



WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
525013-7004
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- LTR)

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		GFL0103867	GFL0101368	GFL0086533
Sample Date		Client Info		07 Feb 2024	20 Nov 2023	29 Sep 2023
Machine Age	hrs	Client Info		16359	16286	465348
Oil Age	hrs	Client Info		0	16286	465348
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	N/A
Filter Changed		Client Info		Not Changd	Not Changd	N/A
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

The lead level is abnormal. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>110	49	21	20
Chromium	ppm	ASTM D5185m	>4	<1	2	2
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	0	6	1
Lead	ppm	ASTM D5185m	>45	▲ 43	<1	<1
Copper	ppm	ASTM D5185m	>85	15	2	1
Tin	ppm	ASTM D5185m	>4	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	<1
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.

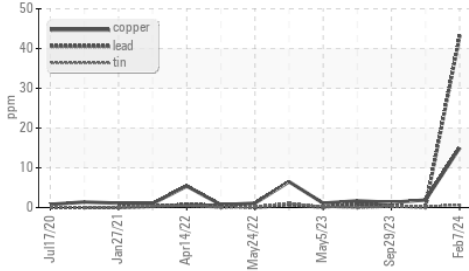
Silicon	ppm	ASTM D5185m	>30	2	8	8
Potassium	ppm	ASTM D5185m	>20	<1	5	2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.2	0.2	0.1
Nitration	Abs/cm	*ASTM D7624	>20	6.5	5.7	5.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.2	18.2	17.6
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

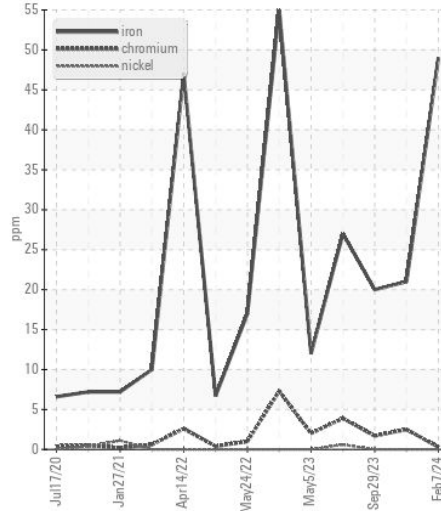
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		4	2	1
Boron	ppm	ASTM D5185m	0	11	3	4
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	2	59	61
Manganese	ppm	ASTM D5185m	0	1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	60	964	1021
Calcium	ppm	ASTM D5185m	1070	2993	1044	1086
Phosphorus	ppm	ASTM D5185m	1150	958	1063	1058
Zinc	ppm	ASTM D5185m	1270	1123	1259	1294
Sulfur	ppm	ASTM D5185m	2060	4543	3161	3323
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.2	13.9	13.6
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.9	9.2	9.1
Visc @ 100°C	cSt	ASTM D445	15.4	13.7	14.2	14.6

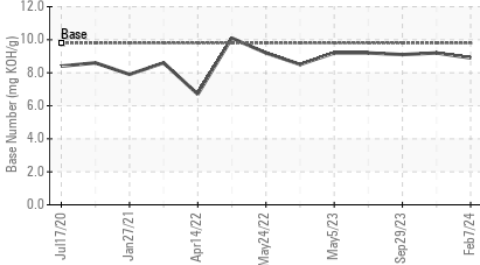
▲ Non-ferrous Metals



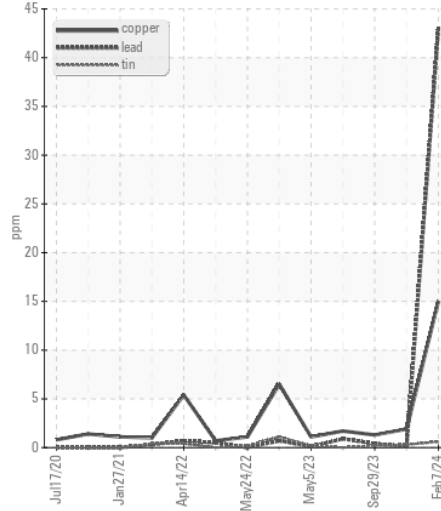
Ferrous Alloys



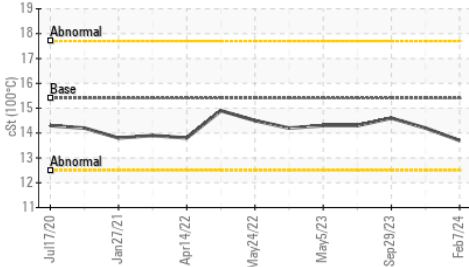
Base Number



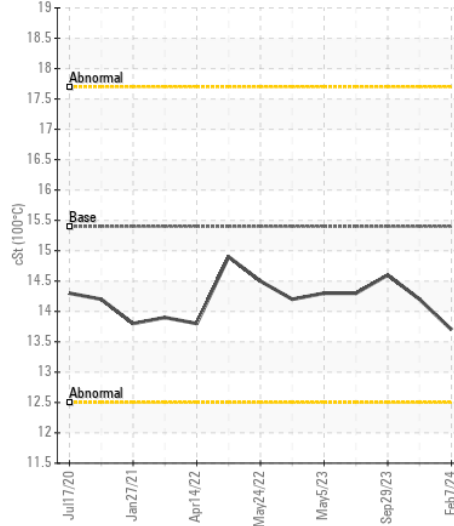
▲ Non-ferrous Metals



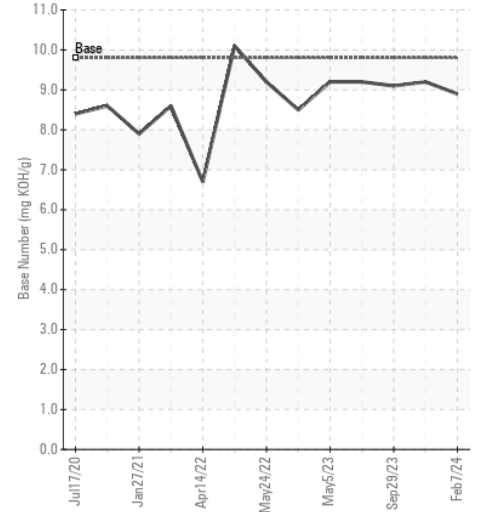
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

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

Sample No. : GFL0103867

Lab Number : 06088023

Unique Number : 10875468

Test Package : FLEET

Received : 13 Feb 2024

Tested : 14 Feb 2024

Diagnosed : 15 Feb 2024 - Don Baldrige

GFL Environmental - 654 - Richmond Hauling

11800 Lewis Road

Chester, VA

US 23831

Contact: Jimmy Mayes

jmayes@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)