

## **OIL ANALYSIS REPORT**

### Sample Rating Trend



Machine Id

# Grande West Vicinity 1845

Component Natural Gas Engine

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

#### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

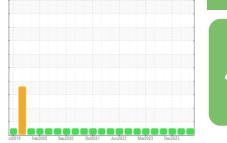
All component wear rates are normal.

#### 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.





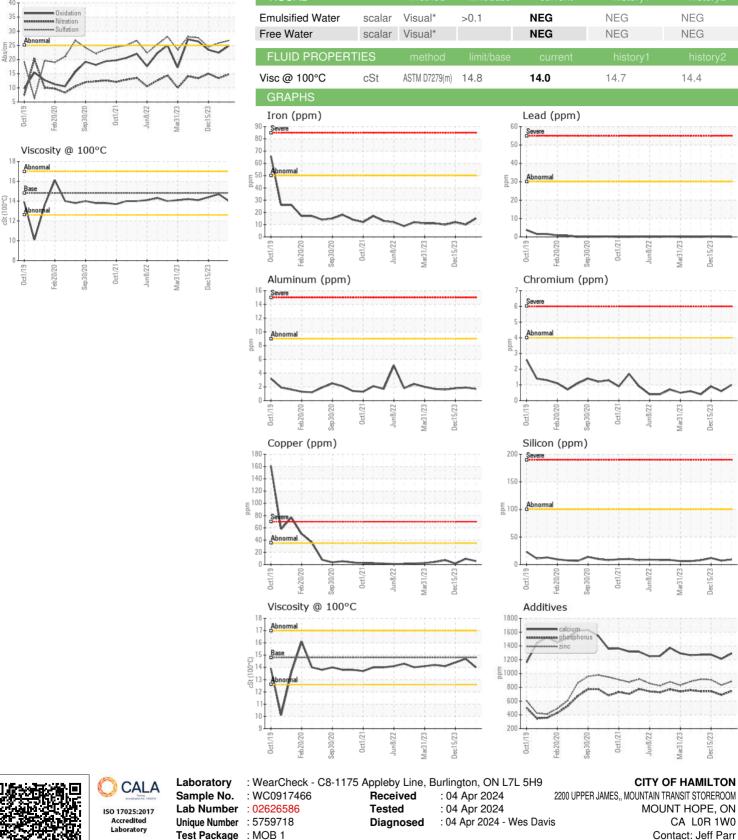
		no otle e el	lingit/le e com		bistowst	bisterryO
SAMPLE INFORM		method	limit/base	current	history1	history2
Sample Number		Client Info		WC0917466	WC0890973	WC0878018
Sample Date		Client Info		30 Mar 2024	08 Jan 2024	15 Dec 2023
Machine Age	kms	Client Info		232538	219399	195198
Oil Age	kms	Client Info		0	0	0
Oil Changed		Client Info		N/A	Changed	N/A
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	٧	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	15	10	12
Chromium	ppm	ASTM D5185(m)	>4	1	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>9	2	2	2
Lead	ppm	ASTM D5185(m)	>30	0	<1	<1
Copper	ppm	ASTM D5185(m)		6	9	2
Tin	ppm	ASTM D5185(m)	>4	0	0	0
Antimony	ppm	ASTM D5185(m)		0	0	0
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
		ASTM D5185(m)				
Deven				6	9	9
Boron	ppm	. /				4
Barium	ppm	ASTM D5185(m)		0	0	<1
Barium Molybdenum	ppm ppm	ASTM D5185(m) ASTM D5185(m)		0 53	0 50	53
Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		0 53 0	0 50 0	53 0
Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		0 53 0 891	0 50 0 801	53 0 870
Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		0 53 0 891 1290	0 50 0 801 1212	53 0 870 1274
Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		0 53 0 891 1290 746	0 50 0 801 1212 690	53 0 870 1274 743
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		0 53 0 891 1290 746 885	0 50 0 801 1212 690 831	53 0 870 1274 743 910
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		0 53 0 891 1290 746 885 1918	0 50 0 801 1212 690 831 1952	53 0 870 1274 743 910 1996
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		0 53 0 891 1290 746 885	0 50 0 801 1212 690 831	53 0 870 1274 743 910
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	0 53 0 891 1290 746 885 1918	0 50 0 801 1212 690 831 1952	53 0 870 1274 743 910 1996
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	0 53 0 891 1290 746 885 1918 <1	0 50 0 801 1212 690 831 1952 <1	53 0 870 1274 743 910 1996 <1
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		0 53 0 891 1290 746 885 1918 <1 <1	0 50 0 801 1212 690 831 1952 <1 history1	53 0 870 1274 743 910 1996 <1 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		0 53 0 891 1290 746 885 1918 <1 <1 current 9	0 50 0 801 1212 690 831 1952 <1 kistory1 7	53 0 870 1274 743 910 1996 <1 history2 12
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>+100	0 53 0 891 1290 746 885 1918 <1 <1 current 9 8	0 50 0 801 1212 690 831 1952 <1 <b>history1</b> 7 17	53 0 870 1274 743 910 1996 <1 history2 12 7
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	>+100 >20	0 53 0 891 1290 746 885 1918 <1 current 9 8 3 3	0 50 0 801 1212 690 831 1952 <1 <b>history1</b> 7 17 3 3 <b>history1</b>	53 0 870 1274 743 910 1996 <1 history2 12 7 2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	>+100 >20 limit/base	0 53 0 891 1290 746 885 1918 <1 current 9 8 3 3 current 0	0 50 0 801 1212 690 831 1952 <1 <b>history1</b> 7 17 3 <b>history1</b> 0	53 0 870 1274 743 910 1996 <1 1996 <1 12 12 12 7 2 2 history2 0
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	>+100 >20 limit/base	0 53 0 891 1290 746 885 1918 <1 current 9 8 3 3 current 0 14.8	0 50 0 801 1212 690 831 1952 <1 <b>history1</b> 7 17 3 <b>history1</b> 0 13.4	53 0 870 1274 743 910 1996 <1 <b>history2</b> 12 7 2 7 2 <b>history2</b> 0 15.0
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7844* ASTM D7624* ASTM D7415*	>+100 >20 limit/base >20 >30	0 53 0 891 1290 746 885 1918 <1 current 9 8 3 3 current 0 14.8 26.7	0 50 0 801 1212 690 831 1952 <1 <b>history1</b> 7 17 3 <b>history1</b> 0 13.4 25.8	53 0 870 1274 743 910 1996 <1 1996 <1 12 7 2 12 7 2 2 history2 0 15.0 24.4
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	>+100 >20 limit/base	0 53 0 891 1290 746 885 1918 <1 current 9 8 3 3 current 0 14.8	0 50 0 801 1212 690 831 1952 <1 <b>history1</b> 7 17 3 <b>history1</b> 0 13.4	53 0 870 1274 743 910 1996 <1 12 12 7 2 12 7 2 history2 0 history2



cSt (100°C)

FT-IR (Direct Trend)

# **OIL ANALYSIS REPORT**



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.

T: (905)546-2424 F: (905)679-4502 Contact/Location: Jeff Parr - HAMHAM

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