

## **OIL ANALYSIS REPORT**

# (P1021268) Dixon Transport-Tractor [Dixon Transport-Tractor] 325A325529

**Diesel Engine** 

Fluid PETRO CANADA DURON SHP 10W30 (11 GAL)

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

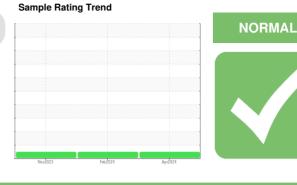
All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

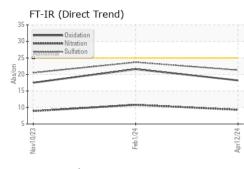
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

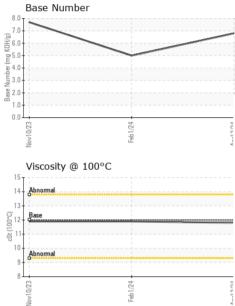


SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0121204	PCA0114337	PCA0109484
Sample Date		Client Info		12 Apr 2024	01 Feb 2024	10 Nov 2023
Machine Age	mls	Client Info		518387	493732	468899
Oil Age	mls	Client Info		24655	43325	18492
Oil Changed		Client Info		Not Changd	Changed	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	S .	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>80	30	42	18
Chromium	ppm	ASTM D5185m	>5	4	5	3
Nickel	ppm	ASTM D5185m	>2	<1	3	2
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>30	11	17	6
Lead	ppm	ASTM D5185m	>30	0	0	<1
Copper	ppm	ASTM D5185m	>150	4	5	4
Tin	ppm	ASTM D5185m	>5	<1	1	<1
Vanadium	ppm	ASTM D5185m		<1	<1	0
Cadmium	ppm	ASTM D5185m		0	0	<1
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	2	0	0
Barium	ppm	ASTM D5185m	0	0	0	9
Molybdenum	ppm	ASTM D5185m	50	57	66	64
Manganese	ppm	AOTH DEADE	0			
	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m ASTM D5185m	950	<1 918	<1 1046	<1 957
Magnesium Calcium						
0	ppm	ASTM D5185m	950	918	1046	957
Calcium	ppm ppm	ASTM D5185m ASTM D5185m	950 1050	918 1040	1046 1159	957 1140
Calcium Phosphorus	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	950 1050 995	918 1040 912	1046 1159 1077	957 1140 1011
Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	950 1050 995 1180	918 1040 912 1111	1046 1159 1077 1332	957 1140 1011 1247
Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	950 1050 995 1180 2600 limit/base	918 1040 912 1111 2902	1046 1159 1077 1332 2698	957 1140 1011 1247 3217
Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	950 1050 995 1180 2600 limit/base	918 1040 912 1111 2902 current	1046 1159 1077 1332 2698 history1	957 1140 1011 1247 3217 history2
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	950 1050 995 1180 2600 limit/base >20	918 1040 912 1111 2902 current 5	1046 1159 1077 1332 2698 history1 6	957 1140 1011 1247 3217 history2 5
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	950 1050 995 1180 2600 limit/base >20	918 1040 912 1111 2902 current 5 2	1046 1159 1077 1332 2698 history1 6 3	957 1140 1011 1247 3217 history2 5 0
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	950 1050 995 1180 2600 <b>limit/base</b> >20	918 1040 912 1111 2902 current 5 2 2 <1	1046 1159 1077 1332 2698 history1 6 3 1	957 1140 1011 1247 3217 history2 5 0 3
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	950 1050 995 1180 2600 <b>limit/base</b> >20 <b>limit/base</b>	918 1040 912 1111 2902 current 5 2 <1 current	1046 1159 1077 1332 2698 history1 6 3 1 1 history1	957 1140 1011 1247 3217 history2 5 0 3 history2
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844	950 1050 995 1180 2600 <b>limit/base</b> >20 <b>limit/base</b> >3	918 1040 912 1111 2902 current 5 2 <1 current 0.5	1046 1159 1077 1332 2698 history1 6 3 1 1 history1 0.7	957 1140 1011 1247 3217 history2 5 0 3 history2 0.4
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm TS ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844	950 1050 995 1180 2600 <b>limit/base</b> >20 <b>limit/base</b> >3 >20	918 1040 912 1111 2902 current 5 2 <1 current 0.5 9.3	1046 1159 1077 1332 2698 history1 6 3 1 history1 0.7 10.8	957 1140 1011 1247 3217 history2 5 0 3 history2 0.4 8.9
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRAE	ppm ppm ppm ppm ppm TS ppm ppm ppm ppm % Abs/cm Abs/cm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7844 *ASTM D7624 *ASTM D7415	950 1050 995 1180 2600 imit/base >20 20 imit/base >3 >20 >30 imit/base	918 1040 912 1111 2902 current 5 2 <1 current 0.5 9.3 21.3 current	1046 1159 1077 1332 2698 history1 6 3 1 6 3 1 1 0.7 10.8 23.7	957 1140 1011 1247 3217 history2 5 0 3 history2 0.4 8.9 20.5 history2
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm TS ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D7624 *ASTM D7415	950 1050 995 1180 2600 <b>imit/base</b> >20 <b>imit/base</b> >3 >20 >3 >20	918 1040 912 1111 2902 current 5 2 <1 current 0.5 9.3 21.3	1046 1159 1077 1332 2698 history1 6 3 1 history1 0.7 10.8 23.7 history1	957 1140 1011 1247 3217 history2 5 0 3 history2 0.4 8.9 20.5

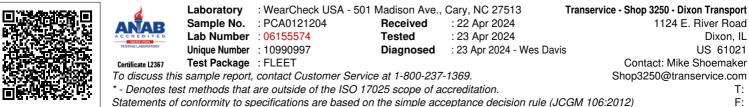


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VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPE	RTIES	method	limit/base	current	history1	history2
/isc @ 100°C	cSt	ASTM D445	12.00	11.8	11.9	11.9
GRAPHS						
Ferrous Alloys						
iron chromium	~					
nickel						
*						
		naadalaan ay ka ahaa ahaa ahaa ahaa ahaa ahaa aha	Arrestan Managan 47			
	eb1/24		ri 224			
7	Feb1/24 -		Apri 2/24			
EZOOLAND Non-ferrous Metal			Apr12/24			
RECORDING			Apri2/24			
Non-ferrous Metal			Apri2/24			
Non-ferrous Metal			Apri2/24			
Non-ferrous Metal			Apri2/24			
Non-ferrous Metal			Apri 2/24			
Non-ferrous Metal			Apr12/24			
Non-ferrous Metal			Apri 224			
Non-ferrous Metal			Apr12/24			
Non-ferrous Metal	S					
Non-ferrous Metal	S					
Non-ferrous Metal	Feb1124		Apr12/24			
Non-ferrous Metal	Feb1124		Apr12/24	Base Number		
Non-ferrous Metal	Feb1124		Port 2/24	Base Number	-	
Non-ferrous Metal	Feb1124		B.0 7.0	Base Number	-	
Non-ferrous Metal	Feb1124		B.0 7.0	Base Number		
Non-ferrous Metal	Feb1124		B.0 7.0	Base Number		
Non-ferrous Metal	Feb1124		B.0 7.0	Base Number		
Non-ferrous Metal	Feb1124		B.0 7.0	Base Number		
Non-ferrous Metal	Feb1124		Port 2/24	Base Number		
Non-ferrous Metal	Feb1124		B.0 7.0	Base Number		
Non-ferrous Metal	Eech1724		8.0 7.0 (0)(HO)() b()) 800 (0)(HO)() 9000 (0)(HO)() 9000 (0)(HO)() 9000 (0)(HO)() 900 (0)(HO)() 900			
Non-ferrous Metal	Feb1124		8.0, 7.0 (0,60) 9.0 1.0 8.0 1.0 1.0	Base Number	reb1/24	



Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)