

# **OIL ANALYSIS REPORT**

#### Sample Rating Trend

### VISCOSITY



# EPIROC MT65 TRK219

Component

Hydraulic System

**MOBIL TERESSTIC 68 (--- GAL)** 

#### DIAGNOSIS

#### Recommendation

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using MOB 2 test kits, this testkit includes Particle Count to determine the ISO cleanliness of the fluid.

#### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the component(unconfirmed).

#### Fluid Condition

Viscosity of sample indicates oil is within SAE 90 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The condition of the oil is acceptable for the time in service.

			Aug2023	Sep 2023		
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0750483	WC0750503	
Sample Date		Client Info		07 Sep 2023	15 Aug 2023	
Machine Age	hrs	Client Info		6884	6580	
Oil Age	hrs	Client Info		1000	500	
Oil Changed		Client Info		Not Changd	Changed	
Sample Status				ABNORMAL	ABNORMAL	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	8	2	
Chromium	ppm	ASTM D5185(m)	>10	0	<1	
Nickel	ppm	ASTM D5185(m)	>10	<1	0	
Titanium	ppm	ASTM D5185(m)		0	0	
Silver	ppm	ASTM D5185(m)		<1	0	
Aluminum	ppm	ASTM D5185(m)	>10	0	<1	
Lead	ppm	ASTM D5185(m)	>10	<1	<1	
Copper	ppm	ASTM D5185(m)		<1	2	
Tin	ppm	ASTM D5185(m)	>10	0	0	
Antimony	ppm	ASTM D5185(m)	>10	0	0	
Vanadium	ppm	ASTM D5185(m)		0	0	
Beryllium		ASTM D5185(m)		0	0	
Cadmium	ppm	ASTM D5185(m)		0	0	
Caumum	ppiii					
		. , ,				
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	. , ,	limit/base			history2
		method	limit/base	current	history1	,
Boron	ppm	method ASTM D5185(m)	limit/base	current 74	history1	
Boron Barium	ppm ppm	method  ASTM D5185(m)  ASTM D5185(m)	limit/base	current 74 <1	history1 32 0	
Boron Barium Molybdenum	ppm ppm ppm	method  ASTM D5185(m)  ASTM D5185(m)  ASTM D5185(m)	limit/base	current 74 <1 0	history1 32 0 0	
Boron Barium Molybdenum Manganese	ppm ppm ppm	method  ASTM D5185(m)  ASTM D5185(m)  ASTM D5185(m)  ASTM D5185(m)	limit/base	74 <1 0 0	history1 32 0 0 0	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	method  ASTM D5185(m)  ASTM D5185(m)  ASTM D5185(m)  ASTM D5185(m)  ASTM D5185(m)	limit/base	74 <1 0 0 <1	history1 32 0 0 4	
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	method  ASTM D5185(m)  ASTM D5185(m)  ASTM D5185(m)  ASTM D5185(m)  ASTM D5185(m)  ASTM D5185(m)	limit/base	current 74 <1 0 0 <1 10	history1 32 0 0 4 1133	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	method  ASTM D5185(m)	limit/base	current 74 <1 0 0 <1 10 840	history1  32  0  0  4  1133  590	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185(m)	limit/base	current 74 <1 0 0 <1 10 840 10	history1  32  0  0  4  1133  590  689	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185(m)	limit/base	current 74 <1 0 0 <1 10 840 10 18027	history1  32  0  0  4  1133  590  689  1354	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185(m)		current 74 <1 0 0 <1 10 840 10 18027 <1	history1  32  0  0  4  1133  590  689  1354  <1  history1	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185(m)	limit/base	current  74  <1 0 0 <1 10 840 10 18027 <1 current	history1  32  0  0  4  1133  590  689  1354  <1	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185(m)	limit/base	current 74 <1 0 0 <1 10 840 10 18027 <1 current	history1  32  0  0  4  1133  590  689  1354  <1  history1  3	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185(m)	limit/base >20	current 74 <1 0 0 <1 10 840 10 18027 <1 current 2	history1  32  0  0  4  1133  590  689  1354  <1  history1  3	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185(m)	limit/base >20 >20	current 74 <1 0 0 <1 10 840 10 18027 <1 current 2 2 <1	history1  32  0  0  0  4  1133  590  689  1354  <1  history1  3  2  <1	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium VISUAL	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185(m)  method  ASTM D5185(m) ASTM D5185(m)  ASTM D5185(m)  ASTM D5185(m)  ASTM D5185(m)  ASTM D5185(m)  ASTM D5185(m)	limit/base >20 >20 limit/base NONE	current  74  <1 0 0 <1 10 840 10 18027 <1 current 2 2 <1 current NONE	history1  32  0  0  4  1133  590  689  1354  <1  history1  3  2  <1  history1  NONE	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185(m)  method  ASTM D5185(m) ASTM D5185(m)  ASTM D5185(m)  method	limit/base >20 >20 limit/base	current 74 <1 0 0 <1 10 840 10 18027 <1 current 2 2 <1 current	history1  32  0  0  0  4  1133  590  689  1354  <1  history1  3  2  <1	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185(m)  method  ASTM D5185(m) ASTM D5185(m)  MSTM D5185(m)  MSTM D5185(m)  ASTM D5185(m)  Visual*	limit/base >20 >20 limit/base NONE NONE	current 74 <1 0 0 <1 10 840 10 18027 <1 current 2 2 <1 current NONE NONE NONE	history1  32  0  0  0  4  1133  590  689  1354  <1  history1  3  2  <1  history1  NONE  NONE	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal	ppm	method  ASTM D5185(m)  method ASTM D5185(m) ASTM D5185(m)  Wisual* Visual* Visual*	limit/base >20 >20 limit/base NONE NONE NONE NONE	Current 74 <1 0 0 <1 10 840 10 18027 <1 current 2 2 <1 current NONE NONE NONE NONE	history1  32  0  0  0  4  1133  590  689  1354  <1  history1  3  2  <1  history1  NONE  NONE  NONE	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris	ppm	method  ASTM D5185(m)  method ASTM D5185(m) ASTM D5185(m)  Wisual* Visual* Visual* Visual*	limit/base >20 >20 limit/base NONE NONE NONE NONE NONE NONE	Current 74 <1 0 0 10 18027 <1 Current 2 2 <1 Current NONE NONE NONE NONE NONE NONE	history1  32  0  0  0  4  1133  590  689  1354  <1  history1  3  2 <1  history1  NONE  NONE  NONE  NONE  NONE  NONE  NONE	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt	ppm	method  ASTM D5185(m)  method ASTM D5185(m) ASTM D5185(m)  Wisual* Visual* Visual*	limit/base >20 >20 limit/base NONE NONE NONE NONE	Current 74 <1 0 0 <1 10 840 10 18027 <1 current 2 2 <1 current NONE NONE NONE NONE	history1  32  0  0  0  4  1133  590  689  1354  <1  history1  3  2 <1  history1  NONE  NONE  NONE  NONE	history2 history2

>0.1

scalar Visual\*

scalar Visual\*

NEG

**Emulsified Water** 

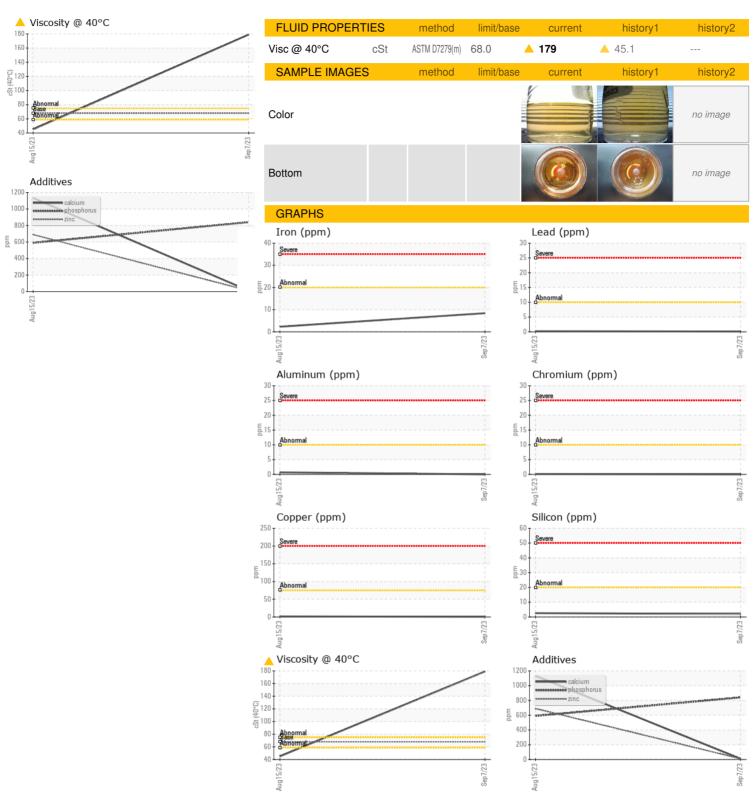
Free Water

NEG

NEG



# **OIL ANALYSIS REPORT**





CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No. Lab Number **Unique Number** Test Package : MOB 1

: WC0750483 : 02588634

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Received Diagnosed : 5657700

: 12 Oct 2023 : 13 Oct 2023 : Kevin Marson Diagnostician

Agnico Eagle Canada 1350 Government Rd. W, MACASSA COMPLEX Kirkland Lake, ON

**CA P2N 3J1** Contact: Mike Campbell

F: (705)567-5221

mike.campbell@agnicoeagle.com T: (705)567-5208

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.