



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



Machine Id  
**420029-402256**  
Component  
**Diesel Engine**  
Fluid  
**CHEVRON DELO 400 MULTIGRADE 15W40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0123002</b>	GFL0119383	GFL0102983
Sample Date		Client Info		<b>20 Jun 2024</b>	18 Apr 2024	10 Mar 2024
Machine Age	hrs	Client Info		<b>6854</b>	7589	7388
Oil Age	hrs	Client Info		<b>0</b>	7589	0
Filter Age	hrs	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 D5185m	>80	<b>4</b>	22	8
Chromium	ppm	ASTM D5185m	>5	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>30	<b>4</b>	3	1
Lead	ppm	ASTM D5185m	>30	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m	>150	<b>2</b>	1	<1
Tin	ppm	ASTM D5185m	>5	<b>0</b>	1	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
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.

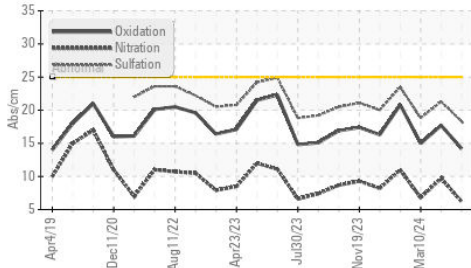
Silicon	ppm	ASTM D5185m	>20	<b>4</b>	6	4
Potassium	ppm	ASTM D5185m	>20	<b>5</b>	2	<1
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.1</b>	0.8	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.2</b>	9.7	6.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.3</b>	21.3	18.8
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**

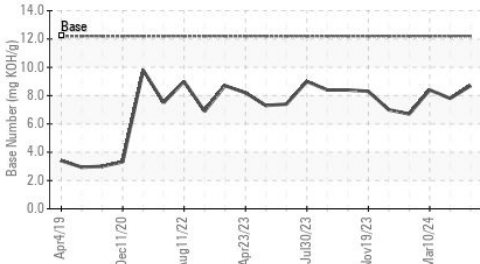
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>3</b>	3	<1
Boron	ppm	ASTM D5185m		<b>16</b>	16	22
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>60</b>	71	67
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m		<b>981</b>	954	999
Calcium	ppm	ASTM D5185m		<b>1063</b>	1141	1175
Phosphorus	ppm	ASTM D5185m	1360	<b>1038</b>	1093	1070
Zinc	ppm	ASTM D5185m	1480	<b>1267</b>	1274	1320
Sulfur	ppm	ASTM D5185m		<b>3645</b>	3409	3793
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.2</b>	17.7	15.0
Base Number (BN)	mg KOH/g	ASTM D2896	12.2	<b>8.7</b>	7.8	8.4
Visc @ 100°C	cSt	ASTM D445	15.1	<b>14.0</b>	14.9	14.8

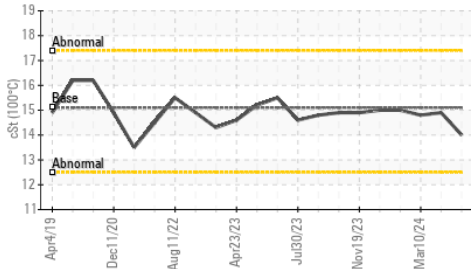
**FT-IR (Direct Trend)**



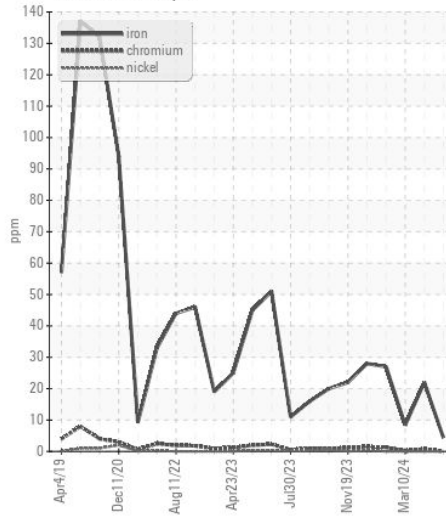
**Base Number**



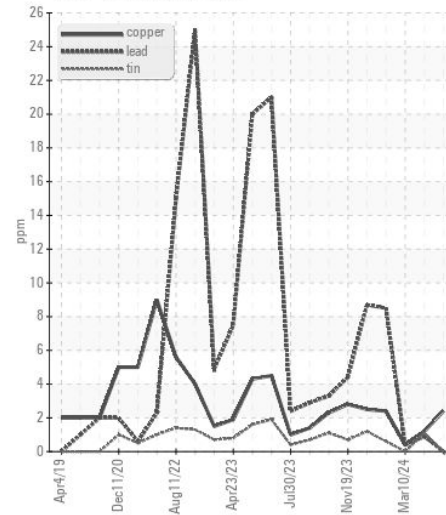
**Viscosity @ 100°C**



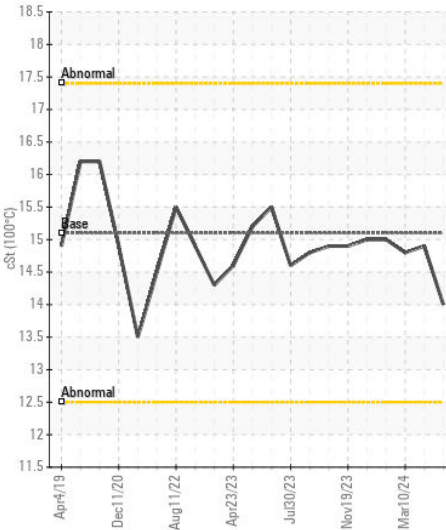
**Ferrous Alloys**



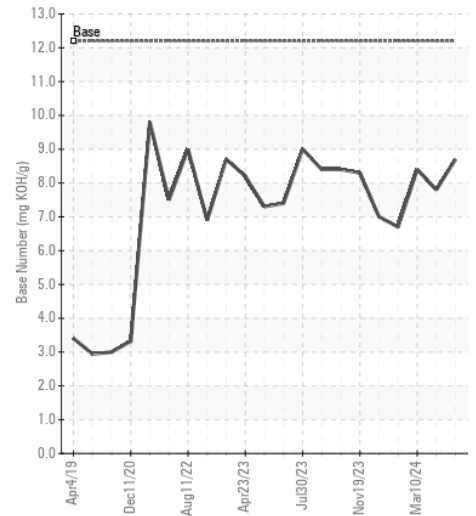
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513

**Sample No.** : GFL0123002

**Lab Number** : 06220508

**Unique Number** : 11098705

**Test Package** : FLEET

**Received** : 25 Jun 2024

**Tested** : 26 Jun 2024

**Diagnosed** : 27 Jun 2024 - Don Baldrige

**GFL Environmental - 814 - Little Rock Hauling**

4005 Hwy 161 N.

Little Rock, AR

US 72117

Contact: Brad Koenig

bkoenig@gflenv.com

T:

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)