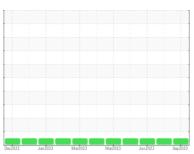


# **OIL ANALYSIS REPORT**

### Sample Rating Trend







Machine Id **10523** 

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.

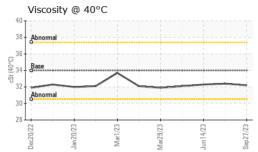
## **Fluid Condition**

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

Sample Number   Client Info   GFL0094326   GFL0091377   GFL0083275   Sample Date   Client Info   27 Sep 2023   01 Sep 2023   14 Jun 2023   15 Jun 2023   1	68 ( GAL)		Dec2022	Jan2023 Mar2023	Mar2023 Jun2023	Sep2023	
Sample Date   Client Info   27 Sep 2023   14 Jun 2023   14 Jun 2023   15 Jun 2023	SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Machine Age   hrs   Client Info   1872   523   1290     Did Roange   hrs   Client Info   1872   523   1290     Did Roange   Client Info   Not Changd   Not Changd   Not Changd   NoRMAL   NORMAL   NORMAL     NORMAL   NORMAL   NORMAL   NORMAL     WEAR METALS   method   Imit/base   current   history1   history2	Sample Number		Client Info		GFL0094326	GFL0091377	GFL0083279
Dil Age	Sample Date		Client Info		27 Sep 2023	01 Sep 2023	14 Jun 2023
Dil Changed   Client Info   Not Changd   NORMAL   NORMA	Machine Age	hrs	Client Info		23124	22922	22542
NORMAL   NORMAL   NORMAL   NORMAL   NORMAL   WEAR METALS   method   limit/base   current   history1   history2   history2   normal   nor	Oil Age	hrs	Client Info		1872	523	1290
WEAR METALS         method         limit/base         current         history1         history2           ron         ppm         ASTM D5185m         >160         44         39         39           Chromium         ppm         ASTM D5185m         >5         0         0         0           Nickel         ppm         ASTM D5185m         >5         0         0         0           Silver         ppm         ASTM D5185m         >5         0         0         0           ASTM D5185m         >50         16         15         13         13         12           Lead         ppm         ASTM D5185m         >50         2         <1	Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Description	Sample Status				NORMAL	NORMAL	NORMAL
Display	WEAR METAL	.S	method	limit/base	current	history1	history2
Nickel	ron	ppm	ASTM D5185m	>160	44	39	39
Description	Chromium	ppm	ASTM D5185m	>5	0	0	0
Silver	Nickel	ppm	ASTM D5185m	>5	0	0	0
Alluminum	Γitanium	ppm	ASTM D5185m		0	0	<1
December   December	Silver	ppm	ASTM D5185m	>5	0	0	0
Description	Aluminum	ppm	ASTM D5185m	>50	16	15	13
Princols   Princols	_ead	ppm	ASTM D5185m	>50	2	<1	1
Vanadium         ppm         ASTM D5185m         0         0         <1           Cadmium         ppm         ASTM D5185m         0         0         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         71         67         77           Barium         ppm         ASTM D5185m         0         0         0           Magnesium         ppm         ASTM D5185m         1         <1         <1         <1           Magnesium         ppm         ASTM D5185m         6         4         <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	Copper	ppm	ASTM D5185m	>225	16	13	12
Cadmium         ppm         ASTM D5185m         0         0         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         71         67         77           Barium         ppm         ASTM D5185m         0         0         0           Molybdenum         ppm         ASTM D5185m         1         0         -1           Magnesium         ppm         ASTM D5185m         6         4         -1           Magnesium         ppm         ASTM D5185m         134         132         134           Phosphorus         ppm         ASTM D5185m         227         224         230           Zinc         ppm         ASTM D5185m         10         4         0           Sulfur         ppm         ASTM D5185m         1682         1891         1993           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         6         5         5           Sodium         ppm         ASTM D5185m         >20         6	Γin	ppm	ASTM D5185m	>10	3	2	2
ADDITIVES	Vanadium	ppm	ASTM D5185m		0	0	<1
Soron   ppm   ASTM D5185m   71   67   77   77   77   77   77   77	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         1         <1         <1         <1           Magnesium         ppm         ASTM D5185m         6         4         <1         <1           Calcium         ppm         ASTM D5185m         134         132         134            Phosphorus         ppm         ASTM D5185m         227         224         230            Zinc         ppm         ASTM D5185m         10         4         0            Sulfur         ppm         ASTM D5185m         1682         1891         1993           CONTAMINANTS         method         limit/base         current         history1         history2           CONTAMINANTS         method         limit/base         current         history1	Boron	ppm	ASTM D5185m		71	67	77
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	0
Magnesium         ppm         ASTM D5185m         6         4         <1           Calcium         ppm         ASTM D5185m         134         132         134           Phosphorus         ppm         ASTM D5185m         227         224         230           Zinc         ppm         ASTM D5185m         10         4         0           Sulfur         ppm         ASTM D5185m         1682         1891         1993           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         6         5         5           Sodium         ppm         ASTM D5185m         >20         3         <1	Molybdenum	ppm	ASTM D5185m		1	0	<1
Calcium         ppm         ASTM D5185m         134         132         134           Phosphorus         ppm         ASTM D5185m         227         224         230           Zinc         ppm         ASTM D5185m         10         4         0           Sulfur         ppm         ASTM D5185m         1682         1891         1993           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         6         5         5           Sodium         ppm         ASTM D5185m         >20         3         <1	Manganese	ppm	ASTM D5185m		1	<1	<1
Phosphorus         ppm         ASTM D5185m         227         224         230           Zinc         ppm         ASTM D5185m         10         4         0           Sulfur         ppm         ASTM D5185m         1682         1891         1993           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         6         5         5           Sodium         ppm         ASTM D5185m         >20         3         <1	Magnesium	ppm	ASTM D5185m		6	4	<1
Debris   Scalar *Visual   NONE   NONE   NONE   NONE   NONE   Scalar *Visual   NONE	Calcium	ppm	ASTM D5185m		134	132	134
Sulfur         ppm         ASTM D5185m         1682         1891         1993           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         6         5         5           Godium         ppm         ASTM D5185m         >20         3         <1         0           VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual         NONE         NONE         NONE         NONE           Vellow Metal         scalar         *Visual         NONE         NONE         NONE         NONE           Vellow Metal         scalar         *Visual         NONE         NONE         NONE         NONE           Precipitate         scalar         *Visual         NONE         NONE         NONE         NONE           Debris         scalar         *Visual         NONE         NONE         NONE         NONE           Debris         scalar         *Visual         NONE         NONE         NONE         NONE           Debris         scalar         *Visual<	Phosphorus	ppm	ASTM D5185m		227	224	230
CONTAMINANTS method limit/base current history1 history2  Silicon ppm ASTM D5185m >20 6 5 5  Sodium ppm ASTM D5185m   6 6 6 3  Potassium ppm ASTM D5185m   >20 3 <1 0  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	Zinc	ppm	ASTM D5185m		10	4	0
Silicon   ppm   ASTM D5185m   >20   6   5   5	Sulfur	ppm	ASTM D5185m		1682	1891	1993
Sodium ppm ASTM D5185m 6 6 6 3 Potassium ppm ASTM D5185m >20 3 <1 0  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 0  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 NON	Silicon	ppm	ASTM D5185m	>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	Sodium	ppm	ASTM D5185m		6	6	3
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 Free Water scalar *Visual NEG NEG NEG	Potassium	ppm		>20	3	<1	0
Yellow Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLDdorscalar*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 NONE NONE Scalar *Visual NONE NONE NONE NONE NONE NONE Scalar *Visual NONE NONE NONE NONE NONE NONE NONE NON	White Metal	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 NORML NORML NORML NORML Ddor 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 Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML NORML Ddor 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 Ddor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG NEG Free Water scalar *Visual NEG NEG NEG	Silt	scalar	*Visual	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
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

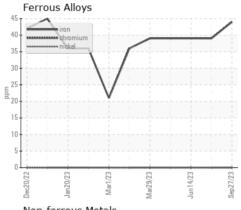


# **OIL ANALYSIS REPORT**

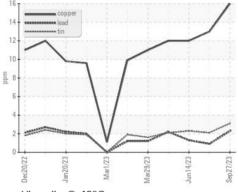




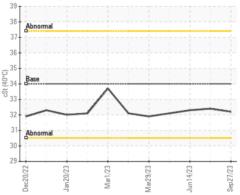
## **GRAPHS**



#### Non-ferrous Metals



## Viscosity @ 40°C







Certificate L2367

Laboratory Sample No. Lab Number Test Package : FLEET

Unique Number : 10670422

: GFL0094326 : 05963871

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 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

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US 30281

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T:

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