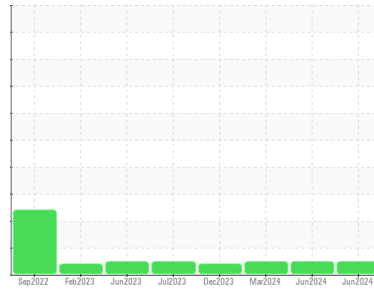




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**254000-1100**

Component  
**Gasoline Engine**

Fluid  
**CHEVRON DELO 400 XLE 15W40 (6 QTS)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All 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>GFL0104677</b>	GFL0104691	GFL0104659
Sample Date	Client Info			<b>13 Jun 2024</b>	05 Jun 2024	06 Mar 2024
Machine Age	mls	Client Info		<b>209371</b>	208484	202509
Oil Age	mls	Client Info		<b>202509</b>	202509	198580
Oil Changed	Client Info			<b>Not Chngd</b>	Not Chngd	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>4.0		<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

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>150	<b>32</b>	31	14
Chromium	ppm	ASTM D5185m	>20	<b>1</b>	1	<1
Nickel	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>11</b>	11	11
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>40	<b>5</b>	4	3
Lead	ppm	ASTM D5185m	>50	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m	>155	<b>21</b>	21	17
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Cadmium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>63</b>	74	73
Barium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>52</b>	55	47
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>635</b>	622	673
Calcium	ppm	ASTM D5185m		<b>1432</b>	1419	1507
Phosphorus	ppm	ASTM D5185m	760	<b>748</b>	693	659
Zinc	ppm	ASTM D5185m	830	<b>855</b>	857	817
Sulfur	ppm	ASTM D5185m	2770	<b>2757</b>	2979	3224

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>30	<b>8</b>	8	5
Sodium	ppm	ASTM D5185m	>400	<b>4</b>	2	3
Potassium	ppm	ASTM D5185m	>20	<b>4</b>	4	2

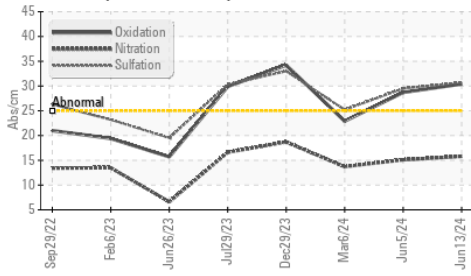
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		<b>0.1</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>15.8</b>	15.1	13.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>30.7</b>	29.5	25.2

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>30.4</b>	28.7	22.9
Base Number (BN)	mg KOH/g	ASTM D2896	10.7	<b>5.4</b>	5.6	6.2

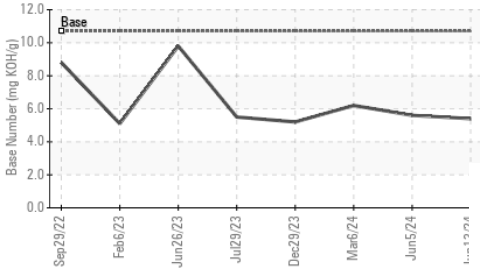


# OIL ANALYSIS REPORT

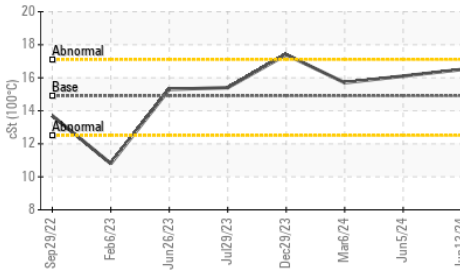
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

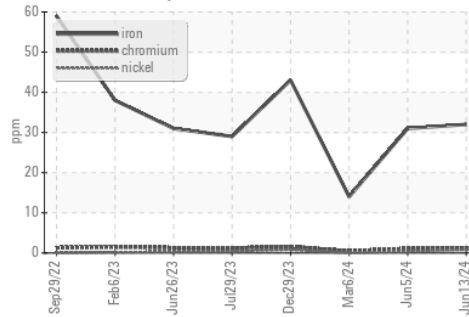


PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

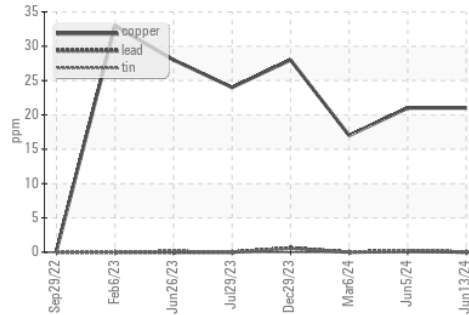
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.9	16.5	16.1

## GRAPHS

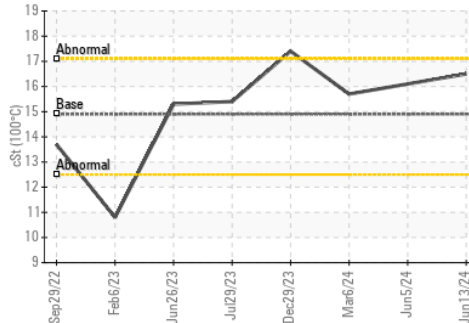
Ferrous Alloys



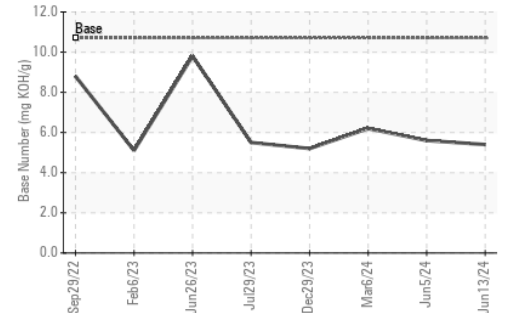
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0104677  
**Lab Number** : 06212913  
**Unique Number** : 11085777  
**Test Package** : FLEET

**Received** : 17 Jun 2024  
**Tested** : 19 Jun 2024  
**Diagnosed** : 19 Jun 2024 - Angela Borella

**GFL Environmental - 624 - Elmira Hauling**  
 10164 M-32  
 Elmira, MI  
 US 49730

Contact: ANDY GROBASKI  
 andyg@americanwaste.org  
 T: (989)370-2941

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)