



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

Area

**(99292V)**

Machine Id

**821039-101122**

Component

**Diesel Engine**

Fluid

**PETRO CANADA DURON SHP 15W40 (9 GAL)**



**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0101812</b>	GFL0093577	GFL0101990
Sample Date		Client Info		<b>12 Apr 2024</b>	07 Mar 2024	13 Feb 2024
Machine Age	hrs	Client Info		<b>23904</b>	23595	0
Oil Age	hrs	Client Info		<b>566</b>	257	0
Filter Age	hrs	Client Info		<b>0</b>	257	0
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	<b>19</b>	9	8
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>5	<b>2</b>	2	1
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>9</b>	8	7
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185m	>330	<b>11</b>	6	7
Tin	ppm	ASTM D5185m	>15	<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.

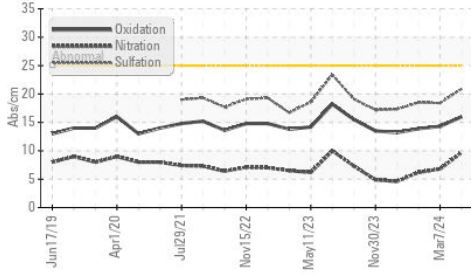
Silicon	ppm	ASTM D5185m	>25	<b>11</b>	6	4
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	3	<1
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>4	<b>1.3</b>	0.6	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.7</b>	6.8	6.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.9</b>	18.4	18.5
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**

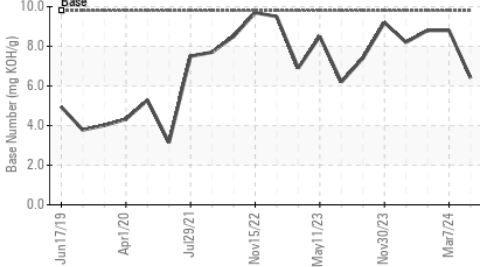
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>4</b>	5	3
Boron	ppm	ASTM D5185m	0	<b>&lt;1</b>	3	3
Barium	ppm	ASTM D5185m	0	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>56</b>	56	57
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>862</b>	912	945
Calcium	ppm	ASTM D5185m	1070	<b>1034</b>	977	1002
Phosphorus	ppm	ASTM D5185m	1150	<b>1007</b>	1015	1018
Zinc	ppm	ASTM D5185m	1270	<b>1162</b>	1226	1202
Sulfur	ppm	ASTM D5185m	2060	<b>2975</b>	3060	3080
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.0</b>	14.3	13.9
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>6.4</b>	8.8	8.8
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.3</b>	13.7	13.7

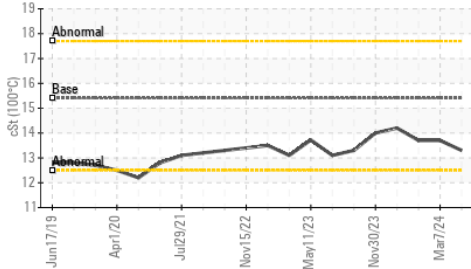
**FT-IR (Direct Trend)**



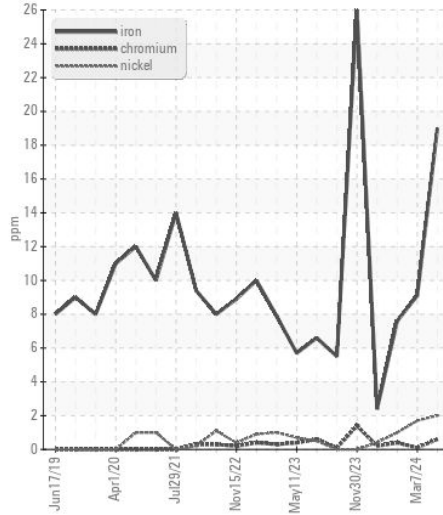
**Base Number**



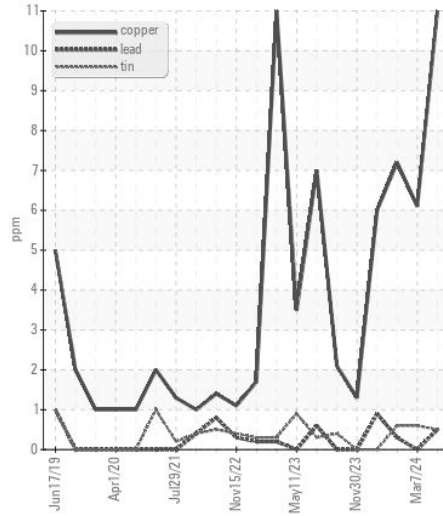
**Viscosity @ 100°C**



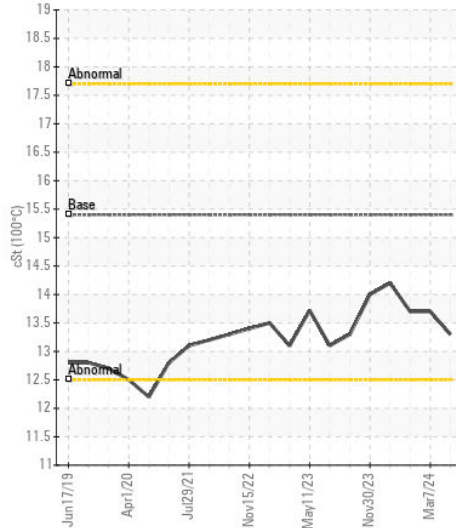
**Ferrous Alloys**



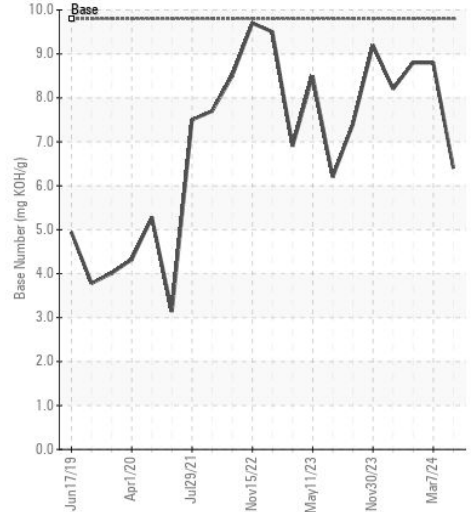
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0101812  
**Lab Number** : 06148487  
**Unique Number** : 10978565  
**Test Package** : FLEET

**Received** : 15 Apr 2024  
**Tested** : 16 Apr 2024  
**Diagnosed** : 16 Apr 2024 - Wes Davis

**GFL Environmental - 894 - Ada Hauling**  
 1904 North Broadway, Suite D  
 Ada, OK  
 US 74820

Contact: Johnny Spurlock  
 jspurlock@gflenv.com

T: (405)664-4476

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)

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