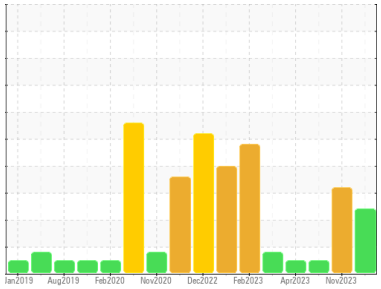
OIL ANALYSIS REPORT

Machine Id
727044-361326
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

Sample Rating Trend



GLYCOL

DIAGNOSIS

▲ Recommendation
No corrective action is recommended at this time. We recommend an early resample to monitor this condition.

Wear
All component wear rates are normal.

▲ Contamination
Sodium and/or potassium levels are high. Test for glycol is negative.

▲ 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		**GFL0098728**	GFL0098763	GFL0065500
Sample Date		Client Info		**08 Jan 2024**	08 Nov 2023	06 Oct 2023
Machine Age	hrs	Client Info		**1308**	1010	804
Oil Age	hrs	Client Info		**150**	600	150
Oil Changed		Client Info		**Not Changd**	Changed	Not Changd
Sample Status				**ATTENTION**	ABNORMAL	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

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>120	**12**	65	42
Chromium	ppm	ASTM D5185m	>20	**<1**	1	<1
Nickel	ppm	ASTM D5185m	>5	**<1**	1	<1
Titanium	ppm	ASTM D5185m	>2	**<1**	<1	0
Silver	ppm	ASTM D5185m	>2	**0**	<1	0
Aluminum	ppm	ASTM D5185m	>20	**2**	5	0
Lead	ppm	ASTM D5185m	>40	**5**	▲ 57	47
Copper	ppm	ASTM D5185m	>330	**2**	27	21
Tin	ppm	ASTM D5185m	>15	**<1**	5	3
Vanadium	ppm	ASTM D5185m		**0**	<1	0
Cadmium	ppm	ASTM D5185m		**0**	<1	<1

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	**<1**	0	0
Barium	ppm	ASTM D5185m	0	**0**	<1	<1
Molybdenum	ppm	ASTM D5185m	60	**69**	84	75
Manganese	ppm	ASTM D5185m	0	**<1**	<1	<1
Magnesium	ppm	ASTM D5185m	1010	**853**	883	835
Calcium	ppm	ASTM D5185m	1070	**921**	1013	942
Phosphorus	ppm	ASTM D5185m	1150	**962**	951	911
Zinc	ppm	ASTM D5185m	1270	**1103**	1170	1112
Sulfur	ppm	ASTM D5185m	2060	**3003**	2844	2777

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**3**	7	5
Sodium	ppm	ASTM D5185m		▲ **94**	▲ 340	256
Potassium	ppm	ASTM D5185m	>20	▲ **74**	▲ 30	17
Glycol	%	*ASTM D2982		**NEG**	NEG	0.0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>4	**0.9**	2.8	2
Nitration	Abs/cm	*ASTM D7624	>20	**5.5**	9.8	8.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	**18.6**	24.3	20.6

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**12.6**	13.9	13.3
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	**9.5**	7.7	8.8

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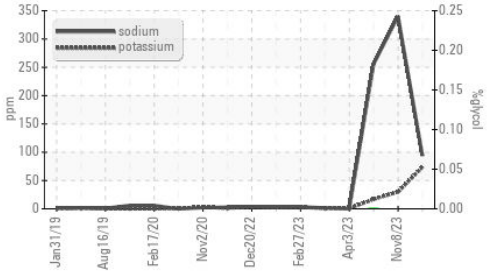
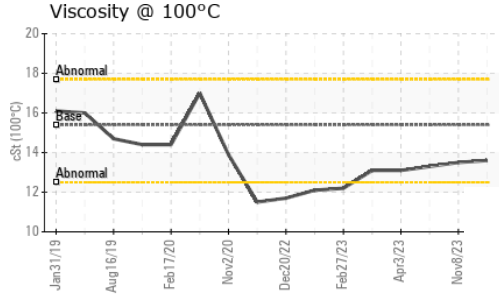
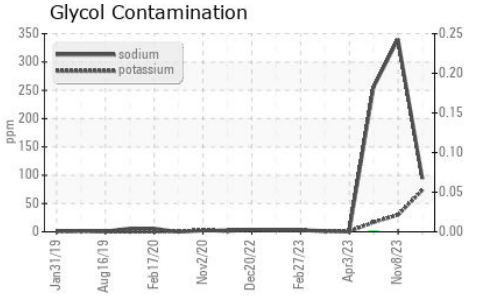
Glycol Contamination



Viscosity @ 100°C



Glycol Contamination

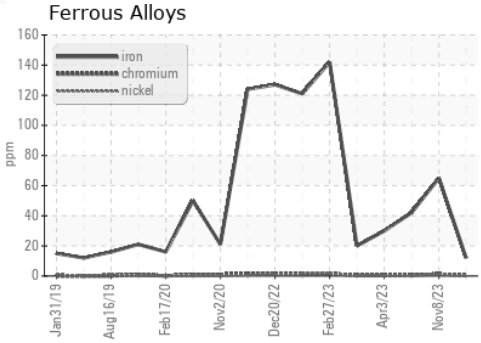


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt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

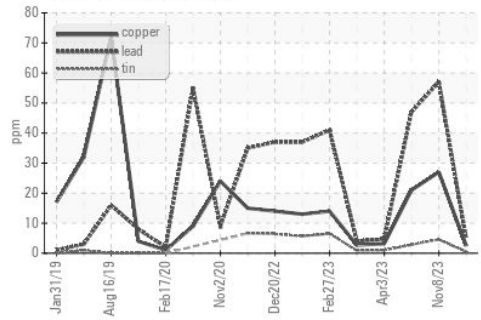
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	**13.6**	13.5	13.3

GRAPHS

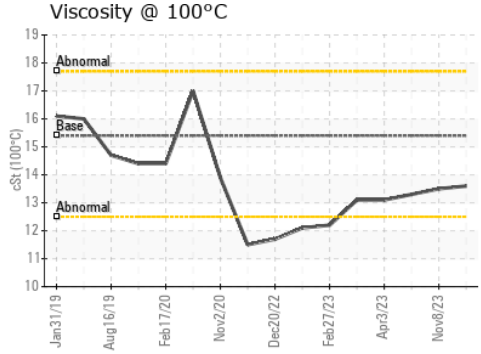
Ferrous Alloys



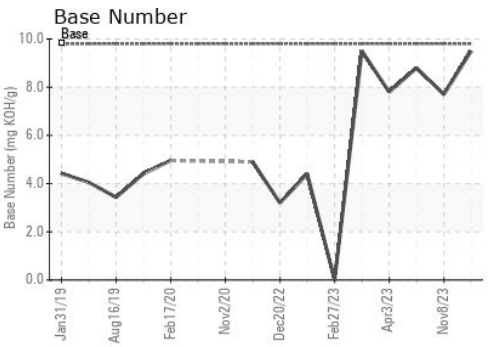
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0098728 **Recieved** : 11 Jan 2024
Lab Number : 06058599 **Diagnosed** : 15 Jan 2024
Unique Number : 10829981 **Diagnostician** : Jonathan Hester
Test Package : FLEET (Additional Tests: Glycol)

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)

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