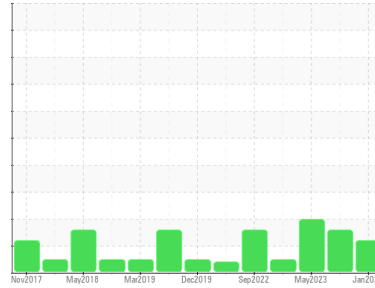




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id
VACUUM - RM111 PUMP 3 (S/N N15111903)

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 a high amount of silt (particulates < 14 microns in size) 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 INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	USPM30630	USPM29873	USPM28296
Sample Date	Client Info	04 Jan 2024	03 Oct 2023	23 May 2023
Machine Age	hrs	0	0	0
Oil Age	hrs	0	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		ABNORMAL	ATTENTION	ATTENTION

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >90	<1	2	<1
Chromium	ppm	ASTM D5185m >5	0	0	0
Nickel	ppm	ASTM D5185m >5	0	0	<1
Titanium	ppm	ASTM D5185m >3	0	0	0
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >7	1	0	0
Lead	ppm	ASTM D5185m >12	0	0	0
Copper	ppm	ASTM D5185m >30	0	0	0
Tin	ppm	ASTM D5185m >9	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 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	6
Phosphorus	ppm	ASTM D5185m 1800	1293	1705	▲ 4
Zinc	ppm	ASTM D5185m 0	0	0	2
Sulfur	ppm	ASTM D5185m 0	0	4	▲ 21

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >60	2	2	4
Sodium	ppm	ASTM D5185m	1	2	0
Potassium	ppm	ASTM D5185m >20	0	0	0
Water	%	ASTM D6304 >.1	0.047	0.092	0.002
ppm Water	ppm	ASTM D6304 >1000	474	921.2	20.1

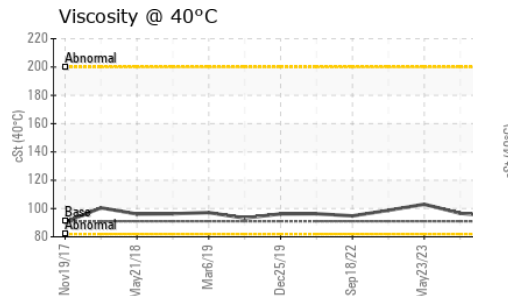
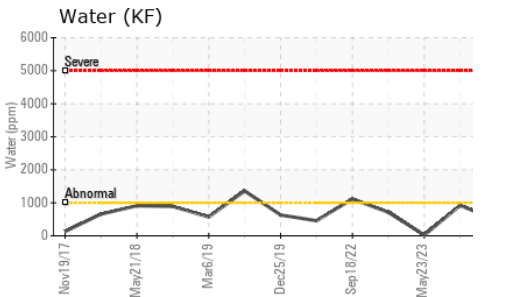
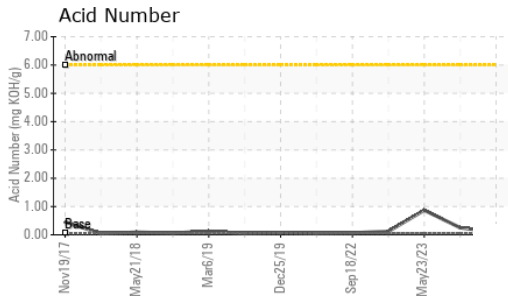
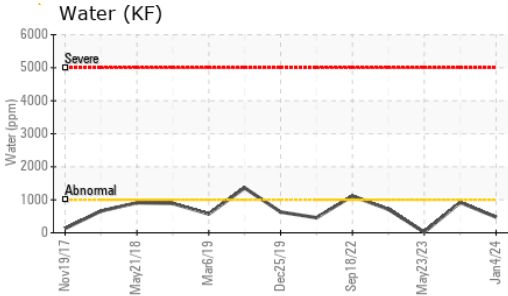
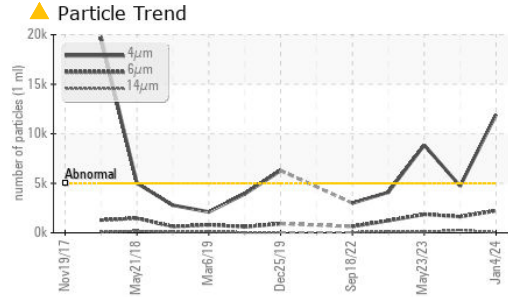
FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >5000	▲ 11937	4716	▲ 8862
Particles >6µm	ASTM D7647 >1300	▲ 2235	▲ 1625	▲ 1860
Particles >14µm	ASTM D7647 >160	39	▲ 281	71
Particles >21µm	ASTM D7647 >40	8	▲ 115	13
Particles >38µm	ASTM D7647 >10	1	7	2
Particles >71µm	ASTM D7647 >3	1	1	1
Oil Cleanliness	ISO 4406 (c) >19/17/14	▲ 21/18/12	▲ 19/18/15	▲ 20/18/13

FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045 0.05	0.10	0.25	0.87

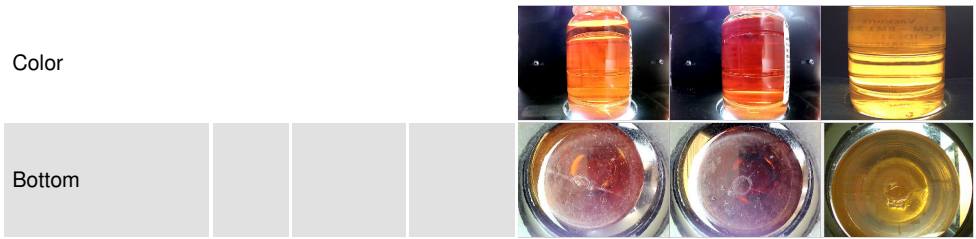
OIL ANALYSIS REPORT



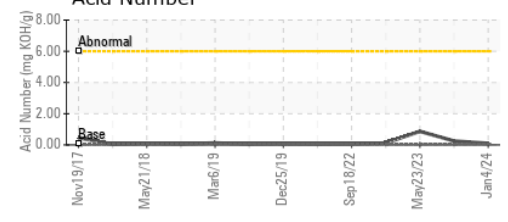
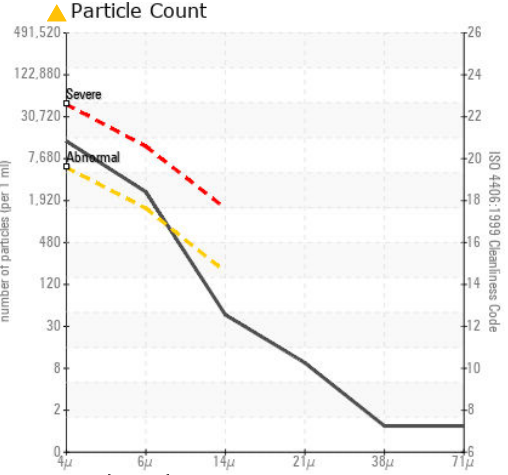
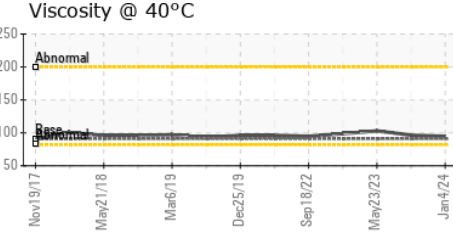
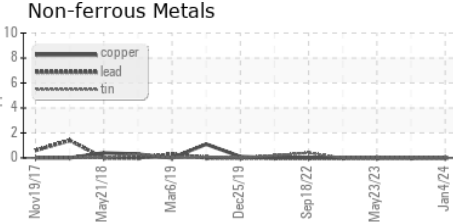
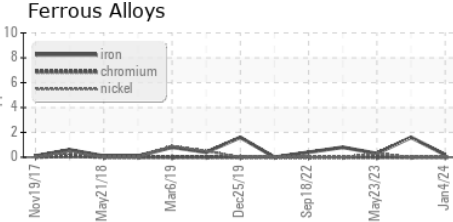
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	94.7	96.6	103

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : USPM30630 **Received** : 16 Jan 2024
Lab Number : 06062025 **Diagnosed** : 18 Jan 2024
Unique Number : 10833407 **Diagnostician** : Jonathan Hester
Test Package : IND 2

BOARS HEAD - NEW CASTLE
 125 E COUNTY RD 400 S
 NEW CASTLE, IN
 US 47362
 Contact:

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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