



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

Machine Id  
**529014-1211**  
 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>GFL0096096</b>	GFL0084486	GFL0084517
Sample Date		Client Info		<b>09 Jan 2024</b>	19 Oct 2023	14 Aug 2023
Machine Age	hrs	Client Info		<b>17245</b>	16606	16040
Oil Age	hrs	Client Info		<b>639</b>	566	560
Filter Age	hrs	Client Info		<b>639</b>	566	560
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>100	<b>24</b>	34	22
Chromium	ppm	ASTM D5185m	>20	<b>1</b>	1	1
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>12</b>	13	14
Silver	ppm	ASTM D5185m	>3	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>20	<b>4</b>	6	3
Lead	ppm	ASTM D5185m	>40	<b>5</b>	15	3
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	2	<1
Tin	ppm	ASTM D5185m	>15	<b>1</b>	1	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

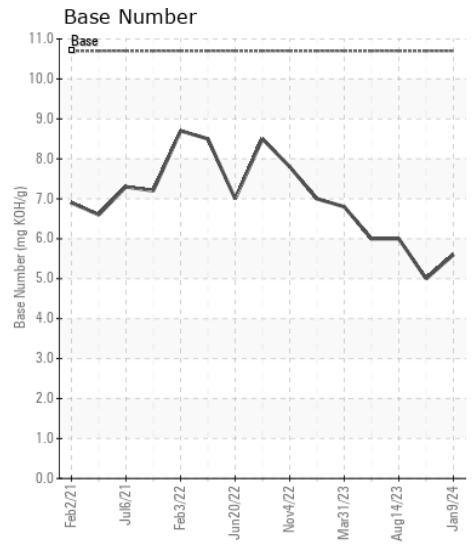
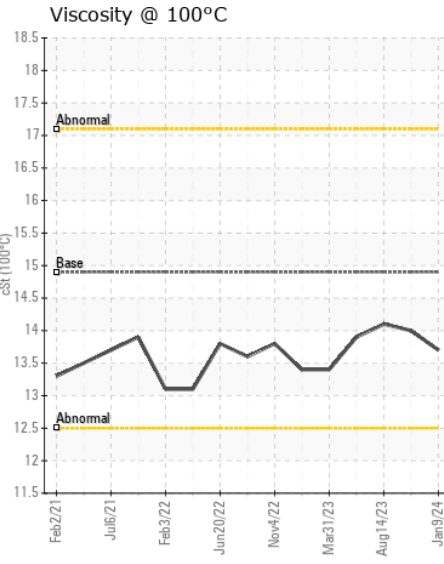
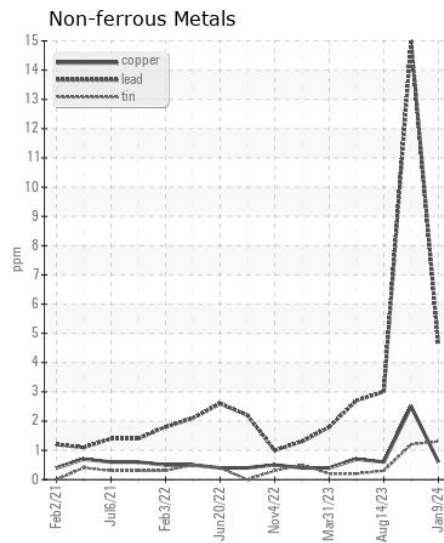
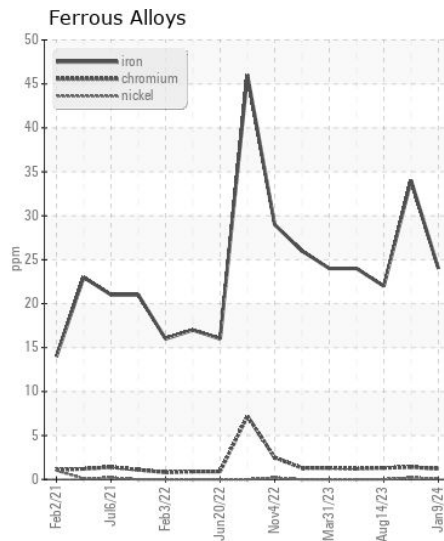
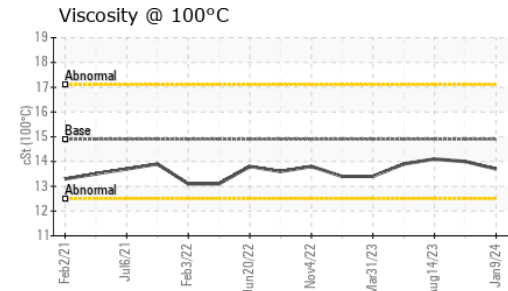
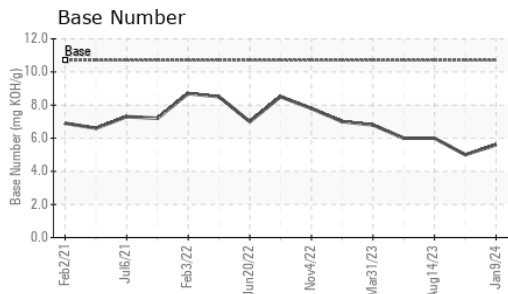
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>6</b>	9	6
Potassium	ppm	ASTM D5185m	>20	<b>5</b>	11	11
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>0.8</b>	0.7	0.8
Nitration	Abs/cm	*ASTM D7624	>20	<b>11.1</b>	12.7	11.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>25.6</b>	26.2	23.7
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>4</b>	7	6
Boron	ppm	ASTM D5185m		<b>62</b>	26	38
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>58</b>	48	48
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	1	<1
Magnesium	ppm	ASTM D5185m		<b>784</b>	723	760
Calcium	ppm	ASTM D5185m		<b>1712</b>	1504	1653
Phosphorus	ppm	ASTM D5185m	760	<b>850</b>	678	712
Zinc	ppm	ASTM D5185m	830	<b>1046</b>	863	855
Sulfur	ppm	ASTM D5185m	2770	<b>3522</b>	2735	3467
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>20.4</b>	20.5	18.7
Base Number (BN)	mg KOH/g	ASTM D2896	10.7	<b>5.6</b>	5.0	6.0
Visc @ 100°C	cSt	ASTM D445	14.9	<b>13.7</b>	14.0	14.1



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0096096 **Received** : 12 Jan 2024  
**Lab Number** : 06058969 **Diagnosed** : 12 Jan 2024  
**Unique Number** : 10830351 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

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

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)

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