



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Machine Id
10986

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (36 QTS)

RECOMMENDATION

Check for low coolant level. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0068885	GFL0097141	GFL0097190
Sample Date		Client Info		13 Jan 2024	25 Nov 2023	16 Nov 2023
Machine Age	hrs	Client Info		15596	15326	15204
Oil Age	hrs	Client Info		392	122	522
Filter Age	hrs	Client Info		0	0	522
Oil Changed		Client Info		Not Changd	Not Changd	Changd
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ATTENTION	NORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>165	22	8	29
Chromium	ppm	ASTM D5185m	>5	<1	0	1
Nickel	ppm	ASTM D5185m	>4	0	0	<1
Titanium	ppm	ASTM D5185m	>2	<1	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	3	1	4
Lead	ppm	ASTM D5185m	>150	0	0	0
Copper	ppm	ASTM D5185m	>90	1	<1	2
Tin	ppm	ASTM D5185m	>5	0	0	<1
Vanadium	ppm	ASTM D5185m		<1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

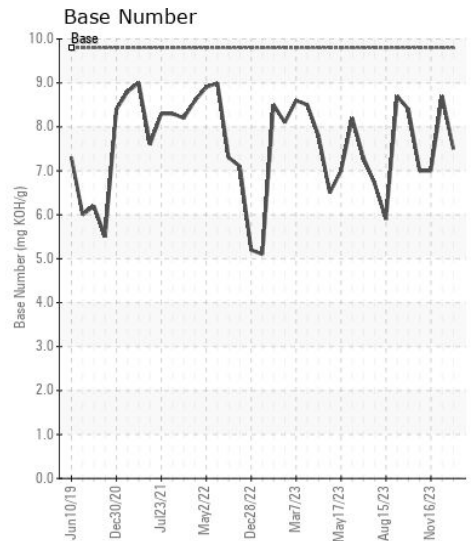
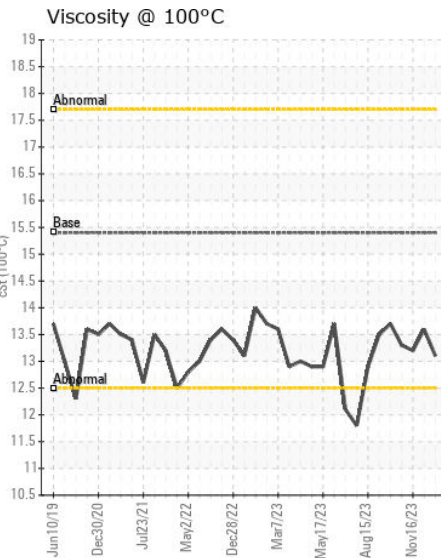
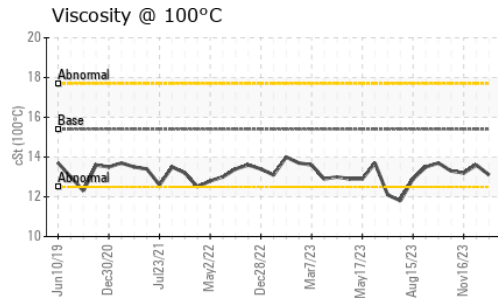
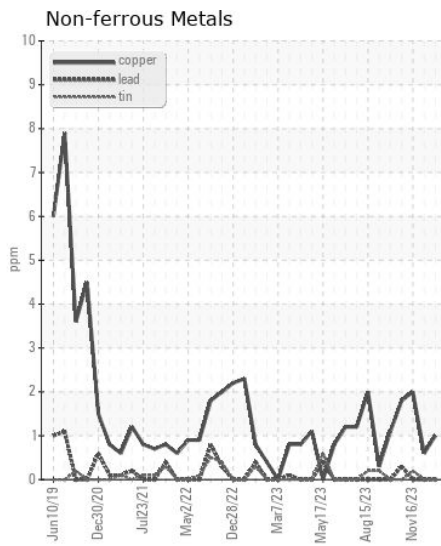
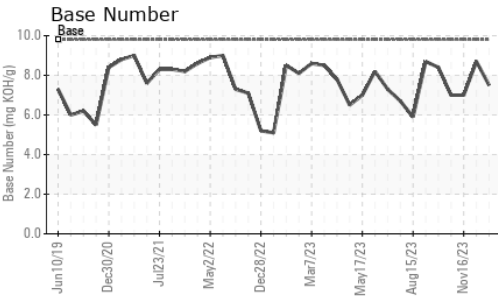
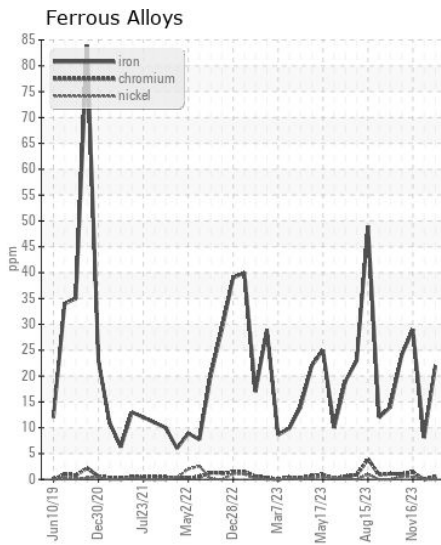
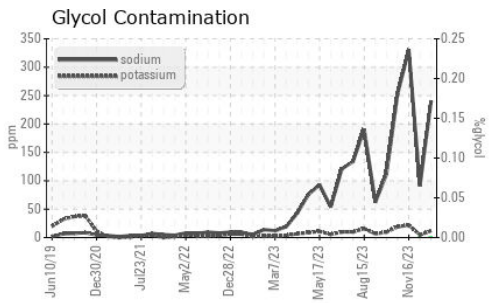
Sodium and/or potassium levels are high. Test for glycol is negative.

Silicon	ppm	ASTM D5185m	>35	12	7	17
Potassium	ppm	ASTM D5185m	>20	12	5	22
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		0.0	0.0	NEG
Soot %	%	*ASTM D7844	>7.5	0.7	0.3	0.8
Nitration	Abs/cm	*ASTM D7624	>20	10.2	6.6	12.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.6	17.9	21.9
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		▲ 240	91	▲ 331
Boron	ppm	ASTM D5185m	0	5	7	4
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	69	57	78
Manganese	ppm	ASTM D5185m	0	<1	0	<1
Magnesium	ppm	ASTM D5185m	1010	942	902	846
Calcium	ppm	ASTM D5185m	1070	958	1034	1028
Phosphorus	ppm	ASTM D5185m	1150	1028	1022	941
Zinc	ppm	ASTM D5185m	1270	1221	1200	1156
Sulfur	ppm	ASTM D5185m	2060	3006	2936	2395
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.0	13.5	18.8
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	7.5	8.7	7.0
Visc @ 100°C	cSt	ASTM D445	15.4	13.1	13.6	13.2



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0068885 **Received** : 19 Jan 2024
Lab Number : 06065347 **Diagnosed** : 02 Feb 2024
Unique Number : 10836729 **Diagnostician** : Doug Bogart
Test Package : FLEET (Additional Tests: Glycol)

GFL Environmental - 073 - Warner Robins - Transwaste
 155 Story Road
 Warner Robins, GA
 US 31093
 Contact: Mike Taft

Certificate L2367
 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)