



WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Machine Id
921056-205333
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (42 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		GFL0122581	GFL0101833	GFL0101852
Sample Date		Client Info		19 Jun 2024	21 May 2024	12 Apr 2024
Machine Age	hrs	Client Info		2295	2065	1768
Oil Age	hrs	Client Info		600	0	0
Filter Age	hrs	Client Info		600	0	0
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Filter Changed		Client Info		Changed	Not Changd	Not Changd
Sample Status				ABNORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>90	2	13	9
Chromium	ppm	ASTM D5185m	>20	0	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	0	<1
Titanium	ppm	ASTM D5185m	>2	<1	0	<1
Silver	ppm	ASTM D5185m	>2	0	<1	0
Aluminum	ppm	ASTM D5185m	>20	1	2	2
Lead	ppm	ASTM D5185m	>40	0	<1	0
Copper	ppm	ASTM D5185m	>330	0	<1	<1
Tin	ppm	ASTM D5185m	>15	<1	0	<1
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

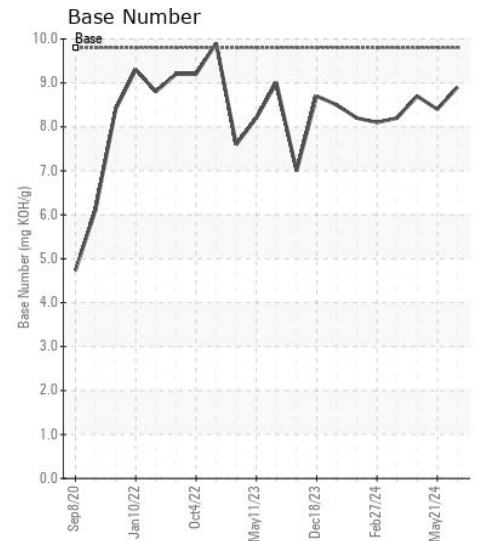
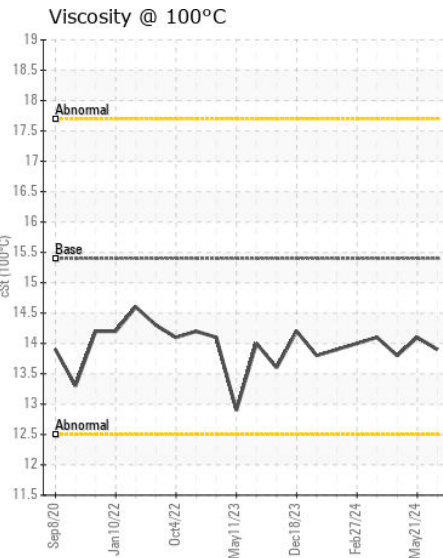
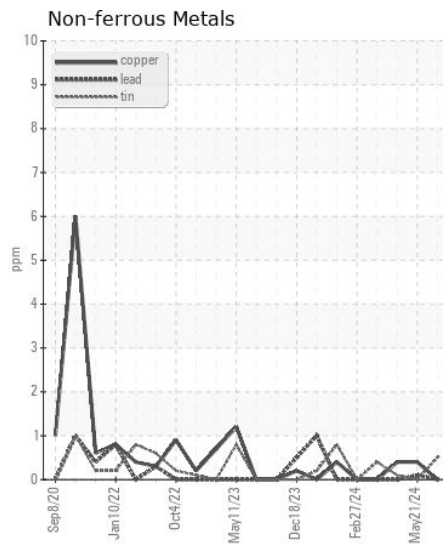
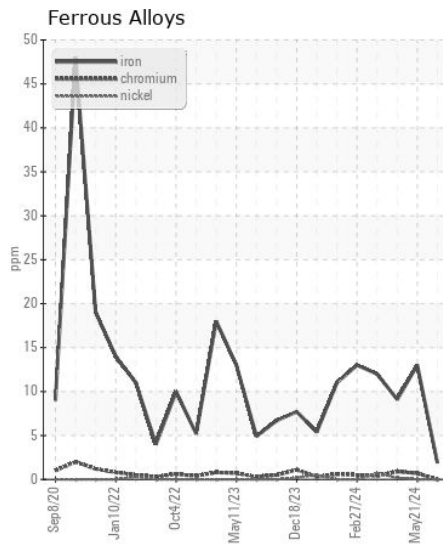
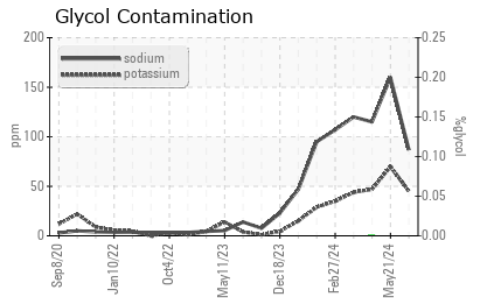
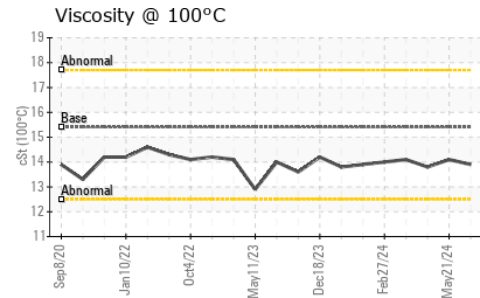
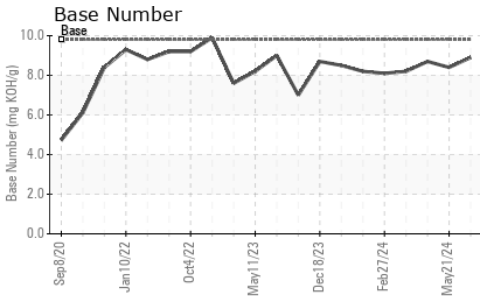
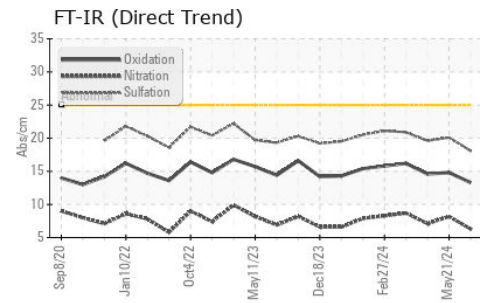
Sodium and/or potassium levels remain high.

Silicon	ppm	ASTM D5185m	>25	3	4	4
Potassium	ppm	ASTM D5185m	>20	▲ 45	▲ 70	47
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	0.0
Soot %	%	*ASTM D7844	>6	0.4	0.9	0.6
Nitration	Abs/cm	*ASTM D7624	>20	6.3	8.2	7.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.1	20.1	19.6
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		▲ 87	▲ 160	115
Boron	ppm	ASTM D5185m	0	5	1	3
Barium	ppm	ASTM D5185m	0	0	0	<1
Molybdenum	ppm	ASTM D5185m	60	61	74	64
Manganese	ppm	ASTM D5185m	0	<1	<1	0
Magnesium	ppm	ASTM D5185m	1010	943	1031	908
Calcium	ppm	ASTM D5185m	1070	1094	1191	1075
Phosphorus	ppm	ASTM D5185m	1150	1107	1092	1094
Zinc	ppm	ASTM D5185m	1270	1296	1373	1224
Sulfur	ppm	ASTM D5185m	2060	3662	3707	3343
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.3	14.8	14.6
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.9	8.4	8.7
Visc @ 100°C	cSt	ASTM D445	15.4	13.9	14.1	13.8



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0122581 **Received** : 21 Jun 2024
Lab Number : 06216691 **Tested** : 24 Jun 2024
Unique Number : 11089555 **Diagnosed** : 24 Jun 2024 - Sean Felton
Test Package : FLEET (Additional Tests: Glycol)

GFL Environmental - 894 - Ada Hauling
 1904 North Broadway, Suite D
 Ada, OK
 US 74820
 Contact: Johnny Spurlock
 jspurlock@gflenv.com
 T: (405)664-4476
 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)