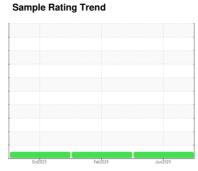


OIL ANALYSIS REPORT

(P1019460) Preferred Service-Tractor [Preferred Service-Tractor] 192A02036

Diesel Engine

PETRO CANADA DURON SHP 10W30 (36 QTS)





DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the

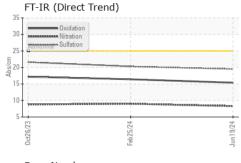
Fluid Condition

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

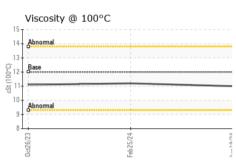
Sample Date	(10)						
Sample Date	SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Client Info	Sample Number		Client Info		PCA0126906	PCA0116668	PCA0109416
Dil Age			Client Info		19 Jun 2024	25 Feb 2024	26 Oct 2023
Dil Age	Machine Age	mls	Client Info		303413	288742	253727
Changed Changed Changed Changed NORMAL NORMAL NORMAL NORMAL		mls	Client Info		14671	16270	18745
CONTAMINATION method militibase current history1 history2	-		Client Info		Changed	Changed	Changed
Water	-						Ü
Water Glycol WC Method WC Method >0.2 NEG NEG NEG NEG NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >100 15 21 40 Chromium ppm ASTM D5185m >20 <1	CONTAMINAT	ION	method	limit/base	current	history1	history2
WEAR METALS	Fuel		WC Method	>6.0	<1.0	<1.0	<1.0
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >100 15 21 40 Chromium ppm ASTM D5185m >20 <1	Water		WC Method	>0.2	NEG	NEG	NEG
Chromium	Glycol		WC Method		NEG	NEG	NEG
Chromium ppm ASTM D5185m >20 <1 <1 <1 <1 <1 <1 <1 <	WEAR METAL	.S	method	limit/base	current	history1	history2
Nickel	ron	ppm	ASTM D5185m	>100	15	21	40
Nickel	Chromium		ASTM D5185m	>20	<1	<1	<1
ASTM D5185m C1 C1 C1 C1 C1 C1 C2	Nickel		ASTM D5185m	>2		<1	2
Silver	Titanium				<1	<1	<1
Aluminum				>2			
Lead	Aluminum						2
Copper							
Fin							
Vanadium ppm ASTM D5185m 0 <1 0 Cadmium ppm ASTM D5185m 0 <1 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 1 0 7 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 0 59 65 59 Manganese ppm ASTM D5185m 0 0 <1 <1 Magnesium ppm ASTM D5185m 950 968 1007 844 Calcium ppm ASTM D5185m 995 974 1122 940 Zinc ppm ASTM D5185m 1180 1280 1276 1227 Sulfur ppm ASTM D5185m 2600 2804 3223 2726 CONTAMINANTS method limit/base current history1 his					-		
Cadmium ppm ASTM D5185m 0 <1 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 1 0 7 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 50 59 65 59 Manganese ppm ASTM D5185m 0 0 <1				7.0			
Soron ppm ASTM D5185m 2 1 0 7					-		
Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 50 59 65 59 Manganese ppm ASTM D5185m 0 0 <1	Boron	ppm	ASTM D5185m	2	1	0	7
Manganese ppm ASTM D5185m 0 0 <1 <1 Magnesium ppm ASTM D5185m 950 968 1007 844 Calcium ppm ASTM D5185m 1050 1063 1113 1125 Phosphorus ppm ASTM D5185m 995 974 1122 940 Zinc ppm ASTM D5185m 1180 1280 1276 1227 Sulfur ppm ASTM D5185m 2600 2804 3223 2726 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 6 4 8 Sodium ppm ASTM D5185m >20 2 2 0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.9 0.8 Nitration Abs/cmm *ASTM D784	Barium	ppm	ASTM D5185m	0	0	0	0
Manganese ppm ASTM D5185m 0 0 <1 <1 Magnesium ppm ASTM D5185m 950 968 1007 844 Calcium ppm ASTM D5185m 1050 1063 1113 1125 Phosphorus ppm ASTM D5185m 995 974 1122 940 Zinc ppm ASTM D5185m 1180 1280 1276 1227 Sulfur ppm ASTM D5185m 2600 2804 3223 2726 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 6 4 8 Sodium ppm ASTM D5185m >20 2 2 0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.9 0.8 Nitration Abs/cmm *ASTM D784	Molybdenum	ppm	ASTM D5185m	50	59	65	59
Magnesium ppm ASTM D5185m 950 968 1007 844 Calcium ppm ASTM D5185m 1050 1063 1113 1125 Phosphorus ppm ASTM D5185m 995 974 1122 940 Zinc ppm ASTM D5185m 1180 1280 1276 1227 Sulfur ppm ASTM D5185m 2600 2804 3223 2726 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 6 4 8 Sodium ppm ASTM D5185m >20 2 2 0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.9 0.8 Nitration Abs/cm *ASTM D7624 >20 8.3 9.0 8.8 Sulfation Abs/.1mm			ASTM D5185m	0	0	<1	<1
Calcium ppm ASTM D5185m 1050 1063 1113 1125 Phosphorus ppm ASTM D5185m 995 974 1122 940 Zinc ppm ASTM D5185m 1180 1280 1276 1227 Sulfur ppm ASTM D5185m 2600 2804 3223 2726 CONTAMINANTS method limit/base current history1 history2 Solicon ppm ASTM D5185m >25 6 4 8 Solicon ppm ASTM D5185m >20 2 2 0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.9 0.8 Nitration Abs/cm *ASTM D7624 >20 8.3 9.0 8.8 Sulfation Abs/.1mm *ASTM D7415 >30 19.5 20.3 21.6 FLUID DEG	•				-	1007	844
Phosphorus ppm ASTM D5185m 995 974 1122 940 Zinc ppm ASTM D5185m 1180 1280 1276 1227 Sulfur ppm ASTM D5185m 2600 2804 3223 2726 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 6 4 8 Sodium ppm ASTM D5185m >20 2 2 0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.9 0.8 Nitration Abs/cm *ASTM D7624 >20 8.3 9.0 8.8 Sulfation Abs/.1mm *ASTM D7415 >30 19.5 20.3 21.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1						1113	1125
Zinc ppm ASTM D5185m 1180 1280 1276 1227							
Sulfur ppm ASTM D5185m 2600 2804 3223 2726 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 6 4 8 Sodium ppm ASTM D5185m 20 2 2 0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.9 0.8 Nitration Abs/cm *ASTM D7624 >20 8.3 9.0 8.8 Sulfation Abs/.1mm *ASTM D7415 >30 19.5 20.3 21.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 15.4 16.4 17.2	· .						
Silicon ppm ASTM D5185m >25 6 4 8 Sodium ppm ASTM D5185m 4 3 4 Potassium ppm ASTM D5185m >20 2 2 0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.9 0.8 Nitration Abs/cm *ASTM D7624 >20 8.3 9.0 8.8 Sulfation Abs/.1mm *ASTM D7415 >30 19.5 20.3 21.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 15.4 16.4 17.2							
Sodium ppm ASTM D5185m 4 3 4 Potassium ppm ASTM D5185m >20 2 2 0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.9 0.8 Nitration Abs/cm *ASTM D7624 >20 8.3 9.0 8.8 Sulfation Abs/.1mm *ASTM D7415 >30 19.5 20.3 21.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 15.4 16.4 17.2							
Potassium ppm ASTM D5185m >20 2 2 0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.9 0.8 Nitration Abs/cm *ASTM D7624 >20 8.3 9.0 8.8 Sulfation Abs/.1mm *ASTM D7415 >30 19.5 20.3 21.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 15.4 16.4 17.2	Silicon	ppm	ASTM D5185m	>25	6	4	8
Potassium ppm ASTM D5185m >20 2 2 0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.9 0.8 Nitration Abs/cm *ASTM D7624 >20 8.3 9.0 8.8 Sulfation Abs/.1mm *ASTM D7415 >30 19.5 20.3 21.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 15.4 16.4 17.2	Sodium	ppm	ASTM D5185m		4	3	4
Soot % % *ASTM D7844 >3 0.5 0.9 0.8 Nitration Abs/cm *ASTM D7624 >20 8.3 9.0 8.8 Sulfation Abs/.1mm *ASTM D7415 >30 19.5 20.3 21.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 15.4 16.4 17.2	Potassium	ppm	ASTM D5185m	>20	2	2	0
Nitration Abs/cm *ASTM D7624 >20 8.3 9.0 8.8 Sulfation Abs/.1mm *ASTM D7415 >30 19.5 20.3 21.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 15.4 16.4 17.2	INFRA-RED		method	limit/base	current	history1	history2
Sulfation Abs/.1mm *ASTM D7415 >30 19.5 20.3 21.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 15.4 16.4 17.2	Soot %	%	*ASTM D7844	>3	0.5	0.9	0.8
FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 15.4 16.4 17.2	Vitration	Abs/cm	*ASTM D7624	>20	8.3	9.0	8.8
Oxidation	Sulfation	Abs/.1mm	*ASTM D7415	>30	19.5	20.3	21.6
	FLUID DEGRAI	OATION	method	limit/base	current	history1	history2
	Oxidation	Abs/.1mm	*ASTM D7414	>25	15.4	16.4	17.2
	Base Number (BN)	mg KOH/g	ASTM D2896		7.2	7.1	7.1



