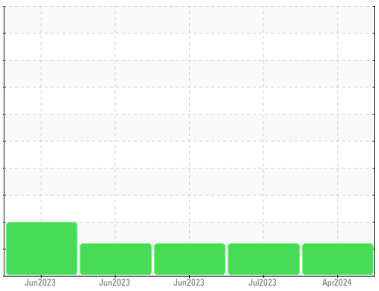
OIL ANALYSIS REPORT

Sample Rating Trend



ISO

Machine Id
MORBARK 6400XT 195-1048
Component
Hydraulic System
Fluid
AW HYDRAULIC OIL ISO 46 (--- GAL)

DIAGNOSIS

Recommendation
No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
There is a high amount of silt (particulates < 14 microns in size) present in the oil.

Fluid Condition
The AN level is acceptable for this fluid. The condition of the oils additive package is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**RH0002045**	JR0173372	JR0173704
Sample Date		Client Info		**29 Apr 2024**	31 Jul 2023	14 Jun 2023
Machine Age	hrs	Client Info		**3790**	3166	3062
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**Not Changd**	N/A	N/A
Sample Status				**ABNORMAL**	ATTENTION	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.1	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		**16**	10	12
Iron	ppm	ASTM D5185m	>20	**2**	<1	6
Chromium	ppm	ASTM D5185m	>10	**<1**	0	<1
Nickel	ppm	ASTM D5185m	>10	**<1**	0	0
Titanium	ppm	ASTM D5185m		**<1**	0	0
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>10	**2**	<1	0
Lead	ppm	ASTM D5185m	>10	**<1**	0	<1
Copper	ppm	ASTM D5185m	>75	**2**	3	7
Tin	ppm	ASTM D5185m	>10	**<1**	0	0
Vanadium	ppm	ASTM D5185m		**0**	<1	0
Cadmium	ppm	ASTM D5185m		**<1**	0	0

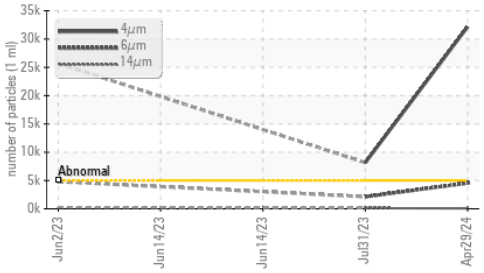
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	5	**0**	0	60
Barium	ppm	ASTM D5185m	5	**0**	0	0
Molybdenum	ppm	ASTM D5185m	5	**2**	3	52
Manganese	ppm	ASTM D5185m		**<1**	0	0
Magnesium	ppm	ASTM D5185m	25	**4**	7	154
Calcium	ppm	ASTM D5185m	200	**33**	64	457
Phosphorus	ppm	ASTM D5185m	300	**520**	645	670
Zinc	ppm	ASTM D5185m	370	**272**	44	322
Sulfur	ppm	ASTM D5185m	2500	**756**	213	1037

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	**2**	<1	3
Sodium	ppm	ASTM D5185m		**2**	<1	0
Potassium	ppm	ASTM D5185m	>20	**<1**	0	2

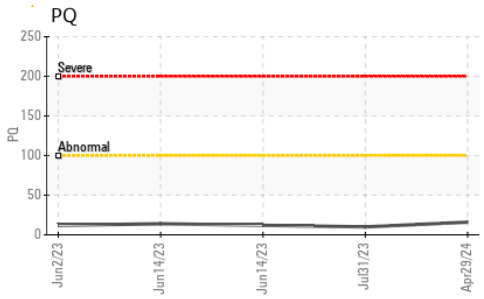
FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	▲ **32136**	8144	---
Particles >6µm	ASTM D7647	>1300	▲ **4556**	2133	---
Particles >14µm	ASTM D7647	>160	**64**	117	---
Particles >21µm	ASTM D7647	>40	**6**	27	---
Particles >38µm	ASTM D7647	>10	**0**	2	---
Particles >71µm	ASTM D7647	>3	**0**	0	---
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ **22/19/13**	20/18/14	---

