



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

(YA171059)

Machine Id

826010

Component

Diesel Engine

Fluid

PETRO CANADA 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		GFL0116375	GFL0116371	GFL0111978
Sample Date		Client Info		02 Jul 2024	15 May 2024	04 Mar 2024
Machine Age	hrs	Client Info		9923	9923	0
Oil Age	hrs	Client Info		9923	9923	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	8	22	12
Chromium	ppm	ASTM D5185m	>20	0	3	0
Nickel	ppm	ASTM D5185m	>5	<1	▲ 6	1
Titanium	ppm	ASTM D5185m	>2	0	2	0
Silver	ppm	ASTM D5185m	>2	0	3	0
Aluminum	ppm	ASTM D5185m	>20	2	5	<1
Lead	ppm	ASTM D5185m	>40	0	3	0
Copper	ppm	ASTM D5185m	>330	9	111	2
Tin	ppm	ASTM D5185m	>15	0	4	1
Vanadium	ppm	ASTM D5185m		0	2	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

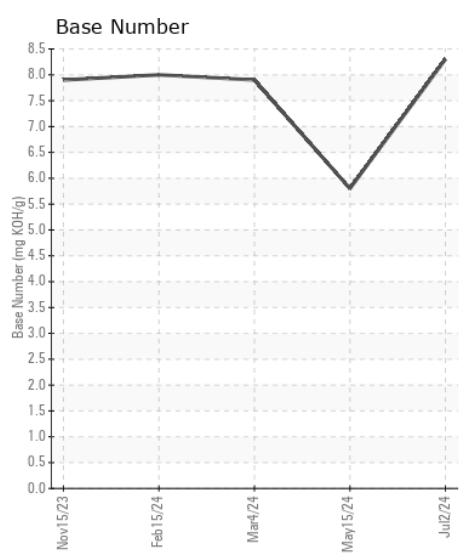
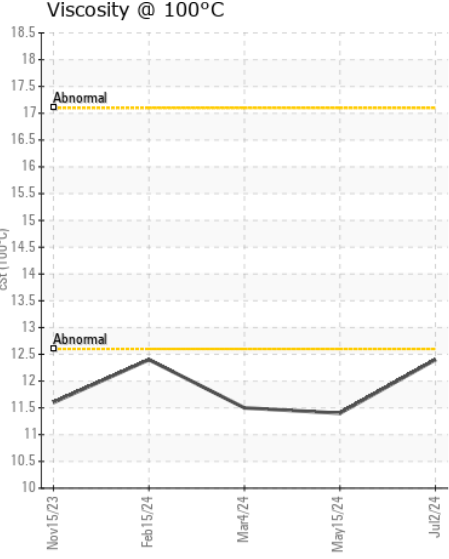
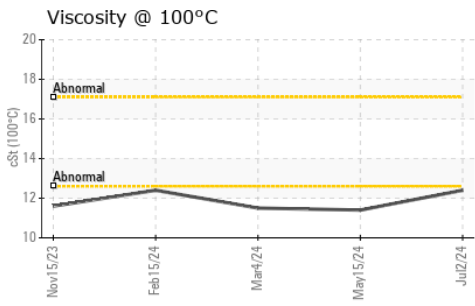
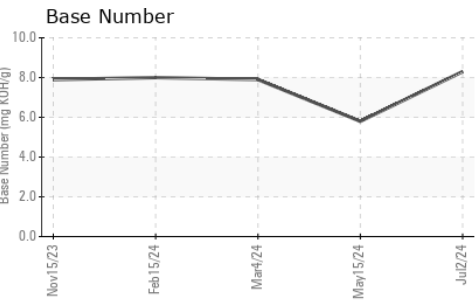
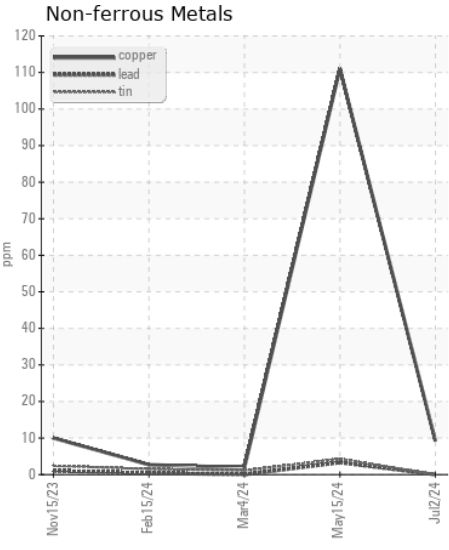
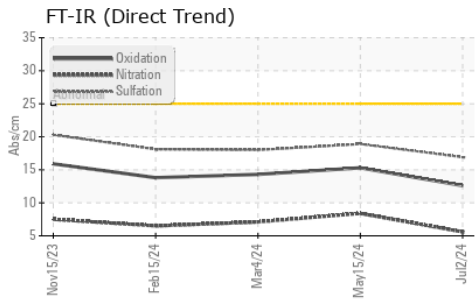
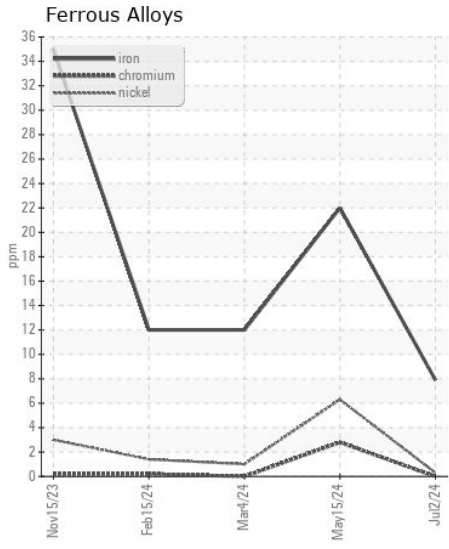
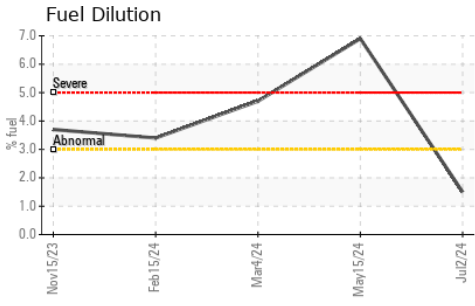
Light fuel dilution occurring. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185m	>25	6	16	12
Potassium	ppm	ASTM D5185m	>20	2	6	0
Fuel	%	ASTM D3524	>3.0	1.5	▲ 6.9	▲ 4.7
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>4	0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	5.6	8.4	7.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	16.9	18.9	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		4	4	1
Boron	ppm	ASTM D5185m		11	4	4
Barium	ppm	ASTM D5185m		0	1	0
Molybdenum	ppm	ASTM D5185m		53	58	54
Manganese	ppm	ASTM D5185m		<1	3	<1
Magnesium	ppm	ASTM D5185m		901	824	829
Calcium	ppm	ASTM D5185m		1060	1047	996
Phosphorus	ppm	ASTM D5185m		997	874	933
Zinc	ppm	ASTM D5185m		1172	1082	1093
Sulfur	ppm	ASTM D5185m		3457	2650	2544
Oxidation	Abs/.1mm	*ASTM D7414	>25	12.6	15.3	14.3
Base Number (BN)	mg KOH/g	ASTM D2896		8.3	5.8	7.9
Visc @ 100°C	cSt	ASTM D445		12.4	▲ 11.4	▲ 11.5



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0116375 **Received** : 05 Jul 2024
Lab Number : 06228288 **Tested** : 09 Jul 2024
Unique Number : 11111781 **Diagnosed** : 09 Jul 2024 - Wes Davis
Test Package : FLEET (Additional Tests: PercentFuel)

GFL Environmental - 19DR - Deep Run/TriEast
 2287 Leslie R Stroud Road
 Kinston, NC
 US 28504-9477
 Contact: Spencer Ligon
 spencer.ligon@gflenv.com
 T: (800)207-6618
 F:

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)