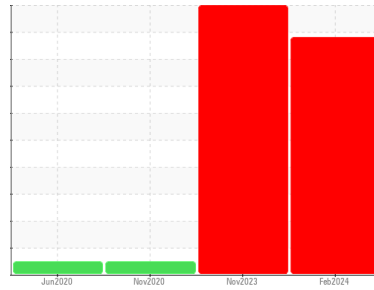




OIL ANALYSIS REPORT

Sample Rating Trend



DIRT



Machine Id
OR681

Component
Rear Left Final Drive

Fluid
PETRO CANADA GEARLUBE TOS 80W140 (6 LTR)

DIAGNOSIS

Recommendation

We advise that you check for the source of water entry. We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition.

Wear

Aluminum ppm levels are noted. All other component wear rates are normal.

Contamination

There is a high concentration of water present in the oil. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Fluid Condition

Additive levels indicate the addition of a different brand, or type of oil. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0092219	GFL0092227	GFL0010881
Sample Date	Client Info	09 Feb 2024	16 Nov 2023	23 Nov 2020
Machine Age	hrs	Client Info	10645	10033
Oil Age	hrs	Client Info	5143	1000
Oil Changed	Client Info	Changed	N/A	Changed
Sample Status		SEVERE	SEVERE	NORMAL

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m) >750	515	2250	202
Chromium	ppm	ASTM D5185(m) >9	4	18	2
Nickel	ppm	ASTM D5185(m) >10	2	6	<1
Titanium	ppm	ASTM D5185(m)	3	12	2
Silver	ppm	ASTM D5185(m)	0	<1	<1
Aluminum	ppm	ASTM D5185(m) >40	67	220	34
Lead	ppm	ASTM D5185(m) >15	<1	1	<1
Copper	ppm	ASTM D5185(m) >40	1	5	<1
Tin	ppm	ASTM D5185(m) >10	0	0	0
Antimony	ppm	ASTM D5185(m) >5	0	0	0
Vanadium	ppm	ASTM D5185(m)	0	<1	<1
Beryllium	ppm	ASTM D5185(m)	0	0	0
Cadmium	ppm	ASTM D5185(m)	0	0	0

ADDITIVES

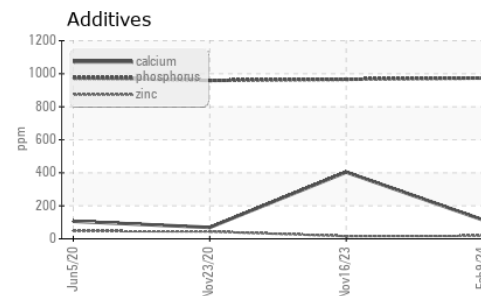
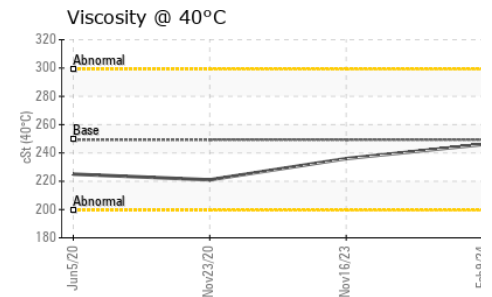
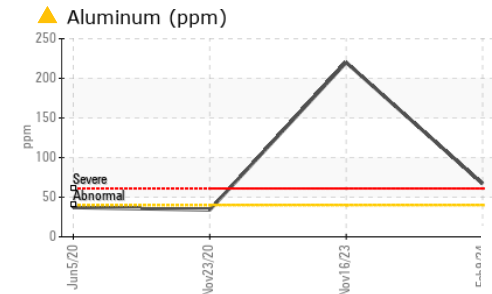
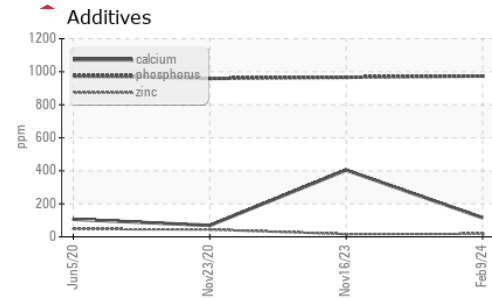
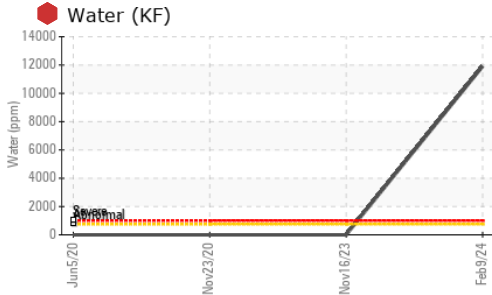
method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m) 170	144	228	143
Barium	ppm	ASTM D5185(m) 4	0	1	<1
Molybdenum	ppm	ASTM D5185(m)	0	<1	<1
Manganese	ppm	ASTM D5185(m)	4	18	3
Magnesium	ppm	ASTM D5185(m) 1.0	25	75	10
Calcium	ppm	ASTM D5185(m) 16	115	404	69
Phosphorus	ppm	ASTM D5185(m) 920	974	966	959
Zinc	ppm	ASTM D5185(m) 8	18	16	44
Sulfur	ppm	ASTM D5185(m) 1630	16839	15840	18894
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m) >75	237	757	109
Sodium	ppm	ASTM D5185(m) >51	19	52	10
Potassium	ppm	ASTM D5185(m) >20	24	82	13
Water	%	ASTM D6304* >0.075	1.190	---	---
ppm Water	ppm	ASTM D6304* >750	11900	---	---



