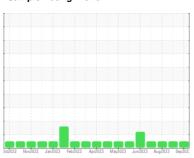


# **OIL ANALYSIS REPORT**

#### Sample Rating Trend



NORMAL



Machine Id **10949** Component

**Transmission (Auto)** 

PETRO CANADA DuraDrive HD Synthetic 668 (

## 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

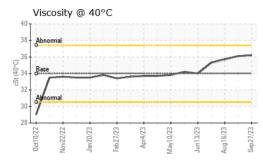
## **Fluid Condition**

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

Client Info   GFL0094288   GFL0091442   GFL008870   Sample Date   Client Info   27 Sep 2023   01 Sep 2023   16 Aug 202	68 ( GAL)		Jetž022 Novž	022 Jan2023 Feb2023	Apr2023 May2023 Jun2023 Aug	2023 Sep202:	
Client Info	SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Machine Age	Sample Number		Client Info		GFL0094288	GFL0091442	GFL008870
Dil Age	Sample Date		Client Info		27 Sep 2023	01 Sep 2023	16 Aug 2023
Not Changed   Not Changed   Not Changed   Nor Changed   NORMAL	Machine Age	hrs	Client Info		13108	12974	12830
NORMAL   NORMAL   NORMAL   NORMAL   NORMAL   NORMAL   WEAR METALS   method   limit/base   current   history1   history2   history2	Dil Age	hrs	Client Info		444	310	166
WEAR METALS         method         limit/base         current         history1         history2           ron         ppm         ASTM D5185m         >160         47         45         45           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           Titanium         ppm         ASTM D5185m         >5         0         0         0           Silver         ppm         ASTM D5185m         >50         21         22         19           Lead         ppm         ASTM D5185m         >50         21         22         19           Lead         ppm         ASTM D5185m         >50         1         0         1           Copper         ppm         ASTM D5185m         >50         1         0         1           Vanadium         ppm         ASTM D5185m         >10         2         2         2         2           Vanadium         ppm         ASTM D5185m         0         0         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         0         2         2           Boron         ppm         ASTM D5185m         0         0         0         2           Molybdenum         ppm         ASTM D5185m         2 <td>WEAR METAL</td> <td>_S</td> <td>method</td> <td>limit/base</td> <td>current</td> <td>history1</td> <td>history2</td>	WEAR METAL	_S	method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>160	47	45	45
Description	Chromium	ppm	ASTM D5185m	>5	<1	0	0
Silver	Nickel	ppm	ASTM D5185m	>5	0	0	0
Aluminum	Titanium	ppm	ASTM D5185m		0	0	0
Lead	Silver	ppm	ASTM D5185m	>5	0	0	0
Lead	Aluminum	ppm	ASTM D5185m	>50	21	22	19
Description	Lead		ASTM D5185m	>50	1	0	1
Vanadium	Copper		ASTM D5185m	>225	13	12	11
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         39         40         46           Barium         ppm         ASTM D5185m         0         0         2           Molybdenum         ppm         ASTM D5185m         2         0         <1           Magnesium         ppm         ASTM D5185m         10         6         4           Calcium         ppm         ASTM D5185m         116         114         114           Phosphorus         ppm         ASTM D5185m         273         271         251           Zinc         ppm         ASTM D5185m         170         148         142           Sulfur         ppm         ASTM D5185m         20         7         7         6           Sodium         ppm         ASTM D5185m         >20         7         7         6           Sodium         ppm         ASTM D5185m         >20         7         7	Tin						
Cadmium         ppm         ASTM D5185m         0         0         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         39         40         46           Barium         ppm         ASTM D5185m         0         0         2           Molybdenum         ppm         ASTM D5185m         2         0         <1							
Boron   ppm   ASTM D5185m   39   40   46	Cadmium						
Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum         ppm         ASTM D5185m         2         0         <1           Manganese         ppm         ASTM D5185m         1         <1	Boron	ppm	ASTM D5185m		39	40	46
Manganese         ppm         ASTM D5185m         1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1	Barium	ppm	ASTM D5185m		0	0	2
Magnesium         ppm         ASTM D5185m         10         6         4           Calcium         ppm         ASTM D5185m         116         114         114           Phosphorus         ppm         ASTM D5185m         273         271         251           Zinc         ppm         ASTM D5185m         170         148         142           Sulfur         ppm         ASTM D5185m         1381         1647         1538           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         7         7         6           Sodium         ppm         ASTM D5185m         >20         3         <1	Molybdenum	ppm	ASTM D5185m		2	0	<1
Calcium         ppm         ASTM D5185m         116         114         114           Phosphorus         ppm         ASTM D5185m         273         271         251           Zinc         ppm         ASTM D5185m         170         148         142           Sulfur         ppm         ASTM D5185m         1381         1647         1538           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         7         7         6           Sodium         ppm         ASTM D5185m         >20         3         <1	Manganese	ppm	ASTM D5185m		1	<1	<1
Phosphorus         ppm         ASTM D5185m         273         271         251           Zinc         ppm         ASTM D5185m         170         148         142           Sulfur         ppm         ASTM D5185m         1381         1647         1538           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         7         7         6           Sodium         ppm         ASTM D5185m         >20         3         <1	Magnesium	ppm	ASTM D5185m		10	6	4
Zinc         ppm         ASTM D5185m         170         148         142           Sulfur         ppm         ASTM D5185m         1381         1647         1538           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         7         7         6           Sodium         ppm         ASTM D5185m         >20         3         <1	Calcium	ppm	ASTM D5185m		116	114	114
Zinc         ppm         ASTM D5185m         170         148         142           Sulfur         ppm         ASTM D5185m         1381         1647         1538           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         7         7         6           Sodium         ppm         ASTM D5185m         >20         3         <1	Phosphorus	ppm	ASTM D5185m		273	271	251
Sulfur         ppm         ASTM D5185m         1381         1647         1538           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         7         7         6           Sodium         ppm         ASTM D5185m         >20         3         <1		ppm	ASTM D5185m		170	148	142
Silicon			ASTM D5185m		1381	1647	1538
Sodium         ppm         ASTM D5185m         7         6         0           Potassium         ppm         ASTM D5185m         >20         3         <1	CONTAMINAN	NTS	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 3 <1 2  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 Odor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG NEG Free Water scalar *Visual NEG NEG NEG	Silicon	ppm	ASTM D5185m	>20	7		6
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 NONE Debris scalar *Visual NONE NONE NONE NONE LIGHT Sand/Dirt scalar *Visual NONE 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	Sodium	ppm	ASTM D5185m		7	6	0
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 NONE LIGHT Sand/Dirt scalar *Visual NONE 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	Potassium	ppm	ASTM D5185m	>20	3	<1	2
Yellow Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONELIGHTSand/Dirtscalar*VisualNONENONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGNEGFree Waterscalar*VisualNEGNEGNEG	VISUAL		method	limit/base	current	history1	history2
Precipitate scalar *Visual NONE NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE LIGHT 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	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silt scalar *Visual NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE LIGHT 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 LIGHT Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual 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	Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGNEGFree Waterscalar*VisualNEGNEGNEG	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGNEGFree Waterscalar*VisualNEGNEGNEG	Debris	scalar	*Visual	NONE	NONE	NONE	LIGHT
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
Emulsified Water       scalar       *Visual       >0.1       NEG       NEG       NEG         Free Water       scalar       *Visual       NEG       NEG       NEG	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Free Water scalar *Visual NEG NEG NEG	Emulsified Water				NEG	NEG	NEG
FLUID PROPERTIES method limit/base current history1 history2	Free Water						
	FLUID PROPE	RTIES	method	limit/base	current	history1	history2

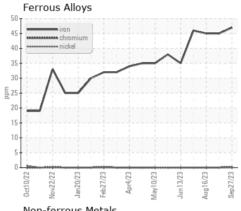


# **OIL ANALYSIS REPORT**

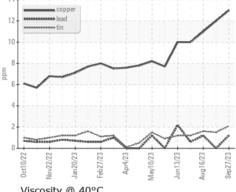


SAMPLE IMAGES	method	limit/base	current	history1	history2
Color			no image	no image	no image
Bottom			no image	no image	no image

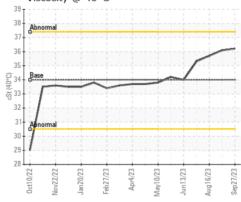
## **GRAPHS**



## Non-ferrous Metals



# Viscosity @ 40°C







Certificate L2367

Laboratory Sample No. Lab Number Unique Number : 10670410 Test Package : FLEET

: 05963859

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : GFL0094288 Received : 28 Sep 2023 Diagnosed : 01 Oct 2023

Diagnostician : Don Baldridge

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)

GFL Environmental - 010 - Stockbridge

1280 Rum Creek Parkway Stockbridge, GA

US 30281 Contact: JOSHUA TINKER

joshuatinker@gflenv.com

T: F: