

OIL ANALYSIS REPORT

Sample Number

mls

mls

Base Number (BN) mg KOH/g ASTM D2896

Sample Date

Machine Age

Oil Changed

Oil Age

(AU401U) Supermarket - Tractor FREIGHTLINER 107A8836 Component

Diesel Engine

PETRO CANADA DURON SHP 10W30 (11 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

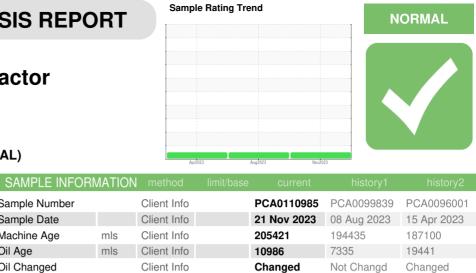
All component wear rates are normal.

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 Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ΓION	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	18	9	14
Chromium	ppm	ASTM D5185m	>5	2	2	3
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>30	19	12	25
Lead	ppm	ASTM D5185m	>30	0	<1	0
Copper	ppm	ASTM D5185m	>150	6	4	6
Tin	ppm	ASTM D5185m	>5	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	<1	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	10	23	6
Barium	ppm	ASTM D5185m	0	3	0	0
Molybdenum	ppm	ASTM D5185m	50	65	64	64
Manganese	ppm	ASTM D5185m	0	0	<1	<1
Magnesium	ppm	ASTM D5185m	950	836	922	956
Calcium	ppm	ASTM D5185m	1050	1067	1156	1097
Phosphorus	ppm	ASTM D5185m	995	953	998	1017
Zinc	ppm	ASTM D5185m	1180	1149	1209	1237
Sulfur	ppm	ASTM D5185m	2600	3247	3602	3076
CONTAMINAN	NTS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	6	5	5
Sodium	ppm	ASTM D5185m		0	2	2
Potassium	ppm	ASTM D5185m	>20	39	25	51
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.7	0.4	0.5
Nitration	Abs/cm	*ASTM D7624	>20	8.4	6.7	7.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.4	18.8	19.4
FLUID DEGRA	DATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.7	14.0	15.5
Dese Niensker (DNI)		AOTH DOOOD			0.7	7 5

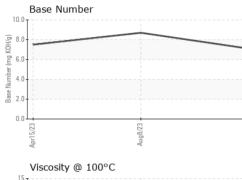
7.1

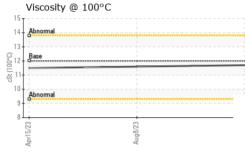
7.5

8.7

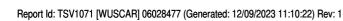


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		VISUAL		method	limit/base	current	history1	history2
		White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
		Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
		Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
		Silt	scalar	*Visual	NONE	NONE	NONE	NONE
		Debris	scalar	*Visual	NONE	NONE	NONE	NONE
		Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Aug8/23	Nov21/23	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Aug	Novi	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
C		Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
		Free Water	scalar	*Visual		NEG	NEG	NEG
		FLUID PROP	PERTIES	method	limit/base	current	history1	history2
		Visc @ 100°C	cSt	ASTM D445	12.00	11.7	11.6	11.5
		GRAPHS						
		Ferrous Alloys						
Aug8/23 -		16 - iron chromium						
Aug		14 - nickel		/				
		E ¹⁰	~/					
		8	· · · · · ·					
		6						
		2	and the stand of t		1			
		0						
		Apr15/23	Aug8/23		Nov21/23 -			
					Nov			
		Non-ferrous Me	tals					
		10 copper						
		nessessesses lead						
		8 - tin						
		84						
		6		_	_			
		84		/	_			
		6 4	\checkmark	_	_			
			\checkmark	/				
			3		23			
			Aug6/23 -		6v21/23			
		Viscosity @ 100			Nov21/23	Base Number		
		Uiscosity @ 100			9.1	1		
		Viscosity @ 100			9.			
		Viscosity @ 100			9.) 		
		Viscosity @ 100			9.1 8.1 (1) 7.1 HO 6.1 HO 6.1			
		Viscosity @ 100			9.1 8.1 (1) 7.1 HO 6.1 HO 6.1			
		Uiscosity @ 100			9. 8. (6.7.) (9.			
		Wind 4 2 0 EZZISIUN Viscosity @ 100 15 14 Abnomal 13 20001 13 11 13 14 13 10 10 10 10 10 10 10 10 10 10			9.0 8.1 (P,17.1 HQX 6.1 4.1 4.1 9.1 9.1 9.1 9.1 9.1 9.1 9.1 9.1 9.1 9	D		
		Viscosity @ 100			9. 8. (6.7.) (9.			
		Uid 4 2 0 E25 14 Abnomal 13 0 4 4 2 0 E25 14 Abnomal 10 0 10 0 10 0 10 0 10 0 10 0 10 0 10 0 10 0 10 0 10 0 10 0 10 0 10 0 10 0 10 0 10 0 10 0 10 0 10 1	hoC		9.0 8.0 (P) 7.1 HQ 6.1 5.0 194.4 988 2.1 1.1 0.0			1123
		Viscosity @ 100			9.0 8.1 (P,7.1 HQX 6.1 4.1 9.1 4.1 8 2.0 1.1		Aug8/23	Nov21/23
	Laboratory	Viscosity @ 100	Aug623 -	Son Ave Ca	9.0 8.1 (6)HOX 60 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.	Apr15/23	Aug9/23 -	
	Laboratory Sample No.	Uid 4 2 0 E25 14 Abnomal 13 0 4 4 2 0 E25 14 Abnomal 10 0 10 0 10 0 10 0 10 0 10 0 10 0 10 0 10 0 10 0 10 0 10 0 10 0 10 0 10 0 10 0 10 0 10 0 10 0 10 1	Aug623 -		9.0 8.1 (6)HOX 60 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.	Apr15/23	E2080my ice - Shop 1071 - Si	upermarket-Daytor
	Sample No. Lab Number	Viscosity @ 100 Viscosity @ 100 Viscos	- 501 Madii Received Diagnos	d::07 ed::09	9.0 8.0 9.0 8.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9	Apr15/23	E2080my ice - Shop 1071 - Si	upermarket-Daytor) A Tower Roac Dayton, NJ
	Sample No. Lab Number Unique Number	Viscosity @ 100 Viscosity @ 100 Viscos	- 501 Madi	d::07 ed::09	9.0 8.0 (Physics) 9.0 8.0 (Physics) 9.0 (Phy	Apr15/23	ice - Shop 1071 - Si 60	upermarket-Daytor) A Tower Roac Dayton, NJ US 08810
VENDE LABORATORY Certificate 12367 For discusses this	Sample No. Lab Number Unique Number Test Package	Viscosity @ 100 Viscosity @ 100 Viscos	- 501 Madii Received Diagnos	d : 07 ed : 09 tician : We	9.1 (a)(a)(b)(b)(c)(c)(c)(c)(c)(c)(c)(c)(c)(c)(c)(c)(c)	Apr15/23	ice - Shop 1071 - Si 60 Conta	upermarket-Daytor A Tower Road Dayton, N



Submitted By: Brian Quinn Page 2 of 2