

PROBLEM SUMMARY

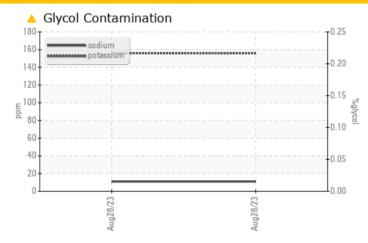
(59082Z) Walgreens Machine Id [Walgreens] 136A624320 Component

Diesel Engine

PETRO CANADA DURON SHP 10W30 (11 GAL)

Sample Rating Trend GLYCOL Aug¹⁰²³

COMPONENT CONDITION SUMMARY



RECOMMENDATION

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

PROBLEMATIC TEST RESULTS								
Sample Status				ABNORMAL				
Potassium	ppm	ASTM D5185m	>20	156				

Customer Id: TSV1365
Sample No.: PCA0093583
Lab Number: 05950671
Test Package: FLEET

To manage this report scan the QR code

To discuss the diagnosis or test data:
Jonathan Hester +1 919-379-4092 x4092
jhester@wearcheckusa.com

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

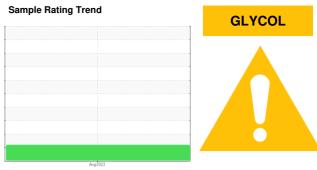


OIL ANALYSIS REPORT

(59082Z) Walgreens [Walgreens] 136A624320

Diesel Engine

PETRO CANADA DURON SHP 10W30 (11 GAL)



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

Sodium and/or potassium levels are high. Test for glycol is negative.

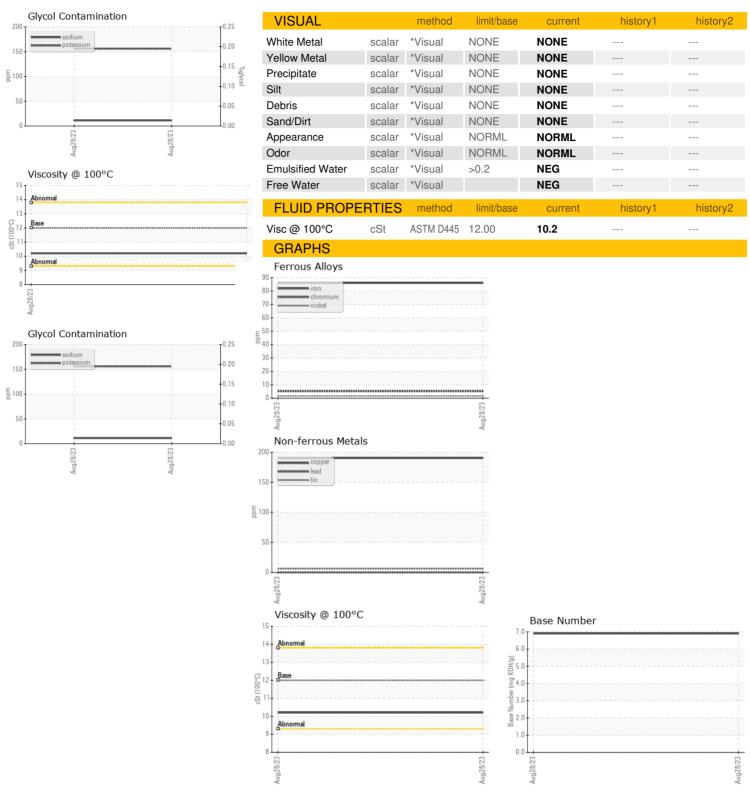
Fluid Condition

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

Sample Number Client Info PCA0093583 Sample Date Client Info 28 Aug 2023 Sample Date Client Info 37718 Sample Date Client Info 37718 Sample Status Client Info N/A Sample Status ABNORMAL Sample Status Sa	AL)				Aug2023		
Sample Date Client Info 28 Aug 2023	SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Date Client Info 28 Aug 2023	Sample Number		Client Info		PCA0093583		
Machine Age mls	•		Client Info		28 Aug 2023		
Dil Age	•	mls	Client Info		ŭ		
Dil Changed Client Info N/A	<u> </u>		Client Info				
CONTAMINATION method limit/base current history1 history2 history2 method limit/base current history1 history2 method limit/base current history1 history2 method limit/base current history1 history2 method limit/base current history2 method limit/base current history2 method limit/base current history2 method limit/base method limit/base method limit/base method limit/base current history2 method limit/base method	-		Client Info				
WEAR METALS	Sample Status						
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >80 86 Chromium ppm ASTM D5185m >5 5 Nickel ppm ASTM D5185m >2 2 Silver ppm ASTM D5185m >3 <1	CONTAMINAT	ION	method	limit/base	current	history1	history2
Chromium	Fuel		WC Method	>5	<1.0		
Chromium	WEAR METAL	S	method	limit/base	current	history1	history2
Sickel	ron	ppm	ASTM D5185m	>80	86		
ASTM D5185m >2 2	Chromium	ppm	ASTM D5185m	>5	5		
ASTM D5185m	Nickel		ASTM D5185m	>2	2		
ASTM D5185m >3	Titanium		ASTM D5185m		<1		
Aluminum ppm ASTM D5185m >30 63 Lead ppm ASTM D5185m >30 0 Copper ppm ASTM D5185m >150 190 Tin ppm ASTM D5185m >5 6 Vanadium ppm ASTM D5185m 0 Cadmium ppm ASTM D5185m 0 Cadmium ppm ASTM D5185m 0 Barium ppm ASTM D5185m 0 0 Barium ppm ASTM D5185m 0 0 Barium ppm ASTM D5185m 0 0 Molybdenum ppm ASTM D5185m 50 42 Manganese ppm ASTM D5185m 0 6 Manganese ppm ASTM D5185m 0 537 Calcium ppm ASTM D5185m 050 537 Calcium ppm ASTM D5185m 0 1748 Zinc ppm ASTM D5185m 0995 716 Zinc ppm ASTM D5185m 0 857 Zinc ppm ASTM D5185m 2600 2214 CONTAMINANTS method limit/base current history1 history2 Sillicon ppm ASTM D5185m >20 9 Potassium ppm ASTM D5185m >20 ¶ 156 Potassium ppm ASTM D5185m 11 Sillicon ppm ASTM D5185m 11 Potassium ppm ASTM D5185m 11 Sillicon ppm ASTM D5185m 11 Potassium ppm ASTM D5185m 11 Sillicon ppm ASTM D5185m 11 Potassium ppm ASTM D5185m 11 Sillicon ppm ASTM D5185m 11 Potassium ppm ASTM D5185m >20 ¶ 156 Sodi MEG INFRA-RED method limit/base current history1 history2 Sodi % "ASTM D7844 >3 0.7 FLUID DEGRADATION method limit/base current history1 history2 Dxidation Abs/simm "ASTM D7415 >30 22.6				>3	<1		
Lead ppm ASTM D5185m >30 0 Copper ppm ASTM D5185m >150 190 Vanadium ppm ASTM D5185m >5 6 Vanadium ppm ASTM D5185m 0 Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 Barium ppm ASTM D5185m 0 0 Barium ppm ASTM D5185m 0 42 Manganese ppm ASTM D5185m 0 6 Manganesium ppm ASTM D5185m 95 537 Phosphorus ppm ASTM D5185m 995 716							
Description							
Tin							
Vanadium ppm ASTM D5185m 0 Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 26 Barium ppm ASTM D5185m 0 0 Manganese ppm ASTM D5185m 0 6 Magnesium ppm ASTM D5185m 950 537 Calcium ppm ASTM D5185m 950 1748 Phosphorus ppm ASTM D5185m 995 716 Zinc ppm ASTM D5185m 1180 857 Zinc ppm ASTM D5185m 2600 2214 Contassium ppm ASTM D5185m >20 156 -							
Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 26 Barium ppm ASTM D5185m 0 0 Molybdenum ppm ASTM D5185m 50 42 Manganese ppm ASTM D5185m 0 6 Manganesium ppm ASTM D5185m 950 537 Calcium ppm ASTM D5185m 1050 1748 Phosphorus ppm ASTM D5185m 995 716 Phosphorus ppm ASTM D5185m 2600 2214 Phosphorus ppm ASTM D5185m 2600 2214 Collifur ppm ASTM D5185m >20 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 266 Barium ppm ASTM D5185m 0 0 0 Molybdenum ppm ASTM D5185m 50 42 Manganese ppm ASTM D5185m 0 6 Magnesium ppm ASTM D5185m 950 537 Calcium ppm ASTM D5185m 1050 1748 Phosphorus ppm ASTM D5185m 995 716 Cinc ppm ASTM D5185m 1180 857 Sulfur ppm ASTM D5185m 2600 2214 CONTAMINANTS method limit/base current history1 history2 Bilicon ppm ASTM D5185m >20 9 Codassium ppm ASTM D5185m 11 Cotassium ppm ASTM D5185m >20 NEG INFRA-RED method limit/base current history1 history2 NEGO % "ASTM D7844 >3 0.7 INFRA-RED method limit/base current history1 history2 Solifation Abs/.1mm "ASTM D7415 >30 22.6 FLUID DEGRADATION method limit/base current history1 history2 EVILON ABS/.1mm "ASTM D7415 >30 22.6 FLUID DEGRADATION method limit/base current history1 history2 Dxidation Abs/.1mm "ASTM D7415 >30 22.6 FLUID DEGRADATION method limit/base current history1 history2 Dxidation Abs/.1mm "ASTM D7415 >30 22.6 FLUID DEGRADATION method limit/base current history1 history2 Dxidation Abs/.1mm "ASTM D7414 >25 23.8							
Boron		ррііі			Ū		
### Part						history1	history2
Molybdenum ppm ASTM D5185m 50 42 Manganese ppm ASTM D5185m 0 6 Magnesium ppm ASTM D5185m 950 537 Calcium ppm ASTM D5185m 1050 1748 Phosphorus ppm ASTM D5185m 995 716 Zinc ppm ASTM D5185m 995 716 Zinc ppm ASTM D5185m 2600 2214 CONTAMINANTS method limit/base current history1 history2 Gilicon ppm ASTM D5185m >20 9 Goldium ppm ASTM D5185m >20 156 Potassium ppm ASTM D585m >20 NEG INFRA-RED method limit/base </td <td></td> <td></td> <td></td> <td>_</td> <td>-</td> <td></td> <td></td>				_	-		
Manganese ppm ASTM D5185m 0 6 Magnesium ppm ASTM D5185m 950 537 Calcium ppm ASTM D5185m 1050 1748 Phosphorus ppm ASTM D5185m 1180 857 Zinc ppm ASTM D5185m 2600 2214 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 9 Codium ppm ASTM D5185m >20 156 Goldium ppm ASTM D5185m >20 NEG Glycol *ASTM D2982 NEG INFRA-RED method limit/base current history1 history2 Soot % *ASTM D7624 >20 11.4		ppm			•		
Magnesium ppm ASTM D5185m 950 537 Calcium ppm ASTM D5185m 1050 1748 Phosphorus ppm ASTM D5185m 995 716 Zinc ppm ASTM D5185m 1180 857 Sulfur ppm ASTM D5185m 2600 2214 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 9 Codium ppm ASTM D5185m >20 156 Glycol % *ASTM D5185m >20 NEG Glycol % *ASTM D5185m >20 NEG Glycol % *ASTM D585m NEG Glycol % *ASTM D544 >3 <t< td=""><td>Molybdenum</td><td>ppm</td><td>ASTM D5185m</td><td>50</td><td></td><td></td><td></td></t<>	Molybdenum	ppm	ASTM D5185m	50			
Calcium ppm ASTM D5185m 1050 1748 Phosphorus ppm ASTM D5185m 995 716 Zinc ppm ASTM D5185m 1180 857 Sulfur ppm ASTM D5185m 2600 2214 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 9 Godium ppm ASTM D5185m 11 Potassium ppm ASTM D5185m >20 156 Glycol % *ASTM D2982 NEG INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.7 Sulfration Abs/:1mm *ASTM D7415 >30 22.6	Manganese	ppm	ASTM D5185m	0	6		
Phosphorus ppm ASTM D5185m 995 716 Zinc ppm ASTM D5185m 1180 857 Sulfur ppm ASTM D5185m 2600 2214 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 9 Bodium ppm ASTM D5185m >20 156 Cotassium ppm ASTM D5185m >20 156 Glycol % *ASTM D2982 NEG INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7624 >20 11.4 Sulfation Abs/:mm *ASTM D7415 >30 22.6 FLUID DEGRADATION method limit/base <t< td=""><td>Magnesium</td><td>ppm</td><td>ASTM D5185m</td><td>950</td><td>537</td><td></td><td></td></t<>	Magnesium	ppm	ASTM D5185m	950	537		
Zinc	Calcium	ppm	ASTM D5185m	1050	1748		
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 9 Sodium ppm ASTM D5185m 11 Potassium ppm ASTM D5185m >20 ▲ 1566 Glycol % *ASTM D2982 NEG INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.7 Nitration Abs/cm *ASTM D7624 >20 11.4 FLUID DEGRADATION method limit/base current history1 history2 Dxidation Abs/.1mm *ASTM D7414 >25 23.8	Phosphorus	ppm	ASTM D5185m	995	716		
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 9 Sodium ppm ASTM D5185m >20 156 Potassium ppm ASTM D5185m >20 156 Glycol % *ASTM D2982 NEG INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.7 Nitration Abs/cm *ASTM D7624 >20 11.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 23.8	Zinc	ppm	ASTM D5185m	1180	857		
Soliticon ppm ASTM D5185m >20 9	Sulfur	ppm	ASTM D5185m	2600	2214		
Decided Dec	CONTAMINAN	TS	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 ▲ 156 Glycol % *ASTM D2982 NEG INFRA-RED method limit/base current history1 history2 Boot % % *ASTM D7844 >3 0.7 Witration Abs/cm *ASTM D7624 >20 11.4 Sulfation Abs/.1mm *ASTM D7415 >30 22.6 FLUID DEGRADATION method limit/base current history1 history2 Dxidation Abs/.1mm *ASTM D7414 >25 23.8	Silicon	ppm	ASTM D5185m	>20	9		
NEG NEG NEG NEG NEG NEG NEG NEG NE	Sodium	ppm	ASTM D5185m		11		
INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.7 Nitration Abs/cm *ASTM D7624 >20 11.4 Sulfation Abs/.1mm *ASTM D7415 >30 22.6 FLUID DEGRADATION method limit/base current history1 history2 Dxidation Abs/.1mm *ASTM D7414 >25 23.8	Potassium	ppm	ASTM D5185m	>20	156		
Soot %	Glycol	%	*ASTM D2982		NEG		
Nitration Abs/cm *ASTM D7624 >20 11.4 Sulfation Abs/.1mm *ASTM D7415 >30 22.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 23.8			ام مالم مما	limit/haco	current	historv1	history2
Sulfation Abs/.1mm *ASTM D7415 >30 22.6 FLUID DEGRADATION method limit/base current history1 history2 Dxidation Abs/.1mm *ASTM D7414 >25 23.8	INFRA-RED		method	IIIIIII Dase	00	/	
Sulfation Abs/.1mm *ASTM D7415 >30 22.6 FLUID DEGRADATION method limit/base current history1 history2 Dxidation Abs/.1mm *ASTM D7414 >25 23.8		%					
Oxidation	Soot %		*ASTM D7844	>3	0.7		
	Soot % Nitration	Abs/cm	*ASTM D7844 *ASTM D7624	>3 >20	0.7 11.4		
	Soot % Nitration Sulfation	Abs/cm Abs/.1mm	*ASTM D7844 *ASTM D7624 *ASTM D7415	>3 >20 >30	0.7 11.4 22.6		
	Soot % Nitration Sulfation	Abs/cm Abs/.1mm	*ASTM D7844 *ASTM D7624 *ASTM D7415 method	>3 >20 >30 limit/base	0.7 11.4 22.6 current		



OIL ANALYSIS REPORT







Certificate L2367

Laboratory Sample No. Lab Number **Unique Number**

: 05950671 : 10646630

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 13 Sep 2023 : PCA0093583 Diagnosed : 18 Sep 2023 : Jonathan Hester

Diagnostician Test Package : FLEET (Additional Tests: Glycol)

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)

Transervice - Shop 1365 - Berkeley-Nazareth

6813 Chrisphalt Drive Bath Borough, PA US 18014

Contact: Stephen Mackes smackes@transervice.com

T: (610)837-8103 F: (610)837-8105