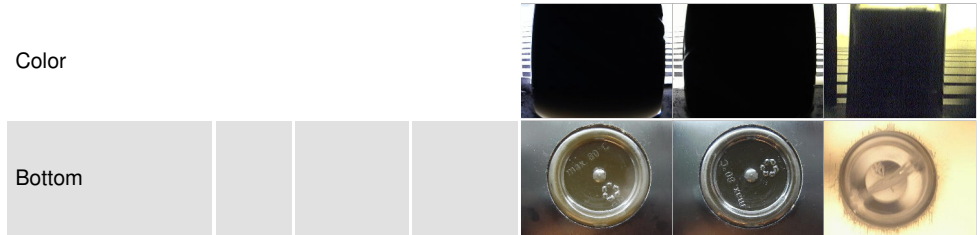
OIL ANALYSIS REPORT



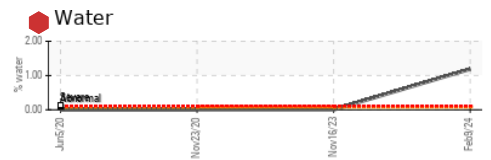
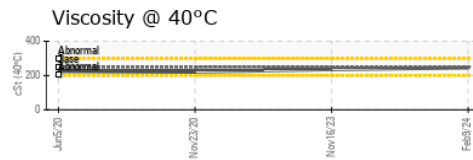
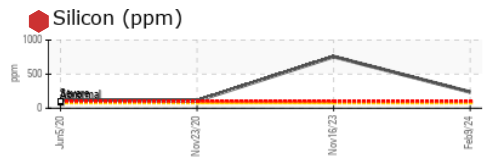
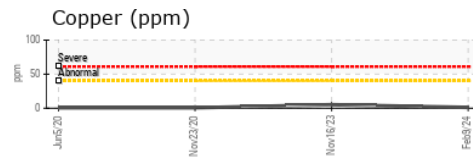
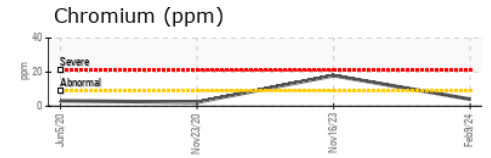
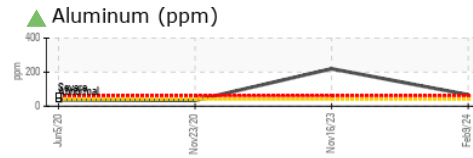
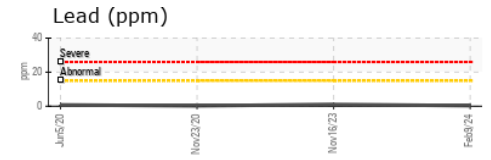
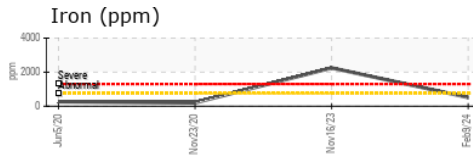
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.075 ▲ .5%	NEG	NEG
Free Water	scalar	Visual*	NEG	NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D7279(m)	249.3	246	236	221

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
 Sample No. : GFL0092219
 Lab Number : 02615460
 Unique Number : 5724555
 Test Package : MOB 1 (Additional Tests: KF)

GFL Environmental - 720 - Lafleche - Landfill
 17125 Lafleche Road,
 Moose Creek, ON
 CA K0C 1W0
 Contact: Charles Bergeron
 cbergeron@gflenv.com
 T: (613)538-4853
 F:

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.