

## **OIL ANALYSIS REPORT**

Sample Rating Trend



### Machine Id 302137

Component Diesel Engine

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

#### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

#### Wear

Metal levels are typical for a new component breaking in.

#### Contamination

There is no indication of any contamination in the oil.

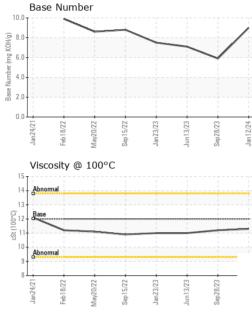
#### Fluid Condition

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

Jantari Februar Mag/arz Septarz Jantari											
SAMPLE INFORM	<b>IATION</b>	method	limit/base	current	history1	history2					
Sample Number		Client Info		PCA0115214	PCA0106266	PCA0098063					
Sample Date		Client Info		12 Jan 2024	28 Sep 2023	13 Jun 2023					
Machine Age	mls	Client Info		62259	58422	53319					
Dil Age	mls	Client Info		0	0	0					
Dil Changed		Client Info		Not Changd	Changed	Not Changd					
Sample Status				NORMAL	NORMAL	NORMAL					
CONTAMINATI	ON	method	limit/base	current	history1	history2					
Fuel		WC Method	>5	<1.0	<1.0	<1.0					
Water		WC Method	>0.2	NEG	NEG	NEG					
Glycol		WC Method		NEG	NEG	NEG					
WEAR METALS	5	method	limit/base	current	history1	history2					
ron	ppm	ASTM D5185m	>100	12	59	53					
Chromium	ppm	ASTM D5185m	>20	1	3	3					
Nickel	ppm	ASTM D5185m	>4	0	1	<1					
Fitanium	ppm	ASTM D5185m		0	<1	0					
Silver	ppm	ASTM D5185m	>3	0	0	0					
Aluminum	ppm	ASTM D5185m	>20	7	31	27					
ead	ppm	ASTM D5185m	>40	0	<1	0					
Copper	ppm	ASTM D5185m	>330	1	6	6					
<b>Fin</b>	ppm	ASTM D5185m	>15	<1	3	2					
/anadium	ppm	ASTM D5185m		<1	<1	0					
Cadmium	ppm	ASTM D5185m		0	0	0					
ADDITIVES		method	limit/base	current	history1	history2					
Boron	ppm	ASTM D5185m	2	2	<1	5					
Barium	ppm	ASTM D5185m	0	0	0	0					
Molybdenum	ppm	ASTM D5185m	50	57	68	65					
Manganese	ppm	ASTM D5185m		0	2	<1					
Magnesium	ppm	ASTM D5185m	950	951	1047	983					
Calcium	ppm	ASTM D5185m	1050	1056	1220	1183					
Phosphorus	ppm	ASTM D5185m	995	1075	1091	969					
Zinc	ppm	ASTM D5185m	1180	1220	1466	1238					
Sulfur	ppm	ASTM D5185m	2600	3160	3459	3550					
CONTAMINAN	ΓS	method	limit/base	current	history1	history2					
Silicon	ppm	ASTM D5185m	>25	4	6	5					
Sodium	ppm	ASTM D5185m		1	<1	2					
Potassium	ppm	ASTM D5185m	>20	6	25	21					
INFRA-RED		method	limit/base	current	history1	history2					
		*ASTM D7844	>3	0.3	0.9	0.8					
Soot %	%										
Soot %	% Abs/cm	*ASTM D7624		6.7	12.5	12.3					
Soot % Nitration				6.7 18.3	12.5 23.9	12.3 22.9					
Soot % Nitration	Abs/cm Abs/.1mm	*ASTM D7624 *ASTM D7415									
Soot % Nitration Sulfation	Abs/cm Abs/.1mm	*ASTM D7624 *ASTM D7415	>30	18.3	23.9	22.9					



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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
	$\sim$	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
/22 -	/23 -		scalar	*Visual	NORML	NORML	NORML	NORML
Sep 15/22 Jan 23/23	Jun13/23 Sep28/23	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
	,	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
2		- Free Water	scalar	*Visual	>0.2	NEG	NEG	NEG
		FLUID PROPE	_	method	limit/base		history1	history2
		Visc @ 100°C	cSt	ASTM D445	12.00	current	11.2	11.0
		GRAPHS	001	AOTIM D440	12.00	11.5	11.2	11.0
		Iron (ppm)				Lead (ppm)		
		250 T			10	<sup>0</sup> T ;;;-		
Sep 15/22 Jan 23/23	Jun 13/23 Sep 28/23	200 - Severe			8	0 - Severe		
Sep1	Juni	150 100 - Abnormal			udd 6			
		all 100 - Abnormal			- 4	0 - Abnormal		
		50			2	0-		
		22	22	23		22	22	23
		Jan 24/21 Feb 18/22 May 20/22	Sep15/22 Jan23/23	Jun 13/23 Sep 28/23	Jan 12/24	Jan 24/21 Feb 18/22 May20/22	Sep 15/22 Jan 23/23	Jun 13/23 Sep 28/23 Jan 12/24
		2		JL S		2		- 0
		Aluminum (ppm)			5	Chromium (pp	m)	
		40 Severe			4	0 Severe		
		_ 30 -		-	3	0		
		E 20 + Abnormal		- \	<sup>2</sup> و	Abnormal		
		10				0		
		0	_			0		
		Jan24/21 Feb18/22 May20/22	Sep15/22 Jan23/23	Jun 13/23 Sep 28/23	Jan 12/24	Jan 24/21 Feb 18/22 May 20/22	Sep 15/22	Jun 13/23 Sep 28/23 Jan 12/24
		Jan Feb May	Sep	Sep	Jan	Jan Feb	Sep	Sep
		Copper (ppm)				Silicon (ppm)		
		400 Severe	++	+	8	<sup>0</sup> Severe	1 1	
		300 -			6	0		
		톱 200 -			톱4	0		
		100-			2	Abnormal		
		0						
			5/22 -	3/23 -			5/22	3/23 -
		Jan 24/21 Feb 18/22 May 20/22	Sep 15/22 Jan 23/23	Jun 13/23 Sep 28/23	Jan 12/24	Jan 24/21 Feb 1 8/22 May 20/22	Sep 15/22 Jan 23/23	Jun 13/23 Sep 28/23 Jan 12/24
		Viscosity @ 100°				Base Number		
		<sup>16</sup>	1		10.			
		14 Abnormal	adaaaaadaa		8. 6. 8. 8. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9.	0		_ /
		(2-001) 12 - Base tg	-		ш 6. та	0		$\sim$
						0		
		10 - Abnormal			ase 2.	0		
		22	22 + -	23 +-	0.		22	23
		Jan 24/21 Feb 18/22 May 20/22	Sep15/22 Jan23/23	Jun 13/23 Sep 28/23	Jan 12/24	Jan 24/21 Feb 18/22 May 20/22	Sep 15/22 Jan 23/23	Jun 13/23 Sep 28/23 Jan 12/24
		л Ŀ Ÿ	r s	i i	7	n F M	S Ť	- o - r
	Laboratory	: WearCheck USA -				3 <b>Mil</b>		LEASING #119
₫	Sample No.	: PCA0115214 : 06066564	Recieved		Jan 2024			DUSTRIAL AVE
ANAB		: UpUpb5b4	Diagnos	ea : 22 .	Jan 2024		пазвкоос	K HEIGHTS, NJ
ANABA C C C C C C C C C C C C C C C C C C C	Lab Number		Disgnost	ician · Wo	s Davie			110 07604
	Unique Numbe	<b>r</b> : 10843241	Diagnost Tests: TE		s Davis		Contact: M	US 07604 IKE LONGETTE
Certificate L2367	Unique Numbe Test Packag	<b>r</b> : 10843241	Tests: TE	BN)		mlc		US 07604 IKE LONGETTE rtransgroup.com

Contact/Location: MIKE LONGETTE - MILRUT