



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
910013 AUTOCAR ACX
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 40 (48 QTS)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0103184	GFL0103189	GFL0094649
Sample Date		Client Info		22 May 2024	11 Mar 2024	08 Dec 2023
Machine Age	hrs	Client Info		0	10269	9535
Oil Age	hrs	Client Info		0	734	615
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	Not Changd	Changed
Filter Changed		Client Info		N/A	Not Changd	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>165	4	12	7
Chromium	ppm	ASTM D5185m	>5	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m	>2	<1	0	0
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	1	1	<1
Lead	ppm	ASTM D5185m	>150	<1	0	0
Copper	ppm	ASTM D5185m	>90	<1	<1	<1
Tin	ppm	ASTM D5185m	>5	<1	0	0
Vanadium	ppm	ASTM D5185m		0	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.

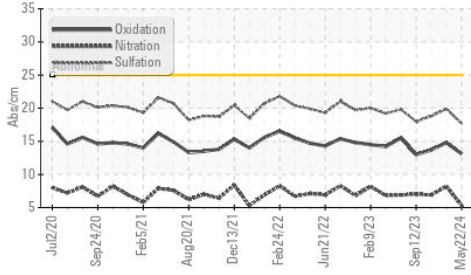
Silicon	ppm	ASTM D5185m	>35	5	2	2
Potassium	ppm	ASTM D5185m	>20	4	<1	2
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>7.5	0.2	1	0.7
Nitration	Abs/cm	*ASTM D7624	>20	5.3	8.2	6.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.7	19.9	18.8
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

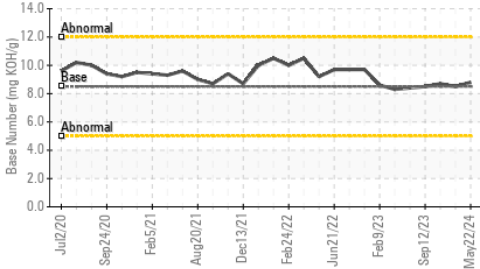
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>216	1	3	3
Boron	ppm	ASTM D5185m	250	6	2	<1
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	57	54	57
Manganese	ppm	ASTM D5185m		0	0	0
Magnesium	ppm	ASTM D5185m	450	889	901	928
Calcium	ppm	ASTM D5185m	3000	1121	1022	1030
Phosphorus	ppm	ASTM D5185m	1150	921	974	967
Zinc	ppm	ASTM D5185m	1350	1191	1144	1198
Sulfur	ppm	ASTM D5185m	4250	3190	3243	3091
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.1	14.8	13.7
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	8.8	8.5	8.7
Visc @ 100°C	cSt	ASTM D445	14.4	14.5	13.4	13.3

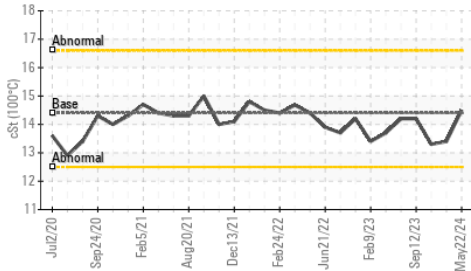
FT-IR (Direct Trend)



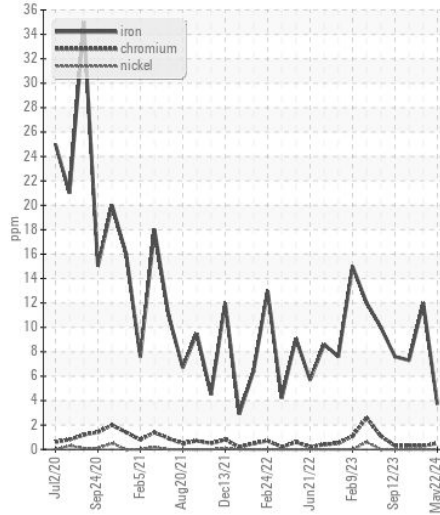
Base Number



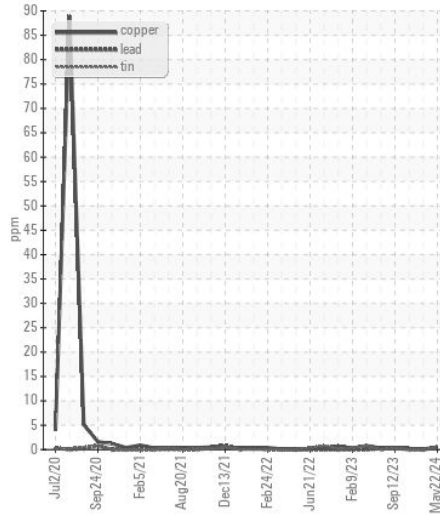
Viscosity @ 100°C



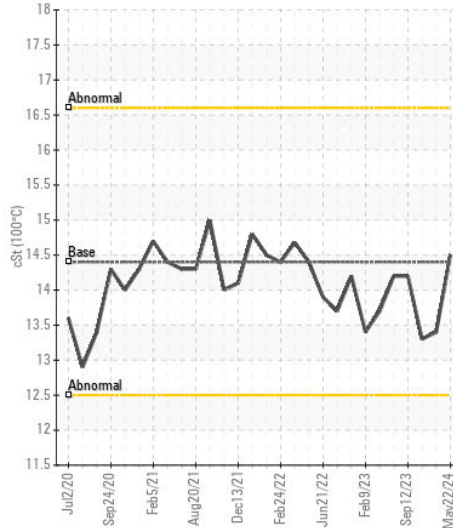
Ferrous Alloys



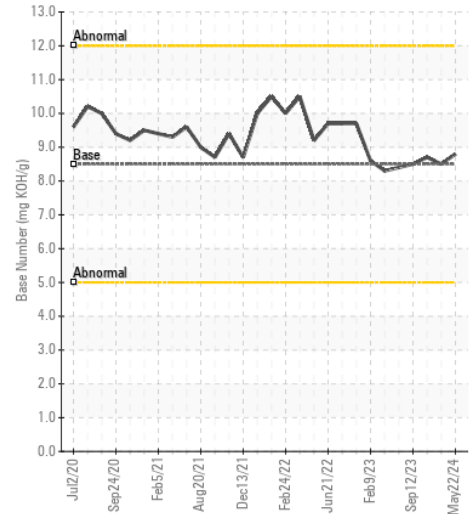
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0103184
Lab Number : 06188633
Unique Number : 11045385
Test Package : FLEET

Received : 23 May 2024
Tested : 24 May 2024
Diagnosed : 24 May 2024 - Wes Davis

GFL Environmental - 001 - Raleigh(CNG)
 3741 Conquest Drive
 Garner, NC
 US 27529

Contact: Ronald Gregory
 rgregory@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: (919)662-1730