



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

Machine Id  
**427192**  
 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>GFL0128741</b>	GFL0123522	GFL0112040
Sample Date		Client Info		<b>13 Jul 2024</b>	20 Jun 2024	11 Apr 2024
Machine Age	mls	Client Info		<b>355324</b>	355324	348854
Oil Age	mls	Client Info		<b>355324</b>	355324	348854
Filter Age	mls	Client Info		<b>0</b>	0	348854
Oil Changed		Client Info		<b>Not Changd</b>	Changed	N/A
Filter Changed		Client Info		<b>Not Changd</b>	Changed	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>4</b>	9	16
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<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>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>4</b>	3	<1
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	<1	1
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
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.

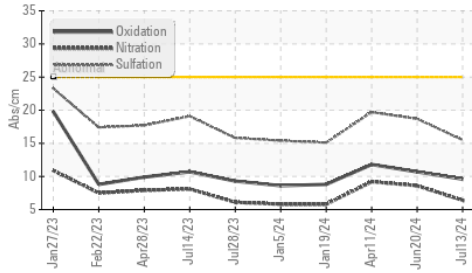
Silicon	ppm	ASTM D5185m	>25	<b>4</b>	11	14
Potassium	ppm	ASTM D5185m	>20	<b>5</b>	8	7
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.1</b>	0.3	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.4</b>	8.6	9.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>15.5</b>	18.7	19.7
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**

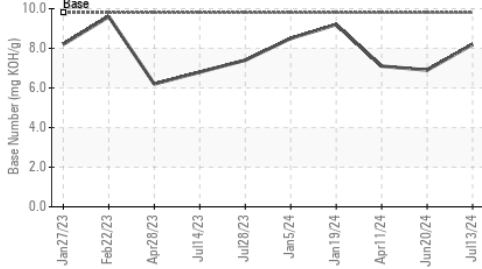
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>0</b>	3	3
Boron	ppm	ASTM D5185m	0	<b>0</b>	1	0
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>38</b>	49	55
Manganese	ppm	ASTM D5185m	0	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>8</b>	10	8
Calcium	ppm	ASTM D5185m	1070	<b>2690</b>	2476	2683
Phosphorus	ppm	ASTM D5185m	1150	<b>981</b>	1054	1103
Zinc	ppm	ASTM D5185m	1270	<b>1128</b>	1271	1377
Sulfur	ppm	ASTM D5185m	2060	<b>2805</b>	3519	3815
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>9.6</b>	10.7	11.8
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.2</b>	6.9	7.1
Visc @ 100°C	cSt	ASTM D445	15.4	<b>14.1</b>	13.5	12.9

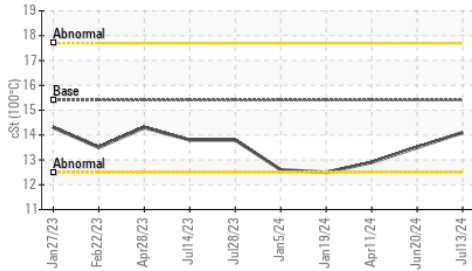
**FT-IR (Direct Trend)**



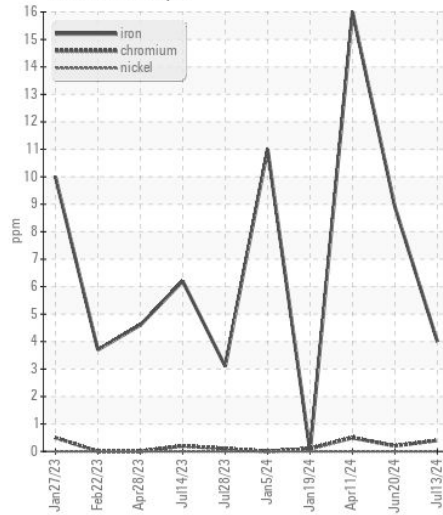
**Base Number**



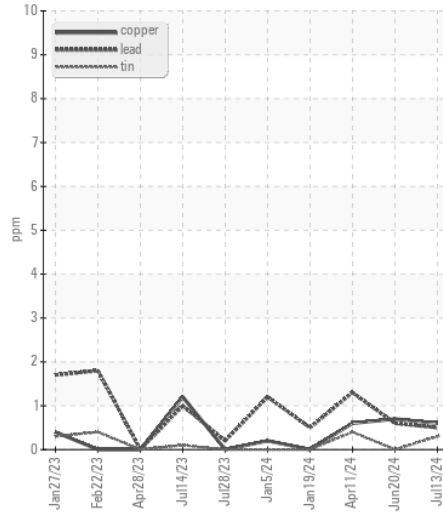
**Viscosity @ 100°C**



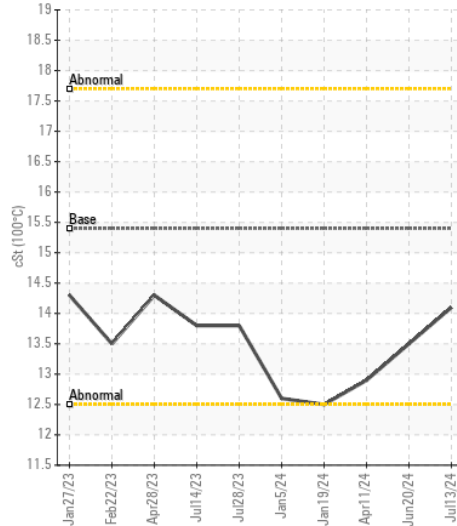
**Ferrous Alloys**



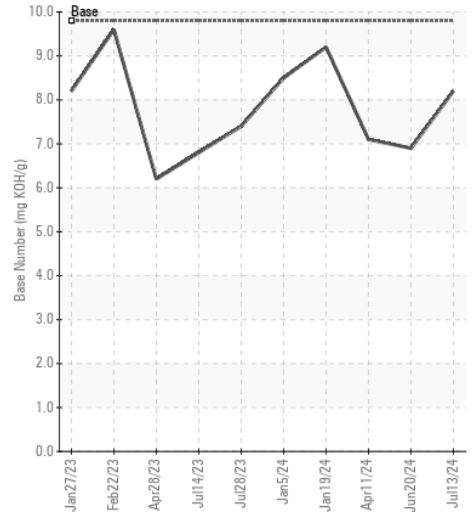
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

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

**Sample No.** : GFL0128741

**Lab Number** : 06239865

**Unique Number** : 11128699

**Test Package** : FLEET

**Received** : 18 Jul 2024

**Tested** : 18 Jul 2024

**Diagnosed** : 19 Jul 2024 - Don Baldrige

**GFL Environmental - 983 - Sugar Land Hauling**

16011 West Belfort Street

Sugar Land, TX

US 77498

Contact: TECHNICIAN ACCOUNT

wcgfldemo@gmail.com

T:

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)