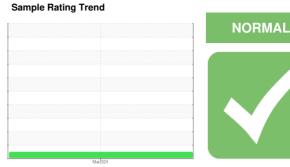


OIL ANALYSIS REPORT

(72591Z) Walgreens - Tractor [Walgreens - Tractor] 136A624099

Diesel Engine

PETRO CANADA DURON SHP 10W30 (11 0



DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Metal levels are typical for a new component breaking in.

Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. No other contaminants were detected in the oil.

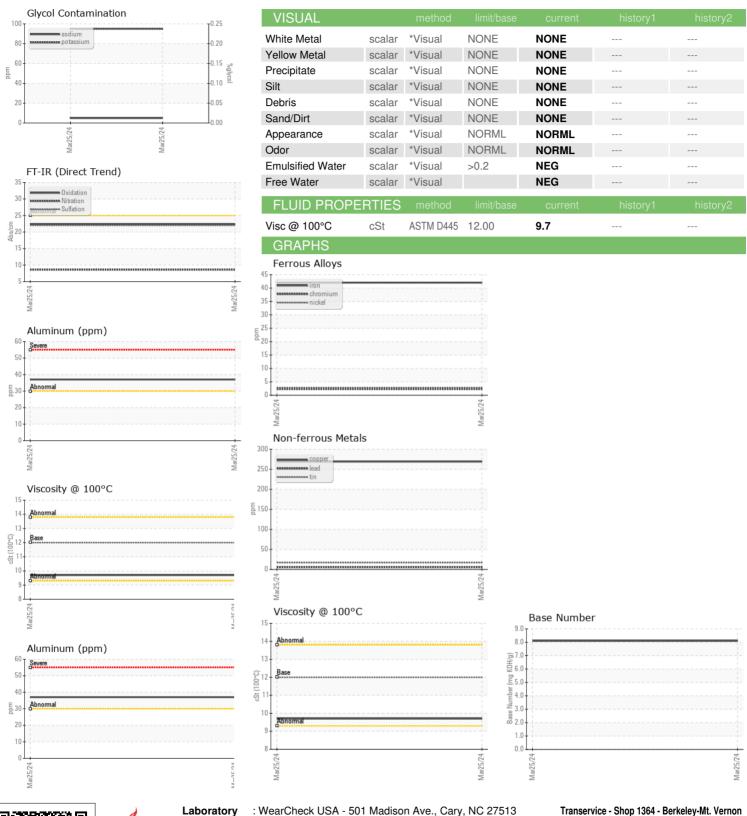
Fluid Condition

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

Sample Number Client Info PCA0118807	GAL)				Mar2024		
Sample Date Client Info 25 Mar 2024	SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Machine Age mls Client Info 32617	Sample Number		Client Info		PCA0118807		
Oil Age mls Client Info 32617 Oil Changed Client Info Not Changd Sample Status NORMAL CONTAMINATION method limit/base current history1 history2 Fuel WC Method >5 <1.0			Client Info		25 Mar 2024		
Contamped Client Info Not Changed Contamped Contamped	Machine Age	mls	Client Info		32617		
CONTAMINATION	Oil Age	mls	Client Info		32617		
Fuel	Oil Changed		Client Info		Not Changd		
Fuel WC Method S5	Sample Status				NORMAL		
Water	CONTAMINAT	ION	method	limit/base	current	history1	history2
WEAR METALS	Fuel		WC Method	>5	<1.0		
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >80 42 Chromium ppm ASTM D5185m >5 2 Nickel ppm ASTM D5185m >5 2 Silver ppm ASTM D5185m >3 <1	Water		WC Method	>0.2	NEG		
Chromium	Glycol		WC Method		NEG		
Description	WEAR METAL	S	method	limit/base	current	history1	history2
Nickel	ron	ppm	ASTM D5185m	>80	42		
Description	Chromium	ppm	ASTM D5185m	>5	2		
Silver	Nickel	ppm	ASTM D5185m	>2	3		
Aluminum	Titanium	ppm	ASTM D5185m		0		
Lead	Silver	ppm	ASTM D5185m	>3	<1		
Copper	Aluminum	ppm	ASTM D5185m	>30	37		
Tin	Lead	ppm	ASTM D5185m	>30	5		
Vanadium ppm ASTM 05185m <1 Cadmium ppm ASTM 05185m 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 Barium ppm ASTM D5185m 0 0 Molybdenum ppm ASTM D5185m 0 44 Manganese ppm ASTM D5185m 0 5 Magnesium ppm ASTM D5185m 950 583 Calcium ppm ASTM D5185m 950 1793 Phosphorus ppm ASTM D5185m 995 792 Zinc ppm ASTM D5185m 2600 2655 CONTAMINANTS method limit/base current history1	Copper	ppm	ASTM D5185m	>150	269		
ADDITIVES	Tin	ppm	ASTM D5185m	>5	17		
ADDITIVES	Vanadium	ppm	ASTM D5185m		<1		
Boron ppm ASTM D5185m 2 38	Cadmium	ppm	ASTM D5185m		0		
Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 50 44 Manganese ppm ASTM D5185m 0 5 Magnesium ppm ASTM D5185m 950 583 Calcium ppm ASTM D5185m 1050 1793 Phosphorus ppm ASTM D5185m 995 792 Zinc ppm ASTM D5185m 995 792 Zinc ppm ASTM D5185m 2600 2655 Sulfur ppm ASTM D5185m >20 6 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 Sodium ppm ASTM D5185m >20 95 Potassium ppm ASTM D5185m	Boron	ppm	ASTM D5185m	2	38		
Manganese ppm ASTM D5185m 0 5 Magnesium ppm ASTM D5185m 950 583 Calcium ppm ASTM D5185m 1050 1793 Phosphorus ppm ASTM D5185m 995 792 Zinc ppm ASTM D5185m 1180 990 Sulfur ppm ASTM D5185m 2600 2655 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 Sodium ppm ASTM D5185m 5 Potassium ppm ASTM D5185m 5 Potassium ppm ASTM D5185m 5 Soot % % *ASTM D7844 >3 0.3	Barium	ppm	ASTM D5185m	0	0		
Magnesium ppm ASTM D5185m 950 583 Calcium ppm ASTM D5185m 1050 1793 Phosphorus ppm ASTM D5185m 995 792 Zinc ppm ASTM D5185m 1180 990 Sulfur ppm ASTM D5185m 2600 2655 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 Sodium ppm ASTM D5185m >20 95 Potassium ppm ASTM D5185m >20 95 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7624 >20 8.6 Sulfation Abs/.1mm *ASTM D7415 <td>Molybdenum</td> <td>ppm</td> <td>ASTM D5185m</td> <td>50</td> <td>44</td> <td></td> <td></td>	Molybdenum	ppm	ASTM D5185m	50	44		
Calcium ppm ASTM D5185m 1050 1793 Phosphorus ppm ASTM D5185m 995 792 Zinc ppm ASTM D5185m 1180 990 Sulfur ppm ASTM D5185m 2600 2655 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 Sodium ppm ASTM D5185m 5 Potassium ppm ASTM D5185m >20 95 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.3 Sulfation Abs/:1mm *ASTM D7415 >30 22.0 FLUID DEGRADATION method limit/base <t< td=""><td>Manganese</td><td>ppm</td><td>ASTM D5185m</td><td>0</td><td>5</td><td></td><td></td></t<>	Manganese	ppm	ASTM D5185m	0	5		
Phosphorus ppm ASTM D5185m 995 792 Zinc ppm ASTM D5185m 1180 990 Sulfur ppm ASTM D5185m 2600 2655 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 Sodium ppm ASTM D5185m 5 Potassium ppm ASTM D5185m >20 95 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.3 Nitration Abs/cm *ASTM D7624 >20 8.6 Sulfation Abs/.1mm *ASTM D7415 >30 22.0 FLUID DEGRADATION method limit/base current	Magnesium	ppm	ASTM D5185m	950	583		
Zinc ppm ASTM D5185m 1180 990 Sulfur ppm ASTM D5185m 2600 2655 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 Sodium ppm ASTM D5185m 5 Potassium ppm ASTM D5185m >20 95 INFRA-RED method limit/base current history1 history2 Soot % *ASTM D7844 >3 0.3 Nitration Abs/cm *ASTM D7624 >20 8.6 Sulfation Abs/.1mm *ASTM D7415 >30 22.0 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 22.3	Calcium	ppm	ASTM D5185m	1050	1793		
Sulfur ppm ASTM D5185m 2600 2655 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 Sodium ppm ASTM D5185m 5 Potassium ppm ASTM D5185m >20 95 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.3 Nitration Abs/cm *ASTM D7624 >20 8.6 Sulfation Abs/.1mm *ASTM D7415 >30 22.0 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 22.3	Phosphorus	ppm	ASTM D5185m	995	792		
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 Sodium ppm ASTM D5185m 5 Potassium ppm ASTM D5185m >20 95 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.3 Nitration Abs/cm *ASTM D7624 >20 8.6 Sulfation Abs/.1mm *ASTM D7415 >30 22.0 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 22.3	Zinc	ppm	ASTM D5185m	1180	990		
Silicon ppm ASTM D5185m >20 6	Sulfur	ppm	ASTM D5185m	2600	2655		
Sodium ppm ASTM D5185m 5 Potassium ppm ASTM D5185m >20 95 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.3 Nitration Abs/cm *ASTM D7624 >20 8.6 Sulfation Abs/.1mm *ASTM D7415 >30 22.0 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 22.3	CONTAMINAN	NTS	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 95 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.3 Nitration Abs/cm *ASTM D7624 >20 8.6 Sulfation Abs/.1mm *ASTM D7415 >30 22.0 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 22.3	Silicon	ppm	ASTM D5185m	>20	6		
INFRA-RED	Sodium	ppm	ASTM D5185m		5		
Soot %	Potassium	ppm	ASTM D5185m	>20	95		
Nitration Abs/cm *ASTM D7624 >20 8.6 Sulfation Abs/.1mm *ASTM D7415 >30 22.0 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 22.3	INFRA-RED		method	limit/base	current	history1	history2
Sulfation Abs/.1mm *ASTM D7415 >30 22.0 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 22.3	Soot %	%	*ASTM D7844	>3	0.3		
FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 22.3	Nitration	Abs/cm	*ASTM D7624	>20	8.6		
Oxidation	Sulfation	Abs/.1mm	*ASTM D7415	>30	22.0		
	FLUID DEGRA	DATION	method	limit/base	current	history1	history2
Base Number (BN) mg KOH/g ASTM D2896 8.1	Oxidation	Abs/.1mm	*ASTM D7414	>25	22.3		
	Base Number (BN)	mg KOH/g	ASTM D2896		8.1		



OIL ANALYSIS REPORT





Certificate 12367

Sample No. Lab Number : 06139125 Unique Number : 10963933

: PCA0118807 Test Package : FLEET

Received : 04 Apr 2024 Tested

: 05 Apr 2024 Diagnosed : 06 Apr 2024 - Don Baldridge

5100 Lake Terrace NE Mt. Vernon, IL US 62864

Contact: Erien White

ewhite@transervice.com T: (618)244-8726

To discuss this sample report, contact Customer Service at 1-800-237-1369. st - 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) F: (618)244-8791