



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
822052 PETERBILT 320

Component
Diesel Engine

Fluid
TIER ONE 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. (Customer Sample Comment: Serviced only)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0102221	GFL0061457	GFL0061453
Sample Date		Client Info		26 Feb 2024	13 Sep 2023	09 Aug 2023
Machine Age	hrs	Client Info		13887	13410	13244
Oil Age	hrs	Client Info		100	600	600
Filter Age	hrs	Client Info		100	600	600
Oil Changed		Client Info		Not Changd	Not Changd	Changed
Filter Changed		Client Info		Not Changd	Not Changd	Changed
Sample Status				NORMAL	SEVERE	SEVERE

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>110	12	17	28
Chromium	ppm	ASTM D5185m	>4	<1	1	<1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	6	22	12
Lead	ppm	ASTM D5185m	>45	0	<1	<1
Copper	ppm	ASTM D5185m	>85	2	2	13
Tin	ppm	ASTM D5185m	>4	0	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

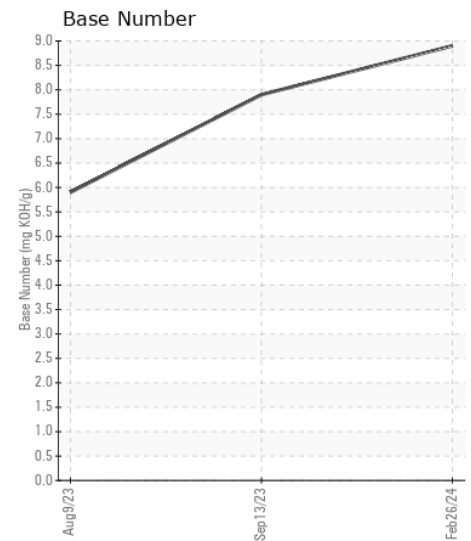
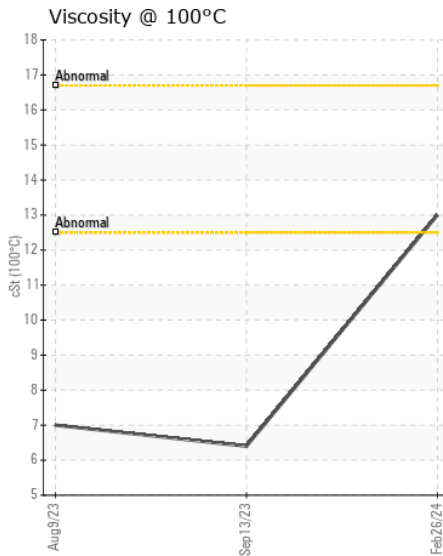
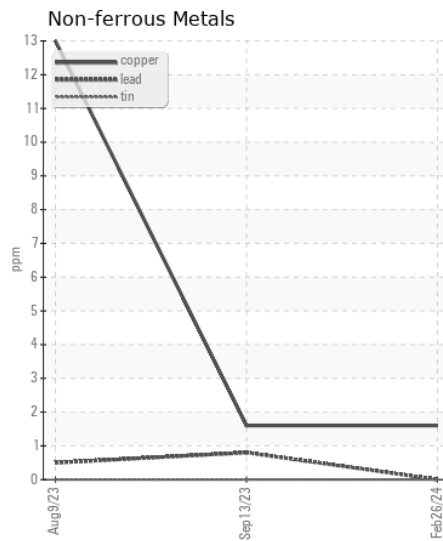
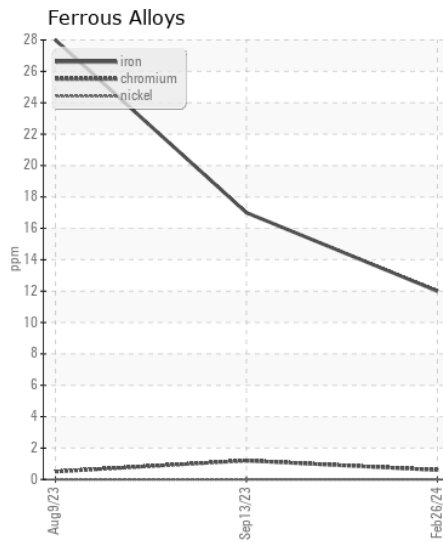
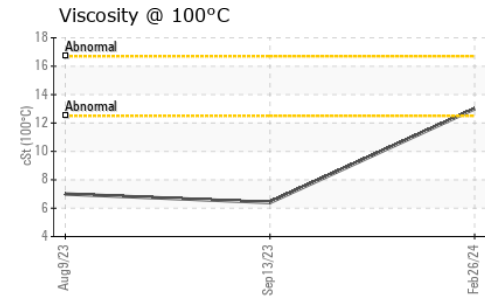
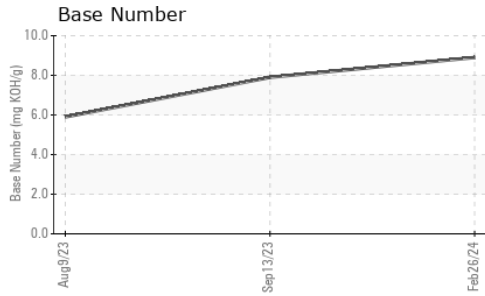
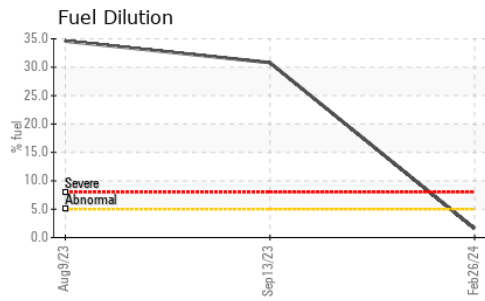
Fuel content negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>30	7	6	8
Potassium	ppm	ASTM D5185m	>20	18	76	46
Fuel	%	ASTM D3524	>5	1.6	▲ 30.8	▲ 34.6
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.5	0	0.4
Nitration	Abs/cm	*ASTM D7624	>20	7.5	12.3	10.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.4	21.6	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		7	4	10
Boron	ppm	ASTM D5185m		10	2	6
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		55	37	38
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		858	● 534	559
Calcium	ppm	ASTM D5185m		1020	● 680	791
Phosphorus	ppm	ASTM D5185m		1017	● 611	660
Zinc	ppm	ASTM D5185m		1201	● 753	816
Sulfur	ppm	ASTM D5185m		3027	2090	2430
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.7	18.7	16.8
Base Number (BN)	mg KOH/g	ASTM D2896		8.9	7.9	5.9
Visc @ 100°C	cSt	ASTM D445		13.0	▲ 6.4	▲ 7



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : GFL0102221

Lab Number : 06103588

Unique Number : 10901818

Test Package : FLEET (Additional Tests: PercentFuel)

Received : 28 Feb 2024

Tested : 05 Mar 2024

Diagnosed : 05 Mar 2024 - Jonathan Hester

GFL Environmental - 642- Grand Rapids Hauling

5826 Alden Nash Ave SE

Lowell, MI

US 49331

Contact: Josh Arnett

joshuaarnett@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: