



Area
(H904544)
Machine Id
2520
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (10 GAL)

RECOMMENDATION

We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0099757	GFL0073303	GFL0073272
Sample Date		Client Info		27 Feb 2024	20 Jun 2023	19 May 2023
Machine Age	hrs	Client Info		600	600	600
Oil Age	hrs	Client Info		600	600	600
Filter Age	hrs	Client Info		600	600	600
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				SEVERE	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>165	80	9	66
Chromium	ppm	ASTM D5185m	>5	2	<1	2
Nickel	ppm	ASTM D5185m	>4	<1	<1	0
Titanium	ppm	ASTM D5185m	>2	<1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	11	0	4
Lead	ppm	ASTM D5185m	>150	25	0	8
Copper	ppm	ASTM D5185m	>90	5	<1	21
Tin	ppm	ASTM D5185m	>5	1	0	2
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

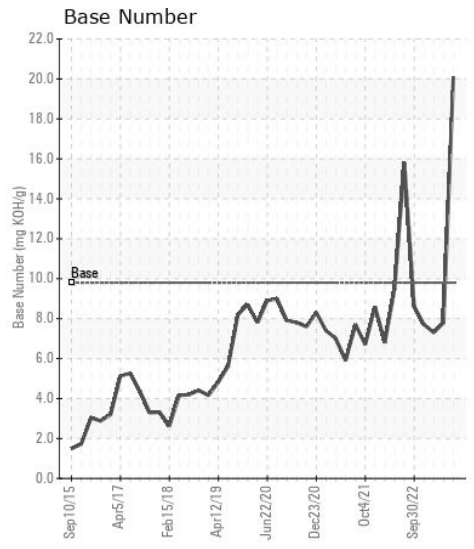
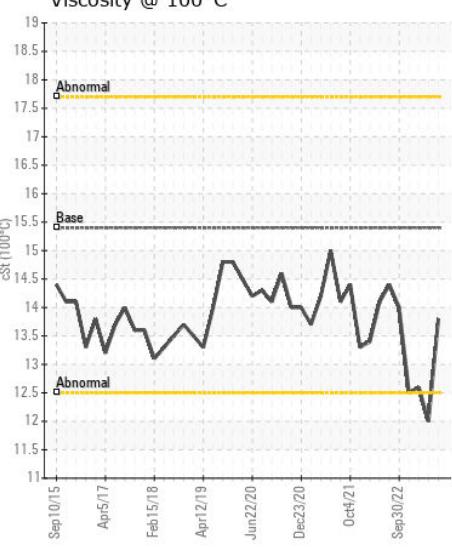
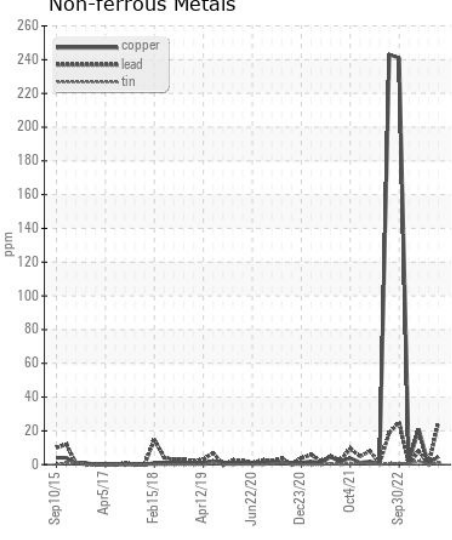
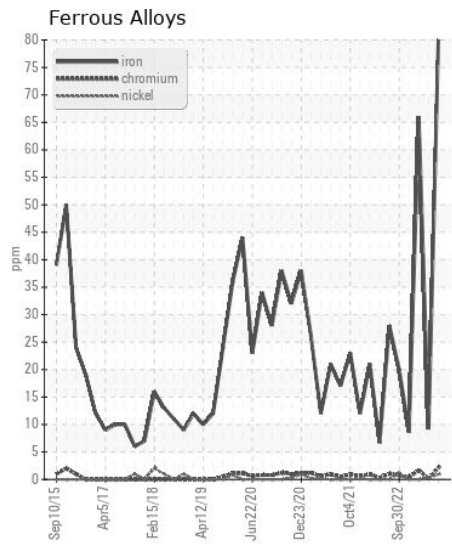
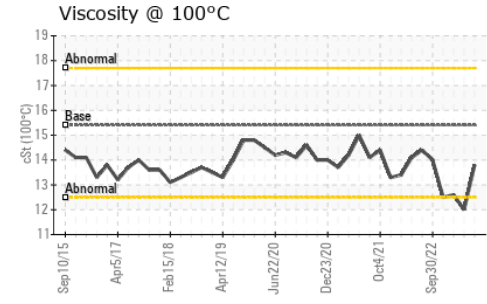
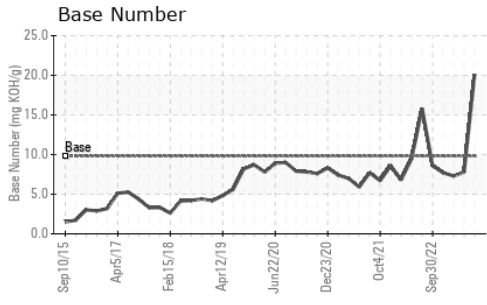
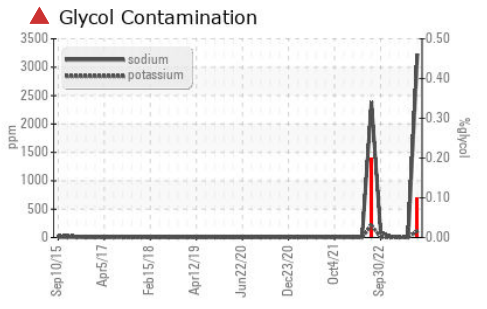
Sodium and/or potassium levels are high. Test for glycol is positive.

Silicon	ppm	ASTM D5185m	>35	81	3	9
Potassium	ppm	ASTM D5185m	>20	▲ 110	2	2
Fuel		WC Method	>3.0	<1.0	0.9	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		▲ 0.10	NEG	NEG
Soot %	%	*ASTM D7844	>7.5	0.5	0.6	0.7
Nitration	Abs/cm	*ASTM D7624	>20	17.7	7.7	9.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.6	18.8	20.8
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

FLUID CONDITION

The oil is no longer serviceable.

Sodium	ppm	ASTM D5185m		▲ 3231	0	6
Boron	ppm	ASTM D5185m	0	36	26	27
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	186	108	79
Manganese	ppm	ASTM D5185m	0	2	<1	1
Magnesium	ppm	ASTM D5185m	1010	755	738	729
Calcium	ppm	ASTM D5185m	1070	1082	1221	1344
Phosphorus	ppm	ASTM D5185m	1150	798	923	976
Zinc	ppm	ASTM D5185m	1270	955	1112	1200
Sulfur	ppm	ASTM D5185m	2060	2764	3264	3752
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.3	13.0	16.0
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	20.1	7.8	7.3
Visc @ 100°C	cSt	ASTM D445	15.4	13.8	12.0	12.6



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0099757 **Received** : 29 Feb 2024
Lab Number : 06104031 **Tested** : 01 Mar 2024
Unique Number : 10902261 **Diagnosed** : 02 Mar 2024 - Don Baldrige
Test Package : FLEET (Additional Tests: Glycol)

GFL Environmental - 102 - Morristown TN
 415 Ryder Lane, PO Box 1894
 Morristown, TN
 US 37813
 Contact: Ricky Dunlap
 ricky.dunlap@gflenv.com
 T: (800)207-6618
 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)