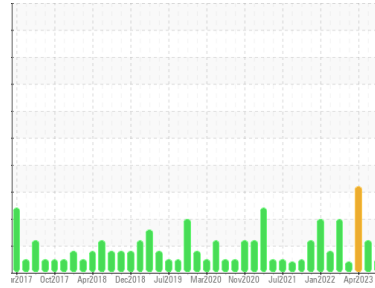




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
3743

Component
Diesel Engine

Fluid
DIESEL ENGINE OIL SAE 15W40 (11 GAL)

DIAGNOSIS

Recommendation

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

Wear

All component wear rates are normal.

Contamination

Test for glycol is negative. 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 suitable for further service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0092500	GFL0074601	GFL0074574
Sample Date	Client Info	18 Aug 2023	10 May 2023	12 Apr 2023
Machine Age	hrs	19526	19036	18732
Oil Age	hrs	489	18732	541
Oil Changed	Client Info	Not Chngd	Changed	Changed
Sample Status		NORMAL	ABNORMAL	ABNORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >3.0	<1.0	<1.0	<1.0

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >75	63	31	▲ 78
Chromium	ppm ASTM D5185m >5	2	1	3
Nickel	ppm ASTM D5185m >4	0	<1	0
Titanium	ppm ASTM D5185m >2	<1	0	0
Silver	ppm ASTM D5185m >2	0	0	0
Aluminum	ppm ASTM D5185m >15	4	2	<1
Lead	ppm ASTM D5185m >25	0	0	<1
Copper	ppm ASTM D5185m >100	18	<1	5
Tin	ppm ASTM D5185m >4	0	<1	<1
Vanadium	ppm ASTM D5185m	<1	0	0
Cadmium	ppm ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 250	2	8	6
Barium	ppm ASTM D5185m 10	0	0	2
Molybdenum	ppm ASTM D5185m 100	63	74	73
Manganese	ppm ASTM D5185m	1	<1	1
Magnesium	ppm ASTM D5185m 450	868	906	829
Calcium	ppm ASTM D5185m 3000	996	1047	1039
Phosphorus	ppm ASTM D5185m 1150	933	1010	939
Zinc	ppm ASTM D5185m 1350	1109	1308	1146
Sulfur	ppm ASTM D5185m 4250	3085	4033	2779

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	11	6	11
Sodium	ppm ASTM D5185m >158	68	▲ 89	▲ 155
Potassium	ppm ASTM D5185m >20	0	2	3
Glycol	% *ASTM D2982	0.0	NEG	NEG

INFRA-RED

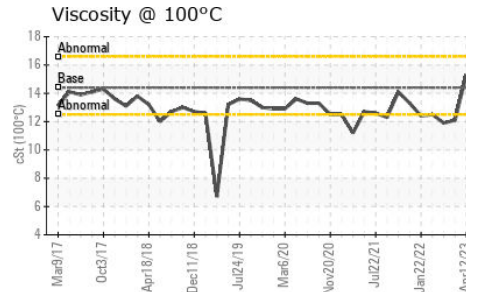
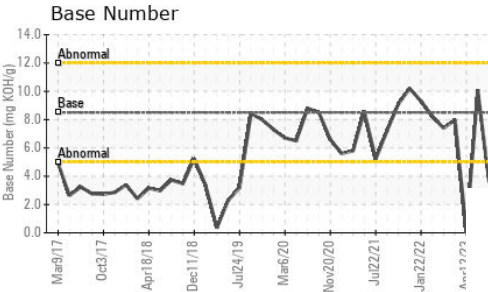
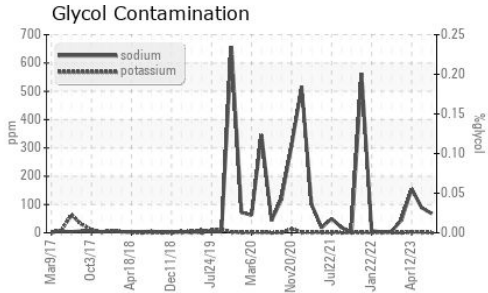
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >6	4.6	2.4	4.8
Nitration	Abs/cm *ASTM D7624 >20	12.0	8.6	16.4
Sulfation	Abs/.1mm *ASTM D7415 >30	27.7	22.5	30.2

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	14.0	13.5	23.5
Base Number (BN)	mg KOH/g ASTM D2896 8.5	3.6	10.1	▲ 0.0



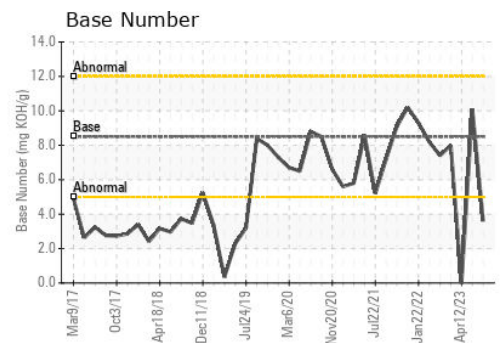
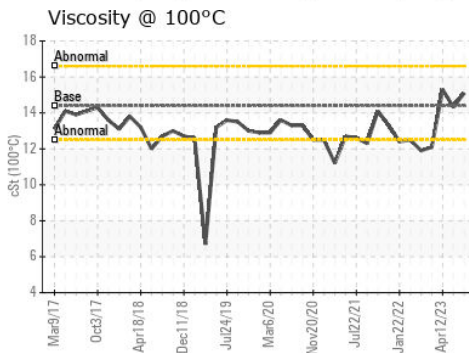
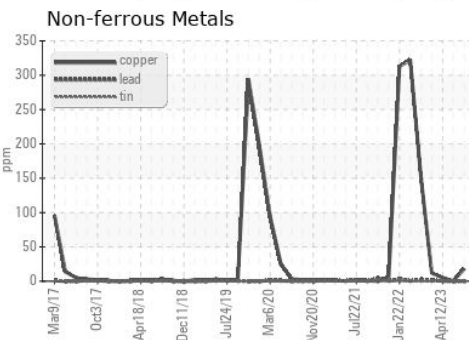
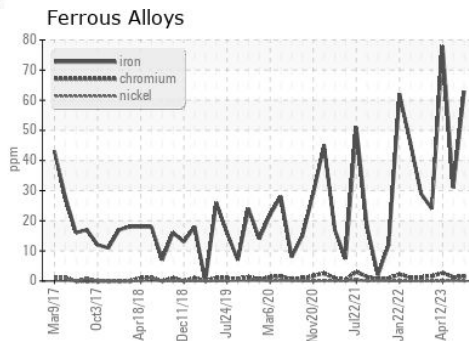
OIL ANALYSIS REPORT



PARAMETER	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	14.4	15.1	14.32

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0092500 **Received** : 23 Aug 2023
Lab Number : 05931910 **Diagnosed** : 24 Aug 2023
Unique Number : 10617181 **Diagnostician** : Wes Davis
Test Package : FLEET (Additional Tests: Glycol)

GFL Environmental - 095 - Atlanta West
 2699 Cochran Industrial Blvd
 Douglasville, GA
 US 30127-1332
 Contact: Darrell Welch
 darrell.welch@gflenv.com
 T: (800)207-6618
 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)