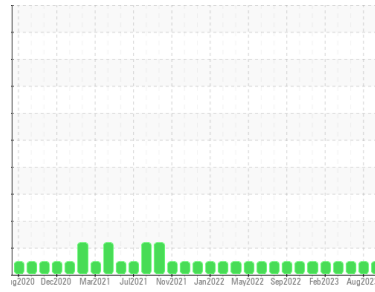




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
(YA154678) [B Service]

Machine Id
830007

Component
Natural Gas Engine

Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

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.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0124452	GFL0087772	GFL0082242
Sample Date	Client Info	03 Jun 2024	17 Aug 2023	17 May 2023
Machine Age	hrs	9872	7824	7142
Oil Age	hrs	900	1236	554
Oil Changed	Client Info	Not Changed	Changed	Not Changed
Sample Status		NORMAL	NORMAL	NORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.1	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >50	11	21	12
Chromium	ppm	ASTM D5185m >4	<1	2	1
Nickel	ppm	ASTM D5185m >2	0	<1	<1
Titanium	ppm	ASTM D5185m	0	<1	<1
Silver	ppm	ASTM D5185m >3	0	0	<1
Aluminum	ppm	ASTM D5185m >9	2	2	4
Lead	ppm	ASTM D5185m >30	1	3	<1
Copper	ppm	ASTM D5185m >35	2	<1	<1
Tin	ppm	ASTM D5185m >4	1	<1	<1
Vanadium	ppm	ASTM D5185m	0	<1	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m 0	19	7	11
Barium	ppm	ASTM D5185m 0	<1	0	0
Molybdenum	ppm	ASTM D5185m 60	55	57	54
Manganese	ppm	ASTM D5185m 0	1	<1	<1
Magnesium	ppm	ASTM D5185m 1010	579	599	533
Calcium	ppm	ASTM D5185m 1070	1631	1736	1683
Phosphorus	ppm	ASTM D5185m 1150	817	744	669
Zinc	ppm	ASTM D5185m 1270	973	993	944
Sulfur	ppm	ASTM D5185m 2060	2739	2843	2549

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >+100	6	8	4
Sodium	ppm	ASTM D5185m	4	8	8
Potassium	ppm	ASTM D5185m >20	2	<1	0

INFRA-RED

method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	0.1	0	0.1
Nitration	Abs/cm	*ASTM D7624 >20	10.3	11.3	10.5
Sulfation	Abs/.1mm	*ASTM D7415 >30	21.1	23.7	21.0

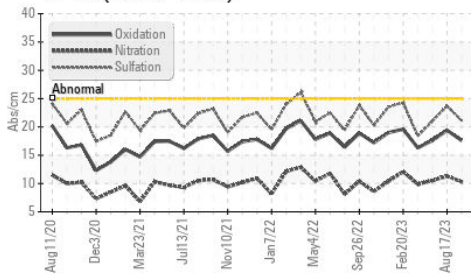
FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	17.6	19.4	17.6
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	5.7	3.9	5.2

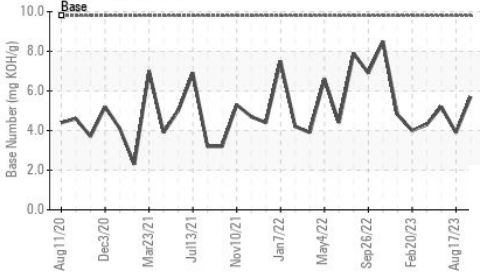


OIL ANALYSIS REPORT

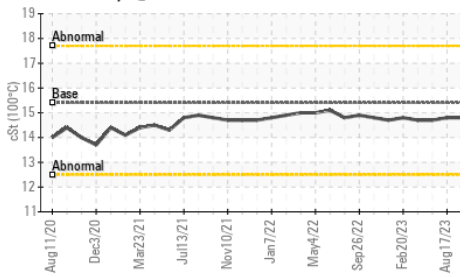
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

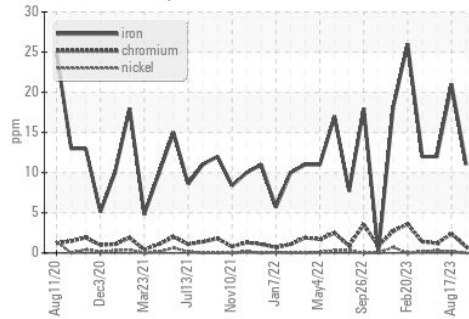


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

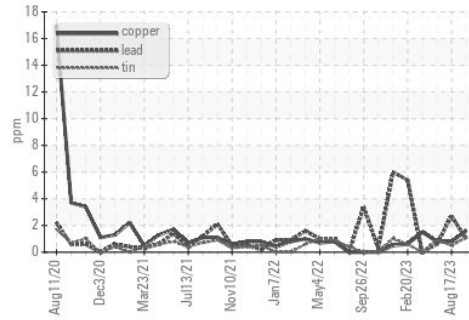
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	14.8	14.7

GRAPHS

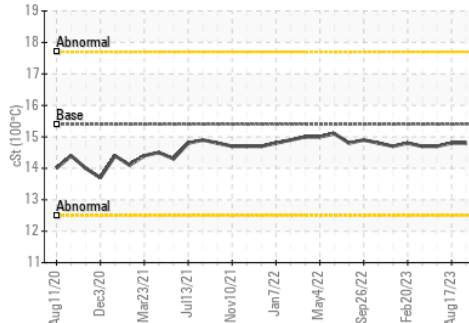
Ferrous Alloys



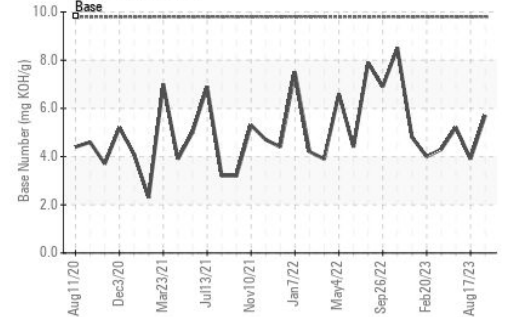
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : GFL0124452
 Lab Number : 06199812
 Unique Number : 11061935
 Test Package : FLEET

Received : 05 Jun 2024
 Tested : 05 Jun 2024
 Diagnosed : 07 Jun 2024 - Sean Felton

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

Contact: Eric Wood
 eric.wood@gflenv.com

T: (717)723-1956
 F: (910)762-6880

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)