

OIL ANALYSIS REPORT

Sample Rating Trend



TYSWILFS HS-16 (S/N TDSH28350754G)

Refrigeration Compressor

USPI ALT-68 SC (220 GAL)

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

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

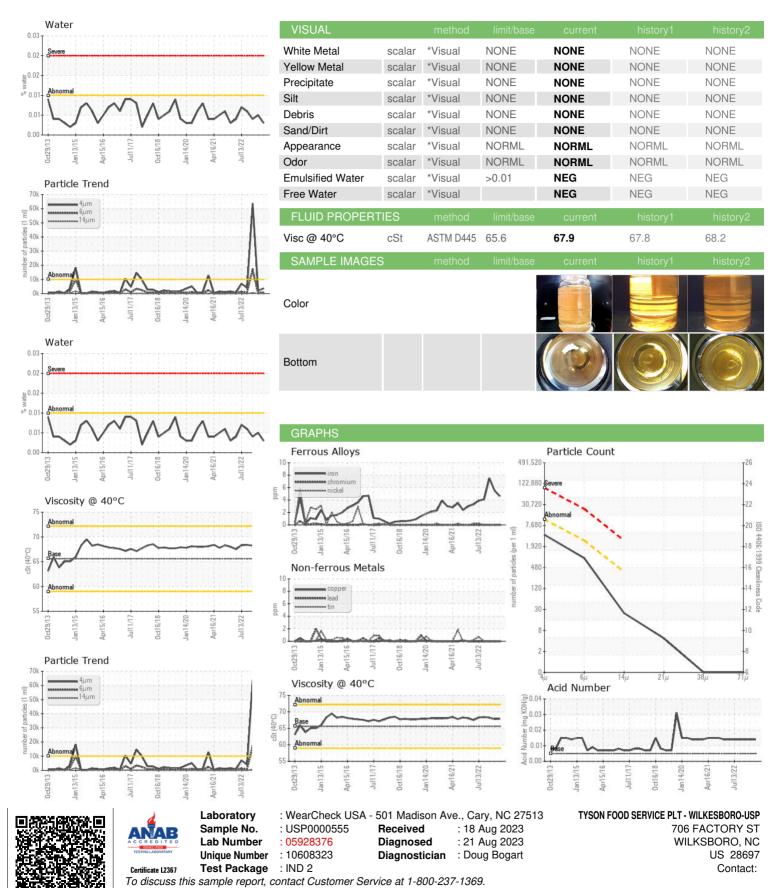
Fluid Condition

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

2013 Jan2015 Apr2018 Ju2017 Oct2018 Jan2020 Apr2021 Ju2022						
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		USP0000555	USP248866	USP245710
Sample Date		Client Info		09 Aug 2023	17 Apr 2023	05 Jan 2023
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	ABNORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>8	5	6	8
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	0	0	0
Aluminum	ppm	ASTM D5185m		0	0	0
Lead	ppm	ASTM D5185m	>2	0	0	0
Copper	ppm	ASTM D5185m		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	0	0
Magnesium	ppm	ASTM D5185m		<1	<1	0
Calcium	ppm	ASTM D5185m		0	<1	0
Phosphorus	ppm	ASTM D5185m		0	<1	0
Zinc	ppm	ASTM D5185m		2	<1	<1
Sulfur	ppm	ASTM D5185m	50	0	0	0
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	0	<1	2
Sodium	ppm	ASTM D5185m		0	0	0
Potassium	ppm	ASTM D5185m	>20	0	0	<1
Water	%	ASTM D6304	>0.01	0.003	0.005	0.004
ppm Water	ppm	ASTM D6304	>100	31.7	53.8	48.2
FLUID CLEANLIN	ESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	3644	2065	<u></u> 63690
Particles >6µm		ASTM D7647	>2500	782	374	<u>▲</u> 16865
Particles >14μm		ASTM D7647	>320	21	26	△ 405
Particles >21µm		ASTM D7647	>80	4	5	68
Particles >38μm		ASTM D7647	>20	0	1	1
Particles >71μm		ASTM D7647	>4	0	0	0
Oil Cleanliness		ISO 4406 (c)	>20/18/15	19/17/12	18/16/12	<u>\$\text{\Delta}\$ 23/21/16</u>
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974	0.005	0.014	0.014	0.014



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* - 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)

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