



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL

Area
(TX272518)
Machine Id
10708
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (8 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		GFL0125969	GFL0112177	GFL0098032
Sample Date		Client Info		05 Jul 2024	03 Apr 2024	16 Oct 2023
Machine Age	hrs	Client Info		15164	15164	15164
Oil Age	hrs	Client Info		15164	15164	15164
Filter Age	hrs	Client Info		596	596	596
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>110	26	33	22
Chromium	ppm	ASTM D5185m	>4	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	0	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	5	7	5
Lead	ppm	ASTM D5185m	>45	0	<1	<1
Copper	ppm	ASTM D5185m	>85	<1	2	1
Tin	ppm	ASTM D5185m	>4	0	<1	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

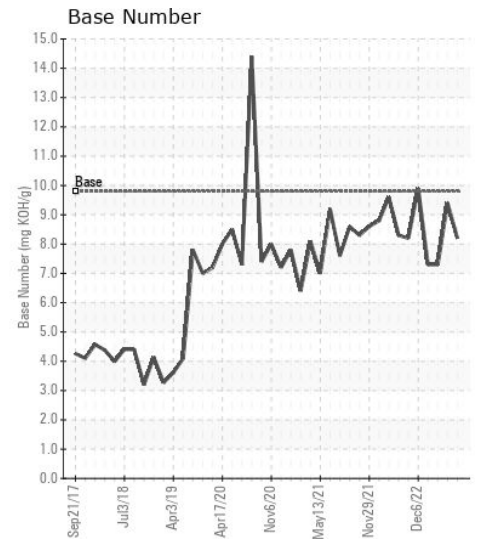
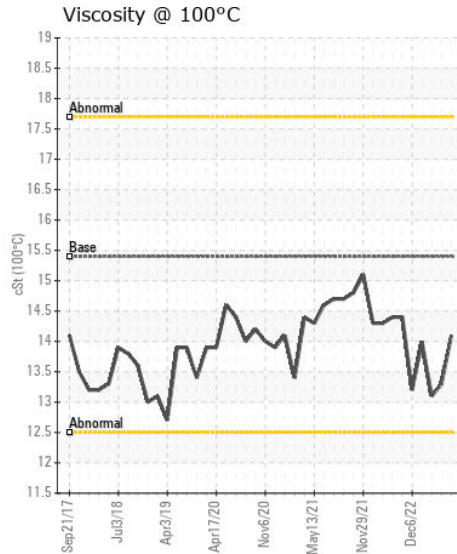
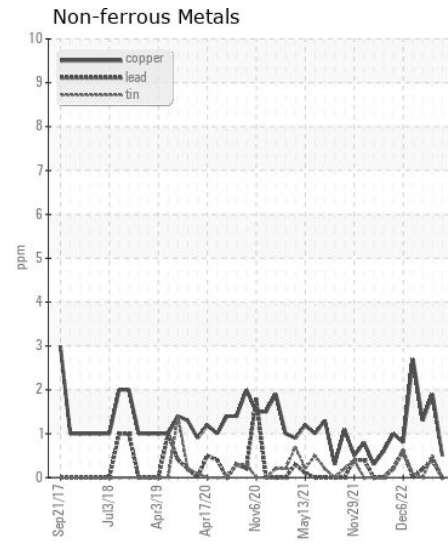
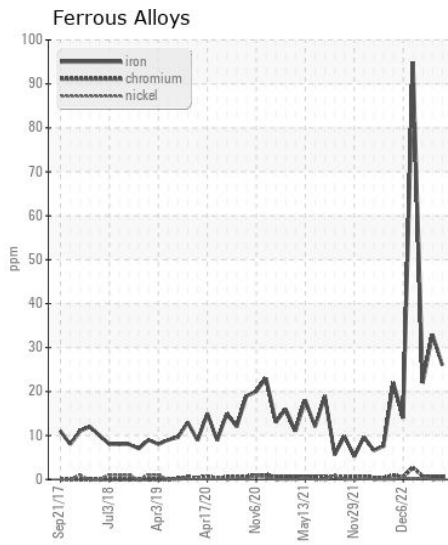
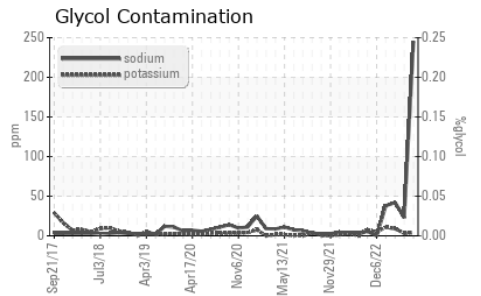
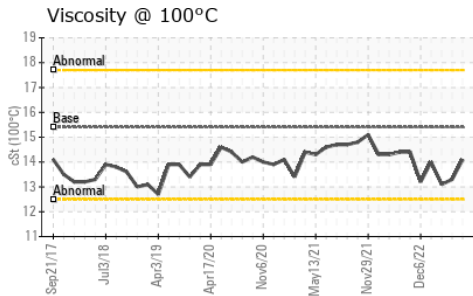
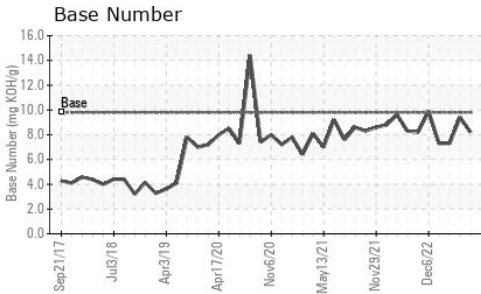
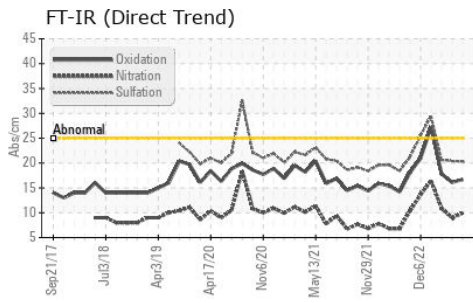
Sodium and/or potassium levels are high.

Silicon	ppm	ASTM D5185m	>30	8	3	5
Potassium	ppm	ASTM D5185m	>20	4	3	9
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.5	0.9	0.8
Nitration	Abs/cm	*ASTM D7624	>20	9.9	9.0	10.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.3	20.4	20.6
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 BN result indicates that there is suitable alkalinity remaining in the oil.

Sodium	ppm	ASTM D5185m		▲ 245	23	42
Boron	ppm	ASTM D5185m	0	7	10	3
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	69	59	61
Manganese	ppm	ASTM D5185m	0	<1	<1	0
Magnesium	ppm	ASTM D5185m	1010	889	902	893
Calcium	ppm	ASTM D5185m	1070	1175	1089	1017
Phosphorus	ppm	ASTM D5185m	1150	1030	1055	923
Zinc	ppm	ASTM D5185m	1270	1222	1235	1169
Sulfur	ppm	ASTM D5185m	2060	3472	3417	3007
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.7	16.1	17.8
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.2	9.4	7.3
Visc @ 100°C	cSt	ASTM D445	15.4	14.1	13.3	13.1



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0125969 **Received** : 11 Jul 2024
Lab Number : 06234267 **Tested** : 16 Jul 2024
Unique Number : 11123101 **Diagnosed** : 16 Jul 2024 - Jonathan Hester
Test Package : FLEET (Additional Tests: Glycol)

GFL Environmental - 045 - Tidewater
 3821 Cook Blvd.
 Chesapeake, VA
 US 23323
 Contact: ELVIN RODRIGUEZ
 elvinrodriguez@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)