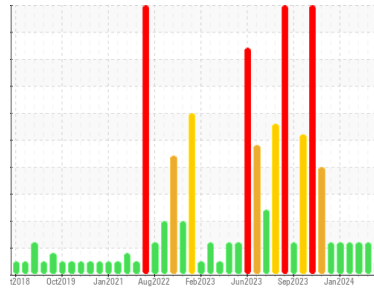




OIL ANALYSIS REPORT

Area
(DUW950)
 Machine Id
10630
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (7 GAL)

Sample Rating Trend



DIAGNOSIS

Recommendation
 Resample at the next service interval to monitor.

Wear
 All component wear rates are normal.

Contamination
 Test for glycol is negative. 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		GFL0115681	GFL0115708	GFL0112304
Sample Date	Client Info		12 Apr 2024	25 Mar 2024	19 Feb 2024
Machine Age	hrs	Client Info	7288	7169	6924
Oil Age	hrs	Client Info	364	245	413
Oil Changed	Client Info		Not Chngd	Not Chngd	Changed
Sample Status			NORMAL	ABNORMAL	ATTENTION

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

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >75	18	15	15
Chromium	ppm	ASTM D5185m >5	<1	1	1
Nickel	ppm	ASTM D5185m >4	0	<1	0
Titanium	ppm	ASTM D5185m >2	0	<1	<1
Silver	ppm	ASTM D5185m >2	0	0	0
Aluminum	ppm	ASTM D5185m >15	3	3	2
Lead	ppm	ASTM D5185m >25	0	<1	0
Copper	ppm	ASTM D5185m >100	0	1	2
Tin	ppm	ASTM D5185m >4	0	<1	<1
Vanadium	ppm	ASTM D5185m	0	0	<1
Cadmium	ppm	ASTM D5185m	0	<1	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	15	12	15
Barium	ppm	ASTM D5185m 0	0	0	0
Molybdenum	ppm	ASTM D5185m 60	66	67	69
Manganese	ppm	ASTM D5185m 0	0	<1	<1
Magnesium	ppm	ASTM D5185m 1010	833	866	808
Calcium	ppm	ASTM D5185m 1070	1025	1092	953
Phosphorus	ppm	ASTM D5185m 1150	963	951	920
Zinc	ppm	ASTM D5185m 1270	1109	1154	1085
Sulfur	ppm	ASTM D5185m 2060	2942	3001	2728

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	10	8	6
Sodium	ppm	ASTM D5185m	111	▲ 82	● 331
Potassium	ppm	ASTM D5185m >20	4	7	27
Glycol	%	*ASTM D2982	0.0	NEG	NEG

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >6	0.9	0.5	0.5
Nitration	Abs/cm	*ASTM D7624 >20	8.3	6.7	7.2
Sulfation	Abs/.1mm	*ASTM D7415 >30	19.5	18.5	18.7

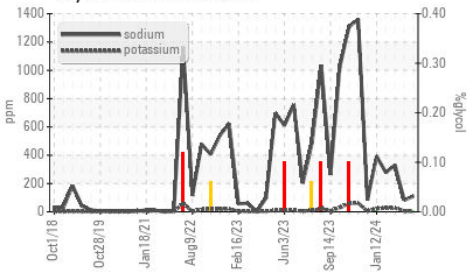
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	14.3	13.1	13.4
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	8.2	8.1	8.7

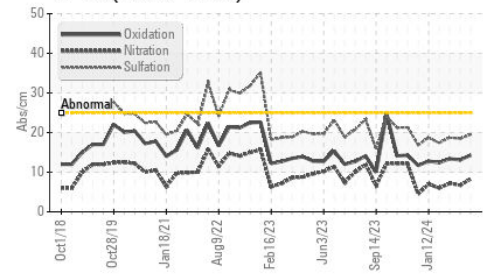


OIL ANALYSIS REPORT

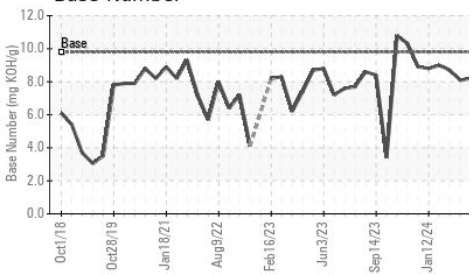
Glycol Contamination



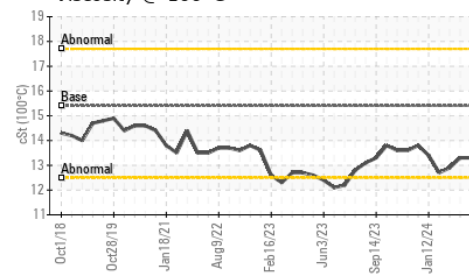
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

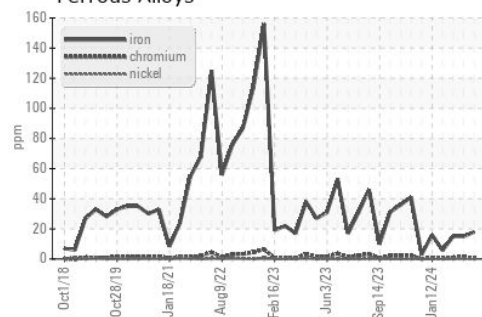


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

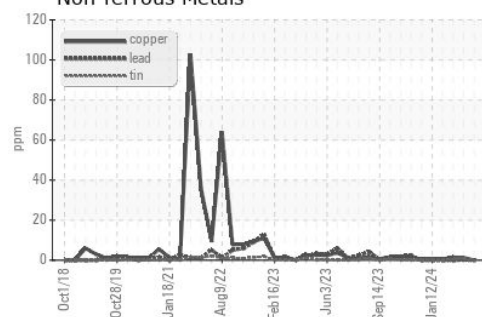
FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.4	13.3	13.3	12.9

GRAPHS

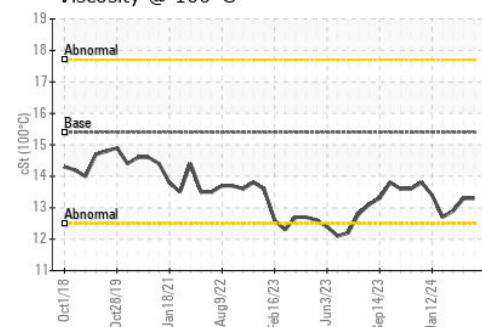
Ferrous Alloys



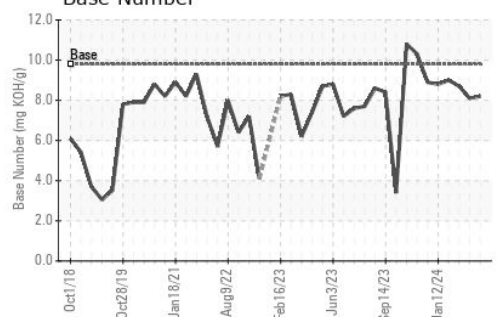
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0115681 **Received** : 15 Apr 2024
Lab Number : 06148232 **Tested** : 17 Apr 2024
Unique Number : 10978310 **Diagnosed** : 17 Apr 2024 - Wes Davis
Test Package : FLEET (Additional Tests: Glycol)

GFL Environmental - 010 - Stockbridge
 1280 Rum Creek Parkway
 Stockbridge, GA
 US 30281
 Contact: JOSHUA TINKER
 joshuatinker@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: