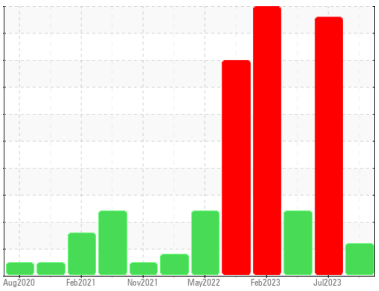
PROBLEM SUMMARY

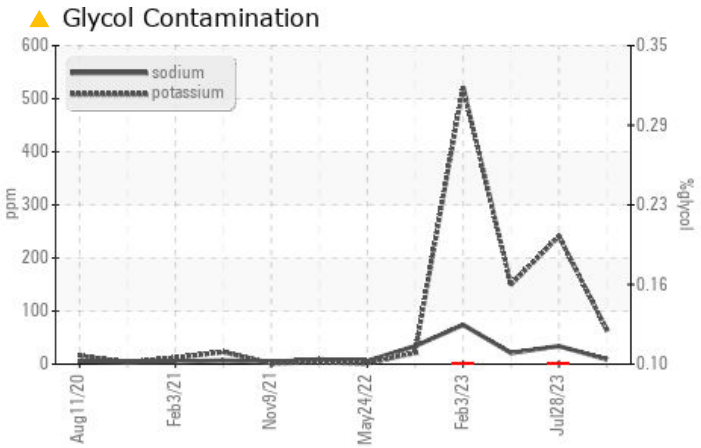
Sample Rating Trend



GLYCOL

Machine Id
822020-117
Component
Diesel Engine
Fluid
CONOCO PHILLIPS GUARDOL ECT 15W40 (--- LTR)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

No corrective action is recommended at this time.
Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				ATTENTION	SEVERE	ABNORMAL
Potassium	ppm	ASTM D5185m	>20	▲ 64	▲ 241	▲ 150

Customer Id: GFL656
Sample No.: GFL0096493
Lab Number: 05999779
Test Package: FLEET

To manage this report scan the QR code

To discuss the diagnosis or test data:
Jonathan Hester +1 919-379-4092 x4092
jhester@wearcheckusa.com

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

28 Jul 2023 Diag: Wes Davis

GLYCOL

We advise that you check for the source of the coolant leak. The oil change at the time of sampling has been noted. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition.All component wear rates are normal. Test for glycol is positive. There is a high concentration of glycol present in the oil. Additive levels indicate the addition of a different brand, or type of oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

view report

17 May 2023 Diag: Jonathan Hester

GLYCOL

We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.All component wear rates are normal. Sodium and/or potassium levels remain high. The BN result indicates that there is suitable alkalinity remaining in the oil.

view report

03 Feb 2023 Diag: Jonathan Hester

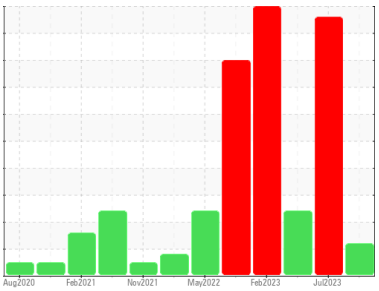
GLYCOL

We advise that you check for the source of the coolant leak. Check for low coolant level. We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.All component wear rates are normal. Sodium and/or potassium levels are high. Test for glycol is positive. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. There is an abnormal amount of solids and carbon present in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL

Machine Id
822020-117
Component
Diesel Engine
Fluid
CONOCO PHILLIPS GUARDOL ECT 15W40 (--- LTR)

DIAGNOSIS

Recommendation
No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
Sodium and/or potassium levels remain elevated. Test for glycol is negative.

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		**GFL0096493**	GFL0061995	GFL0062003
Sample Date		Client Info		**02 Nov 2023**	28 Jul 2023	17 May 2023
Machine Age	hrs	Client Info		**28087**	27618	27287
Oil Age	hrs	Client Info		**469**	331	600
Oil Changed		Client Info		**Not Changd**	Changed	Changed
Sample Status				**ATTENTION**	SEVERE	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>5	**<1.0**	<1.0	<1.0

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>110	**18**	20	6
Chromium	ppm	ASTM D5185m	>4	**<1**	<1	<1
Nickel	ppm	ASTM D5185m	>2	**<1**	<1	0
Titanium	ppm	ASTM D5185m		**<1**	0	0
Silver	ppm	ASTM D5185m	>2	**0**	0	0
Aluminum	ppm	ASTM D5185m	>25	**2**	4	0
Lead	ppm	ASTM D5185m	>45	**1**	3	1
Copper	ppm	ASTM D5185m	>85	**48**	23	11
Tin	ppm	ASTM D5185m	>4	**<1**	<1	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**<1**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	85	**6**	▲ 13	23
Barium	ppm	ASTM D5185m		**5**	1	0
Molybdenum	ppm	ASTM D5185m		**68**	▲ 98	80
Manganese	ppm	ASTM D5185m		**<1**	<1	<1
Magnesium	ppm	ASTM D5185m	350	**902**	▲ 1031	956
Calcium	ppm	ASTM D5185m	1800	**1063**	1249	1091
Phosphorus	ppm	ASTM D5185m	1000	**1078**	1132	1034
Zinc	ppm	ASTM D5185m	1100	**1215**	1373	1277
Sulfur	ppm	ASTM D5185m	3500	**3103**	3407	3810

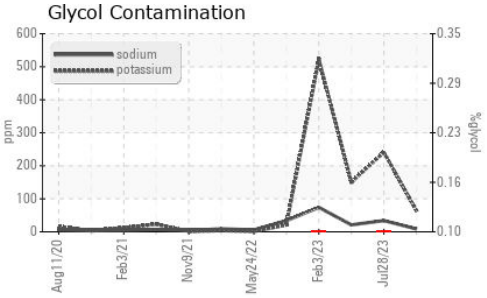
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>30	**10**	10	7
Sodium	ppm	ASTM D5185m		**9**	▲ 34	▲ 21
Potassium	ppm	ASTM D5185m	>20	▲ **64**	▲ 241	▲ 150
Glycol	%	*ASTM D2982		**NEG**	⬢ 0.10	NEG

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	**1.8**	1.4	0.5
Nitration	Abs/cm	*ASTM D7624	>20	**11.0**	10.0	6.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	**23.7**	22.6	18.4

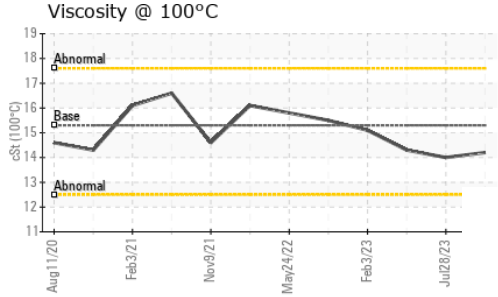
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**17.9**	16.5	13.1
Base Number (BN)	mg KOH/g	ASTM D2896	9.5	**8.0**	8.5	9.5

OIL ANALYSIS REPORT

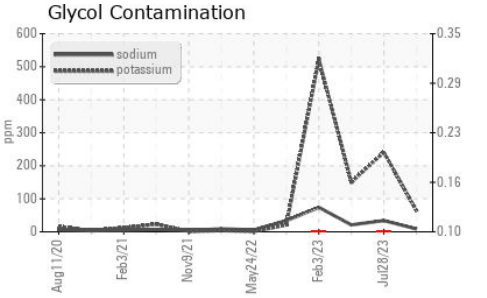
Glycol Contamination



Viscosity @ 100°C



Glycol Contamination

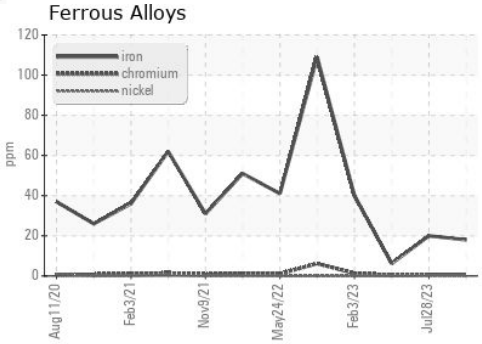


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	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
Free Water	scalar	*Visual		**NEG**	NEG	NEG

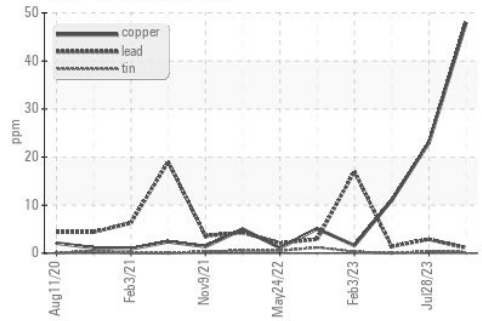
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.3	**14.2**	14.0	14.3

GRAPHS

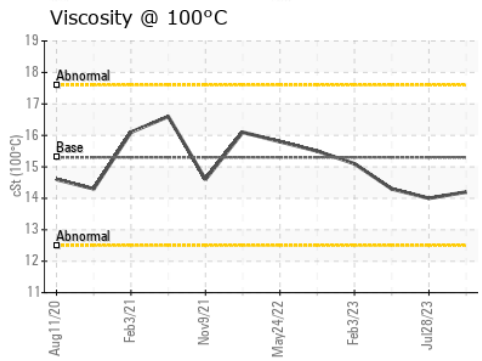
Ferrous Alloys



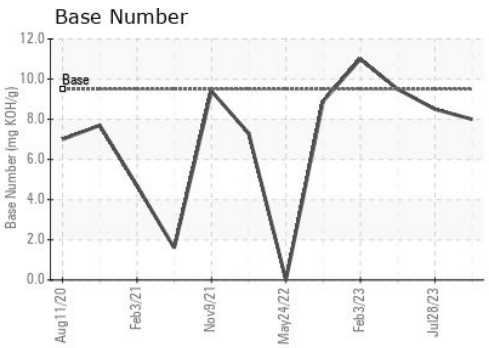
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0096493
Lab Number : 05999779
Unique Number : 10728139
Test Package : FLEET

Received : 06 Nov 2023
Diagnosed : 08 Nov 2023
Diagnostician : Jonathan Hester

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)

GFL Environmental - 656 - Culpeper Hauling
15490 Montanus Drive
Culpeper, VA
US 22701
Contact: Matt Hanna
mhanna@gflenv.com
T: (540)727-0887
F: