

OIL ANALYSIS REPORT

Area (P1021275) Dixon Transport-Tractor [Dixon Transport-Tractor] 325A325536

Diesel Engine Fluid

PETRO CANADA DURON SHP 10W30 (11 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

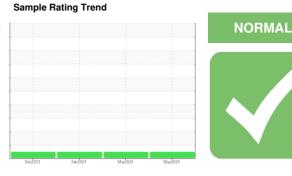
All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

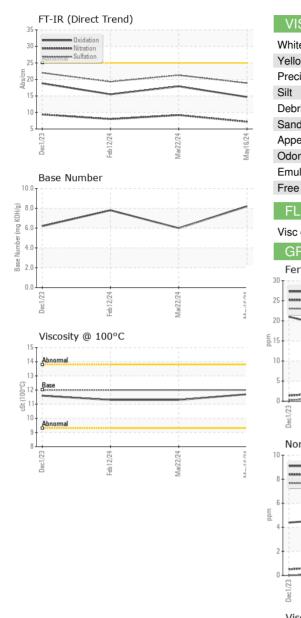
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.



SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0121220	PCA0121193	PCA0114345
Sample Date		Client Info		16 May 2024	22 Mar 2024	12 Feb 2024
Machine Age	mls	Client Info		578548	559470	543441
Oil Age	mls	Client Info		19078	36551	20522
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	14	28	17
Chromium	ppm	ASTM D5185m	>5	2	2	2
Nickel	ppm	ASTM D5185m	>2	<1	1	1
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>30	5	10	8
Lead	ppm	ASTM D5185m	>30	0	0	<1
Copper	ppm	ASTM D5185m	>150	5	6	5
Tin	ppm	ASTM D5185m	>5	<1	0	<1
Vanadium	ppm	ASTM D5185m		0	<1	<1
Cadmium	ppm	ASTM D5185m		0	0	0
				-		
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base 2		history1 3	
	ppm ppm			current		history2
Boron		ASTM D5185m	2	current 4	3	history2 6
Boron Barium	ppm	ASTM D5185m ASTM D5185m	2 0	current 4 0	3 0	history2 6 0
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	current 4 0 59	3 0 61	history2 6 0 60
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050	current 4 0 59 <1	3 0 61 <1	history2 6 0 60 <1 1007 1132
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995	current 4 0 59 <1 984	3 0 61 <1 1017 1168 1055	history2 6 0 60 <1 1007 1132 1050
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180	current 4 0 59 <1 984 1069	3 0 61 <1 1017 1168 1055 1318	history2 6 0 60 <1 1007 1132 1050 1287
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995	current 4 0 59 <1 984 1069 1108	3 0 61 <1 1017 1168 1055	history2 6 0 60 <1 1007 1132 1050
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180	current 4 0 59 <1 984 1069 1108 1286	3 0 61 <1 1017 1168 1055 1318	history2 6 0 60 <1 1007 1132 1050 1287
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600	Current 4 0 59 <1 984 1069 1108 1286 3464	3 0 61 <1 1017 1168 1055 1318 3225	history2 6 0 60 <1 1007 1132 1050 1287 2844 history2 5
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600 limit/base >20	current 4 0 59 <1 984 1069 1108 1286 3464 current 5 1	3 0 61 <1 1017 1168 1055 1318 3225 history1 7 2	history2 6 0 60 <1 1007 1132 1050 1287 2844 history2 5 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600 limit/base >20	current 4 0 59 <1 984 1069 1108 1286 3464 current 5	3 0 61 <1 1017 1168 1055 1318 3225 history1 7	history2 6 0 60 <1 1007 1132 1050 1287 2844 history2 5
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600 limit/base >20	current 4 0 59 <1 984 1069 1108 1286 3464 current 5 1	3 0 61 <1 1017 1168 1055 1318 3225 history1 7 2	history2 6 0 60 <1 1007 1132 1050 1287 2844 history2 5 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >20	current 4 0 59 <1 984 1069 1108 1286 3464 current 5 1 0	3 0 61 <1 1017 1168 1055 1318 3225 history1 7 2 2 2	history2 6 0 60 <1 1007 1132 1050 1287 2844 history2 5 2 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 imit/base >20 imit/base	current 4 0 59 <1 984 1069 1108 1286 3464 current 5 1 0 current	3 0 61 <1 1017 1168 1055 1318 3225 history1 7 2 2 2 history1	history2 6 0 60 <1 1007 1132 1050 1287 2844 history2 5 2 2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 Imit/base >20 20 Imit/base >20	current 4 0 59 <1 984 1069 1108 1286 3464 current 5 1 0 current 0 current 0.3	3 0 61 <1 1017 1168 1055 1318 3225 history1 7 2 2 2 history1 0.7	history2 6 0 60 <1 1007 1132 1050 1287 2844 history2 5 2 2 history2 0.4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 <i>imit/base</i> >20 <i>imit/base</i> >20	current 4 0 59 <1 984 1069 1108 1286 3464 current 5 1 0 current 0 current 0.3 7.2	3 0 61 <1 1017 1168 1055 1318 3225 history1 7 2 2 2 history1 0.7 9.2	history2 6 0 60 <1 1007 1132 1050 1287 2844 history2 5 2 2 history2 0.4 8.0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 imit/base >20 imit/base >3 >20 >3 >20	current 4 0 59 <1 984 1069 1108 1286 3464 current 5 1 0 current 0.3 7.2 18.9	3 0 61 <1 1017 1168 1055 1318 3225 history1 7 2 2 2 history1 0.7 9.2 21.3	history2 6 0 60 <1 1007 1132 1050 1287 2844 history2 5 2 history2 0.4 8.0 19.3



OIL ANALYSIS REPORT



	Laboratory Sample No. Lab Number	: WearCheck USA : PCA0121220 : 06196227 : 11058350	Recei Teste	ived : 31 ed : 03			rvice - Shop 3250 112	
		Base Base Base Base Close S S S S S S S S S S S S S	Feb 12/24	Mar22/24	(b)HOX but 5 4 (b) 10 (b) 10 (c) 10 (.0-	Fab12/24	+
		Viscosity @ 10	JU-C		9 8 (67 HC	.0-		
			Febi12/24	Mar22/24	May16/24			
Mar22/24	1997 - 19	6		<u> </u>	/			
4	2	Non-ferrous M	letals	Mar22/24	May16/24			
		E 15- 10- 5-						
Mar22/24 -	Manual Control of Cont	Ferrous Alloys						
		Visc @ 100°C GRAPHS	cSt	ASTM D445	12.00	11.7	11.3	11.3
		FLUID PRC	PERTIES	method	limit/base	current	history1	history2
		Emulsified Wate Free Water	r scalar scalar	*Visual *Visual	>0.2	NEG NEG	NEG NEG	NEG NEG
Mar2224	Odor	scalar	*Visual	NORML	NORML	NORML	NORML	
	Sand/Dirt Appearance	scalar scalar	*Visual *Visual	NONE NORML	NONE NORML	NONE	NONE NORML	
	Debris	scalar	*Visual	NONE	NONE	NONE	NONE	
	Silt	scalar	*Visual	NONE	NONE	NONE	NONE	
	Starting South and the	Yellow Metal Precipitate	scalar scalar	*Visual	NONE	NONE NONE	NONE	NONE NONE
		White Metal	scalar	*Visual *Visual	NONE NONE	NONE	NONE	NONE

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Submitted By: Mike Shoemaker Page 2 of 2