



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
722021-310026
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0117161	GFL0114048	GFL0114038
Sample Date		Client Info		23 Apr 2024	22 Mar 2024	20 Mar 2024
Machine Age	hrs	Client Info		20507	22801	20350
Oil Age	hrs	Client Info		0	0	600
Filter Age	hrs	Client Info		0	0	600
Oil Changed		Client Info		Not Chngd	Not Chngd	Changed
Filter Changed		Client Info		Not Chngd	Not Chngd	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>110	22	<1	13
Chromium	ppm	ASTM D5185m	>4	2	0	<1
Nickel	ppm	ASTM D5185m	>2	1	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>25	3	<1	5
Lead	ppm	ASTM D5185m	>45	2	0	0
Copper	ppm	ASTM D5185m	>85	4	<1	0
Tin	ppm	ASTM D5185m	>4	1	0	0
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

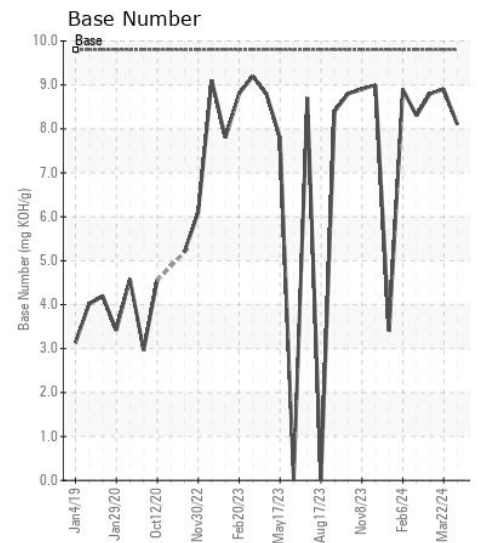
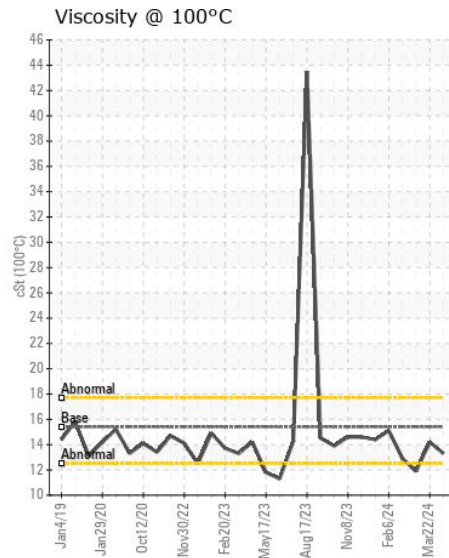
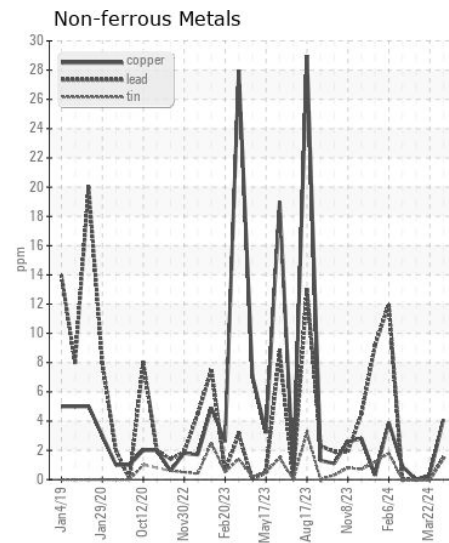
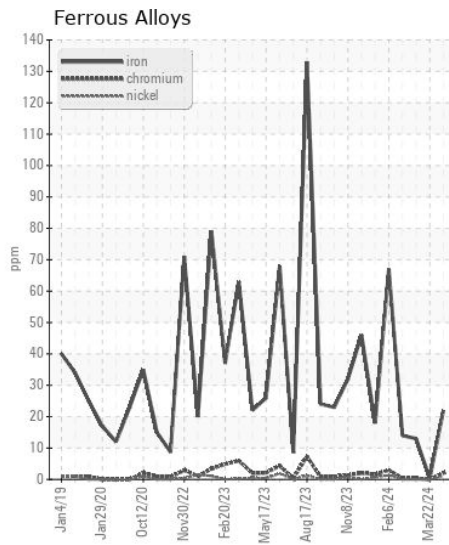
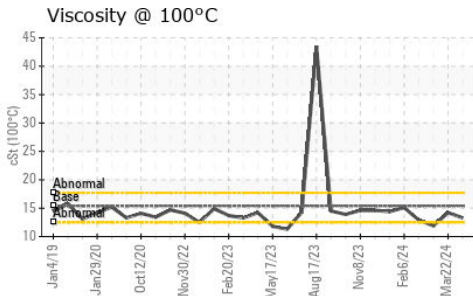
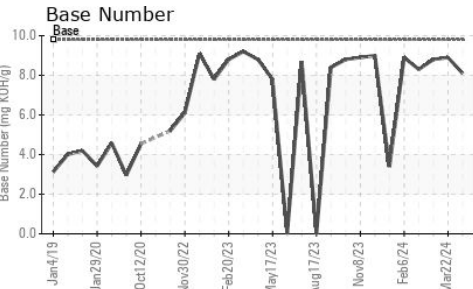
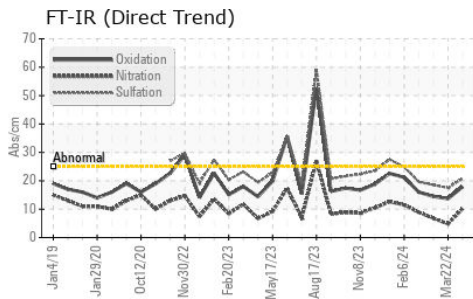
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>30	8	2	5
Potassium	ppm	ASTM D5185m	>20	4	2	37
Fuel		WC Method	>5	<1.0	<1.0	1.7
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.9	0.1	0.2
Nitration	Abs/cm	*ASTM D7624	>20	10.2	4.8	6.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.8	17.5	18.5
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		5	2	44
Boron	ppm	ASTM D5185m	0	4	13	2
Barium	ppm	ASTM D5185m	0	<1	0	0
Molybdenum	ppm	ASTM D5185m	60	60	56	59
Manganese	ppm	ASTM D5185m	0	1	0	0
Magnesium	ppm	ASTM D5185m	1010	867	943	934
Calcium	ppm	ASTM D5185m	1070	1072	1138	1165
Phosphorus	ppm	ASTM D5185m	1150	926	937	1068
Zinc	ppm	ASTM D5185m	1270	1154	1301	1212
Sulfur	ppm	ASTM D5185m	2060	3057	3781	3701
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.9	13.7	14.5
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.1	8.9	8.8
Visc @ 100°C	cSt	ASTM D445	15.4	13.3	14.2	11.9



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0117161
Lab Number : 06160218
Unique Number : 10995641
Test Package : FLEET

Received : 25 Apr 2024
Tested : 26 Apr 2024
Diagnosed : 26 Apr 2024 - Don Baldrige

GFL Environmental - 836 - Kansas City Hauling
 7801 East Truman Road
 Kansas City, MO
 US 64126
 Contact: Loyce Stewart
 loyce.stewart@gflenv.com

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)

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F: