



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
814055
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0099334	GFL0099258	GFL0099264
Sample Date		Client Info		20 May 2024	02 Apr 2024	07 Mar 2024
Machine Age	hrs	Client Info		874	612	466
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	N/A	Not Changed
Filter Changed		Client Info		Changed	N/A	Changed
Sample Status				NORMAL	ABNORMAL	NORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>120	13	45	9
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	6	▲ 11	2
Titanium	ppm	ASTM D5185m	>2	<1	0	<1
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	2	5	3
Lead	ppm	ASTM D5185m	>40	<1	0	<1
Copper	ppm	ASTM D5185m	>330	25	123	17
Tin	ppm	ASTM D5185m	>15	1	3	2
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

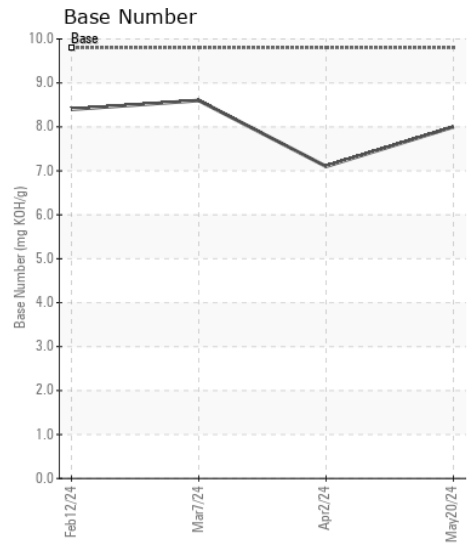
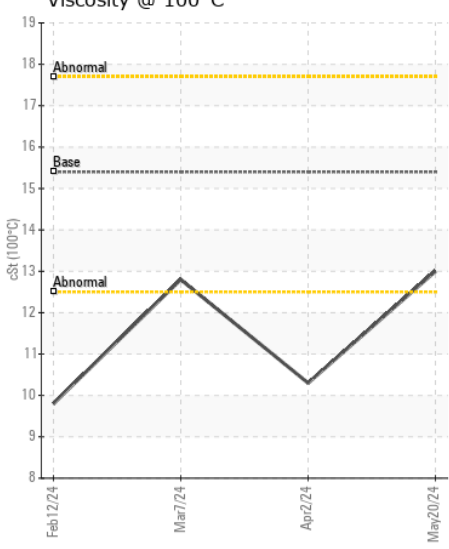
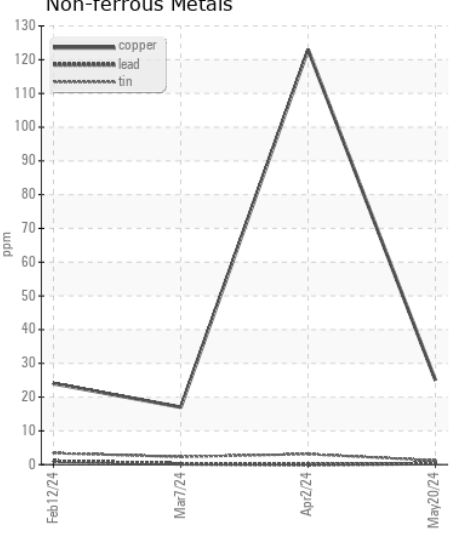
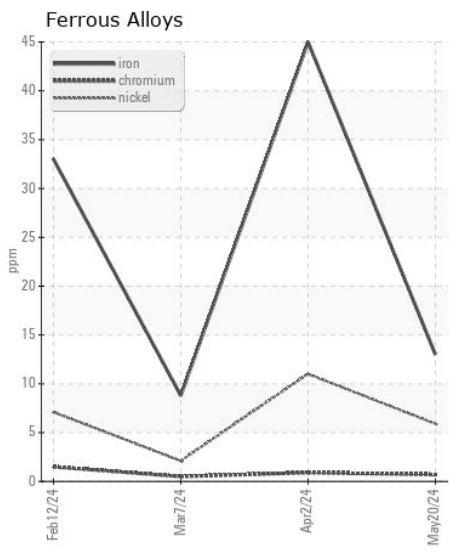
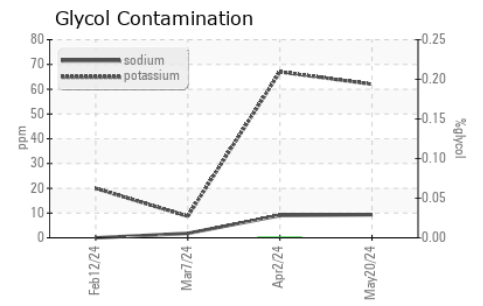
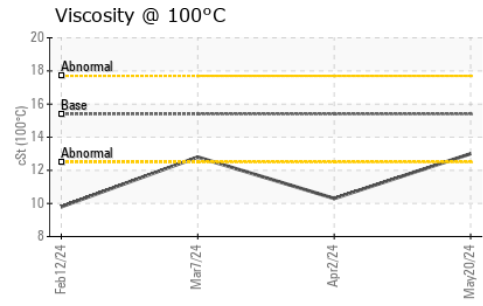
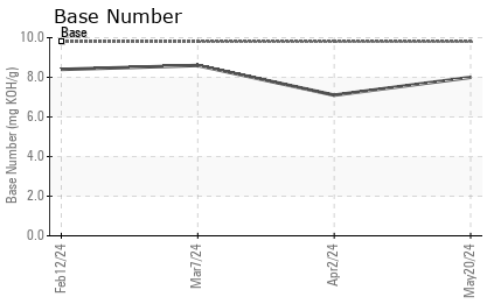
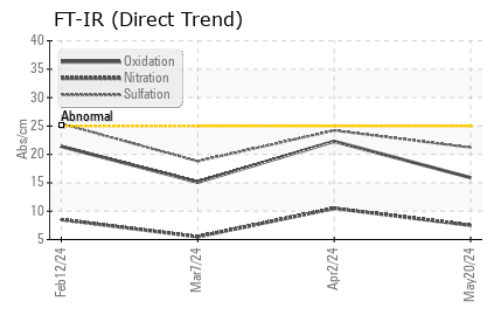
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	9	▲ 63	20
Potassium	ppm	ASTM D5185m	>20	62	67	9
Fuel		WC Method	>3.0	<1.0	0.3	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	0.0	NEG
Soot %	%	*ASTM D7844	>4	0.4	0.6	0.1
Nitration	Abs/cm	*ASTM D7624	>20	7.5	10.5	5.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.2	24.2	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	9	2
Boron	ppm	ASTM D5185m	0	18	146	60
Barium	ppm	ASTM D5185m	0	<1	0	0
Molybdenum	ppm	ASTM D5185m	60	69	115	73
Manganese	ppm	ASTM D5185m	0	1	7	2
Magnesium	ppm	ASTM D5185m	1010	844	720	873
Calcium	ppm	ASTM D5185m	1070	1072	1545	1165
Phosphorus	ppm	ASTM D5185m	1150	1033	747	858
Zinc	ppm	ASTM D5185m	1270	1176	891	1135
Sulfur	ppm	ASTM D5185m	2060	3199	2817	3449
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.9	22.3	15.1
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.0	7.1	8.6
Visc @ 100°C	cSt	ASTM D445	15.4	13.0	● 10.3	12.8



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0099334 **Received** : 23 May 2024
Lab Number : 06190000 **Tested** : 31 May 2024
Unique Number : 11046752 **Diagnosed** : 31 May 2024 - Sean Felton
Test Package : FLEET (Additional Tests: Glycol)

GFL Environmental - 844 - Princeton Hauling
 10129 Highway 62 West
 Princeton, KY
 US 42445
 Contact: ROBERT THIBAUT
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 T: (931)237-6045
 F:

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)