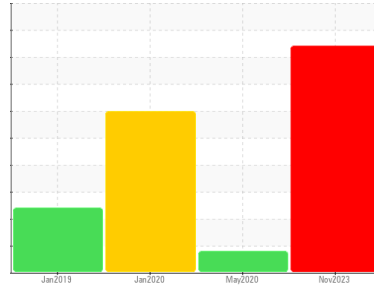




OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Machine Id
9157
Component
Transmission (Auto)
Fluid
PETRO CANADA DURON GEO LD 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Check for low coolant level. The fluid change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

Chromium ppm levels are severe.

Contamination

Water treatment chemicals present, indicating slow coolant leak. Test for glycol is negative.

Fluid Condition

The fluid is no longer serviceable as a result of the abnormal and/or severe wear. The condition of the fluid is acceptable for the time in service (see recommendation).

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0097792	GFL0005954	PC0017070
Sample Date	Client Info	27 Nov 2023	13 May 2020	15 Jan 2020
Machine Age	hrs	1580	106588	8393
Oil Age	hrs	1200	9998	0
Oil Changed	Client Info	Changed	N/A	N/A
Sample Status		SEVERE	ATTENTION	SEVERE

CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.1	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >220	56	95	140
Chromium	ppm ASTM D5185(m) >2	9	<1	<1
Nickel	ppm ASTM D5185(m) >5	2	7	16
Titanium	ppm ASTM D5185(m)	0	<1	<1
Silver	ppm ASTM D5185(m) >5	<1	<1	0
Aluminum	ppm ASTM D5185(m) >75	7	31	42
Lead	ppm ASTM D5185(m) >95	2	34	60
Copper	ppm ASTM D5185(m) >60	4	24	24
Tin	ppm ASTM D5185(m) >10	<1	5	6
Antimony	ppm ASTM D5185(m) >2	0	<1	<1
Vanadium	ppm ASTM D5185(m)	0	0	0
Beryllium	ppm ASTM D5185(m)	0	0	0
Cadmium	ppm ASTM D5185(m)	0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185(m) 50	8	147	91
Barium	ppm ASTM D5185(m) 5	<1	<1	<1
Molybdenum	ppm ASTM D5185(m) 50	71	<1	<1
Manganese	ppm ASTM D5185(m) 0	<1	1	2
Magnesium	ppm ASTM D5185(m) 560	499	<1	<1
Calcium	ppm ASTM D5185(m) 1510	1384	93	43
Phosphorus	ppm ASTM D5185(m) 780	656	381	286
Zinc	ppm ASTM D5185(m) 870	829	70	257
Sulfur	ppm ASTM D5185(m) 2040	2137	1356	465
Lithium	ppm ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >25	13	8	7
Sodium	ppm ASTM D5185(m)	2696	6	6
Potassium	ppm ASTM D5185(m) >20	205	3	5
Glycol	% ASTM D7922*	0.0	---	---

INFRA-RED

method	limit/base	current	history1	history2
Soot %	% ASTM D7844*	0	---	---
Nitration	Abs/cm ASTM D7624*	15.3	---	---
Sulfation	Abs/.1mm ASTM D7415*	24.2	---	---

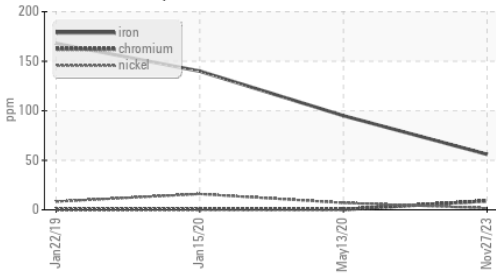
FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm ASTM D7414*	17.3	---	---

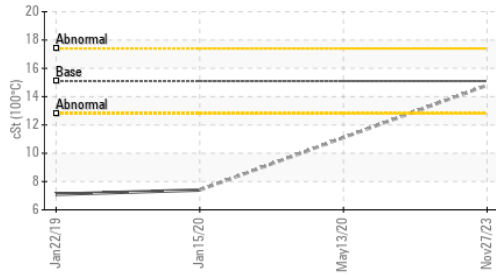


OIL ANALYSIS REPORT

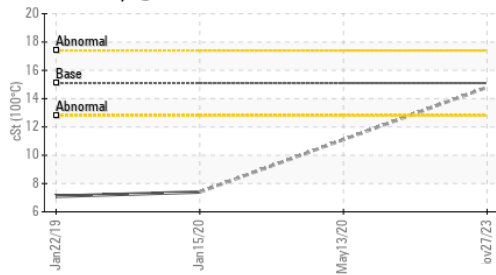
Ferrous Alloys



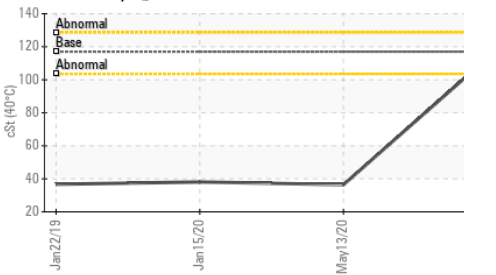
Viscosity @ 100°C



Viscosity @ 100°C



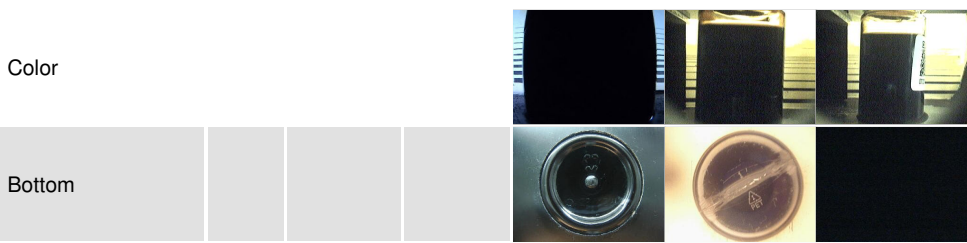
Viscosity @ 40°C



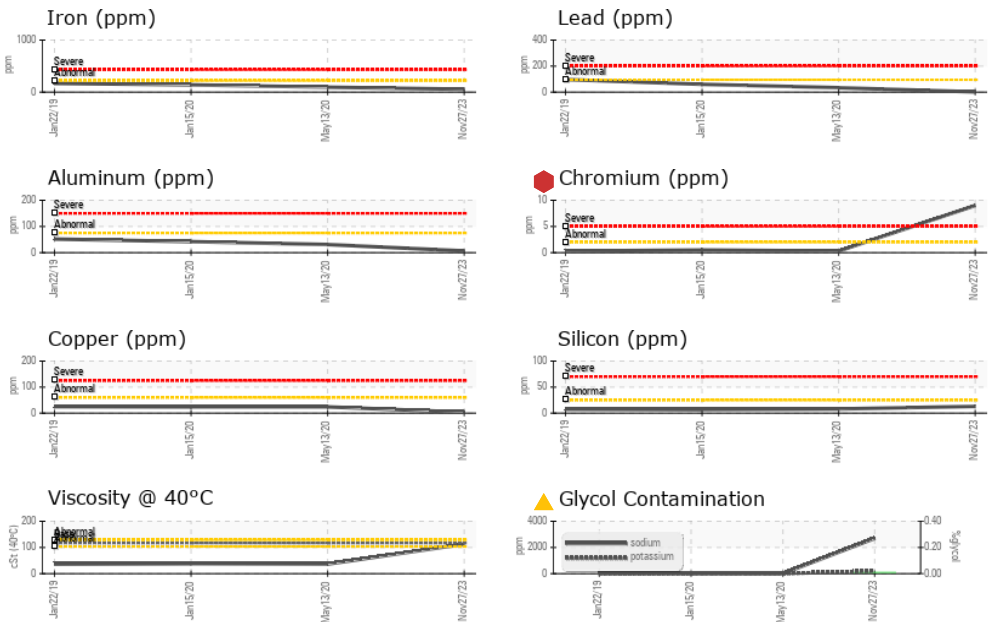
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	VLITE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	VLITE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	LTMOD
Appearance	scalar	Visual*	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	117.0	113	36.4
Visc @ 100°C	cSt	ASTM D7279(m)	15.1	14.8	---
Viscosity Index (VI)	Scale	ASTM D2270*	134	135	---

SAMPLE IMAGES



GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 209 - Hamilton**
Sample No. : GFL0097792 **Received** : 29 Nov 2023 **560 Seaman Street**
Lab Number : 02599697 **Diagnosed** : 04 Dec 2023 **Stoney Creek, ON**
Unique Number : 5684777 **Diagnostician** : Kevin Marson **CA L8E 3X7**
Test Package : MOB 1 (Additional Tests: FT-IR, Glycol, KV100, VI) **Contact: Fred Carleton**

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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