

OIL ANALYSIS REPORT

(AU398U) Supermarket - Tractor Machine Id FREIGHTLINER 107A8832

Component Diesel Engine

PETRO CANADA DURON SHP 10W30 (11 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

Fluid

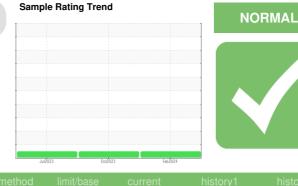
All component wear rates are normal.

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.



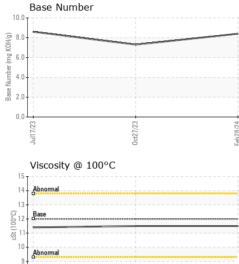
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0116963	PCA0104077	PCA0099844
Sample Date		Client Info		28 Feb 2024	27 Oct 2023	17 Jul 2023
Machine Age	mls	Client Info		215665	205108	0
Oil Age	mls	Client Info		10557	10169	10708
Oil Changed		Client Info		Changed	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	18	19	11
Chromium	ppm	ASTM D5185m	>5	1	<1	<1
Nickel	ppm	ASTM D5185m	>2	<1	<1	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>30	7	4	4
Lead	ppm	ASTM D5185m	>30	0	0	0
Copper	ppm	ASTM D5185m	>150	4	6	3
Tin	ppm	ASTM D5185m	>5	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	<1	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	6	4	9
Barium	ppm	ASTM D5185m	0	0	4	2
Molybdenum	ppm	ASTM D5185m	50	70	69	71
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	950	971	895	1050
Calcium	ppm	ASTM D5185m	1050	1168	1088	1217
Phosphorus	ppm	ASTM D5185m	995	1047	966	1127
Zinc	ppm	ASTM D5185m	1180	1252	1194	1369
Sulfur	ppm	ASTM D5185m	2600	3226	2958	3946
CONTAMINAN	ITS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	5	5	4
Sodium	ppm	ASTM D5185m		2	0	1
Potassium	ppm	ASTM D5185m	>20	2	4	<1
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.5	0.8	0.5

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.5	0.8	0.5
Nitration	Abs/cm	*ASTM D7624	>20	6.9	8.2	6.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.7	20.1	18.7
FLUID DEGRA	DATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	<u>\</u> 25	14.0	15.3	13.8
	100/.111111		220	14.0	10.0	10.0



8. Jul17/23

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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
Feb28/24 -	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Feb 2	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
	Free Water	scalar	*Visual		NEG	NEG	NEG
	FLUID PROPI	ERTIES	method	limit/base	current	history1	history2
	Visc @ 100°C	cSt	ASTM D445	12.00	11.5	11.5	11.4
	GRAPHS						
	Ferrous Alloys						
10	iron	/					
0.964-3	15 - nickel						
	톱 10						
	5						
	-						
	33	/23-		/24			
	Jul17/23	0ct27/23		Feb28/24			
	Non-ferrous Meta	als					
	10 _T						
	copper lead						
	ensesses tin						
	6						
	udd 4						
	2 -						

	Jult7/23	0ct27/23		eb28/24			
				Feb			
	Viscosity @ 100°	С		,-	Base Number		
	14 - Abnormal			9.0	and the second s		
	13 -				1		
				H 6.0			
	ට 12 - Base 			(07.0 HOX buy buy buy buy buy buy buy buy buy buy	-		
	45 11-			4.0 N	-		
	10 Abnormal						
	9-			1.0			
	8			0.0			
	N°7	0ct27/23		Feb 28/24	Jul17/23	0ct27/23	
	2/11	54		물	inf.	Oct	
	Jul17/23	0ct2					
Laboratorv			on Ave Carv		Transervi	ce - Shop 1071 - Si	permarket-Davt
Sample No.	: WearCheck USA - 5 : PCA0116963	01 Madiso Rece	ived : 18	, NC 27513 Mar 2024	Transervi	ce - Shop 1071 - S u 60	A Tower Roa
nple No. Number	: WearCheck USA - 50 : PCA0116963 : 06120720	01 Madiso Rece Teste	ived : 18 ed : 19	, NC 27513 Mar 2024 Mar 2024			A Tower Roa Dayton, N
Sample No. .ab Number Inique Number	: WearCheck USA - 5 : PCA0116963 : 06120720 : 10929553	01 Madiso Rece Teste	ived :18 ed :19	, NC 27513 Mar 2024		60	A Tower Roa Dayton, N US 088
Laboratory Sample No. Lab Number Unique Number Test Package sample report	: WearCheck USA - 5 : PCA0116963 : 06120720 : 10929553	01 Madiso Recei Teste Diagr	ived : 18 ed : 19 nosed : 19	, NC 27513 Mar 2024 Mar 2024 Mar 2024 - W		60 Conta	A Tower Roa Dayton, N

