



WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Machine Id  
**129011-1183**  
Component  
**Diesel Engine**  
Fluid  
**CHEVRON DELO 400 XLE 15W40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0096087</b>	GFL0073489	GFL0060772
Sample Date		Client Info		<b>07 Feb 2024</b>	13 Jun 2023	05 Dec 2022
Machine Age	hrs	Client Info		<b>7054</b>	0	5539
Oil Age	hrs	Client Info		<b>1515</b>	594	600
Filter Age	hrs	Client Info		<b>1515</b>	594	600
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	ABNORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>23</b>	14	32
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	2
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>13</b>	13	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>5</b>	6	3
Lead	ppm	ASTM D5185m	>40	<b>1</b>	0	1
Copper	ppm	ASTM D5185m	>330	<b>2</b>	1	▲ 392
Tin	ppm	ASTM D5185m	>15	<b>0</b>	0	2
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

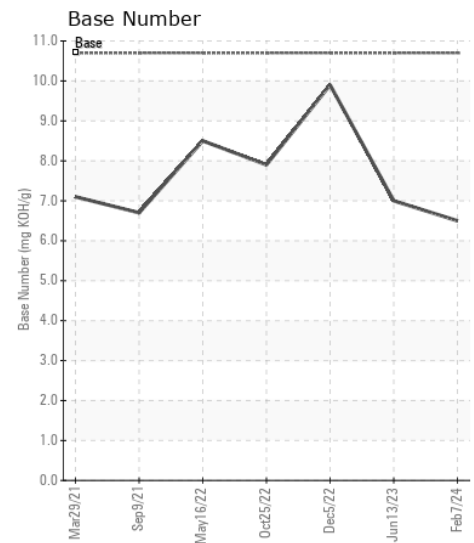
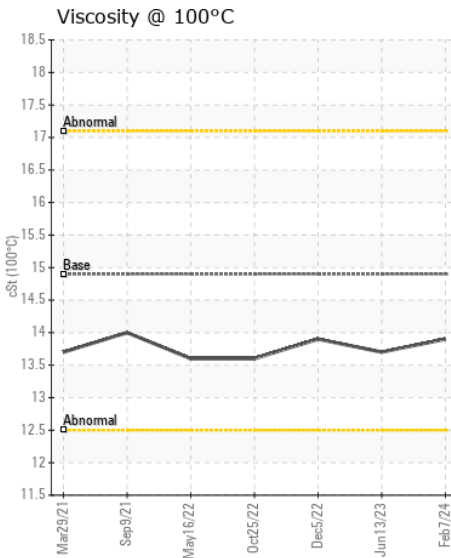
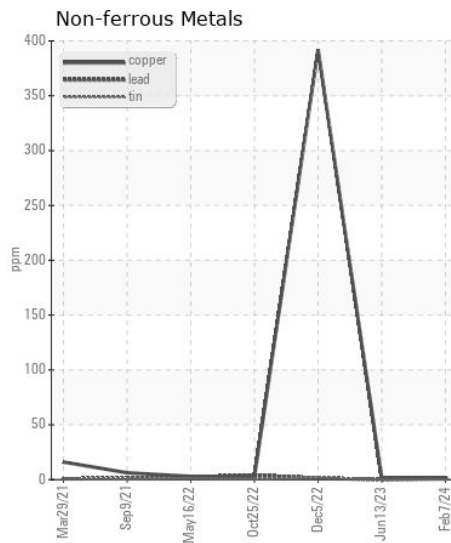
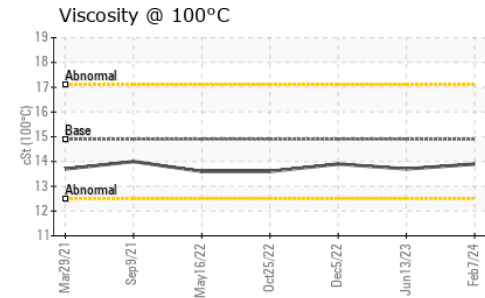
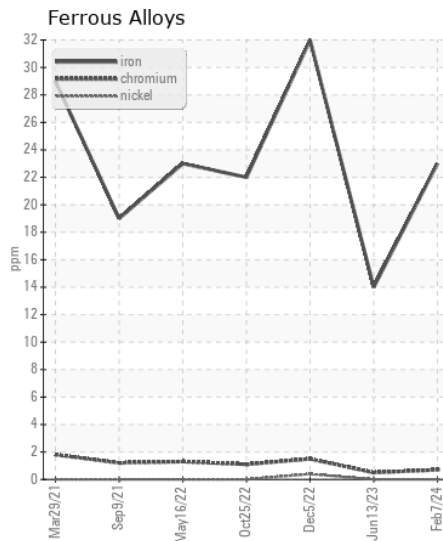
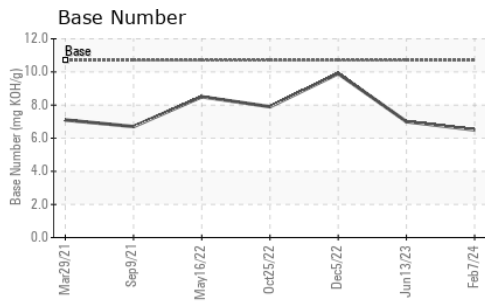
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>7</b>	6	9
Potassium	ppm	ASTM D5185m	>20	<b>14</b>	10	4
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.6</b>	0.5	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>11.8</b>	10.5	8.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>24.1</b>	23.0	21.2
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

**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.

Sodium	ppm	ASTM D5185m		<b>6</b>	6	3
Boron	ppm	ASTM D5185m		<b>66</b>	73	3
Barium	ppm	ASTM D5185m		<b>0</b>	0	1
Molybdenum	ppm	ASTM D5185m		<b>50</b>	44	16
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>731</b>	709	214
Calcium	ppm	ASTM D5185m		<b>1615</b>	1604	2107
Phosphorus	ppm	ASTM D5185m	760	<b>726</b>	700	907
Zinc	ppm	ASTM D5185m	830	<b>888</b>	839	1119
Sulfur	ppm	ASTM D5185m	2770	<b>3009</b>	3459	4493
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>19.3</b>	19.2	15.0
Base Number (BN)	mg KOH/g	ASTM D2896	10.7	<b>6.5</b>	7.0	9.9
Visc @ 100°C	cSt	ASTM D445	14.9	<b>13.9</b>	13.7	13.9



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0096087  
**Lab Number** : 06085618  
**Unique Number** : 10873063  
**Test Package** : FLEET

**Received** : 12 Feb 2024  
**Tested** : 12 Feb 2024  
**Diagnosed** : 12 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: