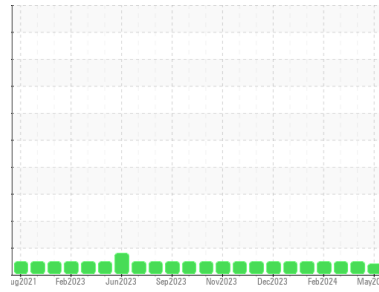




OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



Machine Id
929054-182539

Component
Diesel Engine

Fluid
CHEVRON DELO 400 MULTIGRADE 15W40 (--- LTR)

DIAGNOSIS

Recommendation

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

Wear

All component wear rates are normal.

Contamination

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

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.

SAMPLE INFORMATION		method	limit/base	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
Oil Changed	Client Info			Changed	N/A	N/A
Sample Status				ATTENTION	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method	>0.2		NEG	NEG	NEG
Glycol	WC Method			NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
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
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES		method	limit/base	current	history1	history2
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

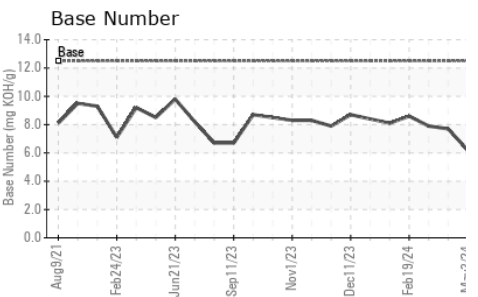
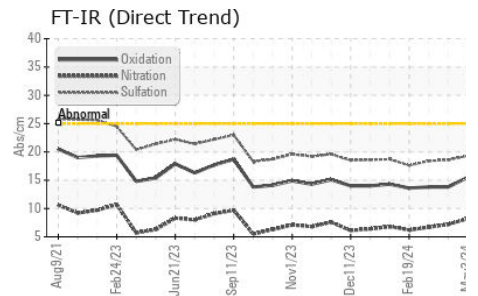
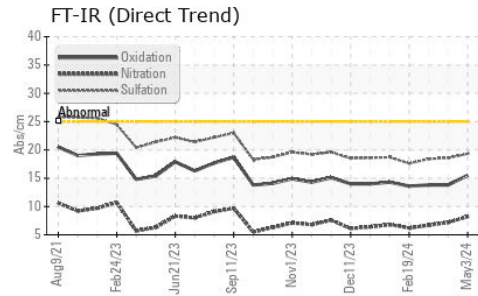
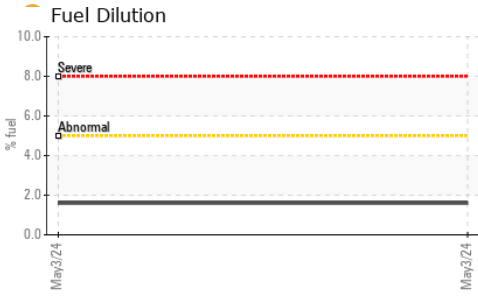
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>30	8	3	2
Sodium	ppm	ASTM D5185m		6	22	11
Potassium	ppm	ASTM D5185m	>20	4	2	24
Fuel	%	ASTM D3524	>5	1.6	<1.0	<1.0

INFRA-RED		method	limit/base	current	history1	history2
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

FLUID DEGRADATION		method	limit/base	current	history1	history2
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



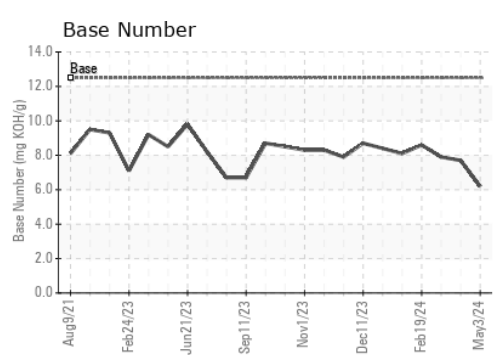
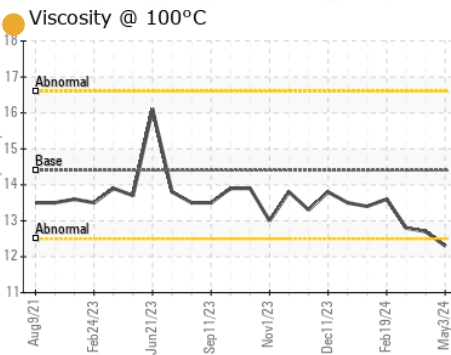
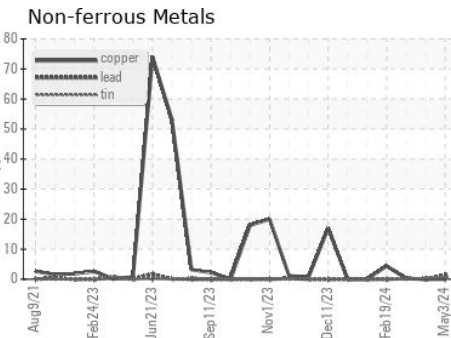
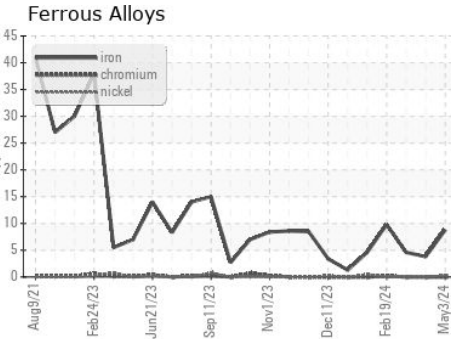
OIL ANALYSIS REPORT



VISUAL	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	14.4 ● 12.3	12.7	12.8

GRAPHS



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)