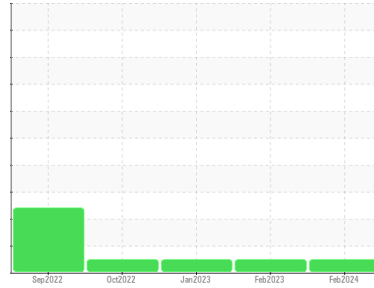




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
831051
 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		GFL0112412	GFL0070722	GFL0063714
Sample Date	Client Info		14 Feb 2024	23 Feb 2023	11 Jan 2023
Machine Age	hrs	Client Info	3216	1723	1723
Oil Age	hrs	Client Info	219	1075	580
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
Water	WC Method	>0.2	NEG	NEG	NEG
Glycol	WC Method		NEG	0.0	NEG

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>120	10	30	21
Chromium	ppm	ASTM D5185(m)	>20	<1	3	2
Nickel	ppm	ASTM D5185(m)	>5	<1	1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	<1	<1
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	2	5	3
Lead	ppm	ASTM D5185(m)	>40	2	3	1
Copper	ppm	ASTM D5185(m)	>330	<1	5	4
Tin	ppm	ASTM D5185(m)	>15	<1	2	1
Antimony	ppm	ASTM D5185(m)		0	0	<1
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	19	5	6
Barium	ppm	ASTM D5185(m)	5	0	0	0
Molybdenum	ppm	ASTM D5185(m)	50	50	60	55
Manganese	ppm	ASTM D5185(m)	0	0	2	2
Magnesium	ppm	ASTM D5185(m)	560	542	655	572
Calcium	ppm	ASTM D5185(m)	1510	1570	1798	1641
Phosphorus	ppm	ASTM D5185(m)	780	751	849	707
Zinc	ppm	ASTM D5185(m)	870	869	989	900
Sulfur	ppm	ASTM D5185(m)	2040	2051	2134	2002
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

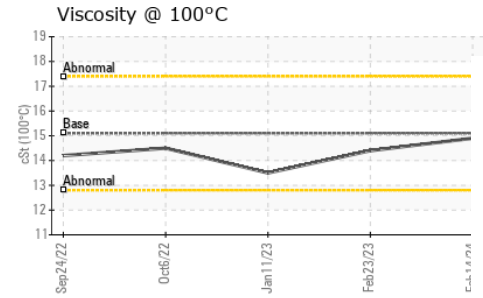
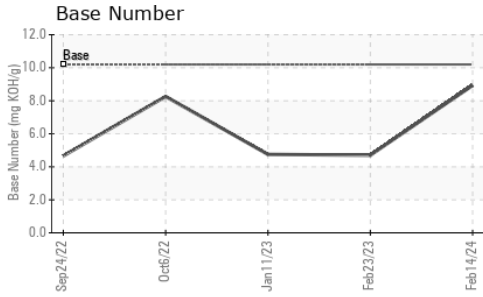
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	4	9	8
Sodium	ppm	ASTM D5185(m)		6	11	9
Potassium	ppm	ASTM D5185(m)	>20	1	7	5

INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>4	0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	9.1	9.5	7.4
Sulfation	Abs.1mm	ASTM D7415*	>30	20.0	24.1	18.9



OIL ANALYSIS REPORT

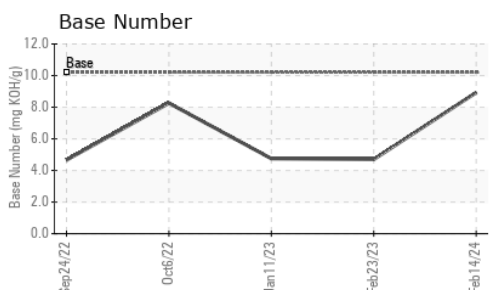
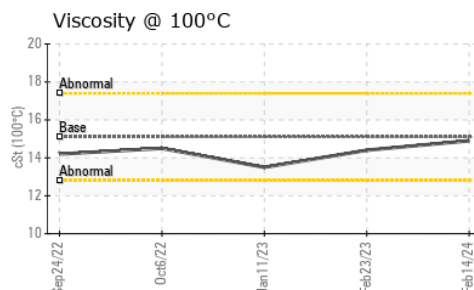
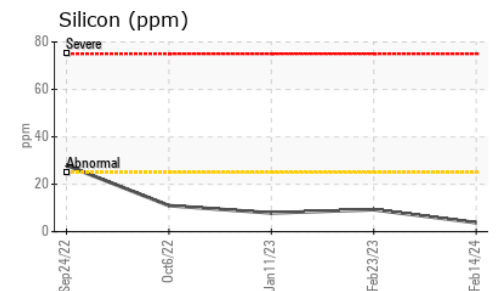
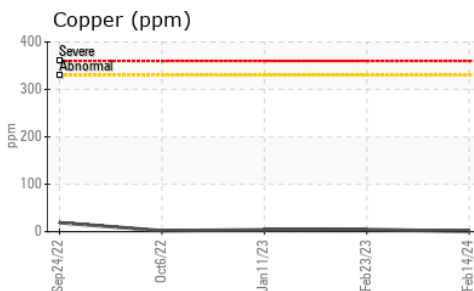
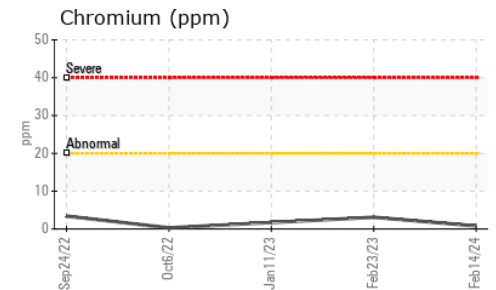
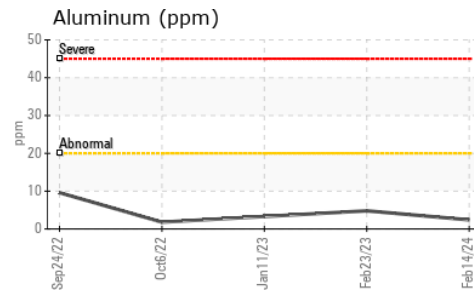
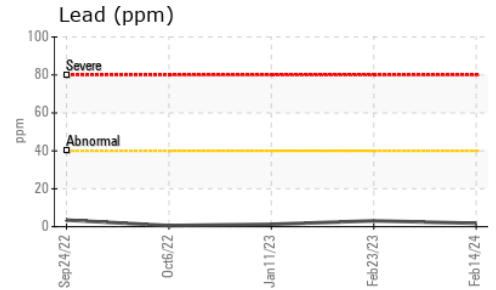
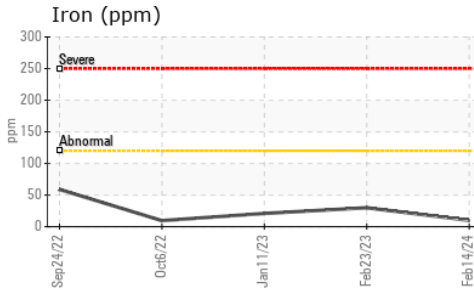


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	17.2	16.7	12.6
Base Number (BN)	mg KOH/g	ASTM D2896*	10.2	8.93	4.70	4.75

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	14.9	14.4	13.5

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0112412
Lab Number : 02616963
Unique Number : 5734073
Test Package : MOB 2
Received : 21 Feb 2024
Tested : 22 Feb 2024
Diagnosed : 22 Feb 2024 - Wes Davis

GFL Environmental - 550 - Rocky View County
 220 Carmek Blvd
 Rocky View County, AB
 CA T1X 1X1
 Contact: GFL Calgary
 calgarymaintenance@gflenv.com
 T:
 F: (403)369-6163

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.