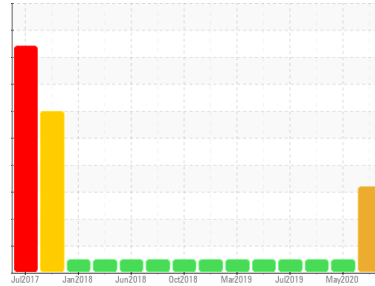




OIL ANALYSIS REPORT

Sample Rating Trend



DEGRADATION



Machine Id
10773C

Component
Natural Gas Engine

Fluid
PETRO CANADA DURON GEO LD 15W40 (30 QTS)

DIAGNOSIS

▲ Recommendation

The oil is near the end of its useful service life, recommend schedule an oil change. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

▲ Fluid Condition

Additive levels indicate the addition of a different brand, or type of oil. The BN level is low. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0007235	GFL0003178	GFL0000113
Sample Date	Client Info	05 Aug 2020	14 May 2020	02 Apr 2020
Machine Age	hrs	8452	7782	7437
Oil Age	hrs	417	345	608
Oil Changed	Client Info	Not Chngd	Not Chngd	Changed
Sample Status		ABNORMAL	NORMAL	NORMAL

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 D5185m >50	30	19	26
Chromium	ppm ASTM D5185m >4	2	1	2
Nickel	ppm ASTM D5185m >2	<1	<1	<1
Titanium	ppm ASTM D5185m	<1	0	0
Silver	ppm ASTM D5185m >3	0	0	0
Aluminum	ppm ASTM D5185m >9	1	2	3
Lead	ppm ASTM D5185m >30	1	<1	<1
Copper	ppm ASTM D5185m >35	<1	1	4
Tin	ppm ASTM D5185m >4	0	0	<1
Antimony	ppm ASTM D5185m	0	0	0
Vanadium	ppm ASTM D5185m	0	0	0
Cadmium	ppm ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 120	<1	13	3
Barium	ppm ASTM D5185m	0	0	0
Molybdenum	ppm ASTM D5185m 125	▲ 16	38	58
Manganese	ppm ASTM D5185m	<1	<1	<1
Magnesium	ppm ASTM D5185m	▲ 167	452	810
Calcium	ppm ASTM D5185m 2100	▲ 601	1290	1005
Phosphorus	ppm ASTM D5185m 800	▲ 234	625	834
Zinc	ppm ASTM D5185m 880	▲ 291	739	999
Sulfur	ppm ASTM D5185m 2860	3374	2253	1661
Lithium	ppm ASTM D5185m	---	---	---

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >+100	5	6	12
Sodium	ppm ASTM D5185m	2	3	4
Potassium	ppm ASTM D5185m >20	0	1	0

INFRA-RED

method	limit/base	current	history1	history2
Soot %	% *ASTM D7844	0	0	0.1
Nitration	Abs/cm *ASTM D7624 >20	5.9	9.8	10.1
Sulfation	Abs/.1mm *ASTM D7415 >30	17	19.5	19.1

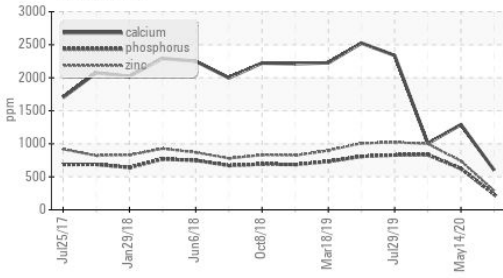
FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	9.6	16.7	15.5
Acid Number (AN)	mg KOH/g ASTM D8045 2.5	---	---	---
Base Number (BN)	mg KOH/g ASTM D2896 6.5	▲ 1.3	5.9	5.2

