



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
721018-361460
 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		GFL0123148	GFL0104797	GFL0104938
Sample Date		Client Info		18 Jun 2024	04 Apr 2024	05 Feb 2024
Machine Age	hrs	Client Info		16981	15172	1308
Oil Age	hrs	Client Info		11851	15172	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	27	69	16
Chromium	ppm	ASTM D5185m	>20	3	13	2
Nickel	ppm	ASTM D5185m	>4	0	<1	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	5	2
Lead	ppm	ASTM D5185m	>40	1	4	2
Copper	ppm	ASTM D5185m	>330	<1	3	2
Tin	ppm	ASTM D5185m	>15	1	3	2
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

There is no indication of any contamination in the oil.

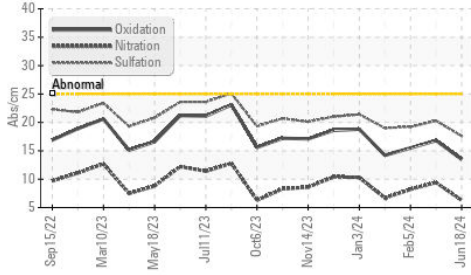
Silicon	ppm	ASTM D5185m	>25	9	▲ 30	6
Potassium	ppm	ASTM D5185m	>20	5	4	1
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.7	0.5
Nitration	Abs/cm	*ASTM D7624	>20	6.3	9.4	8.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.6	20.3	19.2
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

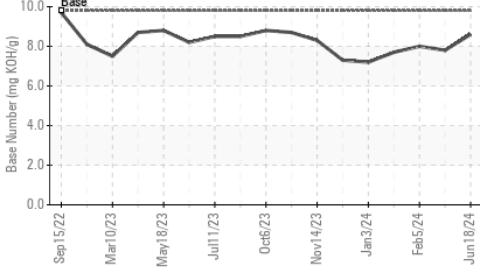
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		41	32	19
Boron	ppm	ASTM D5185m	0	3	0	1
Barium	ppm	ASTM D5185m	0	0	<1	0
Molybdenum	ppm	ASTM D5185m	60	61	65	57
Manganese	ppm	ASTM D5185m	0	1	2	<1
Magnesium	ppm	ASTM D5185m	1010	964	1009	971
Calcium	ppm	ASTM D5185m	1070	1074	1193	1002
Phosphorus	ppm	ASTM D5185m	1150	1130	1082	1012
Zinc	ppm	ASTM D5185m	1270	1312	1309	1239
Sulfur	ppm	ASTM D5185m	2060	3722	3334	3066
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.5	16.8	15.5
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.6	7.8	8.0
Visc @ 100°C	cSt	ASTM D445	15.4	13.3	13.3	13.3

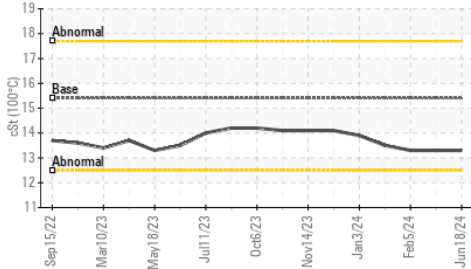
FT-IR (Direct Trend)



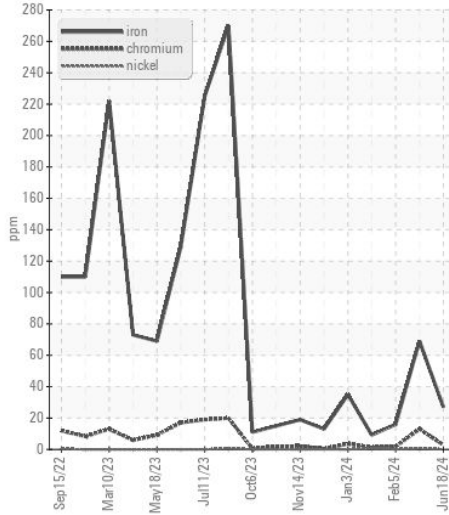
Base Number



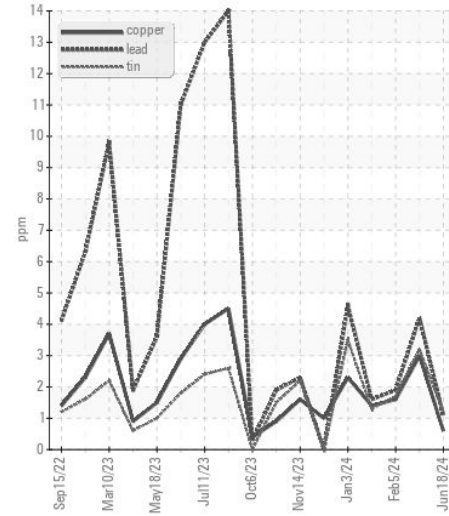
Viscosity @ 100°C



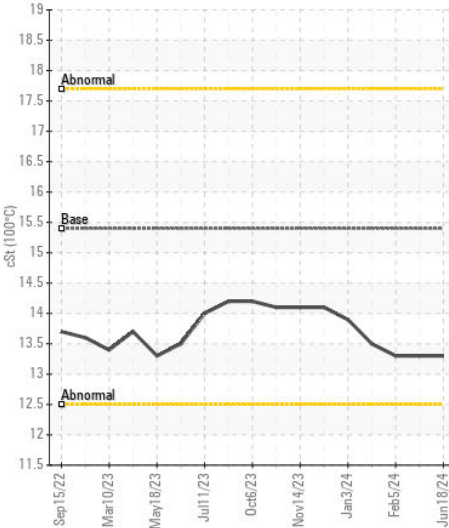
Ferrous Alloys



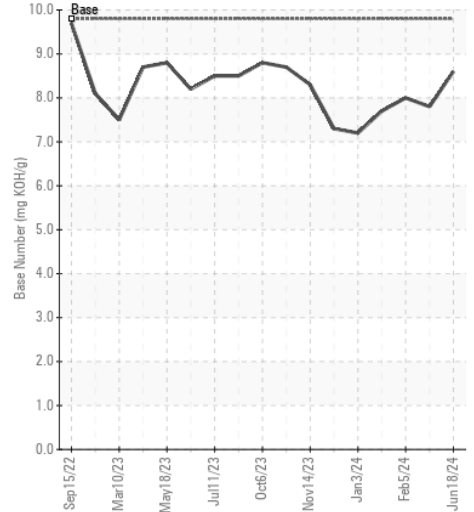
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0123148
Lab Number : 06216617
Unique Number : 11089481
Test Package : FLEET

Received : 21 Jun 2024
Tested : 24 Jun 2024
Diagnosed : 24 Jun 2024 - Wes Davis

GFL Environmental - 820 - Joplin Hauling
 3700 West 7th Street
 Joplin, MO
 US 64801
 Contact: James Jarrett
 jjarrett@gflenv.com
 T: (417)310-2802
 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)