



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
920018-192568
Component
Diesel Engine
Fluid
CHEVRON DELO 400 MULTIGRADE 15W40 (--- LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0115770	GFL0115794	GFL0115791
Sample Date		Client Info		18 Jun 2024	11 Jun 2024	31 May 2024
Machine Age	hrs	Client Info		9535	9496	9405
Oil Age	hrs	Client Info		392	353	262
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	Not Changd
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	6	14	18
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	<1	0	<1
Titanium	ppm	ASTM D5185m	>2	<1	0	<1
Silver	ppm	ASTM D5185m	>2	<1	0	<1
Aluminum	ppm	ASTM D5185m	>20	3	4	7
Lead	ppm	ASTM D5185m	>40	1	<1	1
Copper	ppm	ASTM D5185m	>330	1	2	124
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

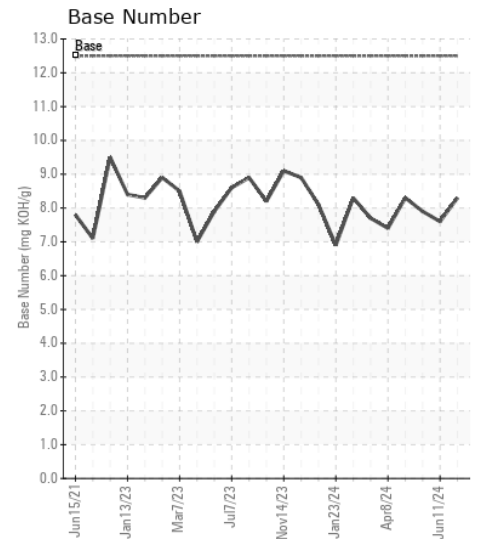
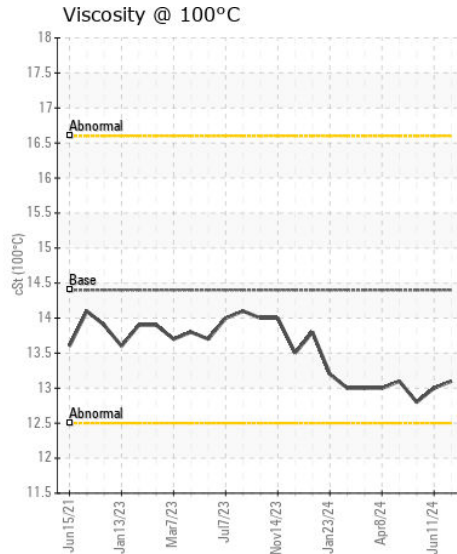
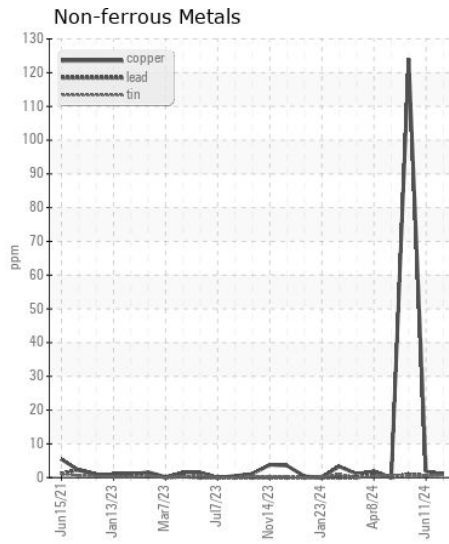
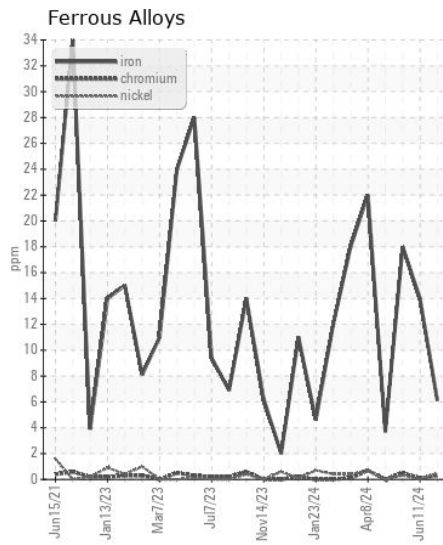
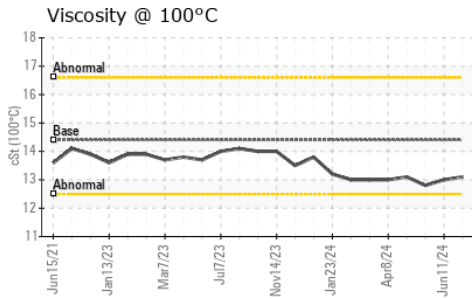
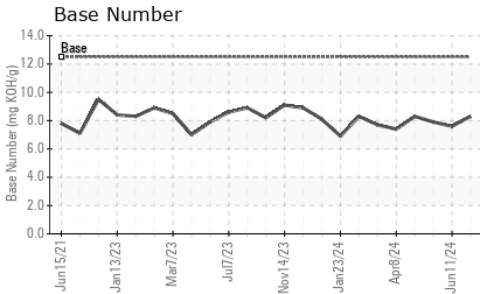
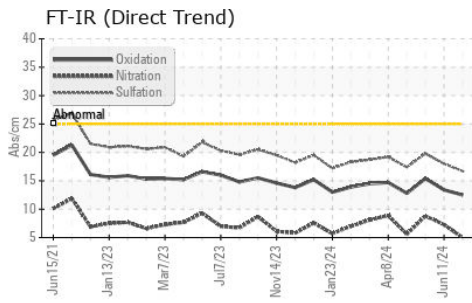
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	4	6	6
Potassium	ppm	ASTM D5185m	>20	3	4	5
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	>4	0.2	0.5	0.6
Nitration	Abs/cm	*ASTM D7624	>20	5.0	7.3	8.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	16.7	18.0	19.8
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		2	4	2
Boron	ppm	ASTM D5185m	151	23	17	21
Barium	ppm	ASTM D5185m	0.4	1	0	0
Molybdenum	ppm	ASTM D5185m	250	74	70	81
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	0	821	830	874
Calcium	ppm	ASTM D5185m	2046	1106	1079	1122
Phosphorus	ppm	ASTM D5185m	1043	910	945	821
Zinc	ppm	ASTM D5185m	943	1095	1128	1106
Sulfur	ppm	ASTM D5185m	5012	2812	3254	2610
Oxidation	Abs/.1mm	*ASTM D7414	>25	12.5	13.4	15.4
Base Number (BN)	mg KOH/g	ASTM D2896	12.5	8.3	7.6	7.9
Visc @ 100°C	cSt	ASTM D445	14.4	13.1	13.0	12.8



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0115770
Lab Number : 06217811
Unique Number : 11096008
Test Package : FLEET

GFL Environmental - 180 - Tuscaloosa Hauling
 4701 12TH ST NE
 Tuscaloosa, AL
 US 35404
 Contact: FREDERICK ROGERS
 fred.rogers@gflenv.com

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)