



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



Area  
**(74789V)**  
Machine Id  
**411043**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0118491</b>	GFL0104990	GFL0104996
Sample Date		Client Info		<b>04 Apr 2024</b>	02 Feb 2024	09 Jan 2024
Machine Age	hrs	Client Info		<b>0</b>	6396	6259
Oil Age	hrs	Client Info		<b>0</b>	0	650
Filter Age	hrs	Client Info		<b>0</b>	0	650
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Changed
Filter Changed		Client Info		<b>Not Changd</b>	Not Changd	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	<b>15</b>	2	16
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	1	0
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>20	<b>5</b>	3	2
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	1	<1
Copper	ppm	ASTM D5185m	>330	<b>2</b>	2	<1
Tin	ppm	ASTM D5185m	>15	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	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.

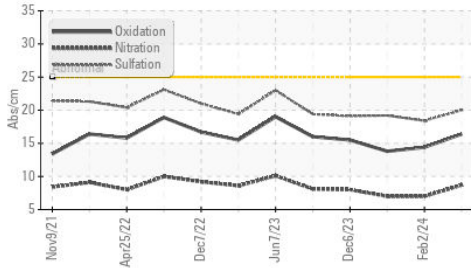
Silicon	ppm	ASTM D5185m	>25	<b>13</b>	3	3
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	4	33
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>4	<b>0.3</b>	0.2	0.9
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.7</b>	7.0	7.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.0</b>	18.4	19.2
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**

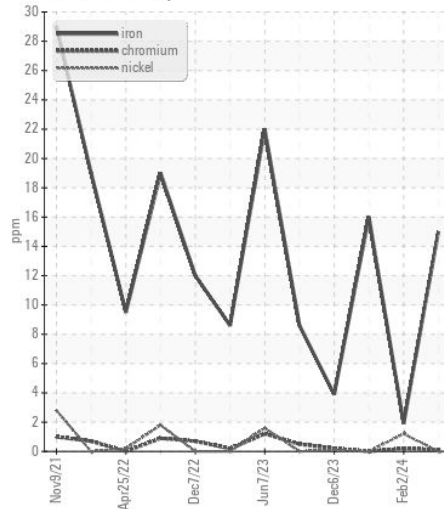
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>6</b>	4	31
Boron	ppm	ASTM D5185m	0	<b>0</b>	1	<1
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>61</b>	59	60
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m	1010	<b>939</b>	911	935
Calcium	ppm	ASTM D5185m	1070	<b>1081</b>	1004	1004
Phosphorus	ppm	ASTM D5185m	1150	<b>941</b>	981	962
Zinc	ppm	ASTM D5185m	1270	<b>1125</b>	1211	1252
Sulfur	ppm	ASTM D5185m	2060	<b>2936</b>	2929	2916
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.4</b>	14.4	13.8
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>7.2</b>	7.5	8.9
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.7</b>	13.8	13.6

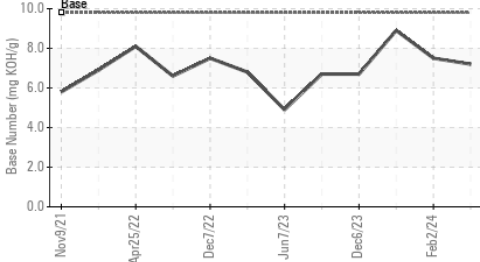
**FT-IR (Direct Trend)**



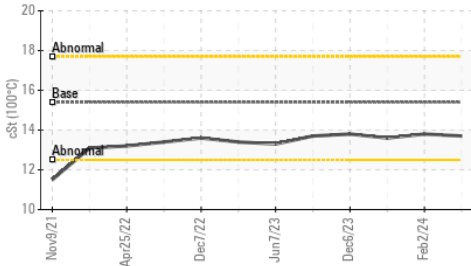
**Ferrous Alloys**



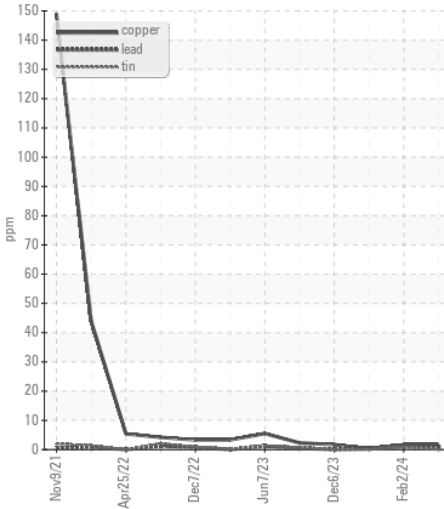
**Base Number**



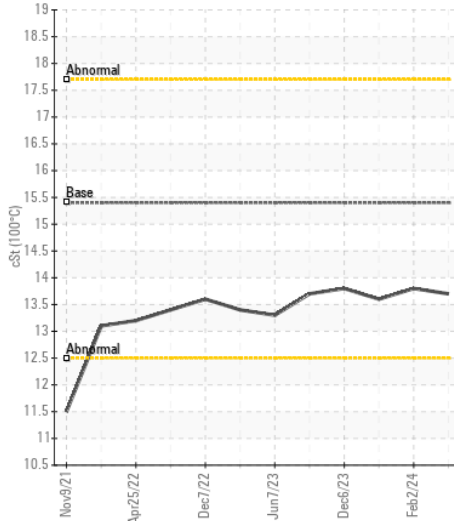
**Viscosity @ 100°C**



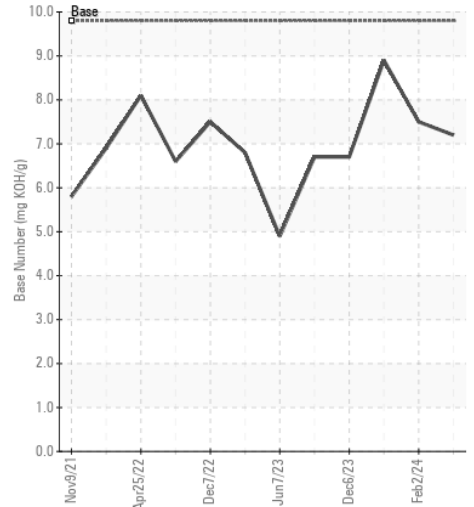
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0118491  
**Lab Number** : 06148031  
**Unique Number** : 10978109  
**Test Package** : FLEET

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

**GFL Environmental - 893 - OK East Hauling**  
 2100 Lilly Street  
 Seminole, OK  
 US 74868

Contact: Roger Barlow  
 rbarlow@gflenv.com

T: (405)204-6183

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)