



# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



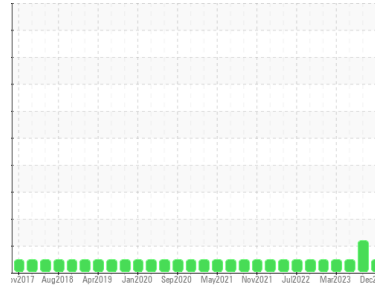
Machine Id  
**4-B (S/N U101502551)**

Component

**Pump**

Fluid

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



## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil. 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		<b>USPM31975</b>	USPM29596	USPM27072
Sample Date	Client Info		<b>01 Dec 2023</b>	07 Sep 2023	15 Jun 2023
Machine Age	hrs	Client Info	<b>0</b>	0	0
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>NORMAL</b>	ABNORMAL	NORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >90	<b>0</b>	7	8
Chromium	ppm	ASTM D5185m >5	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m >5	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m >3	<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >7	<b>&lt;1</b>	2	<1
Lead	ppm	ASTM D5185m >12	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m >30	<b>&lt;1</b>	<1	0
Tin	ppm	ASTM D5185m >9	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m	<b>0</b>	<1	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	<1

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>0</b>	0	0
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m 0	<b>&lt;1</b>	0	<1
Calcium	ppm	ASTM D5185m 0	<b>&lt;1</b>	0	0
Phosphorus	ppm	ASTM D5185m 1800	<b>1322</b>	1518	1410
Zinc	ppm	ASTM D5185m 0	<b>0</b>	0	0
Sulfur	ppm	ASTM D5185m 0	<b>41</b>	0	0

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >60	<b>4</b>	5	5
Sodium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	<1
Potassium	ppm	ASTM D5185m >20	<b>&lt;1</b>	3	<1
Water	%	ASTM D6304 >.1	<b>0.016</b>	0.064	0.059
ppm Water	ppm	ASTM D6304 >1000	<b>165</b>	646.1	593.0

## FLUID CLEANLINESS

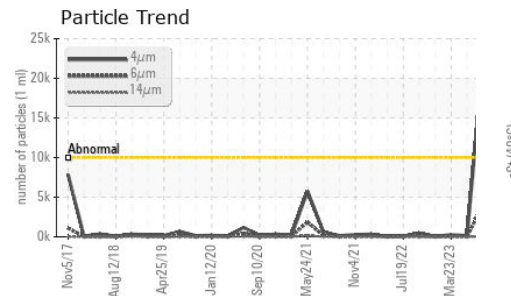
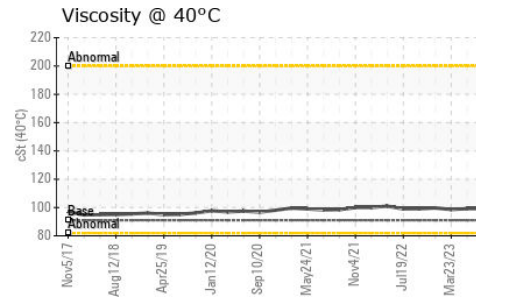
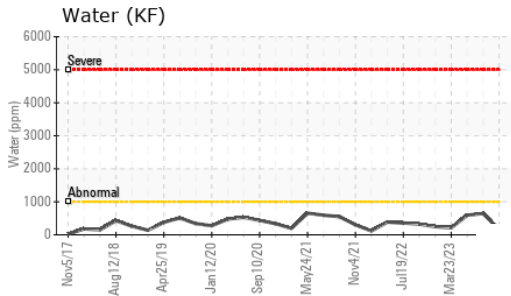
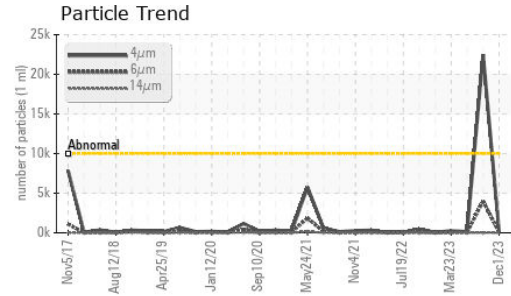
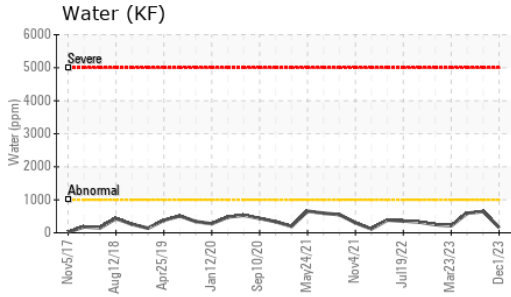
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	<b>169</b>	▲ 22479	145
Particles >6µm	ASTM D7647	>2500	<b>52</b>	▲ 4010	61
Particles >14µm	ASTM D7647	>320	<b>6</b>	31	9
Particles >21µm	ASTM D7647	>80	<b>3</b>	4	2
Particles >38µm	ASTM D7647	>20	<b>1</b>	0	0
Particles >71µm	ASTM D7647	>4	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>20/18/15	<b>15/13/10</b>	▲ 22/19/12	14/13/10

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.05	<b>0.14</b>	0.17	0.18



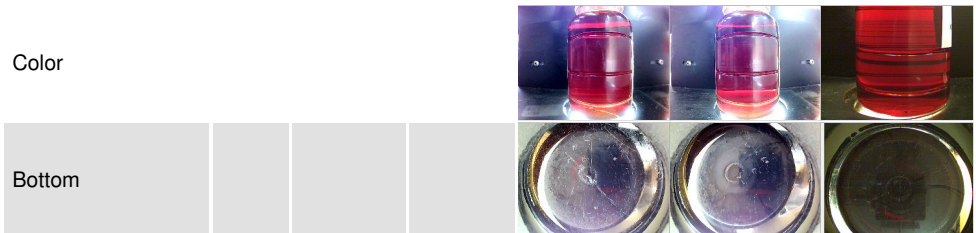
# OIL ANALYSIS REPORT



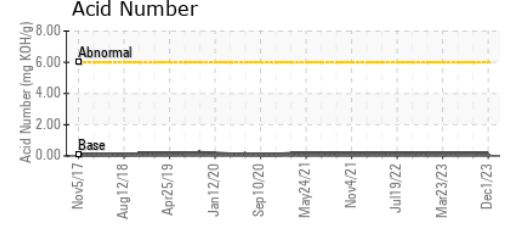
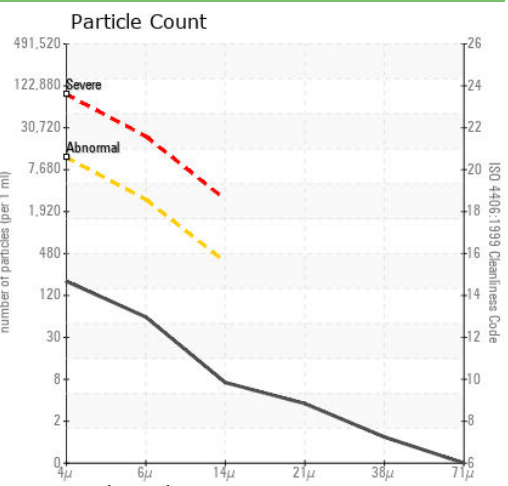
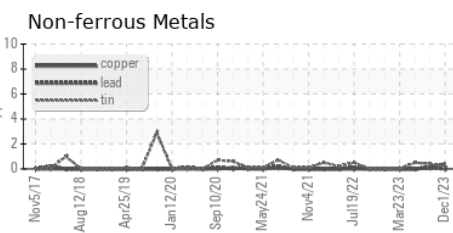
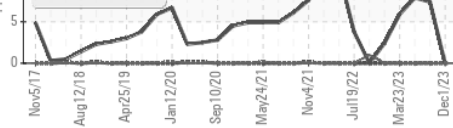
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 91	97.8	99.1	99.2

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : USPM31975 **Received** : 07 Dec 2023  
**Lab Number** : 06028699 **Diagnosed** : 10 Dec 2023  
**Unique Number** : 10778490 **Diagnostician** : Doug Bogart  
**Test Package** : IND 2

**TYSON - HILLSHIRE BRANDS**  
 4612 SPEAKER RD  
 KANSAS CITY, KS  
 US 66105  
 Contact: WILLIAM KENNEDY

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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