



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

Area  
**(87J4TW)**  
Machine Id  
**726037-310027**  
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>GFL0124051</b>	GFL0120237	GFL0117244
Sample Date		Client Info		<b>25 Jun 2024</b>	31 May 2024	02 May 2024
Machine Age	hrs	Client Info		<b>15892</b>	15737	15600
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Sample Status				<b>NORMAL</b>	ATTENTION	ABNORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>3</b>	3	17
Chromium	ppm	ASTM D5185m	>20	<b>0</b>	0	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>1</b>	4	11
Lead	ppm	ASTM D5185m	>40	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	2	9
Tin	ppm	ASTM D5185m	>15	<b>0</b>	0	0
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.

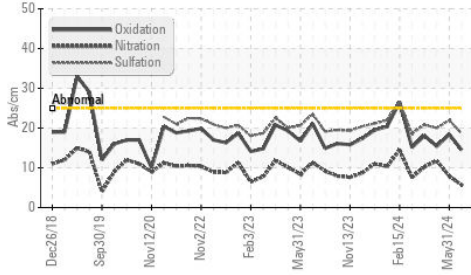
Silicon	ppm	ASTM D5185m	>25	<b>6</b>	0	17
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	1	▲ 16
Fuel		WC Method	>5	<b>&lt;1.0</b>	0.5	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.1</b>	0.1	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>5.7</b>	7.9	11.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.6</b>	22.0	20.0
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**

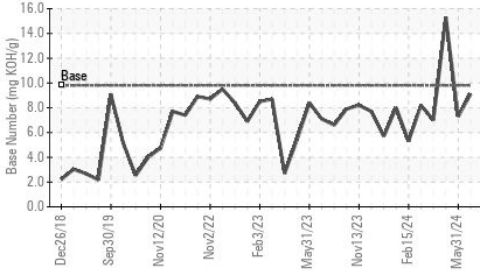
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>3</b>	<1	▲ 1747
Boron	ppm	ASTM D5185m	0	<b>38</b>	53	57
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>52</b>	0	120
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>698</b>	800	907
Calcium	ppm	ASTM D5185m	1070	<b>1635</b>	1199	1012
Phosphorus	ppm	ASTM D5185m	1150	<b>940</b>	710	1018
Zinc	ppm	ASTM D5185m	1270	<b>1114</b>	807	1218
Sulfur	ppm	ASTM D5185m	2060	<b>3329</b>	2485	3515
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.5</b>	18.4	15.4
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>9.1</b>	7.3	15.3
Visc @ 100°C	cSt	ASTM D445	15.4	<b>14.2</b>	● 12.0	15.7

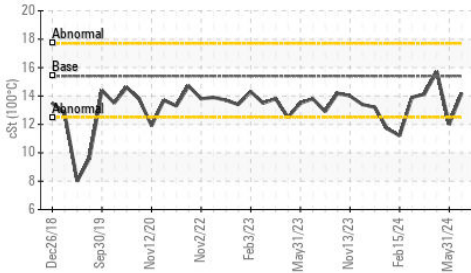
**FT-IR (Direct Trend)**



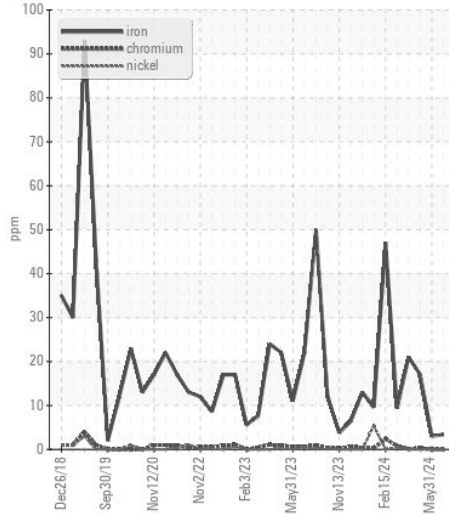
**Base Number**



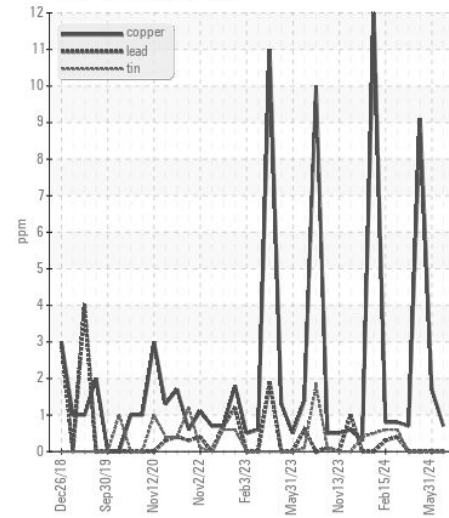
**Viscosity @ 100°C**



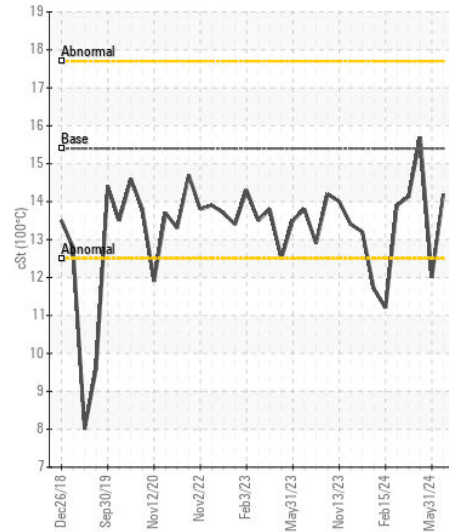
**Ferrous Alloys**



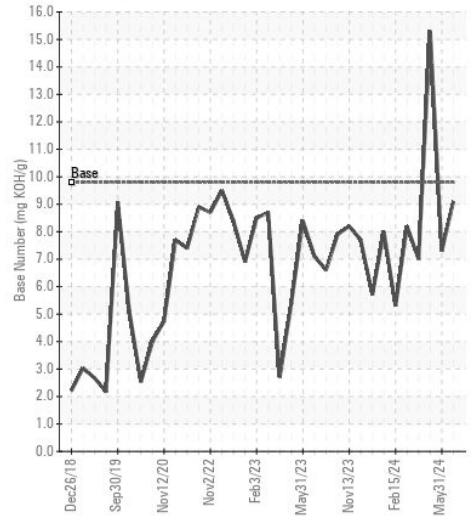
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0124051  
**Lab Number** : 06223208  
**Unique Number** : 11101405  
**Test Package** : FLEET

**Received** : 28 Jun 2024  
**Tested** : 28 Jun 2024  
**Diagnosed** : 30 Jun 2024 - Don Baldrige

**GFL Environmental - 836 - Kansas City Hauling**  
 7801 East Truman Road  
 Kansas City, MO  
 US 64126  
 Contact: Loyce Stewart  
 loyce.stewart@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)

T:  
F: