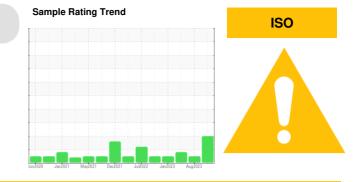


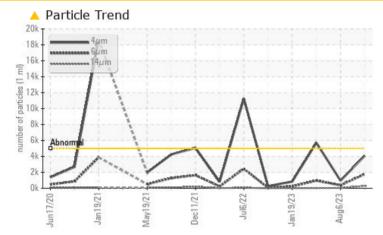
PROBLEM SUMMARY



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 | 4 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.



view repor

view report

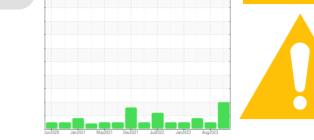






OIL ANALYSIS REPORT

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.

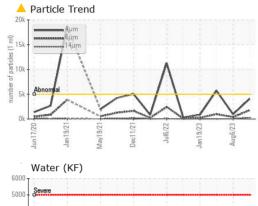
Fluid Condition

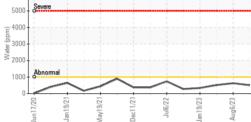
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

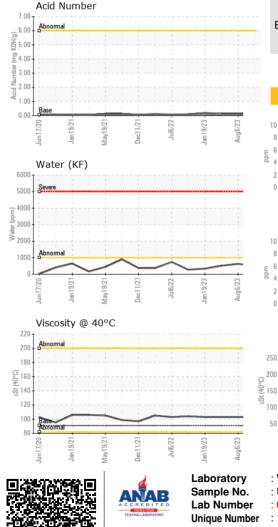
| SAMPLE INFORM | IATION | method | limit/base | current | history1 | history2 |
|------------------|----------|--------------|------------|-------------------|-------------|--------------|
| Sample Number | | Client Info | | USPM31179 | USPM29111 | USPM28753 |
| Sample Date | | Client Info | | 06 Nov 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 | 5 710 |
| 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 | A 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

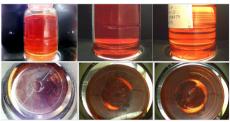




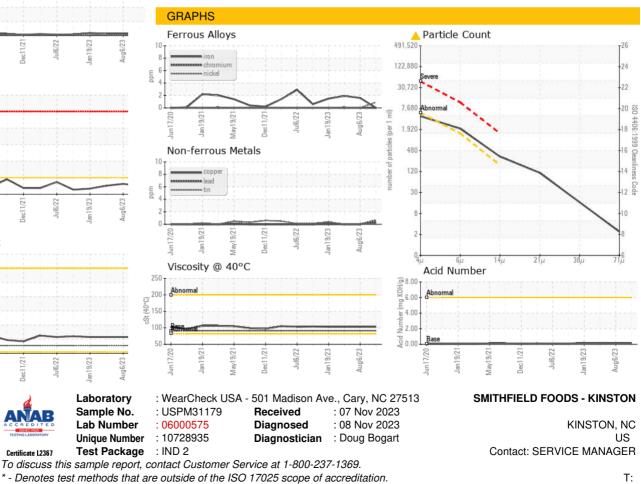


| VISUAL | | method | limit/base | current | history1 | history2 |
|------------------|--------|-----------|------------|---------|----------|------------------------|
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Precipitate | 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: