

# **OIL ANALYSIS REPORT**



## Machine Id 801A Component Refrigeration Compressor Fluid TULCO LUBSOIL SYN RL WI 100 (--- GAL)

#### DIAGNOSIS

### 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.

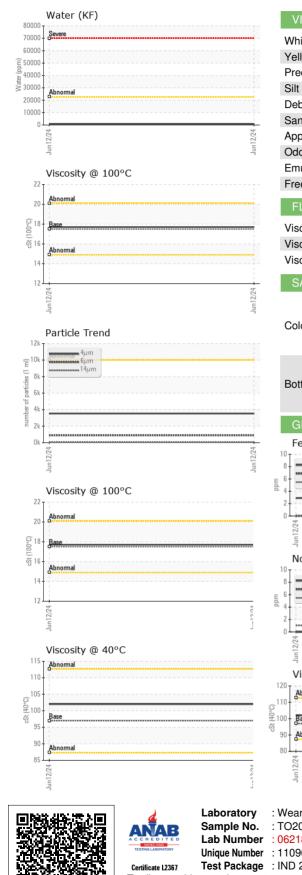
# **Fluid Condition**

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

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		TO20000337		
Sample Date		Client Info		12 Jun 2024		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				NORMAL		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>8	3		
Chromium	ppm	ASTM D5185m	>2	0		
Nickel	ppm	ASTM D5185m		0		
Titanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m	>2	0		
Aluminum	ppm	ASTM D5185m	>3	0		
Lead	ppm	ASTM D5185m	>2	0		
Copper	ppm	ASTM D5185m	>8	0		
Tin	ppm	ASTM D5185m	>4	1		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0		
Barium	ppm	ASTM D5185m		0		
Molybdenum	ppm	ASTM D5185m		0		
Manganese	ppm	ASTM D5185m		0		
Magnesium	ppm	ASTM D5185m		<1		
Calcium	ppm	ASTM D5185m		14		
Phosphorus	ppm	ASTM D5185m	1500	1464		
Zinc	ppm	ASTM D5185m		8		
Sulfur	ppm	ASTM D5185m		0		
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	2		
Sodium	ppm	ASTM D5185m		2		
Potassium	ppm	ASTM D5185m	>20	0		
Water	%	ASTM D6304	>2.26	0.071		
ppm Water	ppm	ASTM D6304	>22600	712		
FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	3527		
Particles >6µm		ASTM D7647	>2500	893		
Particles >14µm		ASTM D7647	>320	39		
Particles >21µm		ASTM D7647	>80	3		
Particles >38µm		ASTM D7647	>20	0		
Particles >71µm		ASTM D7647	>4	0		
Oil Cleanliness		ISO 4406 (c)	>20/18/15	19/17/12		
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974	0.04	0.014		



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ethod limit/base sual NONE sual NONE sual NONE sual NONE sual NONE sual NONE sual NORML sual NORML	Current NONE NONE NONE NONE NONE NONE NONE NON	history1    	history2  
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sual NORML	-		
	NORML		
2006			
sual >2.26	NEG		
sual	NEG		
ethod limit/base	current	history1	history2
FM D445 97	102		
TM D445 17.5	17.7		
M D2270 198	191		
ethod limit/base	current	historv1	history2
	a	no image	no image
		-	-
		no image	no image
	Particle Count		1.1.124
491,5			
	20 -		T <sup>26</sup>
122,8	30 Severe		-24
122,8	30 Severe		
30,7	30 Severe 20 - Abnormal		-24 -22
30,7	30 Severe 20 - Abnormal		-24 -22 -20
30,7	30 Severe 20 Abnormal 30		-24 -22 -20
30,7	30 Severe 20 Abnormal 30		-24 -22 -20
30,7	30 Severe 20 Abnormal 30 -		-24 -22 -20
1.00 1.00	30 Severe Abnormal		-24 -22 -20 -18 -16 -14
30.7 4 4 4 10 10 10 10 10 10 10 10 10 10 10 10 10	30 Severe 20 Abnormal 30 -		-24 -22 -20
30.7 4 4 4 10 10 10 10 10 10 10 10 10 10 10 10 10	30 Severe Abnormal 20 20 20 20		-24 -22 -20 -18 -16 -14
30.7 7,6 4 4 4 4 4 1.1 1.2 1 7 1.1 1.2 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1	30 Severe Abnormal 20 20 30 20 8		-24 -22 -18 -16 -14 -12 -10
30.7 7,6 4 4 4 4 4 1.1 1.2 1 7 1.1 1.2 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1	30 Severe Abnormal 30 - 30 - 30 - 30 - 30 - 30 - 30 - 30 -		-24 -22 -20 -18 -16 -14 -14 -12
30.7 4 4 4 10 10 10 10 10 10 10 10 10 10 10 10 10	30 Severe Abnormal 30 4 30 4 30 4 30 4 30 4 30 4 30 4 30 4	μ 21μ	-24 -22 -18 -16 -14 -12 -10
Jun12/24 Jun12/24 number of particles (per 1 m)	20 Severe 20 Abnormal 20 30 30 30 30 30 30 30 30 30 30 30 30 30	μ 21μ	-24 -22 -20 -18 -16 -14 -12 -10 -8 -5
Jun12/24 Jun12/24 number of particles (per 1 m)	20 Severe 20 Abnormal 20 30 30 30 30 30 30 30 30 30 30 30 30 30	μ 21μ	-24 -22 -20 -18 -16 -14 -12 -10 -8 -5
Jun12/24 Jun12/24 number of particles (per 1 m)	20 Severe 20 Abnormal 20 30 30 30 30 30 30 30 30 30 30 30 30 30	μ 21μ	-24 -22 -20 -18 -16 -14 -12 -10 -8 -5
Jun12/24 Jun12/24 number of particles (per 1 m)	20 Severe 20 Abnormal 20 30 30 30 30 30 30 30 30 30 30 30 30 30	μ 21μ	-24 -22 -20 -18 -16 -14 -12 -10 -8 -5
17.00 19.7 10.0	20 <b>Severe</b> <b>Abnormal</b> 20 <b>Abnormal</b> 20 <b>Abnorm</b>	μ 21μ	-24 -22 -20 -18 -16 -14 -14 -12 -10 -8 -38µ 71µ
30.7 7,6 4 4 4 1.1 1.2 1 4 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1	20 Severe 20 Abnormal 20 30 30 30 30 30 30 30 30 30 30 30 30 30	μ 21μ	-24 -22 -20 -18 -16 -14 -12 -10 -8 -5
	TM D445 97 TM D445 17.5 M D2270 198 ethod limit/base	TM D445       97       102         TM D445       17.5       17.7         M D2270       198       191         ethod       limit/base       current         Imit/base       current       Imit/base         Particle Count       Particle Count	IM D445       97       102          IM D445       17.5       17.7          M D2270       198       191          ethod       imit/base       current       history1         ethod       imit/base       current       no image         imit/base       provide image       image       image         Image       Particle Count       image       image

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)

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