



OIL ANALYSIS REPORT

Sample Rating Trend

VISCOSITY

Area

5

Machine Id

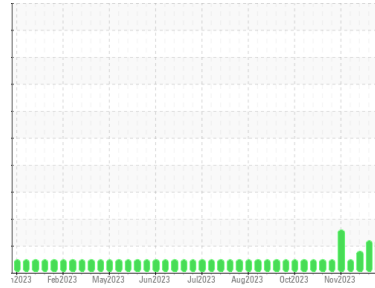
5-3-241 Pump Station for Atox GBOX Lube

Component

Gearbox

Fluid

MOBIL MOBILGEAR 600 XP 320 (4400 LTR)



DIAGNOSIS

Recommendation

We advise that you check all areas where contaminants 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 perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. The fluid was specified as MOBIL MOBILGEAR 600 XP 320, however, a fluid match indicates that this fluid is ISO 680 Synthetic (PAG) Gear Oil. Please confirm the oil type and grade on your next sample. 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.

Wear

Component wear rates appear to be normal (unconfirmed).

Contamination

Calcium and/or magnesium levels higher than normal indicating possible contamination with cement dust, advise investigate. The system and fluid cleanliness is acceptable.

Fluid Condition

Viscosity of sample indicates oil is within ISO 680 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The AN level is acceptable for this fluid.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0883469	WC0883472	WC0842676
Sample Date	Client Info		18 Dec 2023	11 Dec 2023	28 Nov 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

CONTAMINATION

	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)	>200	<1	<1	48
Chromium	ppm	ASTM D5185(m)	>15	0	0	<1
Nickel	ppm	ASTM D5185(m)	>15	<1	0	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	<1	<1
Aluminum	ppm	ASTM D5185(m)	>25	<1	0	16
Lead	ppm	ASTM D5185(m)	>100	0	0	<1
Copper	ppm	ASTM D5185(m)	>200	<1	<1	<1
Tin	ppm	ASTM D5185(m)	>25	0	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	0	<1	2
Barium	ppm	ASTM D5185(m)	0.0	0	<1	<1
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	0	0	8
Calcium	ppm	ASTM D5185(m)	42	<1	1	222
Phosphorus	ppm	ASTM D5185(m)	399	381	388	261
Zinc	ppm	ASTM D5185(m)	13	1	1	17
Sulfur	ppm	ASTM D5185(m)	13649	227	95	8494
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

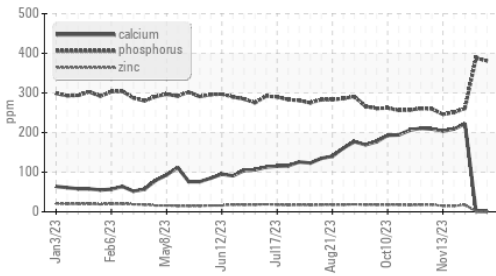
CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>50	15	16	47
Sodium	ppm	ASTM D5185(m)		0	<1	1
Potassium	ppm	ASTM D5185(m)	>20	<1	0	6

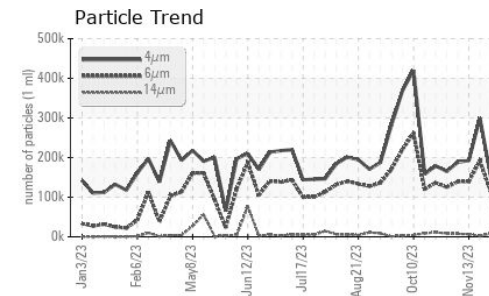
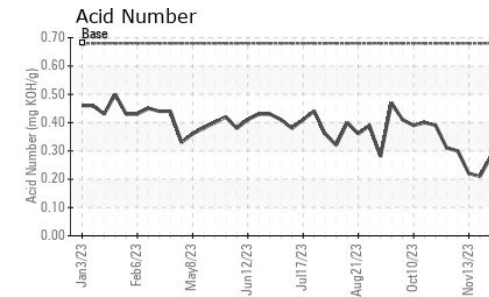
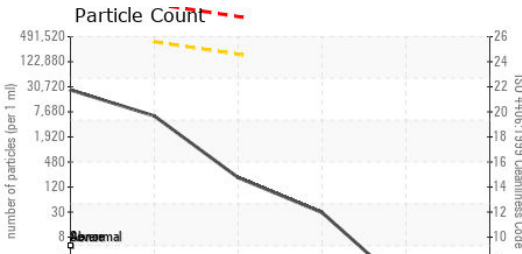
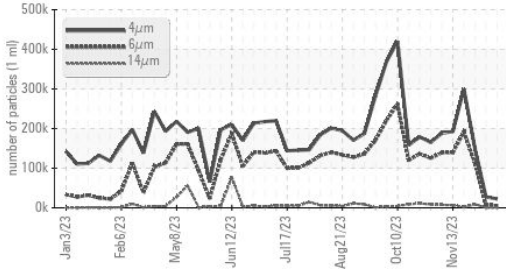
FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		22445	27530	148710
Particles >6µm	ASTM D7647	>320000	5331	7730	112034
Particles >14µm	ASTM D7647	>160000	178	382	8928
Particles >21µm	ASTM D7647	>40000	26	73	659
Particles >38µm	ASTM D7647	>10000	0	1	8
Particles >71µm	ASTM D7647	>2500	0	0	3
Oil Cleanliness	ISO 4406 (c)	>--/25/24	22/20/15	22/20/16	24/24/20

Additives



Particle Trend



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0883469 **Received** : 22 Dec 2023
Lab Number : 02605123 **Diagnosed** : 27 Dec 2023
Unique Number : 5698208 **Diagnostician** : Kevin Marson
Test Package : IND 2 (Additional Tests: TAN Man)

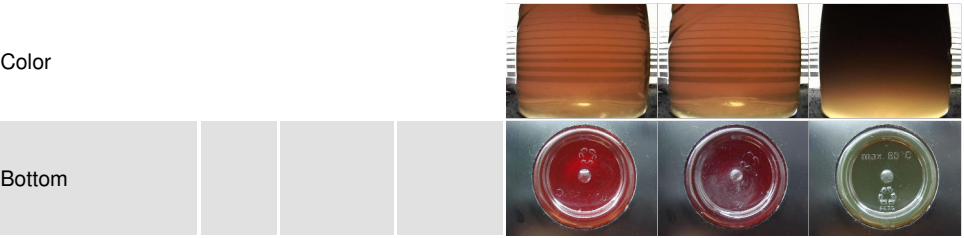
To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.68	0.48	0.42	0.28

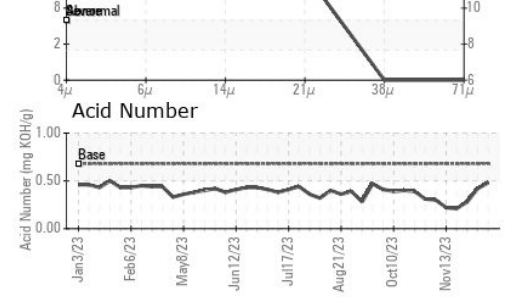
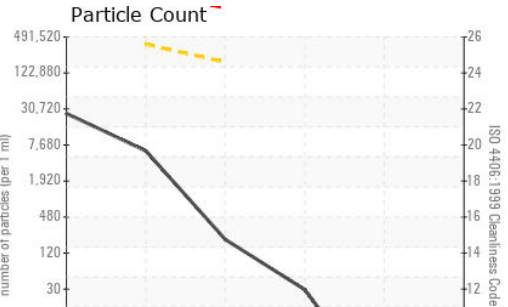
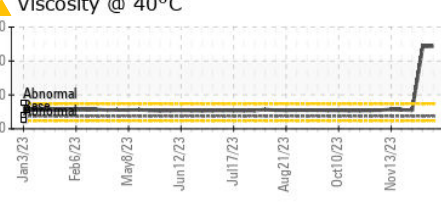
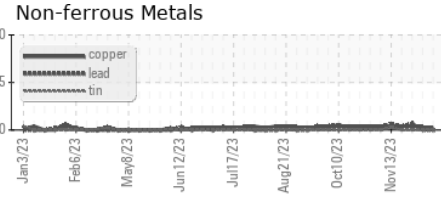
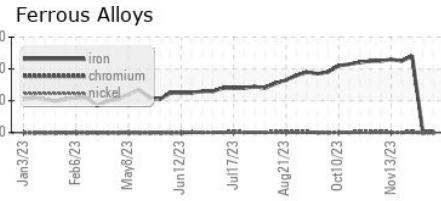
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	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 PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	275	▲ 688	▲ 685	309

SAMPLE IMAGES



GRAPHS



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