



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

Area

**(P638403)**

Machine Id

**10811**

Component

**Diesel Engine**

Fluid

**PETRO CANADA DURON SHP 15W40 (11 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0124436</b>	GFL0096904	GFL0096942
Sample Date		Client Info		<b>09 Jul 2024</b>	16 May 2024	29 Jan 2024
Machine Age	hrs	Client Info		<b>16169</b>	15822	15119
Oil Age	hrs	Client Info		<b>15600</b>	14426	693
Filter Age	hrs	Client Info		<b>15600</b>	14426	0
Oil Changed		Client Info		<b>Changed</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Changed</b>	Not Changd	Not Changd
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>75	<b>12</b>	6	<1
Chromium	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	0
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>15	<b>3</b>	2	1
Lead	ppm	ASTM D5185m	>25	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m	>100	<b>1</b>	0	0
Tin	ppm	ASTM D5185m	>4	<b>0</b>	<1	<1
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.

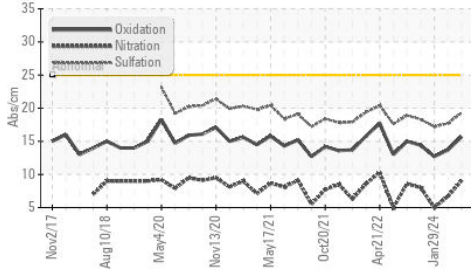
Silicon	ppm	ASTM D5185m	>25	<b>7</b>	7	2
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	<1	<1
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>6	<b>0.4</b>	0.2	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.1</b>	6.7	5.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.3</b>	17.7	17.2
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**

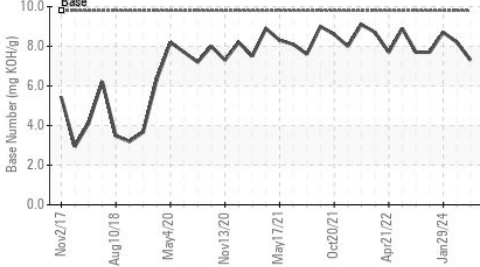
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>4</b>	2	<1
Boron	ppm	ASTM D5185m	0	<b>3</b>	9	10
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185m	60	<b>66</b>	66	56
Manganese	ppm	ASTM D5185m	0	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>918</b>	949	844
Calcium	ppm	ASTM D5185m	1070	<b>1118</b>	1029	950
Phosphorus	ppm	ASTM D5185m	1150	<b>1072</b>	1066	983
Zinc	ppm	ASTM D5185m	1270	<b>1251</b>	1228	1129
Sulfur	ppm	ASTM D5185m	2060	<b>2749</b>	3529	2852
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.7</b>	13.7	12.7
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>7.3</b>	8.2	8.7
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.2</b>	13.5	13.4

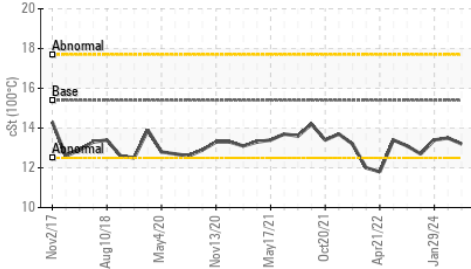
**FT-IR (Direct Trend)**



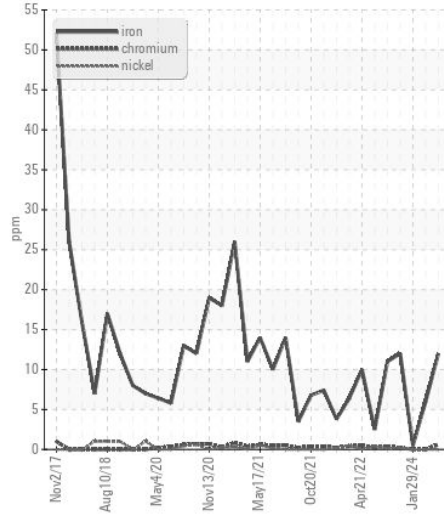
**Base Number**



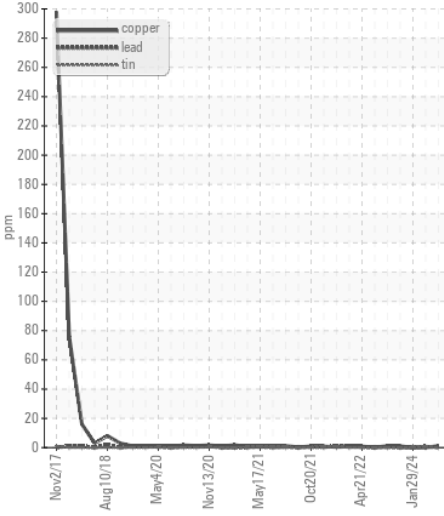
**Viscosity @ 100°C**



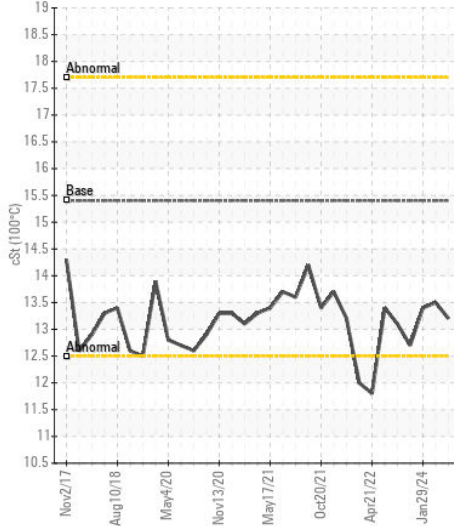
**Ferrous Alloys**



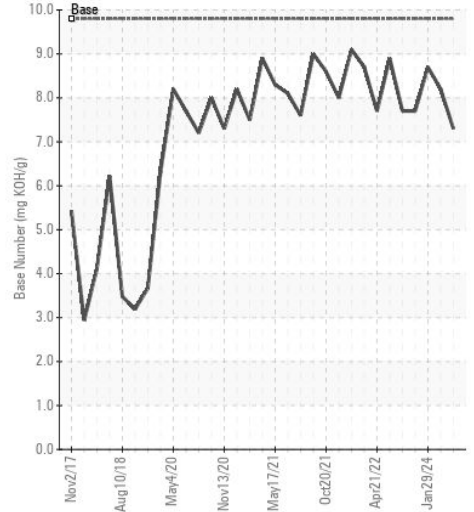
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0124436  
**Lab Number** : 06234687  
**Unique Number** : 11123521  
**Test Package** : FLEET

**Received** : 12 Jul 2024  
**Tested** : 15 Jul 2024  
**Diagnosed** : 15 Jul 2024 - Wes Davis

**GFL Environmental - 031 - Greenville/Spartanburg**  
 1635 Antioch Church Rd  
 Piedmont, SC  
 US 29673  
 Contact: TECHNICIAN ACCOUNT  
 catherine.anastasio@wearcheck.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: