



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



Machine Id  
**728054-10**  
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>GFL0070921</b>	GFL0058088	GFL0100166
Sample Date		Client Info		<b>23 May 2024</b>	20 Feb 2024	27 Nov 2023
Machine Age	hrs	Client Info		<b>13440</b>	12622	12622
Oil Age	hrs	Client Info		<b>276</b>	12622	44
Filter Age	hrs	Client Info		<b>276</b>	645	44
Oil Changed		Client Info		<b>Not Chngd</b>	Changed	Changed
Filter Changed		Client Info		<b>Not Chngd</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	ABNORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>80	<b>26</b>	▲ 125	33
Chromium	ppm	ASTM D5185m	>5	<b>&lt;1</b>	2	<1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>30	<b>4</b>	4	2
Lead	ppm	ASTM D5185m	>30	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185m	>150	<b>1</b>	4	2
Tin	ppm	ASTM D5185m	>5	<b>0</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.

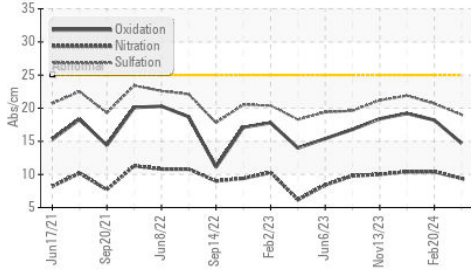
Silicon	ppm	ASTM D5185m	>20	<b>12</b>	10	7
Potassium	ppm	ASTM D5185m	>20	<b>4</b>	7	<1
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.3</b>	0.7	0.8
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.4</b>	10.4	10.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.0</b>	20.7	21.9
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**

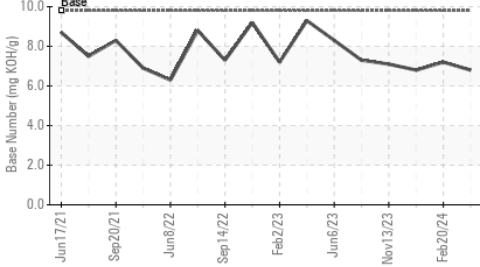
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>6</b>	5	9
Boron	ppm	ASTM D5185m	0	<b>58</b>	3	2
Barium	ppm	ASTM D5185m	0	<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185m	60	<b>72</b>	78	60
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>219</b>	1211	955
Calcium	ppm	ASTM D5185m	1070	<b>2078</b>	1254	1075
Phosphorus	ppm	ASTM D5185m	1150	<b>1044</b>	1148	1049
Zinc	ppm	ASTM D5185m	1270	<b>1240</b>	1574	1268
Sulfur	ppm	ASTM D5185m	2060	<b>4168</b>	3734	2835
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.7</b>	18.2	19.2
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>6.8</b>	7.2	6.8
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.8</b>	13.2	13.7

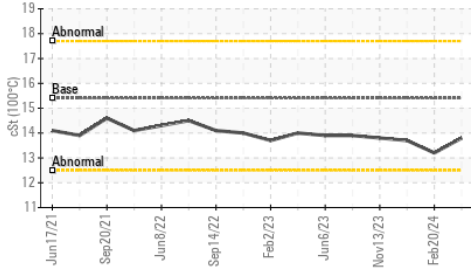
**FT-IR (Direct Trend)**



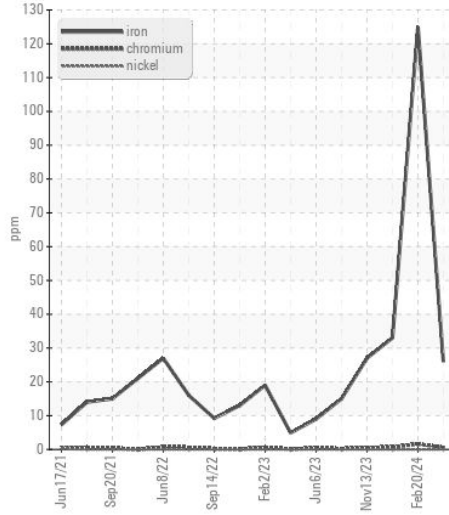
**Base Number**



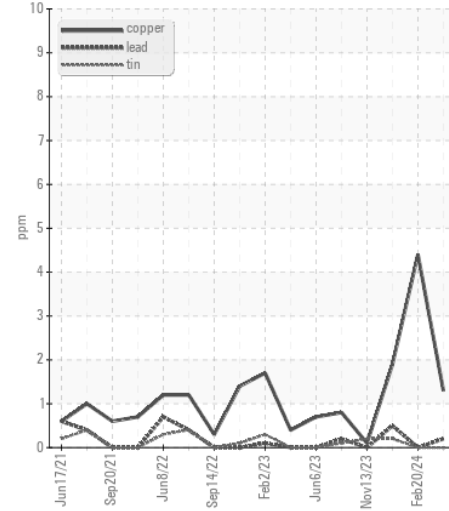
**Viscosity @ 100°C**



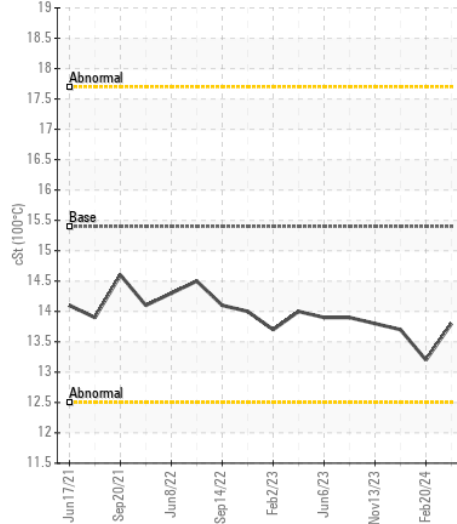
**Ferrous Alloys**



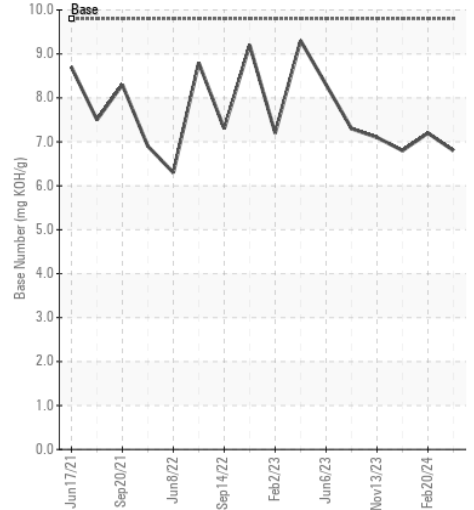
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0070921  
**Lab Number** : 06191504  
**Unique Number** : 11048256  
**Test Package** : FLEET

**Received** : 24 May 2024  
**Tested** : 29 May 2024  
**Diagnosed** : 29 May 2024 - Angela Borella

**GFL Environmental - 657 - Charlottesville Hauling**  
 5498 Richmond Road  
 Troy, VA  
 US 22974  
 Contact: Brian Ulickas  
 bulickas@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: