

OIL ANALYSIS REPORT

Sample Rating Trend





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 oil.

Fluid Condition

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

(GAL)			Feb2024	Mar2024		
SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0917532	WC0890940	
Sample Date		Client Info		22 Mar 2024	07 Feb 2024	
Machine Age	kms	Client Info		16683	11999	
Oil Age	kms	Client Info		0	0	
Oil Changed		Client Info		Changed	N/A	
Sample Status				NORMAL	NORMAL	
CONTAMINATION		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	11	33	
Chromium	ppm	ASTM D5185(m)	>4	0	<1	
Nickel	ppm	ASTM D5185(m)	>2	<1	1	
Titanium	ppm	ASTM D5185(m)		0	0	
Silver	ppm	ASTM D5185(m)	>3	0	0	
Aluminum	ppm	ASTM D5185(m)	>9	1	3	
Lead	ppm	ASTM D5185(m)	>30	0	<1	
Copper	ppm	ASTM D5185(m)	>35	2	14	
Tin	ppm	ASTM D5185(m)	>4	0	<1	
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)		23	17	
Barium	ppm	ASTM D5185(m)		<1	2	
Molybdenum	ppm	ASTM D5185(m)		51	52	
Manganese	ppm	ASTM D5185(m)		<1	10	
Magnesium	ppm	ASTM D5185(m)		781	759	
Calcium	ppm	ASTM D5185(m)		1196	1211	
Phosphorus	ppm	ASTM D5185(m)		682	662	
Zinc	ppm	ASTM D5185(m)		825	837	
Sulfur	ppm	ASTM D5185(m)		1913	1977	
Lithium	ppm	ASTM D5185(m)		<1	<1	
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>+100	7	33	
Sodium	ppm	ASTM D5185(m)		3	4	
Potassium	ppm	ASTM D5185(m)	>20	<1	2	
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*		0	0	
Nitration	Abs/cm	ASTM D7624*	>20	10.4	11.9	
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.1	22.7	
FLUID DEGRADAT	TION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	18.0	20.2	
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0°C	VISUAL		method	limit/base	current	history1	history2
	White Metal	scalar	Visual*	NONE	NONE		
	Yellow Metal	scalar	Visual*	NONE	NONE		
	Precipitate	scalar	Visual*	NONE	NONE		
	Silt	scalar	Visual*	NONE	NONE		
	Debris	scalar	Visual*	NONE	VLITE		
	Sand/Dirt	scalar	Visual*	NONE	NONE		
Mar22/24	Appearance	scalar	Visual*	NORML	NORML		
Mar2	Odor	scalar	Visual*	NORML	NORML	NORML	
	Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	
	Free Water	scalar	Visual*		NEG	NEG	
	FLUID PROPERT	IES	method	limit/base	current	history1	history2
	Visc @ 100°C	cSt	ASTM D7279(m)		14.1	14.2	
	GRAPHS		()	-			
	Iron (ppm)				Lead (ppm)		
	100 T			6	⁰ Severe		
	80			5			
	Abnormal			4 6.3			
	40-			2			
	20-				0		
	0				0 42		24
	Feb 7/24			Mar2/24	Feb 7/24		Mar22/24
	Aluminum (ppm)				Chromium (pp	om)	
	20 15 Severe				Severe		1
	E 10 - Abnormal			E d	Abnormal		
	5-				2		
	04+10 14				74		/24
	Feb7/24			Mar22/24	Feb7/24		Mar22/24
	Copper (ppm)				Silicon (ppm)		
	80 Severe			20			
	60 -			15			
	a 40 - Abnormal			튭 10	0 - Abnormal		
	20			5	0-		
	0				0		
	Feb7/24			Mar22/24	Feb7/24		Mar22/24
	∽ Viscosity @ 100°C			M	Additives		W
	¹⁸ Abnormal			140	⁰ T	1	
	16			120	0 - calcium		
	Base 14 Abnormal			ā100	0 - John Street Street	J	
	12			80	***************************************		
	10 +				set-		24 +
	Feb7/24			Mar22/24	Feb7/24		Mar22/24
Laboratory Sample No. Lab Number Unique Number Test Package To discuss this sample report, Test denoted (*) outside scope Validity of results and interpret	: 5750778 : MOB 1 (Additional Te contact Customer Servi e of accreditation, (m) mo	Rece Teste Diagr sts: Visu ce at 1-8 ethod mo	ived : 01 ed : 01 nosed : 01 aal) 800-268-213 podified, (e) te	I Apr 2024 I Apr 2024 Apr 2024 - V 1. ested at exter	2200 UPPEF Ves Davis mal lab.	3 JAMES,, MOUNTAIN 1 MOL Co jeff.pa T:	DF HAMILTON RANSIT STOREROOM INT HOPE, ON CA LOR 1W0 ontact: Jeff Parr rr@hamilton.ca (905)546-2424 (905)679-4502

