

OIL ANALYSIS REPORT

Area ORIN CONTRACTORS Machine Id 378 Component

Diesel Engine

PETRO CANADA 10W30 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The condition of the oil is acceptable for the time in service.

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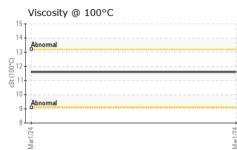
Sample Rating Trend



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SAMPLE INFORM		method	limit/base		history1	history2
Sample Number		Client Info		WC0899551		
Sample Date		Client Info		01 Mar 2024		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				NORMAL		
CONTAMINATION	J	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0		
Water		WC Method	>0.2	NEG		
Glycol		WC Method		NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	35		
Chromium	ppm	ASTM D5185(m)	>20	6		
Nickel	ppm	ASTM D5185(m)	>4	<1		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)	>3	0		
Aluminum	ppm	ASTM D5185(m)	>20	6		
Lead	ppm	ASTM D5185(m)	>40	2		
Copper	ppm	ASTM D5185(m)	>330	2		
Tin	ppm	ASTM D5185(m)	>15	<1		
Antimony	ppm	ASTM D5185(m)		0		
Vanadium	ppm	ASTM D5185(m)		0		
Beryllium	ppm	ASTM D5185(m)		0		
Cadmium	ppm	ASTM D5185(m)		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		11		
Barium	ppm	ASTM D5185(m)		0		
Molybdenum	ppm	ASTM D5185(m)		58		
Manganese	ppm	ASTM D5185(m)		0		
Magnesium	ppm	ASTM D5185(m)		918		
Calcium	ppm	ASTM D5185(m)		1218		
Phosphorus	ppm	ASTM D5185(m)		1010		
Zinc	ppm	ASTM D5185(m)		1191		
Sulfur	ppm	ASTM D5185(m)		2601		
Lithium	ppm	ASTM D5185(m)		<1		
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	24		
Sodium	ppm	ASTM D5185(m)		2		
Potassium	ppm	ASTM D5185(m)	>20	1		
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	0.5		
Nitration	Abs/cm	ASTM D7624*	>20	8.5		
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.3		



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		FLUID DEGRAI	DATION	method	limit/base	current	history1	history2
		Oxidation	Abs/.1mm	ASTM D7414*	>25	14.5		
		VISUAL		method	limit/base	current	history1	history2
		White Metal	scalar	Visual*	NONE	NONE		
		Yellow Metal	scalar	Visual*	NONE	NONE		
		Precipitate	scalar	Visual*	NONE	NONE		
	Mar1/24 -	Silt	scalar	Visual*	NONE	NONE		
	Mar	Debris	scalar	Visual*	NONE	NONE		
		Sand/Dirt	scalar	Visual*	NONE	NONE		
		Appearance	scalar	Visual*	NORML	NORML		
		Odor Emulsified Water	scalar scalar	Visual* Visual*	NORML >0.2	NORML NEG		
		Free Water	scalar	Visual*	>0.2	NEG		
		FLUID PROPER	RTIES	method	limit/base	current	history1	history2
		Visc @ 100°C	cSt	ASTM D7279(m)	in the baco	11.6		
		GRAPHS	001	Norm Dr2ro(m)		11.0		
		Iron (ppm)				Lead (ppm)		
		250 Severe			100	Severe		
		- 150 -			E 60			
		E 100 - Abnormal			- 40 20	Abnormal		
		0			0			
		Mar1/24			Mar1/24	Mar1/24		
			`		M		>	2
		Aluminum (ppm)		50		pm)	
		40 - Severe			40	Severe		
		E 30 Abnormal			트 ³⁰ 문 ₂₀	Abnormal		
		10						
		0				4		
		Mar1/24			Mar1/24	Mar1/24		100 E
		Copper (ppm)				Silicon (ppm)		
		400 Severe			80	1		
		300 -			60 E se			
		톱 200 -			톱 40	Abnormal		
		100			20			
		Mar1/24			Mar1/24	Mar1/24		e E
		Mar			Mar	Mar		- M
		Viscosity @ 100	°C			Soot %		
		¹⁶			6.0	Severe		
		G14 Abnormal			e4.0 م	Abnormal		
		E 12 83 10			^{هو} 4.0 50 2.0			
		Abnormal			0.0			
		Mar1/24			Mar1/24	Mar1/24 -		101
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Laboratory Tes o discuss this san	mple report,	: MOBCE (Additiona contact Customer Se	l Tests: Vis <i>rvice at 1-8</i>	sual) 300-268-213				CA L4K 4P Service Tear: team@roni.c
		e of accreditation, (m) tation are based on th						T

Report Id: RONVAU [WCAMIS] 02621036 (Generated: 03/11/2024 13:27:07) Rev: 1

Validity of results and interpretation are based on the sample and information as supplied.

Contact/Location: Service Team - RONVAU Page 2 of 2

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