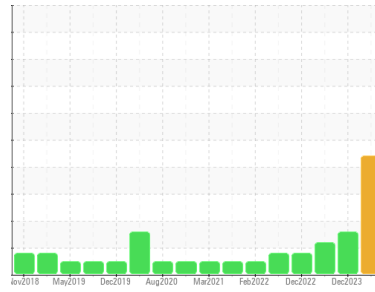




OIL ANALYSIS REPORT

Sample Rating Trend



WATER



Machine Id
INGERSOLL RAND NORTH I/R (S/N VK4104U16299)
 Component
Air Compressor
 Fluid
USPI AIR 46 (--- GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to metal particles present in this sample.

Wear

Moderate concentration of visible metal present. All component wear rates are normal.

Contamination

There is a light concentration of water present in the oil.

Fluid Condition

The oil viscosity is higher than normal. This plus the additive levels indicates the addition of a different brand or type of oil. Confirm oil type. The AN level is acceptable for this fluid.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		USPM37040	USPM31798	USPM27445
Sample Date	Client Info		02 Jul 2024	09 Dec 2023	17 Jul 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			ABNORMAL	ABNORMAL	ABNORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	0	0	1
Chromium	ppm	ASTM D5185m >4	0	0	0
Nickel	ppm	ASTM D5185m >4	0	0	0
Titanium	ppm	ASTM D5185m	0	0	<1
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >10	<1	0	<1
Lead	ppm	ASTM D5185m >20	0	0	0
Copper	ppm	ASTM D5185m >40	<1	<1	<1
Tin	ppm	ASTM D5185m >5	0	0	<1
Vanadium	ppm	ASTM D5185m	0	0	<1
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	379	526	155
Molybdenum	ppm	ASTM D5185m 0	0	0	0
Manganese	ppm	ASTM D5185m	<1	0	<1
Magnesium	ppm	ASTM D5185m 0	<1	<1	1
Calcium	ppm	ASTM D5185m 0	1	3	12
Phosphorus	ppm	ASTM D5185m 1	103	157	13
Zinc	ppm	ASTM D5185m 0	<1	6	0
Sulfur	ppm	ASTM D5185m 0	416	406	133

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<1	2	<1
Sodium	ppm	ASTM D5185m	45	37	7
Potassium	ppm	ASTM D5185m >20	8	4	1
Water	%	ASTM D6304 >0.2	0.374	0.107	0.143
ppm Water	ppm	ASTM D6304 >2000	3740	1077	1437.6

FLUID CLEANLINESS

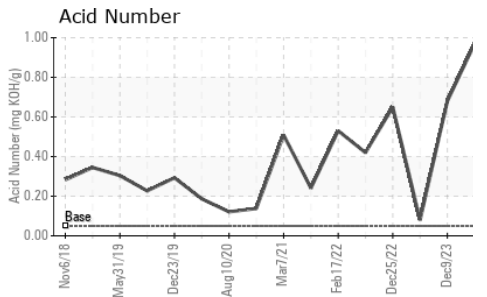
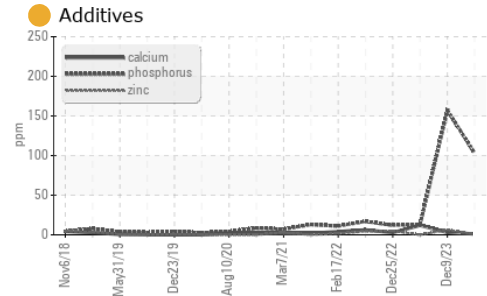
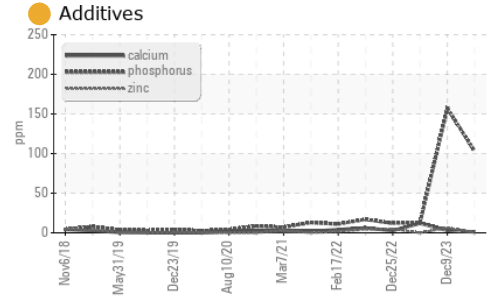
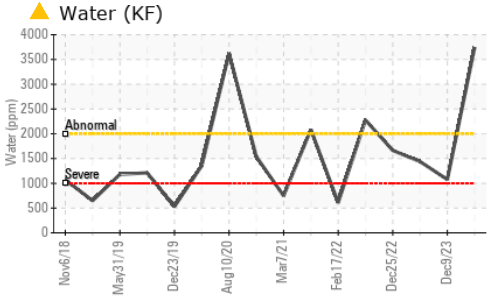
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	---	6652	---
Particles >6µm	ASTM D7647	>2500	---	1979	---
Particles >14µm	ASTM D7647	>320	---	149	---
Particles >21µm	ASTM D7647	>80	---	38	---
Particles >38µm	ASTM D7647	>20	---	2	---
Particles >71µm	ASTM D7647	>4	---	0	---
Oil Cleanliness	ISO 4406 (c)	>20/18/15	---	20/18/14	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.05	0.97	0.68	0.08



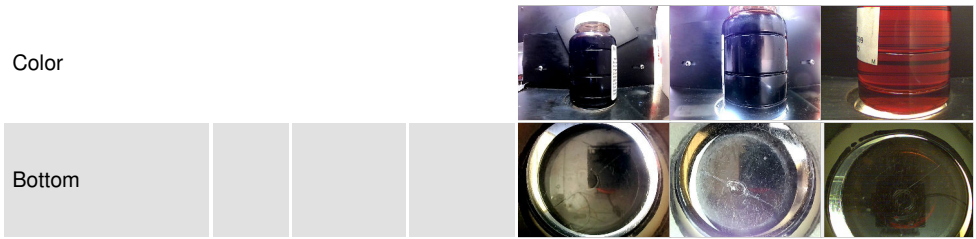
OIL ANALYSIS REPORT



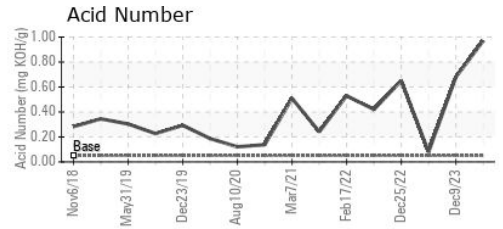
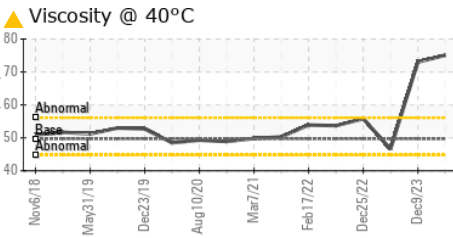
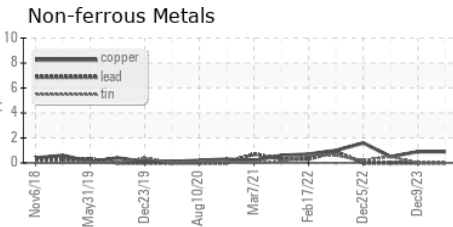
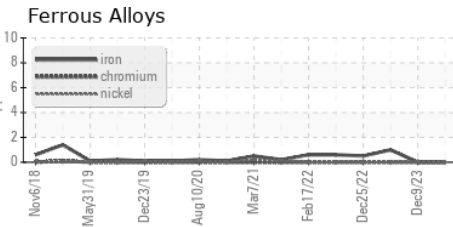
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	▲ MODER	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	0.2%	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	49.7	▲ 75.1	▲ 73.0

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : USPM37040 **Received** : 15 Jul 2024
Lab Number : 06236858 **Tested** : 17 Jul 2024
Unique Number : 11125692 **Diagnosed** : 17 Jul 2024 - Doug Bogart
Test Package : IND 2

TYSON - AMARILLO-PRO
 AMARILLO, TX
 US
 Contact: SERVICE MANAGER

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)

T:
F: