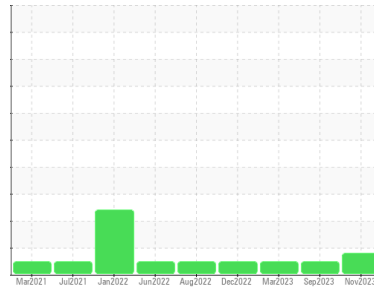




# PROBLEM SUMMARY

Sample Rating Trend



**WEAR**



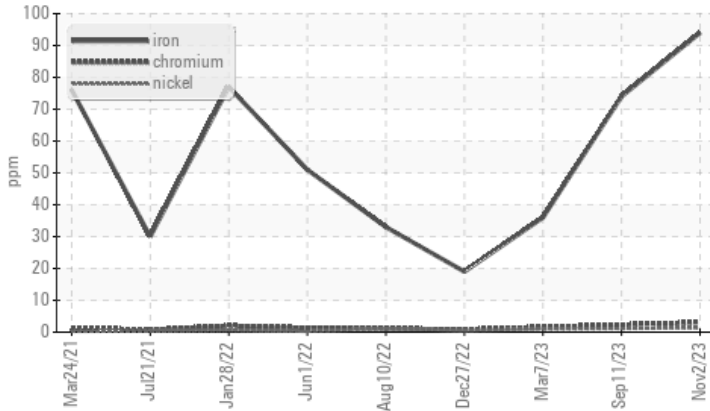
Machine Id  
**728023-1150**

Component  
**Diesel Engine**

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

## COMPONENT CONDITION SUMMARY

### ▲ Ferrous Alloys



## 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.

## PROBLEMATIC TEST RESULTS

Sample Status				<b>ABNORMAL</b>	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>80	<b>▲ 94</b>	74	36

Customer Id: GFL624  
Sample No.: GFL0096229  
Lab Number: 06006080  
Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:  
Don Baldrige +1  
[don.b505@comcast.net](mailto:don.b505@comcast.net)

To change component or sample information:  
Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.

## HISTORICAL DIAGNOSIS

### 11 Sep 2023 Diag: Jonathan Hester

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

[view report](#)



### 07 Mar 2023 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

[view report](#)



### 27 Dec 2022 Diag: Jonathan Hester

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. Insufficient sample was received to conduct all the routine laboratory tests. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

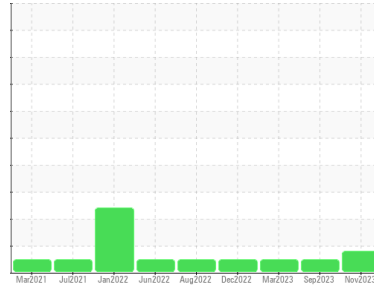
[view report](#)





# OIL ANALYSIS REPORT

Sample Rating Trend



**WEAR**



Machine Id  
**728023-1150**

Component  
**Diesel Engine**

Fluid  
**CHEVRON DELO 400 XLE 15W40 (--- 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

Cylinder, crank, or cam shaft wear is indicated. All other component wear rates are normal.

### 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		<b>GFL0096229</b>	GFL0055607	GFL0064450
Sample Date	Client Info		<b>02 Nov 2023</b>	11 Sep 2023	07 Mar 2023
Machine Age	hrs	Client Info	<b>9958</b>	9958	9300
Oil Age	hrs	Client Info	<b>0</b>	541	0
Oil Changed	Client Info		<b>Changed</b>	Not Changd	Changed
Sample Status			<b>ABNORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >80	<b>▲ 94</b>	74	36
Chromium	ppm	ASTM D5185m >5	<b>3</b>	2	2
Nickel	ppm	ASTM D5185m >2	<b>1</b>	1	<1
Titanium	ppm	ASTM D5185m	<b>7</b>	7	<1
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >30	<b>15</b>	14	10
Lead	ppm	ASTM D5185m >30	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185m >150	<b>4</b>	3	2
Tin	ppm	ASTM D5185m >5	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m	<b>0</b>	<1	<1
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>50</b>	59	96
Barium	ppm	ASTM D5185m	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	<b>84</b>	84	109
Manganese	ppm	ASTM D5185m	<b>1</b>	1	<1
Magnesium	ppm	ASTM D5185m	<b>694</b>	774	452
Calcium	ppm	ASTM D5185m	<b>1650</b>	1848	1600
Phosphorus	ppm	ASTM D5185m 760	<b>734</b>	763	640
Zinc	ppm	ASTM D5185m 830	<b>933</b>	959	831
Sulfur	ppm	ASTM D5185m 2770	<b>2774</b>	3591	2561

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >20	<b>16</b>	14	8
Sodium	ppm	ASTM D5185m	<b>9</b>	10	6
Potassium	ppm	ASTM D5185m >20	<b>22</b>	18	15

## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>1.6</b>	1.2	0.9
Nitration	Abs/cm	*ASTM D7624 >20	<b>17.1</b>	14.7	12.9
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>32.9</b>	27.9	26.8

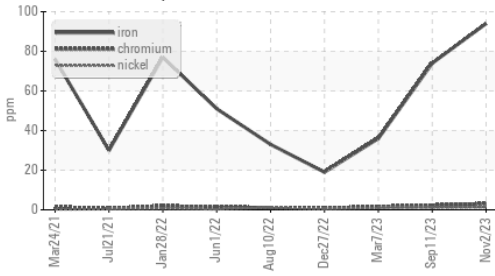
## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>34.8</b>	27.8	24.9
Base Number (BN)	mg KOH/g	ASTM D2896 10.7	<b>5.3</b>	6.1	6.1

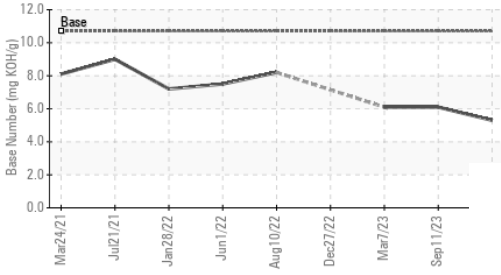


# OIL ANALYSIS REPORT

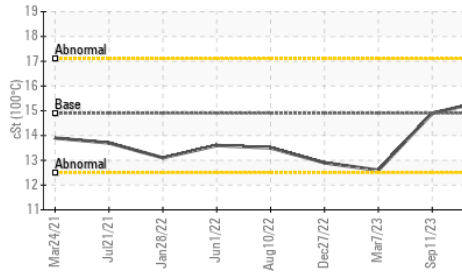
### ▲ Ferrous Alloys



### Base Number



### Viscosity @ 100°C

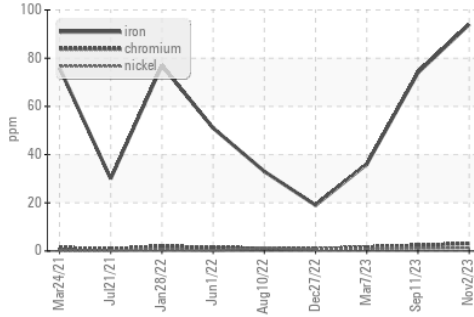


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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

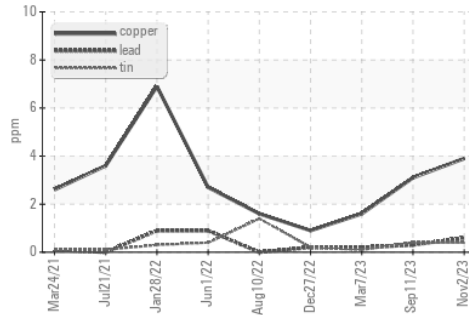
FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	14.9	15.4	14.9	12.6

### GRAPHS

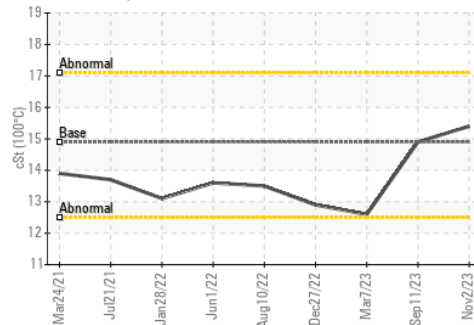
### ▲ Ferrous Alloys



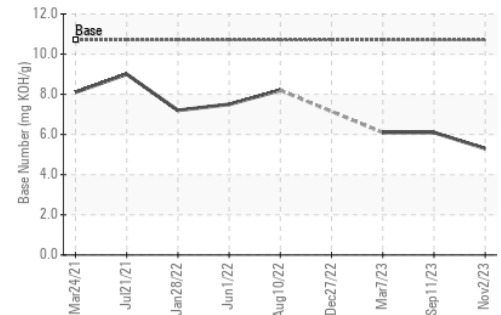
### Non-ferrous Metals



### Viscosity @ 100°C



### Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0096229 **Received** : 13 Nov 2023  
**Lab Number** : 06006080 **Diagnosed** : 15 Nov 2023  
**Unique Number** : 10739842 **Diagnostician** : Don Baldrige  
**Test Package** : FLEET

**GFL Environmental - 624 - Elmira Hauling**  
 10164 M-32  
 Elmira, MI  
 US 49730  
 Contact: ANDY GROBASKI  
 andygro@americanwaste.org  
 T: (989)370-2941  
 F:

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)