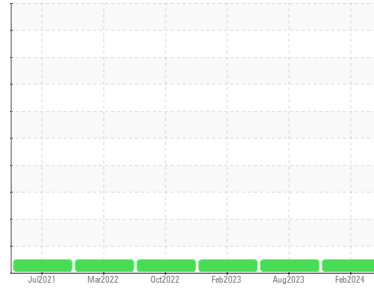




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
129012-1184

Component
Diesel Engine

Fluid
CHEVRON DELO 400 XLE 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

Metal levels are typical for a new component breaking in.

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		GFL0096082	GFL0084519	GFL0064732
Sample Date	Client Info		16 Feb 2024	03 Aug 2023	06 Feb 2023
Machine Age	hrs	Client Info	7288	6680	6015
Oil Age	hrs	Client Info	608	665	596
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	<1.0	<1.0
Water	WC Method	>0.2	NEG	NEG	NEG
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	13	12	12
Chromium	ppm	ASTM D5185m >20	<1	<1	<1
Nickel	ppm	ASTM D5185m >4	0	0	0
Titanium	ppm	ASTM D5185m	9	14	10
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >20	2	2	3
Lead	ppm	ASTM D5185m >40	0	0	<1
Copper	ppm	ASTM D5185m >330	<1	0	<1
Tin	ppm	ASTM D5185m >15	0	<1	<1
Vanadium	ppm	ASTM D5185m	0	0	<1
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	156	92	160
Barium	ppm	ASTM D5185m	<1	0	<1
Molybdenum	ppm	ASTM D5185m	54	42	65
Manganese	ppm	ASTM D5185m	0	<1	<1
Magnesium	ppm	ASTM D5185m	541	841	677
Calcium	ppm	ASTM D5185m	1230	1796	1559
Phosphorus	ppm	ASTM D5185m 760	671	786	697
Zinc	ppm	ASTM D5185m 830	771	972	849
Sulfur	ppm	ASTM D5185m 2770	2661	4308	3407

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	6	6	6
Sodium	ppm	ASTM D5185m	0	3	4
Potassium	ppm	ASTM D5185m >20	6	3	3

INFRA-RED

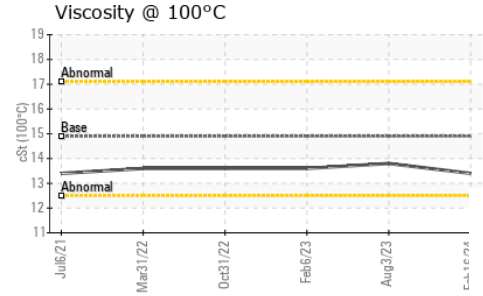
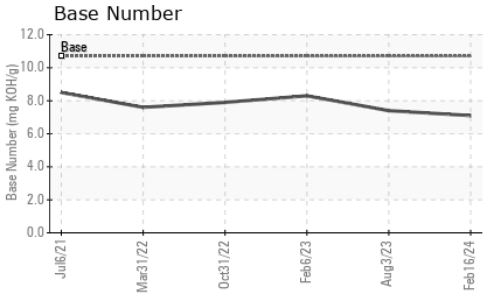
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.4	0.4	0.3
Nitration	Abs/cm	*ASTM D7624 >20	9.9	10.6	9.3
Sulfation	Abs/.1mm	*ASTM D7415 >30	21.5	20.8	20.2

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	16.4	15.8	15.0
Base Number (BN)	mg KOH/g	ASTM D2896 10.7	7.1	7.4	8.3



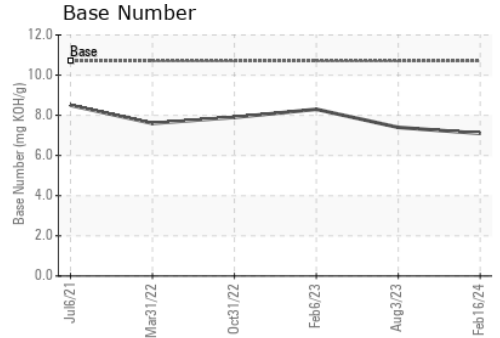
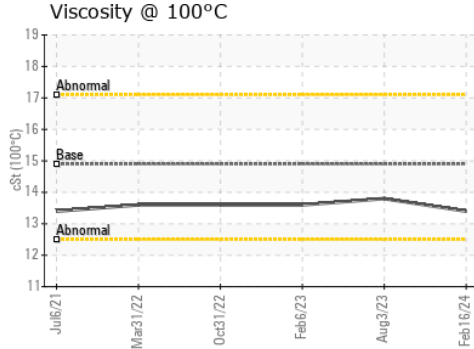
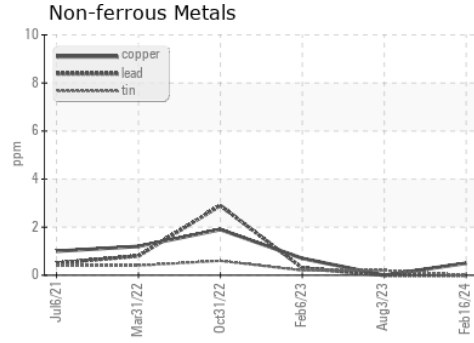
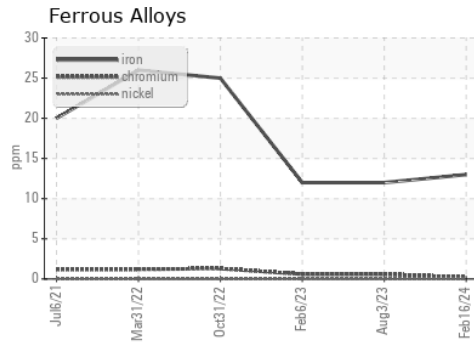
OIL ANALYSIS REPORT



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	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	14.9	13.4	13.8	13.6

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0096082
Lab Number : 06095275
Unique Number : 10888128
Test Package : FLEET
Received : 21 Feb 2024
Tested : 22 Feb 2024
Diagnosed : 22 Feb 2024 - Wes Davis

GFL Environmental - 629 - Northern A1
 3947 US 131 N
 Kalkaska, MI
 US 49646-8428
 Contact: MITCH HERSHBERGER

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)

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 F: