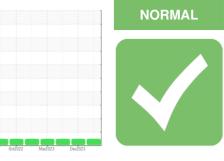


OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id **190814** 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

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

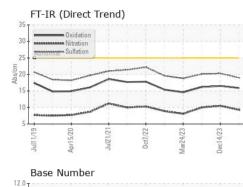
Fluid Condition

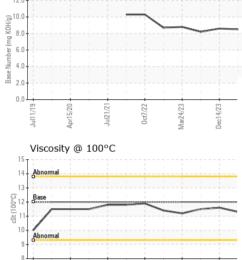
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0123909	PCA0115247	PCA0103042
Sample Date		Client Info		17 Apr 2024	14 Dec 2023	08 Aug 2023
Machine Age	mls	Client Info		143700	136312	125680
Oil Age	mls	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
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	25	29	22
Chromium	ppm		>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m		3	2	1
Lead	ppm	ASTM D5185m	>40	2	0	1
Copper	ppm	ASTM D5185m	>330	3	3	2
Tin	ppm	ASTM D5185m	>15	1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	<1
Cadmium	ppm	ASTM D5185m		<1	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	4	14	4
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	50	95	68	66
Manganese	ppm	ASTM D5185m	0	1	<1	<1
Magnesium	ppm	ASTM D5185m	950	1330	902	985
Calcium	ppm	ASTM D5185m	1050	1543	1239	1195
Phosphorus	ppm	ASTM D5185m	995	1386	1116	1054
Zinc	ppm	ASTM D5185m	1180	1788	1313	1322
Sulfur	ppm	ASTM D5185m	2600	4588	3177	3650
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	7	5	4
Sodium	ppm	ASTM D5185m		<1	<1	3
Potassium	ppm	ASTM D5185m	>20	2	<1	1
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.6	0.9	1
Nitration	Abs/cm	*ASTM D7624	>20	9.3	10.5	10.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.0	20.3	20.1
FLUID DEGRAD	DATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.9	16.5	16.2
Base Number (BN)	mg KOH/g	ASTM D2896		8.5	8.6	8.2
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OIL ANALYSIS REPORT





Jul21/21

Jul11/19

nr15/20

0ct7/22

Mar24/23

	VISUAL		method	limit/base	current	history1	history2	
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE	
Contra decomposition of the second	Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE	
	Silt	scalar	*Visual	NONE	NONE	NONE	NONE	
our statement of the st	Debris	scalar	*Visual	NONE	NONE	NONE	NONE	
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE	
Dec14/23	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML	
Dec	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		method	limit/base		history1	history2	
	Visc @ 100°C	cSt	ASTM D445	12.00	11.3	11.6	11.5	
	GRAPHS							
	Iron (ppm)				Lead (ppm)			
/23 -	200 - Severe				80 - Severe			
Dec14/23	150				60 -			
_	Abnormal			шdd	40 Abnormal			
	50 -				20 -			
		2+		2		2		
	Jul11/19 Apr15/20 Jul21/21	0ct7/22	Mar24/23	C2/(-1)201	Jul11/19 Apr15/20	Jul21/21 0ct7/22	Mar24/23 Dec14/23	
50		0	W C			-	Ma	
	Aluminum (ppm)				Chromium (۱ ⁵⁰	opm)		
	40 - Severe				40 Severe			
Dec14/23 -	E 20 Abnormal			mdd	20 - Abnormal			
Dec1	10				10			
		2	-			2		
	Jul11/19 Apr15/20	0ct7/22	Mar24/23	7777	Jul11/19 Apr15/20	Jul21/21 0ct7/22	Mar24/23 Dec14/23	
	ゴー そう Copper (ppm)	0	Ŵ	ž	⊰ . Silicon (ppm)	,	De	
	100				⁸⁰ Severe	,		
	300 Severe				60			
	틆 200 -							
					Anormal			
	100-		1		20			
		22 -	53	3		21	23	
	Jul11/19 Apr15/20 Jul21/21	0ct7/22	Mar24/23	67/L 1000	Jul11/19 Apr15/20	Jul21/21 0ct7/22	Mar24/23 Dec14/23	
	ت مح Viscosity @ 100°0		⊸	,	Σ õ			
	¹⁶	-		, ¹²	12.0 -			
	14 Abnormal			HOY .).0 - 3.0 -			
	Base			<u> </u>	5.0			
	ži 10 hnormal			quinn 4	ŧ.0 -			
				ase 2	2.0 -			
	20 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2	/22 -	123			/21-	/23 -	
	Juli 1/19 Apr1 5/20 Jul2 1/21	0ct7/22	Mar24/23		Jul11/19 Apr15/20	Jul21/21 0ct7/22	Mar24/23 -	
.aboratory	: WearCheck USA - 50	1 Madisc	n Ave., Carv	NC 27513	Ν		LEASING #119	
Sample No.	: PCA0123909	Rece	ived : 23	3 Apr 2024		39 IN	DUSTRIAL AVE	
.ab Number	: 06157218	Teste	d : 24	Apr 2024		HASBROUC	K HEIGHTS, NJ	
Inique Number	: 10992641	iosed : 25 Apr 2024 - Jonathan Hester			US 07604			

Unique Number : 109 Test Package : MOB 1 (Additional Tests: TBN) 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

Report Id: MILRUT [WUSCAR] 06157218 (Generated: 04/25/2024 09:32:37) Rev: 1

Certificate L2367

Contact/Location: MIKE LONGETTE - MILRUT

Т:

Contact: MIKE LONGETTE

mlongette@millertransgroup.com