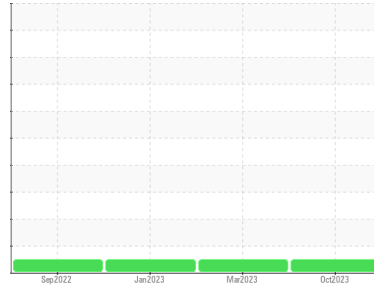




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
831047
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON GEO LD 15W40 (--- GAL)

DIAGNOSIS

Recommendation

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

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0091646	GFL0070727	GFL0063713
Sample Date	Client Info		03 Oct 2023	06 Mar 2023	11 Jan 2023
Machine Age	hrs	Client Info	3026	2006	1689
Oil Age	hrs	Client Info	0	969	650
Oil Changed	Client Info		Changed	Changed	N/A
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<1.0	<1.0	<1.0

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>120	24	17	14
Chromium	ppm	ASTM D5185(m)	>20	2	1	<1
Nickel	ppm	ASTM D5185(m)	>5	<1	1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	<1	<1
Silver	ppm	ASTM D5185(m)	>2	<1	0	0
Aluminum	ppm	ASTM D5185(m)	>20	4	3	2
Lead	ppm	ASTM D5185(m)	>40	4	2	<1
Copper	ppm	ASTM D5185(m)	>330	2	3	3
Tin	ppm	ASTM D5185(m)	>15	1	1	<1
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)	50	7	8	9
Barium	ppm	ASTM D5185(m)	5	<1	0	0
Molybdenum	ppm	ASTM D5185(m)	50	63	57	53
Manganese	ppm	ASTM D5185(m)	0	<1	2	2
Magnesium	ppm	ASTM D5185(m)	560	661	607	563
Calcium	ppm	ASTM D5185(m)	1510	1782	1765	1631
Phosphorus	ppm	ASTM D5185(m)	780	824	797	709
Zinc	ppm	ASTM D5185(m)	870	1034	960	900
Sulfur	ppm	ASTM D5185(m)	2040	2074	2085	1994
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

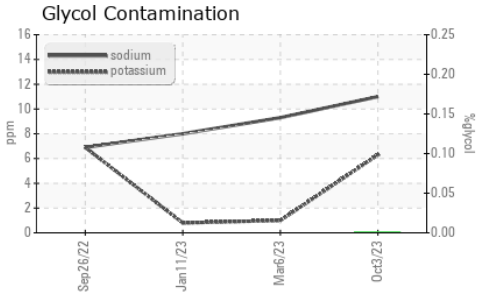
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	8	7	6
Sodium	ppm	ASTM D5185(m)		11	9	8
Potassium	ppm	ASTM D5185(m)	>20	6	1	<1
Glycol	%	ASTM D7922*		0.0	NEG	NEG

INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>4	0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	12.8	10.9	11.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	27.5	25.8	23.8



OIL ANALYSIS REPORT

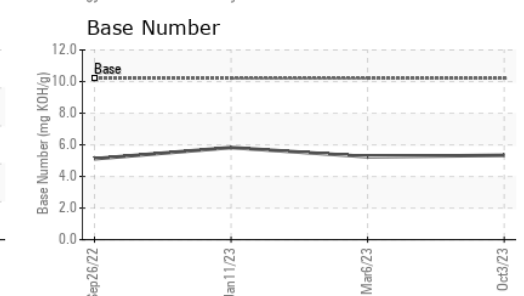
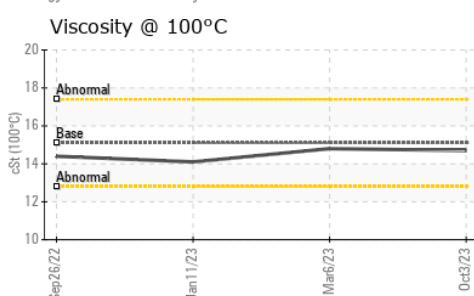
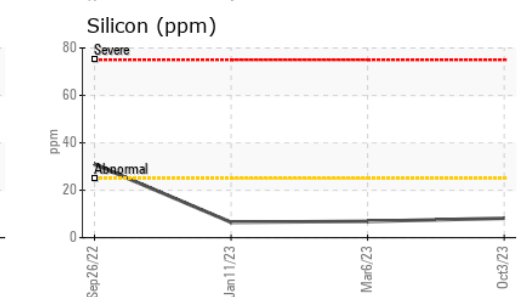
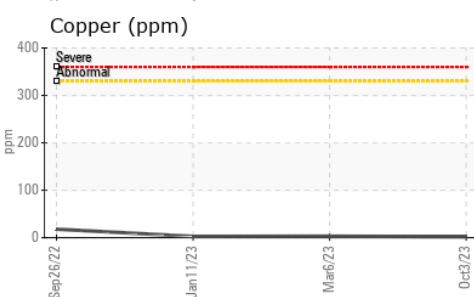
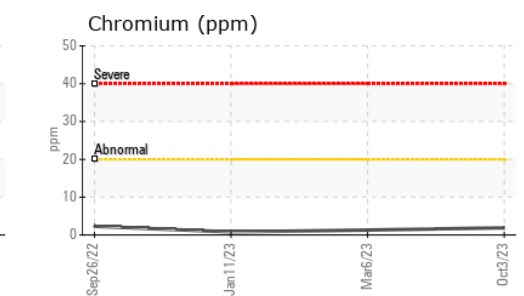
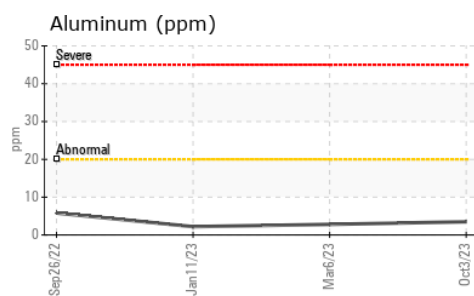
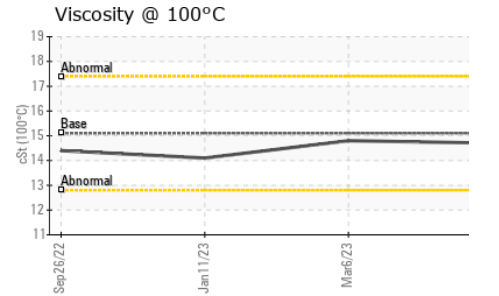
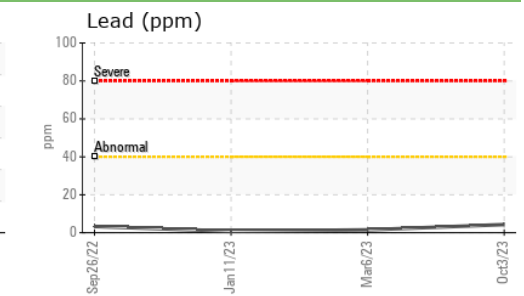
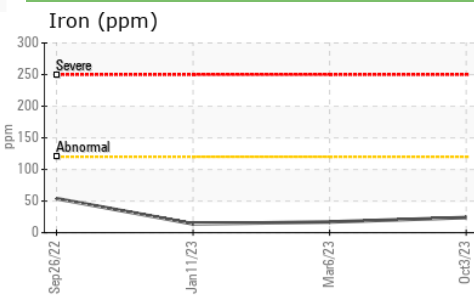
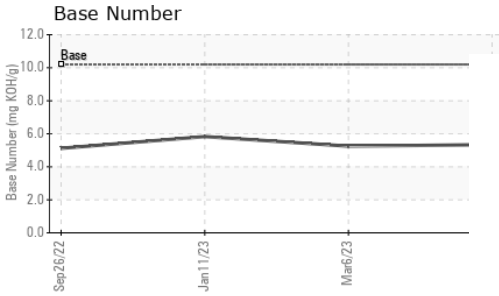


FLUID DEGRADATION	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414*	>25	22.5	18.3	19.5
Base Number (BN)	mg KOH/g	ASTM D2896*	10.2	5.34	5.25	5.83

VISUAL	method	limit/base	current	history1	history2	
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D7279(m)	15.1	14.7	14.8	14.1

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 550 - Rocky View County
Sample No. : GFL0091646 **Received** : 11 Oct 2023
Lab Number : 02588265 **Diagnosed** : 16 Oct 2023
Unique Number : 5657331 **Diagnostician** : Wes Davis
Test Package : MOB 2 (Additional Tests: Glycol)

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: GFL Calgary
 calgarymaintenance@gflenv.com
 T: (403)369-6163