

OIL ANALYSIS REPORT



Machine Id **T339** Component **Diesel Engine** Fluid **PETRO CANADA DURON SHP 10W30 (--- GAL)**

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

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

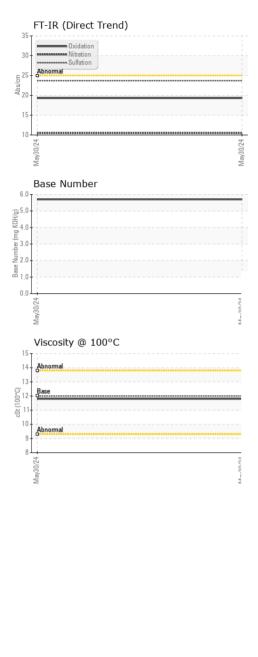
Fluid Condition

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

AAL)				May2024		
SAMPLE INFOF	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0125385		
Sample Date		Client Info		30 May 2024		
Machine Age	mls	Client Info		26341		
Oil Age	mls	Client Info		0		
Oil Changed		Client Info		Changed		
Sample Status				NORMAL		
CONTAMINAT	TION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0		
Water		WC Method	>0.2	NEG		
Glycol		WC Method		NEG		
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	46		
Chromium	ppm	ASTM D5185m	>20	<1		
Nickel	ppm	ASTM D5185m	>4	0		
Titanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m	>3	<1		
Aluminum	ppm	ASTM D5185m	>20	45		
Lead	ppm	ASTM D5185m	>40	0		
Copper	ppm	ASTM D5185m	>330	9		
Tin	ppm	ASTM D5185m	>15	0		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	13		
Barium	ppm	ASTM D5185m	0	0		
Molybdenum	ppm	ASTM D5185m	50	16		
Manganese	ppm	ASTM D5185m	0	2		
Magnesium	ppm	ASTM D5185m	950	808		
Calcium	ppm	ASTM D5185m	1050	1388		
Phosphorus	ppm	ASTM D5185m	995	850		
Zinc	ppm	ASTM D5185m	1180	958		
Sulfur	ppm	ASTM D5185m	2600	3476		
CONTAMINAN	NTS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	8		
Sodium	ppm	ASTM D5185m		5		
Potassium	ppm	ASTM D5185m	>20	131		
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.4		
Nitration	Abs/cm	*ASTM D7624	>20	10.5		
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.7		
FLUID DEGRA	DATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.3		
Base Number (BN)	mg KOH/g	ASTM D2896		5.7		



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d)	VISUAL		method	limit/base	current		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		
May30/24	Appearance	scalar	*Visual	NORML	NORML		
May	Odor	scalar	*Visual	NORML	NORML		
	Emulsified Water	scalar	*Visual	>0.2	NEG		
	Free Water	scalar	*Visual		NEG		
	FLUID PROPE	ERTIES	method	limit/base	current	history1	history2
	Visc @ 100°C	cSt	ASTM D445	12.00	11.8		
	GRAPHS						
	Ferrous Alloys						
	50						
verue	40 -						
h.ñ	TO T						
	30						
	Ē. 20 -						
	10						
	0						
	May30/24			May30/24			
	May			May			
	Non-ferrous Meta	le					
6		115					
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/ U <i>C</i>	10 8						
/ UC:~~ 94	10 copper						
100	8 copper						
100	10 8						
,∩⊕	8 copper						
лис <i>-</i> -ми	8 copper						
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ΥΩ~~₽₩	10 8 Ead Copper Bad Land			May30/24	Baco Numbe	r	
люм	10 8 6 4 2 0 4 4 4 4 4 4 4 4 4 4 4 4 4			Ma/30/24	Base Numbe	r	
лисм	Viscosity @ 100°			≥ 6.0-	Base Numbe	17	
лα₩	Viscosity @ 100°0			≥ 6.0- 5.0-	Base Numbe	۲	
ΥΩς	Viscosity @ 100°			≥ 6.0- 5.0-	Base Numbe	۶۲	
ΥΩς	Viscosity @ 100°			≥ 6.0- 5.0-	Base Numbe	۲ ۲	
ΥΩ~~#¥	10 8 6 4 2 0 4 4 2 0 4 5 10 10 10 10 10 10 10 10 10 10			≥ 6.0- 5.0-	Base Numbe	۲ ۲	
∩0	10 8 6 4 2 0 10 10 10 10 10 10 10 10 10			N 6.0- 5.0- (5/HOX 4.0- 10-3.0- 10-3.0- 10-3.0- 10-3.0- 10-32- 10	Base Numbe	:r	
∩u₩	10 8 6 4 2 0 15 14 2 0 15 14 2 0 10 10 10 10 10 10 10 10 10			€.0 5.0 (P) 20 4.0 bu 3.0 w y 3.0 0 0 2.0 0 1.0	Base Numbe	۲ .	
υα	10 8 6 4 2 0 10 10 10 10 10 10 10 10 10			≥ 6.0- 5.0- (0) HOX 00 ±agun, 2.0- 800 1.0- 0.0-		۲ ۲	2
υα	10 8 6 4 2 0 10 10 10 10 10 10 10 10 10			≥ 6.0- 5.0- (0) HOX 00 ±agun, 2.0- 800 1.0- 0.0-		۲ ۲	1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1
υα	10 8 6 4 2 0 10 10 10 10 10 10 10 10 10			€.0 5.0 (P) 20 4.0 bu 3.0 w y 3.0 0 0 2.0 0 1.0	Base Numbe	:r	Mar2024
	10 10 10 10 10 10 10 10 10 10	C		0.0 5.0 (0)H03 K0/ H03 K0/ H03 K0/ H03 K0 H03 K0 H0	May3024		
Laboratory Samula No	Viscosity @ 100°C Viscosity @ 100°C Abnomal Base Base 13 Base 10 10 10 10 10 10 10 10 10 10 10 10 10	C D1 Madiso		 €.0 5.0 (0)(0)(0)(0)(0)(0)(0)(0)(0)(0)(0)(0)(0)(May3024	HITE & CO - COLU	JMBIA DIVISION
Sample No.	Viscosity @ 100°C	C	i ved : 03	0.0 5.0 (0)H03 K0/ H03 K0/ H03 K0/ H03 K0 H03 K0 H0	May3024	HITE & CO - COLU 100 INDEPEN	JMBIA DIVISION NDENCE BLVE
Sample No. Lab Numbe	Viscosity @ 100°C Viscosity @ 100°C Abnomal Base USCOULT USCOSITY @ 100°C Viscosity @ 100°C USCOSITY U	C D1 Madiso Recei	ived : 03 d : 03	 €.0 5.0 (0) (0)	NW W	HITE & CO - COLU 100 INDEPEN	JMBIA DIVISION
Sample No. Lab Numbe Unique Numbe Test Packag	Viscosity @ 100° Viscosity @ 100°	01 Madiso Recei Teste Diagr	ived : 03 d : 03 nosed : 03	 ≥ 6.0 5.0 (0)(10)(10)(14.0) 4.0 <	NW W	HITE & CO - COLU 100 INDEPEN C Contact: GEOR	JMBIA DIVISION NDENCE BLVE COLUMBIA, SC US 29210 GE EDWARDS
Sample No. Lab Numbe Unique Numbe	Viscosity @ 100°C Viscosity @ 100°C	01 Madiso Recei Teste Diagr	ived : 03 id : 03 nosed : 03 800-237-1369	 ≥ 6.0 5.0 (0)(10)(10)(10)(10)(10)(10)(10)(10)(10)(NW W	HITE & CO - COLU 100 INDEPEN C Contact: GEOR	JMBIA DIVISIOI NDENCE BLVI COLUMBIA, SC US 29210

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Contact/Location: GEORGE EDWARDS - NWWCOL