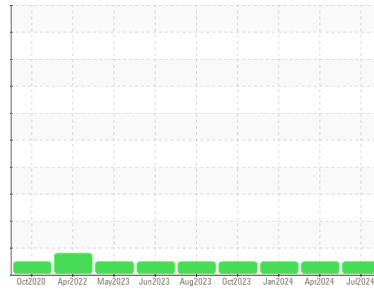




OIL ANALYSIS REPORT

Area
(NE7620)
 Machine Id
3807-609044
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- LTR)

Sample Rating Trend



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	GFL0091908	GFL0112802	GFL0101345
Sample Date	Client Info	02 Jul 2024	02 Apr 2024	05 Jan 2024
Machine Age	hrs Client Info	34775	29020	9329
Oil Age	hrs Client Info	34775	34775	0
Oil Changed	Client Info	Not Changed	Not Changd	Changed
Sample Status		NORMAL	NORMAL	NORMAL

CONTAMINATION

method	limit/base	current	history1	history2
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

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >165	9	4	9
Chromium	ppm ASTM D5185m >5	<1	<1	<1
Nickel	ppm ASTM D5185m >4	0	<1	0
Titanium	ppm ASTM D5185m >2	0	<1	0
Silver	ppm ASTM D5185m >2	0	<1	0
Aluminum	ppm ASTM D5185m >20	2	2	3
Lead	ppm ASTM D5185m >150	1	<1	2
Copper	ppm ASTM D5185m >90	<1	1	<1
Tin	ppm ASTM D5185m >5	0	<1	<1
Vanadium	ppm ASTM D5185m	0	<1	0
Cadmium	ppm ASTM D5185m	0	<1	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	15	2	3
Barium	ppm ASTM D5185m 0	0	0	0
Molybdenum	ppm ASTM D5185m 60	54	55	62
Manganese	ppm ASTM D5185m 0	<1	<1	<1
Magnesium	ppm ASTM D5185m 1010	950	909	1047
Calcium	ppm ASTM D5185m 1070	1188	1055	1125
Phosphorus	ppm ASTM D5185m 1150	1037	1033	1183
Zinc	ppm ASTM D5185m 1270	1247	1166	1408
Sulfur	ppm ASTM D5185m 2060	3582	3190	3321

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >35	4	5	5
Sodium	ppm ASTM D5185m	2	1	2
Potassium	ppm ASTM D5185m >20	2	2	3

INFRA-RED

method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >7.5	0.7	0.2	0.9
Nitration	Abs/cm *ASTM D7624 >20	11.3	6.3	12.4
Sulfation	Abs/.1mm *ASTM D7415 >30	20.8	18.1	21.3

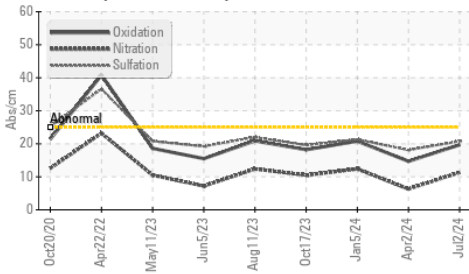
FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	19.7	14.7	20.8
Base Number (BN)	mg KOH/g ASTM D2896 9.8	7.1	8.6	7.0

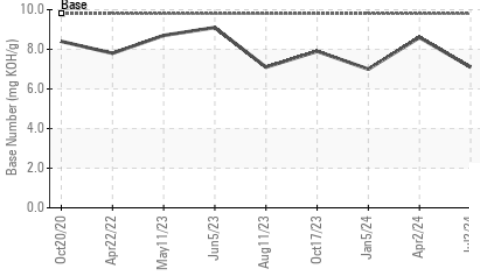


OIL ANALYSIS REPORT

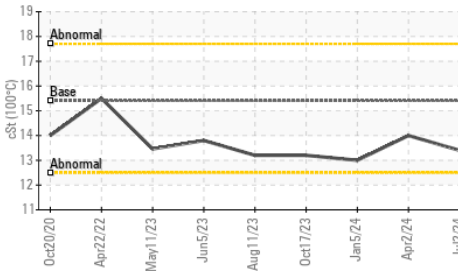
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

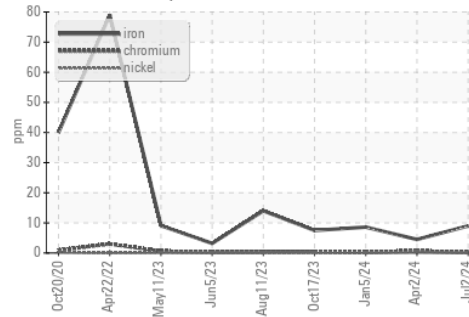


PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

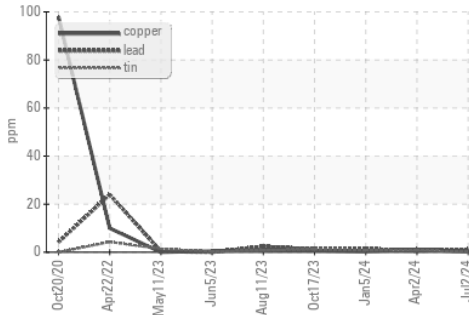
PARAMETER	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	13.4	14.0

GRAPHS

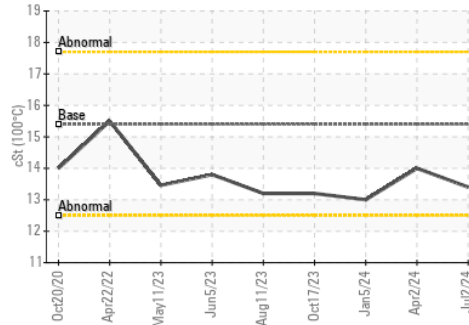
Ferrous Alloys



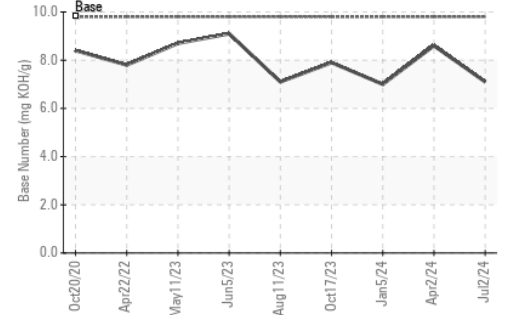
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : GFL0091908
 Lab Number : 06229469
 Unique Number : 11112962
 Test Package : FLEET

Received : 05 Jul 2024
 Tested : 09 Jul 2024
 Diagnosed : 09 Jul 2024 - Wes Davis

GFL Environmental - 654 - Richmond Hauling
 11800 Lewis Road
 Chester, VA
 US 23831
 Contact: Jimmy Mayes
 jmayes@gflenv.com

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)

T:
F: