

OIL ANALYSIS REPORT

Sample Rating Trend





Component Diesel Engine

Fluid PETRO CANADA DURON SHP 10W30 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

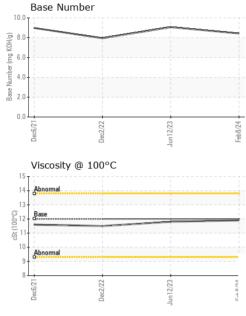
Fluid Condition

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

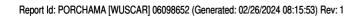
SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0078298	PCA0078086	WC0594644
Sample Date		Client Info		08 Feb 2024	12 Jun 2023	02 Dec 2022
Machine Age	mls	Client Info		321627	280508	247466
Oil Age	mls	Client Info		0	174436	174436
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	<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	>200	15	10	16
Chromium	ppm	ASTM D5185m	>20	1	1	1
Nickel	ppm	ASTM D5185m	>2	<1	<1	0
Titanium	ppm	ASTM D5185m	>2	<1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>30	7	3	4
Lead	ppm	ASTM D5185m	>30	0	<1	0
Copper	ppm	ASTM D5185m	>30	5	6	6
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Antimony	ppm	ASTM D5185m				
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	4	3	4
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	50	57	63	62
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	950	956	1028	935
Calcium	ppm	ASTM D5185m	1050	1026	1140	1110
Phosphorus	ppm	ASTM D5185m	995	991	1102	1000
Zinc	ppm	ASTM D5185m	1180	1260	1397	1265
Sulfur	ppm	ASTM D5185m	2600	2612	3794	3154
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>30	5	4	4
Sodium	ppm	ASTM D5185m		2	5	1
Potassium	ppm	ASTM D5185m	>20	4	4	6
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.8	0.5	0.7
Nitration	Abs/cm	*ASTM D7624	>20	10.3	8.6	10.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.1	20.5	23.4
FLUID DEGRAD	DATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.2	17.5	19.4
Base Number (BN)	mg KOH/g	ASTM D2896		8.43	9.06	7.95
8:15:53) Bev: 1					Submitted By: B	



OIL ANALYSIS REPORT



White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor Emulsified Water Free Water FLUID PROPE Visc @ 100°C GRAPHS Iron (ppm)	scalar scalar scalar scalar scalar scalar scalar scalar scalar scalar scalar	*Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual method ASTM D445	NONE NONE NONE NONE NORML NORML >0.2 12.00 80 50 12.00 0 50 60 50 60 60 60 60 60 60 60 60 60 60 60 60 60	Abnormal Chromium (p	NONE NONE NONE NONE NORML NORML NEG NEG history1 11.8	NONE NONE NONE NONE NOR NORML NORML NEG history2 11.5
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Debris Sand/Dirt Appearance Odor Emulsified Water Free Water FLUID PROPE Visc @ 100°C GRAPHS Iron (ppm)	scalar scalar scalar scalar scalar scalar scalar	*Visual *Visual *Visual *Visual *Visual method ASTM D445	NONE NORML NORML >0.2 12.00 80 60 60 60 60 60 60 60 60 60 60 60 60 60	NONE NORML NORML NEG NEG Lurrent 11.9 Lead (ppm) Severe Abnormal	NONE NORML NORML NEG NEG history1 11.8	NONE NORML NORML NEG history2 11.5
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Iron (ppm) 400 300 200 400 200 400 0 200 400 0 200 400 200 400 200 200 0 200 0 200		Juni2/23	60 <u>50</u> 50 40	Abnormal [7] ggg Chromium (p	-	
400 300 200 400 400 400 400 400 400 4		Jun12/23	60 <u>50</u> 50 40	Abnormal [7] ggg Chromium (p	-	
300 200 4 200 4 4 5 4 4 4 4 5 4 4 4 5 4 4 4 5 5 5 5 5 5 5 5 5 5 5 5 5		Jun1223	60 <u>50</u> 50 40	Abnormal Chromium (p	-	
Aluminum (ppm)		Jun12/23	50 40	Abnormal	-	
Aluminum (ppm)		Juni 2/23	20 +728 	Chromium (p	-	
Aluminum (ppm)		Jun12/23	0 +72/gqa 	Chromium (p	-	
Aluminum (ppm)		Jun1223	F2/80924	Chromium (r	-	
Aluminum (ppm)		2021nuL	50	Chromium (p	-	
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10-				+ 0		
			10	-		
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Dec6/21 Dec2/22		Jun 12/23	Feb8/24	Dec6/21	Dec2/22 Jun12/23	
Copper (ppm)				Silicon (ppm))	
60 Severe			50	Ocvere		
40			40			
E 30 - Abnormal			e ³⁰	- 0		
20 -						
10			10			
Dec6/21-		2/23 -	Feb 8/24	Dec6/21-	Dec2/22 -	
		Jun12/23	Feb	Dec	Dec2/22 Jun12/23	
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00 12 Base			ළී 6.0 ක			
10			4.0			
Abnormal		1	age 2.0			
\$/21+ 22+		/23+	0.0		/22-	
Decf		Jun 12	Feb 8	Dect	Dec2	
: PCA0078298 : <mark>06098652</mark> : 10896882	Recei Teste	ved : 23 d : 26	3 Feb 2024 3 Feb 2024		100 CHARL	DIVERSIFIED AU TERMINAL S ESTOWN, M US 0212 RYAN WINTE
	MearCheck USA - 50 PCA0078298 06098652 10896882 MOB 2	WearCheck USA - 501 Madiso PCA0078298 06098652 10896882 MOB 2	MearCheck USA - 501 Madison Ave., Cary PCA0078298 Received 22 06098652 Tested 22 10896882 Diagnosed 26	16 Abnormal 10.0 10 Abnormal 10.0 10 Base Example 10 Abnormal 10.0 10 Abnormal 10.0	WearCheck USA - 501 Madison Ave., Cary, NC 27513 PCA0078298 PCA0078298 PCA0078298 Received : 23 Feb 2024 06098652 Tested : 26 Feb 2024 - Wes Davis MOB 2	WearCheck USA - 501 Madison Ave., Cary, NC 27513 PCA0078298 PCA0078298 PCCeived : 23 Feb 2024 Tested : 26 Feb 2024 Diagnosed : 26 Feb 2024 - Wes Davis



Submitted By: BRYAN WINTER