

OIL ANALYSIS REPORT

[1490879] Machine Id Grande West Vicinity 1849

Component Natural Gas Engine

VALVOLINE PREMIUM BLUE 9200 15W40 (--- GAL)

DIAGNOSIS

Recommendation

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

📥 Wear

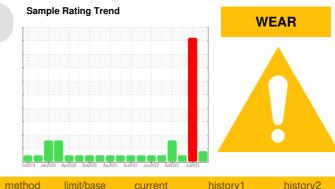
Chromium ppm levels are abnormal. Ring wear is indicated.

Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. Test for glycol is negative. There is no indication of any contamination in the oil.

Fluid Condition

The oil is no longer serviceable as a result of the abnormal and/or severe wear.



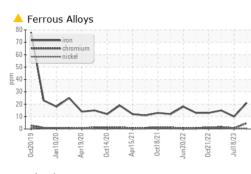
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0878119	WC0830149	WC0767110
Sample Date		Client Info		23 Dec 2023	18 Jul 2023	24 Jan 2023
Machine Age	kms	Client Info		194770	0	166740
Oil Age	kms	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	SEVERE	NORMAL
CONTAMINATION	١	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>50	21	10	15
Chromium	ppm	ASTM D5185(m)	>4	5	<1	2
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	2	3
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>9	2	2	2
Lead	ppm	ASTM D5185(m)	>30	<1	<1	<1
Copper	ppm	ASTM D5185(m)	>35	18	15	34
Tin	ppm	ASTM D5185(m)	>4	0	0	<1
Antimony	ppm	ASTM D5185(m)		0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		20	13	16
Barium	ppm	ASTM D5185(m)		<1	0	0
Molybdenum	ppm	ASTM D5185(m)		48	54	48
Manganese	ppm	ASTM D5185(m)		<1	<1	2
Magnesium	ppm	ASTM D5185(m)		802	848	837
Calcium	ppm	ASTM D5185(m)		1177	1168	1352
Phosphorus	ppm	ASTM D5185(m)		694	756	781
Zinc	ppm	ASTM D5185(m)		821	873	856
Sulfur	ppm	ASTM D5185(m)		1927	1918	1896
Lithium	ppm	ASTM D5185(m)		<1	<1	<1
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>+100	11	8	10
Sodium	ppm	ASTM D5185(m)		7	▲ 40	10
Potassium	ppm		>20	6	▲ 31	1
Glycol	%	ASTM D7922*		0.0	0.387	
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*		0	0	0
			. 20			
Nitration	Abs/cm Abs/.1mm	ASTM D7624*		11.3	13.9	13.9
Sulfation		ASTM D7415*	>30	21.2	23.4	25.1
FLUID DEGRADA		method	limit/base		history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	19.3	21.0	22.0

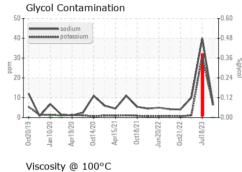
Report Id: HAMHAM [WCAMIS] 02605815 (Generated: 01/03/2024 11:04:51) Rev: 1

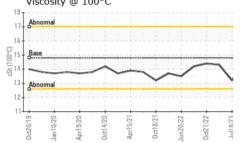
Contact/Location: Jeff Parr - HAMHAM



OIL ANALYSIS REPORT







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

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CALA

ISO 17025:2017 Accredited Laboratory

Laboratory

Sample No. Lab Number

Unique Number Test Package

Contact/Location: Jeff Parr - HAMHAM

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