

OIL ANALYSIS REPORT

ENGINE ROOM LSB-1 (S/N 90-0263-0301-02) Component

Refrigeration Compressor USPI ALT-68 SC (--- LTR)

Recommendation

Resample at the next service interval to monitor.

Wear

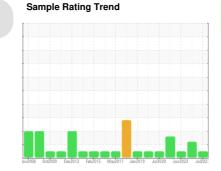
All component wear rates are normal.

Contamination

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

Fluid Condition

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





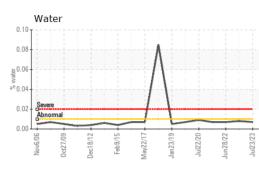
NORMAL

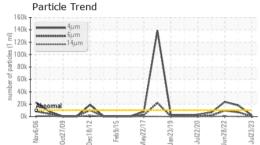
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		USPM5905482	USP243430	USP226039
Sample Date		Client Info		23 Jul 2023	05 Jul 2023	28 Jun 2022
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	ABNORMAL	NORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>8	0	5	<1
Chromium	ppm	ASTM D5185m	>2	0	0	0
Nickel	ppm	ASTM D5185m		0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>3	0	<1	<1
Lead	ppm	ASTM D5185m	>2	<1	0	<1
Copper	ppm	ASTM D5185m	>8	0	<1	0
Tin	ppm	ASTM D5185m	>4	0	0	0
Vanadium	ppm	ASTM D5185m		0	<1	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES	J- I-	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		<1	<1	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		0	0	0
Phosphorus	ppm	ASTM D5185m		0	1	0
Zinc	ppm	ASTM D5185m		0	0	0
Sulfur		ASTM D5185m	50	9	15	16
CONTAMINANTS	ppm	method	limit/base	current	history1	history2
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Silicon	ppm	ASTM D5185m	>15	2	2	2
Sodium	ppm	ASTM D5185m	00	0	<1	0
Potassium	ppm	ASTM D5185m	>20	1	1	<1
Water	%	ASTM D6304		0.007	0.008	0.007
ppm Water	ppm	ASTM D6304		73.7	85.0	79.0
FLUID CLEANLIN	IESS	method	limit/base		history1	history2
Particles >4µm		ASTM D7647	>10000	2215	<u> </u>	6611
Particles >6µm		ASTM D7647	>2500	381	6930	1581
Particles >14µm		ASTM D7647	>320	9	139	84
Particles >21µm		ASTM D7647		2	13	12
Particles >38µm		ASTM D7647	>20	0	0	0
Particles >71µm		ASTM D7647	>4	0	0	0
Oil Cleanliness		ISO 4406 (c)	>20/18/15	18/16/10	▲ 21/20/14	20/18/14
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974	0.005	0.015	0.013	0.014

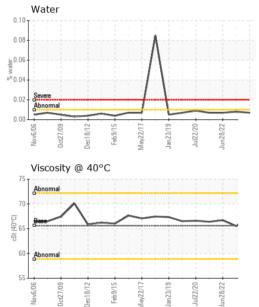
Contact/Location: TIM REINERT - PREORA



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160

140

ar of particles (1 ml) 120k 100k 80k 60k

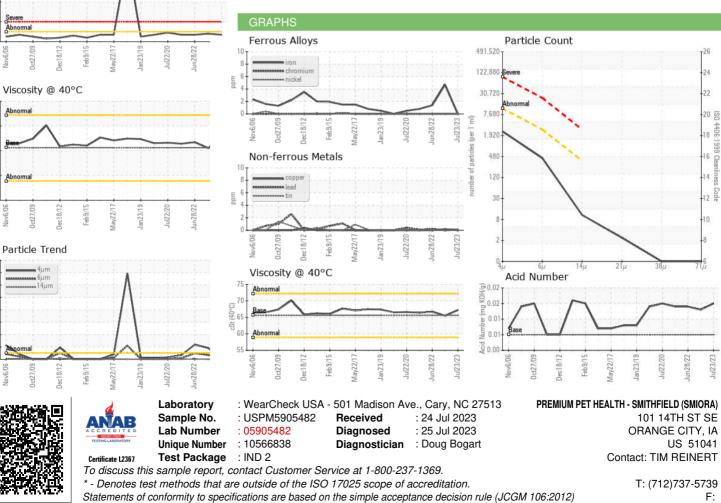
40

20

0

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 PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	65.6	67.2	65.5	66.7
SAMPLE IMAGES		method	limit/base	current	history1	history2
Color						

Bottom



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