

## **OIL ANALYSIS REPORT**

#### Area SHARP BUS LINES Machine Id INTERNATIONAL 1364

Component Diesel Engine Fluid

### PETRO CANADA 15W40 (--- 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.

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Sample Rating Trend



NORMAL

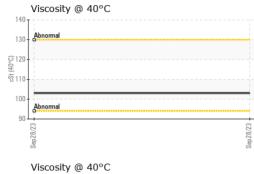
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PC0081404		
Sample Date		Client Info		28 Sep 2023		
Machine Age	hrs	Client Info		242433		
Oil Age	hrs	Client Info		2000		
Oil Changed		Client Info		Changed		
Sample Status				NORMAL		
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>2.0	<1.0		
Glycol		WC Method		NEG		
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	16		
Chromium	ppm	ASTM D5185(m)	>20	<1		
Nickel	ppm	ASTM D5185(m)	>4	<1		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)	>3	<1		
Aluminum	ppm	ASTM D5185(m)	>20	6		
Lead	ppm	ASTM D5185(m)	>40	<1		
Copper	ppm	ASTM D5185(m)	>330	<1		
Tin	ppm	ASTM D5185(m)	>15	0		
Antimony	ppm	ASTM D5185(m)		0		
Vanadium	ppm	ASTM D5185(m)		0		
Beryllium	ppm	ASTM D5185(m)		0		
Cadmium	ppm	ASTM D5185(m)		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		<1		
Barium	ppm	ASTM D5185(m)		<1		
Molybdenum	ppm	ASTM D5185(m)		56		
Manganese	ppm	ASTM D5185(m)		-		
	ppin	ASTIVI DOTOD(III)		0		
Magnesium	ppm	ASTM D5185(m)		0 909		
Magnesium Calcium						
-	ppm	ASTM D5185(m)		909		
Calcium	ppm ppm	ASTM D5185(m) ASTM D5185(m)		909 966		
Calcium Phosphorus	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		909 966 959		
Calcium Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		909 966 959 1116		
Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	909 966 959 1116 2470 <1		
Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		909 966 959 1116 2470 <1	  	
Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method	limit/base	909 966 959 1116 2470 <1 current	  	    history2
Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm TS	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) Method ASTM D5185(m)	limit/base	909 966 959 1116 2470 <1 current 3	    history1 	    history2
Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm TS	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base >25	909 966 959 1116 2470 <1 current 3 2	    history1 	    history2 
Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm TS	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base >25 >20	909 966 959 1116 2470 <1 current 3 2 6	    history1  	   history2  
Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base >25 >20 limit/base	909 966 959 1116 2470 <1 current 3 2 6 Current	    history1  	    history2 
Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185(m) ASTM D5185(m)	limit/base >25 >20 limit/base >3	909 966 959 1116 2470 <1 current 3 2 6 current 0.8	    history1   history1 	   history2   history2
Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm	ASTM D5185(m) ASTM D7844* ASTM D7844* ASTM D7624*	limit/base >25 >20 limit/base >3 >20	909 966 959 1116 2470 <1 current 3 2 6 current 0.8 6.7	    history1   history1 	   history2   history2
Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm	ASTM D5185(m) ASTM D7844* ASTM D7844* ASTM D7624*	limit/base >25 >20 limit/base >3 >20 >30	909 966 959 1116 2470 <1 current 3 2 6 current 0.8 6.7 20.2	    history1  history1  history1	   history2   history2  history2

Contact/Location: Doug Hall - ICSB902



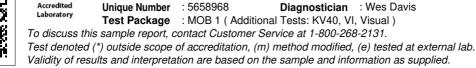
# **OIL ANALYSIS REPORT**

VISUAL





White Metal NONE NONE scalar Visual\* Yellow Metal NONE NONE scalar Visual\* Precipitate scalar Visual\* NONE NONE Silt scalar Visual\* NONE LIGHT Debris NONE Visual\* NONE scalar NONE Sand/Dirt scalar Visual\* NONE NORML Appearance scalar Visual\* NORML Odor NORML NORML scalar Visual\* **Emulsified Water** scalar Visual\* >0.2 NEG Free Water scalar Visual\* NEG **FLUID PROPERTIES** Visc @ 40°C cSt ASTM D7279(m) 103 Visc @ 100°C cSt ASTM D7279(m) 14.3 Viscosity Index (VI) Scale ASTM D2270' 142 GRAPHS Iron (ppm) Lead (ppm) 250 100 200 Severe 80 150 60 특 100 ppm Abnorma 40 50 20 0 Chromium (ppm) Aluminum (ppm) 51 40 40 30 21 Abr Ab 20 20 10 10 0. 0 en28/23 Copper (ppm) Silicon (ppm) 40 80 Se 300 60 E 200 E 40 100 20 Sep28/23 Viscosity @ 100°C Soot % 20 6.0 Severe 18 cSt (100°C) 16 Soot Abnormal 12 10 0.0 Sep28/23 -Sep28/23 : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **ICSB - Brantford** : PC0081404 Received : 18 Oct 2023 567 Oak Park Rd. : 02589902 Brantford, ON Diagnosed : 19 Oct 2023 : 5658968 CA N3T 5L8 Diagnostician : Wes Davis



CA N3T 5L8 Contact: Doug Hall Djhall@sharpbus.com T: (519)751-3434 F:

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CALA

ISO 17025:2017

Laboratory

Sample No.

Lab Number