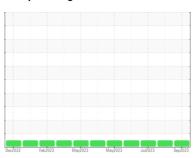


# **OIL ANALYSIS REPORT**

Sample Rating Trend



NORMAL



Machine Id **10719** 

Component

**Transmission (Auto)** 

PETRO CANADA DuraDrive HD Synthetic 668 (--- GAL

# DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil

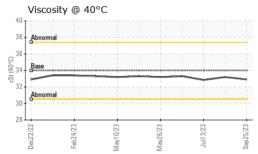
## **Fluid Condition**

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

Sample Number         Client Info         GFL0094282         GFL0091387         GFL008611           Sample Date         Client Info         25 Sep 2023         28 Aug 2023         13 Jul 2023           Machine Age         hrs         Client Info         10563         10462         10272           Oil Age         hrs         Client Info         Not Changd         Not Changd         Not Changd	68 ( GAL)		Dec2022	Feb2023 May2023	May2023 Jul2023	Sep2023	
Sample Date   Client Info   25 Sep 2023   28 Aug 2023   13 Jul 2023   13 Jul 2023   13 Jul 2023   10 Age   hrs   Client Info   10563   10462   860   Not Changd   Not Changd	SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Machine Age	Sample Number		Client Info		GFL0094282	GFL0091387	GFL008611
Dil Age	Sample Date		Client Info		25 Sep 2023	28 Aug 2023	13 Jul 2023
Dil Changed   Client Info   Not Changd   NORMAL   NORMA	Machine Age	hrs	Client Info		10563	10462	10272
NORMAL   NORMAL   NORMAL   NORMAL   WEAR METALS   method   limit/base   current   history1   history2   history2   normal   nor	Oil Age	hrs	Client Info		10563	10462	860
WEAR METALS         method         limit/base         current         history1         history2           ron         ppm         ASTM D5185m         >160         54         50         46           Chromium         ppm         ASTM D5185m         >5         <1	Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Chromium	Sample Status				NORMAL	NORMAL	NORMAL
Chromium         ppm         ASTM D5185m         >5         <1         0         0           Nickel         ppm         ASTM D5185m         >5         0         0         0           Silver         ppm         ASTM D5185m         >5         0         0         0           Silver         ppm         ASTM D5185m         >5         0         0         0           Aluminum         ppm         ASTM D5185m         >50         19         21         18           Lead         ppm         ASTM D5185m         >50         2         2         0           Copper         ppm         ASTM D5185m         >50         2         2         0           Copper         ppm         ASTM D5185m         >10         3         2         <1           Vanadium         ppm         ASTM D5185m         0         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         0         0           ADDITIVES         method         limit/base         current         history1         history2           Barium         ppm         ASTM D5185m         9         2         95         68<	WEAR METAL	S	method	limit/base	current	history1	history2
Nickel	ron	ppm	ASTM D5185m	>160	54	50	46
Description	Chromium	ppm	ASTM D5185m	>5	<1	0	0
Silver	Nickel	ppm	ASTM D5185m	>5	0	0	0
Alluminum	Titanium	ppm	ASTM D5185m		0	0	0
Lead	Silver	ppm	ASTM D5185m	>5	0	0	0
Description	Aluminum	ppm	ASTM D5185m	>50	19	21	18
ASTM D5185m   D	_ead	ppm	ASTM D5185m	>50	2	2	0
Vanadium         ppm         ASTM D5185m         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         92         95         68           Barium         ppm         ASTM D5185m         0         0         0           Molybdenum         ppm         ASTM D5185m         21         1         1           Magnesium         ppm         ASTM D5185m         2         1         1         1           Magnesium         ppm         ASTM D5185m         269         271         277         277           Magnesium         ppm         ASTM D5185m         269         271         277         277           Zinc         ppm         ASTM D5185m         5         0         8         8           Sulfur         ppm         ASTM D5185m         5         0         8         8           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm	Copper	ppm	ASTM D5185m	>225	13	10	10
Cadmium         ppm         ASTM D5185m         0         0         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         92         95         68           Barium         ppm         ASTM D5185m         0         0         0           Molybdenum         ppm         ASTM D5185m         <1	Tin	ppm	ASTM D5185m	>10	3	2	<1
ADDITIVES	Vanadium	ppm	ASTM D5185m		0	0	0
Boron   ppm   ASTM D5185m   92   95   68	Cadmium		ASTM D5185m		0	0	0
Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum         ppm         ASTM D5185m         <1         0         <1           Manganese         ppm         ASTM D5185m         2         1         1           Magnesium         ppm         ASTM D5185m         4         1         10           Calcium         ppm         ASTM D5185m         269         271         277           Zinc         ppm         ASTM D5185m         5         0         8           Sulfur         ppm         ASTM D5185m         5         0         8           Sulfur         ppm         ASTM D5185m         1868         2314         2283           CONTAMINANTS         method         limit/base         current         history1         history2	Boron	ppm	ASTM D5185m		92	95	68
Manganese         ppm         ASTM D5185m         2         1         1           Magnesium         ppm         ASTM D5185m         4         1         10           Calcium         ppm         ASTM D5185m         131         125         143           Phosphorus         ppm         ASTM D5185m         269         271         277           Zinc         ppm         ASTM D5185m         5         0         8           Sulfur         ppm         ASTM D5185m         1868         2314         2283           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         9         8         8           Sodium         ppm         ASTM D5185m         >20         9         8         8           Sodium         ppm         ASTM D5185m         >20         9         8         8           Sodium         ppm         ASTM D5185m         >20         9         8         8           VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Vis	Barium	ppm	ASTM D5185m		0	0	0
Magnesium         ppm         ASTM D5185m         4         1         10           Calcium         ppm         ASTM D5185m         131         125         143           Phosphorus         ppm         ASTM D5185m         269         271         277           Zinc         ppm         ASTM D5185m         5         0         8           Sulfur         ppm         ASTM D5185m         5         0         8           Sulfur         ppm         ASTM D5185m         5         0         8           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         9         8         8           Sodium         ppm         ASTM D5185m         >20         3         1         1           Potassium         ppm         ASTM D5185m         >20         9         8         8           Sodium         ppm         ASTM D5185m         >20         3         1         1           VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual	Molybdenum	ppm	ASTM D5185m		<1	0	<1
Calcium         ppm         ASTM D5185m         131         125         143           Phosphorus         ppm         ASTM D5185m         269         271         277           Zinc         ppm         ASTM D5185m         5         0         8           Sulfur         ppm         ASTM D5185m         1868         2314         2283           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         9         8         8           Sodium         ppm         ASTM D5185m         >20         3         1         1           Potassium         ppm         ASTM D5185m         >20         3         1         1           VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual         NONE         NONE         NONE           White Metal         scalar         *Visual         NONE         NONE         NONE           Yellow Metal         scalar         *Visual         NONE         NONE         NONE           Precipitate         s	Manganese	ppm	ASTM D5185m		2	1	1
Phosphorus         ppm         ASTM D5185m         269         271         277           Zinc         ppm         ASTM D5185m         5         0         8           Sulfur         ppm         ASTM D5185m         1868         2314         2283           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         9         8         8           Sodium         ppm         ASTM D5185m         >20         3         1         1           Potassium         ppm         ASTM D5185m         >20         3         1         1           VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual         NONE         NONE         NONE           Yellow Metal         scalar         *Visual         NONE         NONE         NONE         NONE           Yellow Metal         scalar         *Visual         NONE         NONE         NONE         NONE           Yellow Metal         scalar         *Visual         NONE         NONE         NONE         NONE	Magnesium	ppm	ASTM D5185m		4	1	10
Sulfur	Calcium	ppm	ASTM D5185m		131	125	143
Sulfur         ppm         ASTM D5185m         1868         2314         2283           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         9         8         8           Sodium         ppm         ASTM D5185m         >20         3         1         1           Potassium         ppm         ASTM D5185m         >20         3         1         1           VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual         NONE         NONE         NONE         NONE           Yellow Metal         scalar         *Visual         NONE         NONE <td>Phosphorus</td> <td>ppm</td> <td>ASTM D5185m</td> <td></td> <td>269</td> <td>271</td> <td>277</td>	Phosphorus	ppm	ASTM D5185m		269	271	277
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 9 8 8 8 Sodium ppm ASTM D5185m 8 4 4 Potassium ppm ASTM D5185m >20 3 1 1  VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NONE NONE NONE NONE Dodor scalar *Visual NORML NORML NORML NORML Dodor scalar *Visual NORML NORML NORML NORML Dodor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG NEG Free Water scalar *Visual NEG NEG NEG	Zinc	ppm	ASTM D5185m		5	0	8
Silicon	Sulfur	ppm	ASTM D5185m		1868	2314	2283
Sodium ppm ASTM D5185m > 20 3 1 1  VISUAL method limit/base current history1 history2  White Metal scalar *Visual NONE NONE NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE NONE NONE NONE NON	CONTAMINAN	ITS	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 3 1 1  VISUAL method limit/base current history1 history2  White Metal scalar *Visual NONE NONE NONE NONE NONE  Yellow Metal scalar *Visual NONE NONE NONE NONE NONE  Precipitate scalar *Visual NONE NONE NONE NONE NONE  Silt scalar *Visual NONE NONE NONE NONE NONE  Debris scalar *Visual NONE NONE NONE NONE NONE  Sand/Dirt scalar *Visual NONE NONE NONE NONE NONE  Appearance scalar *Visual NORML NORML NORML NORML  Dodor scalar *Visual NORML NORML NORML NORML  Emulsified Water scalar *Visual >0.1 NEG NEG NEG  Free Water scalar *Visual NEG NEG NEG				>20			
VISUAL method limit/base current history1 history2  White Metal scalar *Visual NONE NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Dodor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG NEG Free Water scalar *Visual NEG NEG NEG		ppm					
White Metal scalar *Visual NONE 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 NONE Debris scalar *Visual NONE NONE NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Ddor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG NEG		ppm		>20	3	1	1
Yellow Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLDdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGNEGFree Waterscalar*VisualNEGNEGNEG	VISUAL			limit/base	current	history1	history2
Precipitate scalar *Visual NONE NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE NONE NONE NONE Scalar *Visual NONE NONE NONE NONE NONE Scalar *Visual NONE NONE NONE NONE NONE NONE NONE NON		scalar		NONE	NONE		NONE
Silt scalar *Visual NONE 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 Free Water scalar *Visual NEG NEG NEG	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Debris scalar *Visual NONE 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 Free Water scalar *Visual NEG NEG NEG	Precipitate	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 Free Water scalar *Visual NEG NEG NEG		scalar		NONE	NONE	NONE	NONE
Appearance scalar *Visual NORML NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG NEG Free Water scalar *Visual NEG NEG NEG	Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Odor scalar *Visual NORML NORML NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG NEG Free Water scalar *Visual NEG NEG NEG	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Emulsified Water scalar *Visual >0.1 NEG NEG NEG Free Water scalar *Visual NEG NEG NEG	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Free Water scalar *Visual NEG NEG NEG	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
	Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG
FLUID PROPERTIES method limit/base current history1 history2	Free Water	scalar	*Visual		NEG	NEG	NEG
	FLUID PROPE	RTIES	method	limit/base	current	history1	history2

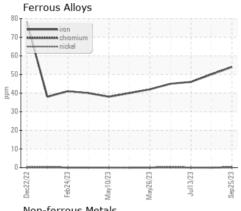


# **OIL ANALYSIS REPORT**

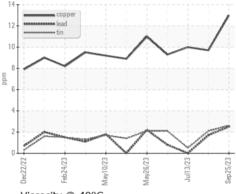


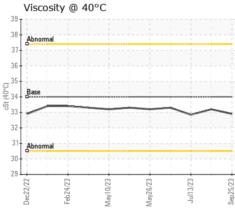
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color			no image	no image	no image
Bottom			no image	no image	no image

## **GRAPHS**



### Non-ferrous Metals









Certificate L2367

Laboratory Sample No. Lab Number Unique Number : 10670424 Test Package : FLEET

: 05963873

: GFL0094282

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 28 Sep 2023 Diagnosed : 01 Oct 2023

Diagnostician : Don Baldridge

GFL Environmental - 010 - Stockbridge 1280 Rum Creek Parkway Stockbridge, GA

US 30281 Contact: JOSHUA TINKER

joshuatinker@gflenv.com

T: 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)

Report Id: GFL010 [WUSCAR] 05963873 (Generated: 10/01/2023 12:46:01) Rev: 1