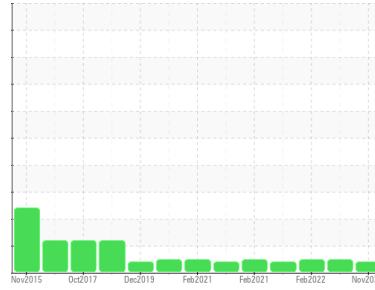




# PROBLEM SUMMARY

Sample Rating Trend



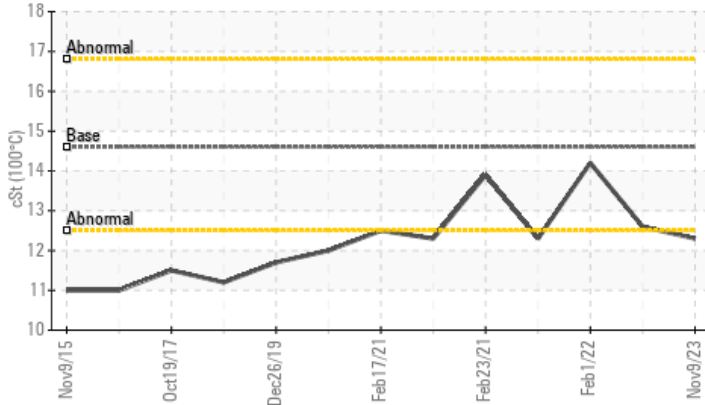
## VISCOSITY



Area  
**GFL035**  
 Machine Id  
**11234**  
 Component  
**Diesel Engine**  
 Fluid  
**CHEVRON DELO 400 SDE SAE 15W40 (24 QTS)**

## COMPONENT CONDITION SUMMARY

▲ Viscosity @ 100°C



## RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

## PROBLEMATIC TEST RESULTS

Sample Status				ATTENTION	NORMAL	NORMAL
Visc @ 100°C	cSt	ASTM D445	14.6	▲ 12.3	12.6	14.2

Customer Id: GFL035  
 Sample No.: GFL0085153  
 Lab Number: 06003957  
 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

### 23 Nov 2022 Diag: Don Baldrige

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



### 01 Feb 2022 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



### 15 Dec 2021 Diag: Jonathan Hester

VISCOSITY



Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. Tests indicate that there is no fuel present in the oil. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

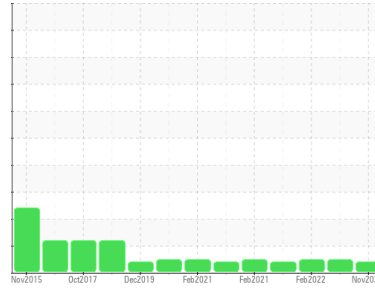
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



## VISCOSITY



Area  
**GFL035**  
 Machine Id  
**11234**  
 Component  
**Diesel Engine**  
 Fluid  
**CHEVRON DELO 400 SDE SAE 15W40 (24 QTS)**

### DIAGNOSIS

#### Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

Tests indicate that there is no fuel present in the oil. There is no indication of any contamination in the oil.

#### Fluid Condition

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

### SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>GFL0085153</b>	GFL0061646	GFL0040468
Sample Date	Client Info	<b>09 Nov 2023</b>	23 Nov 2022	01 Feb 2022
Machine Age	hrs	<b>8740</b>	8740	8740
Oil Age	hrs	<b>600</b>	600	300
Oil Changed	Client Info	<b>Changed</b>	Changed	Not Changed
Sample Status		<b>ATTENTION</b>	NORMAL	NORMAL

### CONTAMINATION

method	limit/base	current	history1	history2
Glycol	WC Method	<b>NEG</b>	NEG	NEG

### WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >100	<b>63</b>	78	16
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	1	<1
Nickel	ppm	ASTM D5185m >4	<b>2</b>	3	<1
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>5</b>	6	<1
Lead	ppm	ASTM D5185m >40	<b>1</b>	2	0
Copper	ppm	ASTM D5185m >330	<b>3</b>	4	<1
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	1	0
Antimony	ppm	ASTM D5185m	<b>---</b>	---	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

### ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	<b>2</b>	8	7
Barium	ppm	ASTM D5185m	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	<b>67</b>	66	60
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	<b>918</b>	917	972
Calcium	ppm	ASTM D5185m	<b>1117</b>	1173	1133
Phosphorus	ppm	ASTM D5185m 760	<b>1056</b>	1018	1098
Zinc	ppm	ASTM D5185m 800	<b>1220</b>	1279	1086
Sulfur	ppm	ASTM D5185m 3000	<b>2756</b>	3672	2582

### CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >25	<b>6</b>	5	5
Sodium	ppm	ASTM D5185m	<b>4</b>	6	3
Potassium	ppm	ASTM D5185m >20	<b>0</b>	<1	<1
Fuel	%	ASTM D3524 >2.0	<b>1.0</b>	<1.0	<1.0

### INFRA-RED

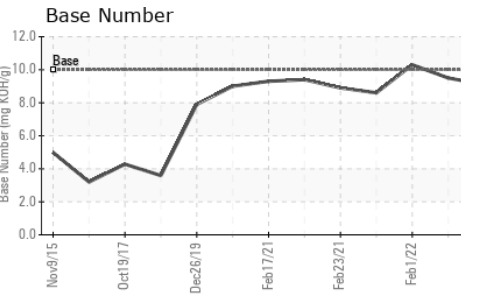
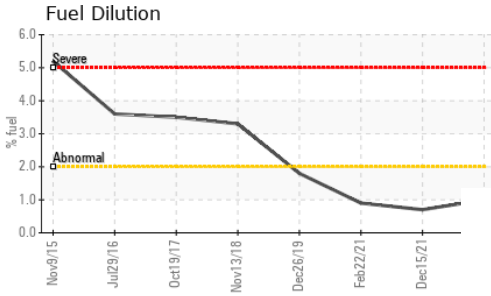
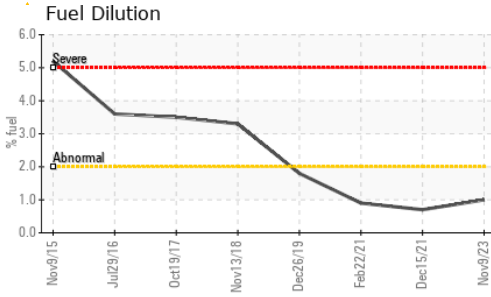
method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844 >3	<b>0.8</b>	1	0.1
Nitration	Abs/cm	*ASTM D7624 >20	<b>7.0</b>	8.5	5.1
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>18.9</b>	21.0	18.5

### FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>13.8</b>	15.4	13.7
Base Number (BN)	mg KOH/g	ASTM D2896 10	<b>9.1</b>	9.5	10.3



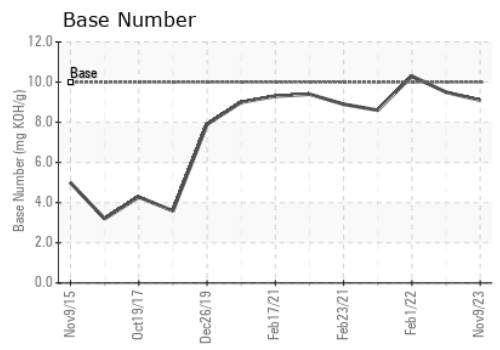
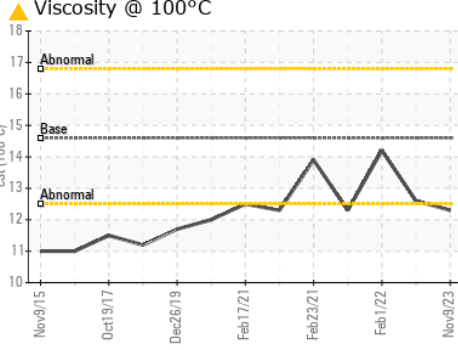
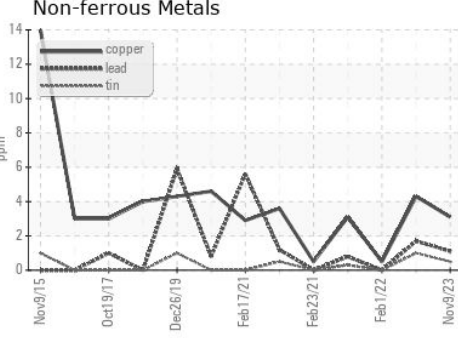
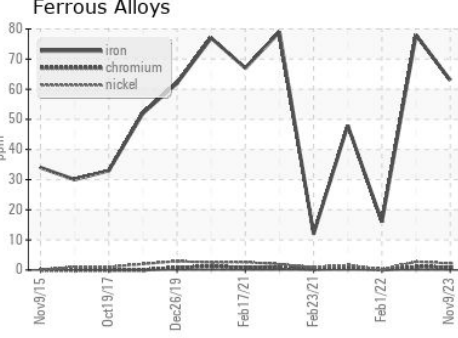
# OIL ANALYSIS REPORT



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	14.6	▲ 12.3	12.6

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0085153 **Received** : 10 Nov 2023  
**Lab Number** : 06003957 **Diagnosed** : 14 Nov 2023  
**Unique Number** : 10737719 **Diagnostician** : Don Baldrige  
**Test Package** : FLEET ( Additional Tests: FuelDilution, PercentFuel )

**GFL Environmental - 035 - Greensboro**  
 1236 Elon Place  
 High Point, NC  
 US 27263  
 Contact: JORGE COSTA  
 jorge.costa@gflenv.com  
 T: (336)668-3712  
 F:

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)