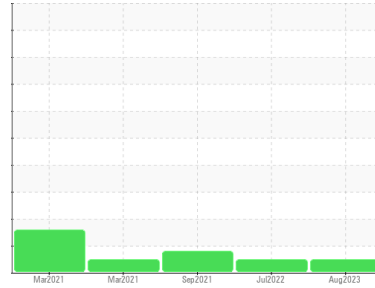




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
831003

Component
Natural Gas Engine

Fluid
PETRO CANADA DURON HP 15W40 (--- LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Fluid Condition

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

SAMPLE INFORMATION

method	limit/base	current	history1	history2	
Sample Number	Client Info	GFL0090602	GFL0053100	GFL0032547	
Sample Date	Client Info	25 Aug 2023	18 Jul 2022	13 Sep 2021	
Machine Age	hrs	Client Info	6420	4373	2328
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info	Changed	Changed	Changed	
Sample Status		NORMAL	NORMAL	ABNORMAL	

CONTAMINATION

method	limit/base	current	history1	history2
Glycol	WC Method	---	---	---

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m) >50	31	20	31
Chromium	ppm	ASTM D5185(m) >4	2	2	4
Nickel	ppm	ASTM D5185(m) >2	1	<1	1
Titanium	ppm	ASTM D5185(m)	0	<1	0
Silver	ppm	ASTM D5185(m) >3	0	0	<1
Aluminum	ppm	ASTM D5185(m) >9	13	25	▲ 48
Lead	ppm	ASTM D5185(m) >30	3	2	2
Copper	ppm	ASTM D5185(m) >35	2	1	4
Tin	ppm	ASTM D5185(m) >4	<1	<1	2
Antimony	ppm	ASTM D5185(m)	0	0	0
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) 0	11	8	8
Barium	ppm	ASTM D5185(m) 0	0	0	<1
Molybdenum	ppm	ASTM D5185(m) 60	63	62	63
Manganese	ppm	ASTM D5185(m) 0	1	1	3
Magnesium	ppm	ASTM D5185(m) 1010	687	795	570
Calcium	ppm	ASTM D5185(m) 1070	1842	1695	1655
Phosphorus	ppm	ASTM D5185(m) 1150	930	946	822
Zinc	ppm	ASTM D5185(m) 1270	1072	1182	991
Sulfur	ppm	ASTM D5185(m) 2060	2140	2418	1974
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m) >+100	5	5	8
Sodium	ppm	ASTM D5185(m)	10	8	10
Potassium	ppm	ASTM D5185(m) >20	22	39	84

INFRA-RED

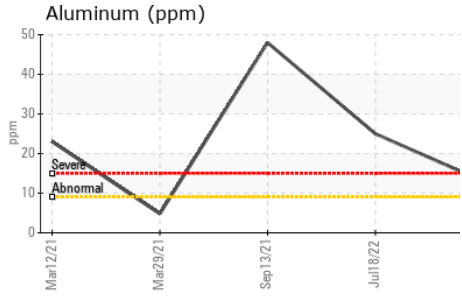
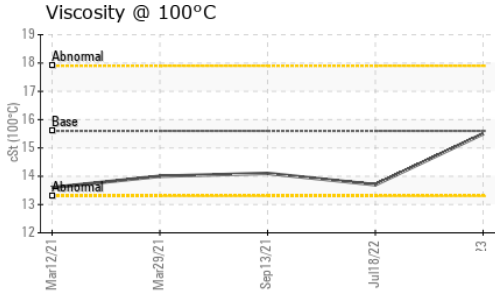
method	limit/base	current	history1	history2		
Soot %	%	ASTM D7844*	0	0	0	
Nitration	Abs/cm	ASTM D7624*	>20	13.3	10.7	11.0
Sulfation	Abs/.1mm	ASTM D7415*	>30	29.9	23.2	26.5

FLUID DEGRADATION

method	limit/base	current	history1	history2		
Oxidation	Abs/.1mm	ASTM D7414*	>25	24.2	20.1	21.9



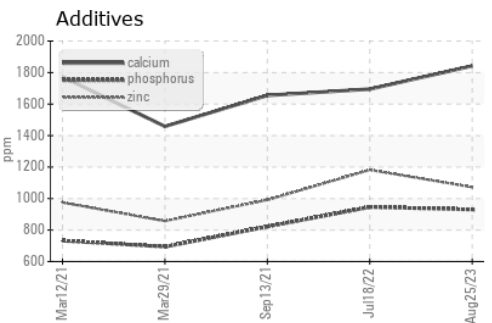
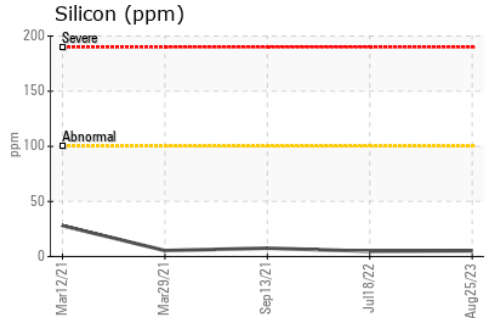
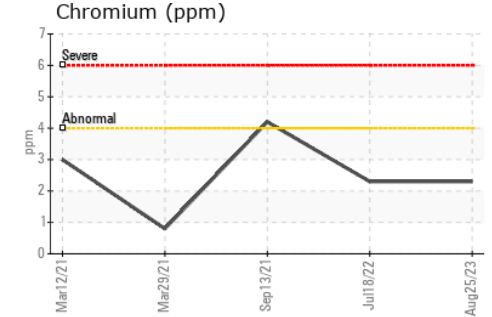
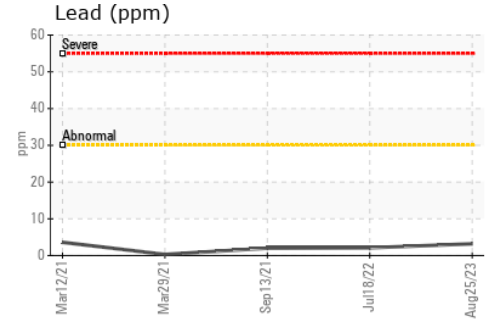
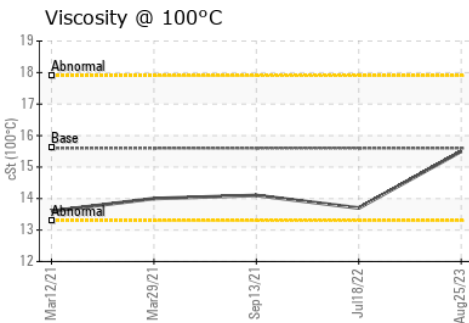
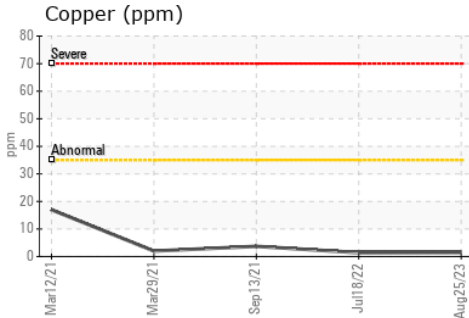
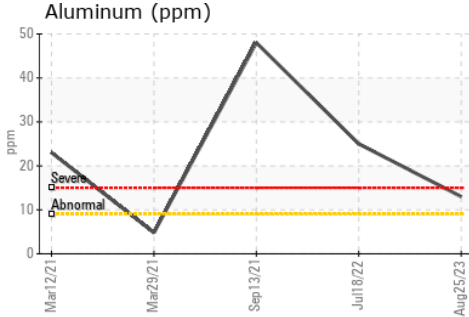
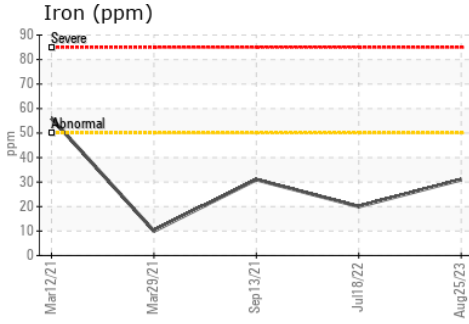
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
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 D7279(m)	15.6	15.5	13.7	14.1

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 554 - Edmonton SW
Sample No. : GFL0090602 **Received** : 05 Sep 2023
Lab Number : 02580281 **Diagnosed** : 05 Sep 2023
Unique Number : 5633341 **Diagnostician** : Wes Davis
Test Package : MOB 1

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.

Contact: Tim Greig
 tgreig@gflenv.com
 T:
 F: