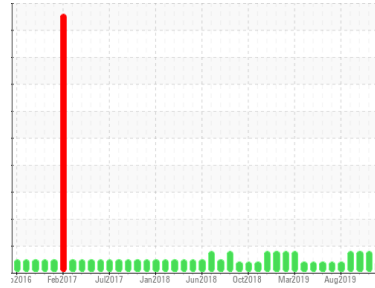


Machine Id
Press #3 6561231
 Component
Hydraulic System
 Fluid
SHELL TELLUS S2 M 46 (251 GAL)



DIAGNOSIS

Recommendation
 Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear
 All component wear rates are normal.

Contamination
 MPC (Membrane Patch Colorimetry) test indicates a moderate concentration of varnish present. The amount and size of particulates present in the system are acceptable.

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			PTK0000213	PTKM2327676	PTKM2327686
Sample Date	Client Info			17 Dec 2019	19 Nov 2019	28 Oct 2019
Machine Age	hrs	Client Info		33162	32643	32229
Oil Age	hrs	Client Info		445	5001	4587
Oil Changed	Client Info			Changed	Not Changd	Not Changd
Sample Status				MARGINAL	SEVERE	SEVERE

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

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	0	<1	<1
Chromium	ppm	ASTM D5185m	>10	0	0	<1
Nickel	ppm	ASTM D5185m		<1	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		<1	0	0
Aluminum	ppm	ASTM D5185m	>10	0	0	0
Lead	ppm	ASTM D5185m	>10	<1	<1	0
Copper	ppm	ASTM D5185m	>75	<1	<1	<1
Tin	ppm	ASTM D5185m	>10	0	0	0
Antimony	ppm	ASTM D5185m		0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

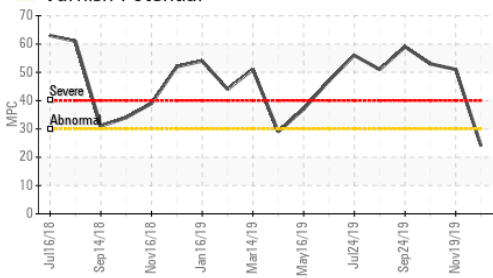
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<1	0	<1
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	<1	0
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m		0	<1	0
Calcium	ppm	ASTM D5185m		27	5	6
Phosphorus	ppm	ASTM D5185m		281	254	267
Zinc	ppm	ASTM D5185m		333	242	243
Sulfur	ppm	ASTM D5185m		666	570	339

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	0	<1	4
Sodium	ppm	ASTM D5185m		0	0	<1
Potassium	ppm	ASTM D5185m	>20	0	<1	<1

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		237	214	237
Particles >6µm		ASTM D7647	>2500	54	89	80
Particles >14µm		ASTM D7647	>320	6	21	10
Particles >21µm		ASTM D7647	>80	3	14	4
Particles >38µm		ASTM D7647	>20	1	0	1
Particles >71µm		ASTM D7647	>4	0	0	0
Oil Cleanliness		ISO 4406 (c)	>18/15	15/13/10	15/14/12	15/13/10

OIL ANALYSIS REPORT

▲ Varnish Potential



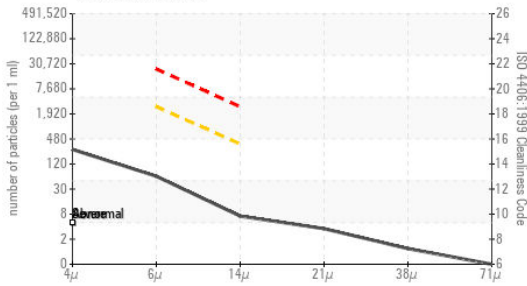
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.315	0.379	0.366
MPC Varnish Potential	Scale	ASTM D7843	>15	▲ 24	51	53

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	>0.1	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

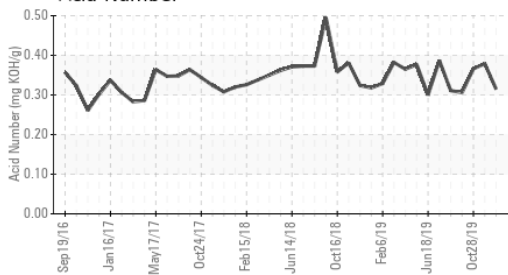
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46.0	45.8	45.7	45.5

SAMPLE IMAGES		method	limit/base	current	history1	history2
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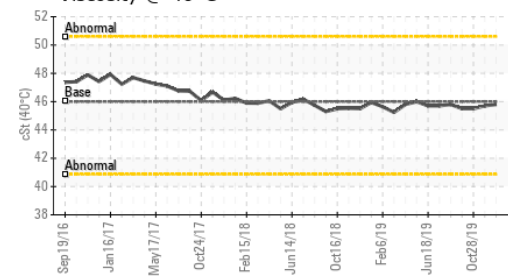
Particle Count



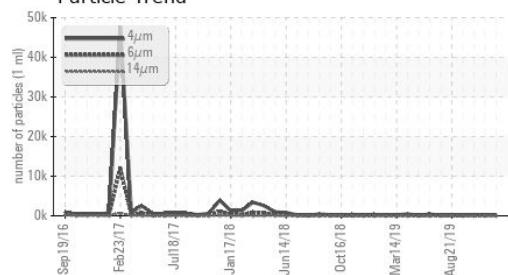
Acid Number



Viscosity @ 40°C



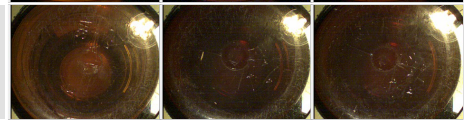
Particle Trend



Color



Bottom



MPC



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PTK0000213 **Received** : 23 Dec 2019
Lab Number : **04873395** **Diagnosed** : 31 Dec 2019
Unique Number : 8858391 **Diagnostician** : Doug Bogart
Test Package : MOB 2 (Additional Tests: MPC)

NIAGARA BOTTLING
 11031 88TH AVE
 PLEASANT PRAIRIE, WI
 US 53158
 Contact: AJ

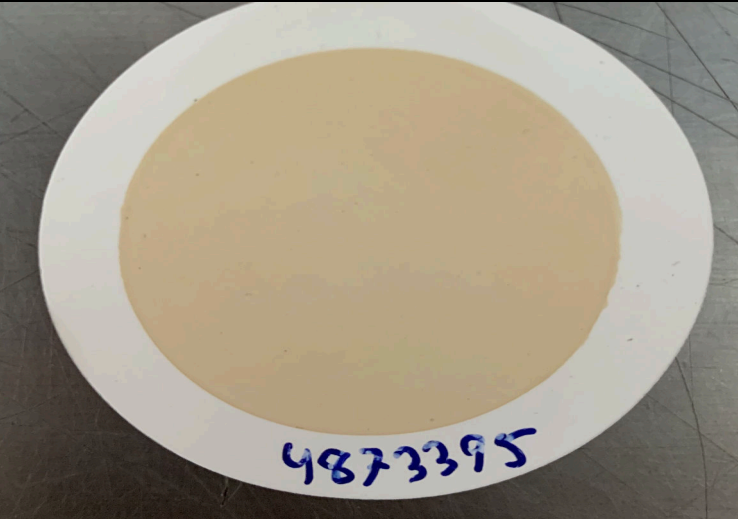
To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - 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)

T: (909)239-7599
F:

MPC (Varnish Test)



Sample Color & Clarity



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