



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
(62A0X13) ALEXANDER CITY
Machine Id
723009-234528
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		GFL0091345	GFL0079741	GFL0079738
Sample Date		Client Info		17 Apr 2024	13 Apr 2024	10 Apr 2024
Machine Age	hrs	Client Info		25519	25487	25477
Oil Age	hrs	Client Info		25519	25487	25477
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
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	2	2	12
Chromium	ppm	ASTM D5185m	>20	0	<1	<1
Nickel	ppm	ASTM D5185m	>5	0	0	2
Titanium	ppm	ASTM D5185m	>2	<1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	4	3
Lead	ppm	ASTM D5185m	>40	0	0	<1
Copper	ppm	ASTM D5185m	>330	<1	<1	7
Tin	ppm	ASTM D5185m	>15	0	0	<1
Vanadium	ppm	ASTM D5185m		<1	0	<1
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.

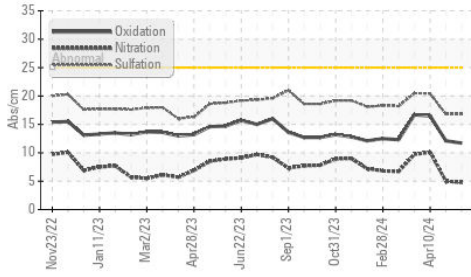
Silicon	ppm	ASTM D5185m	>25	3	3	6
Potassium	ppm	ASTM D5185m	>20	0	2	22
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>4	0.4	0.4	0.5
Nitration	Abs/cm	*ASTM D7624	>20	4.8	5.0	10.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	16.8	16.8	20.4
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

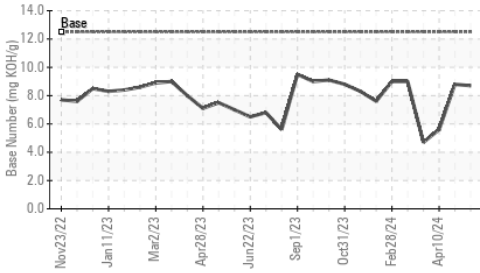
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		2	2	7
Boron	ppm	ASTM D5185m	151	19	20	4
Barium	ppm	ASTM D5185m	0.4	0	0	0
Molybdenum	ppm	ASTM D5185m	250	55	61	60
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m	0	795	840	825
Calcium	ppm	ASTM D5185m	2046	964	1089	1056
Phosphorus	ppm	ASTM D5185m	1043	844	1059	862
Zinc	ppm	ASTM D5185m	943	1009	1175	1087
Sulfur	ppm	ASTM D5185m	5012	3116	2989	3050
Oxidation	Abs/.1mm	*ASTM D7414	>25	11.7	12.1	16.5
Base Number (BN)	mg KOH/g	ASTM D2896	12.5	8.7	8.8	5.6
Visc @ 100°C	cSt	ASTM D445	14.4	13.0	13.0	12.7

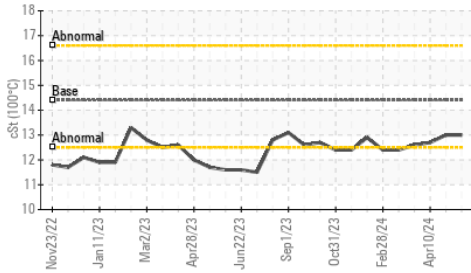
FT-IR (Direct Trend)



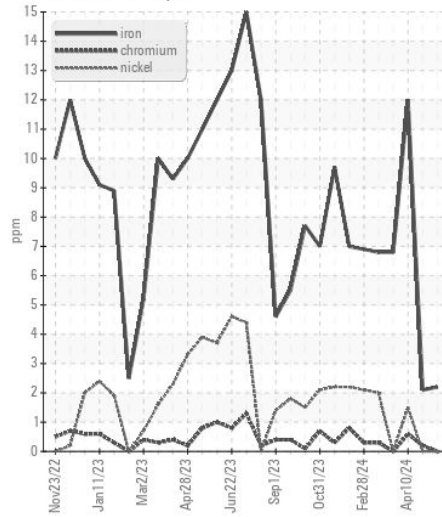
Base Number



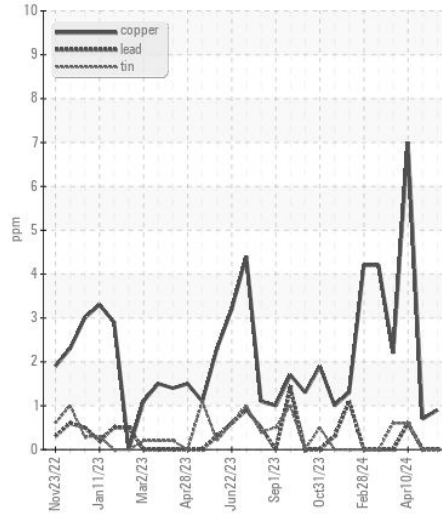
Viscosity @ 100°C



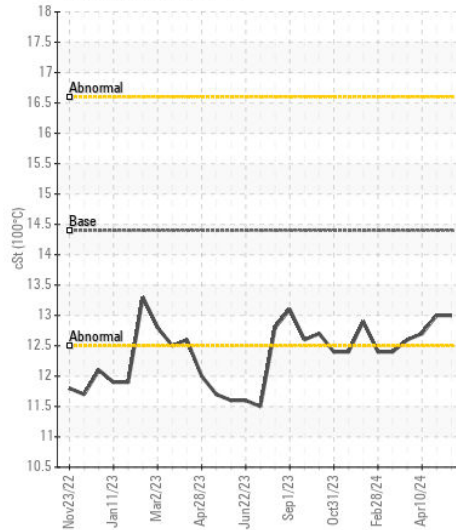
Ferrous Alloys



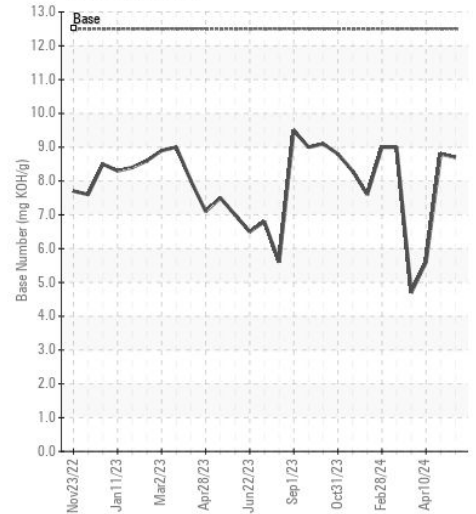
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0091345
Lab Number : 06155564
Unique Number : 10990987
Test Package : FLEET

Received : 22 Apr 2024
Tested : 23 Apr 2024
Diagnosed : 24 Apr 2024 - Sean Felton

GFL Environmental - 172 - Montgomery-Alexander City-Tallahassee
 Multiple Sites
 Montgomery, AL
 US 36108
 Contact: BRANDON HURST
 brandonhurst@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)

T:
F: