



WEAR	NORMAL
CONTAMINATION	ATTENTION
FLUID CONDITION	ATTENTION

Machine Id
924031-260251
 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		GFL0118205	GFL0118222	GFL0118237
Sample Date		Client Info		24 Jun 2024	22 May 2024	28 Apr 2024
Machine Age	hrs	Client Info		16172	15386	5833
Oil Age	hrs	Client Info		700	150	700
Filter Age	hrs	Client Info		700	0	700
Oil Changed		Client Info		Changed	N/A	Changed
Filter Changed		Client Info		Changed	Not Changed	Changed
Sample Status				ATTENTION	ABNORMAL	MARGINAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	8	14	4
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	4	2
Lead	ppm	ASTM D5185m	>40	<1	0	0
Copper	ppm	ASTM D5185m	>330	<1	3	2
Tin	ppm	ASTM D5185m	>15	0	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

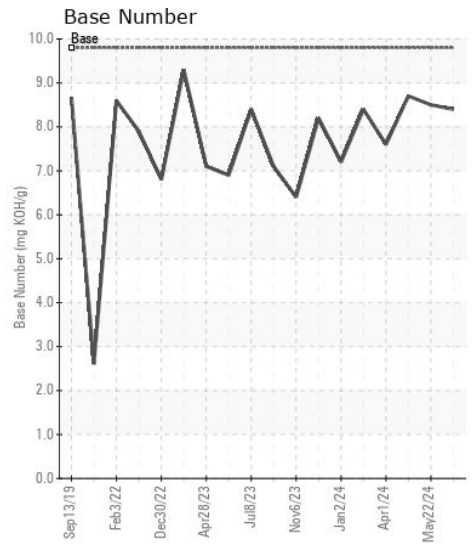
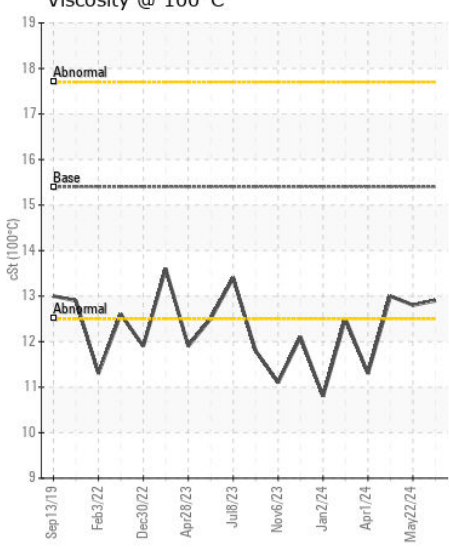
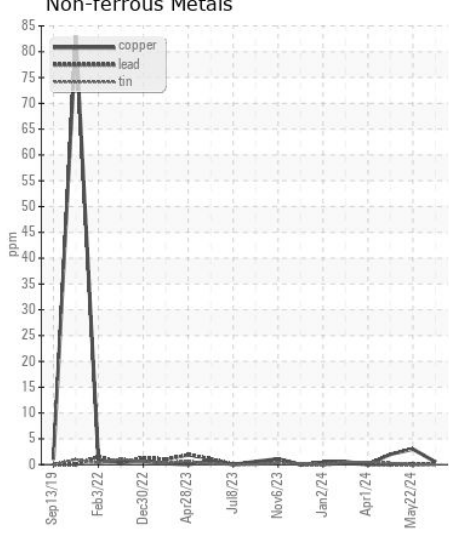
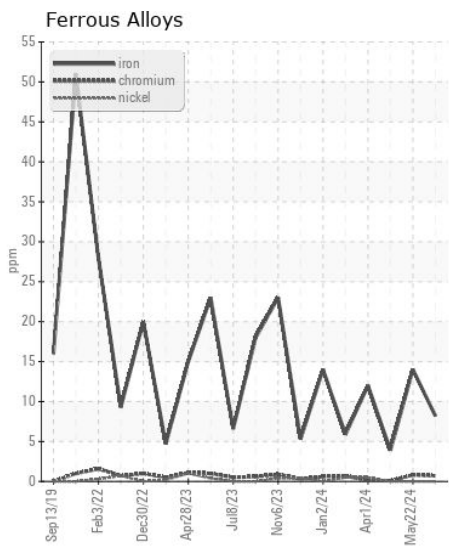
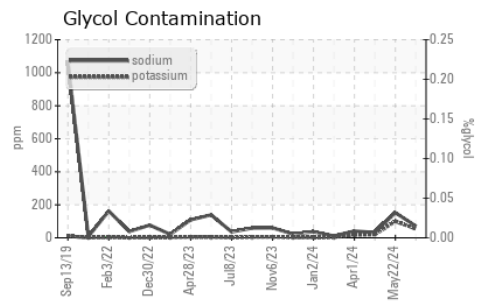
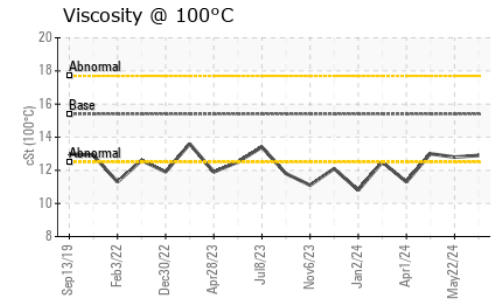
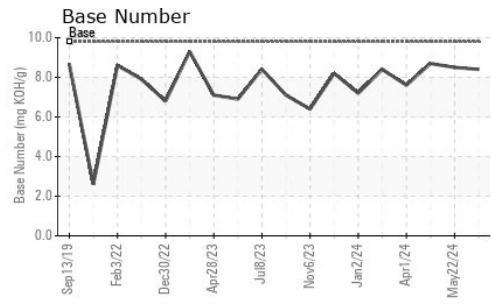
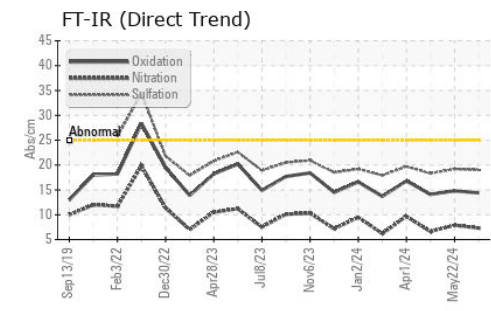
Sodium and/or potassium levels remain high. Test for glycol is negative.

Silicon	ppm	ASTM D5185m	>25	3	5	3
Potassium	ppm	ASTM D5185m	>20	54	100	19
Fuel		WC Method	>5	<1.0	<1.0	3.7
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.4	0.2
Nitration	Abs/cm	*ASTM D7624	>20	7.3	7.9	6.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.0	19.2	18.3
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 acceptable for the time in service.

Sodium	ppm	ASTM D5185m		71	152	32
Boron	ppm	ASTM D5185m	0	1	0	1
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	68	82	59
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	983	961	892
Calcium	ppm	ASTM D5185m	1070	1120	1130	1022
Phosphorus	ppm	ASTM D5185m	1150	1070	1071	1022
Zinc	ppm	ASTM D5185m	1270	1318	1264	1183
Sulfur	ppm	ASTM D5185m	2060	3853	3572	3382
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.4	14.8	14.1
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.4	8.5	8.7
Visc @ 100°C	cSt	ASTM D445	15.4	12.9	12.8	13.0



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0118205 **Received** : 01 Jul 2024
Lab Number : 06224333 **Tested** : 02 Jul 2024
Unique Number : 11102530 **Diagnosed** : 02 Jul 2024 - Jonathan Hester
Test Package : FLEET (Additional Tests: Glycol)

GFL Environmental - 822 - Springfield Hauling
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 Springfield, MO
 US 65807
 Contact: Dennis Moore
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 T: (417)403-3641
 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)