

## **OIL ANALYSIS REPORT**

Sample Rating Trend



# 425063-402316

Component Transmission (Auto)

Fluid 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 fluid.

## Fluid Condition

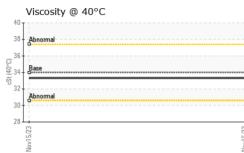
The condition of the fluid is acceptable for the time in service.

SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0099891		
Sample Date		Client Info		15 Nov 2023		
Machine Age	hrs	Client Info		13665		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		Not Changd		
Sample Status				NORMAL		
CONTAMINAT		method	limit/base	current	history1	history2
Water	ION	WC Method	>0.1	NEG		
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>160	62		
Chromium	ppm	ASTM D5185m		0		
Nickel	ppm	ASTM D5185m	>5	0		
Titanium		ASTM D5185m	20	۰ <1		
Silver	ppm	ASTM D5185m	>5	<1 0		
	ppm		>5			
Aluminum	ppm	ASTM D5185m		3		
Lead	ppm	ASTM D5185m	>50	0		
Copper	ppm	ASTM D5185m		5		
Tin	ppm	ASTM D5185m	>10	0		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		93		
Barium	ppm	ASTM D5185m		0		
Molybdenum	ppm	ASTM D5185m		<1		
Manganese	ppm	ASTM D5185m		<1		
Magnesium	ppm	ASTM D5185m		2		
Calcium	ppm	ASTM D5185m		127		
Phosphorus				200		
FIIUSDIIUIUS	maa	ASTM D5185m		200		
	ppm ppm					
Zinc	ppm	ASTM D5185m		0		
Zinc Sulfur	ppm ppm	ASTM D5185m ASTM D5185m	1. 5.0	0 1618		
Zinc Sulfur CONTAMINAN	ppm ppm TS	ASTM D5185m ASTM D5185m method	limit/base	0 1618 current		
Zinc Sulfur CONTAMINAN Silicon	ppm ppm ITS ppm	ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m	>20	0 1618 current 9		
Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm TS	ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m ASTM D5185m	>20	0 1618 current		
Zinc Sulfur CONTAMINAN Silicon	ppm ppm ITS ppm	ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m	>20	0 1618 current 9		
Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m ASTM D5185m	>20	0 1618 current 9 0		
Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal	ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual	>20 >20	0 1618 current 9 0 2 2 current NONE	 history1  	 history2  
Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL	ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m Method	>20 >20 limit/base	0 1618 current 9 0 2 2 current	 history1   history1	history2
Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal	ppm ppm TS ppm ppm ppm scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual	>20 >20 limit/base NONE	0 1618 current 9 0 2 2 current NONE	 history1   history1 	 history2   history2 
Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal	ppm ppm TS ppm ppm ppm ppm scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual	>20 >20 limit/base NONE NONE	0 1618 current 9 0 2 2 current NONE NONE	 history1   history1 	 history2   history2 
Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate	ppm ppm TS ppm ppm ppm ppm scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual	>20 >20 limit/base NONE NONE NONE	0 1618 current 9 0 2 2 current NONE NONE NONE	 history1   history1  	 history2   history2  history2
Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt	ppm ppm TS ppm ppm ppm ppm scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual	>20 >20 limit/base NONE NONE NONE NONE	0 1618 current 9 0 2 2 current NONE NONE NONE LIGHT	 history1   history1  	<ul> <li></li> <li>history2</li> <li></li> <li></li> <li>history2</li> <li></li> </ul>
Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris	ppm ppm TS ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual	>20 >20 limit/base NONE NONE NONE NONE NONE	0 1618 current 9 0 2 current NONE NONE NONE LIGHT NONE	 history1   history1   	<ul> <li></li> <li>history2</li> <li></li> <li></li> <li>history2</li> <li></li> </ul>
Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt	ppm ppm TS ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual	>20 >20 limit/base NONE NONE NONE NONE NONE	0 1618 current 9 0 2 current NONE NONE NONE LIGHT NONE NONE NONE NONE	 history1   history1    	<ul> <li></li> <li>history2</li> <li></li> <li></li> <li>history2</li> <li></li> <li></li></ul>
Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance	ppm ppm TS ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	>20 >20 limit/base NONE NONE NONE NONE NONE NONE NONE NONE	0 1618 current 9 0 2 current NONE NONE NONE LIGHT NONE NONE NONE	 history1   history1      	<ul> <li></li> <li>history2</li> <li></li> <li></li> <li>history2</li> <li></li> <li></li></ul>
Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor	ppm ppm TS ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	>20 >20 limit/base NONE NONE NONE NONE NONE NORML NORML	0 1618 current 9 0 2 current NONE NONE LIGHT NONE LIGHT NONE NONE NORE NORML	 history1   history1        -	<ul> <li></li> <li>history2</li> <li></li> <li></li> <li>history2</li> <li></li> <li></li></ul>



# **OIL ANALYSIS REPORT**

FLUID PROPERTIES method limit/base



	Visc @ 40°C	cSt	ASTM D445	34	33.3		
	SAMPLE IMA	GES	method	limit/base	current	history1	history2
	Color				no image	no image	no image
Nov15,23	Bottom				no image	no image	no image
	GRAPHS						
	Ferrous Alloys	als		Nav15/23			
	Viscosity @ 40°C			Nov15/23			
	39 38 37 36 35 35 34 <b>Base</b> 33 34 33						
	32 31 30 29			5/23			
Laboratory Sample No. Lab Number Unique Number Test Package discuss this sample report, Denotes test methods that a	: FLEET contact Customer Ser	Received Diagnose Diagnost	d : 20 M ed : 22 M ician : Sea	Nov 2023 Nov 2023 n Felton	3 GFL Env	Ka Conta rha	ansas City Haulin t Truman Roa ansas City, Mu US 6412 act: Robert Ha urt@gflenv.cor (580)461-150

Contact/Location: See also GFL823, 834, 837, 840 - Robert Hart - GFL836