

OIL ANALYSIS REPORT







Machine Id 2227122 Component

Diesel Engine

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

DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

Metal levels are typical for a new component breaking in.

Contamination

There is no indication of any contamination in the oil.

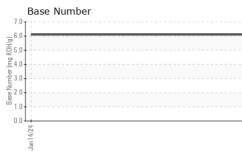
Fluid Condition

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

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0099527		
Sample Date		Client Info		14 Jan 2024		
Machine Age	mls	Client Info		19622		
Oil Age	mls	Client Info		19622		
Oil Changed		Client Info		Changed		
Sample Status				NORMAL		
CONTAMINATI	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG		
Glycol		WC Method		NEG		
WEAR METALS	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	30		
Chromium	ppm	ASTM D5185m	>20	<1		
Nickel	ppm	ASTM D5185m	>4	1		
Titanium	ppm	ASTM D5185m		<1		
Silver	ppm	ASTM D5185m	>3	21		
Aluminum	ppm	ASTM D5185m	>20	26		
Lead	ppm	ASTM D5185m	>40	2		
Copper	ppm	ASTM D5185m	>330	44		
Tin	ppm	ASTM D5185m	>15	4		
Vanadium	ppm	ASTM D5185m		<1		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	242		
Barium	ppm	ASTM D5185m	0	0		
Molybdenum	ppm	ASTM D5185m	50	110		
Manganese	ppm	ASTM D5185m		4		
Magnesium	ppm	ASTM D5185m	950	600		
Calcium	ppm	ASTM D5185m	1050	1350		
Phosphorus	ppm	ASTM D5185m	995	698 707		
Zinc Sulfur	ppm	ASTM D5185m ASTM D5185m	1180 2600	797 2286		
	ppm			2200		
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	53		
Sodium	ppm	ASTM D5185m		5		
Potassium	ppm	ASTM D5185m	>20	63		
Fuel	%	ASTM D3524	>5	<1.0		
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.1		
Nitration	Abs/cm	*ASTM D7624	>20	8.7		
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.0		
FLUID DEGRAD	DATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.7		
Base Number (BN)	mg KOH/g	ASTM D2896		6.1		



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	VISUAL		method	limit/base	current	history1	history2
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
	Precipitate	scalar	*Visual	NONE	NONE		
	Silt	scalar	*Visual	NONE	NONE		
	Debris	scalar	*Visual	NONE	NONE		
	Sand/Dirt	scalar	*Visual	NONE	NONE		
<i>pC</i> ₁		scalar	*Visual	NORML	NORML		
	Appearance Odor	scalar	*Visual	NORML	NORML		
	Emulsified Water		*Visual	>0.2	NEG		
	Free Water	scalar	*Visual		NEG		
	FLUID PRO		method	limit/base	current	history1	history2
	Visc @ 100°C	cSt		12.00	9.2		
	GRAPHS	001		12.00	0.2		
	Ferrous Alloys						
	³⁰ T						
	25 - iron chromium						
	20						
	<u>ڦ</u> 15 -						
	10						
	5-						
	an 14/24			Jan 14/24			
				Jan			
	Non-ferrous M	etals					
	40 copper						
	35 - tin						
	30-						
	e 25						
	1						
	15						
	5 -						
	0	*****					
	n14/24			an 14/24			
	ت براند مار			Jai			
	Viscosity @ 10	0°C			Base Number		
	1			7.0	Τ		
	14 Abnormal						
	14 - Abnormal			6.0			
	13-			6.0 (⁶ /Hoy 5.0	-		
	13-			6.0 (D/HOX) HOX) Bu 4.0			
	13			6.0 (B)HOX 5.0 (L) 4.0 Jag 3.0			
	13 \$\vertic{12}{\vertic{12}{\vertic{6}{\vertic{12}{\vertic{12}{\vertic{6}{\vertic{12}{\\vertic{12}{\\\vertic{12}{\\\ver			(⁰ /HO3 HO3 June (⁰ /HO3 June (¹⁰ / _H) June (¹⁰ / _H) Jun			
	13 G 12 Base			6.0 (b)HOX Bu) Jaquay Buy Jaquay Buy Buy Jaquay Jaquay Buy Ja Ja Ja Ja Ja Ja Ja Ja Ja Ja Ja Ja Ja	1		
	13 			(0) 5.0 Bul 4.0 Jaq 3.0 Bul 3.0 Bul 4.0 Jaq 3.0 Bul 4.0 Jaq 3.0 Bul 4.0 Jaq 3.0 Bul 4.0 Jaq 3.0 Bul 4.0 Jaq 3.0 Jaq 3.0 Jaq 4.0 Jaq 4.0 Jaq 3.0 Jaq 4.0 Jaq 4.			
	13 			(0) 5.0 Bul 4.0 Jaq 3.0 Bul 3.0 Bul 4.0 Jaq 3.0 Bul 4.0 Jaq 3.0 Bul 4.0 Jaq 3.0 Bul 4.0 Jaq 3.0 Bul 4.0 Jaq 3.0 Jaq 3.0 Jaq 4.0 Jaq 4.0 Jaq 3.0 Jaq 4.0 Jaq 4.			
	13 			(b, f, 0, 5, 0) Buy Jack and 1, 0 Buy Jack and 1	1		
laboratory	Base ()	A - 501 Madi		(0) F 5.0 Buy Jone Will Hold Will Ho	Jan14/24		
Laboratory Sample No.	Base 13 10 10 10 10 10 10 10 10 10 10			(b) 5.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1	Jan14/24	ERDUE FARMS 7036 ZION C	- SALISBUR
Laboratory Sample No. Lab Number	: WearCheck USA	A - 501 Madia Recieved Diagnose	i : 31 .	(0) F 5.0 Buy Jone Will Hold Will Ho	Jan14/24	7036 ZION C	- SALISBUR HURCH ROA
Sample No.	: WearCheck USA : PCA0099527 : 06075551 er : 10857642	Recieved Diagnos Diagnost	l : 31 . ed : 02 l ician : Jon	(b) 5.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1	hZ/hluer	7036 ZION C SA	- SALISBUR HURCH ROA LISBURY, M US 2180
Sample No. Lab Number Unique Number Test Package	: WearCheck USA : PCA0099527 : 06075551 er : 10857642 ; FLEET (Addition	Recieved Diagnose Diagnost nal Tests: Fu	l : 31 c ed : 02 l ician : Jon elDilution)	ry, NC 27513 Jan 2024 Feb 2024 athan Hester	hZ/hluer	7036 ZION C SA Contact: RICI	- SALISBUR HURCH ROA LISBURY, M US 2180 HARD O`NEA
Sample No. Lab Number Unique Numbe	: WearCheck USA : PCA0099527 : 06075551 er : 10857642 ie : FLEET (Addition <i>t, contact Customer S</i>	Recieved Diagnose Diagnost nal Tests: Fu Service at 1-8	l : 31 c ed : 02 l ician : Jon elDilution) 00-237-1369	ry, NC 27513 Jan 2024 Feb 2024 athan Hester	hZ/hluer	7036 ZION C SA Contact: RICI richard.onea	HURCH ROA LISBURY, M US 2180

Viscosity @ 100°C 15 14 13 cSt (100°C) 11 11 Ba 10 Abnorma 8. Jan 14/24

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Report Id: PERSALMD [WUSCAR] 06075551 (Generated: 02/02/2024 11:47:35) Rev: 1