



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Machine Id
3782
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (11 GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0072167	GFL0072172	GFL0072138
Sample Date		Client Info		26 Jun 2024	11 Jun 2024	24 Apr 2024
Machine Age	hrs	Client Info		18544	18402	18009
Oil Age	hrs	Client Info		535	405	607
Filter Age	hrs	Client Info		0	405	607
Oil Changed		Client Info		Not Chngd	Not Chngd	Changed
Filter Changed		Client Info		Not Chngd	Not Chngd	Changed
Sample Status				ATTENTION	ATTENTION	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>165	26	29	16
Chromium	ppm	ASTM D5185m	>5	1	4	<1
Nickel	ppm	ASTM D5185m	>4	<1	<1	0
Titanium	ppm	ASTM D5185m	>2	<1	<1	0
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	3	2	<1
Lead	ppm	ASTM D5185m	>150	5	<1	<1
Copper	ppm	ASTM D5185m	>90	1	18	<1
Tin	ppm	ASTM D5185m	>5	<1	<1	0
Vanadium	ppm	ASTM D5185m		<1	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

Sodium and/or potassium levels are high. Test for glycol is negative.

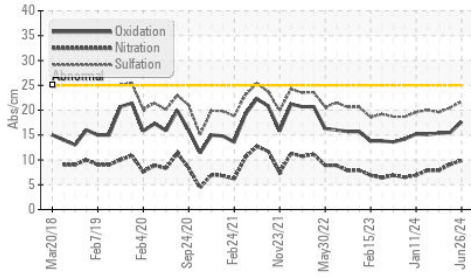
Silicon	ppm	ASTM D5185m	>35	11	11	7
Potassium	ppm	ASTM D5185m	>20	4	4	0
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>7.5	0.6	0.6	0.4
Nitration	Abs/cm	*ASTM D7624	>20	9.9	9.1	7.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.7	20.5	19.6
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

FLUID CONDITION

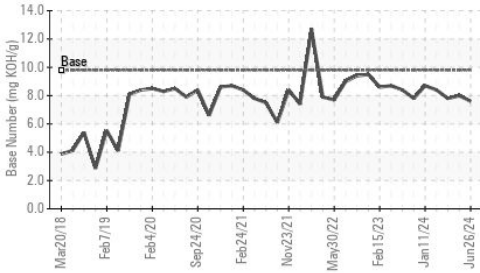
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		102	284	20
Boron	ppm	ASTM D5185m	0	5	4	2
Barium	ppm	ASTM D5185m	0	<1	0	0
Molybdenum	ppm	ASTM D5185m	60	75	70	63
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	951	910	968
Calcium	ppm	ASTM D5185m	1070	1155	1082	1175
Phosphorus	ppm	ASTM D5185m	1150	1043	1009	1074
Zinc	ppm	ASTM D5185m	1270	1251	1217	1277
Sulfur	ppm	ASTM D5185m	2060	2719	3121	3623
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.7	15.5	15.4
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	7.6	8.0	7.8
Visc @ 100°C	cSt	ASTM D445	15.4	13.7	13.7	13.6

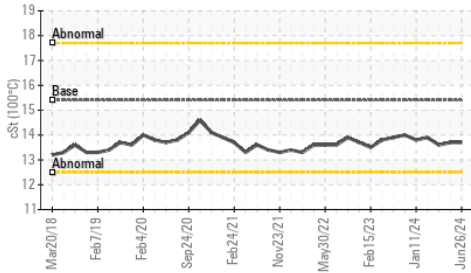
FT-IR (Direct Trend)



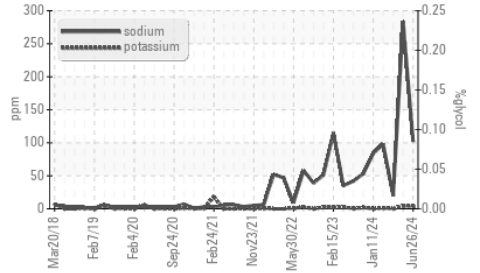
Base Number



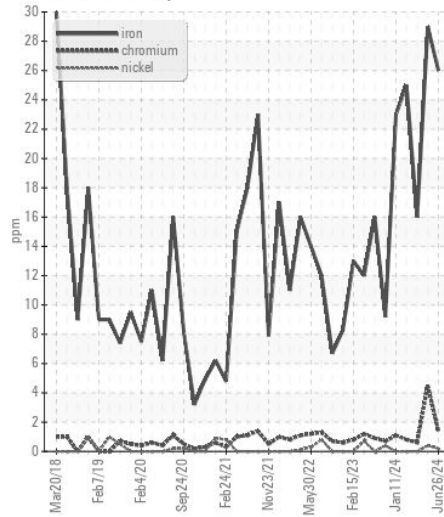
Viscosity @ 100°C



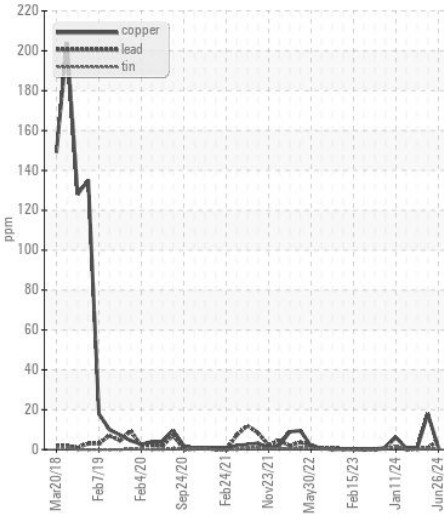
Glycol Contamination



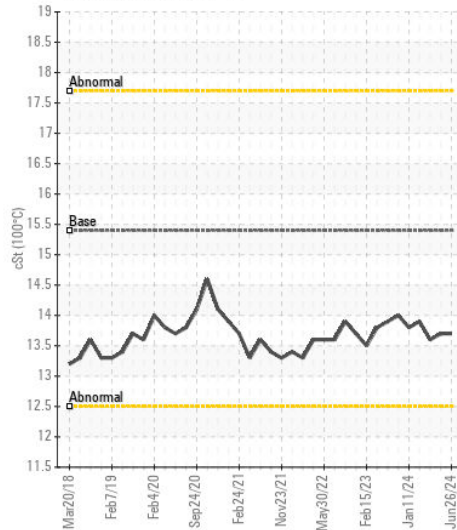
Ferrous Alloys



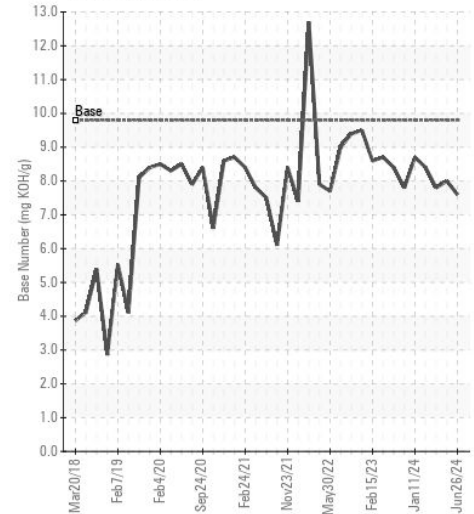
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

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

Sample No. : GFL0072167

Lab Number : 06226012

Unique Number : 11109505

Test Package : FLEET (Additional Tests: Glycol)

Received : 02 Jul 2024

Tested : 05 Jul 2024

Diagnosed : 05 Jul 2024 - Jonathan Hester

GFL Environmental - 094 - Cedartown

2097 Buchanan Highway

Cedartown, GA

US 30125

Contact: WILLIAM FOSTER

william.foster@gflenv.com

T: (800)207-6618

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)