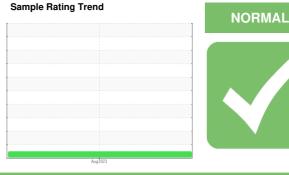


# **OIL ANALYSIS REPORT**

# (89771X) Walgreens [Walgreens] 136A67211

**Diesel Engine** 

PETRO CANADA DURON SHP 10W30 (11 GAL)



## 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

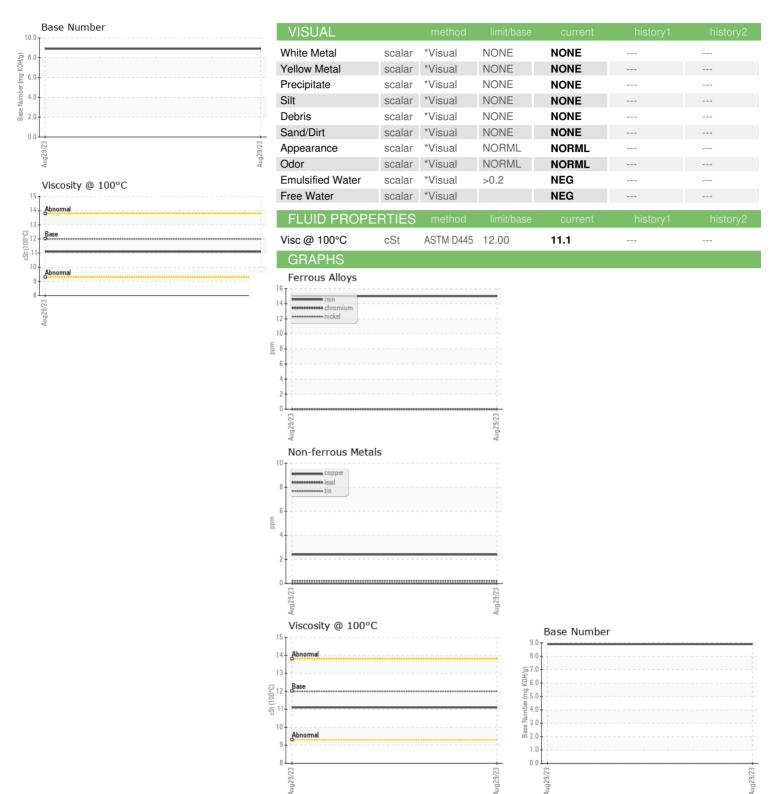
## **Fluid Condition**

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Oil Changed         Client Info         Changed             Sample Status         NORMAL             CONTAMINATION         method         limit/base         current         history1         history2           Fuel         WC Method         >5         <1.0					Aug2023		
Sample Date   Client Info   29 Aug 2023	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age         mls         Client Info         0	Sample Number		Client Info		PCA0105675		
Oil Age         mls         Client Info         50000	Sample Date		Client Info		29 Aug 2023		
Oil Changed   Client Info   Changed   NORMAL	Machine Age	mls	Client Info		0		
CONTAMINATION   method   limit/base   current   history1   history2	Oil Age	mls	Client Info		50000		
CONTAMINATION         method         limit/base         current         history1         history2           Fuel         WC Method         >5         <1.0	Oil Changed		Client Info		Changed		
Fuel	Sample Status				NORMAL		
WEAR METALS	CONTAMINATI	ON	method	limit/base	current	history1	history2
WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >110         15	Fuel		WC Method	>5	<1.0		
Iron	Glycol		WC Method		NEG		
Chromium         ppm         ASTM D5185m         >4         0             Nickel         ppm         ASTM D5185m         >2         0             Titanium         ppm         ASTM D5185m         >2         0             Silver         ppm         ASTM D5185m         >2         0             Aluminum         ppm         ASTM D5185m         >25         3             Lead         ppm         ASTM D5185m         >45         0             Copper         ppm         ASTM D5185m         >4         <1	WEAR METALS	S	method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>110	15		
Titanium	Chromium	ppm	ASTM D5185m	>4	0		
Silver	Nickel	ppm	ASTM D5185m	>2	0		
Silver         ppm         ASTM D5185m         >2         0             Aluminum         ppm         ASTM D5185m         >25         3             Lead         ppm         ASTM D5185m         >45         0             Copper         ppm         ASTM D5185m         >4         <1	Titanium		ASTM D5185m		<1		
Aluminum				>2	0		
Lead	Aluminum			>25	3		
Copper         ppm         ASTM D5185m         >85         2             Tin         ppm         ASTM D5185m         >4         <1	Lead	ppm	ASTM D5185m	>45	0		
Tin	Copper		ASTM D5185m	>85	2		
Vanadium         ppm         ASTM D5185m         <1             Cadmium         ppm         ASTM D5185m         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         2         9             Barium         ppm         ASTM D5185m         0         0             Molybdenum         ppm         ASTM D5185m         50         59             Manganese         ppm         ASTM D5185m         0         0             Magnesium         ppm         ASTM D5185m         950         942             Calcium         ppm         ASTM D5185m         1050         1096             Phosphorus         ppm         ASTM D5185m         995         1012             Zinc         ppm         ASTM D5185m         995         1012             Sulfur         ppm         ASTM D5185m         2600         3574			ASTM D5185m	>4	<1		
Cadmium         ppm         ASTM D5185m         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         2         9             Barium         ppm         ASTM D5185m         0         0             Molybdenum         ppm         ASTM D5185m         50         59             Manganese         ppm         ASTM D5185m         0         0             Magnesium         ppm         ASTM D5185m         950         942             Calcium         ppm         ASTM D5185m         1050         1096             Phosphorus         ppm         ASTM D5185m         995         1012             Zinc         ppm         ASTM D5185m         995         1012             Sulfur         ppm         ASTM D5185m         2600         3574             CONTAMINANTS         method         limit/base         current	Vanadium	• • • • • • • • • • • • • • • • • • • •	ASTM D5185m		<1		
Boron	Cadmium		ASTM D5185m		0		
