

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

Machine Id **15-2** (S/N XB0337-MARK8-2011)

Refrigeration Compressor

USPI ALT-68 SC (155 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the component. The amount and size of particulates present in the system is acceptable.

Fluid Condition

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

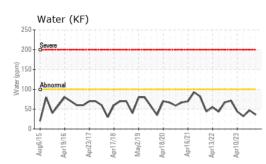
		111						
2015	Apr2016	Apr2017	Apr2018	May2019	Apr2020	Apr2021	Apr2022	Apr2023
2015	Mp12016	Mpr2017	Mp12010	iviay2019	Mpr2020	Mp12021	MDIZUZZ	MDIZUZ3

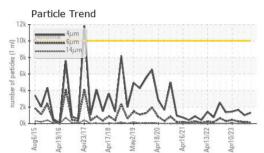


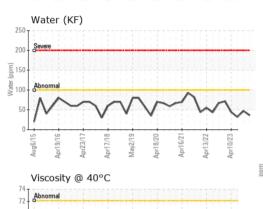
SAMPLE INFORM	1ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		USP0004800	USP0001089	USP250197
Sample Date		Client Info		04 Jan 2024	12 Oct 2023	06 Jul 2023
Machine Age	hrs	Client Info		3943	3942	3933
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>8	4	3	4
Chromium	ppm	ASTM D5185m	>2	<1	0	0
Nickel	ppm	ASTM D5185m		0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>3	0	0	<1
Lead	ppm	ASTM D5185m	>2	0	0	0
Copper	ppm	ASTM D5185m	>8	0	0	0
Tin	ppm	ASTM D5185m	>4	0	0	<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	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		0	0	0
Magnesium	ppm	ASTM D5185m		0	0	0
Calcium	ppm	ASTM D5185m		3	<1	0
Phosphorus	ppm	ASTM D5185m		0	0	0
Zinc	ppm	ASTM D5185m		0	0	0
Sulfur	ppm	ASTM D5185m	50	0	0	0
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	0	<1	<1
Sodium	ppm	ASTM D5185m		0	0	0
Potassium	ppm	ASTM D5185m	>20	<1	0	1
Water	%	ASTM D6304	>0.01	0.003	0.004	0.003
ppm Water	ppm	ASTM D6304	>100	36	47.1	32.0
FLUID CLEANLIN	ESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	1307	999	1650
Particles >6µm		ASTM D7647	>2500	122	195	256
Particles >14µm		ASTM D7647	>320	6	11	13
Particles >21µm		ASTM D7647	>80	2	2	5
Particles >38µm		ASTM D7647	>20	0	0	0
Particles >71µm		ASTM D7647	>4	0	0	0
Oil Cleanliness		ISO 4406 (c)	>20/18/15	18/14/10	17/15/11	18/15/11
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974	0.005	0.014	0.015	0.014

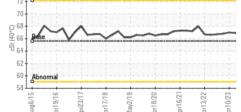


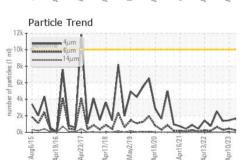
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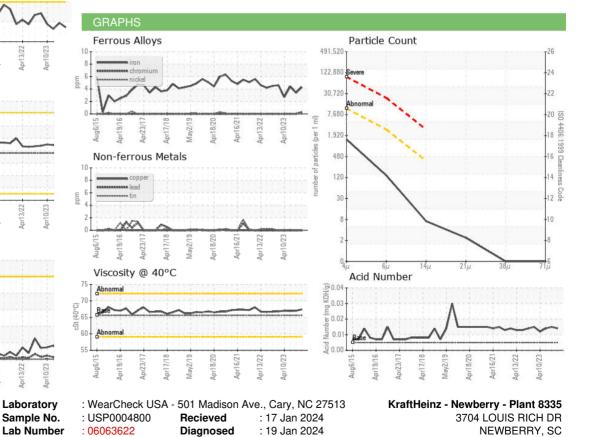








VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.01	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	65.6	67.4	67.0	66.9
SAMPLE IMAGES	\$	method	limit/base	current	history1	history2
Color				•		
Bottom						



: 19 Jan 2024

Diagnostician : Doug Bogart

: 10835004 Test Package : IND 2 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)

Certificate L2367

Laboratory

Sample No.

Unique Number

Contact/Location: ? ? - KRANEWUSP

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US 29108

Contact: