



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

Machine Id  
**127008-1101**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0054090</b>	GFL0054108	GFL0029256
Sample Date		Client Info		<b>25 Jun 2024</b>	07 Jun 2023	23 Sep 2021
Machine Age	hrs	Client Info		<b>10125</b>	8992	76853
Oil Age	hrs	Client Info		<b>673</b>	600	758
Filter Age	hrs	Client Info		<b>673</b>	600	758
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	>100	<b>42</b>	56	30
Chromium	ppm	ASTM D5185m	>20	<b>2</b>	2	2
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	1
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	<1
Aluminum	ppm	ASTM D5185m	>20	<b>4</b>	3	4
Lead	ppm	ASTM D5185m	>40	<b>18</b>	26	18
Copper	ppm	ASTM D5185m	>330	<b>3</b>	2	2
Tin	ppm	ASTM D5185m	>15	<b>2</b>	3	2
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	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.

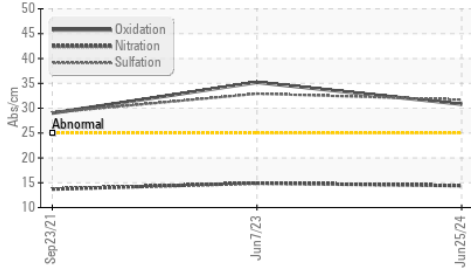
Silicon	ppm	ASTM D5185m	>25	<b>8</b>	7	6
Potassium	ppm	ASTM D5185m	>20	<b>8</b>	7	13
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.9</b>	0.8	0.7
Nitration	Abs/cm	*ASTM D7624	>20	<b>14.4</b>	14.9	13.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>31.7</b>	32.9	29.1
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</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**

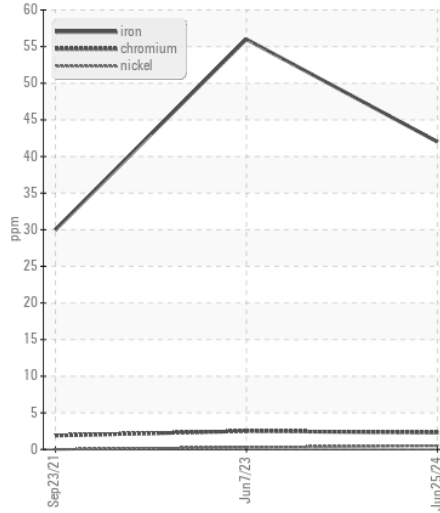
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>3</b>	2	6
Boron	ppm	ASTM D5185m	0	<b>8</b>	4	10
Barium	ppm	ASTM D5185m	0	<b>0</b>	2	0
Molybdenum	ppm	ASTM D5185m	60	<b>84</b>	94	75
Manganese	ppm	ASTM D5185m	0	<b>1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>1234</b>	1322	1131
Calcium	ppm	ASTM D5185m	1070	<b>1760</b>	1565	1382
Phosphorus	ppm	ASTM D5185m	1150	<b>1458</b>	1433	1214
Zinc	ppm	ASTM D5185m	1270	<b>1819</b>	1745	1472
Sulfur	ppm	ASTM D5185m	2060	<b>4090</b>	3703	2716
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>30.8</b>	35.2	29
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>5.9</b>	4.8	5.3
Visc @ 100°C	cSt	ASTM D445	15.4	<b>15.9</b>	16.0	15.3

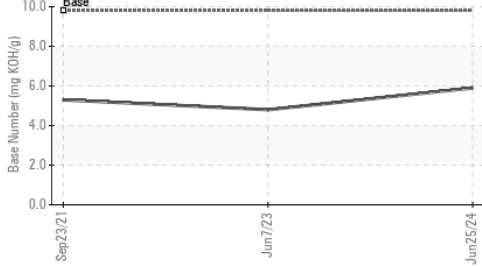
FT-IR (Direct Trend)



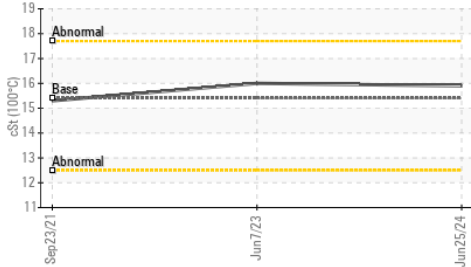
Ferrous Alloys



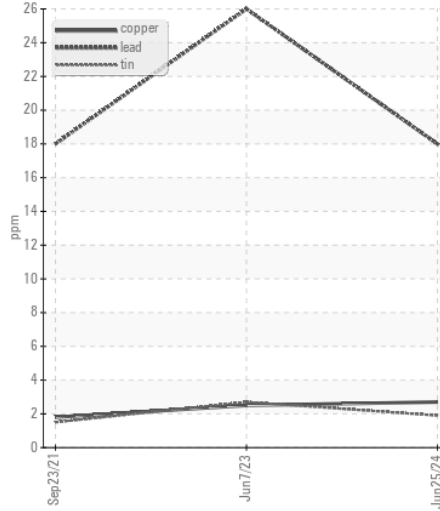
Base Number



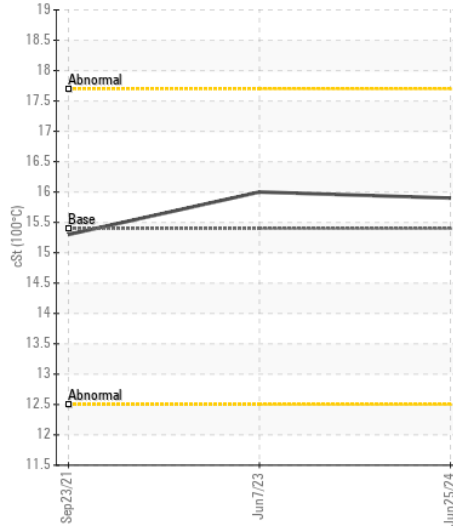
Viscosity @ 100°C



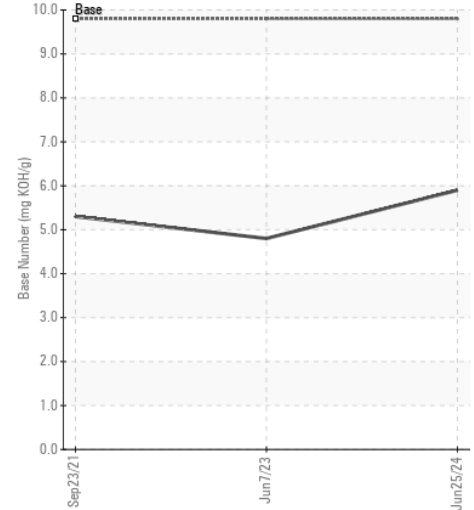
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : GFL0054090  
 Lab Number : 06222957  
 Unique Number : 11101154  
 Test Package : FLEET  
 Received : 27 Jun 2024  
 Tested : 28 Jun 2024  
 Diagnosed : 30 Jun 2024 - Don Baldrige

GFL Environmental - 630 - Northern A1 PA  
 117 Moonlite Dr  
 Smithfield, PA  
 US 15478  
 Contact: MIKE NEWMAN  
 miken@northerna1.com  
 T: (231)564-2362  
 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)