



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



Area  
**(BD49682)**  
Machine Id  
**913185**  
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>GFL0104528</b>	GFL0041814	GFL0104538
Sample Date		Client Info		<b>22 Jan 2024</b>	01 Nov 2023	01 Nov 2023
Machine Age	hrs	Client Info		<b>0</b>	0	0
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	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	ABNORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	<b>16</b>	48	10
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	1	<1
Nickel	ppm	ASTM D5185m	>5	<b>4</b>	▲ 10	2
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	<1	1
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	4	1
Lead	ppm	ASTM D5185m	>40	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m	>330	<b>20</b>	210	37
Tin	ppm	ASTM D5185m	>15	<b>1</b>	4	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**

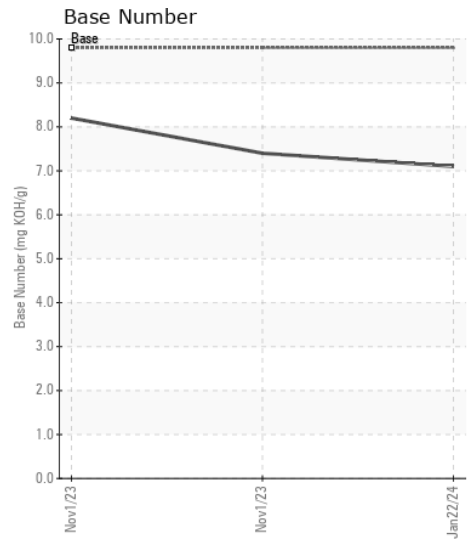
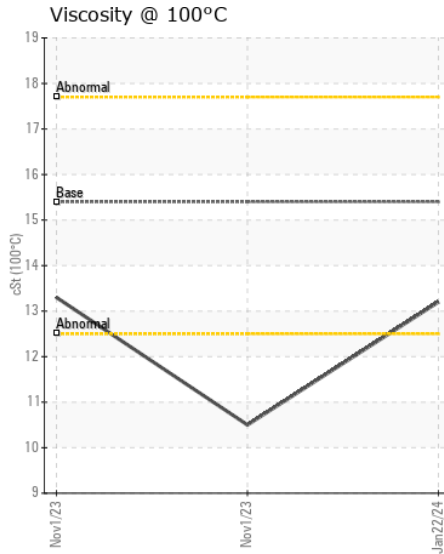
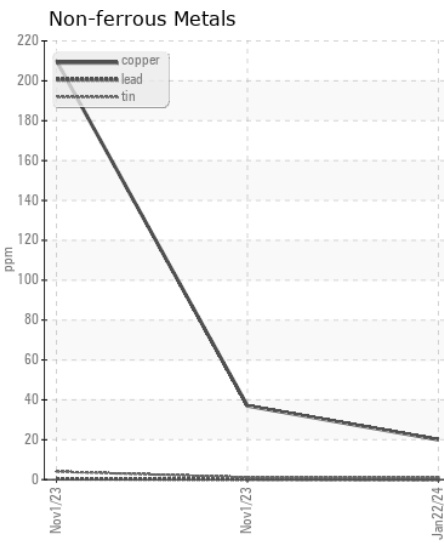
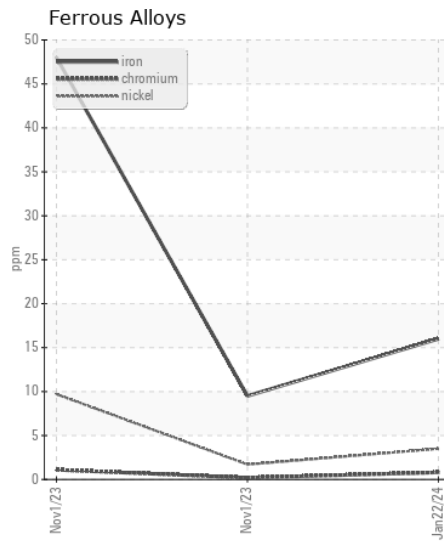
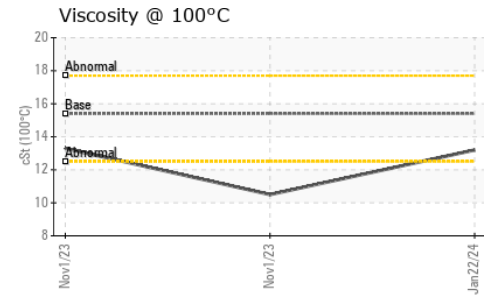
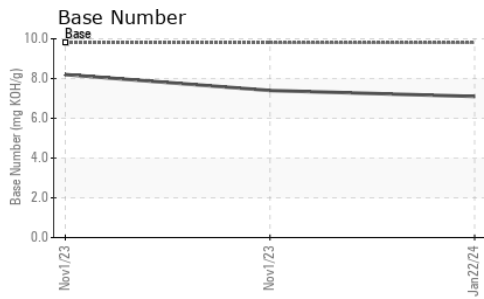
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>5</b>	▲ 86	11
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	5	1
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	0.4	<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>0.5</b>	0.6	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.2</b>	10.7	6.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.5</b>	24.0	19.3
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>2</b>	2	1
Boron	ppm	ASTM D5185m	0	<b>3</b>	128	12
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>63</b>	111	65
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	4	<1
Magnesium	ppm	ASTM D5185m	1010	<b>926</b>	734	933
Calcium	ppm	ASTM D5185m	1070	<b>1094</b>	1376	1043
Phosphorus	ppm	ASTM D5185m	1150	<b>1036</b>	762	1072
Zinc	ppm	ASTM D5185m	1270	<b>1218</b>	896	1218
Sulfur	ppm	ASTM D5185m	2060	<b>2720</b>	2177	2911
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.0</b>	22.4	15.0
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>7.1</b>	7.4	8.2
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.2</b>	● 10.5	13.3



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0104528  
**Lab Number** : 06125477  
**Unique Number** : 10939628  
**Test Package** : FLEET  
**Received** : 21 Mar 2024  
**Tested** : 22 Mar 2024  
**Diagnosed** : 25 Mar 2024 - Don Baldrige

**GFL Environmental - 461 - Smith Hauling**  
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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)