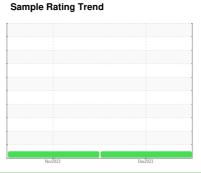


# **OIL ANALYSIS REPORT**

# (P1021277) Dixon Transport-Tractor [Dixon Transport-Tractor] 325A325538

**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

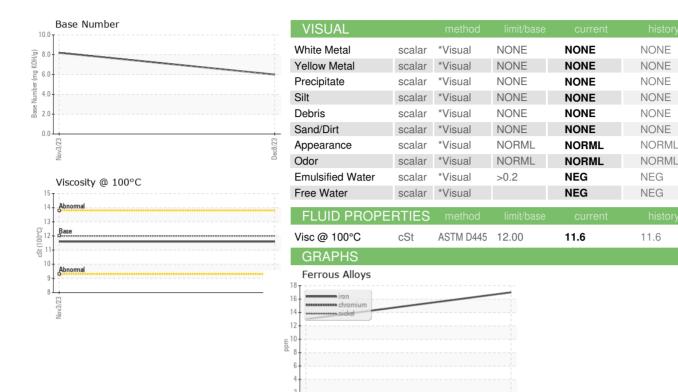
### **Fluid Condition**

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

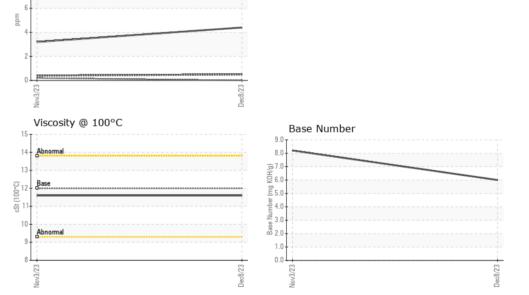
SAMPLE INFORMATION   method   limit/base   current   history1   history2	GAL)			Nov2023	Dec2023		
Sample Date   Client Info   08 Dec 2023   03 Nov 2023	SAMPLE INFOR	RMATION	method	limit/base	current	history1	history2
Sample Date   Client Info   08 Dec 2023   03 Nov 2023	Sample Number		Client Info		PCA0114318	PCA0109482	
Machine Age         mls         Client Info         410523         398893            Oil Age         mls         Client Info         34470         22840            Oil Changed         Client Info         Changed         Not Changd            Sample Status         Imit Vesse         Not Changd            CONTAMINATION         method         Imit Vesse         current         history1         history2           Fuel         WC Method         >5         <1.0			Client Info		08 Dec 2023	03 Nov 2023	
Oil Age         mls         Client Info         34470         22840	•	mls	Client Info		410523	398893	
Sample Status		mls	Client Info		34470	22840	
Sample Status	Oil Changed		Client Info		Changed	Not Changd	
Fuel	Sample Status				NORMAL	NORMAL	
Water         WC Method         >0.2         NEG         NEG            WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >80         17         13            Chromium         ppm         ASTM D5185m         >5         1         2            Nickel         ppm         ASTM D5185m         >5         1         2            Sliver         ppm         ASTM D5185m         >2         0         1            Sliver         ppm         ASTM D5185m         >30         5         4            Aluminum         ppm         ASTM D5185m         >30         <1	CONTAMINAT	ΓΙΟΝ	method	limit/base	current	history1	history2
WEAR METALS   method   limit/base   current   history1   history2	Fuel		WC Method	>5	<1.0	<1.0	
WEAR METALS	Water		WC Method	>0.2	NEG	NEG	
Iron	Glycol		WC Method		NEG	NEG	
Chromium         ppm         ASTM D5185m         >5         1         2         ····           Nickel         ppm         ASTM D5185m         >2         0         1         ····           Titanium         ppm         ASTM D5185m         >2         0         1         ····           Silver         ppm         ASTM D5185m         >30         0         0         ····           Aluminum         ppm         ASTM D5185m         >30         <1	WEAR METAL	_S	method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>80	17	13	
Titanium	Chromium	ppm	ASTM D5185m	>5	1	2	
Silver	Nickel	ppm	ASTM D5185m	>2	0	1	
Aluminum         ppm         ASTM D5185m         >30         5         4            Lead         ppm         ASTM D5185m         >30         <1	Titanium	ppm	ASTM D5185m		0	<1	
Lead         ppm         ASTM D5185m         >30         <1         <1	Silver	ppm	ASTM D5185m	>3	0	0	
Copper         ppm         ASTM D5185m         >150         4         3	Aluminum	ppm	ASTM D5185m	>30	5	4	
Tin         ppm         ASTM D5185m         >5         0         <1            Vanadium         ppm         ASTM D5185m         0         0            Cadmium         ppm         ASTM D5185m         0         0            ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         2         <1         <1            Barium         ppm         ASTM D5185m         0         0         9            Molybdenum         ppm         ASTM D5185m         50         58         63            Magnesium         ppm         ASTM D5185m         0         0         <1            Magnesium         ppm         ASTM D5185m         950         1074         945            Calcium         ppm         ASTM D5185m         950         1228         1114            Phosphorus         ppm         ASTM D5185m         180         1278         1227            Sulfur         ppm         ASTM D5185m         2600         2812         3070	Lead	ppm	ASTM D5185m	>30	<1	<1	
Vanadium         ppm         ASTM D5185m         0         0            Cadmium         ppm         ASTM D5185m         0         <1            ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         2         <1         <1            Barium         ppm         ASTM D5185m         0         0         9            Molybdenum         ppm         ASTM D5185m         50         58         63            Manganese         ppm         ASTM D5185m         0         0         <1            Magnesium         ppm         ASTM D5185m         950         1074         945            Calcium         ppm         ASTM D5185m         950         1074         945            Phosphorus         ppm         ASTM D5185m         950         1109         1002            Zinc         ppm         ASTM D5185m         995         1109         1002            Sulfur         ppm         ASTM D5185m         2600         2812         3070 </td <td>Copper</td> <td>ppm</td> <td>ASTM D5185m</td> <td>&gt;150</td> <th>4</th> <td>3</td> <td></td>	Copper	ppm	ASTM D5185m	>150	4	3	
Cadmium         ppm         ASTM D5185m         0         <1            ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         2         <1	Tin	ppm	ASTM D5185m	>5	0	<1	
ADDITIVES	Vanadium	ppm	ASTM D5185m		0	0	
Boron   ppm   ASTM D5185m   2   <1   <1	Cadmium	ppm	ASTM D5185m		0	<1	
Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum         ppm         ASTM D5185m         50         58         63            Manganese         ppm         ASTM D5185m         0         0         <1	Boron	ppm	ASTM D5185m	2	<1	<1	
Manganese         ppm         ASTM D5185m         0         0         <1            Magnesium         ppm         ASTM D5185m         950         1074         945            Calcium         ppm         ASTM D5185m         1050         1228         1114            Phosphorus         ppm         ASTM D5185m         995         1109         1002            Zinc         ppm         ASTM D5185m         1180         1278         1227            Sulfur         ppm         ASTM D5185m         2600         2812         3070            CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         6         4            Sodium         ppm         ASTM D5185m         >20         1         3            Potassium         ppm         ASTM D5185m         >20         1         3            INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *A	Barium	ppm	ASTM D5185m	0	0	9	
Magnesium         ppm         ASTM D5185m         950         1074         945            Calcium         ppm         ASTM D5185m         1050         1228         1114            Phosphorus         ppm         ASTM D5185m         995         1109         1002            Zinc         ppm         ASTM D5185m         1180         1278         1227            Sulfur         ppm         ASTM D5185m         2600         2812         3070            CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         6         4            Sodium         ppm         ASTM D5185m         >20         1         3            Potassium         ppm         ASTM D5185m         >20         1         3            INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.5         0.4            Nitration         Abs/.1mm         *ASTM D7415	Molybdenum	ppm	ASTM D5185m	50	58	63	
Calcium         ppm         ASTM D5185m         1050         1228         1114            Phosphorus         ppm         ASTM D5185m         995         1109         1002            Zinc         ppm         ASTM D5185m         1180         1278         1227            Sulfur         ppm         ASTM D5185m         2600         2812         3070            CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         6         4            Sodium         ppm         ASTM D5185m         >20         1         3            Potassium         ppm         ASTM D5185m         >20         1         3            INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.5         0.4            Nitration         Abs/.1mm         *ASTM D7415         >30         22.0         20.0            FLUID DEGRADATION         *ASTM D7414	Manganese	ppm	ASTM D5185m	0	0	<1	
Phosphorus         ppm         ASTM D5185m         995         1109         1002            Zinc         ppm         ASTM D5185m         1180         1278         1227            Sulfur         ppm         ASTM D5185m         2600         2812         3070            CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         6         4            Sodium         ppm         ASTM D5185m         >20         1         3            Potassium         ppm         ASTM D5185m         >20         1         3            INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.5         0.4            Nitration         Abs/cm         *ASTM D7415         >30         22.0         20.0            FLUID DEGRADATION         *ASTM D7415         >25         19.0         16.4	Magnesium	ppm	ASTM D5185m	950	1074	945	
Zinc         ppm         ASTM D5185m         1180         1278         1227            Sulfur         ppm         ASTM D5185m         2600         2812         3070            CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         6         4            Sodium         ppm         ASTM D5185m         >20         1         3            Potassium         ppm         ASTM D5185m         >20         1         3            INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.5         0.4            Nitration         Abs/cm         *ASTM D7624         >20         9.2         8.3            Sulfation         Abs/.1mm         *ASTM D7415         >30         22.0         20.0            FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D74	Calcium	ppm	ASTM D5185m	1050	1228	1114	
