



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
(DQR690)
Machine Id
3702
Component
Diesel Engine
Fluid
CHEVRON DELO 400 SDE SAE 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0072168	GFL0072072	GFL0072105
Sample Date		Client Info		20 Jun 2024	05 Mar 2024	05 Jan 2024
Machine Age	hrs	Client Info		23235	22667	22086
Oil Age	hrs	Client Info		589	600	600
Filter Age	hrs	Client Info		589	600	600
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>75	11	15	22
Chromium	ppm	ASTM D5185m	>5	<1	<1	1
Nickel	ppm	ASTM D5185m	>4	0	0	<1
Titanium	ppm	ASTM D5185m	>2	0	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>15	3	2	3
Lead	ppm	ASTM D5185m	>25	0	0	0
Copper	ppm	ASTM D5185m	>100	4	4	18
Tin	ppm	ASTM D5185m	>4	0	0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

There is no indication of any contamination in the oil.

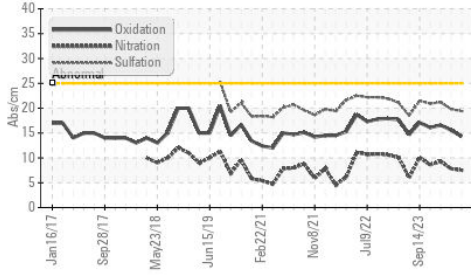
Silicon	ppm	ASTM D5185m	>25	9	5	9
Potassium	ppm	ASTM D5185m	>20	4	0	2
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	0.5	0.5	0.8
Nitration	Abs/cm	*ASTM D7624	>20	7.5	7.8	9.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.4	19.8	21.2
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

FLUID CONDITION

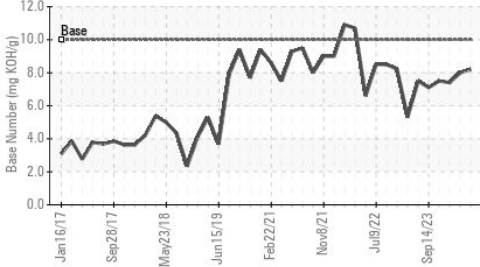
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		11	15	▲ 140
Boron	ppm	ASTM D5185m		3	2	3
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		61	62	62
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m		915	1039	893
Calcium	ppm	ASTM D5185m		1052	1150	992
Phosphorus	ppm	ASTM D5185m	760	938	1092	981
Zinc	ppm	ASTM D5185m	800	1261	1324	1152
Sulfur	ppm	ASTM D5185m	3000	2838	3638	2778
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.3	15.6	16.6
Base Number (BN)	mg KOH/g	ASTM D2896	10	8.2	8.0	7.4
Visc @ 100°C	cSt	ASTM D445	14.6	13.6	13.5	13.0

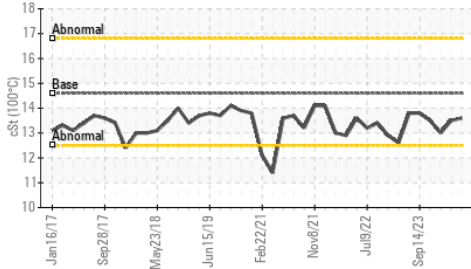
FT-IR (Direct Trend)



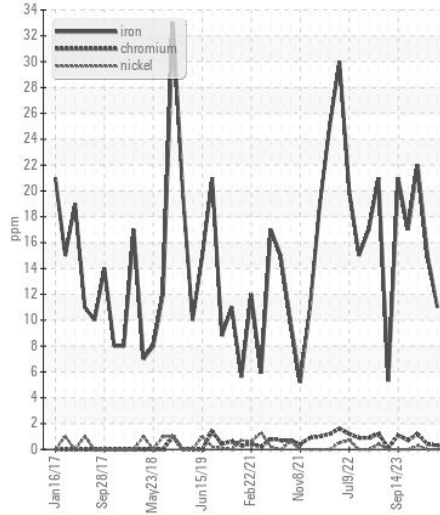
Base Number



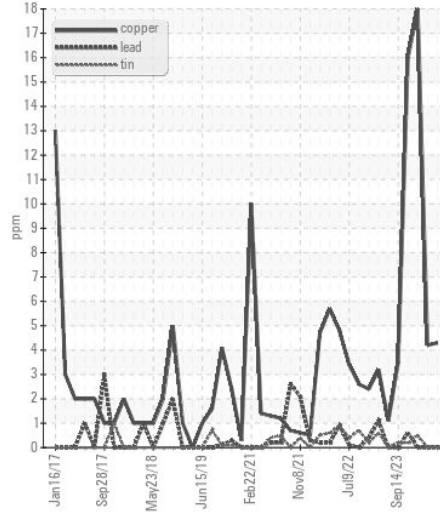
Viscosity @ 100°C



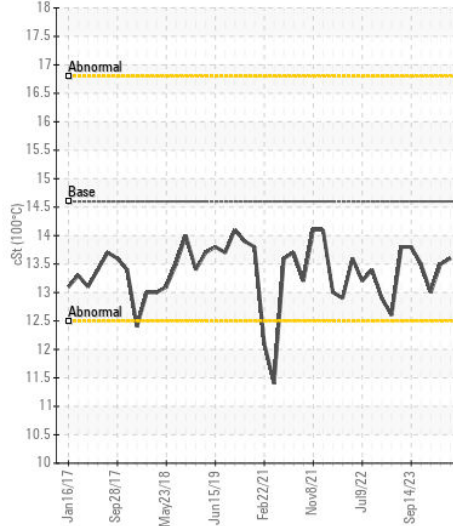
Ferrous Alloys



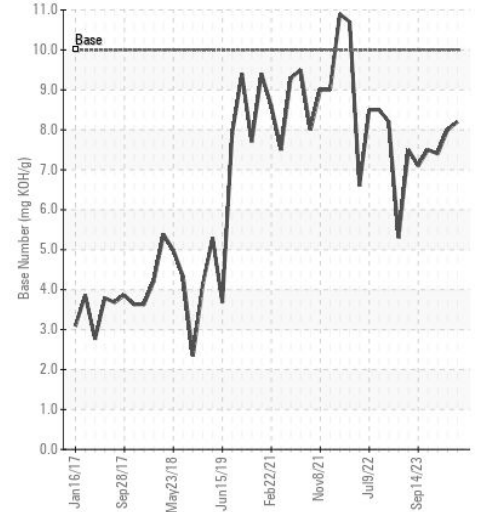
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0072168
Lab Number : 06220918
Unique Number : 11099115
Test Package : FLEET

GFL Environmental - 094 - Cedartown
 2097 Buchanan Highway
 Cedartown, GA
 US 30125
 Contact: WILLIAM FOSTER
 william.foster@gflenv.com
 T: (800)207-6618
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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)