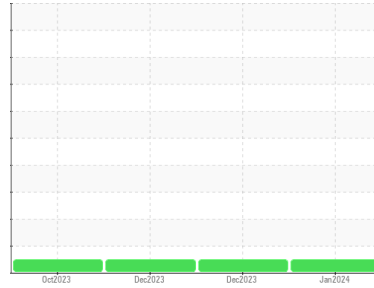




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
{UNASSIGNED}
 Machine Id
834092

Component
Natural Gas Engine
 Fluid
CHEVRON DELO 400 LE 15W40 (8 GAL)

DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. 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. No other contaminants were detected 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			GFL0107213	GFL0101163	GFL0101242
Sample Date	Client Info			03 Jan 2024	22 Dec 2023	04 Dec 2023
Machine Age	hrs	Client Info		595	502	382
Oil Age	hrs	Client Info		595	502	382
Oil Changed	Client Info			Changed	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>0.1	NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	46	43	49
Chromium	ppm	ASTM D5185m	>4	2	1	<1
Nickel	ppm	ASTM D5185m	>2	2	1	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>9	31	26	29
Lead	ppm	ASTM D5185m	>30	2	<1	0
Copper	ppm	ASTM D5185m	>35	15	17	18
Tin	ppm	ASTM D5185m	>4	2	1	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		8	11	19
Barium	ppm	ASTM D5185m		0	0	5
Molybdenum	ppm	ASTM D5185m		58	58	54
Manganese	ppm	ASTM D5185m		13	12	13
Magnesium	ppm	ASTM D5185m		804	743	682
Calcium	ppm	ASTM D5185m		1124	1127	1111
Phosphorus	ppm	ASTM D5185m	1200	699	714	598
Zinc	ppm	ASTM D5185m	1300	966	922	814
Sulfur	ppm	ASTM D5185m	3200	2326	2447	2572

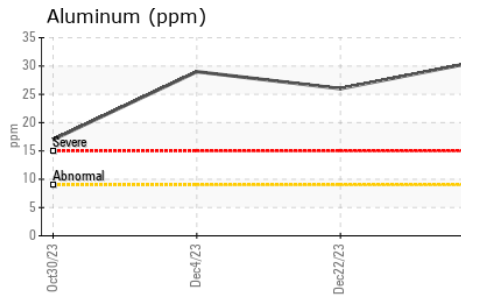
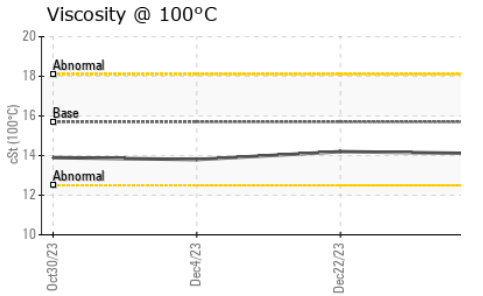
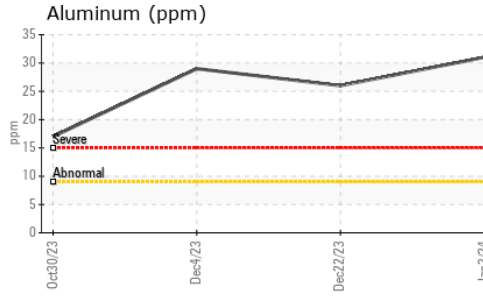
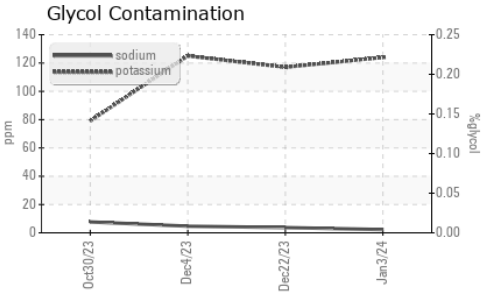
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>+100	32	31	37
Sodium	ppm	ASTM D5185m		2	4	5
Potassium	ppm	ASTM D5185m	>20	124	117	125

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		0	0	0
Nitration	Abs/cm	*ASTM D7624	>20	11.7	11.3	11.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.1	22.3	21.7

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.7	19.5	20.1
Base Number (BN)	mg KOH/g	ASTM D2896	9.6	2.6	4.0	4.4



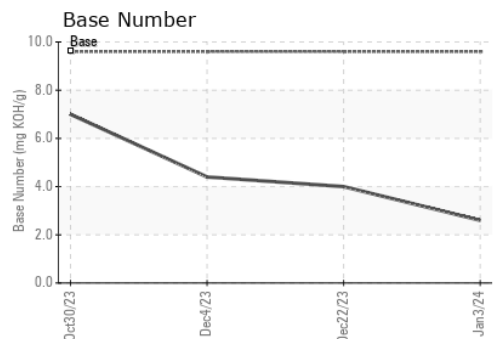
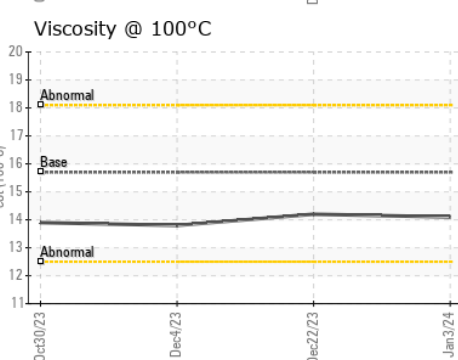
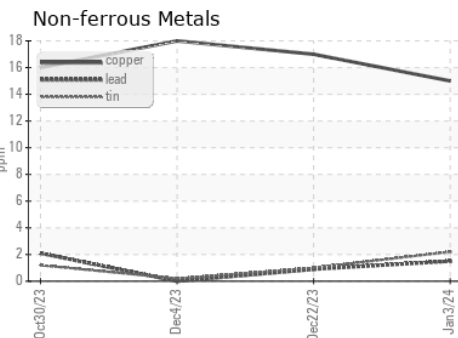
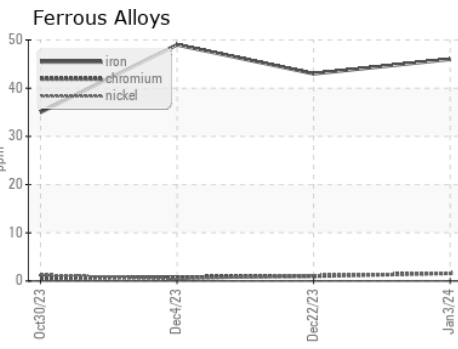
OIL ANALYSIS REPORT



PARAMETER	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	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.7	14.1	14.2	13.8

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0107213 **Recieved** : 11 Jan 2024
Lab Number : 06057857 **Diagnosed** : 12 Jan 2024
Unique Number : 10829239 **Diagnostician** : Don Baldrige
Test Package : FLEET

GFL Environmental - 010 - Stockbridge
 1280 Rum Creek Parkway
 Stockbridge, GA
 US 30281
 Contact: JOSHUA TINKER
 joshuatinker@gflenv.com
 T:
 F:

Certificate L2367
 To discuss this sample report, contact Customer Service at 1-800-237-1369.
 * - Denotes test methods that are outside of the ISO 17025 scope of accreditation.
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)