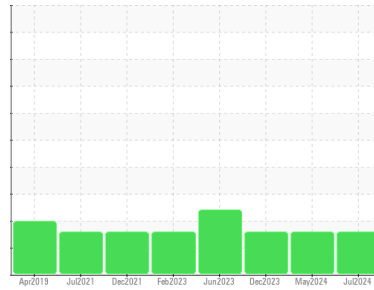




# OIL ANALYSIS REPORT

Sample Rating Trend



**WATER**



Area  
**MISSION RANCHO**  
 Machine Id  
**MISSION RANCHO B-1 (S/N 2015132)**  
 Component  
**Refrigeration Compressor**  
 Fluid  
**FRICK COMPRESSOR OIL #13 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is a light concentration of water present in the oil. Confirmed. 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>USP0012280</b>	USP0011521	USP250265
Sample Date	Client Info	<b>11 Jul 2024</b>	08 May 2024	12 Dec 2023
Machine Age	hrs	<b>74275</b>	74274	74264
Oil Age	hrs	<b>0</b>	0	0
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>ABNORMAL</b>	MARGINAL	MARGINAL

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >8	<b>&lt;1</b>	0	0
Chromium	ppm	ASTM D5185m >2	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	<b>0</b>	<1	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m >3	<b>&lt;1</b>	0	0
Lead	ppm	ASTM D5185m >2	<b>0</b>	0	0
Copper	ppm	ASTM D5185m >8	<b>0</b>	0	<1
Tin	ppm	ASTM D5185m >4	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Barium	ppm	ASTM D5185m	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m	<b>0</b>	0	0
Calcium	ppm	ASTM D5185m	<b>0</b>	0	<1
Phosphorus	ppm	ASTM D5185m	<b>0</b>	1	2
Zinc	ppm	ASTM D5185m	<b>0</b>	0	0
Sulfur	ppm	ASTM D5185m	<b>0</b>	<1	0

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >15	<b>5</b>	<1	<1
Sodium	ppm	ASTM D5185m	<b>0</b>	<1	2
Potassium	ppm	ASTM D5185m >20	<b>&lt;1</b>	0	0
Water	%	ASTM D6304 >0.01	<b>▲ 0.038</b>	▲ 0.048	▲ 0.043
ppm Water	ppm	ASTM D6304 >100	<b>▲ 389</b>	▲ 486	▲ 437

## FLUID CLEANLINESS

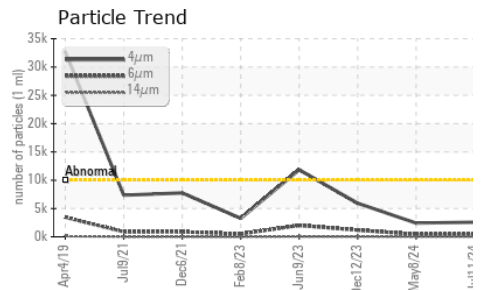
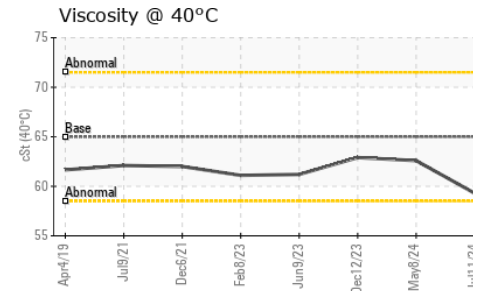
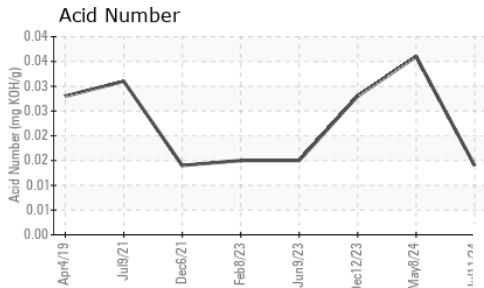
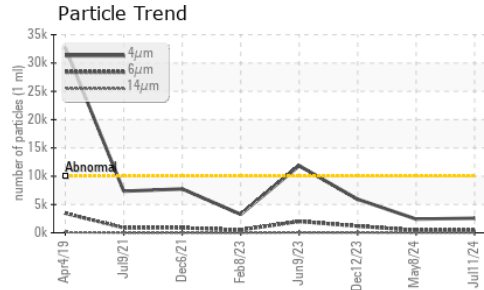
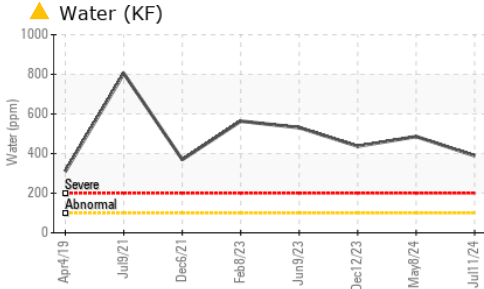
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >10000	<b>2577</b>	2421	5928
Particles >6µm	ASTM D7647 >2500	<b>440</b>	442	1191
Particles >14µm	ASTM D7647 >320	<b>8</b>	10	36
Particles >21µm	ASTM D7647 >80	<b>2</b>	4	7
Particles >38µm	ASTM D7647 >20	<b>0</b>	0	0
Particles >71µm	ASTM D7647 >4	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c) >20/18/15	<b>19/16/10</b>	18/16/10	20/17/12

## FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D974	<b>0.014</b>	0.036	0.028



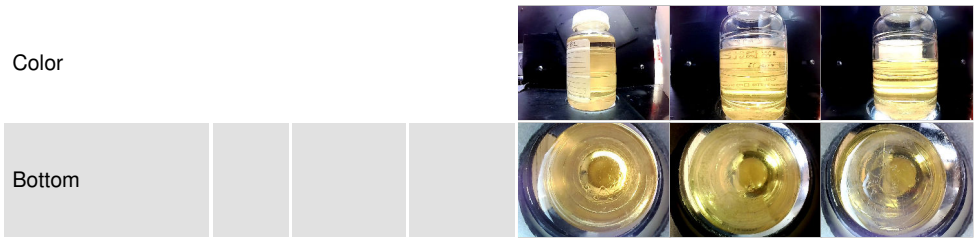
# OIL ANALYSIS REPORT



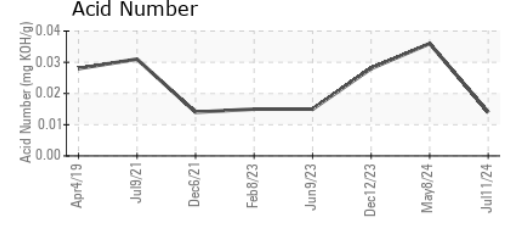
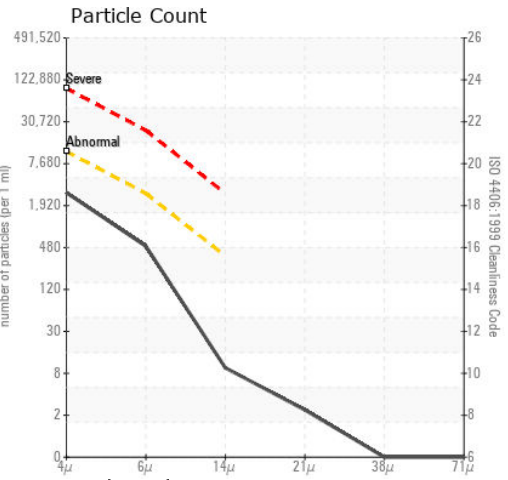
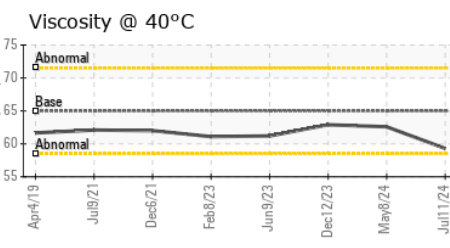
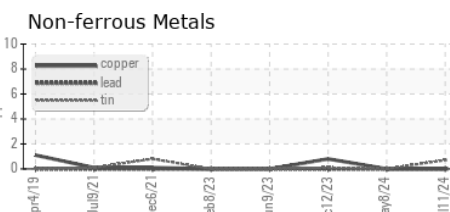
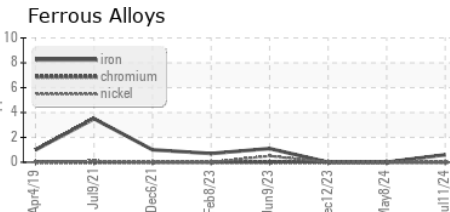
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.01	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	65.0	59.3	62.59

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



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : USP0012280 **Received** : 12 Jul 2024  
**Lab Number** : 06234995 **Tested** : 15 Jul 2024  
**Unique Number** : 11123829 **Diagnosed** : 15 Jul 2024 - Doug Bogart  
**Test Package** : IND 2

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 F: (714)895-5125

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)