



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
212031
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENGINE OIL SAE 40. Please confirm.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0102990	GFL0086369	GFL0074773
Sample Date		Client Info		13 Apr 2024	30 Aug 2023	30 Jul 2023
Machine Age	hrs	Client Info		1188	774	704
Oil Age	hrs	Client Info		0	0	0
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	MARGINAL	MARGINAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>80	10	37	32
Chromium	ppm	ASTM D5185m	>5	<1	4	3
Nickel	ppm	ASTM D5185m	>2	0	<1	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	<1	<1
Aluminum	ppm	ASTM D5185m	>30	2	2	4
Lead	ppm	ASTM D5185m	>30	0	0	<1
Copper	ppm	ASTM D5185m	>150	3	7	5
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.

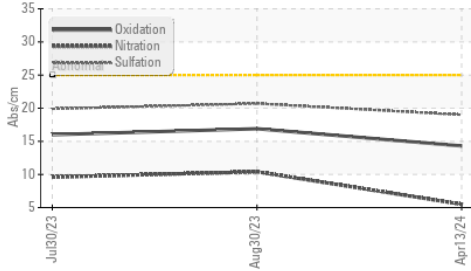
Silicon	ppm	ASTM D5185m	>20	5	6	7
Potassium	ppm	ASTM D5185m	>20	1	0	2
Fuel		WC Method	>5	<1.0	▲ 4.7	▲ 3.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.1	0.5	0.4
Nitration	Abs/cm	*ASTM D7624	>20	5.5	10.4	9.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.0	20.7	19.9
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

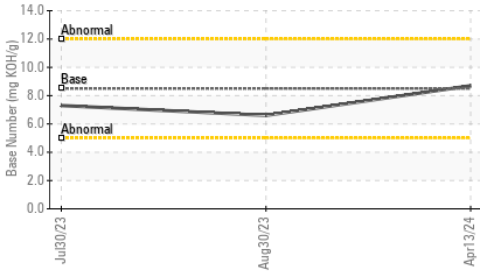
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>216	1	2	<1
Boron	ppm	ASTM D5185m	250	54	0	4
Barium	ppm	ASTM D5185m	10	0	0	1
Molybdenum	ppm	ASTM D5185m	100	58	60	60
Manganese	ppm	ASTM D5185m		<1	2	2
Magnesium	ppm	ASTM D5185m	450	789	806	769
Calcium	ppm	ASTM D5185m	3000	1297	1279	1302
Phosphorus	ppm	ASTM D5185m	1150	1025	1018	1018
Zinc	ppm	ASTM D5185m	1350	1206	1251	1231
Sulfur	ppm	ASTM D5185m	4250	3630	3524	3016
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.3	16.9	16.0
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	8.7	6.6	7.3
Visc @ 100°C	cSt	ASTM D445	14.4	14.2	11.7	12.0

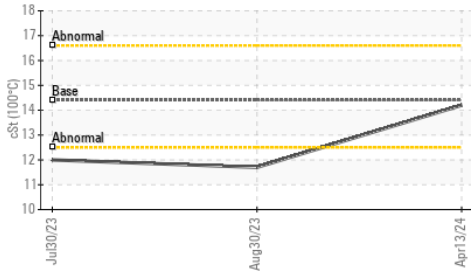
FT-IR (Direct Trend)



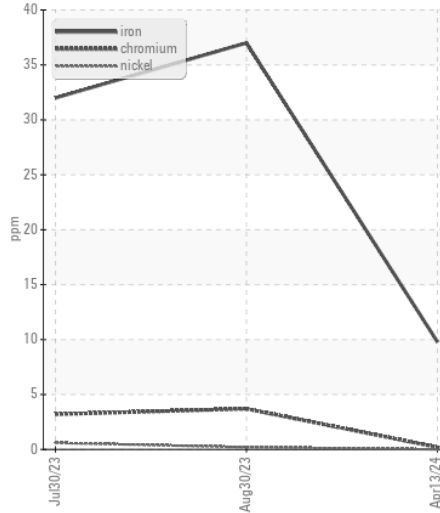
Base Number



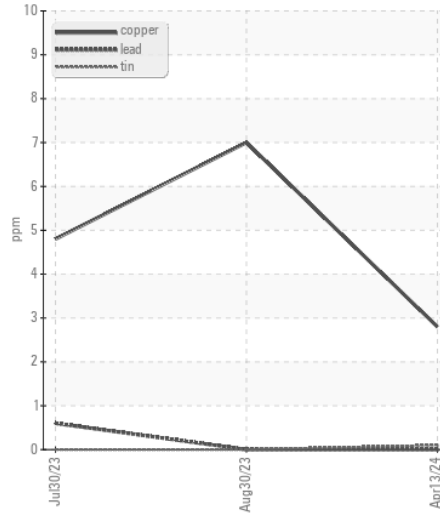
Viscosity @ 100°C



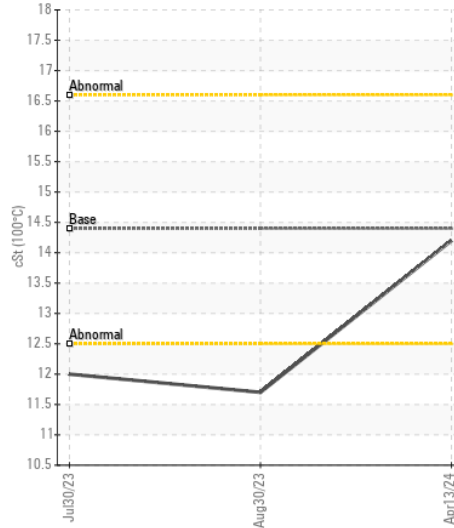
Ferrous Alloys



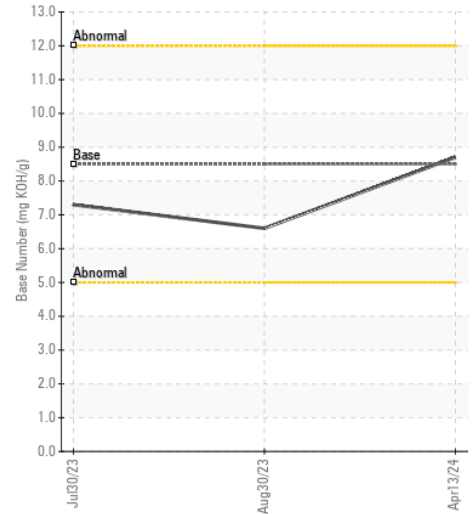
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0102990
Lab Number : 06147156
Unique Number : 10977234
Test Package : FLEET

Received : 12 Apr 2024
Tested : 15 Apr 2024
Diagnosed : 15 Apr 2024 - Wes Davis

GFL Environmental - 816 - WCA of South Arkansas
 3083 Smackover Hwy
 El Dorado, AR
 US 71730
 Contact: Mike Howell
 mike.howell@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: