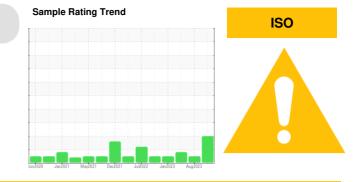


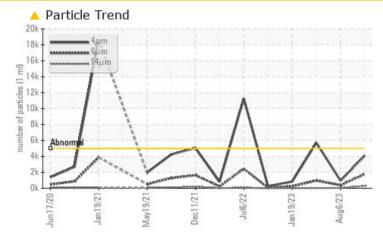
# **PROBLEM SUMMARY**



## Machine Id 9 - BIH L1 (S/N U133500196) Component Pump Fluid

USPI VAC 100 (--- GAL)

# COMPONENT CONDITION SUMMARY



# RECOMMENDATION

Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS							
Sample Status			ATTENTION	NORMAL	ATTENTION		
Particles >6µm	ASTM D7647	>1300	<u> </u>	383	968		
Particles >14µm	ASTM D7647	>160	<u> </u>	46	34		
Particles >21µm	ASTM D7647	>40	<u> </u>	11	12		
Particles >38µm	ASTM D7647	>10	<b>4</b> 14	0	1		
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<u> </u>	17/16/13	▲ 20/17/12		

Customer Id: SMIKIN Sample No.: USPM31179 Lab Number: 06000575 Test Package: IND 2



To manage this report scan the QR code

*To discuss the diagnosis or test data:* Doug Bogart +1 (800)237-1369 x4016 <u>dougb@wearcheckusa.com</u>

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com

### **RECOMMENDED ACTIONS**

There are no recommended actions for this sample.

## **HISTORICAL DIAGNOSIS**

### 06 Aug 2023 Diag: Doug Bogart



Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

# 26 Apr 2023 Diag: Doug Bogart



Resample at the next service interval to monitor.All component wear rates are normal. There is a moderate amount of silt (particulates < 6 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

19 Jan 2023 Diag: Doug Bogart



Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



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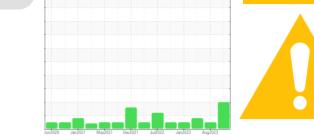






# **OIL ANALYSIS REPORT**

# Sample Rating Trend



ISO

9 - BIH L1 (S/N U133500196) Component

# Pump

Fluid **USPI VAC 100 (--- GAL)** 

# DIAGNOSIS

# A Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

## Contamination

There is a moderate amount of particulates present in the oil.

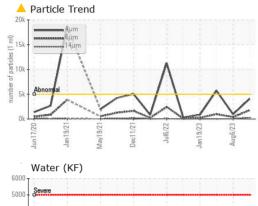
# Fluid Condition

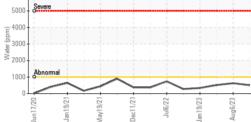
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

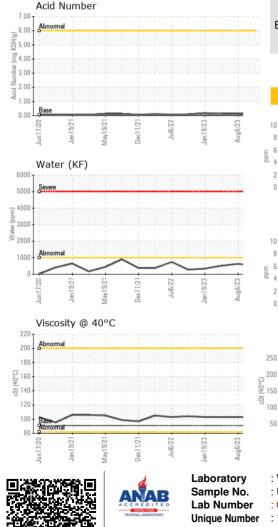
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		USPM31179	USPM29111	USPM28753
Sample Date		Client Info		06 Nov 2023	06 Aug 2023	26 Apr 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				ATTENTION	NORMAL	ATTENTION
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>90	0	2	2
Chromium	ppm	ASTM D5185m	>5	0	0	0
Nickel	ppm	ASTM D5185m	>5	<1	0	<1
Titanium	ppm	ASTM D5185m	>3	0	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>7	0	0	0
Lead	ppm	ASTM D5185m	>12	<1	0	0
Copper	ppm	ASTM D5185m	>30	<1	0	0
Tin	ppm	ASTM D5185m	>9	0	0	0
Vanadium	ppm	ASTM D5185m		0	<1	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	0	0
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	0	0	0	0
Manganese	ppm	ASTM D5185m		0	0	0
Magnesium	ppm	ASTM D5185m	0	0	0	<1
Calcium	ppm	ASTM D5185m	0	0	0	0
Phosphorus	ppm	ASTM D5185m	1800	954	1477	1281
Zinc	ppm	ASTM D5185m	0	0	0	0
Sulfur	ppm	ASTM D5185m	0	3	0	1
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>60	4	6	5
Sodium	ppm	ASTM D5185m		<1	0	0
Potassium	ppm	ASTM D5185m	>20	<1	<1	1
Water	%	ASTM D6304	>.1	0.050	0.062	0.051
ppm Water	ppm	ASTM D6304	>1000	502.0	628.7	512.7
FLUID CLEANLIN	ESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	4081	957	<b>5</b> 710
Particles >6µm		ASTM D7647	>1300	<u> </u>	383	968
Particles >14µm		ASTM D7647	>160	<u> </u>	46	34
Particles >21µm		ASTM D7647	>40	<mark>人</mark> 97	11	12
Particles >38µm		ASTM D7647	>10	<u> </u>	0	1
Particles >71µm		ASTM D7647	>3	2	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>A</b> 19/18/15	17/16/13	▲ 20/17/12
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.05	0.16	0.15	0.13



# **OIL ANALYSIS REPORT**

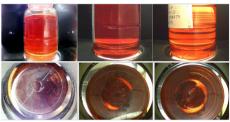




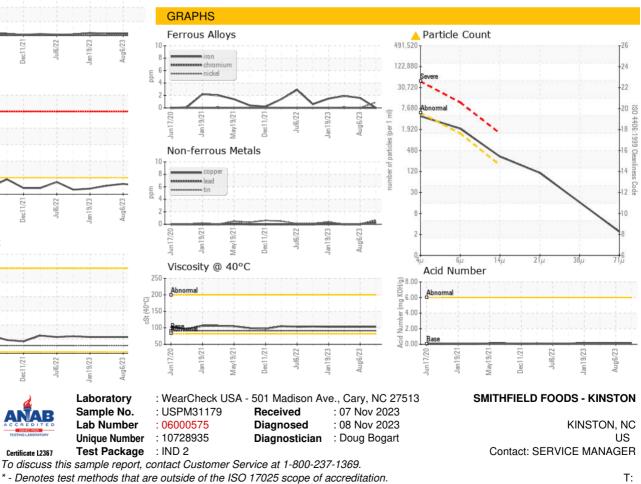


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	LIGHT	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>.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	91	103	103	103
SAMPLE IMAGE	S	method	limit/base	current	history1	history2
						133. 133. 186470





Bottom



\* - 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/Location: SERVICE MANAGER ? - SMIKIN

F: