



Machine Id
8402
 Component
Natural Gas Engine
 Fluid
RDL-3647 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL11445177	GFL11377194	---
Sample Date		Client Info		20 Nov 2017	18 Sep 2017	---
Machine Age	hrs	Client Info		3140	2753	---
Oil Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		N/A	N/A	---
Sample Status				NORMAL	ABNORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)		17	▲ 38	---
Chromium	ppm	ASTM D5185(m)		1	3	---
Nickel	ppm	ASTM D5185(m)		1	2	---
Titanium	ppm	ASTM D5185(m)		0	0	---
Silver	ppm	ASTM D5185(m)		0	0	---
Aluminum	ppm	ASTM D5185(m)		3	4	---
Lead	ppm	ASTM D5185(m)		1	4	---
Copper	ppm	ASTM D5185(m)		13	▲ 55	---
Tin	ppm	ASTM D5185(m)		1	1	---
Vanadium	ppm	ASTM D5185(m)		0	0	---

CONTAMINATION

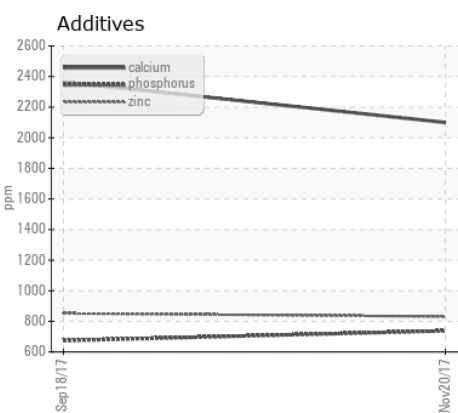
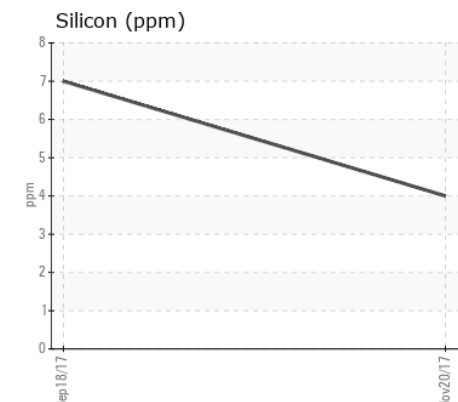
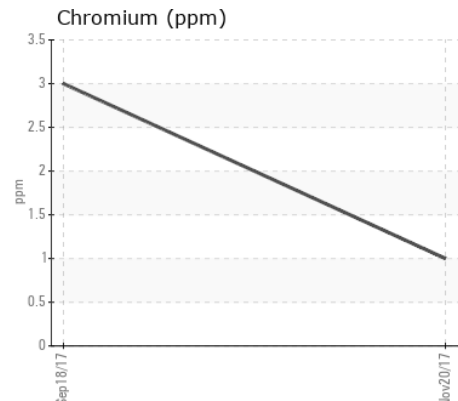
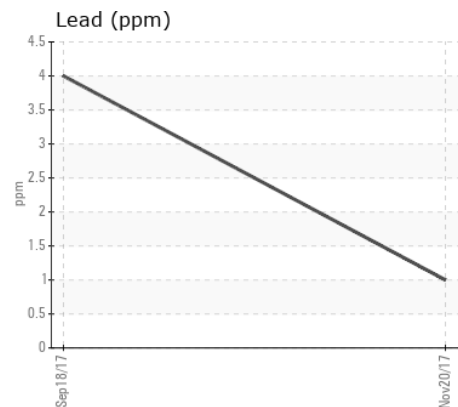
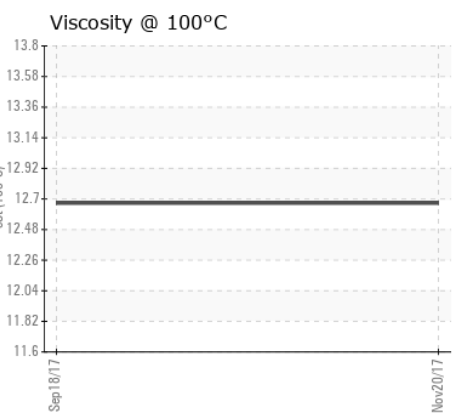
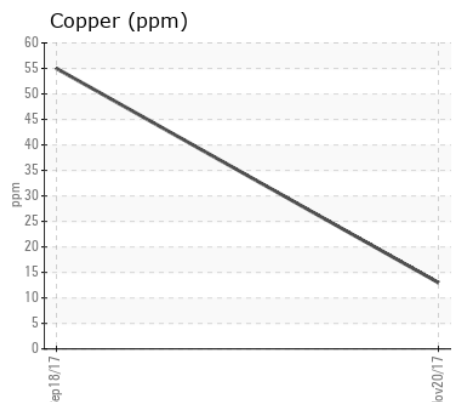
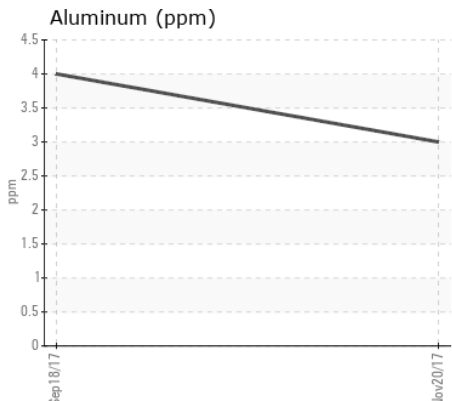
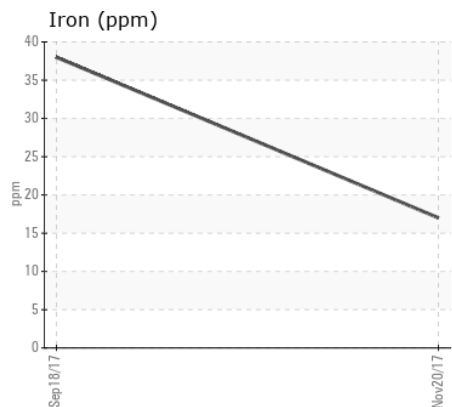
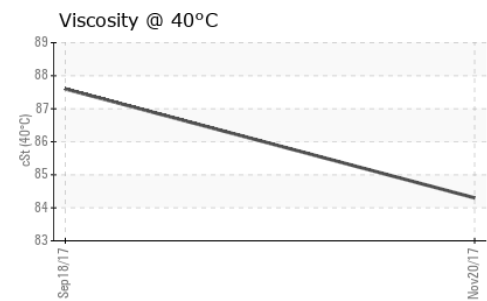
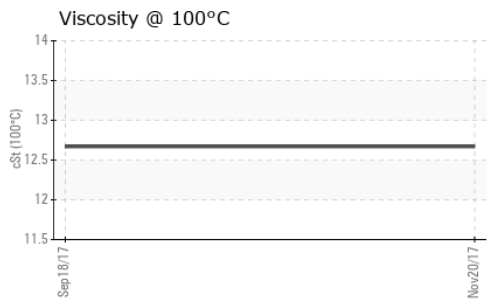
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)		4	7	---
Potassium	ppm	ASTM D5185(m)		1	1	---
Water		WC Method		NEG	NEG	---
Nitration	Abs/cm	ASTM D7624*		9.4	▲ 28.8	---
Sulfation	Abs/.1mm	ASTM D7415*		---	9.1	---

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		5	▲ 9	---
Boron	ppm	ASTM D5185(m)		44	6	---
Barium	ppm	ASTM D5185(m)		0	0	---
Molybdenum	ppm	ASTM D5185(m)		108	149	---
Magnesium	ppm	ASTM D5185(m)		6	7	---
Calcium	ppm	ASTM D5185(m)		2100	2364	---
Phosphorus	ppm	ASTM D5185(m)		738	674	---
Zinc	ppm	ASTM D5185(m)		831	852	---
Oxidation	Abs/.1mm	ASTM D7414*		5.8	10.8	---
Visc @ 40°C	cSt	ASTM D7279(m)		84.3	87.6	---
Visc @ 100°C	cSt	ASTM D7279(m)		12.67	12.67	---



Laboratory : WearCheck -
Sample No. : GFL11445177
Lab Number : 11445177
Unique Number : 13093261

Received : 24 Nov 2017
Tested : 25 Nov 2017
Diagnosed : 30 Aug 2019 - Wes Davis

GFL Environmental - 554 - Edmonton SW
 8409 -15th Street NW
 Edmonton, AB
 CA T6P 0B8
 Contact: Tim Greig
 tgreig@gflenv.com
 T: (780)231-0521
 F:

Test Package : MOB1+ (Additional Tests: FT-IR, ICP, KV100, KV40)
 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.