



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



Area  
**(42989HA)**  
Machine Id  
**727018**  
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>GFL0104080</b>	GFL0104086	GFL0053271
Sample Date		Client Info		<b>11 Jun 2024</b>	26 Feb 2024	27 Jul 2022
Machine Age	hrs	Client Info		<b>13928</b>	13342	12200
Oil Age	hrs	Client Info		<b>600</b>	600	600
Filter Age	hrs	Client Info		<b>0</b>	600	600
Oil Changed		Client Info		<b>Changed</b>	N/A	Changed
Filter Changed		Client Info		<b>Changed</b>	N/A	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	<b>11</b>	16	<1
Chromium	ppm	ASTM D5185m	>20	<b>0</b>	1	0
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	1	0
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	<1	1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m	>20	<b>5</b>	5	4
Lead	ppm	ASTM D5185m	>40	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m	>330	<b>0</b>	3	6
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	1	<1
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.

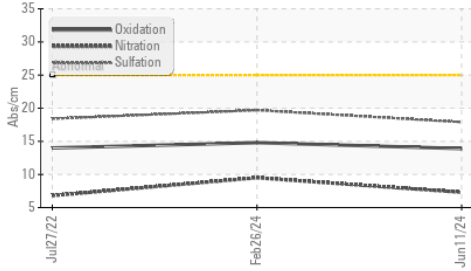
Silicon	ppm	ASTM D5185m	>25	<b>4</b>	6	2
Potassium	ppm	ASTM D5185m	>20	<b>11</b>	3	2
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>4	<b>0.2</b>	0.8	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.3</b>	9.5	6.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>17.9</b>	19.7	18.4
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**

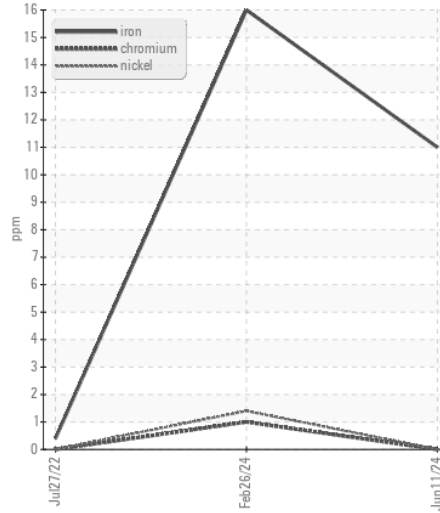
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>2</b>	3	2
Boron	ppm	ASTM D5185m	0	<b>10</b>	3	8
Barium	ppm	ASTM D5185m	0	<b>0</b>	1	0
Molybdenum	ppm	ASTM D5185m	60	<b>56</b>	55	56
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>934</b>	792	864
Calcium	ppm	ASTM D5185m	1070	<b>1046</b>	948	1060
Phosphorus	ppm	ASTM D5185m	1150	<b>1027</b>	870	1018
Zinc	ppm	ASTM D5185m	1270	<b>1248</b>	1117	1218
Sulfur	ppm	ASTM D5185m	2060	<b>3572</b>	2968	3441
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.9</b>	14.8	14.0
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.6</b>	6.0	9.8
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.0</b>	13.2	13.8

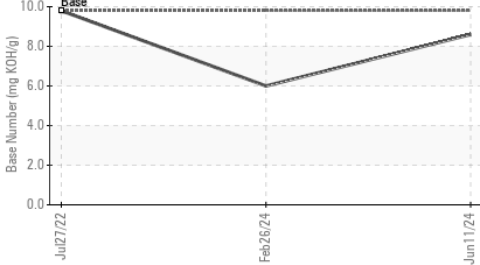
FT-IR (Direct Trend)



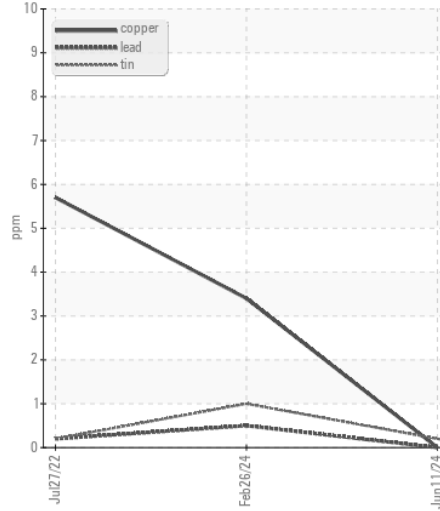
Ferrous Alloys



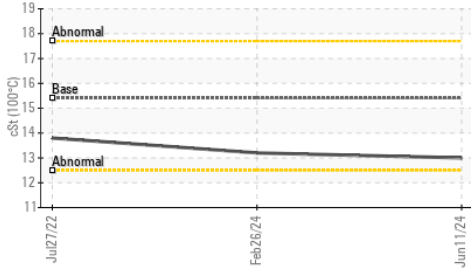
Base Number



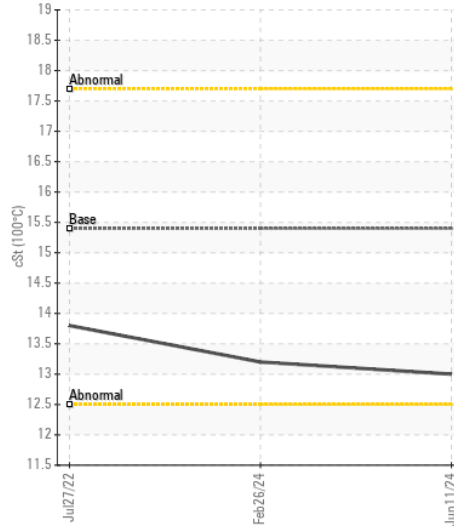
Non-ferrous Metals



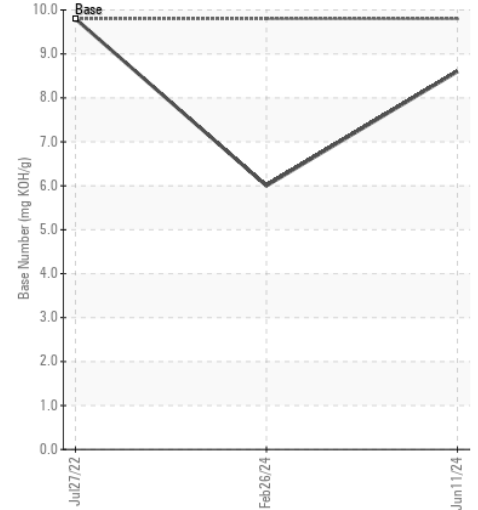
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : GFL0104080

Lab Number : 06214430

Unique Number : 11087294

Test Package : FLEET

Received : 19 Jun 2024

Tested : 20 Jun 2024

Diagnosed : 20 Jun 2024 - Wes Davis

GFL Environmental - 028 - Weldon

2211 US Highway 301

Halifax, NC

US 27839

Contact: TRAVIS PORCH

tporch@gflenv.com

T: (252)532-3344

F:

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)