



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

Machine Id  
**427111-400**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- LTR)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0108510</b>	GFL0108481	GFL0108519
Sample Date		Client Info		<b>06 May 2024</b>	11 Mar 2024	02 Jan 2024
Machine Age	hrs	Client Info		<b>0</b>	0	0
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>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>80	<b>8</b>	15	17
Chromium	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>30	<b>9</b>	10	10
Lead	ppm	ASTM D5185m	>30	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>150	<b>&lt;1</b>	2	3
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	0
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.

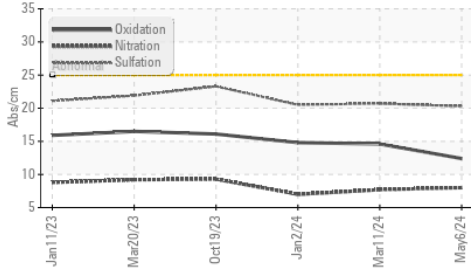
Silicon	ppm	ASTM D5185m	>20	<b>4</b>	3	5
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	0	3
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>1.2</b>	1.3	1.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.0</b>	7.7	7.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.3</b>	20.7	20.5
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**

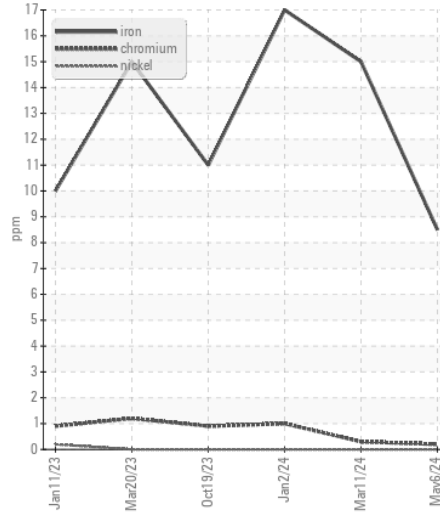
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Boron	ppm	ASTM D5185m	0	<b>8</b>	4	0
Barium	ppm	ASTM D5185m	0	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>23</b>	57	58
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	0	0
Magnesium	ppm	ASTM D5185m	1010	<b>331</b>	982	959
Calcium	ppm	ASTM D5185m	1070	<b>2020</b>	1122	1083
Phosphorus	ppm	ASTM D5185m	1150	<b>1010</b>	977	1032
Zinc	ppm	ASTM D5185m	1270	<b>1169</b>	1230	1209
Sulfur	ppm	ASTM D5185m	2060	<b>3803</b>	3339	3252
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>12.4</b>	14.6	14.8
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>7.2</b>	8.6	8.9
Visc @ 100°C	cSt	ASTM D445	15.4	<b>15.3</b>	14.8	14.8

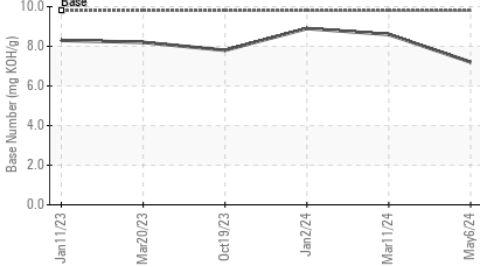
**FT-IR (Direct Trend)**



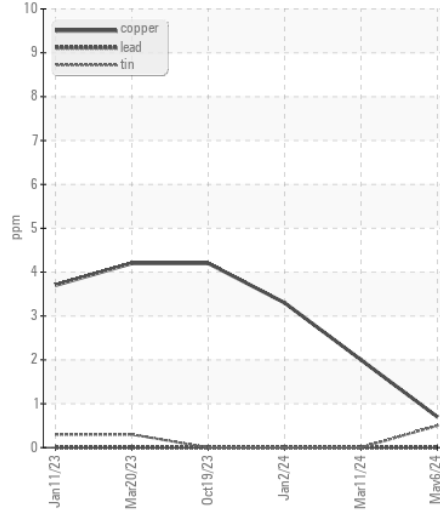
**Ferrous Alloys**



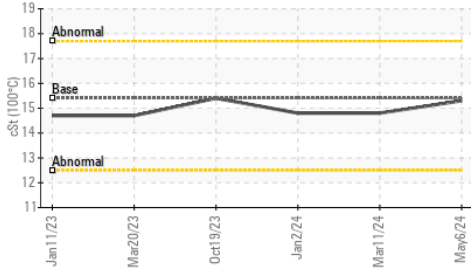
**Base Number**



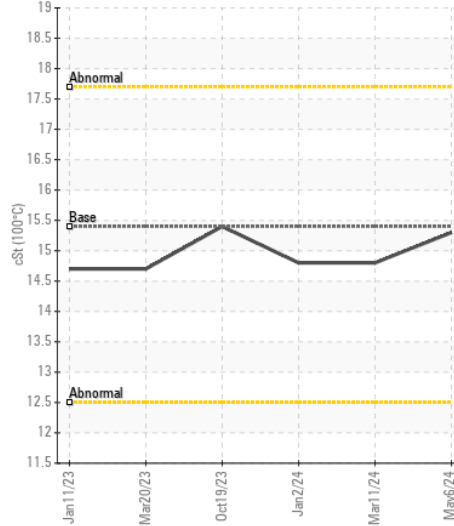
**Non-ferrous Metals**



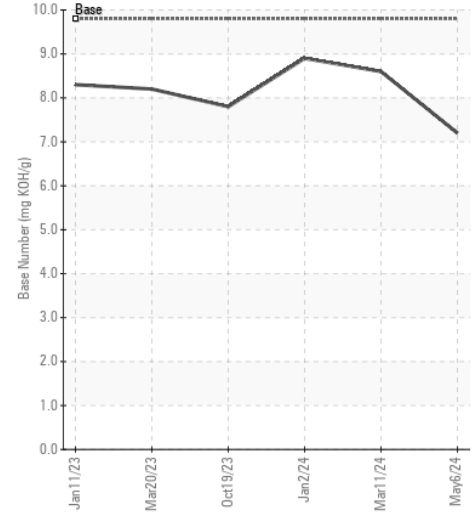
**Viscosity @ 100°C**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0108510  
**Lab Number** : 06178386  
**Unique Number** : 11029712  
**Test Package** : FLEET

**Received** : 14 May 2024  
**Tested** : 15 May 2024  
**Diagnosed** : 16 May 2024 - Sean Felton

**GFL Environmental - 904 - Chippewa Falls HC**  
 11888 & 11863 30th Avenue  
 Chippewa Falls, WI  
 US 54729  
 Contact: Andy Kane

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: (715)202-3420

F: