



OIL ANALYSIS REPORT

Sample Rating Trend

WATER

Area

5

Machine Id

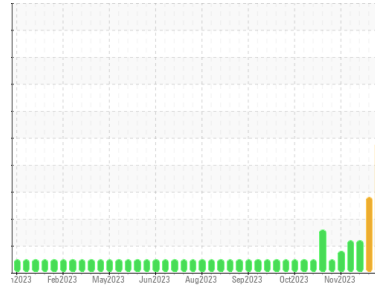
5-3-241 Pump Station for Atox GBOX Lube

Component

Gearbox

Fluid

MOBIL MOBILGEAR 600 XP 320 (4400 LTR)



DIAGNOSIS

▲ Recommendation

We advise that you check for the source of water entry. Check seals and/or filters for points of contaminant entry. We advise that you check all areas where dirt can enter the system. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We advise that you follow the water drain-off procedure for this component. We recommend an early resample to monitor this condition.

▲ Wear

Historical wear metal increases have stabilized.

▲ Contamination

Free water present. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Fluid Condition

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0883471	WC0883473	WC0883469
Sample Date	Client Info		15 Jan 2024	09 Jan 2024	18 Dec 2023
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

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>200 ▲ 54	▲ 53	<1
Chromium	ppm	ASTM D5185(m)	>15 <1	<1	0
Nickel	ppm	ASTM D5185(m)	>15 <1	<1	<1
Titanium	ppm	ASTM D5185(m)	0	0	0
Silver	ppm	ASTM D5185(m)	<1	0	0
Aluminum	ppm	ASTM D5185(m)	>25 18	18	<1
Lead	ppm	ASTM D5185(m)	>100 <1	<1	0
Copper	ppm	ASTM D5185(m)	>200 <1	<1	<1
Tin	ppm	ASTM D5185(m)	>25 <1	0	0
Antimony	ppm	ASTM D5185(m)	>5 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
Boron	ppm	ASTM D5185(m)	57 2	2	0
Barium	ppm	ASTM D5185(m)	0.0 0	0	0
Molybdenum	ppm	ASTM D5185(m)	2.0 0	0	0
Manganese	ppm	ASTM D5185(m)	0.0 0	0	0
Magnesium	ppm	ASTM D5185(m)	0.0 9	9	0
Calcium	ppm	ASTM D5185(m)	42 256	▲ 254	▲ <1
Phosphorus	ppm	ASTM D5185(m)	399 248	261	381
Zinc	ppm	ASTM D5185(m)	13 14	16	1
Sulfur	ppm	ASTM D5185(m)	13649 9282	8915	▲ 227
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>50 ▲ 52	▲ 51	15
Sodium	ppm	ASTM D5185(m)	1	1	0
Potassium	ppm	ASTM D5185(m)	>20 0	11	<1
Water	%	ASTM D6304*	>0.2 0.117	---	---
ppm Water	ppm	ASTM D6304*	>2000 1176	---	---

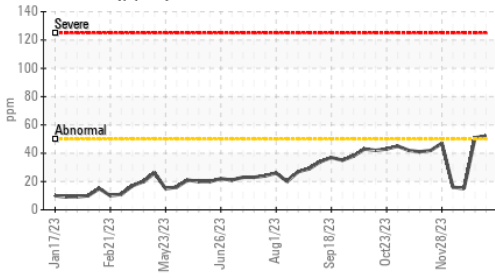
FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		411073	185382	22445
Particles >6µm	ASTM D7647	>320000	248535	138072	5331
Particles >14µm	ASTM D7647	>160000	2196	9422	178
Particles >21µm	ASTM D7647	>40000	69	560	26
Particles >38µm	ASTM D7647	>10000	1	5	0
Particles >71µm	ASTM D7647	>2500	0	1	0
Oil Cleanliness	ISO 4406 (c)	>--/25/24	26/25/18	25/24/20	22/20/15

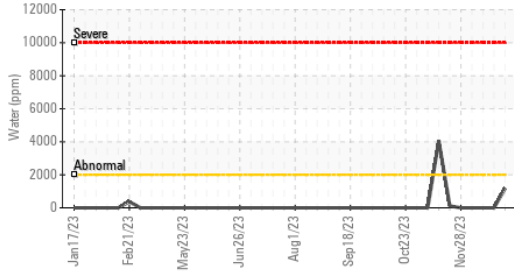


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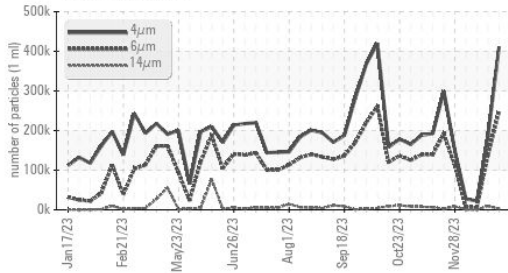
▲ Silicon (ppm)



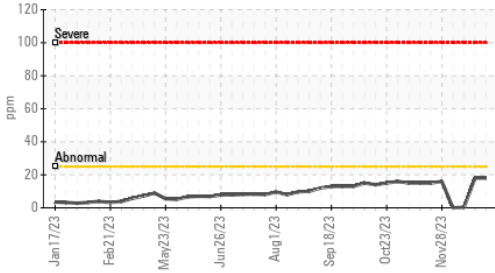
Water (KF)



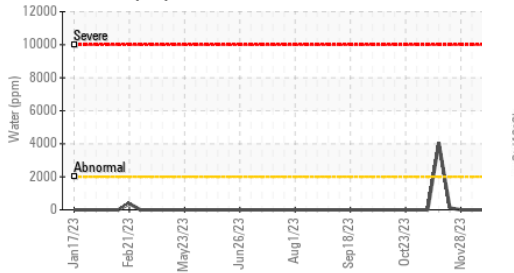
Particle Trend



Aluminum (ppm)



Water (KF)



FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN) mg KOH/g	ASTM D974*	0.68	0.16	0.27	0.48

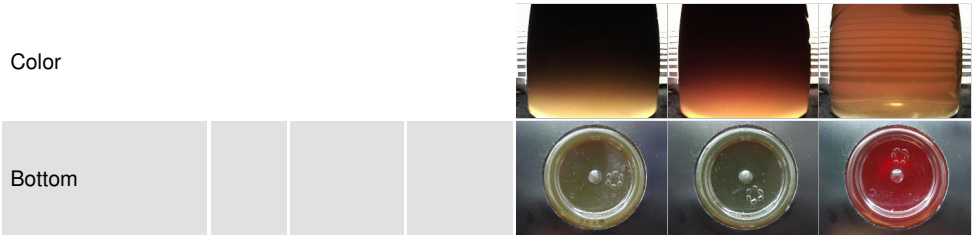
VISUAL

method	limit/base	current	history1	history2	
White Metal	scalar	Visual*	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	▲ WGOIL	NORML
Odor	scalar	Visual*	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	.2%	NEG
Free Water	scalar	Visual*		▲ 1%	NEG

FLUID PROPERTIES

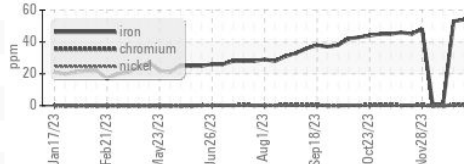
method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D7279(m)	275	311	309

SAMPLE IMAGES

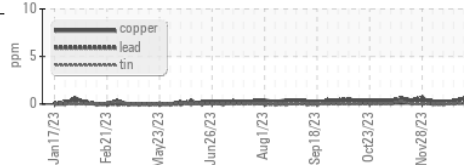


GRAPHS

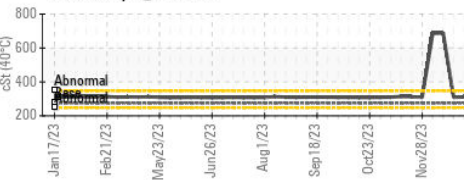
▲ Ferrous Alloys



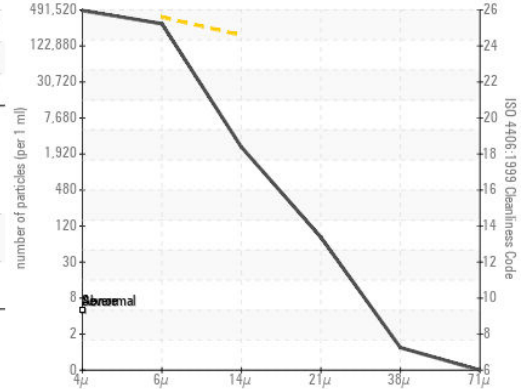
Non-ferrous Metals



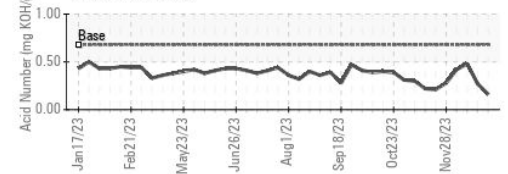
Viscosity @ 40°C



Particle Count



Acid Number



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0883471 **Received** : 17 Jan 2024
Lab Number : **02609527** **Diagnosed** : 22 Jan 2024
Unique Number : 5710613 **Diagnostician** : Kevin Marson
Test Package : IND 2 (Additional Tests: KF)

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.

ST. MARYS CEMENT CO.
 400 BOWMANVILLE AVENUE
 BOWMANVILLE, ON
 CA L1C 7B5
 Contact: Lou Traiforos
 lou.traiforos@vcimentos.com
 T: (905)440-5874
 F: (905)623-4695