



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

Area  
**(E031HW)**

Machine Id  
**2824**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (40 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0099019</b>	GFL0098875	GFL0098873
Sample Date		Client Info		<b>01 Apr 2024</b>	12 Mar 2024	15 Feb 2024
Machine Age	hrs	Client Info		<b>9032</b>	8776	8776
Oil Age	hrs	Client Info		<b>8776</b>	8776	8323
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>165	<b>11</b>	8	22
Chromium	ppm	ASTM D5185m	>5	<b>1</b>	0	<1
Nickel	ppm	ASTM D5185m	>4	<b>1</b>	0	<1
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>1</b>	2	3
Lead	ppm	ASTM D5185m	>150	<b>1</b>	<1	1
Copper	ppm	ASTM D5185m	>90	<b>2</b>	<1	3
Tin	ppm	ASTM D5185m	>5	<b>1</b>	0	<1
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**

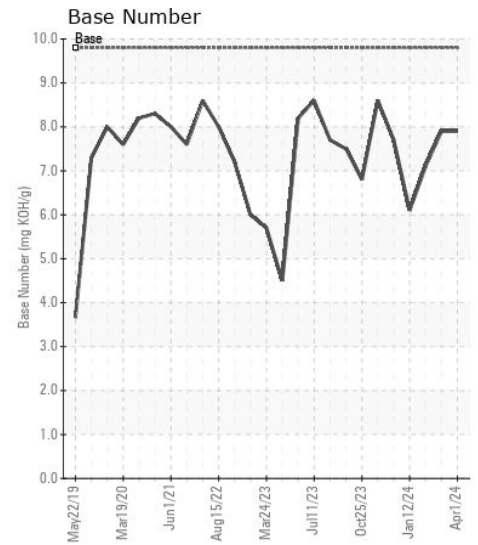
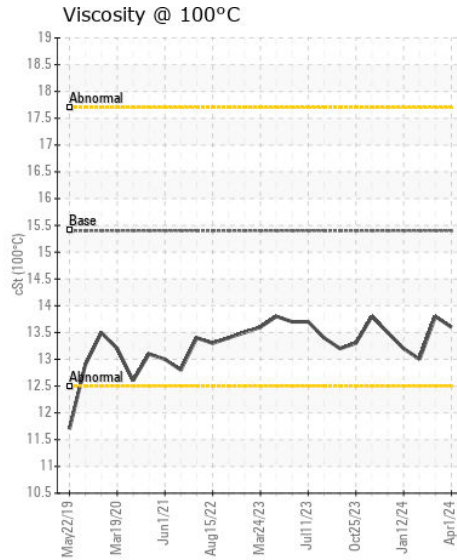
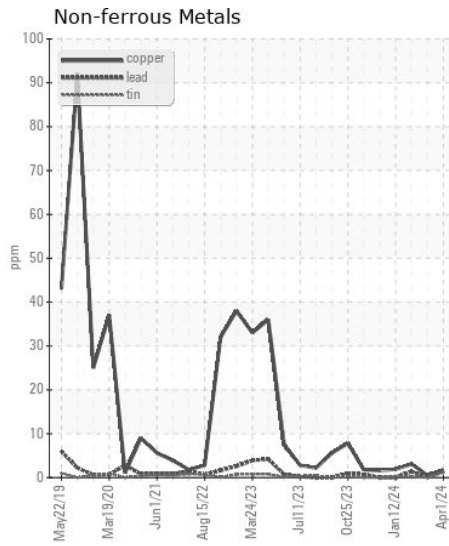
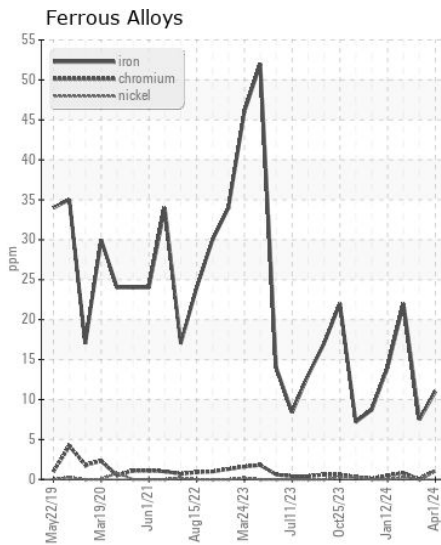
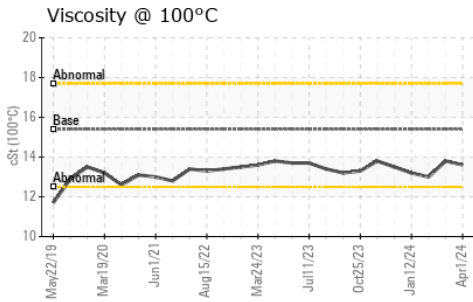
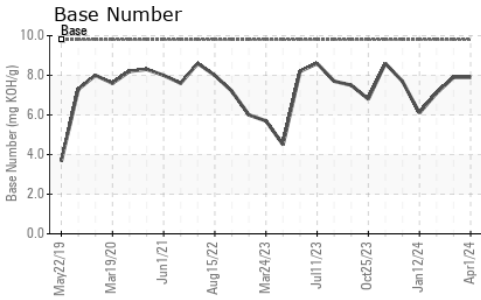
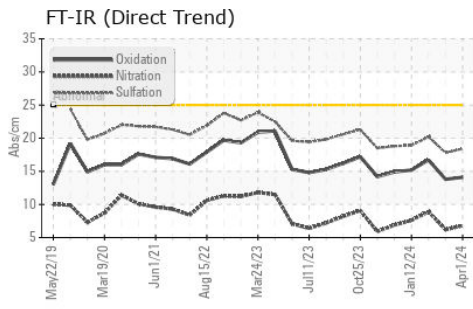
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>35	<b>4</b>	3	5
Potassium	ppm	ASTM D5185m	>20	<b>4</b>	3	5
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	>7.5	<b>0.2</b>	0.1	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.8</b>	6.2	8.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.4</b>	17.8	20.2
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>4</b>	3	6
Boron	ppm	ASTM D5185m	0	<b>0</b>	0	6
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>55</b>	56	67
Manganese	ppm	ASTM D5185m	0	<b>1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>851</b>	955	1005
Calcium	ppm	ASTM D5185m	1070	<b>1061</b>	1111	1178
Phosphorus	ppm	ASTM D5185m	1150	<b>1063</b>	1026	1108
Zinc	ppm	ASTM D5185m	1270	<b>1159</b>	1274	1321
Sulfur	ppm	ASTM D5185m	2060	<b>3388</b>	3817	3174
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.1</b>	13.8	16.7
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>7.9</b>	7.9	7.1
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.6</b>	13.8	13.0



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0099019  
**Lab Number** : 06152732  
**Unique Number** : 10982810  
**Test Package** : FLEET

**Received** : 18 Apr 2024  
**Tested** : 18 Apr 2024  
**Diagnosed** : 18 Apr 2024 - Wes Davis

**GFL Environmental - 084 - Clarksville**  
 699 Jack Miller Boulevard  
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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)