

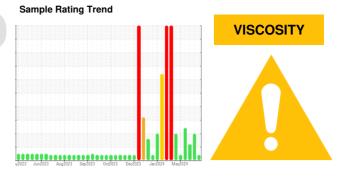
OIL ANALYSIS REPORT

Area 5 Machine Id

5-3-230-D Pump Station for Atox Roller Lube

Reservoir Bearing Lube

MOBIL SHC 639 (1000 LTR)



DIAGNOSIS

Recommendation

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 IND 3 test kits, this testkit includes Analytical Ferrography which provides a detailed morphological analysis of wear particles present in the fluid.

Component wear rates appear to be normal (unconfirmed).

Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

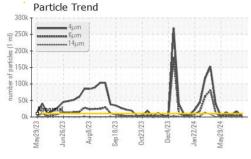
Fluid Condition

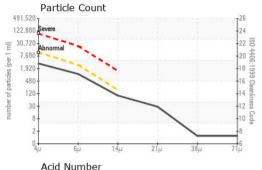
Viscosity of sample indicates oil is within ISO 460 range, advise investigate. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0912456	WC0912457	WC0873673
Sample Date		Client Info		25 Jun 2024	17 Jun 2024	10 Jun 2024
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
CONTAMINATION	N	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>120	<1	<1	<1
Chromium	ppm	ASTM D5185(m)	>5	0	0	0
Nickel	ppm	ASTM D5185(m)	>20	<1	<1	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	0	0
Aluminum	ppm	ASTM D5185(m)	>4	<1	<1	0
Lead	ppm	ASTM D5185(m)	>30	0	0	0
Copper	ppm	ASTM D5185(m)	>17	<1	<1	0
Tin	ppm	ASTM D5185(m)	>10	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
ADDITIVES Boron	ppm	method ASTM D5185(m)	limit/base 0.2	current <1	history1 <1	history2 <1
Boron Barium	ppm ppm					
Boron		ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0.2	<1	<1 0 0	<1
Boron Barium Molybdenum Manganese	ppm	ASTM D5185(m) ASTM D5185(m)	0.2	<1 0	<1 0	<1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0.2 0.0 0.0 0.0 0.0	<1 0 0 0 0	<1 0 0 0 0 <1	<1 0 0 0
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0.2 0.0 0.0 0.0 0.0 0.6 0.0	<1 0 0 0 0 0 0	<1 0 0 0 0 <1 <1	<1 0 0 0 0 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185(m)	0.2 0.0 0.0 0.0 0.6 0.0 691	<1 0 0 0 0 0 <1 364	<1 0 0 0 0 <1 <1 <1 371	<1 0 0 0 0 0 0 0 373
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185(m)	0.2 0.0 0.0 0.0 0.6 0.0 691 2.0	<1 0 0 0 0 0 <1 364 2	<1 0 0 0 0 <1 <1 <1 371 <1	<1 0 0 0 0 0 0 0 373 <1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	0.2 0.0 0.0 0.0 0.6 0.0 691	<1 0 0 0 0 0 <1 364 2 47	<1 0 0 0 0 <1 <1 <1 371 <1 120	<1 0 0 0 0 0 0 0 373 <1 237
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	0.2 0.0 0.0 0.0 0.6 0.0 691 2.0	<1 0 0 0 0 0 <1 364 2	<1 0 0 0 <1 <1 371 <1 120 <1	<1 0 0 0 0 0 0 0 373 <1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	0.2 0.0 0.0 0.0 0.6 0.0 691 2.0	<1 0 0 0 0 0 <1 364 2 47	<1 0 0 0 0 <1 <1 371 <1 120 <1	<1 0 0 0 0 0 0 0 373 <1 237 <1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) method ASTM D5185(m)	0.2 0.0 0.0 0.0 0.6 0.0 691 2.0 18	<1 0 0 0 0 0 <1 364 2 47 <1 current	<1 0 0 0 0 <1 <1 371 <1 120 <1 history1	<1 0 0 0 0 0 0 373 <1 237 <1 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	0.2 0.0 0.0 0.0 0.6 0.0 691 2.0 18	<1 0 0 0 0 0 <1 364 2 47 <1	<1 0 0 0 0 <1 <1 371 <1 120 <1	<1 0 0 0 0 0 0 0 373 <1 237 <1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) method ASTM D5185(m)	0.2 0.0 0.0 0.0 0.6 0.0 691 2.0 18	<1 0 0 0 0 0 <1 364 2 47 <1 current	<1 0 0 0 0 <1 <1 371 <1 120 <1 history1	<1 0 0 0 0 0 0 373 <1 237 <1 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)	0.2 0.0 0.0 0.0 0.6 0.0 691 2.0 18	<1 0 0 0 0 <1 364 2 47 <1 current 12	<1 0 0 0 <1 <1 <1 371 <1 120 <1 history1 12	<1 0 0 0 0 0 0 373 <1 237 <1 history2 11 0
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)	0.2 0.0 0.0 0.0 0.6 0.0 691 2.0 18 limit/base >25 >20	<1 0 0 0 0 0 <1 364 2 47 <1 current 12 0	<1 0 0 0 0 <1 <1 371 <1 120 <1 history1 12 0	<1 0 0 0 0 0 0 373 <1 237 <1 history2 11 0 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0.2 0.0 0.0 0.0 0.0 0.6 0.0 691 2.0 18 limit/base	<1 0 0 0 0 <1 364 2 47 <1 current 12 0 0	<1 0 0 0 0 <1 <1 371 <1 120 <1 history1 12 0 history1	<1 0 0 0 0 0 0 373 <1 237 <1 history2 11 0 0 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) MASTM D5185(m) MASTM D5185(m) MASTM D5185(m) MASTM D5185(m) ASTM D7647 ASTM D7647	0.2 0.0 0.0 0.0 0.6 0.0 691 2.0 18 limit/base >25 >20 limit/base >10000 >2500 >160	<1 0 0 0 0 0 <1 364 2 47 <1 current 12 0 0 current 2965 931 86	<1 0 0 0 <1 <1 371 <1 120 <1 history1 12 0 0 history1	<1 0 0 0 0 0 0 373 <1 237 <1 history2 11 0 0 history2 4870
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) MASTM D5185(m) MASTM D5185(m) METHOD ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647	0.2 0.0 0.0 0.0 0.0 0.6 0.0 691 2.0 18 limit/base >25 >20 limit/base >10000 >2500 >40	<1 0 0 0 0 0 <1 364 2 47 <1 current 12 0 0 current 2965 931	<1 0 0 0 0 <1 <1 371 <1 120 <1 history1 12 0 0 history1 16415 5252	<1 0 0 0 0 0 0 373 <1 237 <1 history2 11 0 0 history2 4870 2018 210 51
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) 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) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	0.2 0.0 0.0 0.0 0.0 0.6 0.0 691 2.0 18 limit/base >25 >20 limit/base >10000 >2500 >160 >40 >10	<1 0 0 0 0 0 <1 364 2 47 <1 current 12 0 0 current 2965 931 86 25 1	<1 0 0 0 0 <1 <1 <1 371 <1 120 <1 history1 12 0 0 history1 16415 5252 239 52 2	<1 0 0 0 0 0 0 373 <1 237 <1 history2 11 0 0 history2 4870 2018 210 51 3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) MASTM D5185(m) MASTM D5185(m) METHOD ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647	0.2 0.0 0.0 0.0 0.0 0.6 0.0 691 2.0 18 limit/base >25 >20 limit/base >10000 >2500 >40	<1 0 0 0 0 0 <1 364 2 47 <1 current 12 0 0 current 2965 931 86 25	<1 0 0 0 0 <1 <1 371 <1 120 <1 history1 12 0 0 history1 16415 ▲ 5252 239 52	<1 0 0 0 0 0 0 373 <1 237 <1 history2 11 0 0 history2 4870 2018 210 51

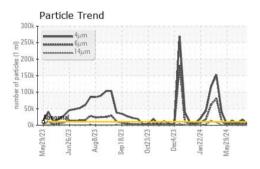


OIL ANALYSIS REPORT

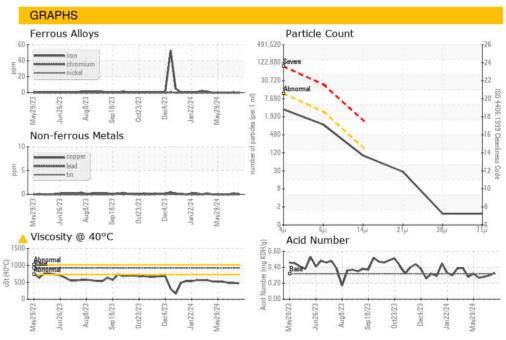








FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.32	0.33	0.30	0.28
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG
FLUID PROPERT	ΓIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	923	<u> 471</u>	▲ 480	▲ 479
SAMPLE IMAGES		method	limit/base	current	history1	history2
Color						







Laboratory Sample No.

Lab Number : 02644357 Unique Number : 5801896

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 : WC0912456

Received **Tested**

: 27 Jun 2024 : 28 Jun 2024

Diagnosed : 28 Jun 2024 - Kevin Marson

Test Package : IND 2 (Additional Tests: TAN Man) To discuss this sample report, contact Customer Service at 1-800-268-2131.

Bottom

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.

ST. MARYS CEMENT CO.

400 BOWMANVILLE AVENUE BOWMANVILLE, ON

CA L1C 7B5 Contact: Carlos Barberi carlos.barberi@vcimentos.com

> T: (905)623-3341 F: (905)623-4695

Submitted By: ?