



WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
(41KM9B)
Machine Id
834015
Component
Natural Gas Engine
Fluid
PETRO CANADA DURON GEO LD 15W40 (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0122824	GFL0122933	GFL0118789
Sample Date		Client Info		14 Jun 2024	04 Jun 2024	10 May 2024
Machine Age	hrs	Client Info		1756	1638	1498
Oil Age	hrs	Client Info		1756	1638	1498
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				ABNORMAL	ABNORMAL	NORMAL

WEAR

Piston, ring and cylinder wear is indicated.

Iron	ppm	ASTM D5185m	>50	▲ 79	▲ 82	65
Chromium	ppm	ASTM D5185m	>4	2	2	2
Nickel	ppm	ASTM D5185m	>2	2	3	3
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	<1	<1	1
Aluminum	ppm	ASTM D5185m	>9	▲ 11	10	9
Lead	ppm	ASTM D5185m	>30	11	9	6
Copper	ppm	ASTM D5185m	>35	17	20	17
Tin	ppm	ASTM D5185m	>4	4	4	4
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

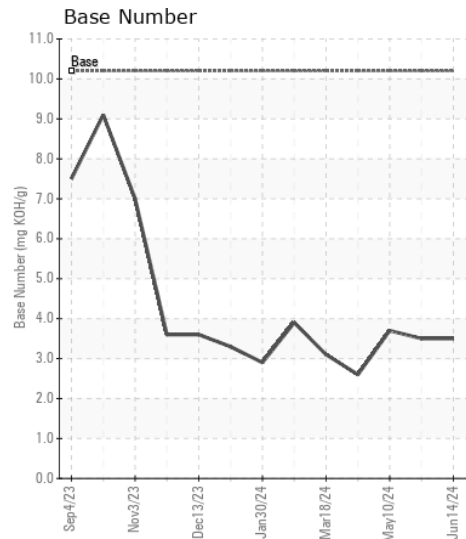
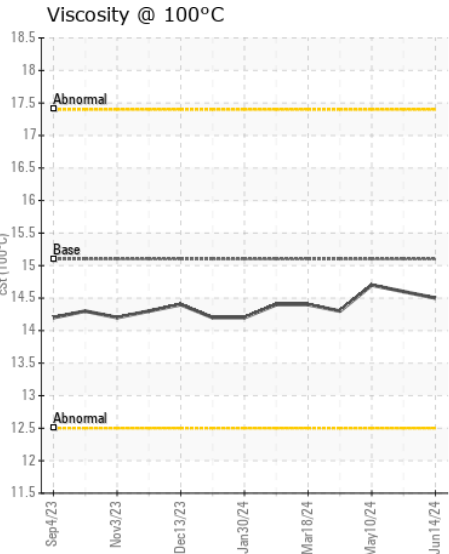
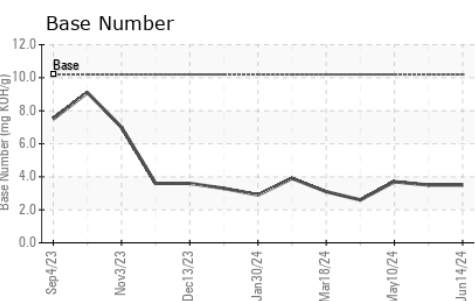
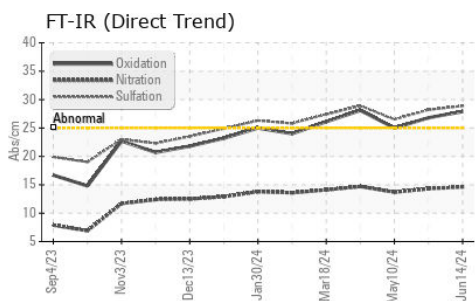
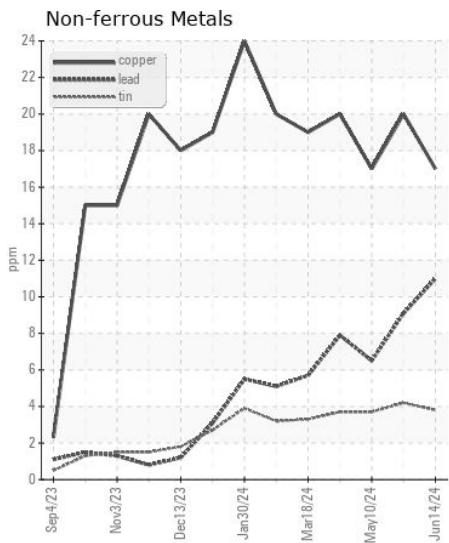
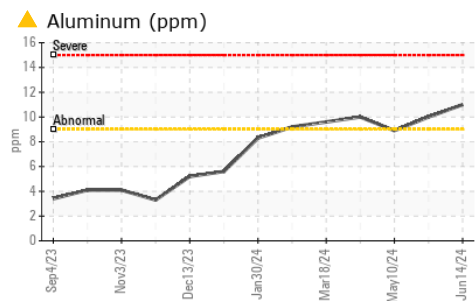
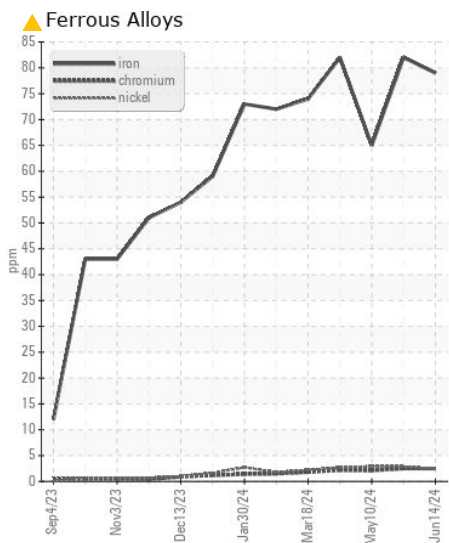
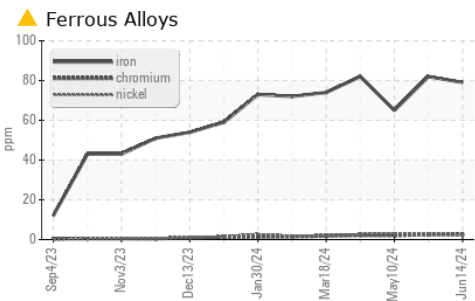
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>+100	21	23	19
Potassium	ppm	ASTM D5185m	>20	12	13	11
Water		WC Method	>0.1	NEG	NEG	NEG
Soot %	%	*ASTM D7844		0.1	0	0.1
Nitration	Abs/cm	*ASTM D7624	>20	14.6	14.3	13.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	28.9	28.2	26.5
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	>0.1	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		8	6	7
Boron	ppm	ASTM D5185m	50	7	5	6
Barium	ppm	ASTM D5185m	5	3	3	2
Molybdenum	ppm	ASTM D5185m	50	69	74	63
Manganese	ppm	ASTM D5185m	0	11	11	9
Magnesium	ppm	ASTM D5185m	560	921	869	763
Calcium	ppm	ASTM D5185m	1510	1708	1649	1467
Phosphorus	ppm	ASTM D5185m	780	923	952	831
Zinc	ppm	ASTM D5185m	870	1169	1122	1010
Sulfur	ppm	ASTM D5185m	2040	2887	2592	2623
Oxidation	Abs/.1mm	*ASTM D7414	>25	27.9	26.8	25.0
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	3.5	3.5	3.7
Visc @ 100°C	cSt	ASTM D445	15.1	14.5	14.6	14.7



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0122824
Lab Number : 06220520
Unique Number : 11098717
Test Package : FLEET
Received : 25 Jun 2024
Tested : 26 Jun 2024
Diagnosed : 27 Jun 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
 T:
 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)