



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
(YA122759)
Machine Id
10571
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (42 GAL)

RECOMMENDATION

Resample at the next service interval to monitor. (Customer Sample Comment: E service)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0111074	GFL0098538	GFL0087756
Sample Date		Client Info		23 Apr 2024	21 Oct 2023	19 Sep 2023
Machine Age	hrs	Client Info		17495	16922	16711
Oil Age	hrs	Client Info		573	1137	450
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Not Changed
Filter Changed		Client Info		Changed	Changed	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>90	42	9	38
Chromium	ppm	ASTM D5185m	>20	2	<1	2
Nickel	ppm	ASTM D5185m	>2	0	<1	<1
Titanium	ppm	ASTM D5185m	>2	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	6	2	<1
Lead	ppm	ASTM D5185m	>40	<1	0	2
Copper	ppm	ASTM D5185m	>330	2	<1	<1
Tin	ppm	ASTM D5185m	>15	<1	0	<1
Vanadium	ppm	ASTM D5185m		0	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.

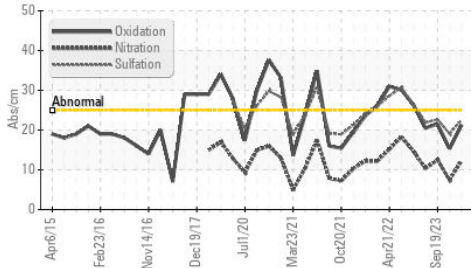
Silicon	ppm	ASTM D5185m	>25	6	3	6
Potassium	ppm	ASTM D5185m	>20	4	2	4
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	1.2	0.5	1.3
Nitration	Abs/cm	*ASTM D7624	>20	12.3	7.4	12.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.5	19.1	22.7
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

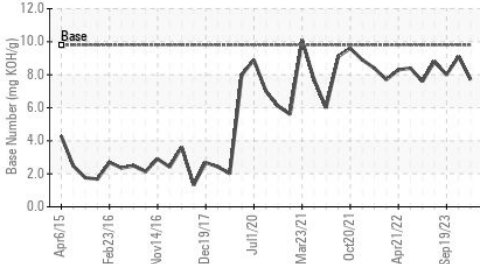
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		4	2	4
Boron	ppm	ASTM D5185m	0	1	0	<1
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	58	55	58
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	891	907	924
Calcium	ppm	ASTM D5185m	1070	1028	995	1092
Phosphorus	ppm	ASTM D5185m	1150	974	1034	987
Zinc	ppm	ASTM D5185m	1270	1179	1215	1222
Sulfur	ppm	ASTM D5185m	2060	3016	2968	3311
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.3	15.3	21.5
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	7.7	9.1	8.0
Visc @ 100°C	cSt	ASTM D445	15.4	12.5	13.2	12.8

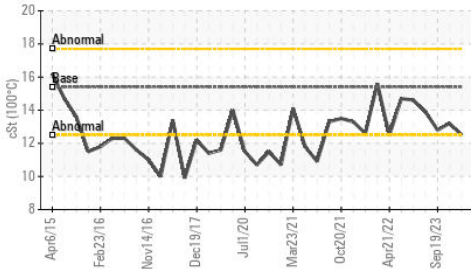
FT-IR (Direct Trend)



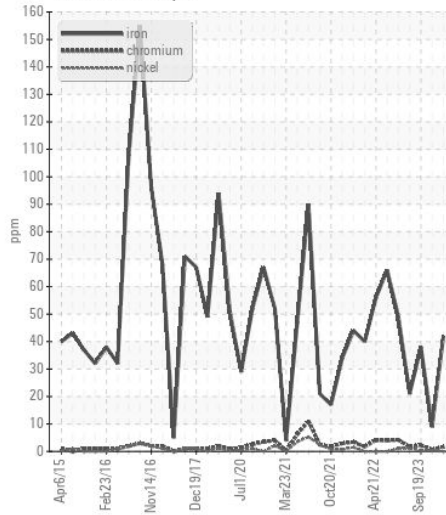
Base Number



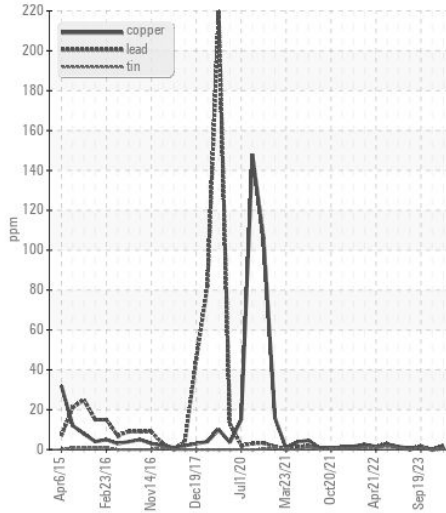
Viscosity @ 100°C



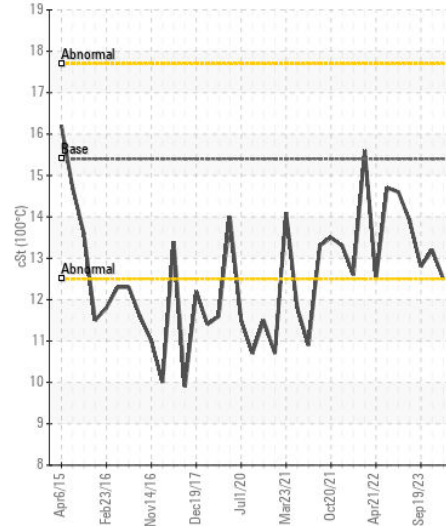
Ferrous Alloys



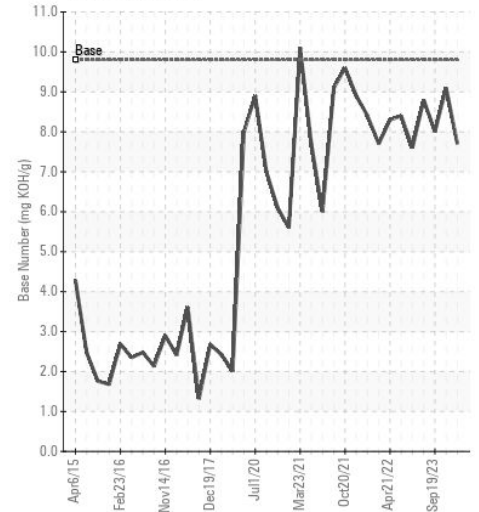
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0111074
Lab Number : 06158945
Unique Number : 10994368
Test Package : FLEET

Received : 24 Apr 2024
Tested : 25 Apr 2024
Diagnosed : 25 Apr 2024 - Don Baldrige

GFL Environmental - 006 - Wilmington
 3618 US Highway 421 N
 Wilmington, NC
 US 28401
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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)