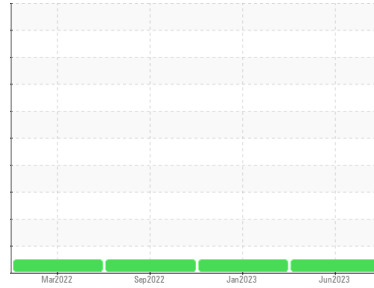




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
930022

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	history 1	history 2
Sample Number	Client Info		GFL0077584	GFL0063751	GFL0057823
Sample Date	Client Info		28 Jun 2023	27 Jan 2023	07 Sep 2022
Machine Age	hrs	Client Info	4473	3414	2345
Oil Age	hrs	Client Info	1071	1070	0
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history 1	history 2
Fuel	WC Method	>5	<1.0	<1.0	<1.0
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history 1	history 2	
Iron	ppm	ASTM D5185(m)	>100	15	17	15
Chromium	ppm	ASTM D5185(m)	>20	1	1	1
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	<1	2
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	4	4	4
Lead	ppm	ASTM D5185(m)	>40	2	2	<1
Copper	ppm	ASTM D5185(m)	>330	1	2	4
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	history 1	history 2	
Boron	ppm	ASTM D5185(m)	50	6	6	9
Barium	ppm	ASTM D5185(m)	5	0	0	0
Molybdenum	ppm	ASTM D5185(m)	50	58	57	54
Manganese	ppm	ASTM D5185(m)	0	<1	1	2
Magnesium	ppm	ASTM D5185(m)	560	614	596	572
Calcium	ppm	ASTM D5185(m)	1510	1705	1725	1703
Phosphorus	ppm	ASTM D5185(m)	780	790	780	754
Zinc	ppm	ASTM D5185(m)	870	964	973	937
Sulfur	ppm	ASTM D5185(m)	2040	2070	2141	2082
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

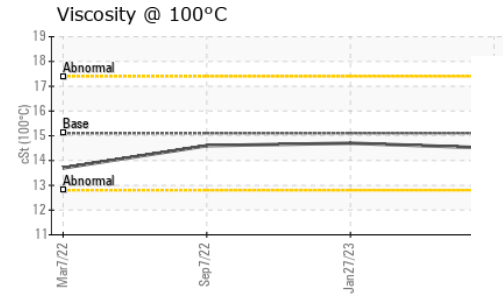
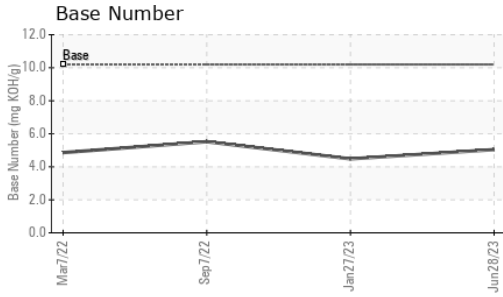
	method	limit/base	current	history 1	history 2	
Silicon	ppm	ASTM D5185(m)	>25	8	5	7
Sodium	ppm	ASTM D5185(m)		10	10	9
Potassium	ppm	ASTM D5185(m)	>20	<1	0	<1

INFRA-RED

	method	limit/base	current	history 1	history 2	
Soot %	%	ASTM D7844*	>3	0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	12.1	9.6	12.2
Sulfation	Abs/.1mm	ASTM D7415*	>30	27.2	23.1	25.6



OIL ANALYSIS REPORT

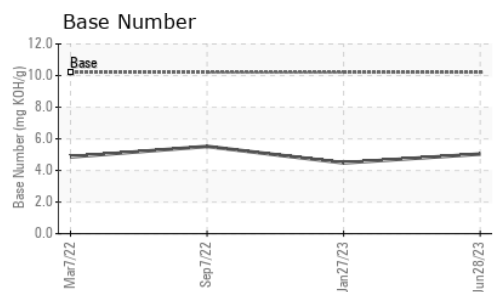
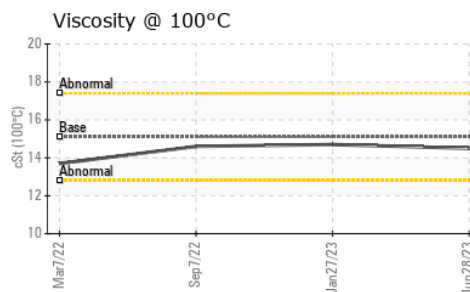
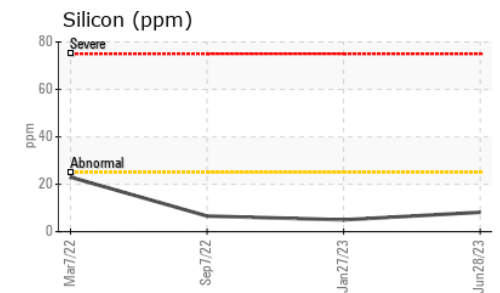
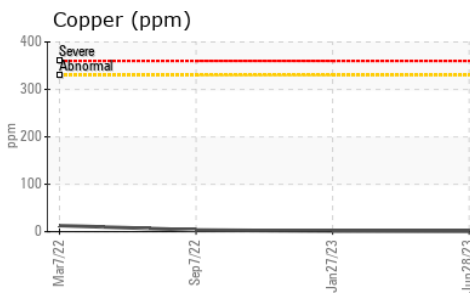
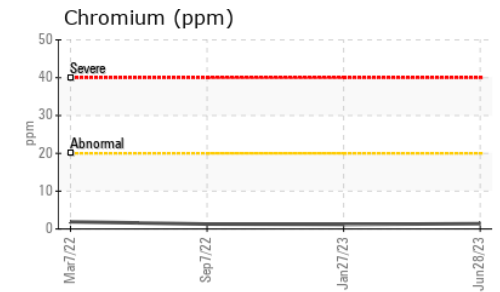
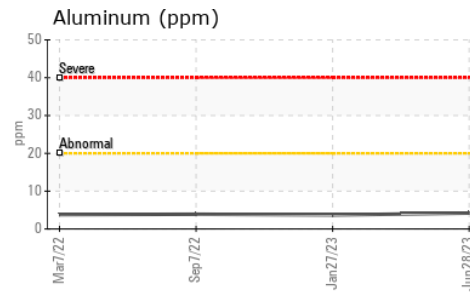
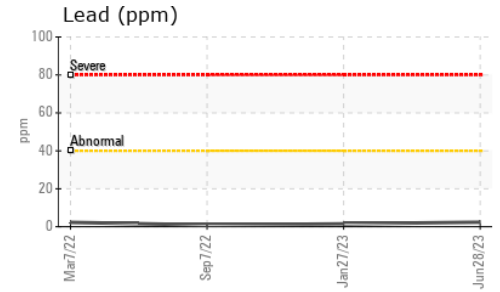
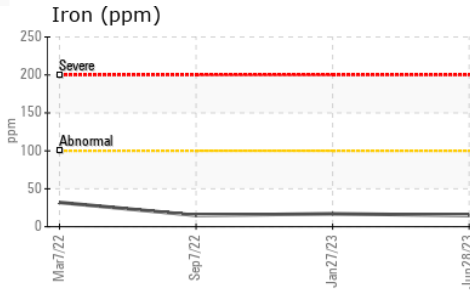


FLUID DEGRADATION		method	limit/base	current	history 1	history 2
Oxidation	Abs./1mm	ASTM D7414*	>25	22.7	17.1	21.7
Base Number (BN)	mg KOH/g	ASTM D2896*	10.2	5.04	4.48	5.52

VISUAL		method	limit/base	current	history 1	history 2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history 1	history 2
Visc @ 100°C	cSt	ASTM D7279(m)	15.1	14.5	14.7	14.6

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 550 - Rocky View County
Sample No. : GFL0077584 **Received** : 06 Jul 2023
Lab Number : 02568177 **Diagnosed** : 07 Jul 2023
Unique Number : 5605223 **Diagnostician** : Wes Davis
Test Package : MOB 2

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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