OIL ANALYSIS REPORT



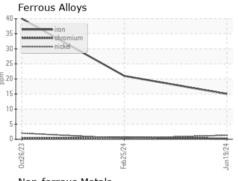
Base Nun	nber		
8.0 T			
_7.0			 -
중 6.0			
7.0 - 100 Kmpe Limb Knp			
5 4.0			
53.0		ļ	
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1.0			
0.0			_
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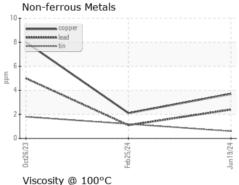


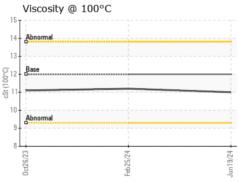
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	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

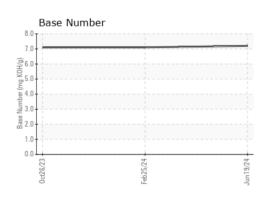
FLUID PROPI	ERHES	method				history2
Visc @ 100°C	cSt	ASTM D445	12.00	11.0	11.2	11.1

GRAPHS













Certificate 12367

Laboratory Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : PCA0126906 Lab Number : 06220720 Unique Number : 11098917

Test Package : FLEET

Received : 26 Jun 2024 **Tested** : 26 Jun 2024 Diagnosed

: 26 Jun 2024 - Wes Davis

1955 W. North Avenue, Bldg K Melrose Park, IL

Transervice - Shop 1920 - Preferred Service

US 60160 Contact: Tom Lindeman tlindemann@transervice.com T: (630)376-8946

To discuss this sample report, contact Customer Service at 1-800-237-1369. * - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

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

Submitted By: Tom Lindeman