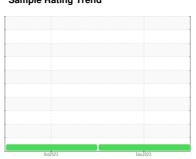


OIL ANALYSIS REPORT

Sample Rating Trend







Machine Id **2356**

Component **Natural Gas Engine**

VALVOLINE PREMIUM BLUE 9200 15W40 (--- 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

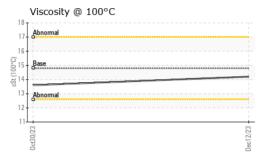
Fluid Condition

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

(GAL)			0ct2023	Dec2023		
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
	,,,,,	Client Info	mmesacc	WC0877972	WC0849717	
Sample Number Sample Date		Client Info		12 Dec 2023	30 Oct 2023	
	Luma	Client Info				
Machine Age	kms			23873	13726	
Oil Age	kms	Client Info		Ohammad	O Chanasal	
Oil Changed		Client Info		Changed	Changed	
Sample Status				NORMAL	NORMAL	
CONTAMINATION	J	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>50	13	44	
Chromium	ppm	ASTM D5185(m)	>4	<1	<1	
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	
Titanium	ppm	ASTM D5185(m)		0	0	
Silver	ppm	ASTM D5185(m)	>3	<1	<1	
Aluminum	ppm	ASTM D5185(m)	>9	2	4	
Lead	ppm	ASTM D5185(m)	>30	1	2	
Copper	ppm	ASTM D5185(m)	>35	7	18	
Tin	ppm	ASTM D5185(m)	>4	<1	2	
Antimony	ppm	ASTM D5185(m)		0	0	
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)		8	11	
Barium	ppm	ASTM D5185(m)		<1	3	
Molybdenum	ppm	ASTM D5185(m)		59	114	
Manganese	ppm	ASTM D5185(m)		1	13	
Magnesium	ppm	ASTM D5185(m)		751	655	
Calcium	ppm	ASTM D5185(m)		1232	1440	
Phosphorus	ppm	ASTM D5185(m)		600	657	
Zinc	ppm	ASTM D5185(m)		844	765	
Sulfur	ppm	ASTM D5185(m)		1875	2119	
Lithium	ppm	ASTM D5185(m)		<1	<1	
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>+100	10	45	
Sodium	ppm	ASTM D5185(m)		3	3	
Potassium	ppm	ASTM D5185(m)	>20	0	2	
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*		0	0	
Nitration	Abs/cm	ASTM D7624*	>20	12.5	8.4	
Sulfation	Abs/.1mm	ASTM D7415*	>30	22.0	20.3	
FLUID DEGRADA	TION _	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	19.8	15.2	
				*		



OIL ANALYSIS REPORT



VISUAL		method				history2
White Metal	scalar	Visual*	NONE	VLITE		
Yellow Metal	scalar	Visual*	NONE	NONE		
Precipitate	scalar	Visual*	NONE	NONE		
Silt	scalar	Visual*	NONE	NONE		
Debris	scalar	Visual*	NONE	NONE		
Sand/Dirt	scalar	Visual*	NONE	VLITE		
Appearance	scalar	Visual*	NORML	NORML		
Odor	scalar	Visual*	NORML	NORML	NORML	
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	
Free Water	scalar	Visual*		NEG	NEG	
FLUID PROPERTIES		method	limit/base	current	history1	history2

Visc @ 100°C	cSt	ASTM D7279(m)	14.8		14.2	13.6	
GRAPHS		_					
Iron (ppm) Severe Abnormal			Dec12/23 - 1	50 - 40 - 8 30 - 20 - 10 -	Lead (ppi	n)	Dec1223
Aluminum (ppm)				8 -	Chromiur	n (ppm)	
Severe				6 -	Severe	***************************************	
and Abnormal				W.4-	Abnormal		
5				2 -			
0ct30/23			Dec12/23	6	0ct30/23		Dec12/23
Copper (ppm) Severe			ă	:	Silicon (p	om)	ă
Eg 40 - Abnormal				툽 100-	Abnormal		
20+				50-			
00ct30/23			Dec12/23	0	0ct30/23 +		Dec12/23
Viscosity @ 100°	С			1600 T	Additives		
Abnormal 10 10 10 10 10 10 10 10 10 1			Dec12/23	1400 - 1200 - 1000 - 800 -		ium sphorus	Dec12/23



CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No. Lab Number Unique Number : 5696854

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 : WC0877972 : 02603769

Test Package : MOB 1 (Additional Tests: Visual)

Recieved Diagnosed

: 18 Dec 2023 : 18 Dec 2023 Diagnostician : Wes Davis

CITY OF HAMILTON 2200 UPPER JAMES,, MOUNTAIN TRANSIT STOREROOM MOUNT HOPE, ON

CA LOR 1W0 Contact: Ron Skinner ron.skinner@hamilton.ca

To discuss this sample report, contact Customer Service at 1-800-268-2131. Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Validity of results and interpretation are based on the sample and information as supplied.

F: (905)679-4502

T: