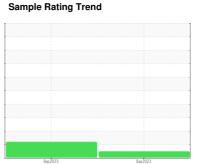


# **OIL ANALYSIS REPORT**



NORMAL



726043

Component

1 Transmission (Auto)

**PETRO CANADA DuraDrive HD Synthetic** 

## DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the fluid.

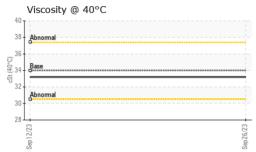
### **Fluid Condition**

The condition of the fluid is acceptable for the time in service.

SAMPLE INFORMATION   method   limit/base   current   listory1   history2	SSS ( CAL)						
Sample Number         Client Info         GFL0093263         GFL0093244	668 ( GAL)		L	Sep2023	Sep 2023		
Sample Date   Client Info   19159   19075	SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Machine Age         hrs         Client Info         19159         19075            Oil Age         hrs         Client Info         19159         19075            Oil Changed         Client Info         Not Changed            Sample Status         Image: Changed            WEAR METALS         method         Ilmit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >5         0         0            Chromium         ppm         ASTM D5185m         >5         0         0            Nickel         ppm         ASTM D5185m         >5         0         0            Silver         ppm         ASTM D5185m         >50         0         0            Aluminum         ppm         ASTM D5185m         >50         0         0            Copper         ppm         ASTM D5185m         >50         0         0            Vanadium         ppm         ASTM D5185m         0         0          0            Vanadium         ppm         ASTM D5185m	Sample Number		Client Info		GFL0093263	GFL0093244	
Machine Age         hrs         Client Info         19159         19075            Oil Age         hrs         Client Info         19159         19075            Oil Changed         Client Info         Not Changd         Changed            Sample Status         method         Imitibase         current         history1         history2           WEAR METALS         method         Imitibase         current         history1         history2           Iron         ppm         ASTM D5185m         >5         0         0            Chromium         ppm         ASTM D5185m         >5         0         0            Nickel         ppm         ASTM D5185m         >5         0         0            Silver         ppm         ASTM D5185m         >5         0         0            Lead         ppm         ASTM D5185m         >50         4         9            Copper         ppm         ASTM D5185m         >10         0         <1			Client Info		26 Sep 2023	12 Sep 2023	
Oil Changed Sample Status         Client Info         Not Changed NORMAL         Changed ABNORMAL            WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >160         14         44            Chromium         ppm         ASTM D5185m         >5         0         0            Nickel         ppm         ASTM D5185m         >5         0         0            Titanium         ppm         ASTM D5185m         >5         0         0            Aluminum         ppm         ASTM D5185m         >50         0         0            Lead         ppm         ASTM D5185m         >50         0         0            Lead         ppm         ASTM D5185m         >50         0         0            Copper         ppm         ASTM D5185m         >10         0         <1		hrs	Client Info		-	19075	
WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >160         14         44            Chromium         ppm         ASTM D5185m         >5         0         0            Nickel         ppm         ASTM D5185m         >5         0         0            Titanium         ppm         ASTM D5185m         >5         0         0            Silver         ppm         ASTM D5185m         >50         0         0            Aluminum         ppm         ASTM D5185m         >50         0         0            Lead         ppm         ASTM D5185m         >50         0         0            Copper         ppm         ASTM D5185m         >10         0         <1		hrs	Client Info		19159	19075	
WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >160         14         44            Chromium         ppm         ASTM D5185m         >5         0         0            Nickel         ppm         ASTM D5185m         >5         0         0            Titanium         ppm         ASTM D5185m         >5         0         0            Silver         ppm         ASTM D5185m         >50         0         0            Aluminum         ppm         ASTM D5185m         >50         0         0            Lead         ppm         ASTM D5185m         >50         0         0            Copper         ppm         ASTM D5185m         >10         0         <1            Vanadium         ppm         ASTM D5185m         >10         0         <1            Vanadium         ppm         ASTM D5185m         0         0             ASTM D5185m         0         0         0	Oil Changed		Client Info		Not Changd	Changed	
Iron					NORMAL	ABNORMAL	
Chromium         ppm         ASTM D5185m         >5         0         0            Nickel         ppm         ASTM D5185m         >5         0         0            Titanium         ppm         ASTM D5185m         >5         0         0            Silver         ppm         ASTM D5185m         >5         0         0            Aluminum         ppm         ASTM D5185m         >50         0         0            Lead         ppm         ASTM D5185m         >50         0         0            Copper         ppm         ASTM D5185m         >50         0         0            Vanadium         ppm         ASTM D5185m         0         0         -1            Vanadium         ppm         ASTM D5185m         0         0          0            Vandium         ppm         ASTM D5185m         0         0          0            Barium         ppm         ASTM D5185m         0         0          0            Barium         ppm         ASTM D5185m </td <td>WEAR METAL</td> <td>.S</td> <td>method</td> <td>limit/base</td> <th>current</th> <td>history1</td> <td>history2</td>	WEAR METAL	.S	method	limit/base	current	history1	history2
Nickel         ppm         ASTM D5185m         >5         0         0            Titanium         ppm         ASTM D5185m         >5         0         0            Silver         ppm         ASTM D5185m         >5         0         0            Aluminum         ppm         ASTM D5185m         >50         4         9            Lead         ppm         ASTM D5185m         >50         0         0            Copper         ppm         ASTM D5185m         >50         0         0            Vanadium         ppm         ASTM D5185m         >10         0         <1	Iron	ppm	ASTM D5185m	>160	14	44	
Nickel         ppm         ASTM D5185m         >5         0         0            Titanium         ppm         ASTM D5185m         0         0            Silver         ppm         ASTM D5185m         >50         0         0            Aluminum         ppm         ASTM D5185m         >50         4         9            Lead         ppm         ASTM D5185m         >50         0         0            Copper         ppm         ASTM D5185m         >50         0         0            Vanadium         ppm         ASTM D5185m         10         0         <1	Chromium		ASTM D5185m	>5	0	0	
Titanium	Nickel		ASTM D5185m	>5	0	0	
Siliver	Titanium				0		
Aluminum				>5	0	0	
Lead         ppm         ASTM D5185m         >50         0         0            Copper         ppm         ASTM D5185m         >225         3         9            Tin         ppm         ASTM D5185m         >10         0         <1	Aluminum			>50	-		
Copper         ppm         ASTM D5185m         >2255         3         9            Tin         ppm         ASTM D5185m         >10         0         <1							
Tin         ppm         ASTM D5185m         >10         0         <1            Vanadium         ppm         ASTM D5185m         0         0            Cadmium         ppm         ASTM D5185m         0         0            ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0         0            Barium         ppm         ASTM D5185m         0         0            Molybdenum         ppm         ASTM D5185m         0         0            Molybdenum         ppm         ASTM D5185m         0         0            Magnessum         ppm         ASTM D5185m         1         3            Magnessum         ppm         ASTM D5185m         129         130            Calcium         ppm         ASTM D5185m         198         94            Sulfur         ppm         ASTM D5185m         0         5            Sulfur         ppm         ASTM D5185m         >20         3         4 <th< td=""><td></td><td></td><td></td><td></td><th>-</th><td></td><td></td></th<>					-		
Vanadium         ppm         ASTM D5185m         0         0            Cadmium         ppm         ASTM D5185m         0         0            ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0         0            Barium         ppm         ASTM D5185m         0         0            Molybdenum         ppm         ASTM D5185m         0         0            Magnese         ppm         ASTM D5185m         1         3            Magnesium         ppm         ASTM D5185m         129         130            Calcium         ppm         ASTM D5185m         198         94            Phosphorus         ppm         ASTM D5185m         0         5            Sulfur         ppm         ASTM D5185m         1816         1941            CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         3         4							
Cadmium         ppm         ASTM D5185m         0         0            ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         83         74            Barium         ppm         ASTM D5185m         0         0            Molybdenum         ppm         ASTM D5185m         0         0            Manganese         ppm         ASTM D5185m         1         3            Magnesium         ppm         ASTM D5185m         129         130            Calcium         ppm         ASTM D5185m         198         94            Phosphorus         ppm         ASTM D5185m         0         5            Sulfur         ppm         ASTM D5185m         0         5            Sulfur         ppm         ASTM D5185m         20         3         4            CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         20         3							
ADDITIVES							
Boron	ADDITIVES		method	limit/base	current	historv1	historv2
Barium         ppm         ASTM D5185m         0         0            Molybdenum         ppm         ASTM D5185m         0         0            Manganese         ppm         ASTM D5185m         <1		nnm		mma sass			
Molybdenum         ppm         ASTM D5185m         0         0            Manganese         ppm         ASTM D5185m         <1							
Manganese         ppm         ASTM D5185m         <1         <1            Magnesium         ppm         ASTM D5185m         1         3            Calcium         ppm         ASTM D5185m         129         130            Phosphorus         ppm         ASTM D5185m         198         94            Zinc         ppm         ASTM D5185m         0         5            Sulfur         ppm         ASTM D5185m         1816         1941            CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         3         4            Sodium         ppm         ASTM D5185m         >20         3         4            Sodium         ppm         ASTM D5185m         >20         <1					-		
Magnesium         ppm         ASTM D5185m         1         3            Calcium         ppm         ASTM D5185m         129         130            Phosphorus         ppm         ASTM D5185m         198         94            Zinc         ppm         ASTM D5185m         0         5            Sulfur         ppm         ASTM D5185m         1816         1941            CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         ≥20         3         4            Sodium         ppm         ASTM D5185m         ≥20         3         4            Sodium         ppm         ASTM D5185m         ≥20         <1	•				-		
Calcium         ppm         ASTM D5185m         129         130            Phosphorus         ppm         ASTM D5185m         198         94            Zinc         ppm         ASTM D5185m         0         5            Sulfur         ppm         ASTM D5185m         1816         1941            CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         ≥20         3         4            Sodium         ppm         ASTM D5185m         ≥20         3         4            Sodium         ppm         ASTM D5185m         ≥20         <1	· ·						
Phosphorus         ppm         ASTM D5185m         198         94            Zinc         ppm         ASTM D5185m         0         5            Sulfur         ppm         ASTM D5185m         1816         1941            CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         3         4            Sodium         ppm         ASTM D5185m         >20         3         4            Sodium         ppm         ASTM D5185m         20         <1         <1            Potassium         ppm         ASTM D5185m         >20         <1         <1            VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual         NONE         NONE         MODER           Yellow Metal         scalar         *Visual         NONE         NONE         NONE            Precipitate         scalar         *Visual         NONE         NONE         NONE         NONE							
Zinc         ppm         ASTM D5185m         0         5            Sulfur         ppm         ASTM D5185m         1816         1941            CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         3         4            Sodium         ppm         ASTM D5185m         >20         <1					-		
Sulfur         ppm         ASTM D5185m         1816         1941            CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         3         4            Sodium         ppm         ASTM D5185m         2         3            Potassium         ppm         ASTM D5185m         >20         <1							
CONTAMINANTS	-				_		
Silicon         ppm         ASTM D5185m         >20         3         4            Sodium         ppm         ASTM D5185m         2         3            Potassium         ppm         ASTM D5185m         >20         <1         <1            VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual         NONE         NONE         MODER            Yellow Metal         scalar         *Visual         NONE         NONE         NONE            Precipitate         scalar         *Visual         NONE         NONE         NONE            Silt         scalar         *Visual         NONE         NONE         NONE            Debris         scalar         *Visual         NONE         NONE         NONE            Sand/Dirt         scalar         *Visual         NORML         NORML         NORML            Appearance         scalar         *Visual         NORML         NORML         NORML            Odor         scalar							
Sodium         ppm         ASTM D5185m         2         3            Potassium         ppm         ASTM D5185m         >20         <1		IIS					history2
Potassium ppm ASTM D5185m >20 <1 <1  VISUAL method limit/base current history1 history2  White Metal scalar *Visual NONE NONE NONE NONE  Yellow Metal scalar *Visual NONE NONE NONE NONE  Precipitate scalar *Visual NONE NONE NONE NONE  Silt scalar *Visual NONE NONE NONE NONE  Debris scalar *Visual NONE NONE NONE  Sand/Dirt scalar *Visual NONE NONE NONE  Appearance scalar *Visual NORML NORML NORML  Appearance scalar *Visual NORML NORML NORML  Emulsified Water scalar *Visual >0.1 NEG NEG  Free Water scalar *Visual NEG NEG				>20			
VISUAL  method limit/base current history1 history2  White Metal scalar *Visual NONE NONE MODER Yellow Metal scalar *Visual NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE  Appearance scalar *Visual NORML NORML NORML  Codor scalar *Visual NORML NORML NORML  Emulsified Water scalar *Visual >0.1 NEG NEG  Free Water scalar *Visual NEG NEG		ppm			_		
White Metal scalar *Visual NONE NONE MODER Yellow Metal scalar *Visual NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE Silt scalar *Visual NONE NONE NONE Debris scalar *Visual NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE Appearance scalar *Visual NORML NORML NORML Odor scalar *Visual NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG Free Water scalar *Visual NEG NEG		ppm	ASTM D5185m	>20	<1	<1	
Yellow Metalscalar*VisualNONENONENONEPrecipitatescalar*VisualNONENONENONESiltscalar*VisualNONENONENONEDebrisscalar*VisualNONENONENONESand/Dirtscalar*VisualNONENONENONEAppearancescalar*VisualNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGFree Waterscalar*VisualNEGNEG	VISUAL		method	limit/base	current	history1	history2
Precipitate         scalar         *Visual         NONE         NONE         NONE            Silt         scalar         *Visual         NONE         NONE         NONE            Debris         scalar         *Visual         NONE         NONE         NONE            Sand/Dirt         scalar         *Visual         NONE         NONE         NONE            Appearance         scalar         *Visual         NORML         NORML         NORML            Odor         scalar         *Visual         NORML         NORML         NORML            Emulsified Water         scalar         *Visual         >0.1         NEG         NEG            Free Water         scalar         *Visual         NEG         NEG	White Metal	scalar	*Visual	NONE	NONE	▲ MODER	
Silt scalar *Visual NONE NONE NONE Debris scalar *Visual NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE Appearance scalar *Visual NORML NORML NORML Odor scalar *Visual NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG Free Water scalar *Visual NEG NEG	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
Debris scalar *Visual NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE Appearance scalar *Visual NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG Free Water scalar *Visual NEG NEG	Precipitate	scalar	*Visual	NONE	NONE	NONE	
Sand/Dirt scalar *Visual NONE NONE NONE Appearance scalar *Visual NORML NORML NORML Odor scalar *Visual NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG Free Water scalar *Visual NEG NEG	Silt	scalar	*Visual	NONE	NONE	NONE	
Appearance scalar *Visual NORML NORML NORML Odor scalar *Visual NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG Free Water scalar *Visual NEG NEG	Debris	scalar	*Visual	NONE	NONE	NONE	
Odor scalar *Visual NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG Free Water scalar *Visual NEG NEG	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
Emulsified Water       scalar       *Visual       >0.1       NEG       NEG          Free Water       scalar       *Visual       NEG       NEG	Appearance	scalar	*Visual	NORML	NORML	NORML	
Free Water scalar *Visual NEG NEG	Odor	scalar	*Visual	NORML	NORML	NORML	
	<b>Emulsified Water</b>	scalar	*Visual	>0.1	NEG	NEG	
FLUID PROPERTIES method limit/base current history1 history2	Free Water	scalar	*Visual		NEG	NEG	
	FLUID PROPE	RTIES	method	limit/base	current	history1	history2

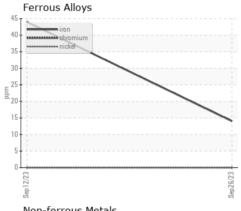


# **OIL ANALYSIS REPORT**

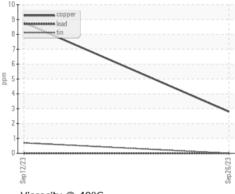


SAMPLE IMAGES	method	limit/base	current	history1	history2
Color			no image	no image	no image
Bottom			no image	no image	no image

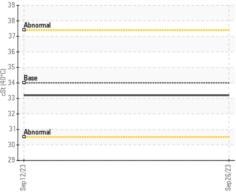
#### **GRAPHS**



#### Non-ferrous Metals











Certificate L2367

Laboratory Sample No. Lab Number Unique Number : 10675934

: GFL0093263 : 05969383 Test Package : FLEET

To discuss this sample report, contact Customer Service at 1-800-237-1369.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : 04 Oct 2023 Received Diagnosed : 06 Oct 2023

Diagnostician : Sean Felton

GFL Environmental - 865 - East Mount Hauling 7213 East Mount Houston Road

Houston, TX US 77050

Contact: TECHNICIAN ACCOUNT

wcgfldemo@gmail.com T:

\* - 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)

F: