

OIL ANALYSIS REPORT

Sample Number

mls

mls

FLUID DEGRADATION method

Base Number (BN) mg KOH/g ASTM D2896

Abs/.1mm *ASTM D7414 >25

Oxidation

Sample Date

Machine Age

Oil Age

(AU397U) Supermarket - Tractor FREIGHTLINER 107A1842

Component **Diesel Engine**

PETRO CANADA DURON SHP 10W30 (11 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

Fluid

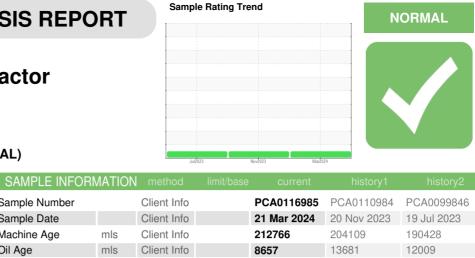
All component wear rates are normal.

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.



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	19	20	10
Chromium	ppm	ASTM D5185m	>5	1	<1	<1
Nickel	ppm	ASTM D5185m		<1	0	0
Titanium	ppm	ASTM D5185m	~ _	<1	0	0
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum		ASTM D5185m	>30	6	5	5
	ppm					
Lead	ppm	ASTM D5185m	>30	<1	0	0
Copper	ppm	ASTM D5185m		7	13	10
Tin	ppm	ASTM D5185m	>5	1	0	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		<1	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	8	3	10
Boron Barium	ppm ppm	ASTM D5185m ASTM D5185m	2 0	8 0	3 3	10 2
Barium	ppm	ASTM D5185m	0 50	0	3	2
Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m	0 50	0 67	3 69	2 70
Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 50 0	0 67 <1	3 69 0	2 70 <1
Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 50 0 950	0 67 <1 912	3 69 0 882	2 70 <1 1026
Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 50 0 950 1050 995	0 67 <1 912 1144 1037	3 69 0 882 1063 931	2 70 <1 1026 1199 1101
Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 50 0 950 1050	0 67 <1 912 1144	3 69 0 882 1063	2 70 <1 1026 1199
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 50 0 950 1050 995 1180	0 67 <1 912 1144 1037 1213	3 69 0 882 1063 931 1158	2 70 <1 1026 1199 1101 1348
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 50 0 950 1050 995 1180 2600	0 67 <1 912 1144 1037 1213 3150	3 69 0 882 1063 931 1158 2657	2 70 <1 1026 1199 1101 1348 3776
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	0 50 0 950 1050 995 1180 2600	0 67 <1 912 1144 1037 1213 3150 current	3 69 0 882 1063 931 1158 2657 history1	2 70 <1 1026 1199 1101 1348 3776 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	0 50 0 950 1050 995 1180 2600 Limit/base >20	0 67 <1 912 1144 1037 1213 3150 current 5	3 69 0 882 1063 931 1158 2657 history1 5	2 70 <1 1026 1199 1101 1348 3776 history2 4
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ypm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	0 50 0 950 1050 995 1180 2600 Limit/base >20	0 67 <1 912 1144 1037 1213 3150 current 5 <	3 69 0 882 1063 931 1158 2657 history1 5 0	2 70 <1 1026 1199 1101 1348 3776 history2 4 2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ypm	ASTM D5185m ASTM D5185m	0 50 0 950 1050 995 1180 2600 limit/base >20 limit/base	0 67 <1 912 1144 1037 1213 3150 current 5 <1 4	3 69 0 882 1063 931 1158 2657 history1 5 0 5 5	2 70 <1 1026 1199 1101 1348 3776 history2 4 2 3
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ypm ypm	ASTM D5185m ASTM D5185m	0 50 0 950 1050 995 1180 2600 limit/base >20 }20 limit/base >3	0 67 <1 912 1144 1037 1213 3150 current 5 <1 4	3 69 0 882 1063 931 1158 2657 history1 5 0 5 *	2 70 <1 1026 1199 1101 1348 3776 history2 4 2 3 3 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ytts	ASTM D5185m ASTM D5185m	0 50 950 1050 995 1180 2600 <i>limit/base</i> >20 <i>limit/base</i> >3 >20	0 67 <1 912 1144 1037 1213 3150 current 5 <1 4 current 0.4	3 69 0 882 1063 931 1158 2657 history1 5 0 5 5 0 5 1 1	2 70 <1 1026 1199 1101 1348 3776 history2 4 2 3 history2 0.6

13.8

8.7

14.1

8.3

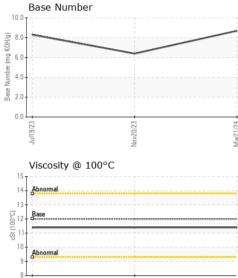
16.4

6.4



Jul19/23

OIL ANALYSIS REPORT



	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
1/24 -	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Mar21/24	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
	Free Water	scalar	*Visual	20.L	NEG	NEG	NEG
	FLUID PROP	_	method	limit/base	current	history1	history2
	Visc @ 100°C	cSt	ASTM D445		11.4	11.4	11.4
	GRAPHS						
	Ferrous Alloys						
	20 iron	1					
/ C/ 1 C~~ IV	15 - nickel						
N.A.							
	툍 10						
	kulu I						
	5 -						
	0	en.	99aaa999aa9999aa9999aa9999	4-			
	Jul1 9/23	Vov20/23		Mar21/24			
	-	-		Ma			
	Non-ferrous Met	als					
	copper	~					
	second tin						
	10						
	udd						
	6						
	4 -						
	2						
	0	20 20		4			
	Jul19/23	Jav20/23		Mar21/2			
	-	~		W			
	Viscosity @ 100°	γ ι		9.0	Base Number		
	14- Abnormal			5.0	-		
	13-					\sim	
				HO 6.0			
	8 12			<u>ڦ</u> 5.0			
				0	1		
	60 12 - Base 00 12 - Base 30 11 - Base 30 11 - Base						
	10			4.0 N 3.0			
				(0,7.0 HOX 6.0 Las 4.0 W 3.0 Bu 3.0 Bu 3.0 Bu 2.0 10			
	10 Abnormal 9 8			4.0 3.0 8 2.0 1.0			
	10 Abnormal 9 8	52/0;		1.0	9/23		
	10 Abnormal	Nov20/23		1.0	Jul 9/23	Nov20/23	
Laboratory	10 Abnormal 9 8	01 Madiso		1.0 6.0 72/121PW , NC 27513		ice - Shop 1071 - Su	
Sample No.	: WearCheck USA - 5 : PCA0116985	01 Madiso Rece i	ived : 28	, NC 27513 Mar 2024		ice - Shop 1071 - Su	A Tower Ro
Sample No. Lab Number	: WearCheck USA - 5 : PCA0116985 : 06131778	01 Madiso Recei Teste	ived : 28 d : 29	, NC 27513 Mar 2024 Mar 2024	Transerv	ice - Shop 1071 - Su	A Tower Ro Dayton,
Sample No. Lab Number Unique Number	: WearCheck USA - 5 : PCA0116985 : 06131778 : 10951243	01 Madiso Recei Teste	ived : 28 d : 29	, NC 27513 Mar 2024	Transerv	ice - Shop 1071 - Su 60	A Tower Ro
Sample No. Lab Number Unique Number Test Package st his sample report,	: WearCheck USA - 5 : PCA0116985 : 06131778 : 10951243	01 Madiso Recei Teste Diagr	ived : 28 ed : 29 nosed : 29 800-237-1369	, NC 27513 Mar 2024 Mar 2024 - W D.	Transerv	ice - Shop 1071 - Su 60 Conta	A Tower Ro Dayton, US 088