Sulfur         ppm         ASTM D5185m         2600         2812         3070            CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         6         4            Sodium         ppm         ASTM D5185m         >20         1         0            Potassium         ppm         ASTM D5185m         >20         1         3            INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.5         0.4            Nitration         Abs/cm         *ASTM D7624         >20         9.2         8.3            Sulfation         Abs/.1mm         *ASTM D7415         >30         22.0         20.0            FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         19.0         16.4	Phosphorus	ppm	ASTM D5185m	995	1109	1002	
CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         6         4            Sodium         ppm         ASTM D5185m         <1	Zinc	ppm	ASTM D5185m	1180	1278	1227	
Silicon         ppm         ASTM D5185m         >20         6         4            Sodium         ppm         ASTM D5185m         <1         0            Potassium         ppm         ASTM D5185m         >20         1         3            INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.5         0.4            Nitration         Abs/cm         *ASTM D7624         >20         9.2         8.3            Sulfation         Abs/.1mm         *ASTM D7415         >30         22.0         20.0            FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         19.0         16.4			ASTM D5185m	2600	2812	3070	
Sodium         ppm         ASTM D5185m         <1         0            Potassium         ppm         ASTM D5185m         >20         1         3            INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.5         0.4            Nitration         Abs/cm         *ASTM D7624         >20         9.2         8.3            Sulfation         Abs/.1mm         *ASTM D7415         >30         22.0         20.0            FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         19.0         16.4	CONTAMINAN	NTS	method	limit/base	current	history1	history2
Potassium         ppm         ASTM D5185m         >20         1         3            INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.5         0.4            Nitration         Abs/cm         *ASTM D7624         >20         9.2         8.3            Sulfation         Abs/.1mm         *ASTM D7415         >30         22.0         20.0            FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         19.0         16.4		ppm		>20	6	4	
INFRA-RED	Sodium	ppm	ASTM D5185m		<1	0	
Soot %         %         *ASTM D7844 >3         0.5         0.4            Nitration         Abs/cm         *ASTM D7624 >20         9.2         8.3            Sulfation         Abs/.1mm         *ASTM D7415 >30         22.0         20.0            FLUID DEGRADATION method limit/base current history1 history2           Oxidation         Abs/.1mm         *ASTM D7414 >25         19.0         16.4	Potassium	ppm	ASTM D5185m	>20	1	3	
Nitration         Abs/cm         *ASTM D7624         >20         9.2         8.3            Sulfation         Abs/.1mm         *ASTM D7415         >30         22.0         20.0            FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         19.0         16.4	INFRA-RED		method	limit/base	current	history1	history2
Sulfation         Abs/.1mm         *ASTM D7415         >30         22.0         20.0            FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         19.0         16.4	Soot %	%	*ASTM D7844	>3	0.5	0.4	
FLUID DEGRADATION method limit/base current history1 history2  Oxidation Abs/.1mm *ASTM D7414 >25 19.0 16.4	Nitration	Abs/cm	*ASTM D7624	>20	9.2	8.3	
Oxidation	Sulfation	Abs/.1mm	*ASTM D7415	>30	22.0	20.0	
	FLUID DEGRA	NOITAD.	method	limit/base	current	history1	history2
Base Number (BN)         mg KOH/g         ASTM D2896         6.0         8.2	Oxidation	Abs/.1mm	*ASTM D7414	>25	19.0	16.4	
	Base Number (BN)	mg KOH/g	ASTM D2896		6.0	8.2	



## **OIL ANALYSIS REPORT**



Non-ferrous Metals







Certificate L2367

Laboratory Sample No. Lab Number Unique Number

: PCA0114318 : 06035649 : 10790878 Test Package : FLEET

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

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : 15 Dec 2023 Recieved Diagnosed Diagnostician

: 18 Dec 2023 : Wes Davis

Transervice - Shop 3250 - Dixon Transport 1124 E. River Road

Dixon, IL US 61021

Contact: Mike Shoemaker Shop3250@transervice.com T:

\* - 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: TSV3250 [WUSCAR] 06035649 (Generated: 12/18/2023 10:15:46) Rev: 1

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