



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

Area  
**(P8963D)**  
Machine Id  
**945008-260260**  
Component  
**Natural Gas Engine**  
Fluid  
**PETRO CANADA DURON GEO LD 15W40 (7 GAL)**

**RECOMMENDATION**

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0114562</b>	GFL0081090	GFL0081108
Sample Date		Client Info		<b>14 Mar 2024</b>	21 Feb 2024	02 Nov 2023
Machine Age	hrs	Client Info		<b>4323</b>	17066	3192
Oil Age	hrs	Client Info		<b>1200</b>	941	1200
Filter Age	hrs	Client Info		<b>1200</b>	941	1200
Oil Changed		Client Info		<b>Changed</b>	Not Changd	Changed
Filter Changed		Client Info		<b>Changed</b>	Not Changd	Changed
Sample Status				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

**WEAR**

Cylinder, crank, or cam shaft wear is indicated. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	<b>▲ 79</b>	▲ 69	▲ 107
Chromium	ppm	ASTM D5185m	>4	<b>4</b>	3	▲ 8
Nickel	ppm	ASTM D5185m	>2	<b>3</b>	2	4
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>9	<b>9</b>	6	12
Lead	ppm	ASTM D5185m	>30	<b>4</b>	2	3
Copper	ppm	ASTM D5185m	>35	<b>3</b>	1	1
Tin	ppm	ASTM D5185m	>4	<b>2</b>	2	2
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

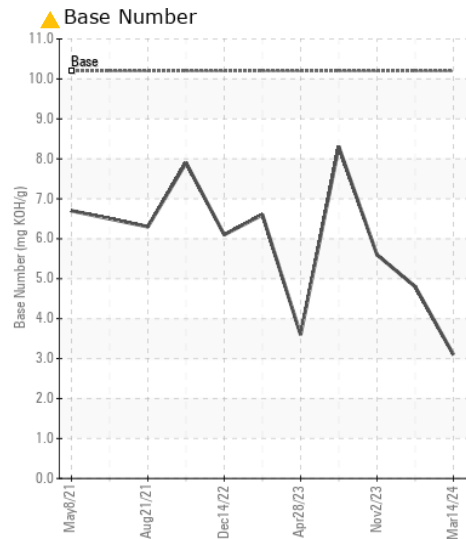
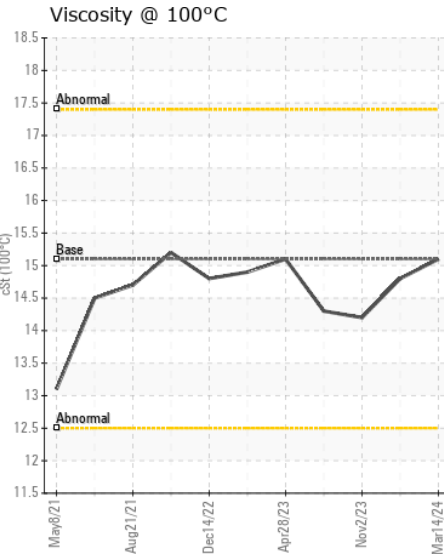
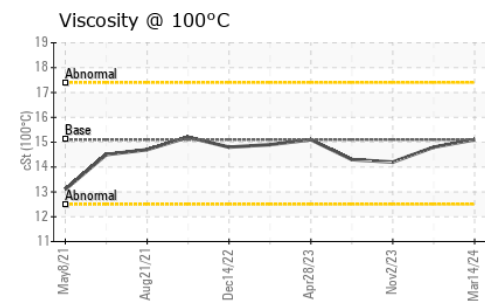
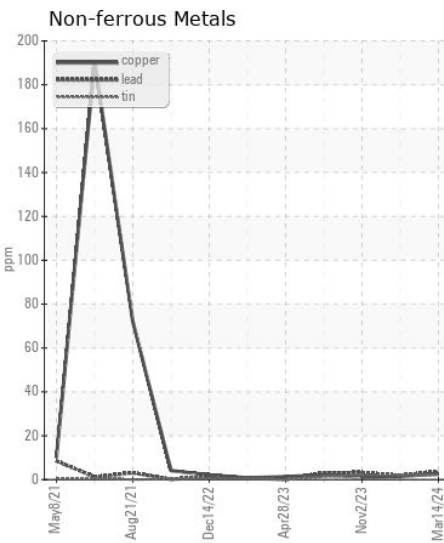
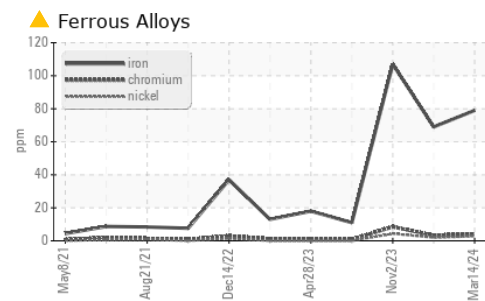
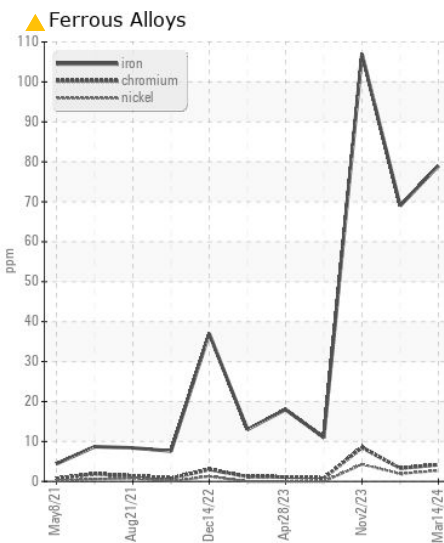
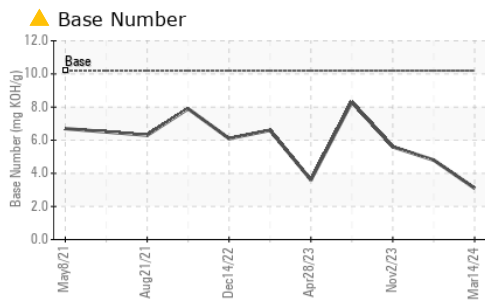
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>+100	<b>20</b>	12	56
Potassium	ppm	ASTM D5185m	>20	<b>8</b>	2	5
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844		<b>0.1</b>	0.8	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>11.8</b>	9.7	7.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>26.7</b>	23.7	21.2
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	>0.1	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

The BN level is low. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>11</b>	11	4
Boron	ppm	ASTM D5185m	50	<b>8</b>	5	153
Barium	ppm	ASTM D5185m	5	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	50	<b>68</b>	61	101
Manganese	ppm	ASTM D5185m	0	<b>1</b>	1	3
Magnesium	ppm	ASTM D5185m	560	<b>600</b>	536	446
Calcium	ppm	ASTM D5185m	1510	<b>1785</b>	1699	1559
Phosphorus	ppm	ASTM D5185m	780	<b>850</b>	758	977
Zinc	ppm	ASTM D5185m	870	<b>1084</b>	946	1349
Sulfur	ppm	ASTM D5185m	2040	<b>2633</b>	2265	3245
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>22.9</b>	18.5	15.8
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	<b>▲ 3.1</b>	4.8	5.6
Visc @ 100°C	cSt	ASTM D445	15.1	<b>15.1</b>	14.8	14.2



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0114562  
**Lab Number** : 06121360  
**Unique Number** : 10930193  
**Test Package** : FLEET  
**Received** : 18 Mar 2024  
**Tested** : 19 Mar 2024  
**Diagnosed** : 20 Mar 2024 - Don Baldrige

**GFL Environmental - 884 - Lake County - Tavares**  
 321 Southridge Industrial Way  
 Tavares, FL  
 US 32778  
 Contact: RON FERAGOTTI

Certificate L2367  
 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)