



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
929108-285

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (--- LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0066149	GFL0066124	GFL0066128
Sample Date		Client Info		14 Dec 2023	03 Oct 2023	22 Jul 2023
Machine Age	hrs	Client Info		12370	11903	11574
Oil Age	hrs	Client Info		600	500	0
Filter Age	hrs	Client Info		600	500	0
Oil Changed		Client Info		Changed	Changed	Not Changd
Filter Changed		Client Info		Changed	Changed	Not Changd
Sample Status				NORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>110	8	11	9
Chromium	ppm	ASTM D5185m	>4	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	<1	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>2	0	<1	0
Aluminum	ppm	ASTM D5185m	>25	1	2	2
Lead	ppm	ASTM D5185m	>45	1	1	3
Copper	ppm	ASTM D5185m	>85	69	▲ 125	31
Tin	ppm	ASTM D5185m	>4	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

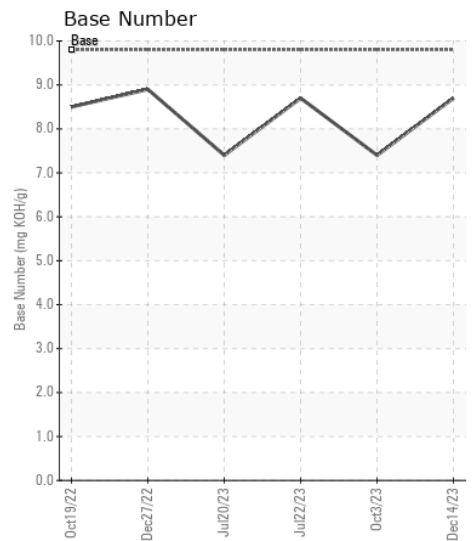
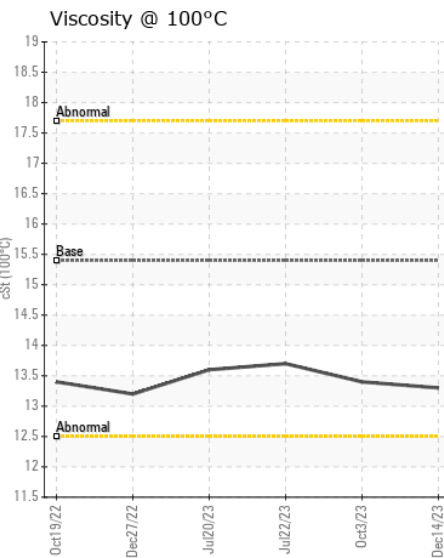
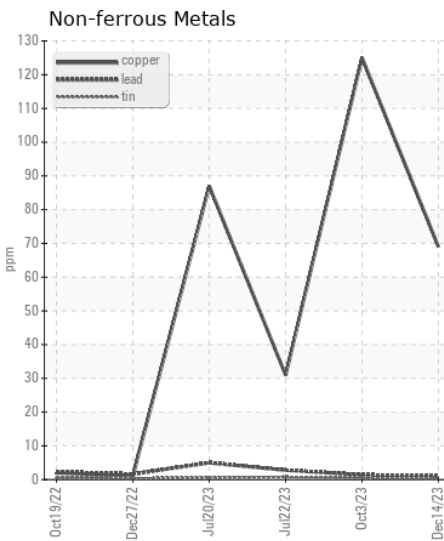
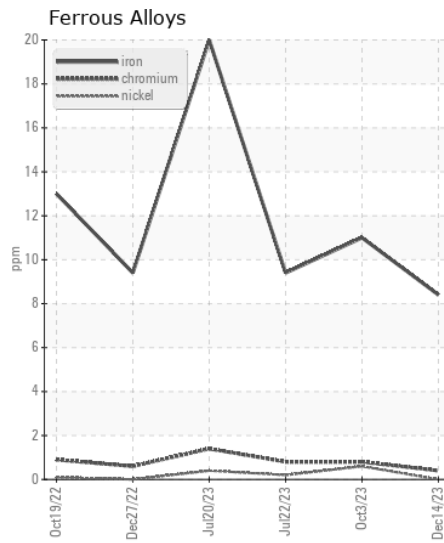
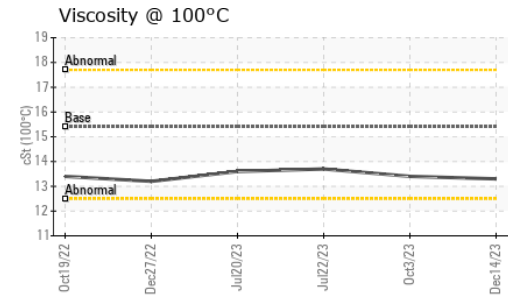
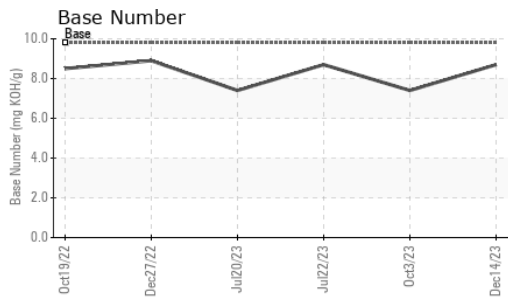
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>30	8	6	8
Potassium	ppm	ASTM D5185m	>20	3	13	13
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.4	0.5	0.3
Nitration	Abs/cm	*ASTM D7624	>20	7.4	8.4	6.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.6	20.4	18.8
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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		9	32	30
Boron	ppm	ASTM D5185m	0	2	5	4
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	64	69	65
Manganese	ppm	ASTM D5185m	0	<1	<1	1
Magnesium	ppm	ASTM D5185m	1010	1044	988	964
Calcium	ppm	ASTM D5185m	1070	1088	1125	1133
Phosphorus	ppm	ASTM D5185m	1150	1103	1088	1014
Zinc	ppm	ASTM D5185m	1270	1314	1332	1270
Sulfur	ppm	ASTM D5185m	2060	2958	2814	3623
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.5	16.3	14.2
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.7	7.4	8.7
Visc @ 100°C	cSt	ASTM D445	15.4	13.3	13.4	13.7



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0066149 **Received** : 19 Jan 2024
Lab Number : 06065296 **Diagnosed** : 20 Jan 2024
Unique Number : 10836678 **Diagnostician** : Wes Davis
Test Package : FLEET

GFL Environmental - 904A - Thorpe
 N14985 Tieman Ave
 Thorp, WI
 US 54771
 Contact: Andy Kane
 akane@gflenv.com
 T: (715)202-3420
 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)