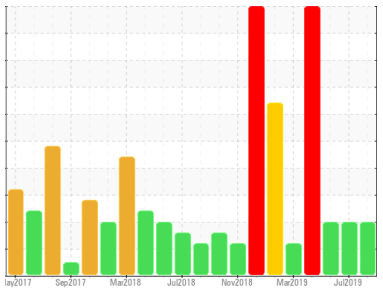
OIL ANALYSIS REPORT

Sample Rating Trend



VISUAL METAL

Area
RAW MATS
Machine Id
1 REFINER DOOR
Component
Gearbox
Fluid
MOBIL SHC 636 (2 GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component if applicable. We advise that you inspect for the source(s) of wear. Resample at the next service interval to monitor. We were unable to perform a particle count due to metal particles present in this sample.

Wear

High concentration of visible metal present. Gear wear is indicated.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0370939**	WC0351483	WC0341568
Sample Date		Client Info		**31 Jul 2019**	08 Jul 2019	03 Jun 2019
Machine Age	days	Client Info		**0**	0	0
Oil Age	days	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	Not Changd
Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		**731**	869	938
Iron	ppm	ASTM D5185m	>200	▲ **234**	▲ 220	▲ 195
Chromium	ppm	ASTM D5185m	>15	**<1**	<1	0
Nickel	ppm	ASTM D5185m	>15	**1**	<1	<1
Titanium	ppm	ASTM D5185m		**0**	0	0
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>25	**<1**	0	0
Lead	ppm	ASTM D5185m	>100	**0**	0	<1
Copper	ppm	ASTM D5185m	>200	**<1**	<1	<1
Tin	ppm	ASTM D5185m	>25	**<1**	<1	0
Antimony	ppm	ASTM D5185m		**0**	0	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

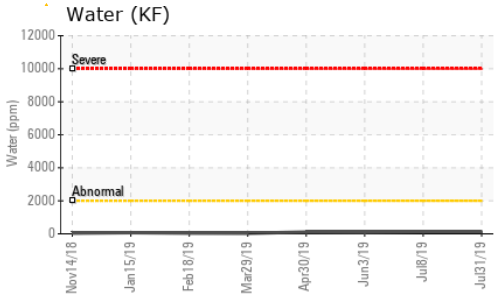
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**21**	21	17
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**0**	0	0
Manganese	ppm	ASTM D5185m		**<1**	<1	<1
Magnesium	ppm	ASTM D5185m		**0**	<1	0
Calcium	ppm	ASTM D5185m		**42**	40	29
Phosphorus	ppm	ASTM D5185m		**220**	214	204
Zinc	ppm	ASTM D5185m		**<1**	<1	0
Sulfur	ppm	ASTM D5185m		**9013**	10374	5974

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	**9**	7	7
Sodium	ppm	ASTM D5185m		**0**	<1	2
Potassium	ppm	ASTM D5185m	>20	**<1**	1	0
Water	%	ASTM D6304	>0.2	**0.013**	0.013	0.009
ppm Water	ppm	ASTM D6304	>2000	**130.4**	130	90

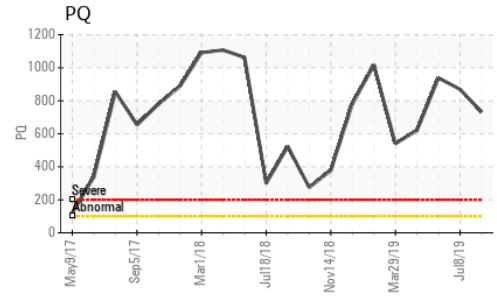
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>1300	**---**	---	---
Particles >6µm		ASTM D7647	>320	**---**	---	---
Particles >14µm		ASTM D7647	>40	**---**	---	---
Particles >21µm		ASTM D7647	>10	**---**	---	---
Particles >38µm		ASTM D7647	>3	**---**	---	---
Particles >71µm		ASTM D7647	>3	**---**	---	---
Oil Cleanliness		ISO 4406 (c)	>17/15/12	**---**	---	---

OIL ANALYSIS REPORT

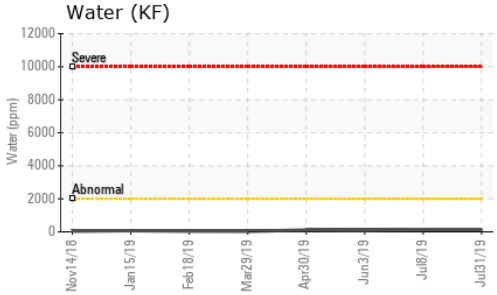
Water (KF)



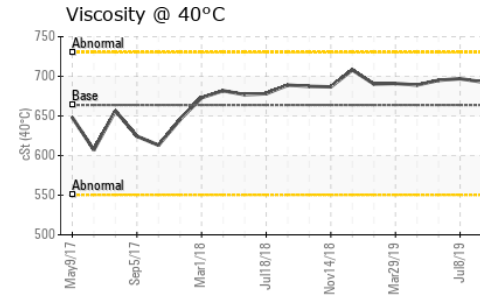
PQ



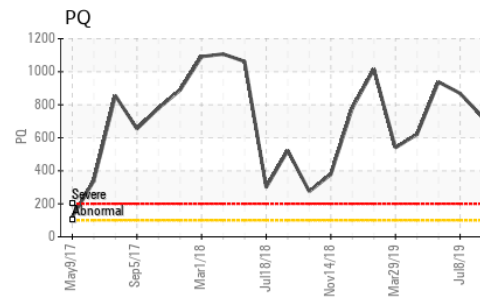
Water (KF)



Viscosity @ 40°C



PQ

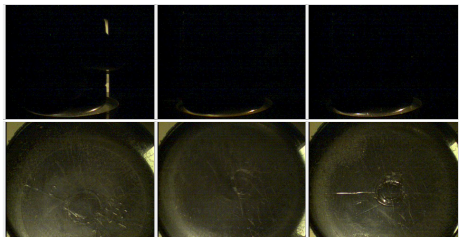


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.725**	0.784	0.605

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	▲ **HEAVY**	▲ MODER	▲ 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	>0.2	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

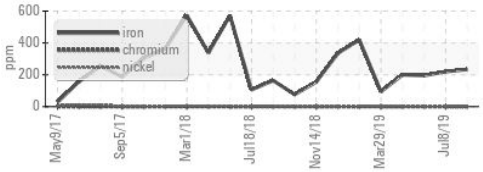
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	663.8	**693**	697	695

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

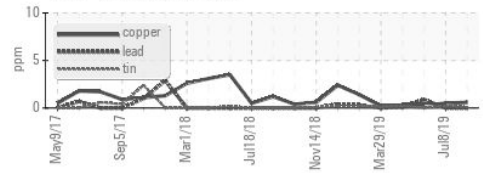


GRAPHS

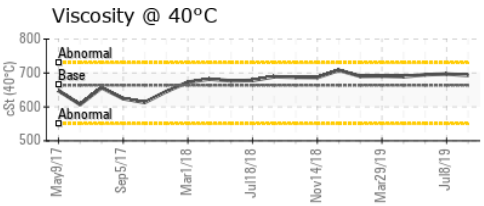
▲ Ferrous Alloys



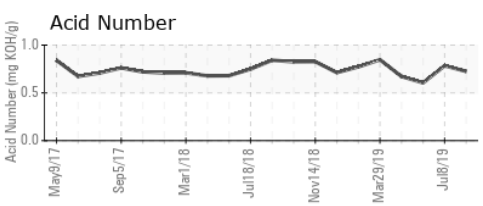
Non-ferrous Metals



Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0370939
Lab Number : 04771269
Unique Number : 8694061
Test Package : IND 2 (Additional Tests: KF, PQ, PrtCount)

Received : 07 Aug 2019
Tested : 12 Aug 2019
Diagnosed : 12 Aug 2019 - Jonathan Hester

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)

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Report Id: JAMPUL [WUSCAR] 04771269 (Generated: 02/23/2024 07:21:25) Rev: 1

Submitted By: Derek Stoots