



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Machine Id
929054-182539
 Component
Diesel Engine
 Fluid
CHEVRON DELO 400 MULTIGRADE 15W40 (--- LTR)

RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0113741	GFL0113740	GFL0113731
Sample Date		Client Info		03 May 2024	29 Apr 2024	11 Apr 2024
Machine Age	hrs	Client Info		12502	0	12375
Oil Age	hrs	Client Info		1645	0	1518
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ATTENTION	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>110	9	4	5
Chromium	ppm	ASTM D5185m	>4	0	0	0
Nickel	ppm	ASTM D5185m	>2	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	5	3	2
Lead	ppm	ASTM D5185m	>45	1	0	<1
Copper	ppm	ASTM D5185m	>85	0	0	<1
Tin	ppm	ASTM D5185m	>4	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

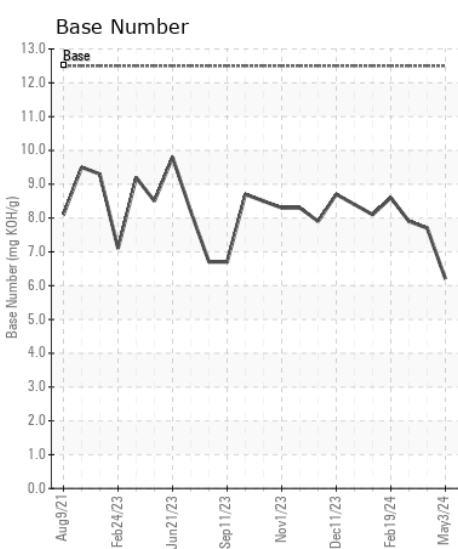
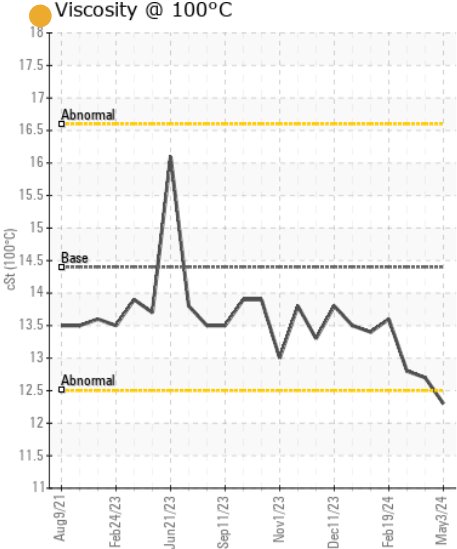
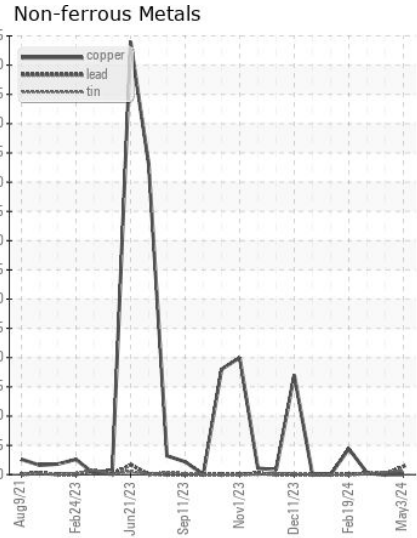
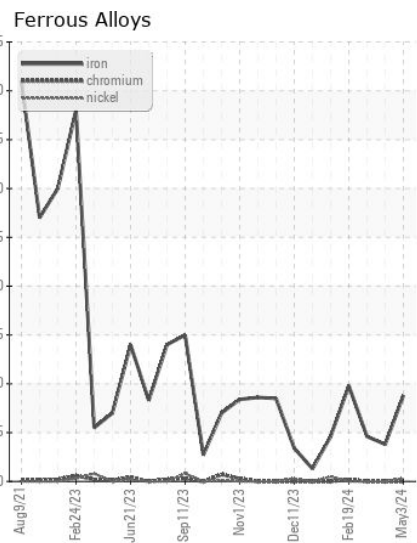
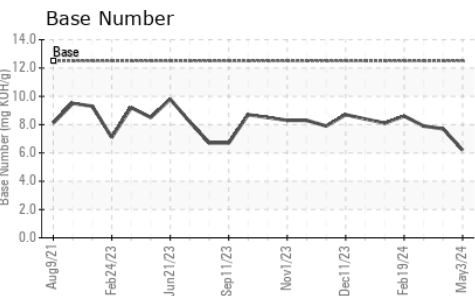
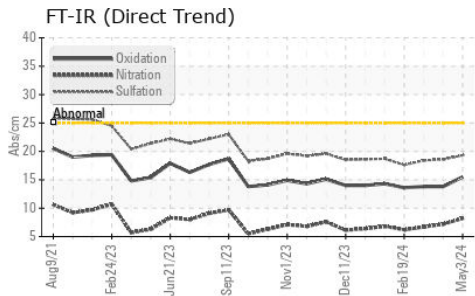
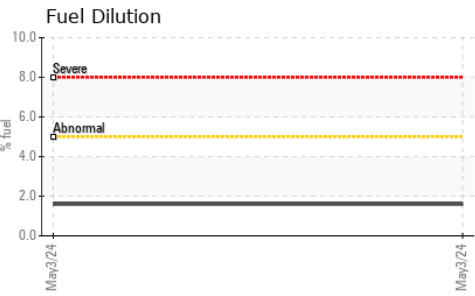
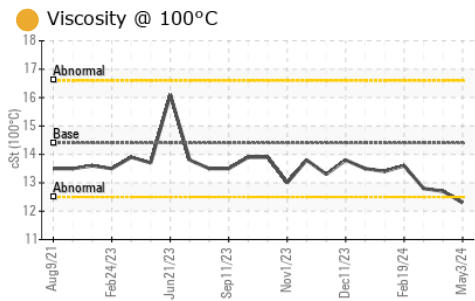
Fuel content negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>30	8	3	2
Potassium	ppm	ASTM D5185m	>20	4	2	24
Fuel	%	ASTM D3524	>5	1.6	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.3	0.2
Nitration	Abs/cm	*ASTM D7624	>20	8.2	7.2	6.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.3	18.6	18.4
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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m		6	22	11
Boron	ppm	ASTM D5185m	151	6	6	5
Barium	ppm	ASTM D5185m	0.4	0	0	0
Molybdenum	ppm	ASTM D5185m	250	62	73	68
Manganese	ppm	ASTM D5185m		<1	<1	0
Magnesium	ppm	ASTM D5185m	0	838	879	857
Calcium	ppm	ASTM D5185m	2046	995	1040	1031
Phosphorus	ppm	ASTM D5185m	1043	924	979	958
Zinc	ppm	ASTM D5185m	943	1122	1162	1119
Sulfur	ppm	ASTM D5185m	5012	2834	3188	3256
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.5	13.8	13.8
Base Number (BN)	mg KOH/g	ASTM D2896	12.5	6.2	7.7	7.9
Visc @ 100°C	cSt	ASTM D445	14.4	12.3	12.7	12.8



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0113741 **Received** : 10 May 2024
Lab Number : 06175180 **Tested** : 15 May 2024
Unique Number : 11021233 **Diagnosed** : 15 May 2024 - Don Baldrige
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

GFL environmental - 867 - Trafford (Blount Hauling)
 1130 County Line Rd
 Trafford, AL
 US 35172
 Contact: Jonathan Williams
 jonathan.williams@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)

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F: