

OIL ANALYSIS REPORT

Sample Rating Trend



MS-3 (S/N 09302-004-1-01-08) Component

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

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.

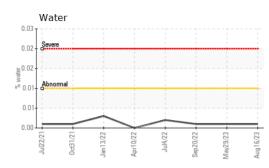
Fluid Condition

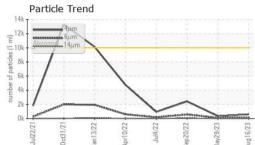
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

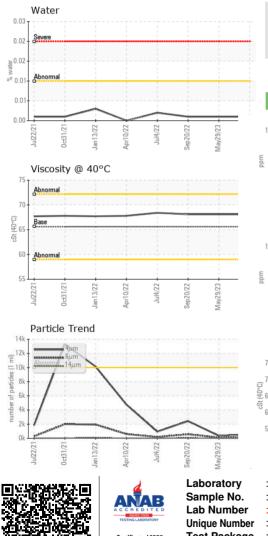
SAMPLE INFORM	1ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		USP244631	USP245849	USP240244
Sample Date		Client Info		16 Aug 2023	29 May 2023	20 Sep 2022
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>8	0	0	0
Chromium	ppm	ASTM D5185m	>2	0	0	0
Nickel			>2	0	<1	0
	ppm	ASTM D5185m				
Titanium	ppm	ASTM D5185m	0	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>3	0	0	0
Lead	ppm	ASTM D5185m	>2	0	<1	0
Copper	ppm	ASTM D5185m	>8	0	0	0
Tin	ppm	ASTM D5185m	>4	0	0	0
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	<1	0
Magnesium	ppm	ASTM D5185m		0	0	0
Calcium	ppm	ASTM D5185m		0	0	0
Phosphorus	ppm	ASTM D5185m		0	<1	<1
Zinc	ppm	ASTM D5185m		0	0	0
Sulfur	ppm	ASTM D5185m	50	0	0	8
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	1	<1	<1
Sodium	ppm	ASTM D5185m		1	<1	<1
Potassium	ppm	ASTM D5185m	>20	0	2	0
Water	%	ASTM D6304	>0.01	0.001	0.001	0.001
ppm Water	ppm	ASTM D6304	>100	5.7	3.9	6.8
FLUID CLEANLIN	ESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	591	341	2427
Particles >6µm		ASTM D7647	>2500	159	101	574
Particles >14µm		ASTM D7647	>320	14	9	56
Particles >21µm		ASTM D7647	>80	4	3	16
Particles >38µm		ASTM D7647	>20	0	0	3
Particles >71µm		ASTM D7647	>4	0	0	0
Oil Cleanliness		ISO 4406 (c)	>20/18/15	16/14/11	16/14/10	18/16/13
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974	0.005	0.015	0.015	0.015



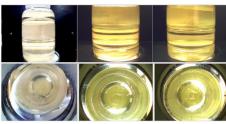
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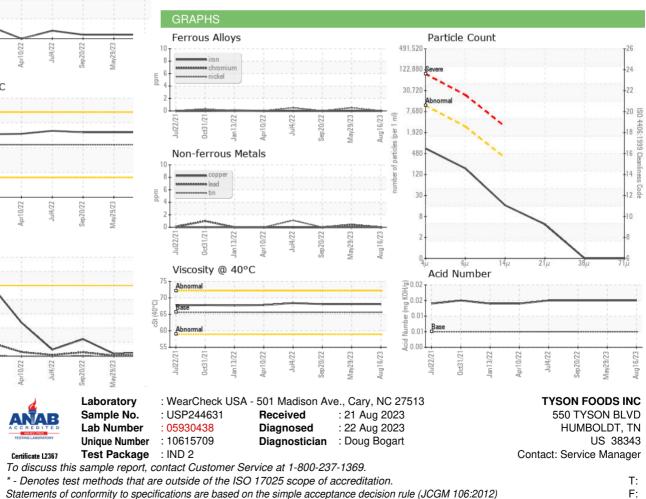




NONE NONE White Metal *Visual NONE NONE scalar Yellow Metal NONE NONE NONE NONE scalar *Visual Precipitate scalar *Visua NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE NONE NONE Debris *Visual NONE NONE scalar NONE Sand/Dirt scalar *Visual NONE NONE NONE NORML Appearance NORML NORML NORML scalar *Visua Odor *Visual NORML NORML NORML scalar NORML **Emulsified Water** scalar *Visual >0.01 NEG NEG NEG Free Water scalar *Visual NEG NEG NEG FLUID PROPERTIES Visc @ 40°C cSt ASTM D445 65.6 68.1 68.1 68.1 SAMPLE IMAGES Color



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Contact/Location: Service Manager - TYSHUM