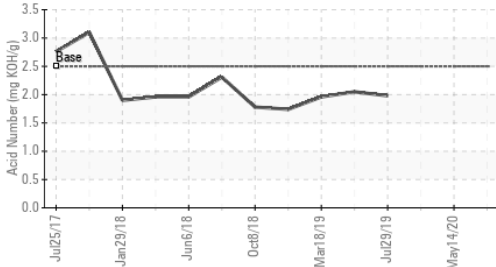


OIL ANALYSIS REPORT

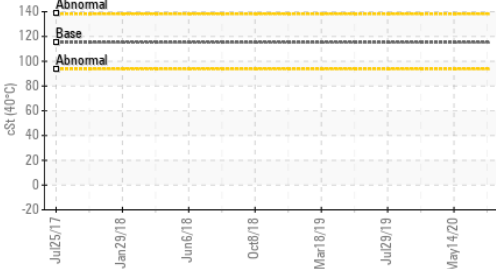
▲ Additives



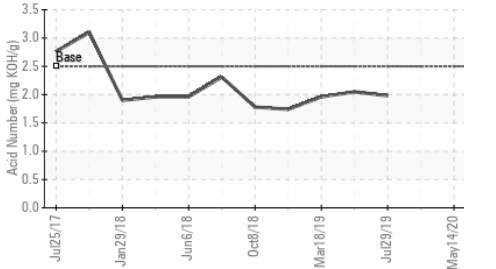
Acid Number



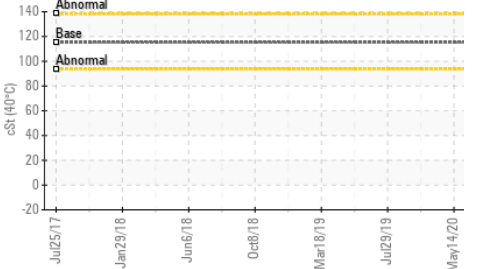
Viscosity @ 40°C



Acid Number



Viscosity @ 40°C

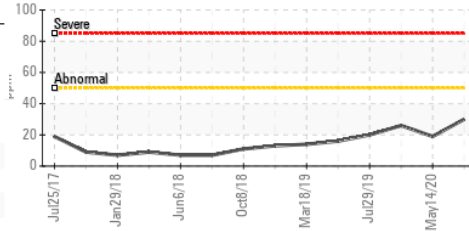


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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

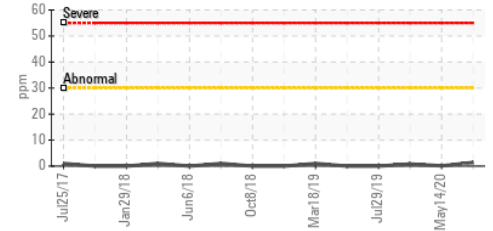
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	12.8	14.6

GRAPHS

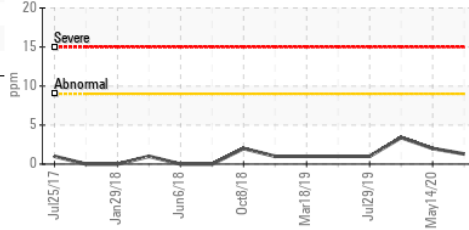
Iron (ppm)



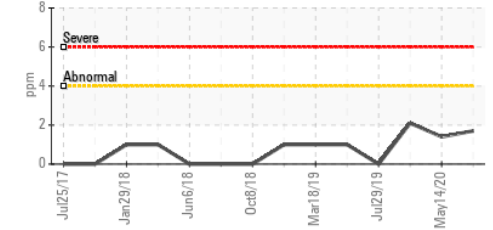
Lead (ppm)



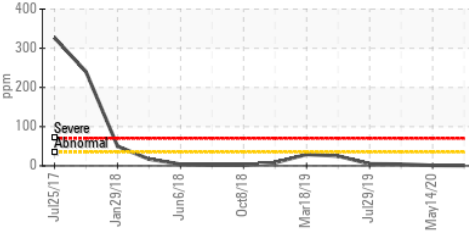
Aluminum (ppm)



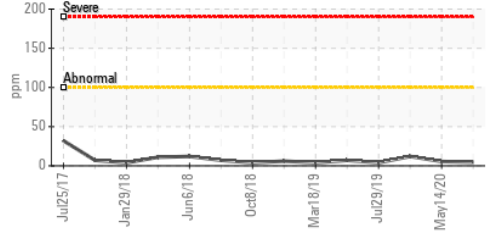
Chromium (ppm)



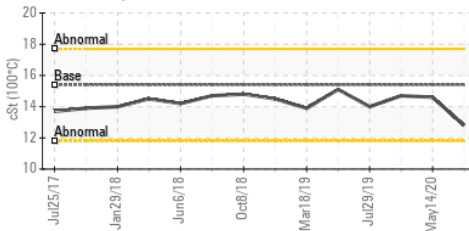
Copper (ppm)



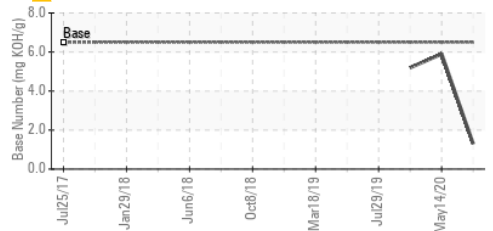
Silicon (ppm)



Viscosity @ 100°C



▲ Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0007235 **Received** : 07 Aug 2020
Lab Number : 05039471 **Diagnosed** : 13 Aug 2020
Unique Number : 9129641 **Diagnostician** : Jonathan Hester
Test Package : MOB 2 (Additional Tests: i-pH, KV40, VI)

GFL Environmental - 030 - Conway Myrtle Beach
 3010 HWY 378
 Conway, SC
 US 29527
 Contact: ARCILIO RUEZ
 aruiz@gflenv.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

T:
F: