

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id

320238 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

There is no indication of any contamination in the oil.

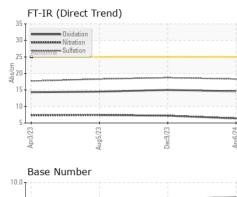
Fluid Condition

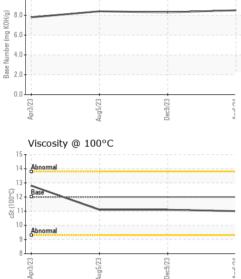
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0123983	PCA0113418	PCA0103087
Sample Date		Client Info		06 Apr 2024	09 Dec 2023	05 Aug 2023
Machine Age	mls	Client Info		15199	13545	0
Oil Age	mls	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	N/A
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	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 METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	13	15	27
Chromium	ppm	ASTM D5185m	>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	>20	3	4	6
Lead	ppm	ASTM D5185m	>40	<1	0	0
Copper	ppm	ASTM D5185m	>330	1	<1	4
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	5	23	8
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	50	61	61	61
Manganese	ppm	ASTM D5185m	0	<1	<1	1
Magnesium	ppm	ASTM D5185m	950	857	849	925
Calcium	ppm	ASTM D5185m	1050	1029	1177	1120
Phosphorus	ppm	ASTM D5185m	995	919	1020	1000
Zinc	ppm	ASTM D5185m	1180	1159	1252	1256
Sulfur	ppm	ASTM D5185m	2600	3092	3175	3581
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	5	6	10
Sodium	ppm	ASTM D5185m		0	<1	2
Potassium	ppm	ASTM D5185m	>20	6	9	26
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.3	0.4	0.4
Nitration	Abs/cm	*ASTM D7624	>20	6.4	7.2	7.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.3	18.7	18.3
	AU5/.111111					
FLUID DEGRAD		method	limit/base	current	history1	history2
		method *ASTM D7414	limit/base >25	current 14.6	history1 15.0	history2 14.5

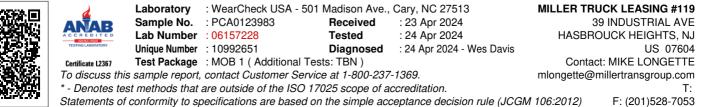


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VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*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	11.0	11.1	11.1
GRAPHS						
Iron (ppm)			100	Lead (ppm)		
Severe			80	Severe		1
D			е ⁶⁰	1 		
Abnormal			40	Abnormal		
			20	-		
		13-	0 ++	2 2		2
Apr3/23 Aug5/23		Dec9/23	Apr6/24	Apr3/23	Aug5/23	Dec9/23
Aluminum (ppm)				Chromium (p		
Severe			50	Severe		
] +			40			1
Abnormal			³⁰ 20	Abnormal		
				- 0		.
			10			
Apr3/23		Dec9/23 -	Apr6/24	Apr3/23	Aug5/23 -	Dec9/23 -
		Dec	Api			Dec
Copper (ppm)			80	Silicon (ppm)		
Severe Pabronnat			60	Contraine	1	1
]-			튭.40	Abnormal		
D -			20			
		~			~	
Apr3/23 Aug5/23		Dec9/23	Apr6/24	Apr3/23	Aug5/23	Dec9/23
		ã	A.			á
Viscosity @ 100°C			=10.0	Base Numbe	r	
Abnormal			(B/H0) 6.0 Base Mumber 888 82.0			
Barrow			٤.0 ق			
2						
Abnormal			⊒ ₽2.0			
34						
		2	2	12	22	Dec3/23
Apr3/23		Dec9/23	Apr6/24	Apr3/23	Aug5/23	Dec9/23



Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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Contact/Location: MIKE LONGETTE - MILRUT

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