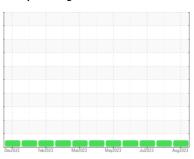


# **OIL ANALYSIS REPORT**

Sample Rating Trend



NORMAL



Machine Id **812042** 

Component

**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

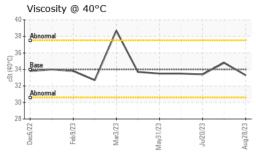
### **Fluid Condition**

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

Client Info   Client Info   Cample Number   Client Info   Cample Date   Client Info   Changed   NoRMAL   NORM	68 ( GAL)		Dec2022	Feb2023 Mar2023	May2023 Jul2023	Aug2023	
Sample Date	SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Machine Age	Sample Number		Client Info		GFL0091372	GFL0088770	GFL0086114
Dil Age	Sample Date		Client Info		28 Aug 2023	15 Aug 2023	20 Jul 2023
Dil Changed   Client Info   Changed   NORMAL	Machine Age	hrs	Client Info		4586	4501	4749
NORMAL   NORMAL   NORMAL   NORMAL   WEAR METALS   method   limit/base   current   history1   history2   history2   from   ppm   ASTM D5185m   >5   0   0   0   0   0   0   0   0   0	Oil Age	hrs	Client Info		4586	4501	2302
WEAR METALS         method         limit/base         current         history1         history2           ron         ppm         ASTM D5185m         >160         52         52         48           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         >5         0         0         0         0           ASTM D5185m         >50         24         21         20           ALMuminum         ppm         ASTM D5185m         >50         11         11         10           Copper         ppm         ASTM D5185m         >50         11         11         10           Copper         ppm         ASTM D5185m         >10         4         3         2           Vanadium         ppm         ASTM D5185m         0         0         0         0           Caddmium         ppm         ASTM D5185m         0         2         0         0           Barrium <td< td=""><td>Oil Changed</td><td></td><td>Client Info</td><td></td><td>Changed</td><td>Not Changd</td><td>Changed</td></td<>	Oil Changed		Client Info		Changed	Not Changd	Changed
Chromium	Sample Status				NORMAL	NORMAL	NORMAL
Chromium         ppm         ASTM D5185m         >5         0         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         24         21         20           Lead         ppm         ASTM D5185m         >50         11         11         10           Copper         ppm         ASTM D5185m         >50         11         11         10           Cadead         ppm         ASTM D5185m         >50         11         11         10           Cadead         ppm         ASTM D5185m         0         0         0         0           Cademium         ppm         ASTM D5185m         0         0         0         0           ADDITIVES         method         limit/base         current         history1         history2           Barium         ppm         ASTM D5185m         0         2         0 <t< td=""><td>WEAR METAL</td><td>S</td><td>method</td><td>limit/base</td><td>current</td><td>history1</td><td>history2</td></t<>	WEAR METAL	S	method	limit/base	current	history1	history2
Nickel	ron	ppm	ASTM D5185m	>160	52	52	48
Description	Chromium	ppm	ASTM D5185m	>5	0	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	24	21	20
ASTM D5185m   D	_ead	ppm	ASTM D5185m	>50	11	11	10
Princology	Copper	ppm	ASTM D5185m	>225	16	16	16
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         68         73         67           Barium         ppm         ASTM D5185m         0         2         0           Molybdenum         ppm         ASTM D5185m         0         <1         <1         <1           Magnesium         ppm         ASTM D5185m         <1         1         0         <1         <1         0           Calcium         ppm         ASTM D5185m         109         110         113         0            Phosphorus         ppm         ASTM D5185m         228         224         227            Zinc         ppm         ASTM D5185m         0         5         0            Sulfur         ppm         ASTM D5185m         1830         2537         1841           CONTAMINANTS         method         limit/base         current         history1         history2	Tin .		ASTM D5185m	>10	4	3	2
Cadmium         ppm         ASTM D5185m         0         0         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0         2         0           Molybdenum         ppm         ASTM D5185m         0         2         0           Molybdenum         ppm         ASTM D5185m         0         <1	Vanadium		ASTM D5185m		0	0	0
Boron   ppm   ASTM D5185m   68   73   67	Cadmium		ASTM D5185m		0		0
Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum         ppm         ASTM D5185m         0         <1         <1           Manganese         ppm         ASTM D5185m         <1         <1         <1           Magnesium         ppm         ASTM D5185m         <1         1         0           Calcium         ppm         ASTM D5185m         109         110         113           Phosphorus         ppm         ASTM D5185m         228         224         227           Zinc         ppm         ASTM D5185m         0         5         0           Sulfur         ppm         ASTM D5185m         1830         2537         1841           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         4         4         3           Godium         ppm         ASTM D5185m         >20         4         4         3           Sodium         ppm         ASTM D5185m         >20         4         4         3           VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual	Boron	ppm	ASTM D5185m		68	73	67
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 <td>Barium</td> <td>ppm</td> <td>ASTM D5185m</td> <td></td> <td>0</td> <td>2</td> <td>0</td>	Barium	ppm	ASTM D5185m		0	2	0
Magnesium         ppm         ASTM D5185m         <1         1         0           Calcium         ppm         ASTM D5185m         109         110         113           Phosphorus         ppm         ASTM D5185m         228         224         227           Zinc         ppm         ASTM D5185m         0         5         0           Sulfur         ppm         ASTM D5185m         1830         2537         1841           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         4         4         3           Godium         ppm         ASTM D5185m         >20         2         3         1           Potassium         ppm         ASTM D5185m         >20         2         3         1           VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual         NONE         NONE         NONE         NONE           Vellow Metal         scalar         *Visual         NONE         NONE         NONE         NONE         NONE         NONE	Molybdenum	ppm	ASTM D5185m		0	<1	<1
Calcium         ppm         ASTM D5185m         109         110         113           Phosphorus         ppm         ASTM D5185m         228         224         227           Zinc         ppm         ASTM D5185m         0         5         0           Sulfur         ppm         ASTM D5185m         1830         2537         1841           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         4         4         3           Sodium         ppm         ASTM D5185m         >20         2         3         1           Potassium         ppm         ASTM D5185m         >20         2         3         1           VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual         NONE         NONE         NONE           Wellow Metal         scalar         *Visual         NONE         NONE         NONE           Vellow Metal         scalar         *Visual         NONE         NONE         NONE           Precipitate         scalar	Manganese	ppm	ASTM D5185m		<1	<1	<1
Phosphorus         ppm         ASTM D5185m         228         224         227           Zinc         ppm         ASTM D5185m         0         5         0           Sulfur         ppm         ASTM D5185m         1830         2537         1841           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         4         4         3           Sodium         ppm         ASTM D5185m         >20         2         3         1           Potassium         ppm         ASTM D5185m         >20         2         3         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         NONE           Yellow Metal         scalar         *Visual         NONE         NONE         NONE	Magnesium	ppm	ASTM D5185m		<1	1	0
Debris   Scalar *Visual   NONE   NONE   NONE   NONE   NONE   Scalar *Visual   NONE	Calcium	ppm	ASTM D5185m		109	110	113
Sulfur         ppm         ASTM D5185m         1830         2537         1841           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         4         4         3           Sodium         ppm         ASTM D5185m         >20         2         3         1           Potassium         ppm         ASTM D5185m         >20         2         3         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>228</td> <td>224</td> <td>227</td>	Phosphorus	ppm	ASTM D5185m		228	224	227
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 4 4 4 3 Sodium ppm ASTM D5185m 3 0 4 Potassium ppm ASTM D5185m >20 2 3 1  VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE 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 NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML Demulsified Water scalar *Visual NORML NORML NORML Emulsified Water scalar *Visual NORML NORML NORML Emulsified Water scalar *Visual NORML NEG NEG NEG	Zinc	ppm	ASTM D5185m		0	5	0
Silicon	Sulfur	ppm	ASTM D5185m		1830	2537	1841
Sodium	CONTAMINAN	ITS	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 2 3 1  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 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				>20	-		
White Metal scalar *Visual NONE NONE NONE NONE NONE NONE NONE NON	Sodium	ppm	ASTM D5185m		3	0	4
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	ASTM D5185m	>20	2	3	1
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 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 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 Odor 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	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

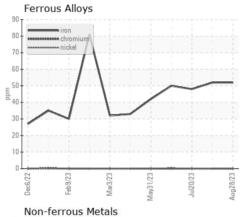


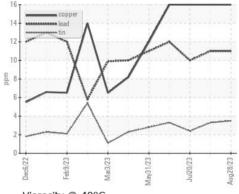
## **OIL ANALYSIS REPORT**

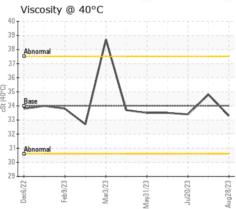


SAMPLE IMAGES	method	limit/base	current	history1	history2
Color			no image	no image	no image
Bottom			no image	no image	no image

### **GRAPHS**











Laboratory Sample No. Lab Number Test Package : FLEET

: 05939399 Unique Number : 10630011

: GFL0091372

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 30 Aug 2023

Diagnosed Diagnostician : Sean Felton

: 01 Sep 2023

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] 05939399 (Generated: 09/01/2023 21:03:24) Rev: 1