



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
926068 PETERBILT 320
 Component
Diesel Engine
 Fluid
TIER ONE 15W0 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0102225	GFL0061458	---
Sample Date		Client Info		10 Apr 2024	06 Nov 2023	---
Machine Age	hrs	Client Info		3408	289240	---
Oil Age	hrs	Client Info		43	600	---
Filter Age	hrs	Client Info		0	600	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				NORMAL	ABNORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>110	9	42	---
Chromium	ppm	ASTM D5185m	>4	<1	0	---
Nickel	ppm	ASTM D5185m	>2	0	0	---
Titanium	ppm	ASTM D5185m		0	0	---
Silver	ppm	ASTM D5185m	>2	0	0	---
Aluminum	ppm	ASTM D5185m	>25	2	2	---
Lead	ppm	ASTM D5185m	>45	<1	2	---
Copper	ppm	ASTM D5185m	>85	3	3	---
Tin	ppm	ASTM D5185m	>4	<1	0	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

There is no indication of any contamination in the oil.

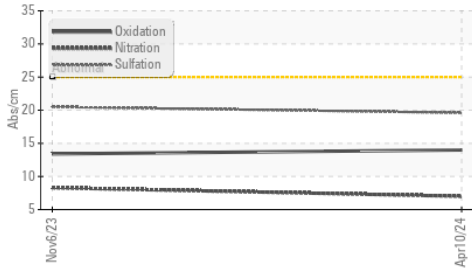
Silicon	ppm	ASTM D5185m	>30	4	5	---
Potassium	ppm	ASTM D5185m	>20	2	4	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.7	2	---
Nitration	Abs/cm	*ASTM D7624	>20	7.0	8.3	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.6	20.5	---
Silt	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	---

FLUID CONDITION

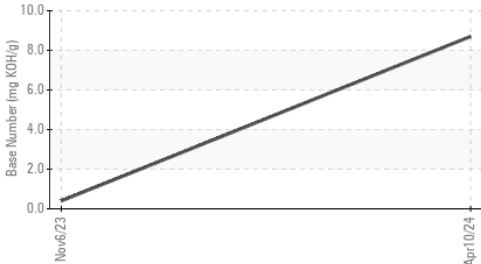
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		2	2	---
Boron	ppm	ASTM D5185m		13	4	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		55	60	---
Manganese	ppm	ASTM D5185m		<1	0	---
Magnesium	ppm	ASTM D5185m		873	990	---
Calcium	ppm	ASTM D5185m		1123	1223	---
Phosphorus	ppm	ASTM D5185m		1063	1119	---
Zinc	ppm	ASTM D5185m		1240	1389	---
Sulfur	ppm	ASTM D5185m		3743	3226	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.0	13.4	---
Base Number (BN)	mg KOH/g	ASTM D2896		8.7	▲ 0.4	---
Visc @ 100°C	cSt	ASTM D445		13.1	13.8	---

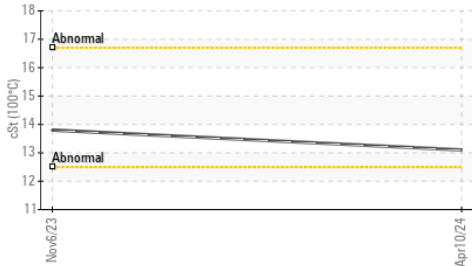
FT-IR (Direct Trend)



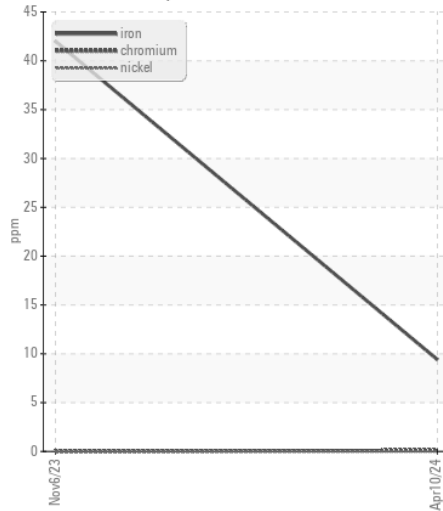
Base Number



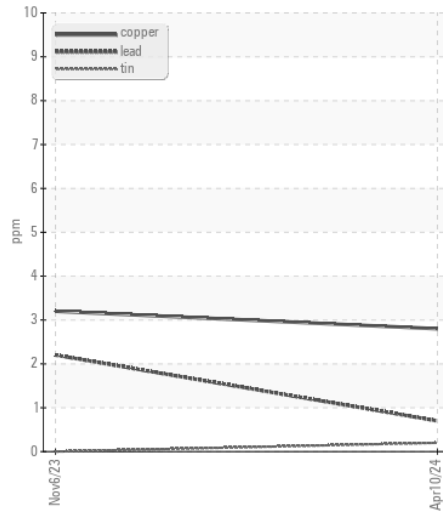
Viscosity @ 100°C



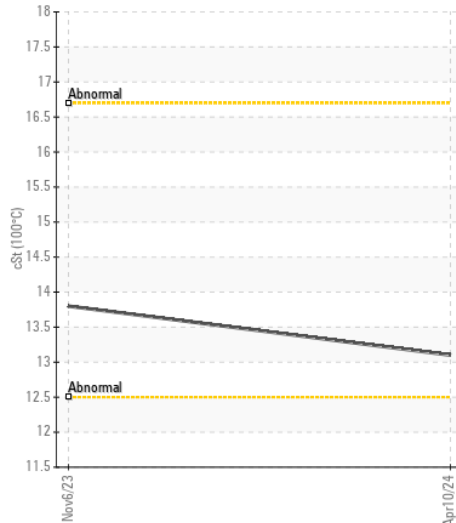
Ferrous Alloys



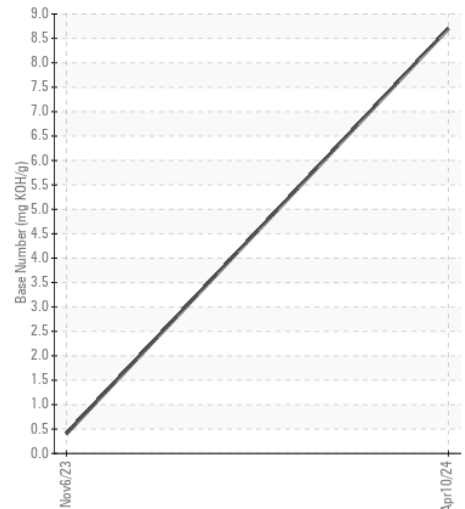
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : GFL0102225
 Lab Number : 06147146
 Unique Number : 10977224
 Test Package : FLEET

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

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)