

### **OIL ANALYSIS REPORT**

#### INSOLUBLES

Machine Id

# Press #2 6561082

Hydraulic System

KLUBER KLUBEROIL 4 UH1-46 N (251 GAL)

#### DIAGNOSIS

#### Recommendation

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

#### Wear

All component wear rates are normal.

#### Contamination

MPC (Membrane Patch Colorimetry) test indicates a high 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.

# 

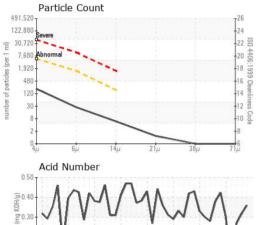
SAMPLE INFORM		mothed	limit/bage	ourrent	bi <del>stor (1</del>	history
	ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PTK0005375	PTK0005388	PTK0005245
Sample Date		Client Info		02 May 2024	29 Mar 2024	27 Feb 2024
Machine Age	hrs	Client Info		64444	63668	62986
Oil Age	hrs	Client Info		2989	2213	1531
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				SEVERE	SEVERE	SEVERE
CONTAMINATION	J	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	26	28	22
Chromium	ppm	ASTM D5185m	>10	0	<1	0
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m		<1	0	0
Aluminum	ppm	ASTM D5185m	>10	0	2	0
Lead	ppm	ASTM D5185m	>10	0	0	0
Copper	ppm	ASTM D5185m	>75	1	1	<1
Tin	ppm	ASTM D5185m	>10	0	0	<1
Vanadium	ppm	ASTM D5185m		<1	<1	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 0	history1 0	history2 0
	ppm ppm		limit/base			
Boron		ASTM D5185m	limit/base	0	0	0
Boron Barium	ppm	ASTM D5185m ASTM D5185m	limit/base	0 0	0 0	0 0
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 0 0	0 0 0	0 0 <1 0
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 0 0 <1	0 0 0 <1	0 0 0 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 0 0 <1 0	0 0 <1 <1	0 0 <1 0
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 0 <1 0 2	0 0 <1 <1 6	0 0 0 <1 0 3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 0 <1 0 2 85	0 0 <1 <1 6 113	0 0 <1 0 3 100
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 0 <1 0 2 85 16	0 0 <1 <1 6 113 14	0 0 <1 0 3 100 10
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 0 <1 0 2 85 16 34	0 0 <1 <1 6 113 14 0	0 0 <1 0 3 100 10 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 0 <1 0 2 85 16 34 2 4	0 0 <1 <1 6 113 14 0 history1	0 0 <1 0 3 100 10 2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 0 2 85 16 34 <b>current</b> 3	0 0 <1 <1 6 113 14 0 <b>history1</b> 3	0 0 0 <1 0 3 100 10 2 <b>history2</b> <1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base >20	0 0 2 85 16 34 <b>current</b> 3 2	0 0 <1 <1 6 113 14 0 <b>history1</b> 3 4	0 0 0 <1 0 3 100 10 2 <b>history2</b> <1 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN	ppm	ASTM D5185m ASTM D5185m	limit/base >20 >20 limit/base	0 0 2 85 16 34 <u>current</u> 3 2 <1 <u>current</u>	0 0 () () () () () () () () () () () () ()	0 0 0 <1 0 3 100 10 2 <b>history2</b> <1 2 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base >20 >20 limit/base >5000	0 0 2 85 16 34 <u>current</u> 3 2 <1	0 0 0 <1 <1 6 113 14 0 <b>history1</b> 3 4 2 <b>history1</b> 188	0 0 0 <1 0 3 100 10 2 <b>history2</b> <1 2 2 <b>history2</b> 107
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm	ASTM D5185m ASTM D5185m	limit/base >20 >20 limit/base	0 0 0 <1 0 2 85 16 34 <b>current</b> 3 2 <1 2 <1 <b>current</b> 179	0 0 () () () () () () () () () () () () ()	0 0 0 <1 0 3 100 10 2 <b>history2</b> <1 2 2 <b>history2</b>
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm	ppm	ASTM D5185m ASTM D5185m	limit/base >20 >20 limit/base >5000 >1300 >160	0 0 0 <1 0 2 85 16 34 <i>current</i> 3 2 <1 2 <1 <i>current</i> 179 24	0 0 0 <1 <1 6 113 14 0 history1 3 4 2 <u>history1</u> 188 56	0 0 0 <1 0 3 100 10 2 <u>history2</u> <1 2 2 <u>history2</u> 107 13
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm	ASTM D5185m ASTM D5185m	limit/base >20 >20 limit/base >5000 >1300 >160	0 0 0 <1 0 2 85 16 34 <i>current</i> 3 2 <1 2 <1 <i>current</i> 179 24 5	0 0 0 <1 <1 6 113 14 0 <b>history1</b> 3 4 2 <b>history1</b> 188 56 4	0 0 0 <1 0 3 100 10 2 history2 <1 2 2 history2 107 13 2 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >21µm Particles >38µm	ppm	ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	limit/base >20 >20 >20 limit/base >5000 >1300 >160 >40 >10	0 0 0 <1 0 2 85 16 34 <i>current</i> 3 2 <1 2 <1 <i>current</i> 179 24 5 1	0 0 () () () () () () () () () () () () ()	0 0 () () () () () () () () () () () () ()
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm	ASTM D5185m ASTM D5647 ASTM D7647 ASTM D7647 ASTM D7647	limit/base >20 >20 >20 limit/base >5000 >1300 >160 >40 >10	0 0 0 <1 0 2 85 16 34 <b>Current</b> 3 2 <1 2 <1 <b>Current</b> 179 24 5 5 1 0	0 0 0 <1 <1 6 113 14 0 <b>history1</b> 3 4 2 <b>history1</b> 188 56 4 1 0	0 0 0 3 100 10 2 history2 <1 2 2 history2 107 13 2 107 13 2 107

