



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

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

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	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	Client Info		<b>74275</b>	74274	74264
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>ABNORMAL</b>	MARGINAL	MARGINAL

**WEAR**

All component wear rates are normal.

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
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

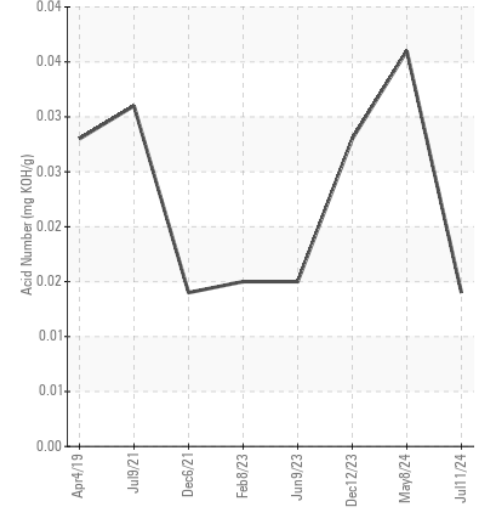
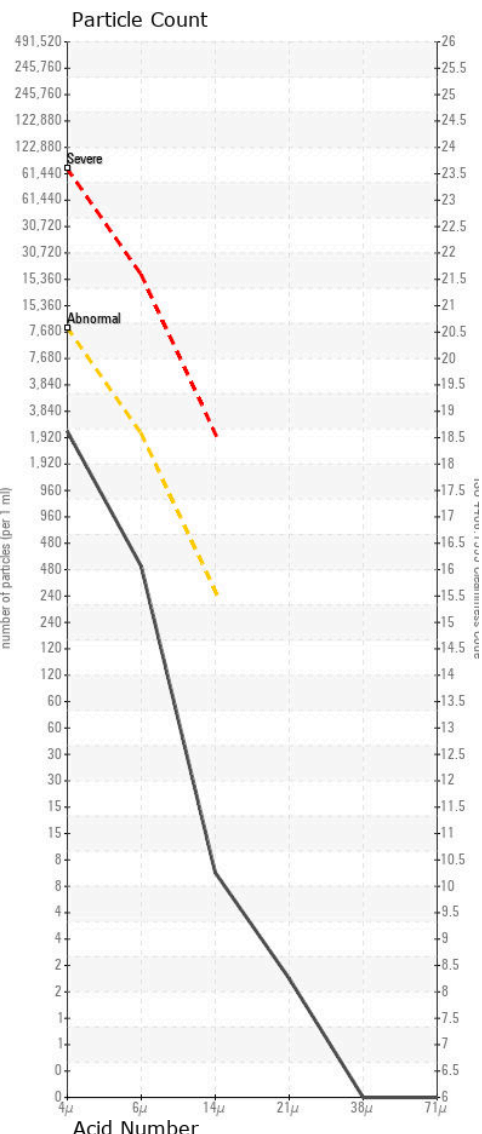
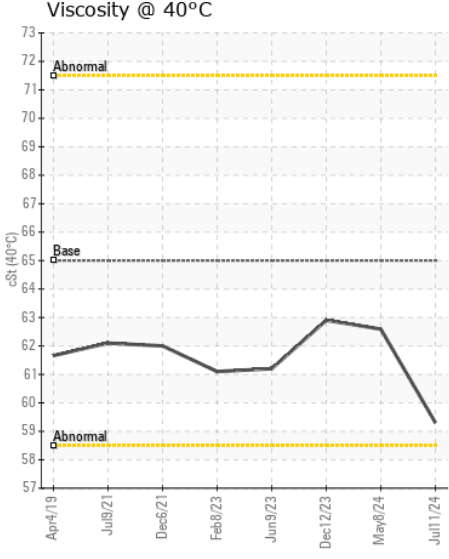
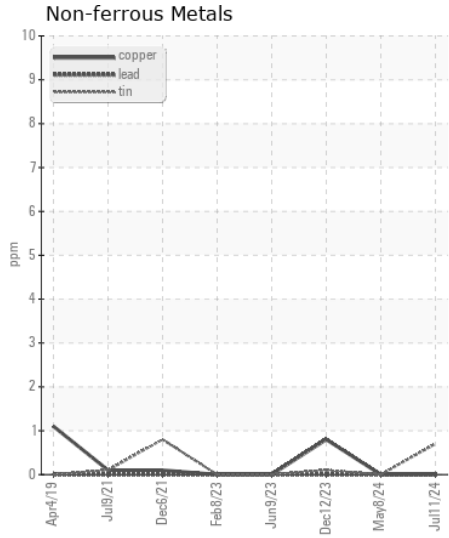
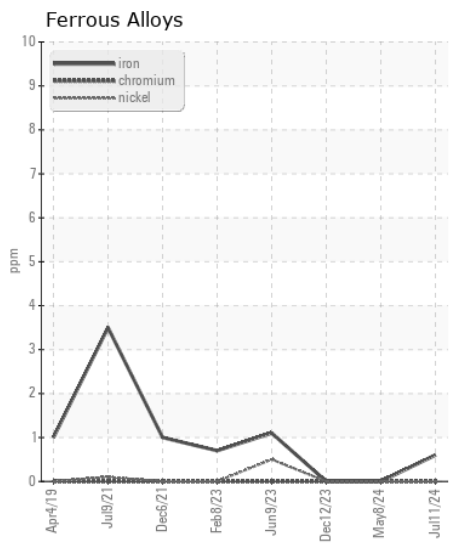
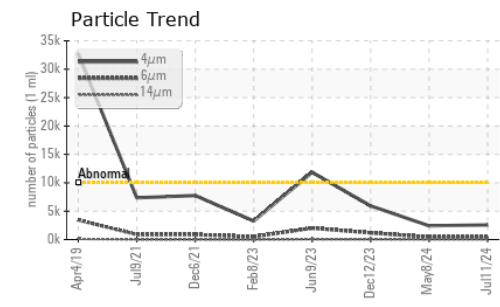
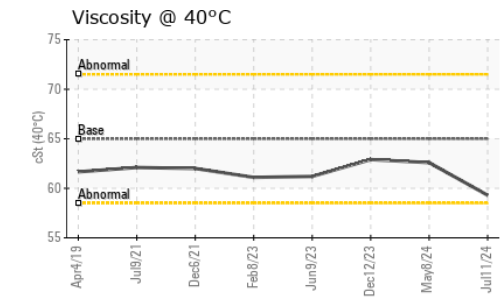
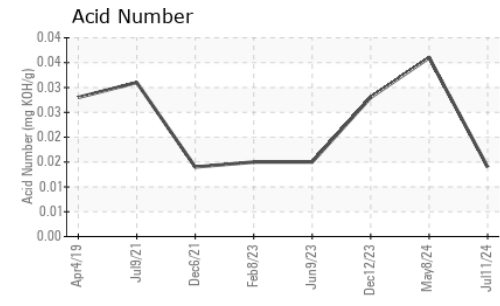
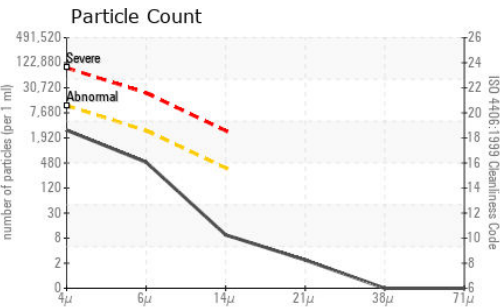
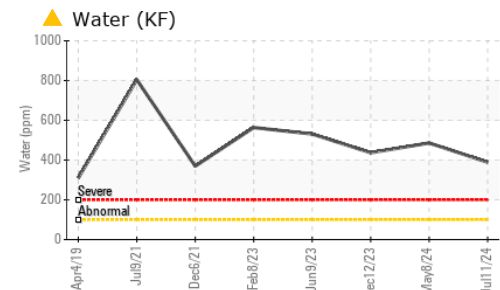
There is a light concentration of water present in the oil. Confirmed. The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>15	<b>5</b>	<1	<1
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
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
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.01	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

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

Sodium	ppm	ASTM D5185m		<b>0</b>	<1	2
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
Acid Number (AN)	mg KOH/g	ASTM D974		<b>0.014</b>	0.036	0.028
Visc @ 40°C	cSt	ASTM D445	65.0	<b>59.3</b>	62.59	62.9



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

**RACE ENGINEERING CORP**  
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Certificate L2367  
 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)