



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
921039-260311
 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		GFL0104977	GFL0104850	GFL0088202
Sample Date		Client Info		12 Apr 2024	24 Jan 2024	23 Oct 2023
Machine Age	mls	Client Info		371767	371767	371767
Oil Age	mls	Client Info		371767	24086	0
Filter Age	mls	Client Info		0	0	0
Oil Changed		Client Info		N/A	Changed	Not Changed
Filter Changed		Client Info		N/A	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>110	36	35	15
Chromium	ppm	ASTM D5185m	>4	<1	1	<1
Nickel	ppm	ASTM D5185m	>2	0	<1	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>2	0	<1	0
Aluminum	ppm	ASTM D5185m	>25	2	5	2
Lead	ppm	ASTM D5185m	>45	<1	<1	1
Copper	ppm	ASTM D5185m	>85	<1	<1	<1
Tin	ppm	ASTM D5185m	>4	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

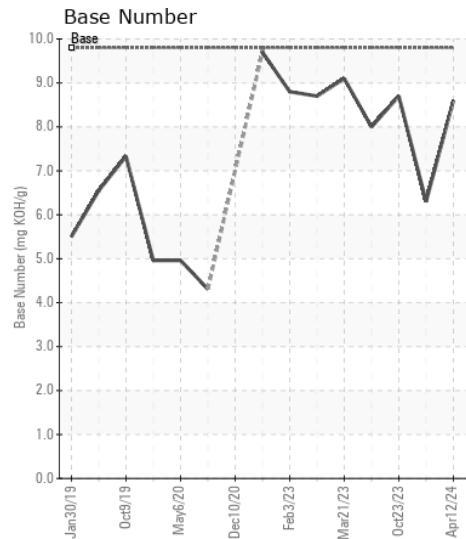
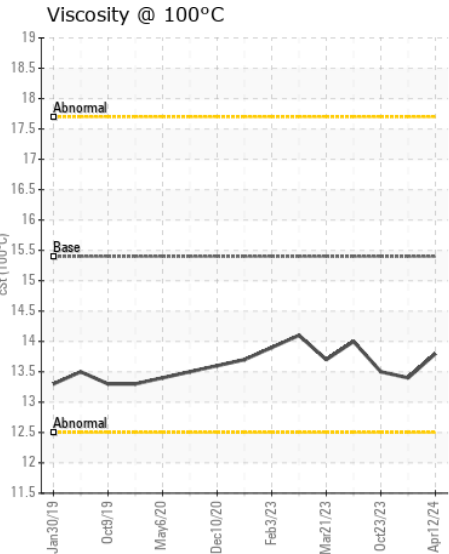
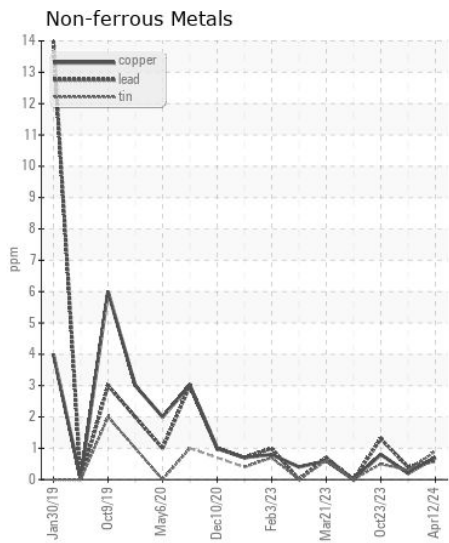
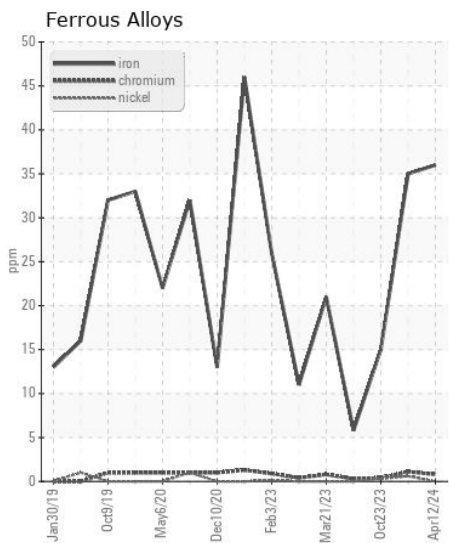
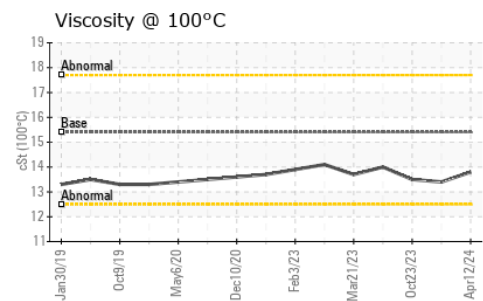
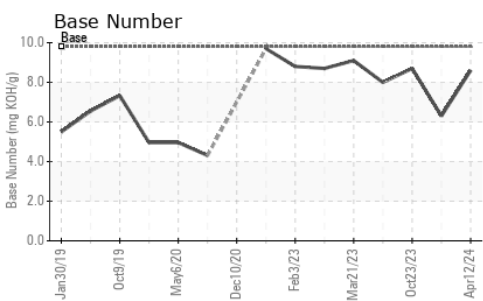
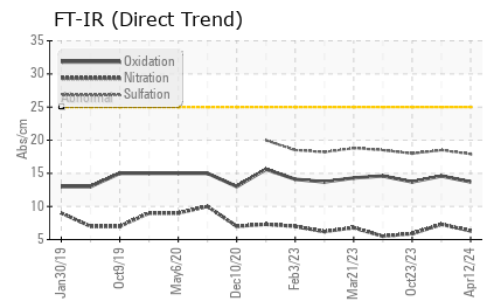
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>30	6	7	5
Potassium	ppm	ASTM D5185m	>20	0	2	3
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	0.3	0.4	0.3
Nitration	Abs/cm	*ASTM D7624	>20	6.3	7.3	5.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.9	18.5	18.0
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		12	17	13
Boron	ppm	ASTM D5185m	0	0	10	11
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	58	55	50
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	958	880	813
Calcium	ppm	ASTM D5185m	1070	1091	1059	974
Phosphorus	ppm	ASTM D5185m	1150	1049	1003	989
Zinc	ppm	ASTM D5185m	1270	1203	1264	1125
Sulfur	ppm	ASTM D5185m	2060	3575	3011	2691
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.7	14.6	13.7
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.6	6.3	8.7
Visc @ 100°C	cSt	ASTM D445	15.4	13.8	13.4	13.5



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0104977
Lab Number : 06154105
Unique Number : 10989528
Test Package : FLEET
Received : 19 Apr 2024
Tested : 22 Apr 2024
Diagnosed : 22 Apr 2024 - Wes Davis

GFL Environmental - 820 - Joplin Hauling
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 US 64801
 Contact: James Jarrett
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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)