OIL ANALYSIS REPORT

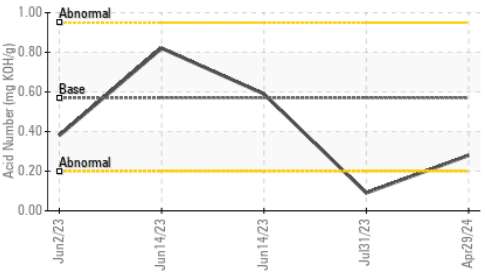
Particle Trend



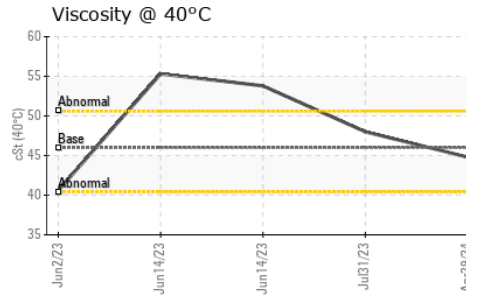
PQ



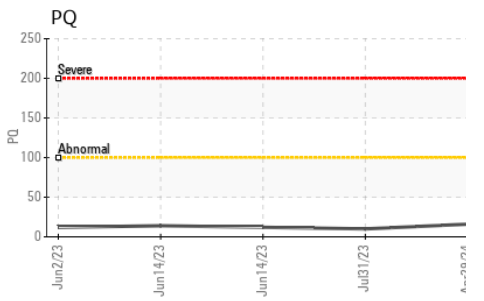
Acid Number



Viscosity @ 40°C



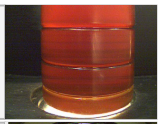
PQ



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	**0.28**	0.09	0.59

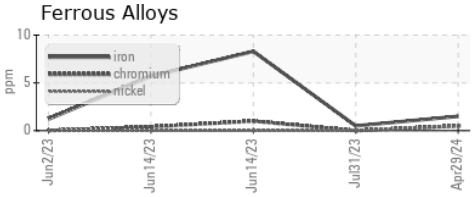
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	▲ MODER
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46	**44.8**	48.0	53.8

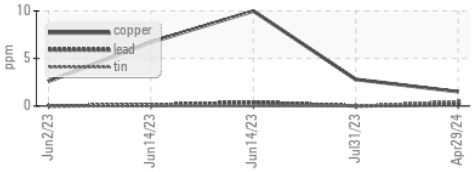
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				*no image*	
Bottom				*no image*	

GRAPHS

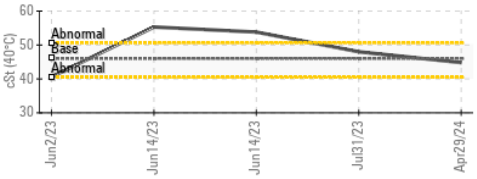
Ferrous Alloys



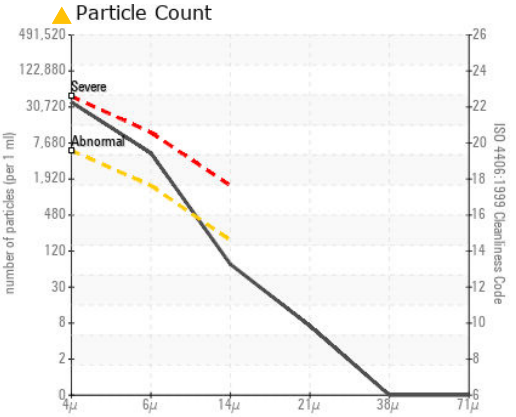
Non-ferrous Metals



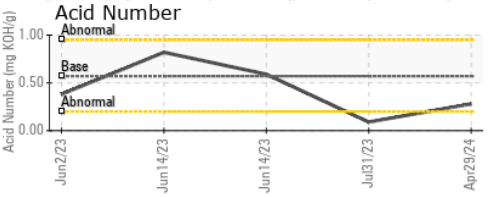
Viscosity @ 40°C



Particle Count



Acid Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RH0002045
Lab Number : 06211488
Unique Number : 11084352
Test Package : MOB 2 (Additional Tests: PQ)

Received : 17 Jun 2024
Tested : 18 Jun 2024
Diagnosed : 19 Jun 2024 - Don Baldridge

Certificate L2367

To discuss this sample report, contact Customer Service at 1-800-237-1369.
** - Denotes test methods that are outside of the ISO 17025 scope of accreditation.*
Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

JRE - CASTLE HAYNE
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CASTLE HAYNE, NC
US 28429-5819
Contact: WILMINGTON SHOP
todd.simmons@jamesriverequipment.com;canastasio@wearcheck.com;canastasio@we
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Report Id: RWMCAS [WUSCAR] 06211488 (Generated: 06/19/2024 13:50:42) Rev: 1
Contact/Location: WILMINGTON SHOP - RWMCAS