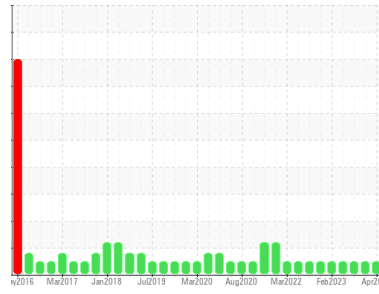




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area

GFL035

Machine Id

3679

Component

Diesel Engine

Fluid

CHEVRON DELO 400 SDE SAE 15W40 (38 QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

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

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0116415	GFL0116425	GFL0102289
Sample Date	Client Info		12 Apr 2024	01 Apr 2024	17 Nov 2023
Machine Age	hrs	Client Info	0	11010	11010
Oil Age	hrs	Client Info	600	600	600
Oil Changed	Client Info		Not Chngd	Not Chngd	Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
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

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >75	37	30	38
Chromium	ppm	ASTM D5185m >5	2	2	2
Nickel	ppm	ASTM D5185m >4	0	0	<1
Titanium	ppm	ASTM D5185m >2	<1	0	<1
Silver	ppm	ASTM D5185m >2	0	0	<1
Aluminum	ppm	ASTM D5185m >15	9	8	11
Lead	ppm	ASTM D5185m >25	0	0	0
Copper	ppm	ASTM D5185m >100	<1	<1	1
Tin	ppm	ASTM D5185m >4	<1	0	0
Vanadium	ppm	ASTM D5185m	0	<1	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	3	1	4
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	58	58	63
Manganese	ppm	ASTM D5185m	<1	<1	<1
Magnesium	ppm	ASTM D5185m	944	897	913
Calcium	ppm	ASTM D5185m	1078	1055	1096
Phosphorus	ppm	ASTM D5185m 760	1084	975	987
Zinc	ppm	ASTM D5185m 800	1282	1222	1216
Sulfur	ppm	ASTM D5185m 3000	3492	3432	3239

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	12	9	14
Sodium	ppm	ASTM D5185m	4	4	3
Potassium	ppm	ASTM D5185m >20	<1	0	2

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >6	1.9	1.9	0.5
Nitration	Abs/cm	*ASTM D7624 >20	10.5	10.0	7.0
Sulfation	Abs/.1mm	*ASTM D7415 >30	22.8	22.2	18.4

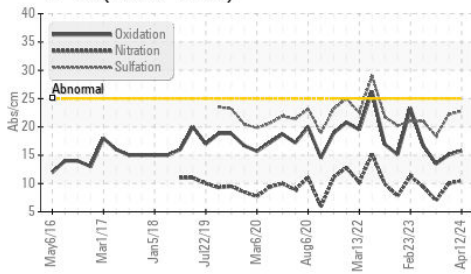
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	15.8	15.1	13.5
Base Number (BN)	mg KOH/g	ASTM D2896 10	10.2	9.5	8.5

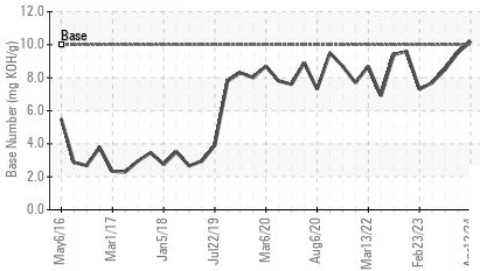


OIL ANALYSIS REPORT

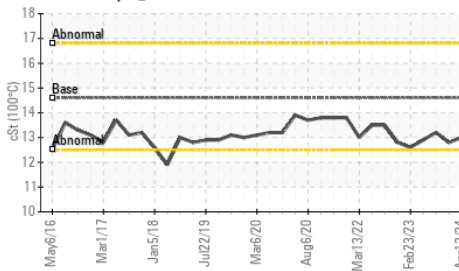
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

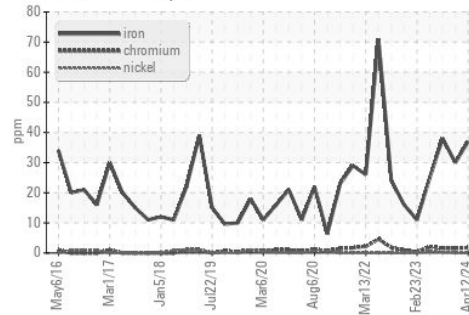


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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

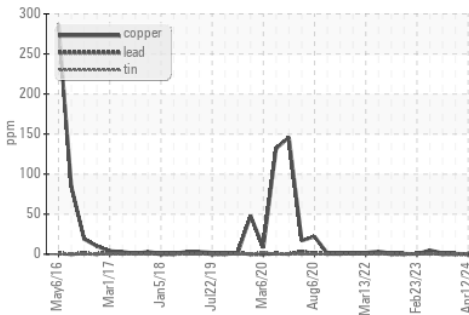
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.6	13.0	12.8

GRAPHS

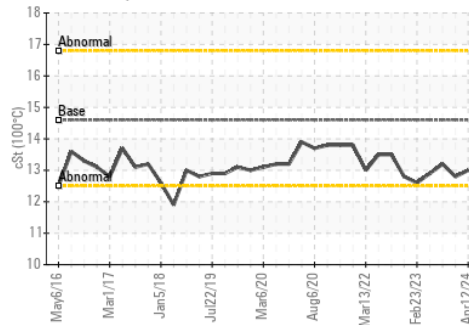
Ferrous Alloys



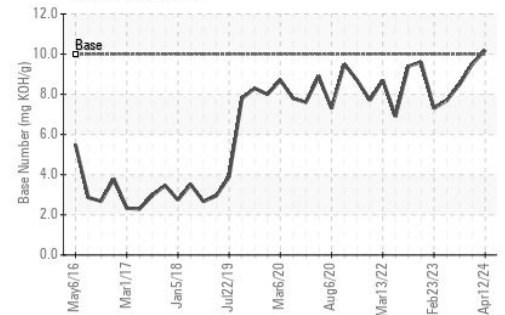
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0116415
Lab Number : 06150030
Unique Number : 10980108
Test Package : FLEET

Received : 16 Apr 2024
Tested : 17 Apr 2024
Diagnosed : 18 Apr 2024 - Sean Felton

GFL Environmental - 035 - Greensboro
 1236 Elon Place
 High Point, NC
 US 27263
 Contact: JORGE COSTA
 jorge.costa@gflenv.com
 T: (336)668-3712
 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)