



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Area
(EMN589)
Machine Id
AUTOCAR 10861
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (7 GAL)

RECOMMENDATION

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0109053	GFL0109086	GFL0086186
Sample Date		Client Info		21 Feb 2024	01 Feb 2024	14 Dec 2023
Machine Age	hrs	Client Info		14123	14111	14111
Oil Age	hrs	Client Info		0	13959	14111
Filter Age	hrs	Client Info		0	13959	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ATTENTION	ATTENTION	ATTENTION

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>75	12	10	27
Chromium	ppm	ASTM D5185m	>5	<1	<1	1
Nickel	ppm	ASTM D5185m	>4	<1	<1	0
Titanium	ppm	ASTM D5185m	>2	0	<1	0
Silver	ppm	ASTM D5185m	>2	0	<1	0
Aluminum	ppm	ASTM D5185m	>15	3	4	3
Lead	ppm	ASTM D5185m	>25	0	<1	0
Copper	ppm	ASTM D5185m	>100	8	8	17
Tin	ppm	ASTM D5185m	>4	<1	<1	<1
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.

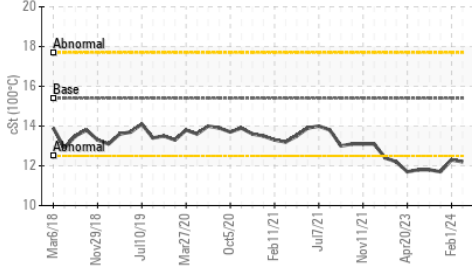
Silicon	ppm	ASTM D5185m	>25	4	7	4
Potassium	ppm	ASTM D5185m	>20	4	6	5
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	0.5	0.4	1
Nitration	Abs/cm	*ASTM D7624	>20	7.7	6.8	9.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.2	18.2	21.6
Silt	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

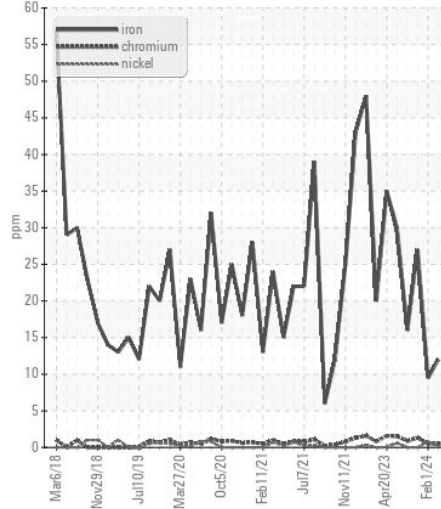
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m		4	3	4
Boron	ppm	ASTM D5185m	0	13	13	11
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	57	60	58
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	732	767	727
Calcium	ppm	ASTM D5185m	1070	1023	1038	1050
Phosphorus	ppm	ASTM D5185m	1150	917	939	773
Zinc	ppm	ASTM D5185m	1270	1069	1102	1069
Sulfur	ppm	ASTM D5185m	2060	2644	2804	2443
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.7	12.9	15.7
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	5.8	7.7	5.7
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 12.2	▲ 12.3	▲ 11.7

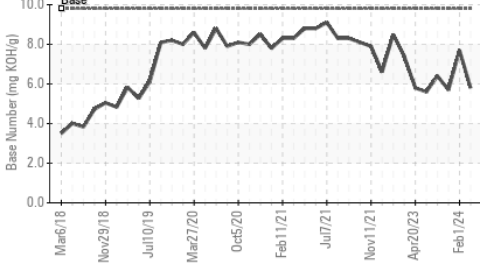
▲ Viscosity @ 100°C



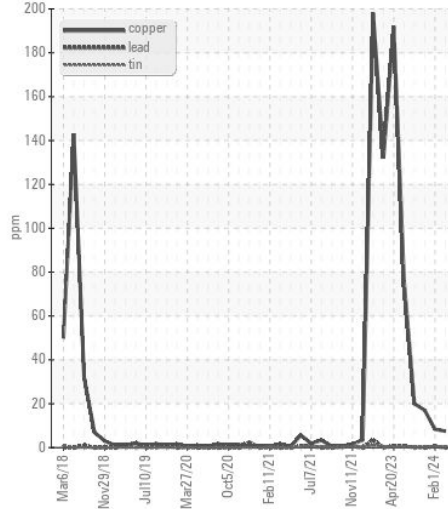
Ferrous Alloys



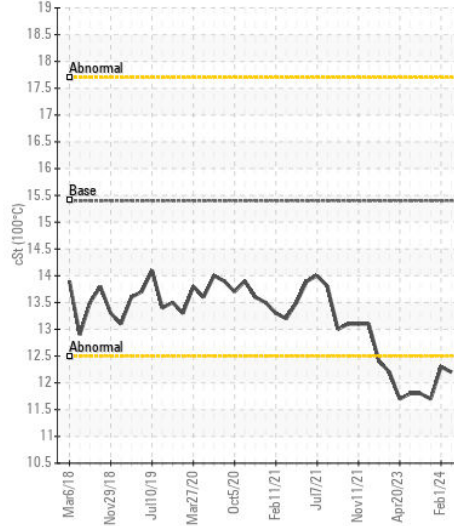
Base Number



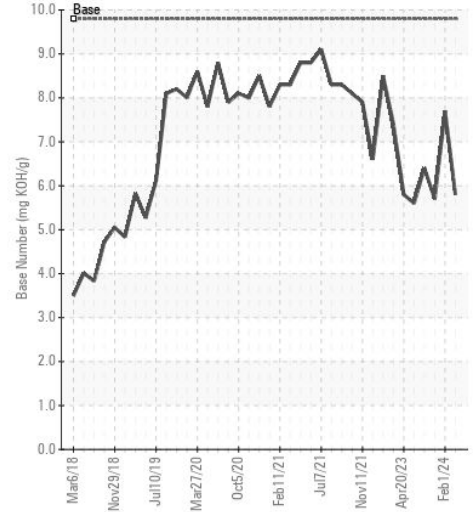
Non-ferrous Metals



▲ Viscosity @ 100°C



Base Number



Certificate L2367

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

Sample No. : GFL0109053

Lab Number : 06098143

Unique Number : 10896373

Test Package : FLEET

Received : 23 Feb 2024

Tested : 25 Feb 2024

Diagnosed : 26 Feb 2024 - Don Baldrige

GFL Environmental - 009 - Fairburn

6905 Roosevelt Hwy

Fairburn, GA

US 30213

Contact: Eric Jones

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T: (678)630-9927

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)