



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



Machine Id  
**413005**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (12 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0125838</b>	GFL0118669	GFL0118708
Sample Date		Client Info		<b>28 Jun 2024</b>	24 May 2024	01 May 2024
Machine Age	hrs	Client Info		<b>3681</b>	3477	47838
Oil Age	hrs	Client Info		<b>598</b>	200	600
Filter Age	hrs	Client Info		<b>598</b>	200	600
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>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	<b>3</b>	11	7
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	2	<1
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	2	2
Lead	ppm	ASTM D5185m	>40	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	3	2
Tin	ppm	ASTM D5185m	>15	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</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.

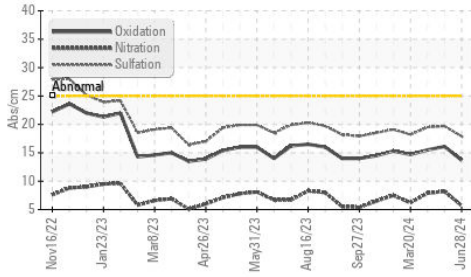
Silicon	ppm	ASTM D5185m	>25	<b>3</b>	6	4
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	6	4
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>4	<b>0.2</b>	0.4	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>5.7</b>	8.2	7.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>17.9</b>	19.7	19.5
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**

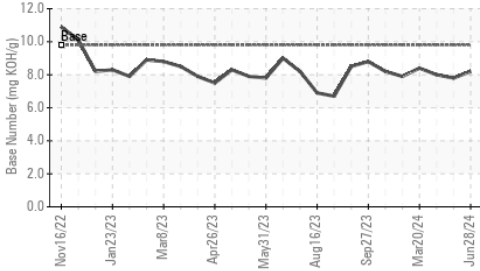
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>2</b>	3	3
Boron	ppm	ASTM D5185m	0	<b>2</b>	0	1
Barium	ppm	ASTM D5185m	0	<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185m	60	<b>56</b>	65	59
Manganese	ppm	ASTM D5185m	0	<b>0</b>	<1	1
Magnesium	ppm	ASTM D5185m	1010	<b>884</b>	975	960
Calcium	ppm	ASTM D5185m	1070	<b>999</b>	1090	1052
Phosphorus	ppm	ASTM D5185m	1150	<b>961</b>	1011	1043
Zinc	ppm	ASTM D5185m	1270	<b>1157</b>	1202	1261
Sulfur	ppm	ASTM D5185m	2060	<b>2695</b>	2838	3438
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.7</b>	16.1	15.5
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.2</b>	7.8	8.0
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.6</b>	13.6	13.8

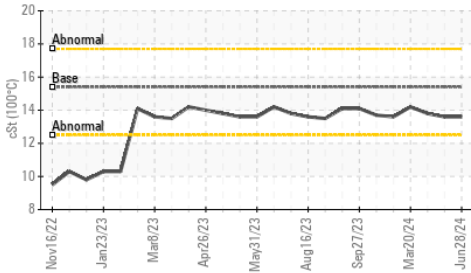
**FT-IR (Direct Trend)**



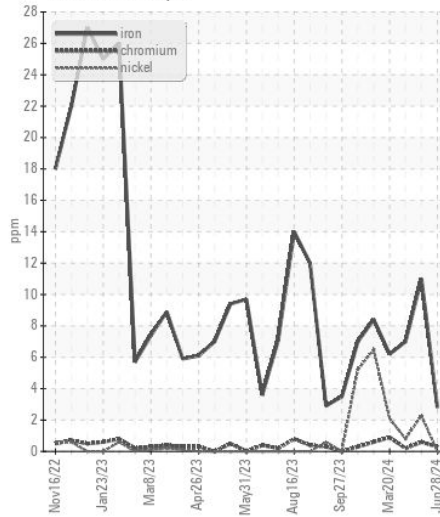
**Base Number**



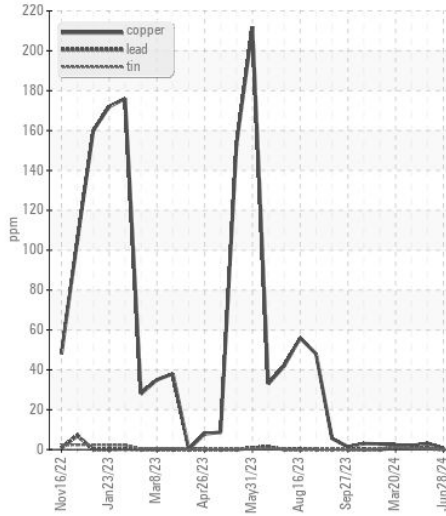
**Viscosity @ 100°C**



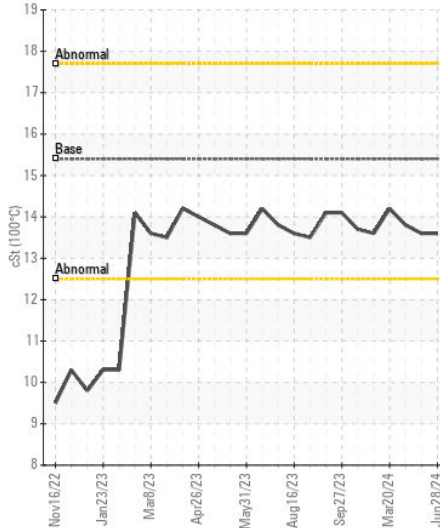
**Ferrous Alloys**



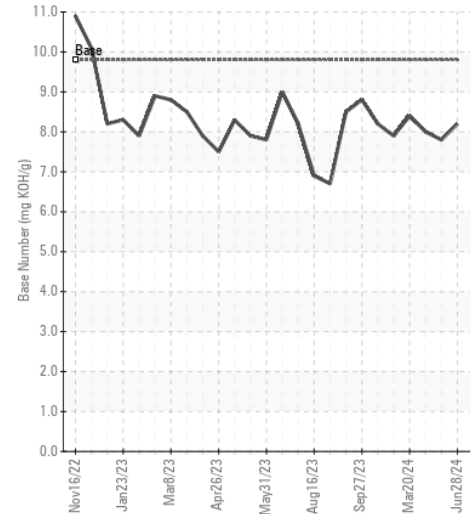
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0125838  
**Lab Number** : 06227036  
**Unique Number** : 11110529  
**Test Package** : FLEET

**Received** : 03 Jul 2024  
**Tested** : 03 Jul 2024  
**Diagnosed** : 03 Jul 2024 - Wes Davis

**GFL Environmental - 166 - Phenix City**  
 18 Old Brickyard Rd  
 Phenix City, AL  
 US 36869  
 Contact: DEAN PEACE JR  
 dean.peace@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: