



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
(27KM1B)
Machine Id
413116
Component
Diesel Engine
Fluid
PETRO CANADA DURON UHP 5W30 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0102458	GFL0102469	GFL0102523
Sample Date		Client Info		06 Jan 2024	03 Jan 2024	05 Dec 2023
Machine Age	hrs	Client Info		2292	0	2082
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Chngd	Changed	N/A
Filter Changed		Client Info		Not Chngd	Changed	N/A
Sample Status				NORMAL	NORMAL	ATTENTION

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	3	11	8
Chromium	ppm	ASTM D5185m	>20	0	<1	<1
Nickel	ppm	ASTM D5185m	>15	0	<1	<1
Titanium	ppm	ASTM D5185m	>2	0	0	0
Silver	ppm	ASTM D5185m	>3	0	<1	<1
Aluminum	ppm	ASTM D5185m	>20	1	3	3
Lead	ppm	ASTM D5185m	>40	0	<1	2
Copper	ppm	ASTM D5185m	>330	9	63	71
Tin	ppm	ASTM D5185m	>15	0	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

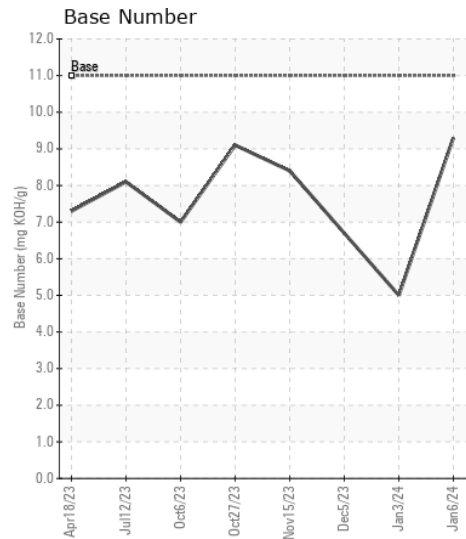
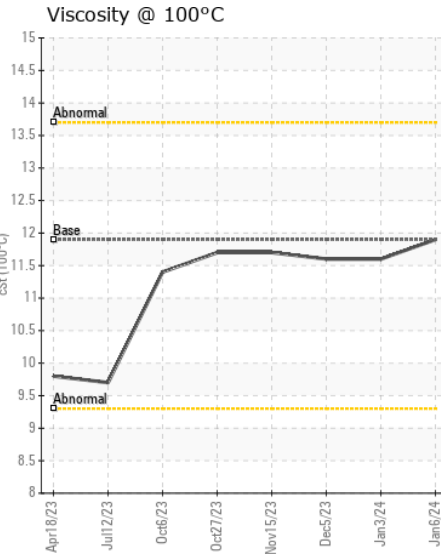
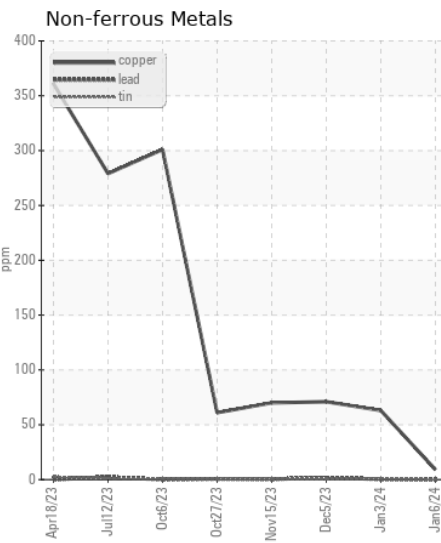
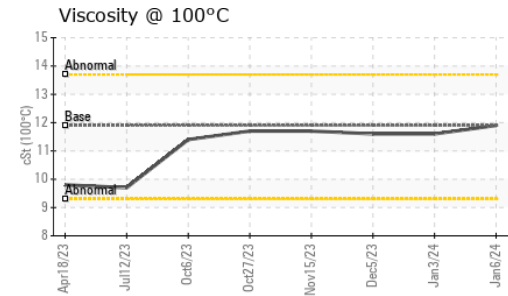
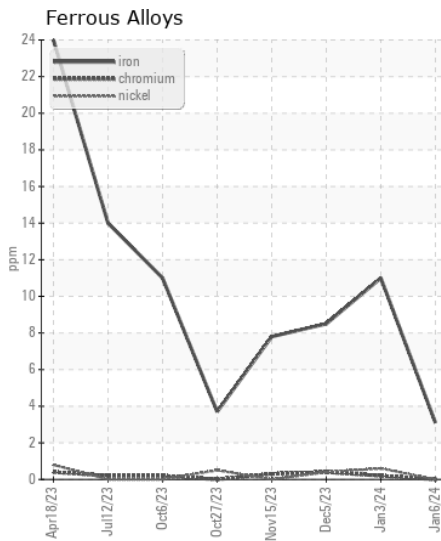
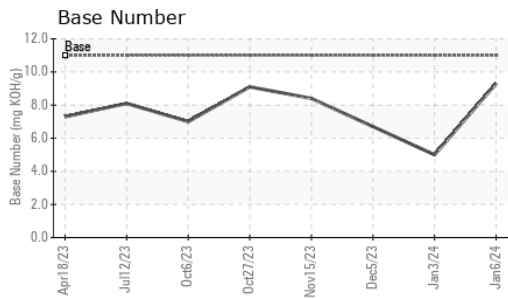
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	6	4	5
Potassium	ppm	ASTM D5185m	>20	2	9	8
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>4	0.1	0.4	0.2
Nitration	Abs/cm	*ASTM D7624	>20	6.3	10.4	9.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.0	23.3	20.2
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		3	4	3
Boron	ppm	ASTM D5185m	0	59	20	27
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	64	62	60	57
Manganese	ppm	ASTM D5185m	0	0	<1	<1
Magnesium	ppm	ASTM D5185m	1160	1084	1181	1061
Calcium	ppm	ASTM D5185m	820	872	863	788
Phosphorus	ppm	ASTM D5185m	1160	1054	1158	983
Zinc	ppm	ASTM D5185m	1260	1246	1397	1200
Sulfur	ppm	ASTM D5185m	3000	3368	3469	3105
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.2	21.3	18.8
Base Number (BN)	mg KOH/g	ASTM D2896	11.0	9.3	5.0	6.7
Visc @ 100°C	cSt	ASTM D445	11.9	11.9	11.6	▲ 11.6



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0102458 **Received** : 16 Jan 2024
Lab Number : 06061768 **Diagnosed** : 18 Jan 2024
Unique Number : 10833150 **Diagnostician** : Wes Davis
Test Package : FLEET

GFL Environmental - 836 - Kansas City Hauling
 7801 East Truman Road
 Kansas City, MO
 US 64126
 Contact: Robert Hart
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 T: (580)461-1509
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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)