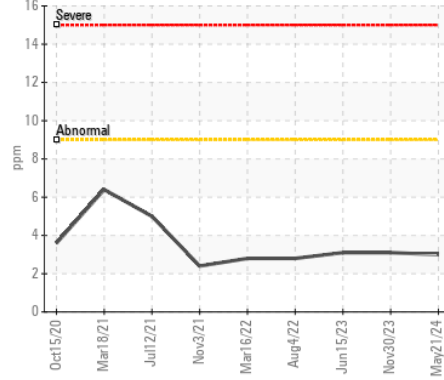
Lead (ppm)



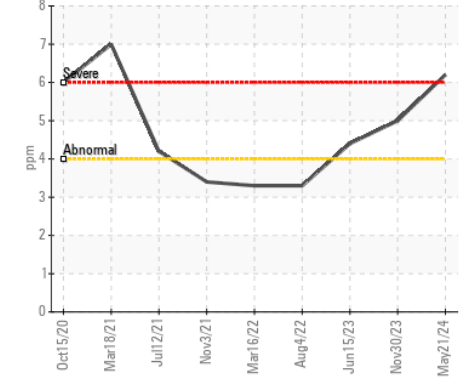
FT-IR (Direct Trend)



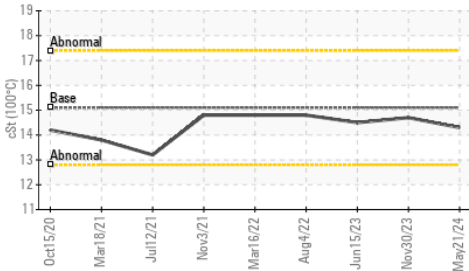
Aluminum (ppm)



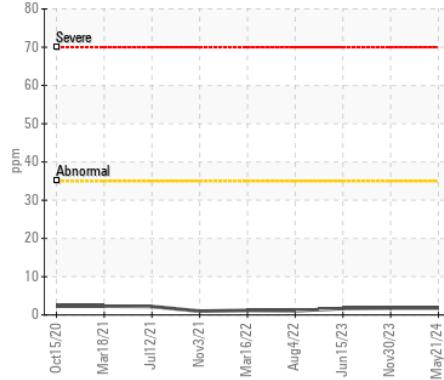
▲ Chromium (ppm)



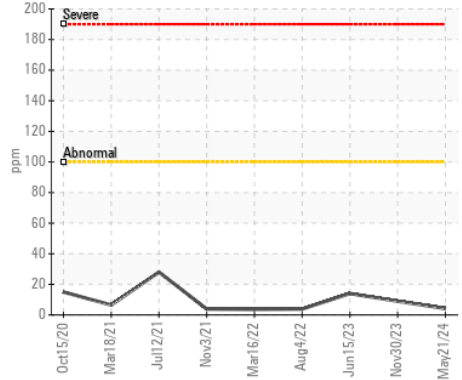
Viscosity @ 100°C



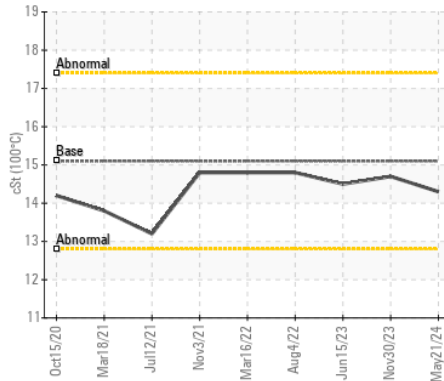
Copper (ppm)



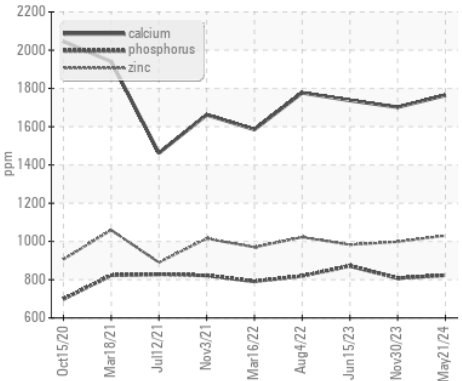
Silicon (ppm)



Viscosity @ 100°C



Additives



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0118899 **Received** : 22 May 2024
Lab Number : 02636923 **Tested** : 22 May 2024
Unique Number : 5786085 **Diagnosed** : 22 May 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: Visual)

GFL Environmental - 222 - Sandhill
 SANDHILL DISPOSAL & RECYCLING DIVIS, 19 COMMERCE ROAD
 ORANGEVILLE, ON
 CA L9W 3X5
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 T: (519)940-4167
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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.