

Area

**JOYCE PLANT**

Machine Id

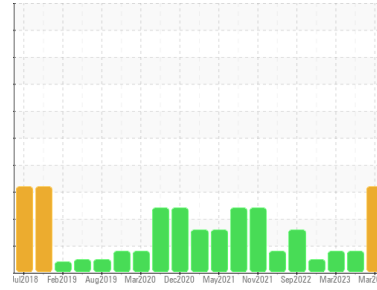
**C-201 (S/N 10241D76251205)**

Component

**Refrigeration Compressor**

Fluid

**TULCO LUBSOIL SYN RL WI 100 (250 GAL)**



**DIAGNOSIS**

**Recommendation**

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

**Wear**

All component wear rates are normal.

**Contamination**

There is a high amount of particulates present in the oil.

**Fluid Condition**

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

**SAMPLE INFORMATION**

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>TO90003250</b>	TO90002253	TO90002332
Sample Date	Client Info	<b>14 Mar 2024</b>	14 Aug 2023	15 Mar 2023
Machine Age	hrs	<b>0</b>	0	0
Oil Age	hrs	<b>0</b>	0	0
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

**WEAR METALS**

method	limit/base	current	history1	history2
Iron ppm	ASTM D5185m >8	<b>▲ 105</b>	▲ 89	▲ 61
Chromium ppm	ASTM D5185m >2	<b>0</b>	<1	0
Nickel ppm	ASTM D5185m	<b>&lt;1</b>	0	<1
Titanium ppm	ASTM D5185m	<b>0</b>	0	0
Silver ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum ppm	ASTM D5185m >3	<b>&lt;1</b>	0	1
Lead ppm	ASTM D5185m >2	<b>0</b>	0	0
Copper ppm	ASTM D5185m >8	<b>2</b>	<1	0
Tin ppm	ASTM D5185m >4	<b>4</b>	4	2
Vanadium ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium ppm	ASTM D5185m	<b>&lt;1</b>	0	0

**ADDITIVES**

method	limit/base	current	history1	history2
Boron ppm	ASTM D5185m	<b>0</b>	0	0
Barium ppm	ASTM D5185m	<b>0</b>	0	0
Molybdenum ppm	ASTM D5185m	<b>0</b>	0	<1
Manganese ppm	ASTM D5185m	<b>3</b>	2	1
Magnesium ppm	ASTM D5185m	<b>2</b>	<1	6
Calcium ppm	ASTM D5185m	<b>5</b>	6	5
Phosphorus ppm	ASTM D5185m 1500	<b>774</b>	501	371
Zinc ppm	ASTM D5185m	<b>47</b>	46	51
Sulfur ppm	ASTM D5185m	<b>32</b>	53	61

**CONTAMINANTS**

method	limit/base	current	history1	history2
Silicon ppm	ASTM D5185m >15	<b>5</b>	6	6
Sodium ppm	ASTM D5185m	<b>10</b>	10	9
Potassium ppm	ASTM D5185m >20	<b>3</b>	<1	<1
Water %	ASTM D6304 >2.26	<b>0.033</b>	0.033	0.00
ppm Water	ASTM D6304 >22600	<b>337</b>	332.0	0.00

**FLUID CLEANLINESS**

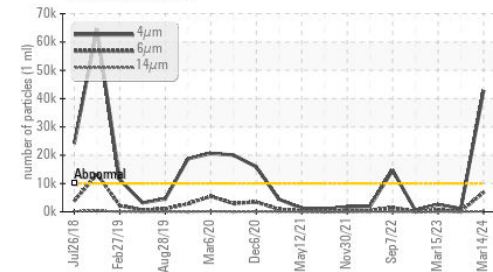
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >10000	<b>▲ 42890</b>	1133	2558
Particles >6µm	ASTM D7647 >2500	<b>▲ 6854</b>	169	562
Particles >14µm	ASTM D7647 >320	<b>155</b>	11	14
Particles >21µm	ASTM D7647 >80	<b>20</b>	3	5
Particles >38µm	ASTM D7647 >20	<b>0</b>	0	0
Particles >71µm	ASTM D7647 >4	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c) >20/18/15	<b>▲ 23/20/14</b>	17/15/11	19/16/11

**FLUID DEGRADATION**

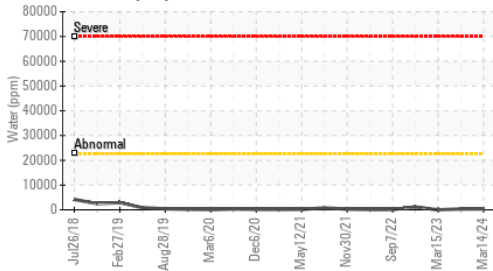
method	limit/base	current	history1	history2
Acid Number (AN) mg KOH/g	ASTM D974 0.04	<b>▲ 0.254</b>	0.096	0.099

# OIL ANALYSIS REPORT

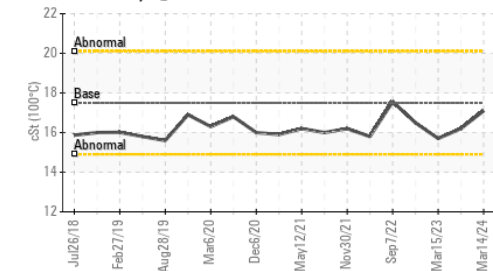
## Particle Trend



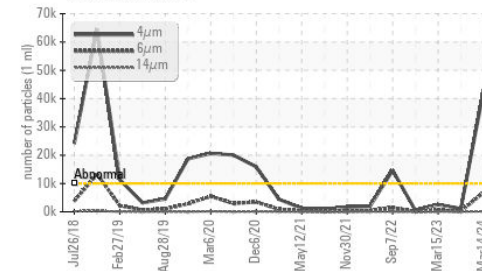
## Water (KF)



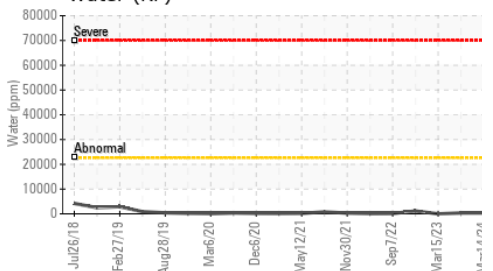
## Viscosity @ 100°C



## Particle Trend



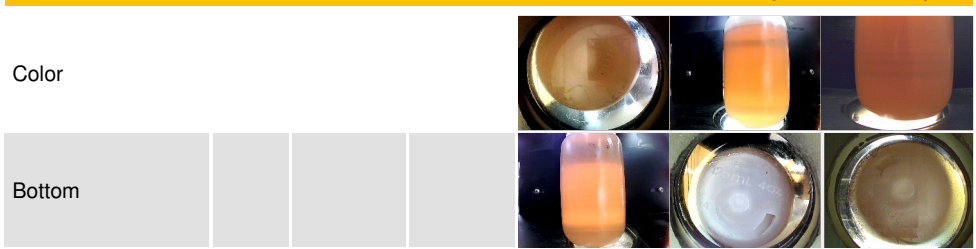
## Water (KF)



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>2.26	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

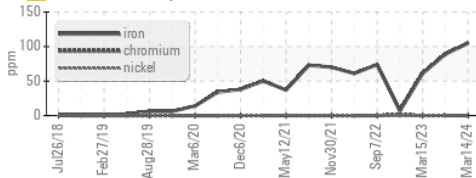
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	97	108	101
Visc @ 100°C	cSt	ASTM D445	17.5	17.1	16.2
Viscosity Index (VI)	Scale	ASTM D2270	198	173	172

## SAMPLE IMAGES

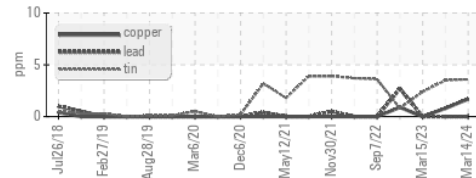


## GRAPHS

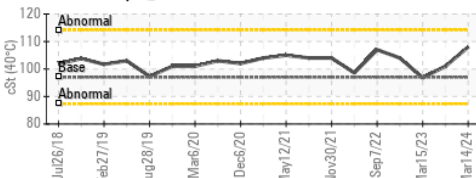
### Ferrous Alloys



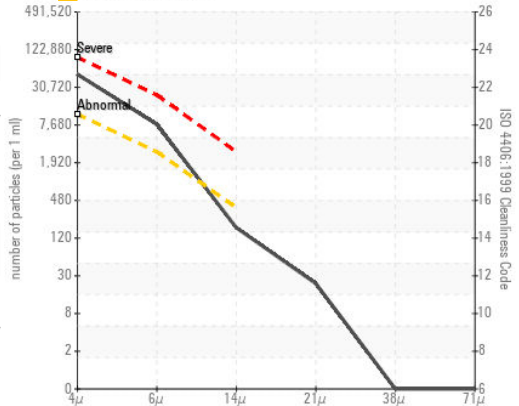
### Non-ferrous Metals



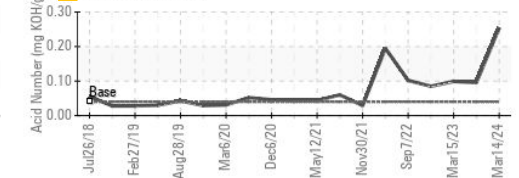
### Viscosity @ 40°C



### Particle Count



### Acid Number



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TO90003250 **Received** : 16 Apr 2024  
**Lab Number** : 06150503 **Tested** : 17 Apr 2024  
**Unique Number** : 10980581 **Diagnosed** : 18 Apr 2024 - Jonathan Hester  
**Test Package** : IND 2 ( Additional Tests: KV100, PrtCount, VI )

**TARGA RESOURCES - JOYCE**  
 1757 COUNTY ROAD 250  
 MIDKIFF, TX  
 US 79755  
 Contact: LLOYD FITTS  
 lfitts@targaresources.com  
 T: (432)770-7923  
 F:

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)