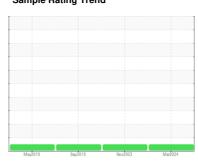


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id **677573**Component

Diesel Engine

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

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

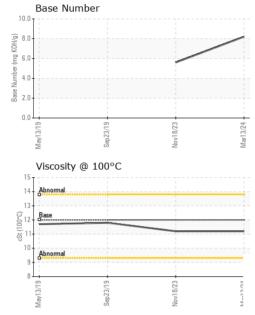
Fluid Condition

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

QTS)		May201	9 Sep2019	Nov2023 Ma	2024	
SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0120653	PCA0113365	PCA04806235
Sample Date		Client Info		13 Mar 2024	18 Nov 2023	23 Sep 2019
Machine Age	mls	Client Info		0	0	0
Oil Age	mls	Client Info		0	0	0
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	>5	<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	>100	17	42	28
Chromium	ppm	ASTM D5185m	>20	<1	<1	2
Nickel	ppm	ASTM D5185m	>4	0	<1	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	2	5	9
Lead	ppm	ASTM D5185m	>40	2	5	1
Copper	ppm	ASTM D5185m	>330	<1	1	1
Tin	ppm	ASTM D5185m	>15	0	<1	0
Antimony	ppm	ASTM D5185m				2
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	4	9	7
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	50	65	69	55
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	950	1008	946	963
Calcium	ppm	ASTM D5185m	1050	1178	1152	1280
Phosphorus	ppm	ASTM D5185m	995	1060	1073	958
Zinc	ppm	ASTM D5185m	1180	1248	1328	1192
Sulfur	ppm	ASTM D5185m	2600	3681	3001	2516
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	3	5	5
Sodium	ppm	ASTM D5185m		1	3	2
Potassium	ppm	ASTM D5185m	>20	2	8	24
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.3	0.5	0.5
Nitration	Abs/cm	*ASTM D7624	>20	7.8	11.3	10.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.0	22.6	20.6
FLUID DEGRA	DATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.0	18.5	16.6



OIL ANALYSIS REPORT



VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
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
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPE	RTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	12.00	11.2	11.2	11.8

713C @ 100 C	ASTIVID443	12.00	11.2	11.2	11.0	,
GRAPHS						
Iron (ppm)			Lead (ppn	n)		
Severe			Severe			
			00			
Abnormal			Abnormal			
			20			
6	- 53	24	0	6	23-	_
May13/19	Nov18/23	Mar13/24	May13/19	Sep23/19	Nov18/23	
Aluminum (ppm)	_	_	Chromium		_	
Severe			Severe			
0			40			
Abnormal			Abnormal			
			10			
6	3	4	0	6	en	
May13/19 Sep23/19	Nov18/23	Mar13/24	May13/19	Sep23/19	Nov18/23	
<pre></pre>	2	≥	≥ Silicon (pp		Z	
Severe Patronnal			80 Severe			
			60			
-			Ē 40			
			Abnormal 20			
		-	0			
May13/19	Nov18/23	Mar13/24	May13/19	Sep23/19	Nov18/23	
≥	N	Σ	≊ Base Num		ž	
Viscosity @ 100 C			10.0			
Abnormal			8 ase Mumber (mg KOH/g)			
Base			0.0 per			
Abnormal			9 2.0			
		-	0.0			
May13/19 Sep23/19	Nov18/23	Mar13/24	May13/19	Sep23/19	Nov18/23	
Nay Sep	Nov	Mar	May	Sep	Nov	





Laboratory Sample No.

Lab Number : 06136135 Unique Number : 10955600 Test Package : MOB 1 (Additional Tests: TBN)

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : PCA0120653 Received : 02 Apr 2024 **Tested**

Diagnosed

: 03 Apr 2024 : 03 Apr 2024 - Wes Davis

39 INDUSTRIAL AVE HASBROUCK HEIGHTS, NJ

US 07604 Contact: ALDO LAIN alain@millertransgroup.com T: (201)528-7293

To discuss this sample report, contact Customer Service at 1-800-237-1369. * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

F: (201)528-7053 Contact/Location: ALDO LAIN - MILRUT