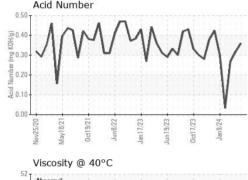
#### Report Id: NIAPLE [WUSCAR] 06181284 (Generated: 06/10/2024 12:02:00) Rev: 2

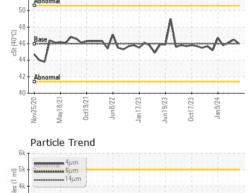


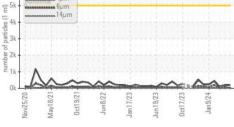
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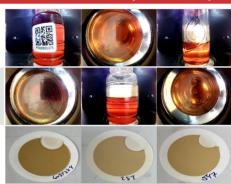




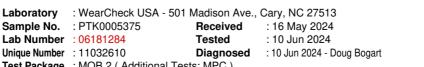
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN) MPC Varnish Potential	mg KOH/g Scale	ASTM D8045 ASTM D7843	>15	0.36 ▲ 49	0.318	0.268
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	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 PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46	46.0	46.5	46.1
SAMPLE IMAGES	6	method	limit/base	current	history1	history2

Color

Bottom



MPC



Test Package : MOB 2 ( Additional Tests: MPC )

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)

Contact: AJ T: (909)239-7599

11031 88TH AVE

US 53158

**NIAGARA BOTTLING** 

PLEASANT PRAIRIE, WI

F:

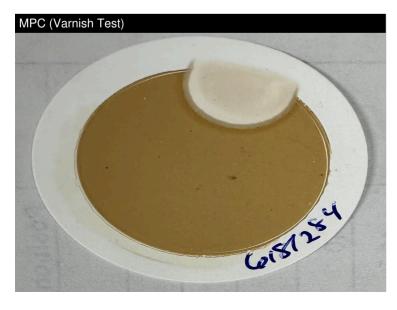
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Certificate 12367

Laboratory

Sample No.

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