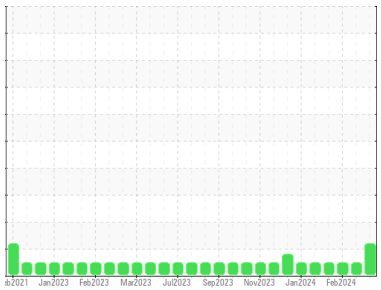
OIL ANALYSIS REPORT

Sample Rating Trend



FUEL

Area
(61AC7A0)
Machine Id
2414
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- LTR)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Light fuel dilution occurring.

Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**GFL0115818**	GFL0113685	GFL0100450
Sample Date		Client Info		**08 Mar 2024**	19 Feb 2024	05 Feb 2024
Machine Age	hrs	Client Info		**20857**	20734	20632
Oil Age	hrs	Client Info		**0**	0	1152
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**MARGINAL**	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
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	>100	**11**	10	5
Chromium	ppm	ASTM D5185m	>20	**<1**	<1	<1
Nickel	ppm	ASTM D5185m	>2	**4**	2	2
Titanium	ppm	ASTM D5185m		**0**	0	<1
Silver	ppm	ASTM D5185m	>2	**0**	0	0
Aluminum	ppm	ASTM D5185m	>25	**9**	5	4
Lead	ppm	ASTM D5185m	>40	**<1**	0	0
Copper	ppm	ASTM D5185m	>330	**3**	2	2
Tin	ppm	ASTM D5185m	>15	**<1**	0	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	**4**	4	5
Barium	ppm	ASTM D5185m	0	**0**	0	0
Molybdenum	ppm	ASTM D5185m	60	**84**	59	65
Manganese	ppm	ASTM D5185m	0	**0**	<1	0
Magnesium	ppm	ASTM D5185m	1010	**1110**	875	867
Calcium	ppm	ASTM D5185m	1070	**1285**	1066	1064
Phosphorus	ppm	ASTM D5185m	1150	**1167**	990	991
Zinc	ppm	ASTM D5185m	1270	**1456**	1134	1161
Sulfur	ppm	ASTM D5185m	2060	**3681**	2928	3073

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**7**	4	3
Sodium	ppm	ASTM D5185m		**3**	2	<1
Potassium	ppm	ASTM D5185m	>20	**3**	<1	3
Fuel	%	ASTM D3524	>6.0	▲ **3.7**	<1.0	<1.0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	**0.6**	0.5	0.3
Nitration	Abs/cm	*ASTM D7624	>20	**8.4**	7.5	6.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	**18.3**	18.1	17.5

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**14.6**	14.1	13.7
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	**7.9**	8.4	7.5

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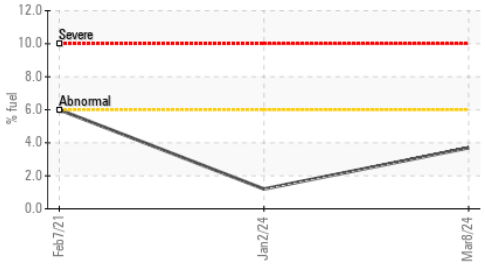
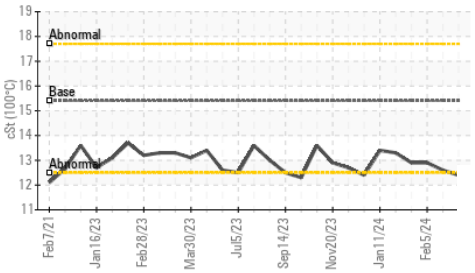
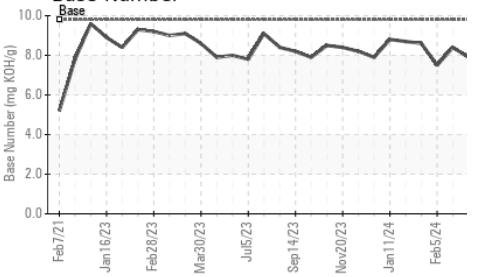
Fuel Dilution



Viscosity @ 100°C



Base Number

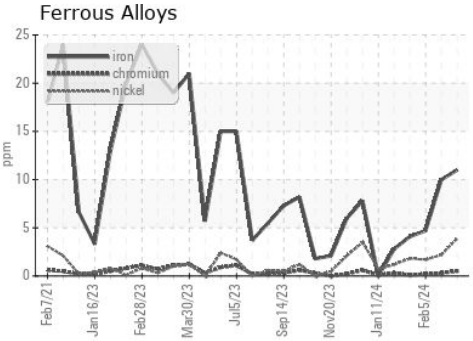


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	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
Free Water	scalar	*Visual		**NEG**	NEG	NEG

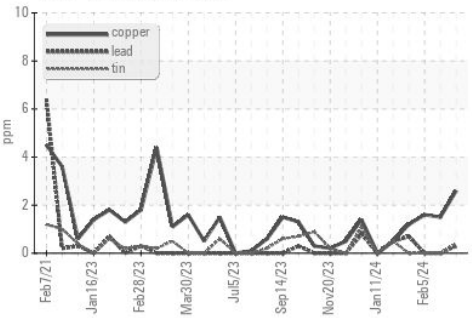
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	▲ **12.4**	12.6	12.9

GRAPHS

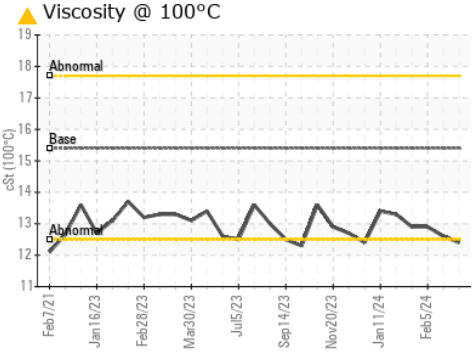
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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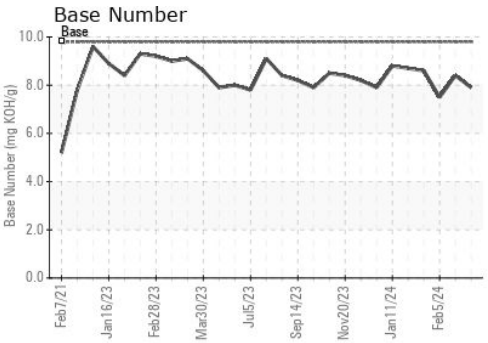

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY
Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0115818
Lab Number : 06116773
Unique Number : 10925606
Test Package : FLEET (Additional Tests: FUELDILUTION, PercentFuel)

Received : 13 Mar 2024
Tested : 19 Mar 2024
Diagnosed : 19 Mar 2024 - Jonathan Hester

GFL Environmental - 868 - Childersburg Fines Hauling (Alpine)
13737 Plant Rd
Childersburg, AL
US 35044
Contact: JONATHAN WILLIAMS
jonathan.williams@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)