

OIL ANALYSIS REPORT

Sample Rating Trend







Machine Id **2264** Component **Natural Gas Engine** Fluid **{not provided} (--- GAL)**

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on 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.

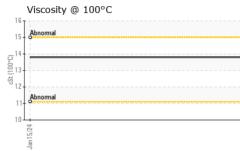
Fluid Condition

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

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0890956		
Sample Date		Client Info		15 Jan 2024		
Machine Age	kms	Client Info		7457		
Oil Age	kms	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				NORMAL		
CONTAMINATION	٧	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>50	45		
Chromium	ppm	ASTM D5185(m)	>4	<1		
Nickel	ppm	ASTM D5185(m)	>2	1		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)	>3	0		
Aluminum	ppm	ASTM D5185(m)	>9	2		
Lead	ppm	ASTM D5185(m)	>30	<1		
Copper	ppm	ASTM D5185(m)	>35	19		
Tin	ppm	ASTM D5185(m)	>4	<1		
Antimony	ppm	ASTM D5185(m)		0		
Vanadium	ppm	ASTM D5185(m)		0		
Beryllium	ppm	ASTM D5185(m)		0		
Cadmium	ppm	ASTM D5185(m)		0		
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185(m)	limit/base	current 19	history1	history2
	ppm ppm		limit/base			
Boron		ASTM D5185(m)	limit/base	19		
Boron Barium	ppm	ASTM D5185(m) ASTM D5185(m)	limit/base	19 2		
Boron Barium Molybdenum	ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	19 2 50		
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	19 2 50 16		
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	19 2 50 16 730		
Boron 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) ASTM D5185(m)	limit/base	19 2 50 16 730 1181	 	
Boron 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) ASTM D5185(m)	limit/base	19 2 50 16 730 1181 668	 	
Boron 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)	limit/base	19 2 50 16 730 1181 668 811	 	
Boron 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) ASTM D5185(m) ASTM D5185(m)	limit/base	19 2 50 16 730 1181 668 811 1970	 	
Boron 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)		19 2 50 16 730 1181 668 811 1970 <1		
Boron 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)	limit/base	19 2 50 16 730 1181 668 811 1970 <1 current	 history1	 history2
Boron 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) ASTM D5185(m)	limit/base	19 2 50 16 730 1181 668 811 1970 <1	 history1 	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	limit/base >+100	19 2 50 16 730 1181 668 811 1970 <1 current 39 5	 history1 	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	limit/base >+100 >20	19 2 50 16 730 1181 668 811 1970 <1 current 39 5 2	 history1 	 history2
Boron 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)	limit/base >+100 >20	19 2 50 16 730 1181 668 811 1970 <1 current 39 5 2 2 current	 history1 history1	 history2 history2
Boron 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 ppm	ASTM D5185(m) ASTM D5185(m)	limit/base >+100 >20 limit/base	19 2 50 16 730 1181 668 811 1970 <1 <i>current</i> 39 5 2 2 <i>current</i> 0	 history1 history1 	 history2 history2
Boron 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*	imit/base >+100 >20 imit/base >20 imit/base	19 2 50 16 730 1181 668 811 1970 <1 <i>current</i> 39 5 2 <i>current</i> 0 12.1 21.6	 history1 history1	 history2 history2 history2
Boron 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)	limit/base >+100 ≥20 limit/base	19 2 50 16 730 1181 668 811 1970 <1 <i>current</i> 39 5 2 <i>current</i> 0 12.1	 history1 history1 history1	 history2 history2



OIL ANALYSIS REPORT



°C	VISUAL		method	limit/base	current	history1	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	NONE		
Jan 15/24	Appearance	scalar	Visual*	NORML	NORML		
Jan 1	Odor	scalar	Visual*	NORML	NORML		
	Emulsified Water	scalar	Visual*	>0.1	NEG		
	Free Water	scalar	Visual*		NEG		
	FLUID PROPERTI	IES	method	limit/base	current	history1	history2
	Visc @ 100°C	cSt	ASTM D7279(m)		13.8		
	GRAPHS						
	Iron (ppm)				Lead (ppm)		
	100			60			
	80			50	1		
	Abnormal			40 툴 30	Abnormal		
	^a 40 -			20			
	20 -			10			
	04			24+	24		24
	Jan 15/24			Jan 15/24	Jan 15/24		Jan 15/24
	→ Aluminum (ppm)			-i	→ Chromium (pp	m)	- -
	²⁰ T						
	15 - Severe				Severe		
				ε,	Abnormal		
	E 10 - Abnormal			Ed 4	+ 0		
	5			2			
					4		4
	an 15/24			Jan 15/24	Jan 15/24		Jan 15/24
				La			- -
	Copper (ppm)			200	Silicon (ppm)		
	Severe			150			
	E 40 - Abnormal			틆 100	Abnormal		
	20-			- 50			
	o L			(
	Jan 15/24			Jan 15/24	Jan 15/24		Jan 15/24
	ج Viscosity @ 100°C			Ча	Additives		- Gi
	16 Abnormal			1400	12	1	
	15 - Abnormal			1200	- calcium		
				톱1000	annana zinc	J	
	······································						
	11- Abnormal			800			
	10 4				24		4
	an 15/.			an 15/.	an 15/.		Jan 15/24
Laboratory Sample No. Lab Number Unique Number Test Package	* WearCheck - C8-117 : WC0890956 F : 02608932 D r : 5710018 D	ecieved liagnose liagnost ests: Vis	ician : We sual)	lington, ON L Jan 2024 Jan 2024 s Davis		I JAMES,, MOUNTAIN T MOU	OF HAMILTO

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