



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**222048-670466**

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>GFL0101896</b>	GFL0101975	GFL0101953
Sample Date		Client Info		<b>27 Feb 2024</b>	30 Jan 2024	22 Dec 2023
Machine Age	hrs	Client Info		<b>6422</b>	6408	6400
Oil Age	hrs	Client Info		<b>22</b>	8	128
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Chngd</b>	Not Chngd	Changed
Filter Changed		Client Info		<b>Not Chngd</b>	Not Chngd	Changed
Sample Status				<b>NORMAL</b>	NORMAL	ABNORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>24</b>	24	▲ 126
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	3
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>9</b>	10	▲ 50
Lead	ppm	ASTM D5185m	>40	<b>0</b>	1	0
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	<1	3
Tin	ppm	ASTM D5185m	>15	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

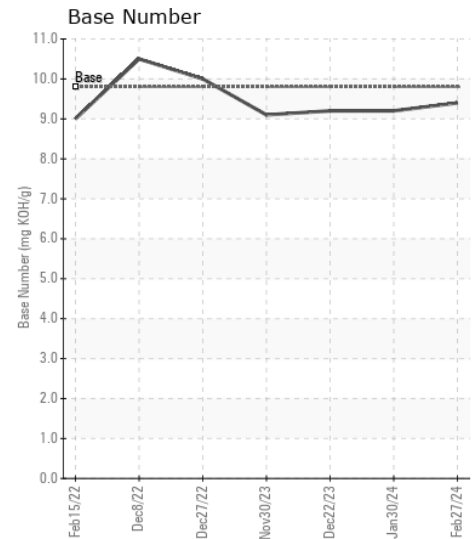
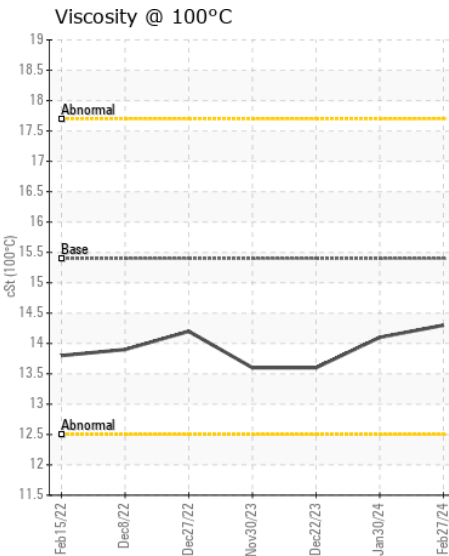
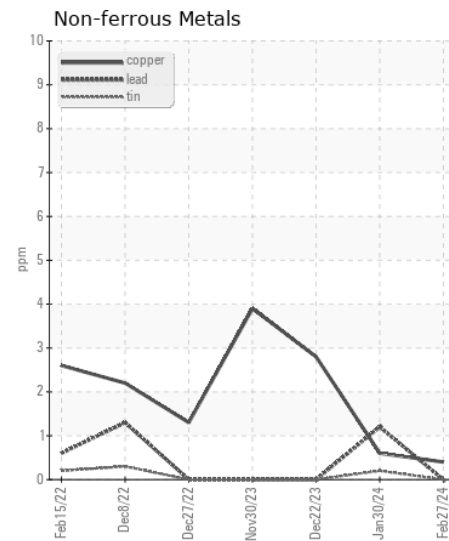
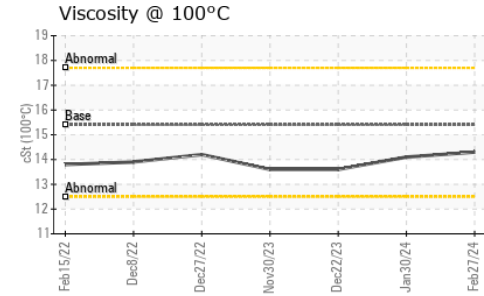
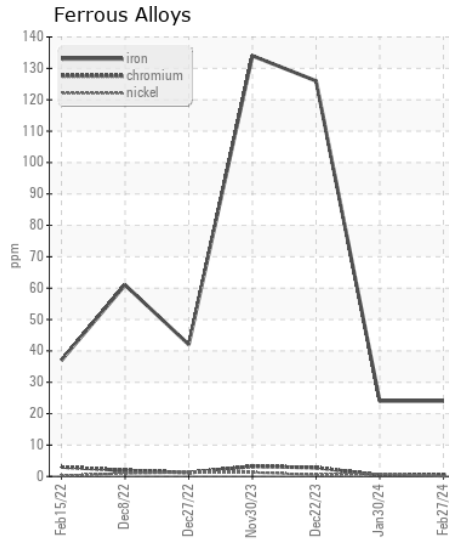
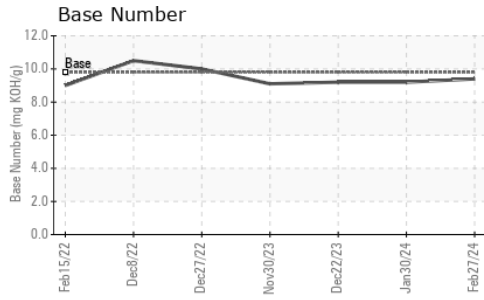
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>10</b>	10	12
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	2	0
Fuel		WC Method	>5	<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	>3	<b>0.1</b>	0.1	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>4.9</b>	4.9	8.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>17.3</b>	17.2	18.1
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>&lt;1</b>	1	2
Boron	ppm	ASTM D5185m	0	<b>6</b>	7	5
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>56</b>	56	46
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	1
Magnesium	ppm	ASTM D5185m	1010	<b>905</b>	892	843
Calcium	ppm	ASTM D5185m	1070	<b>1007</b>	1000	972
Phosphorus	ppm	ASTM D5185m	1150	<b>1037</b>	1066	843
Zinc	ppm	ASTM D5185m	1270	<b>1208</b>	1236	1089
Sulfur	ppm	ASTM D5185m	2060	<b>3046</b>	3181	2744
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.3</b>	13.4	16.0
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>9.4</b>	9.2	9.2
Visc @ 100°C	cSt	ASTM D445	15.4	<b>14.3</b>	14.1	13.6



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : GFL0101896  
 Lab Number : 06103615  
 Unique Number : 10901845  
 Test Package : FLEET

Received : 28 Feb 2024  
 Tested : 29 Feb 2024  
 Diagnosed : 29 Feb 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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