

Area  
**GFL2160**  
Machine Id  
**427201**  
Component  
**Diesel Engine**  
Fluid  
**CHEVRON DELO 400 LE 15W40 (--- GAL)**

**RECOMMENDATION**

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0113892</b>	GFL0093798	GFL0099653
Sample Date		Client Info		<b>02 Apr 2024</b>	19 Oct 2023	17 Oct 2023
Machine Age	kms	Client Info		<b>500480</b>	469634	473279
Oil Age	kms	Client Info		<b>0</b>	0	0
Filter Age	kms	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	N/A
Filter Changed		Client Info		<b>Changed</b>	Changed	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	<b>16</b>	16	17
Chromium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185(m)	>20	<b>5</b>	5	5
Lead	ppm	ASTM D5185(m)	>40	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185(m)	>330	<b>5</b>	5	6
Tin	ppm	ASTM D5185(m)	>15	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

**CONTAMINATION**

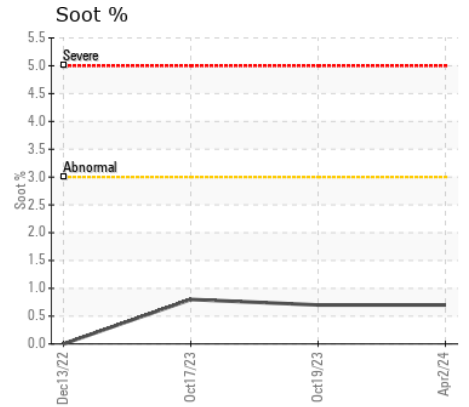
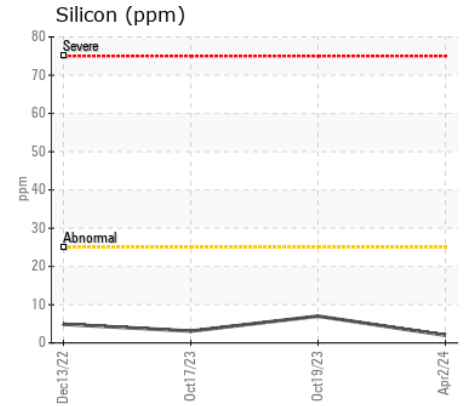
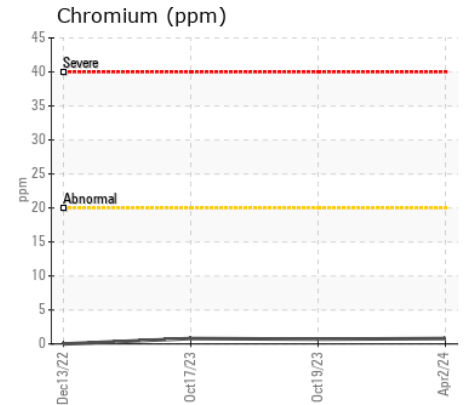
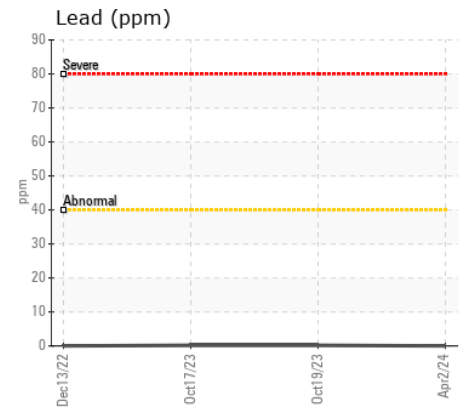
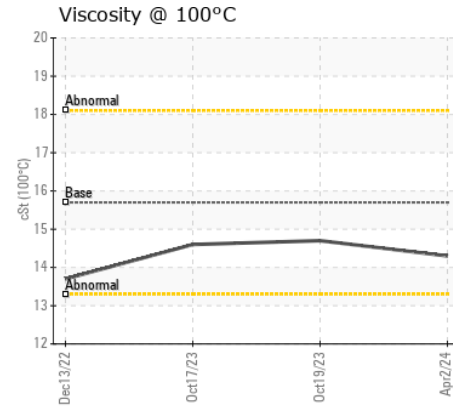
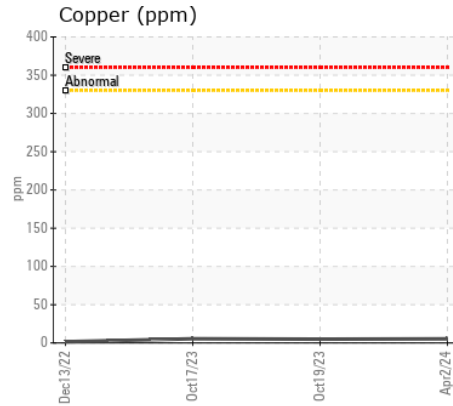
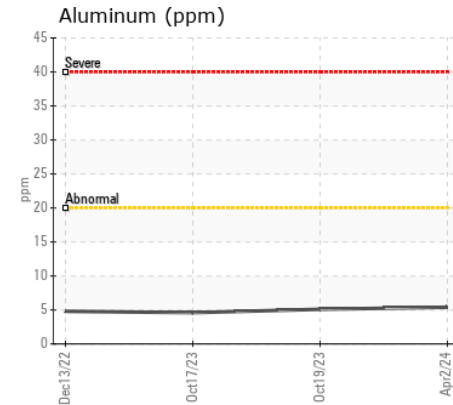
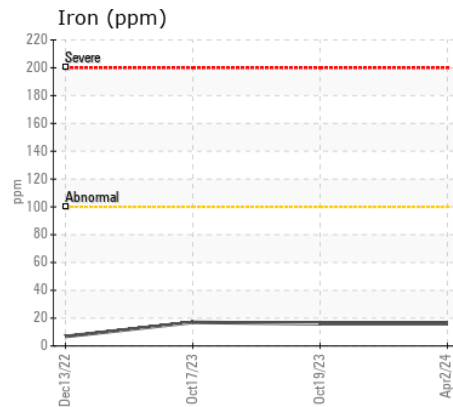
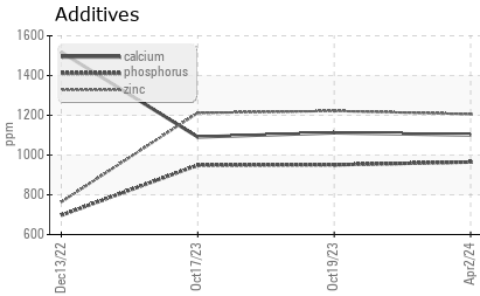
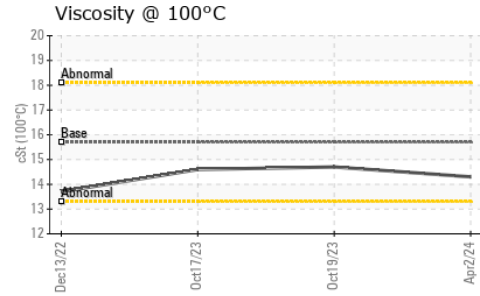
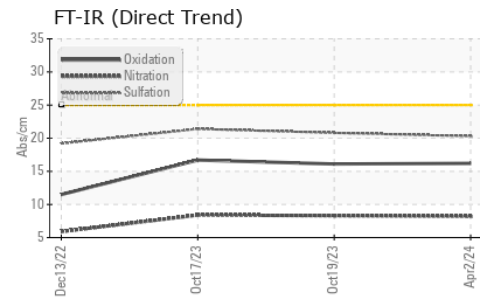
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>2</b>	7	3
Potassium	ppm	ASTM D5185(m)	>20	<b>1</b>	2	1
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>0.7</b>	0.7	0.8
Nitration	Abs/cm	ASTM D7624*	>20	<b>8.2</b>	8.3	8.4
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>20.3</b>	20.8	21.4
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		<b>2</b>	4	2
Boron	ppm	ASTM D5185(m)		<b>3</b>	6	5
Barium	ppm	ASTM D5185(m)		<b>0</b>	<1	<1
Molybdenum	ppm	ASTM D5185(m)		<b>61</b>	65	64
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)		<b>988</b>	988	973
Calcium	ppm	ASTM D5185(m)		<b>1101</b>	1112	1091
Phosphorus	ppm	ASTM D5185(m)	1200	<b>965</b>	951	949
Zinc	ppm	ASTM D5185(m)	1300	<b>1206</b>	1222	1212
Sulfur	ppm	ASTM D5185(m)	3200	<b>2142</b>	2108	2027
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>16.2</b>	16.1	16.7
Visc @ 100°C	cSt	ASTM D7279(m)	15.7	<b>14.3</b>	14.7	14.6



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0113892  
**Lab Number** : 02626552  
**Unique Number** : 5759684  
**Test Package** : MOB 1  
**Received** : 04 Apr 2024  
**Tested** : 04 Apr 2024  
**Diagnosed** : 04 Apr 2024 - Wes Davis

**GFL Environmental - 252 - GTA Hauling**  
 3668 Weston Road  
 North York, ON  
 CA M9L 1W2  
 Contact: Amanda Cipollone  
 acipollone@gflenv.com

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.