Barium         ppm         ASTM D5185m         0         0             Molybdenum         ppm         ASTM D5185m         50         59             Manganese         ppm         ASTM D5185m         0         0             Magnesium         ppm         ASTM D5185m         950         942             Calcium         ppm         ASTM D5185m         1050         1096             Phosphorus         ppm         ASTM D5185m         995         1012             Zinc         ppm         ASTM D5185m         995         1012             Sulfur         ppm         ASTM D5185m         2600         3574             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >30         6             Sodium         ppm         ASTM D5185m         >20         0             Potassium         ppm         ASTM D5185m	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum         ppm         ASTM D5185m         50         59             Manganese         ppm         ASTM D5185m         0         0             Magnesium         ppm         ASTM D5185m         950         942             Calcium         ppm         ASTM D5185m         1050         1096             Phosphorus         ppm         ASTM D5185m         995         1012             Zinc         ppm         ASTM D5185m         2600         3574             Sulfur         ppm         ASTM D5185m         2600         3574             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         20         6             Sodium         ppm         ASTM D5185m         20         0             Potassium         ppm         ASTM D5185m         20         0             Soot %         *ASTM D7844         >3	Boron	ppm	ASTM D5185m	2	9		
Manganese         ppm         ASTM D5185m         0         0             Magnesium         ppm         ASTM D5185m         950         942             Calcium         ppm         ASTM D5185m         1050         1096             Phosphorus         ppm         ASTM D5185m         995         1012             Zinc         ppm         ASTM D5185m         2600         3574             Sulfur         ppm         ASTM D5185m         2600         3574             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >30         6             Sodium         ppm         ASTM D5185m         2             Potassium         ppm         ASTM D5185m         >20         0             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7624         >20	Barium	ppm	ASTM D5185m	0	0		
Magnesium         ppm         ASTM D5185m         950         942             Calcium         ppm         ASTM D5185m         1050         1096             Phosphorus         ppm         ASTM D5185m         995         1012             Zinc         ppm         ASTM D5185m         1180         1177             Sulfur         ppm         ASTM D5185m         2600         3574             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >30         6             Sodium         ppm         ASTM D5185m         2             Potassium         ppm         ASTM D5185m         >20         0             INFRA-RED         method         limit/base         current         history1         history2           Soot %         "ASTM D7624         >20         6.2             Sulfation         Abs/.1mm         "ASTM D7415         >30         17.2<	Molybdenum	ppm	ASTM D5185m	50	59		
Calcium         ppm         ASTM D5185m         1050         1096             Phosphorus         ppm         ASTM D5185m         995         1012             Zinc         ppm         ASTM D5185m         1180         1177             Sulfur         ppm         ASTM D5185m         2600         3574             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >30         6             Sodium         ppm         ASTM D5185m         2             Potassium         ppm         ASTM D5185m         >20         0             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.2             Nitration         Abs/cm         *ASTM D7415         >30         17.2             FLUID DEGRADATION         *ASTM D7414         >25         1	Manganese	ppm	ASTM D5185m	0	0		
Phosphorus         ppm         ASTM D5185m         995         1012             Zinc         ppm         ASTM D5185m         1180         1177             Sulfur         ppm         ASTM D5185m         2600         3574             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >30         6             Sodium         ppm         ASTM D5185m         2             Potassium         ppm         ASTM D5185m         >20         0             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.2             Nitration         Abs/cm         *ASTM D7624         >20         6.2             Sulfation         Abs/.1mm         *ASTM D7415         >30         17.2             FLUID DEGRADATION         *ASTM D7414         >25 </td <td>Magnesium</td> <td>ppm</td> <td>ASTM D5185m</td> <td>950</td> <td>942</td> <td></td> <td></td>	Magnesium	ppm	ASTM D5185m	950	942		
Zinc	Calcium	ppm	ASTM D5185m	1050	1096		
