

OIL ANALYSIS REPORT

Sample Rating Trend





Area **RONI** Machine Id **148** Component **Diesel Engine** Fluid

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

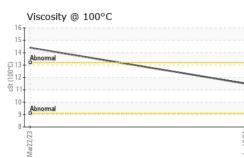
The condition of the oil is acceptable for the time in service.

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0888473	LH0218902	
Sample Date		Client Info		10 Jan 2024	22 Mar 2023	
Machine Age	hrs	Client Info		0	1000	
Oil Age	hrs	Client Info		0	0	
Oil Changed		Client Info		Changed	Changed	
Sample Status				NORMAL	NORMAL	
CONTAMINATION	N	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	
Water		WC Method	>0.2	NEG	NEG	
Glycol		WC Method	20.L	NEG	NEG	
-				-		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	2	22	
Chromium	ppm	ASTM D5185(m)	>20	0	<1	
Nickel	ppm	ASTM D5185(m)	>2	0	<1	
Titanium	ppm	ASTM D5185(m)	>2	0	<1	
Silver	ppm	ASTM D5185(m)	>2	0	0	
Aluminum	ppm	ASTM D5185(m)	>25	2	19	
Lead	ppm	ASTM D5185(m)	>40	0	0	
Copper	ppm	ASTM D5185(m)	>330	<1	2	
Tin	ppm	ASTM D5185(m)	>15	0	0	
Antimony	ppm	ASTM D5185(m)		0	<1	
Vanadium	ppm	ASTM D5185(m)		0	0	
Beryllium	ppm	ASTM D5185(m)		0	0	
Cadmium	ppm	ASTM D5185(m)		0	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		<1	77	
Barium	ppm	ASTM D5185(m)		0	0	
Molybdenum	ppm	ASTM D5185(m)		55	5	
Manganese	ppm	ASTM D5185(m)		0	<1	
Magnesium	ppm	ASTM D5185(m)		957	84	
Calcium	ppm	ASTM D5185(m)		1015	2196	
Phosphorus	ppm	ASTM D5185(m)		1006	1095	
Zinc	ppm	ASTM D5185(m)		1138	1176	
Sulfur	ppm	ASTM D5185(m)		2754	3072	
Lithium	ppm	ASTM D5185(m)		<1	<1	
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	4	6	
Sodium	ppm	ASTM D5185(m)		<1	2	
Potassium	ppm	ASTM D5185(m)	>20	0	8	
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	0	0.2	
Nitration	Abs/cm	ASTM D7624*	>20	4.3	8.1	
Sulfation	Abs/.1mm	ASTM D7415*	>30	17.9	22.2	



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FLUID DEGRADATION method limit/base



FLUID DEGRAL	DATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	13.0	14.7	
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE		
Yellow Metal	scalar	Visual*	NONE	NONE		
Precipitate	scalar	Visual*	NONE	VLITE		
⁴ Z ₂ Silt	scalar	Visual*	NONE	NONE		
FZOL Silt Debris	scalar	Visual*	NONE	NONE		
Sand/Dirt	scalar	Visual*	NONE	NONE		
Appearance	scalar	Visual*	NORML	NORML		
Odor	scalar	Visual*	NORML	NORML	NORML	
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	
Free Water	scalar	Visual*		NEG	NEG	
FLUID PROPER	RTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)		11.5	14.4	
GRAPHS						
Iron (ppm)			100-	Lead (ppm)		
200 Severe			80	Severe		
§ 150 - Abnormal			60-	Ahnormal		
읍 100 - Abnormal 50		*******	40· 20·	Abnormal		-
0			0			
Mat2/23			Jan 10/24	Mar22/23		Jan 10/24
			Jar)	Jar
Aluminum (ppm))		50-	L=	m)	
40 - Severe			40	Severe		
E 30 Abnormal			======================================	Abnormal		
10			- 20.			
o L						
Mar2.2.2			Jan 10/24	Mar22/23		Jan 10/24
≊ Copper (ppm)			Ja			La
400 Assessed			80-	Silicon (ppm)		
300 -			60			
틆 200			틆 40			
100 -			20	Abnormal		
			0·	22		4
Mar2.22			Jan 10/24	Mar22/23		Jan 10/24
≥ Viscosity @ 100°	C		-j	≥ Soot %		ت ت
16			6.0	Severe		
e ¹⁴ Abnormal			4.0·	T		
G14 6 12 3 10			^{هو 4.0}	Abnormal		
¹³ 10 Abnormal			2.0			
844			-0.0	23		24
Mar2.22			Jan 10/24	Mar22/23		Jan 10/24
CALLA Iso 17025:2017 Accredited Laboratory Test Package : MOBCE (Addition To discuss this sample report, contact Customer Ser Test denoted (*) outside scope of accreditation, (m) r Validity of results and interpretation are based on r	Recieved Diagnos Diagnos al Tests: V vice at 1-8 method mo	d : 17 ed : 17 tician : We /isual) 200-268-213 polified, (e) te	Jan 2024 Jan 2024 s Davis 1. sted at extern	al lab.	100 MAC	CAVATING LTD. INTOSH BLVD VAUGHAN, ON CA L4K 4P3 : Service Team e.team@roni.ca T: F:
Validity of results and interpretation are based on the	e sample a	na mormatio	n as supplied			F: