



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
814034
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		GFL0115442	GFL0115410	GFL0115415
Sample Date		Client Info		21 May 2024	05 May 2024	22 Apr 2024
Machine Age	hrs	Client Info		674	556	515
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	ABNORMAL	ABNORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>120	6	37	39
Chromium	ppm	ASTM D5185m	>20	0	2	<1
Nickel	ppm	ASTM D5185m	>5	0	8	5
Titanium	ppm	ASTM D5185m	>2	0	<1	0
Silver	ppm	ASTM D5185m	>2	<1	<1	0
Aluminum	ppm	ASTM D5185m	>20	2	7	8
Lead	ppm	ASTM D5185m	>40	<1	2	0
Copper	ppm	ASTM D5185m	>330	28	203	180
Tin	ppm	ASTM D5185m	>15	<1	3	3
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.

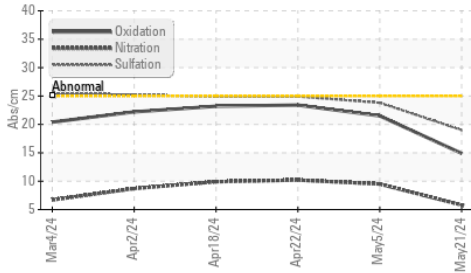
Silicon	ppm	ASTM D5185m	>25	10	▲ 70	▲ 77
Potassium	ppm	ASTM D5185m	>20	2	7	7
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>4	0.1	0.3	0.3
Nitration	Abs/cm	*ASTM D7624	>20	5.8	9.5	10.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.0	23.8	24.9
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

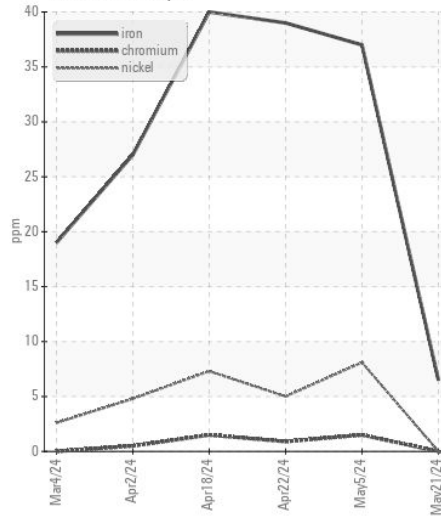
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>216	2	3	2
Boron	ppm	ASTM D5185m	250	59	189	208
Barium	ppm	ASTM D5185m	10	0	<1	0
Molybdenum	ppm	ASTM D5185m	100	85	127	128
Manganese	ppm	ASTM D5185m		<1	4	5
Magnesium	ppm	ASTM D5185m	450	937	772	743
Calcium	ppm	ASTM D5185m	3000	1118	1556	1549
Phosphorus	ppm	ASTM D5185m	1150	1031	771	694
Zinc	ppm	ASTM D5185m	1350	1161	900	846
Sulfur	ppm	ASTM D5185m	4250	3413	2737	2525
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.9	21.5	23.4
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	8.4	7.9	7.6
Visc @ 100°C	cSt	ASTM D445	14.4	13.9	10.5	10.0

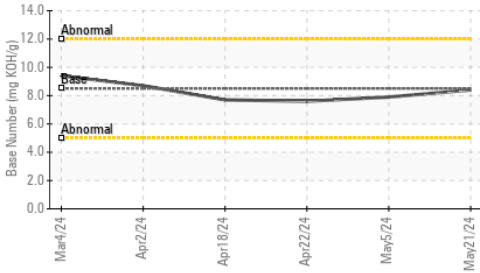
FT-IR (Direct Trend)



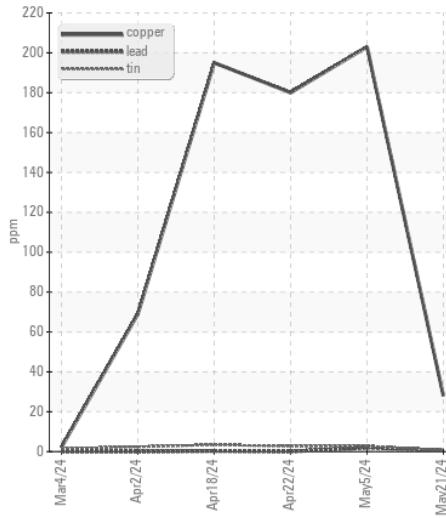
Ferrous Alloys



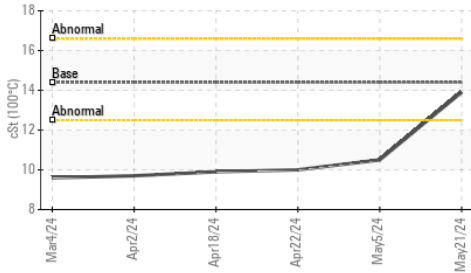
Base Number



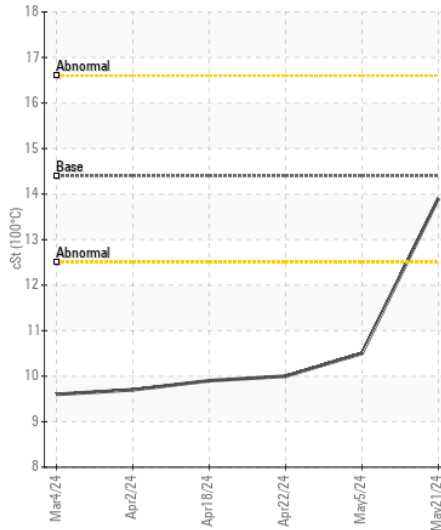
Non-ferrous Metals



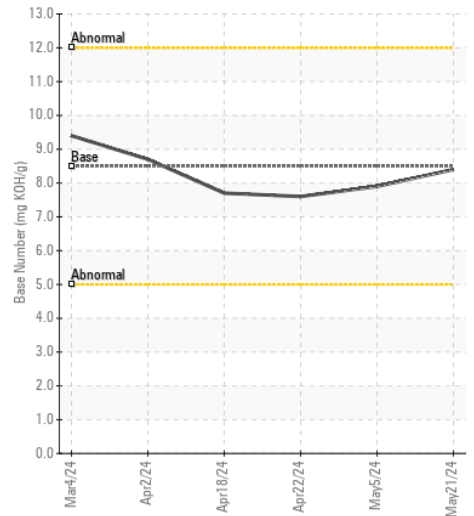
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0115442
Lab Number : 06187129
Unique Number : 11043881
Test Package : FLEET

Received : 21 May 2024
Tested : 23 May 2024
Diagnosed : 23 May 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: