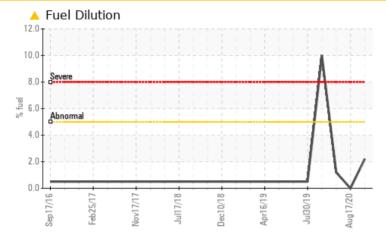


Machine Id **10594** Component **Diesel Engine** Fluid **PETRO CANADA DURON SHP 15W40 (--- GAL)**

COMPONENT CONDITION SUMMARY



RECOMMENDATION

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

PROBLEMATIC	C TEST	RESULT	S			
Sample Status				MARGINAL	NORMAL	NORMAL
Fuel	%	ASTM D3524	>5	<u> </u>	<1.0	<1.0

Customer Id: GFL868 Sample No.: GFL0071664 Lab Number: 06014761 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data: Wes Davis +1 905-569-8600 x223 wesd@wearcheck.ca

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

19 Oct 2023 Diag: Wes Davis



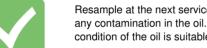
Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

28 Sep 2023 Diag: Wes Davis



Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

11 Sep 2023 Diag: Wes Davis



Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.



view report







OIL ANALYSIS REPORT





Machine Id 10594

Component

Diesel Engine

PETRO CANADA DURON SHP 15W40 (--- GAL)

DIAGNOSIS

A Recommendation

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

Wear

All component wear rates are normal.

Contamination

Light fuel dilution occurring. No other contaminants were detected in the oil.

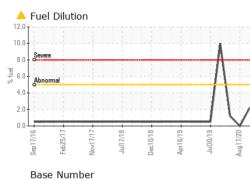
Fluid Condition

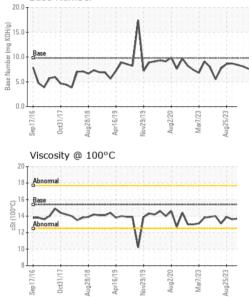
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

AL)		2016 0=20	17 Aug2018 Agr2019	Nov2019 Aug2020 Mar2023 J	100000	
SAMPLE INFORM		method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0071664	GFL0094805	GFL0094820
Sample Date		Client Info		13 Nov 2023	19 Oct 2023	28 Sep 2023
Nachine Age	hrs	Client Info		15027	14872	14718
Dil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	N/A	N/A
Sample Status				MARGINAL	NORMAL	NORMAL
CONTAMINATI	ON	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS	S	method	limit/base	current	history1	history2
ron	ppm	ASTM D5185m	>100	14	11	5
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	<1	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	<1	1
_ead	ppm	ASTM D5185m	>40	<1	0	0
Copper	ppm	ASTM D5185m	>330	<1	<1	<1
Гin	ppm	ASTM D5185m	>15	0	<1	<1
/anadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	1	2	5
Barium	ppm	ASTM D5185m	0	0	19	0
Volybdenum	ppm	ASTM D5185m	60	58	58	58
Vanganese	ppm	ASTM D5185m	0	<1	<1	<1
Vagnesium	ppm	ASTM D5185m	1010	925	803	885
Calcium	ppm	ASTM D5185m	1070	984	857	943
Phosphorus	ppm	ASTM D5185m	1150	832	870	972
Zinc	ppm	ASTM D5185m	1270	1160	1030	1150
Sulfur	ppm	ASTM D5185m	2060	2874	3462	2844
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	3	3	3
Sodium	ppm	ASTM D5185m		6	6	4
Potassium	ppm	ASTM D5185m	>20	2	2	<1
Fuel	%	ASTM D3524	>5	<u> </u>	<1.0	<1.0
		method	limit/base	current	history1	history2
INFRA-RED			0	0.4	0.3	0.2
INFRA-RED Soot %	%	*ASTM D7844	>3	0.7	0.5	0.2
	% Abs/cm	*ASTM D7844 *ASTM D7624	>3 >20	9.4	7.5	5.8
Soot %						
Soot % Nitration	Abs/cm Abs/.1mm	*ASTM D7624 *ASTM D7415	>20	9.4	7.5	5.8
Soot % Nitration Sulfation	Abs/cm Abs/.1mm	*ASTM D7624 *ASTM D7415	>20 >30	9.4 19.5	7.5 18.2	5.8 17.1



OIL ANALYSIS REPORT





		VISUAL		method	limit/base	current	history1	history2
		White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Δ	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Λ	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
Dec10/18	Apri 6/19 . Jul30/19 . Aug 17/20 .	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Decl	Apri Jul3 Aug1	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
		Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
1100001100001		Free Water	scalar	*Visual		NEG	NEG	NEG
۸		FLUID PROPE	RTIES	method	limit/base	current	history1	history2
A		Visc @ 100°C	cSt	ASTM D445	15.4	12.4	13.1	13.7
NAN	$\sim \sim \sim$	GRAPHS						
	V	Ferrous Alloys						
		300 T	1	12222200000000000				
Apri 6/13 Nov29/19 Aug2/20	Mar7/23 Aug25/23	250 - chromium						
Novi	Ma	200 -						
		Ē 150 -	1					
			1					
		100						
		50-	11	A				
m	$\wedge \sim$	0	15	NM	2			
- V - Y		9 ~ 0 6	Nov29/19 -	Aug2/20 - Mar7/23 - Aug25/23 -				
¥		Sep17/1 0ct31/1 Aug28/1 Apr16/1	Nov2	Aug Mar Nug2				
				-				
		Non-ferrous Metals	5	4				
29/19 22/20	ar7/23	14	5					
Apr16/19 -	Mar7/23 -		5					
Apri 6/19 - Nav29/19 - Aug2/20 -	Mar7/23 Aug25/23 -	14 copper	5					
Apri 5/19 - Nov29/19 - Aug 2/20 -	Mar7/23 +	14 12 10 8	5					
Apri 10/13 - Apri 10/13 - Apri 10/13 - Aug 2/20 - Aug 2/20 -	Mar7/23	14 12 copper lead	5					
- 61/01/04 Nov29/19 - Aug2/20 -	Mar7/23	14 12 10 8	5					
Nov29/19 Aug2/20	Mar7/23 -	14 12 10 8	5					
- 01/29/19 - Aug2/20 - Aug2/20 -	Mar)/23	Lead Lead		M				
- 01/29/19 - Aug2/20 -	Mar7/23 -	Lead Lead		M				
- 02/2guA	Mar7/23	14 12 10 E 8 6 4	L	Aug220 Mai/123				
- 01/22/vol/ - 02/22/uA	Mar7/23	Viscosity @ 100°C		M		Base Number		
- 01/29/19 -	Mar)/23	Viscosity @ 100°C		M	18.0	Base Number		
. 0.29/19 - 0.27/20 - Aug2/20 -	Mar)/23	Viscosity @ 100°C		M	18.0- 16.0-	Base Number		
- 01/29/19 - Aug2/20 - Aug2/20 -	Mar7/23	Viscosity @ 100°C		M	18.0- 16.0-	Base Number		
Nov29/19 - Aug2/20 - Aug2/20 - Aug2/20 -	Mar7/23	Viscosity @ 100°C		M	18.0- 16.0-	Base Number		
- 01/29/19 - Marzaria	Mar7/23	Viscosity @ 100°C		M	18.0- 16.0-		A	
Nov29/19 -	Mar)/23	Viscosity @ 100°C		M	18.0- 16.0-		A	
Aug2/2019	Mar)/23	Viscosity @ 100°C		M	18.0- 16.0- 16.0- 16.0- 16.0- 16.0- 10.0-1		A	\sim
Nov29/19 - Mu22/20 - Aug2/20 - Aug2/20 -	Mar)723	Viscosity @ 100°C		M	18.0- 16.0- 16.0- 16.0- 16.0- 10.0-1			
Nov29/19 - 012/20/19 - Aug2/20 - Aug	Mar7/23	Copper 10 10 10 10 10 10 10 10 10 10	er/esson	Aug2/20 Mari/23	18.0- 16.0- 16.0- 16.0- 12.0- 10.0- 12.0- 10.0-1	Base	A	
Aug2/2019	Mar7/23	Viscosity @ 100°C	er/ezvol	Aug2/20 Mari/23	18.0- 16.0- 16.0- 16.0- 12.0- 10.0- 12.0- 10.0-1		Apri 6/19 Nov29/19 Aug220	Mai723
Nov29/19 Nov29/19 Aug2/20		Viscosity @ 100°C	Nov29/19	Aug2/20 Aug2/20 Mai/23 Aug2/20 Mai/23 Aug2/20 Mai/23 Aug2/26 Aug2/20 Aug2/26 Aug2/20 Aug2/26 Aug2/Aug2/Aug2/Aug2/Aug2/Aug2/Aug2/Aug2/	18.0 16.0 16.0 10.0 12.0 0 10.0 10.0 10.0 10.0 10.0	Sep17/16	Apri6/19	4
Nov29/19 Nov22/19	Laboratory	Copper Livites Copper	61/62/vol	CZZBWY CZZBWY CZZBWY Son Ave., Ca	18.0 16.0 16.0 16.0 12.0 10.0 4.0 2.0 0.0 ry, NC 27513	Sep17/16	61/31/June 61/32/June mmental - 868 - Childersbu	rg Fines Hauling (Alpine)
Mov29/19	Laboratory Sample No.	Viscosity @ 100°C	6L/6Z/VAN	CZZDINY CZZ	18.0 16.0 9 10.0 9 10.0 9 10.0 9 10.0 10.0 10.0	Sep17/16	61/31-04 mmental - 868 - Childersbu	rg Fines Hauling (Alpine) 13737 Plant Rd
	Laboratory Sample No. Lab Number	Viscosity @ 100°C	6UEZON	EZIZEM EZIZEM	18.0 18.0 16.0 16.0 16.0 10.0 4.0 2.0 0.0 ry, NC 27513 Nov 2023 Nov 2023	Sep17/16	61/31-04 mmental - 868 - Childersbu	rg Fines Hauling (Alpine) 13737 Plant Ro hildersburg, AL
	Laboratory Sample No. Lab Number Unique Number	Copper lead co	UREZHON BUREZHON OI Madii Received Diagnos	ezijiew ed : 22 f tician : West	18.0 18.0 16.0 16.0 16.0 10.0	Base LUIVEPO GFL Enviror	HUIGHT ACTION AC	rg Fines Hauling (Alpine 13737 Plant Ro hildersburg, AL US 35044
	Laboratory Sample No. Lab Number Unique Number Test Package	Copper lead co	UKEZYON UKE	CZUEWW CZUEW CZUEWW CZUEW CZUEWW CZUEW CZUEWW CZUEW CZUEWW CZUEW CZUEWW CZUE CZUE CZUEW CZUEW CZUEW CZUE CZUE CZUE CZUEW CZUEW CZUEW CZUEW CZUE CZUE CZUEW CZUEW CZUEW CZUE CZUE CZUE CZUEW CZUE	18.0 18.0 16.0 16.0 10.0	Base LUIVEPO GFL Enviror	61/31-04 mmental - 868 - Childersbu	rg Fines Hauling (Alpine 13737 Plant Ro hildersburg, AL US 35044 HAN WILLIAMS
Certificate L2367 o discuss this - Denotes tes	Laboratory Sample No. Lab Number Unique Number Test Package s sample report, at methods that a	Viscosity @ 100°C	every every of Madia Received Diagnos Diagnos Fests: Fu ce at 1-8 7025 scc	son Ave., Ca d : 22 f ed : 27 f tician : Wes helDilution, Po bope of accred	18.0 18.0 16.0 16.0 16.0 12.0 10.0 4.0 2.0 0.0 ry, NC 27513 Nov 2023 Nov 2023 s Davis ercentFuel) 0. Uitation.	GFL Enviro	61/91/44 61/91/44 mmental - 868 - Childersbu C contact: JONATH jonathan.willian	rg Fines Hauling (Alpin 13737 Plant Re hildersburg, Al US 3504 HAN WILLIAMS

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