Sulfur         ppm         ASTM D5185m         2600         3574             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >30         6             Sodium         ppm         ASTM D5185m         2             Potassium         ppm         ASTM D5185m         >20         0             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.2             Nitration         Abs/cm         *ASTM D7624         >20         6.2             Sulfation         Abs/.1mm         *ASTM D7415         >30         17.2             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         13.0	Phosphorus	ppm	ASTM D5185m	995	1012		
CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >30         6             Sodium         ppm         ASTM D5185m         2             Potassium         ppm         ASTM D5185m         >20         0             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.2             Nitration         Abs/cm         *ASTM D7624         >20         6.2             Sulfation         Abs/.1mm         *ASTM D7415         >30         17.2             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         13.0	Zinc	ppm	ASTM D5185m	1180	1177		
Silicon         ppm         ASTM D5185m         >30         6             Sodium         ppm         ASTM D5185m         2             Potassium         ppm         ASTM D5185m         >20         0             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.2             Nitration         Abs/cm         *ASTM D7624         >20         6.2             Sulfation         Abs/.1mm         *ASTM D7415         >30         17.2             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         13.0	Sulfur	ppm	ASTM D5185m	2600	3574		
Sodium         ppm         ASTM D5185m         2             Potassium         ppm         ASTM D5185m         >20         0             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.2             Nitration         Abs/cm         *ASTM D7624         >20         6.2             Sulfation         Abs/.1mm         *ASTM D7415         >30         17.2             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         13.0	CONTAMINAN	TS	method	limit/base	current	history1	history2
Potassium         ppm         ASTM D5185m         >20         0             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.2             Nitration         Abs/cm         *ASTM D7624         >20         6.2             Sulfation         Abs/.1mm         *ASTM D7415         >30         17.2             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         13.0	Silicon	ppm	ASTM D5185m	>30	6		
INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.2             Nitration         Abs/cm         *ASTM D7624         >20         6.2             Sulfation         Abs/.1mm         *ASTM D7415         >30         17.2             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         13.0	Sodium	ppm	ASTM D5185m		2		
Soot %         %         *ASTM D7844         >3         0.2             Nitration         Abs/cm         *ASTM D7624         >20         6.2             Sulfation         Abs/.1mm         *ASTM D7415         >30         17.2             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         13.0	Potassium	ppm	ASTM D5185m	>20	0		
Nitration         Abs/cm         *ASTM D7624         >20         6.2             Sulfation         Abs/.1mm         *ASTM D7415         >30         17.2             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         13.0	INFRA-RED		method	limit/base	current	history1	history2
Sulfation         Abs/.1mm         *ASTM D7415         >30         17.2             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         13.0	Soot %	%	*ASTM D7844	>3	0.2		
FLUID DEGRADATION     method     limit/base     current     history1     history2       Oxidation     Abs/.1mm     *ASTM D7414     >25     13.0	Nitration	Abs/cm	*ASTM D7624	>20	6.2		
Oxidation Abs/.1mm *ASTM D7414 >25 <b>13.0</b>	Sulfation	Abs/.1mm	*ASTM D7415	>30	17.2		
	FLUID DEGRAD	ATION	method	limit/base	current	history1	history2
Base Number (BN) mg KOH/g ASTM D2896 8.9	Oxidation	Abs/.1mm	*ASTM D7414	>25	13.0		
	Base Number (BN)	mg KOH/g	ASTM D2896		8.9		



# **OIL ANALYSIS REPORT**







Report Id: TSV1374 [WUSCAR] 05944382 (Generated: 09/08/2023 11:03:44) Rev: 1

Laboratory Sample No. Lab Number Unique Number Test Package : FLEET

: PCA0105675 : 05944382

To discuss this sample report, contact Customer Service at 1-800-237-1369.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 10634994

: 07 Sep 2023 : 08 Sep 2023 Diagnosed : Wes Davis Diagnostician

Transervice - Shop 1374 - Berkeley-Hartford 80 International Drive

Windsor, CT US 06095 Contact: Paul Santanella psantanella@transervice.com T: (860)687-1037

\* - 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)

F: (860)687-1476