



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

Machine Id  
**429053-402458**  
 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>GFL0114631</b>	GFL0092556	GFL0081521
Sample Date		Client Info		<b>22 Apr 2024</b>	23 Oct 2023	29 Jun 2023
Machine Age	hrs	Client Info		<b>13884</b>	12662	11867
Oil Age	hrs	Client Info		<b>600</b>	600	600
Filter Age	hrs	Client Info		<b>600</b>	600	600
Oil Changed		Client Info		<b>Changed</b>	Changed	Not Changd
Filter Changed		Client Info		<b>Changed</b>	Changed	Not Changd
Sample Status				<b>NORMAL</b>	ATTENTION	SEVERE

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>110	<b>4</b>	2	21
Chromium	ppm	ASTM D5185m	>4	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	<1	1
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>&lt;1</b>	2	<1
Lead	ppm	ASTM D5185m	>45	<b>0</b>	2	13
Copper	ppm	ASTM D5185m	>85	<b>2</b>	13	▲ 113
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</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.

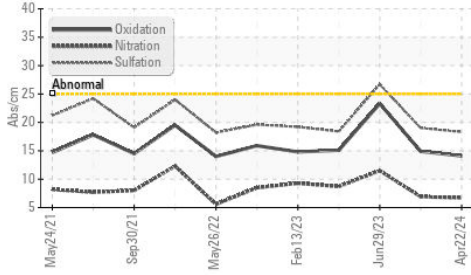
Silicon	ppm	ASTM D5185m	>30	<b>4</b>	6	14
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	● 55	▲ 1445
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	▲ 0.20
Soot %	%	*ASTM D7844	>3	<b>0.2</b>	0.2	0.7
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.7</b>	6.9	11.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.3</b>	19.0	26.7
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**

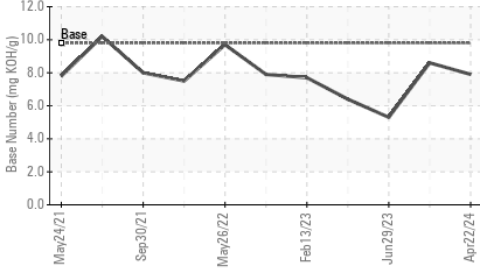
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>6</b>	● 55	▲ 1542
Boron	ppm	ASTM D5185m	0	<b>1</b>	2	9
Barium	ppm	ASTM D5185m	0	<b>0</b>	10	0
Molybdenum	ppm	ASTM D5185m	60	<b>55</b>	71	307
Manganese	ppm	ASTM D5185m	0	<b>0</b>	0	2
Magnesium	ppm	ASTM D5185m	1010	<b>867</b>	868	673
Calcium	ppm	ASTM D5185m	1070	<b>1146</b>	1110	1047
Phosphorus	ppm	ASTM D5185m	1150	<b>1057</b>	919	856
Zinc	ppm	ASTM D5185m	1270	<b>1246</b>	1220	1060
Sulfur	ppm	ASTM D5185m	2060	<b>3415</b>	3250	2888
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.1</b>	14.9	23.3
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>7.9</b>	8.6	5.3
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.8</b>	14.0	14.3

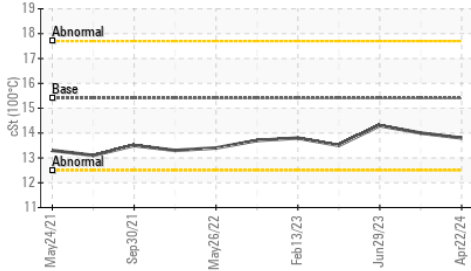
**FT-IR (Direct Trend)**



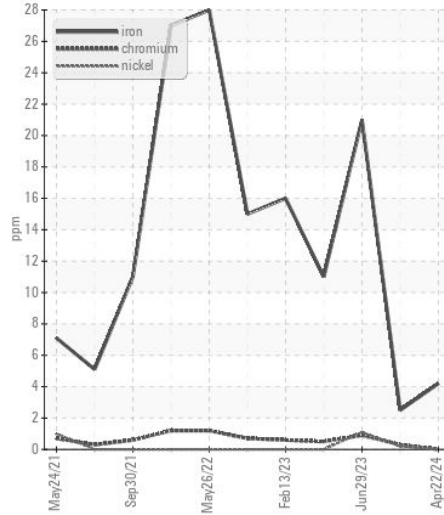
**Base Number**



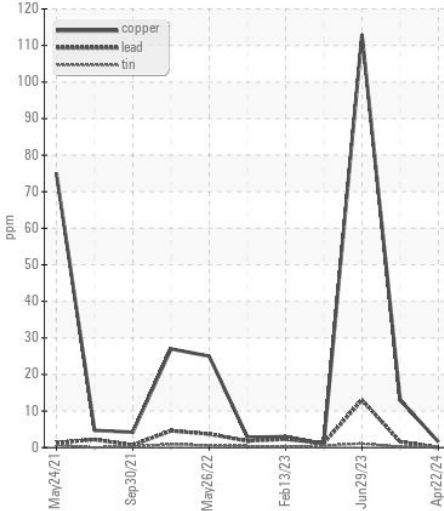
**Viscosity @ 100°C**



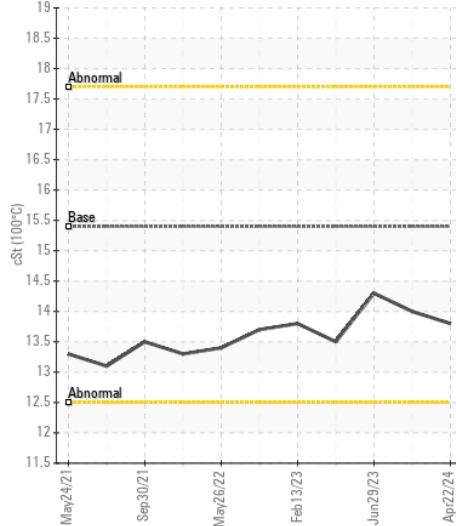
**Ferrous Alloys**



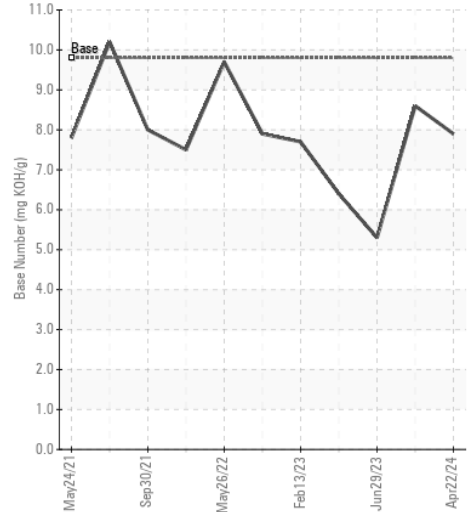
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

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

**Sample No.** : GFL0114631

**Lab Number** : 06160165

**Unique Number** : 10995588

**Test Package** : FLEET

**Received** : 25 Apr 2024

**Tested** : 29 Apr 2024

**Diagnosed** : 29 Apr 2024 - Wes Davis

**GFL Environmental - 885 - Orlando**

1263 W Landstreet Rd

Orlando, FL

US 32824

Contact: Brian Bou Diaz

bboudiaz@gflenv.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)