



WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
931016
 Component
Natural Gas Engine
 Fluid
PETRO CANADA DURON GEO LD 15W40 (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. 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		GFL0095980	GFL0096054	GFL0095999
Sample Date		Client Info		30 May 2024	21 May 2024	29 Jan 2024
Machine Age	hrs	Client Info		9925	9842	9000
Oil Age	hrs	Client Info		600	600	600
Filter Age	hrs	Client Info		600	600	600
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ATTENTION	NORMAL

WEAR

The lead level is abnormal. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	21	21	15
Chromium	ppm	ASTM D5185m	>4	2	<1	1
Nickel	ppm	ASTM D5185m	>2	0	<1	<1
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>9	4	2	4
Lead	ppm	ASTM D5185m	>30	▲ 30	2	18
Copper	ppm	ASTM D5185m	>35	7	6	3
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.

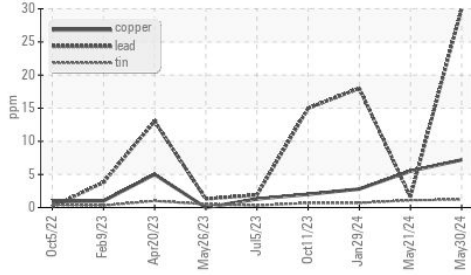
Silicon	ppm	ASTM D5185m	>+100	7	4	7
Potassium	ppm	ASTM D5185m	>20	<1	2	<1
Water		WC Method	>0.1	NEG	NEG	NEG
Soot %	%	*ASTM D7844		0.1	0.7	0.1
Nitration	Abs/cm	*ASTM D7624	>20	12.8	7.6	12.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	30.8	19.8	29.0
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	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	>0.1	NEG	NEG	NEG

FLUID CONDITION

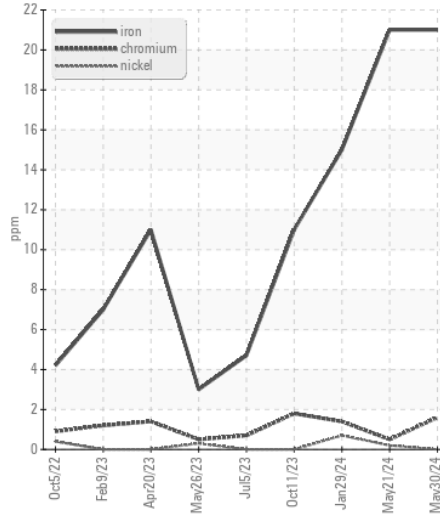
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		8	2	8
Boron	ppm	ASTM D5185m	50	15	27	13
Barium	ppm	ASTM D5185m	5	0	<1	0
Molybdenum	ppm	ASTM D5185m	50	62	48	59
Manganese	ppm	ASTM D5185m	0	1	<1	<1
Magnesium	ppm	ASTM D5185m	560	715	573	666
Calcium	ppm	ASTM D5185m	1510	1911	1317	1769
Phosphorus	ppm	ASTM D5185m	780	1046	885	900
Zinc	ppm	ASTM D5185m	870	1224	998	1170
Sulfur	ppm	ASTM D5185m	2040	3072	2834	2621
Oxidation	Abs/.1mm	*ASTM D7414	>25	28.0	15.7	25.6
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	2.9	8.0	2.5
Visc @ 100°C	cSt	ASTM D445	15.1	14.6	● 11.2	14.6

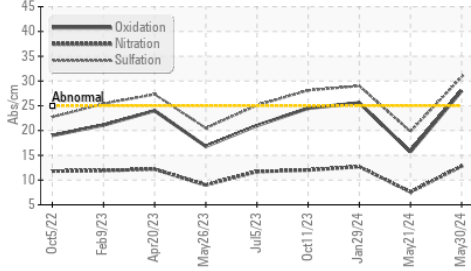
▲ Non-ferrous Metals



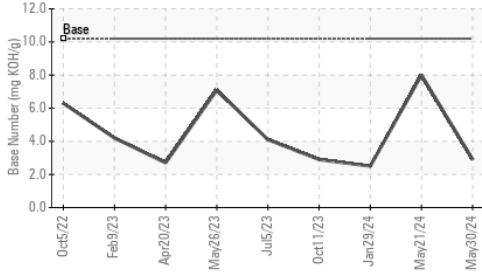
Ferrous Alloys



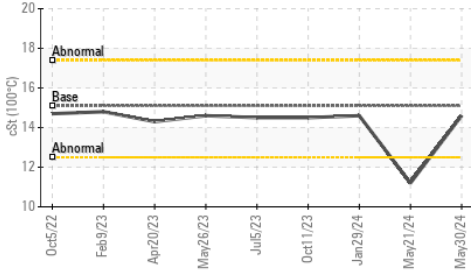
FT-IR (Direct Trend)



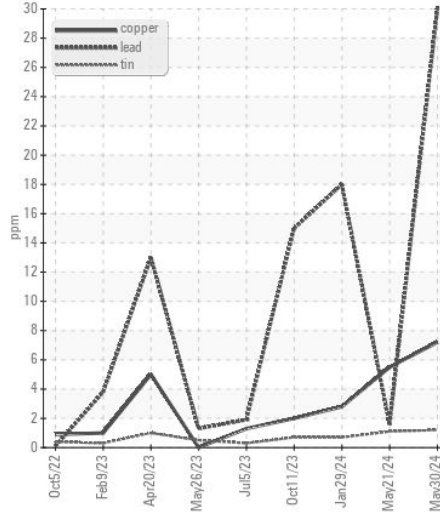
Base Number



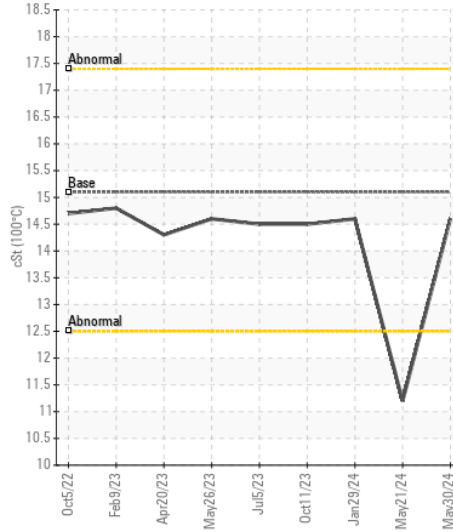
Viscosity @ 100°C



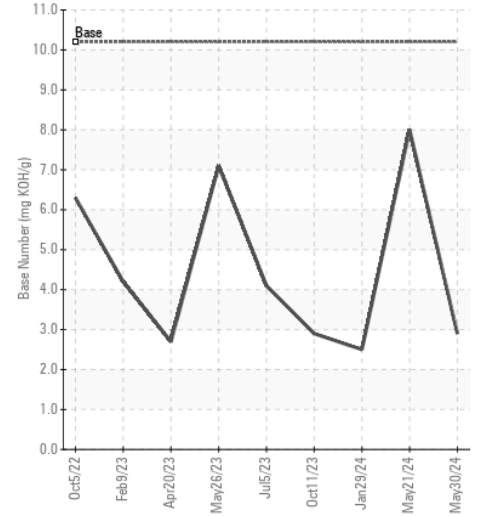
▲ Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

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

Sample No. : GFL0095980

Lab Number : 06196450

Unique Number : 11058573

Test Package : FLEET

Received : 31 May 2024

Tested : 03 Jun 2024

Diagnosed : 03 Jun 2024 - Don Baldrige

GFL Environmental - 883 - Orange City

1378 South Volusia Ave

Orange City, FL

US 32763

Contact: JEFF COOPERSMITH

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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)