

## **OIL ANALYSIS REPORT**

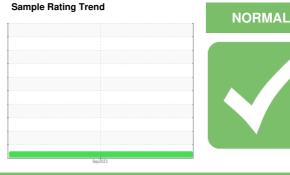
# OIL ANALYSIS REPORT

# SHARP BUS LINES Machine Id INTERNATIONAL 1120

Component

**Diesel Engine** 

PETRO CANADA DURON SHP 10W30 (--- LTR)



#### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Moor

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   PC0081395	111)				Sep 2023		
Sample Date   Client Info   29 Sep 2023	SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Machine Age   kms   Client Info   Client Info   S000   Changed   Client Info   Client Info	Sample Number		Client Info		PC0081395		
Coli Changed	Sample Date		Client Info		29 Sep 2023		
Contact   Client Info   Changed   Client Info   Changed   Contact   Contac	Machine Age	kms	Client Info		249735		
CONTAMINATION	Oil Age	kms	Client Info		5000		
CONTAMINATION   method   limit/base   current   history1   history2	Oil Changed		Client Info		Changed		
Fuel	Sample Status				NORMAL		
WEAR METALS	CONTAMINATIO	NC	method	limit/base	current	history1	history2
WEAR METALS	Fuel		WC Method	>2.0	<1.0		
Chromium	Glycol		WC Method		NEG		
Ohromium	WEAR METALS		method	limit/base	current	history1	history2
Nickel	ron	ppm	ASTM D5185(m)	>100	38		
Titanium	Chromium	ppm	ASTM D5185(m)	>20	<1		
ASTM D5185(m)   >3	Nickel	ppm	ASTM D5185(m)	>4	<1		
Astm D5185(m)   >20   9	Titanium	ppm	ASTM D5185(m)		0		
Lead	Silver	ppm	ASTM D5185(m)	>3			
Description	Aluminum	ppm	ASTM D5185(m)	>20	9		
Tin	_ead	ppm	ASTM D5185(m)	>40	3		
Antimony	Copper	ppm	ASTM D5185(m)	>330	1		
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)         2         3             Barium         ppm         ASTM D5185(m)         0         0             Barium         ppm         ASTM D5185(m)         50         52             Molybdenum         ppm         ASTM D5185(m)         0         0             Manganese         ppm         ASTM D5185(m)         950         807             Magnesium         ppm         ASTM D5185(m)         950         867             Calcium         ppm         ASTM D5185(m)         995         829             Zinc         ppm         ASTM D5185(m)         2600         2118 <td>Tin  </td> <td>ppm</td> <td>ASTM D5185(m)</td> <td>&gt;15</td> <td>&lt;1</td> <td></td> <td></td>	Tin	ppm	ASTM D5185(m)	>15	<1		
Description	Antimony	ppm	ASTM D5185(m)		0		
Cadmium         ppm         ASTM D5185(m)         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185(m)         0         0             Barium         ppm         ASTM D5185(m)         0         0             Molybdenum         ppm         ASTM D5185(m)         50         52             Manganese         ppm         ASTM D5185(m)         0         0             Magnesium         ppm         ASTM D5185(m)         950         807             Calcium         ppm         ASTM D5185(m)         905         829             Phosphorus         ppm         ASTM D5185(m)         995         829             Zinc         ppm         ASTM D5185(m)         1180         984             Sulfur         ppm         ASTM D5185(m)         2600         2118             Lithium         ppm         ASTM D5185(m)         >2	Vanadium	ppm	ASTM D5185(m)		0		
ADDITIVES	Beryllium	ppm	ASTM D5185(m)		0		
Barium	Cadmium	ppm	ASTM D5185(m)		0		
Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum         ppm         ASTM D5185(m)         50         52             Manganese         ppm         ASTM D5185(m)         0         0             Magnesium         ppm         ASTM D5185(m)         950         807             Calcium         ppm         ASTM D5185(m)         1050         867             Phosphorus         ppm         ASTM D5185(m)         995         829             Zinc         ppm         ASTM D5185(m)         984             Sulfur         ppm         ASTM D5185(m)         2600         2118             Lithium         ppm         ASTM D5185(m)         2600         2118             Lithium         ppm         ASTM D5185(m)         >25         5             Silicon         ppm         ASTM D5185(m)         >25         5             Sodium         ppm         ASTM D5185(m)         >20         0             Potassium         ppm         ASTM D7844*	Boron	ppm	ASTM D5185(m)	2	3		
Manganese         ppm         ASTM D5185(m)         0             Magnesium         ppm         ASTM D5185(m)         950         807             Calcium         ppm         ASTM D5185(m)         1050         867             Phosphorus         ppm         ASTM D5185(m)         995         829             Zinc         ppm         ASTM D5185(m)         2600         2118             Sulfur         ppm         ASTM D5185(m)         2600         2118             Lithium         ppm         ASTM D5185(m)         <1	Barium	ppm	ASTM D5185(m)	0	0		
Magnesium         ppm         ASTM D5185(m)         950         807             Calcium         ppm         ASTM D5185(m)         1050         867             Phosphorus         ppm         ASTM D5185(m)         995         829             Zinc         ppm         ASTM D5185(m)         1180         984             Sulfur         ppm         ASTM D5185(m)         2600         2118             Lithium         ppm         ASTM D5185(m)         2600         2118             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185(m)         >25         5             Sodium         ppm         ASTM D5185(m)         >20         0             Potassium         ppm         ASTM D5185(m)         >20         0             Soot %         %         ASTM D7844*         >3         1.6             Soot %         %         ASTM D	Molybdenum	ppm	ASTM D5185(m)	50	52		
Calcium         ppm         ASTM D5185(m)         1 050         867             Phosphorus         ppm         ASTM D5185(m)         995         829             Zinc         ppm         ASTM D5185(m)         1180         984             Sulfur         ppm         ASTM D5185(m)         2600         2118             Lithium         ppm         ASTM D5185(m)         <1	Manganese	ppm	ASTM D5185(m)	0	0		
Phosphorus         ppm         ASTM D5185(m)         995         829             Zinc         ppm         ASTM D5185(m)         1180         984             Sulfur         ppm         ASTM D5185(m)         2600         2118             Lithium         ppm         ASTM D5185(m)         <1	Magnesium	ppm	ASTM D5185(m)	950	807		
Zinc	Calcium	ppm	ASTM D5185(m)	1050	867		
Sulfur	Phosphorus	ppm	ASTM D5185(m)	995	829		
Lithium         ppm         ASTM D5185(m)         <1             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185(m)         >25         5             Sodium         ppm         ASTM D5185(m)         2             Potassium         ppm         ASTM D5185(m)         >20         0             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         ASTM D7844*         >3         1.6             Nitration         Abs/cm         ASTM D7624*         >20         10.7             Sulfation         Abs/.1mm         ASTM D7415*         >30         26.0             FLUID DEGRADATION         method         limit/base         current         history1         history2	Zinc	ppm	ASTM D5185(m)	1180	984		
CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185(m)         >25         5             Sodium         ppm         ASTM D5185(m)         2             Potassium         ppm         ASTM D5185(m)         >20         0             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         ASTM D7844*         >3         1.6             Nitration         Abs/cm         ASTM D7624*         >20         10.7             Sulfation         Abs/.1mm         ASTM D7415*         >30         26.0             FLUID DEGRADATION         method         limit/base         current         history1         history2	Sulfur	ppm	ASTM D5185(m)	2600	2118		
Silicon   ppm   ASTM D5185(m)   >25   5	Lithium	ppm	ASTM D5185(m)		<1		
Sodium	CONTAMINANT	S	method	limit/base	current	history1	history2
Potassium         ppm         ASTM D5185(m)         >20         0             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         ASTM D7844*         >3         1.6             Nitration         Abs/cm         ASTM D7624*         >20         10.7             Sulfation         Abs/.1mm         ASTM D7415*         >30         26.0             FLUID DEGRADATION         method         limit/base         current         history1         history2	Silicon	ppm	ASTM D5185(m)	>25			
INFRA-RED	Sodium	ppm	ASTM D5185(m)		2		
Soot %         %         ASTM D7844*         >3         1.6             Nitration         Abs/cm         ASTM D7624*         >20         10.7             Sulfation         Abs/.1mm         ASTM D7415*         >30         26.0             FLUID DEGRADATION         method         limit/base         current         history1         history2	Potassium	ppm	ASTM D5185(m)	>20	0		
Nitration         Abs/cm         ASTM D7624*         >20         10.7             Sulfation         Abs/.1mm         ASTM D7615*         >30         26.0             FLUID DEGRADATION         method         limit/base         current         history1         history2	INFRA-RED	_	method	limit/base	current	history1	history2
Sulfation Abs/.1mm ASTM D7415* >30 26.0 FLUID DEGRADATION method limit/base current history1 history2	Soot %	%	ASTM D7844*	>3	1.6		
FLUID DEGRADATION method limit/base current history1 history2	Nitration	Abs/cm	ASTM D7624*	>20	10.7		
	Sulfation	Abs/.1mm	ASTM D7415*	>30	26.0		
Oxidation	FLUID DEGRADA	ATION	method	limit/base	current	history1	history2
	Oxidation	Abs/.1mm	ASTM D7414*	>25	24.6		



### **OIL ANALYSIS REPORT**





CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No. Lab Number Unique Number

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 : PC0081395

Received : 02592819 Diagnosed

Diagnostician : Kevin Marson : 5669898

: 30 Oct 2023

: 31 Oct 2023

Test Package : MOB 1 ( Additional Tests: KV40, VI ) To discuss this sample report, contact Customer Service at 1-800-268-2131.

Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Validity of results and interpretation are based on the sample and information as supplied.

**ICSB** - Brantford 567 Oak Park Rd. Brantford, ON CA N3T 5L8 Contact: Doug Hall Djhall@sharpbus.com T: (519)751-3434