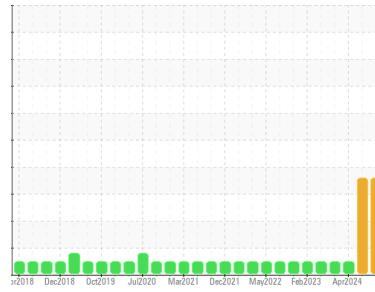




PROBLEM SUMMARY

Sample Rating Trend

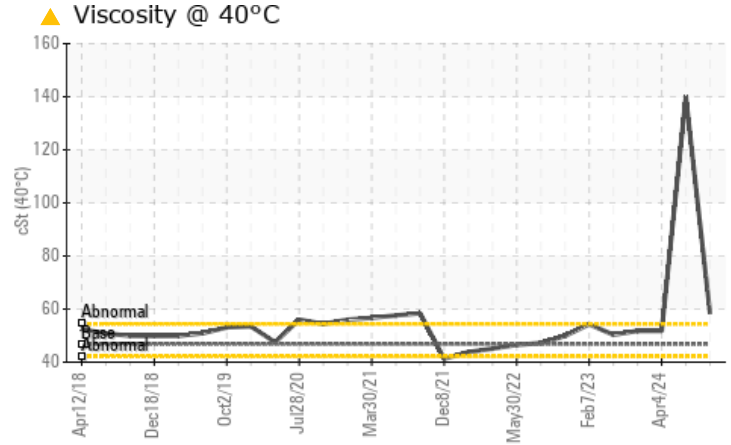
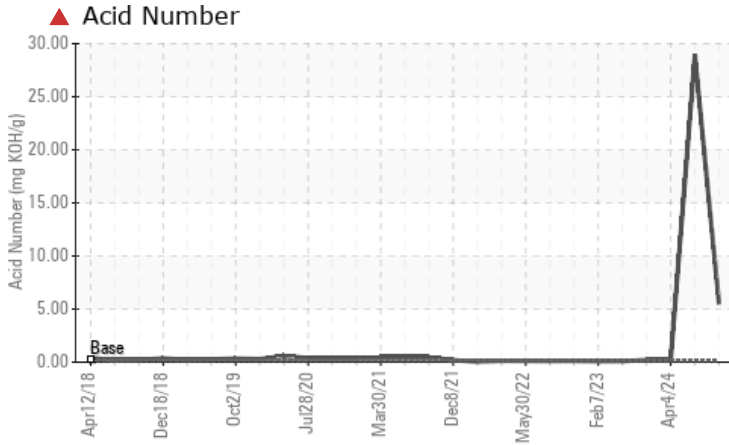


DEGRADATION



Machine Id
3 I/R 100HP FIXED SPEED (S/N NFF0375U06103)
 Component
Air Compressor
 Fluid
USPI FG AIR 46 (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

Recommend drain oil if not already done and flush with cleaner before refilling with oil. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	SEVERE	NORMAL
Acid Number (AN)	mg KOH/g	ASTM D8045	0.15	▲ 5.517	▲ 28.88	0.19
Visc @ 40°C	cSt	ASTM D445	46.8	▲ 58.4	▲ 140	51.8

Customer Id: CARCALMO
 Sample No.: USP0015020
 Lab Number: 06240376
 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
dougb@wearcheckusa.com

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

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	Recommend drain oil if not already done and flush with cleaner before refilling with oil.
Flush System	---	---	?	Recommend drain oil if not already done and flush with cleaner before refilling with oil.
Resample	---	---	?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS

DEGRADATION



30 Jun 2024 Diag: Doug Bogart

Recommend drain oil if not already done and flush with cleaner before refilling with oil. We recommend an early resample to monitor this condition. 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 above the recommended limit. The oil viscosity is higher than normal. Confirmed.

view report



NORMAL



04 Apr 2024 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.

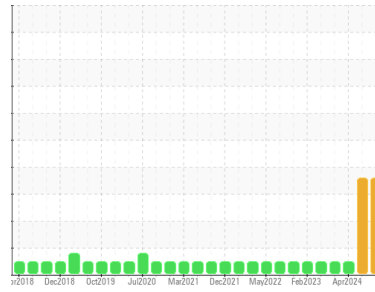
view report





OIL ANALYSIS REPORT

Sample Rating Trend



DEGRADATION



Machine Id
3 I/R 100HP FIXED SPEED (S/N NFF0375U06103)
 Component
Air Compressor
 Fluid
USPI FG AIR 46 (--- GAL)

DIAGNOSIS

Recommendation
 Recommend drain oil if not already done and flush with cleaner before refilling with oil. We recommend an early resample to monitor this condition.

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 above the recommended limit. The oil viscosity is higher than normal. Increase in zinc noted. Confirmed.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		USP0015020	USPM37916	USPM36633
Sample Date	Client Info		17 Jul 2024	30 Jun 2024	04 Apr 2024
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			SEVERE	SEVERE	NORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	3	0	0
Chromium	ppm	ASTM D5185m >4	<1	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	<1	<1
Lead	ppm	ASTM D5185m >20	<1	<1	0
Copper	ppm	ASTM D5185m >40	6	<1	0
Tin	ppm	ASTM D5185m >5	0	<1	<1
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	2	2	0
Barium	ppm	ASTM D5185m 0	0	0	0
Molybdenum	ppm	ASTM D5185m 0	0	0	0
Manganese	ppm	ASTM D5185m	0	<1	0
Magnesium	ppm	ASTM D5185m 0	<1	0	<1
Calcium	ppm	ASTM D5185m 0	0	0	0
Phosphorus	ppm	ASTM D5185m 0	11	<1	0
Zinc	ppm	ASTM D5185m 0	245	3	0
Sulfur	ppm	ASTM D5185m 0	0	0	0

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	1	<1	0
Sodium	ppm	ASTM D5185m	5	9	0
Potassium	ppm	ASTM D5185m >20	3	2	<1
Water	%	ASTM D6304 >0.6	0.036	0.138	0.001
ppm Water	ppm	ASTM D6304 >6000	362	1381	12

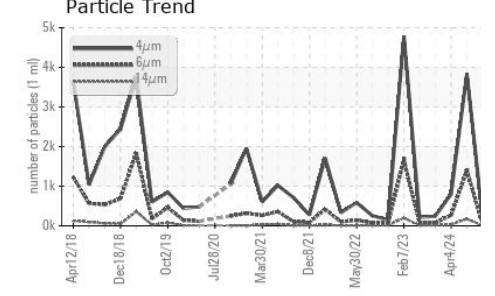
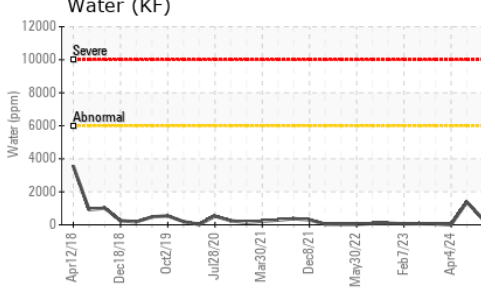
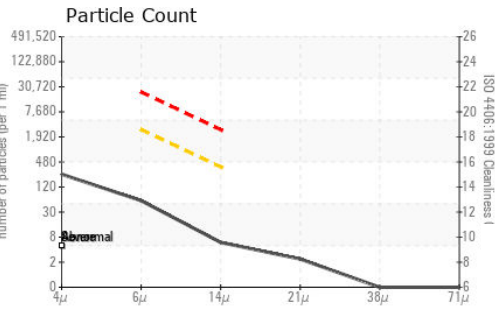
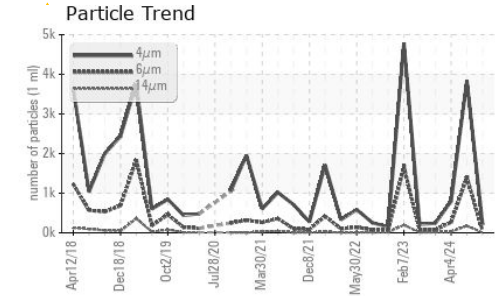
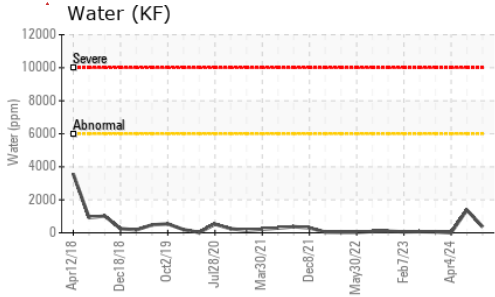
FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		215	3834	801
Particles >6µm	ASTM D7647 >2500		50	1399	264
Particles >14µm	ASTM D7647 >320		5	175	29
Particles >21µm	ASTM D7647 >80		2	48	10
Particles >38µm	ASTM D7647 >20		0	2	1
Particles >71µm	ASTM D7647 >4		0	0	0
Oil Cleanliness	ISO 4406 (c)	>--/18/15	15/13/10	19/18/15	17/15/12

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.15	▲ 5.517	▲ 28.88	0.19

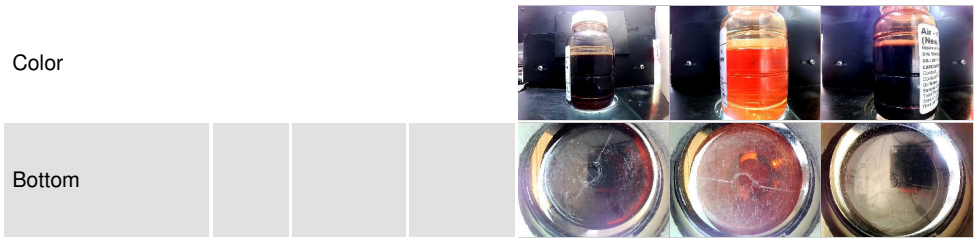
OIL ANALYSIS REPORT



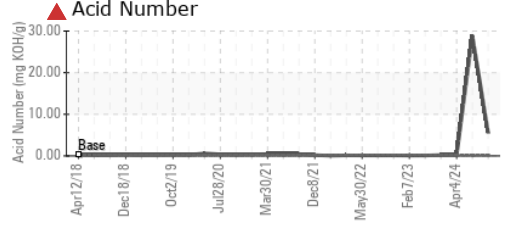
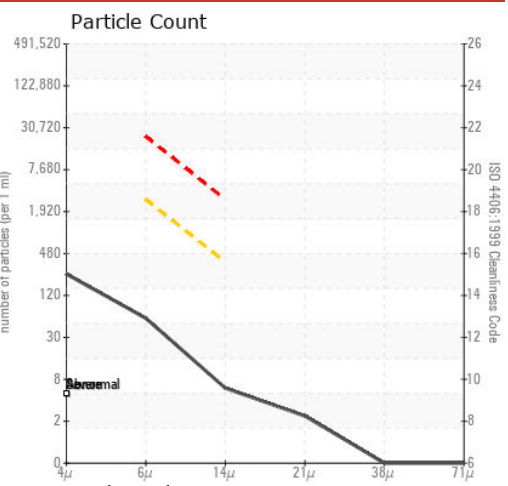
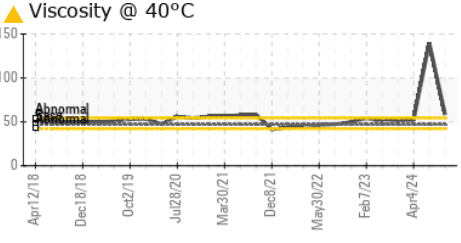
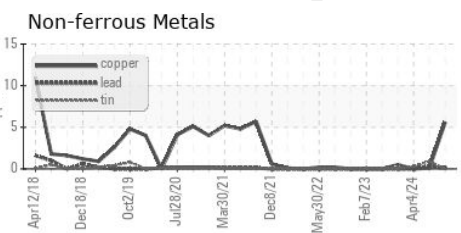
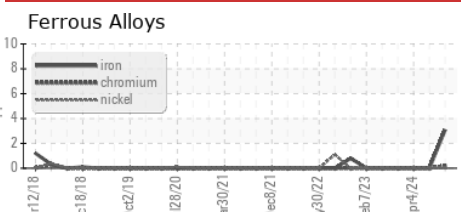
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.6	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46.8	▲ 58.4	▲ 140

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : USP0015020 **Received** : 18 Jul 2024
Lab Number : 06240376 **Tested** : 19 Jul 2024
Unique Number : 11129210 **Diagnosed** : 19 Jul 2024 - Doug Bogart
Test Package : IND 2

CARGILL-CALIFORNIA
 1001 E. SMITH STREET
 CALIFORNIA, MO
 US 65018
 Contact: REFRIGERATION DEPT.

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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