



WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	ABNORMAL

Area
(YA154620)
Machine Id
12044
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (5 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0079627	GFL0088507	GFL0098112
Sample Date		Client Info		22 Feb 2024	19 Feb 2024	10 Nov 2023
Machine Age	hrs	Client Info		1643	1643	1643
Oil Age	hrs	Client Info		590	590	408
Filter Age	hrs	Client Info		0	590	408
Oil Changed		Client Info		N/A	Changed	N/A
Filter Changed		Client Info		N/A	Changed	N/A
Sample Status				ABNORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>75	31	24	17
Chromium	ppm	ASTM D5185m	>5	<1	0	<1
Nickel	ppm	ASTM D5185m	>4	0	<1	<1
Titanium	ppm	ASTM D5185m	>2	0	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>15	3	4	2
Lead	ppm	ASTM D5185m	>25	3	3	<1
Copper	ppm	ASTM D5185m	>100	10	7	1
Tin	ppm	ASTM D5185m	>4	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

Light fuel dilution occurring.

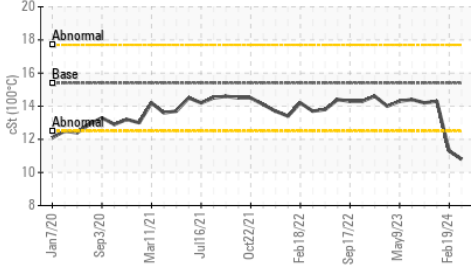
Silicon	ppm	ASTM D5185m	>25	3	3	4
Potassium	ppm	ASTM D5185m	>20	3	2	4
Fuel	%	ASTM D3524	>3.0	▲ 2.2	▲ 1.3	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	0.2	0.2	0.7
Nitration	Abs/cm	*ASTM D7624	>20	6.0	5.4	7.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.8	22.9	19.6
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

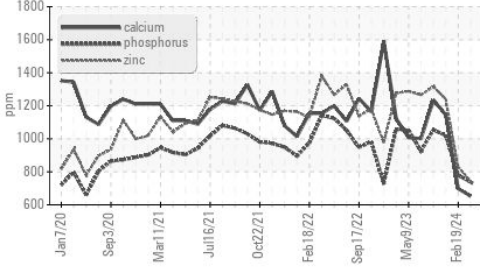
The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		0	1	0
Boron	ppm	ASTM D5185m	0	24	22	4
Barium	ppm	ASTM D5185m	0	8	0	<1
Molybdenum	ppm	ASTM D5185m	60	37	36	62
Manganese	ppm	ASTM D5185m	0	0	<1	<1
Magnesium	ppm	ASTM D5185m	1010	● 545	● 611	923
Calcium	ppm	ASTM D5185m	1070	● 653	● 698	1145
Phosphorus	ppm	ASTM D5185m	1150	● 738	779	1019
Zinc	ppm	ASTM D5185m	1270	● 743	● 830	1239
Sulfur	ppm	ASTM D5185m	2060	2558	2500	2960
Oxidation	Abs/.1mm	*ASTM D7414	>25	24.9	23.3	14.7
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	4.9	6.2	8.6
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 10.8	▲ 11.3	14.3

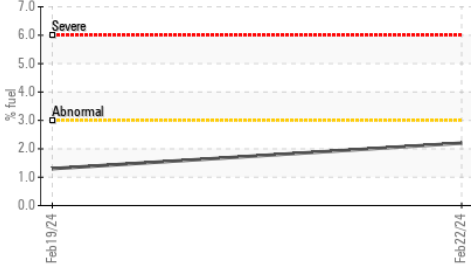
▲ Viscosity @ 100°C



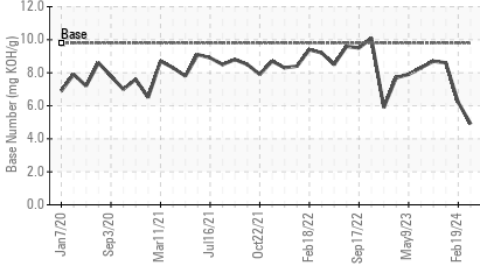
● Additives



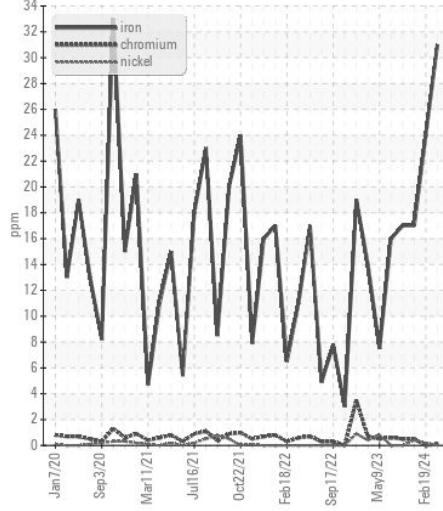
▲ Fuel Dilution



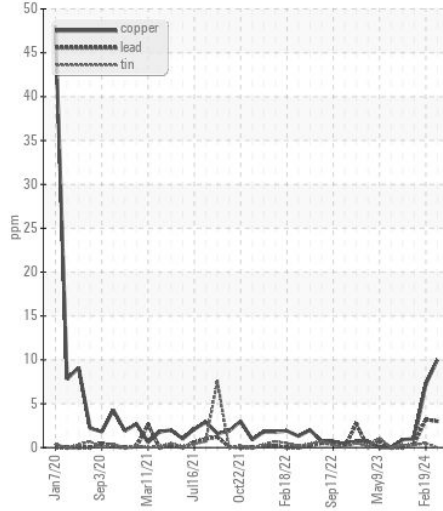
Base Number



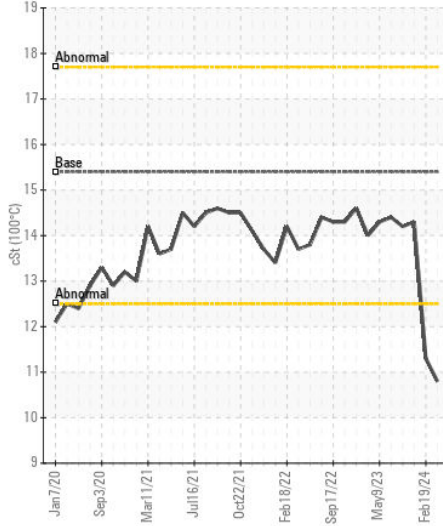
Ferrous Alloys



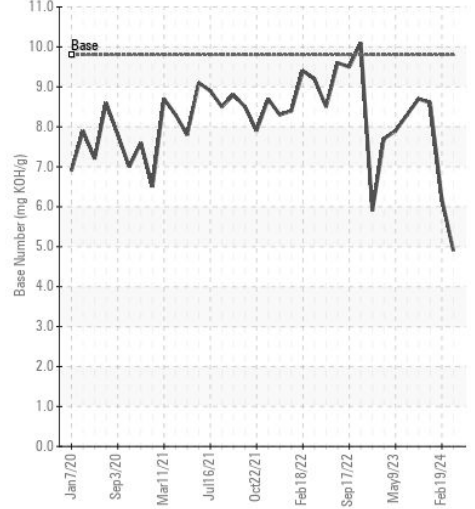
Non-ferrous Metals



▲ Viscosity @ 100°C



Base Number



Certificate L2367

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

Sample No. : GFL0079627

Lab Number : 06100005

Unique Number : 10898235

Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

Received : 26 Feb 2024

Tested : 28 Feb 2024

Diagnosed : 28 Feb 2024 - Wes Davis

GFL Environmental - 017 - Durham

148 Stone Park Court

Durham, NC

US 27703

Contact:

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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)