



WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Area

(P830962)

Machine Id

932001

Component

Diesel Engine

Fluid

PETRO CANADA DURON GEO LD 15W40 (40 QTS)

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0117976</b>	GFL0117972	GFL0101778
Sample Date		Client Info		<b>09 May 2024</b>	09 May 2024	14 Feb 2024
Machine Age	hrs	Client Info		<b>6291</b>	5693	5693
Oil Age	hrs	Client Info		<b>600</b>	600	600
Filter Age	hrs	Client Info		<b>600</b>	600	600
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>165	<b>8</b>	8	5
Chromium	ppm	ASTM D5185m	>5	<b>1</b>	1	<1
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>3</b>	2	2
Lead	ppm	ASTM D5185m	>150	<b>10</b>	6	0
Copper	ppm	ASTM D5185m	>90	<b>3</b>	3	1
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

There is no indication of any contamination in the oil.

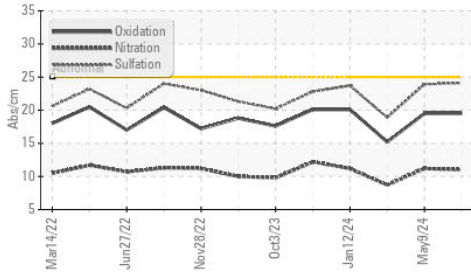
Silicon	ppm	ASTM D5185m	>35	<b>12</b>	11	6
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	3	1
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>7.5	<b>0</b>	0	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>11.0</b>	11.2	8.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>24.1</b>	23.9	18.9
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>LIGHT</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

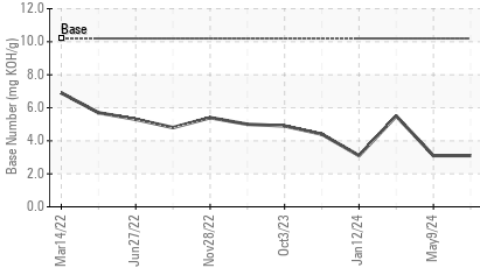
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>5</b>	5	6
Boron	ppm	ASTM D5185m	50	<b>4</b>	4	18
Barium	ppm	ASTM D5185m	5	<b>2</b>	2	0
Molybdenum	ppm	ASTM D5185m	50	<b>56</b>	56	48
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	560	<b>527</b>	519	515
Calcium	ppm	ASTM D5185m	1510	<b>1557</b>	1528	1436
Phosphorus	ppm	ASTM D5185m	780	<b>743</b>	711	668
Zinc	ppm	ASTM D5185m	870	<b>902</b>	887	874
Sulfur	ppm	ASTM D5185m	2040	<b>2563</b>	2463	2327
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>19.5</b>	19.5	15.2
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	<b>3.1</b>	3.1	5.5
Visc @ 100°C	cSt	ASTM D445	15.1	<b>12.9</b>	12.9	13.0

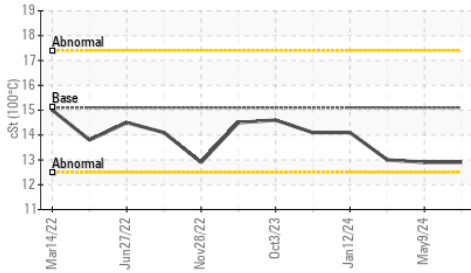
FT-IR (Direct Trend)



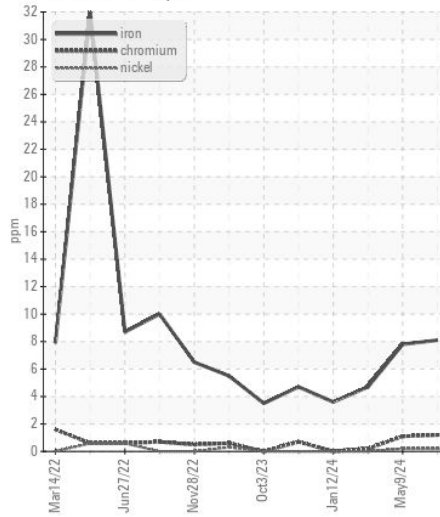
Base Number



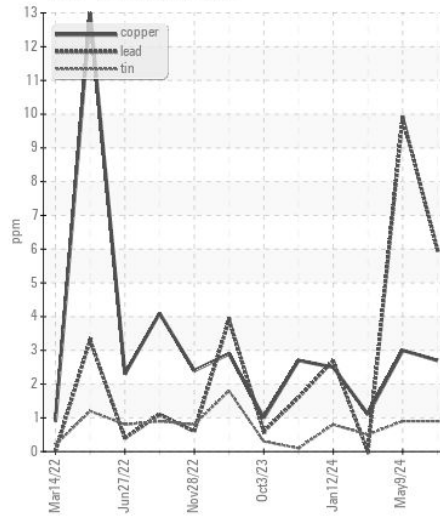
Viscosity @ 100°C



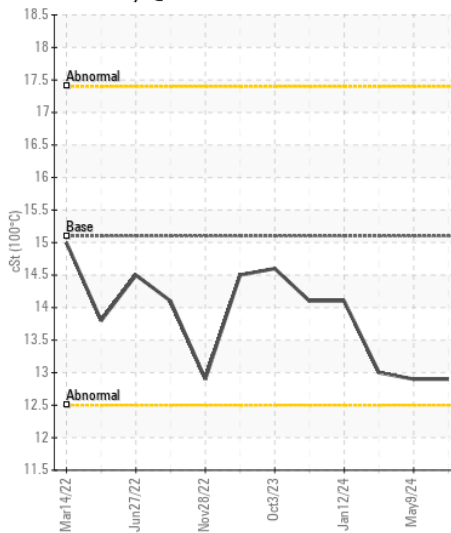
Ferrous Alloys



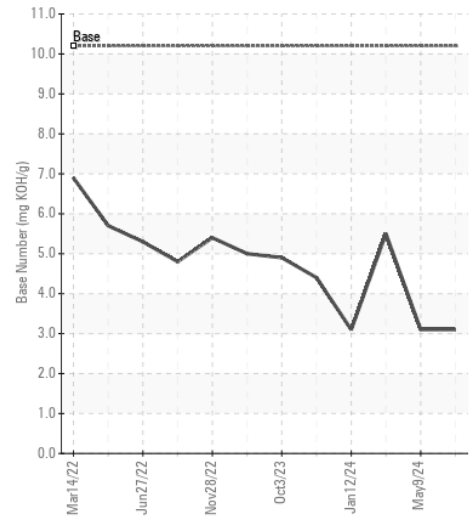
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : GFL0117976  
 Lab Number : 06176515  
 Unique Number : 11022568  
 Test Package : FLEET

Received : 10 May 2024  
 Tested : 13 May 2024  
 Diagnosed : 13 May 2024 - Wes Davis

GFL Environmental - 030 - Conway Myrtle Beach  
 3010 HWY 378  
 Conway, SC  
 US 29527  
 Contact: ARCILIO RUEZ  
 aruiz@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)

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F: