



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
729097
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		GFL0097847	GFL0097806	GFL0085315
Sample Date		Client Info		17 May 2024	26 Feb 2024	15 Aug 2023
Machine Age	hrs	Client Info		11297	11297	2603
Oil Age	hrs	Client Info		580	11297	588
Filter Age	hrs	Client Info		580	0	588
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>80	38	31	18
Chromium	ppm	ASTM D5185m	>5	3	2	<1
Nickel	ppm	ASTM D5185m	>2	1	<1	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>30	10	5	1
Lead	ppm	ASTM D5185m	>30	<1	0	0
Copper	ppm	ASTM D5185m	>150	2	2	3
Tin	ppm	ASTM D5185m	>5	1	<1	0
Vanadium	ppm	ASTM D5185m		<1	0	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.

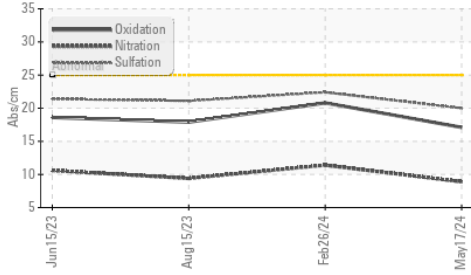
Silicon	ppm	ASTM D5185m	>20	14	9	4
Potassium	ppm	ASTM D5185m	>20	23	3	0
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.4	0.9	0.8
Nitration	Abs/cm	*ASTM D7624	>20	8.9	11.4	9.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.0	22.4	21.1
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

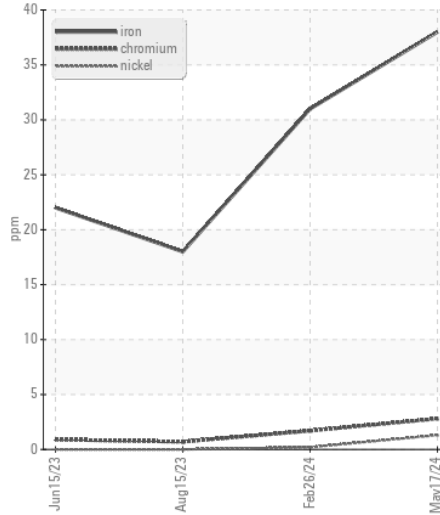
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		7	10	3
Boron	ppm	ASTM D5185m	0	0	4	0
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	66	57	60
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	1045	922	956
Calcium	ppm	ASTM D5185m	1070	1182	1009	1031
Phosphorus	ppm	ASTM D5185m	1150	1035	1008	966
Zinc	ppm	ASTM D5185m	1270	1357	1254	1233
Sulfur	ppm	ASTM D5185m	2060	3328	2770	3302
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.1	20.8	17.9
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.4	6.8	7.8
Visc @ 100°C	cSt	ASTM D445	15.4	14.2	14.4	14.6

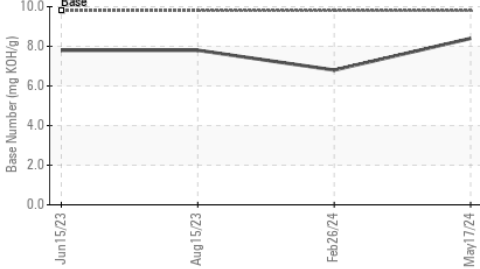
FT-IR (Direct Trend)



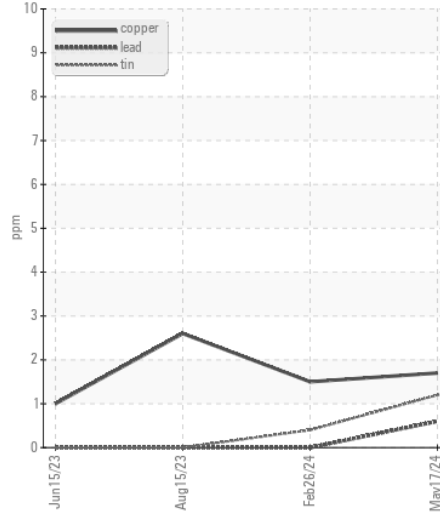
Ferrous Alloys



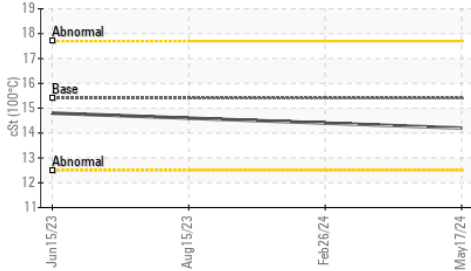
Base Number



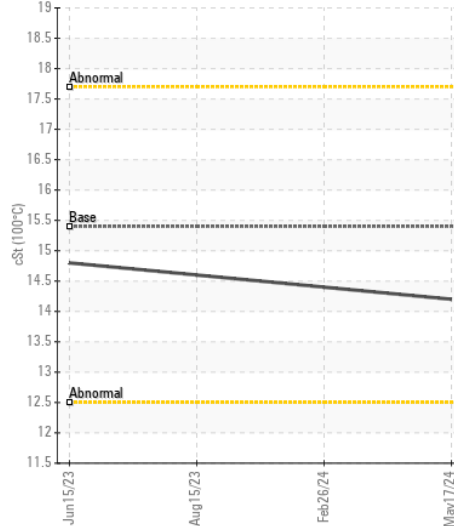
Non-ferrous Metals



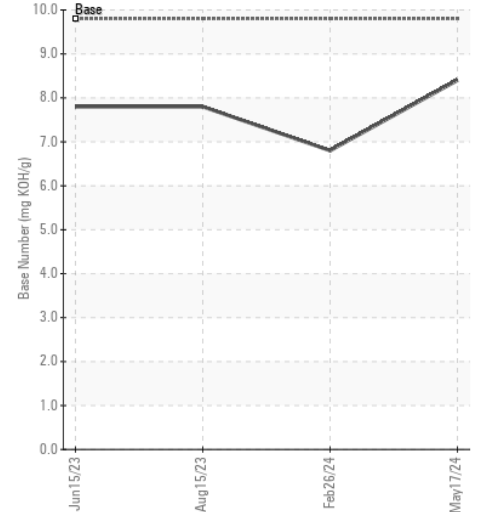
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

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

Sample No. : GFL0097847

Lab Number : 06189977

Unique Number : 11046729

Test Package : FLEET

Received : 23 May 2024

Tested : 25 May 2024

Diagnosed : 29 May 2024 - Don Baldrige

GFL Environmental - 958 - Tri County HC Morton

1090 W. Jefferson St.

Morton, IL

US 61550

Contact: Bryan Link

bblink@gflenv.com

T:

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)