

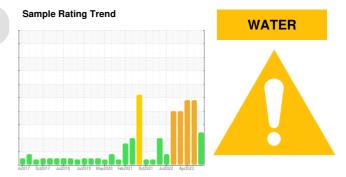
PROBLEM SUMMARY

PLATE FREEZER Machine Id PLATE FRZR 1-5

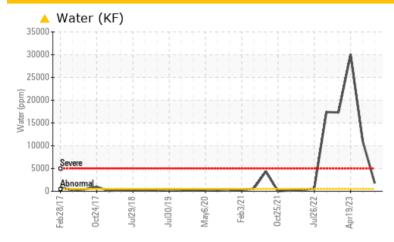
Component

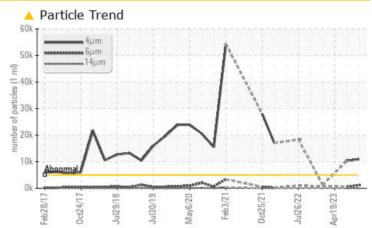
Hydraulic System

LUBRIPLATE L0867-062 (--- GAL)



COMPONENT CONDITION SUMMARY





RECOMMENDATION

Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS											
Sample Status				ABNORMAL	SEVERE	SEVERE					
Water	%	ASTM D6304	>0.05	<u> </u>	1.11	3.01					
ppm Water	ppm	ASTM D6304	>500	1794.1	11100	30100					
Particles >4µm		ASTM D7647	>5000	<u> </u>	<u>▲</u> 10305						
Oil Cleanliness		ISO 4406 (c)	>19/17/14	21/17/13	21/16/13						

Customer Id: CONRUS Sample No.: USP0003664 Lab Number: 06009691 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Doug Bogart +1 (800)237-1369 x4016 dougb@wearcheckusa.com

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

19 Aug 2023 Diag: Doug Bogart

WATER



We advise that you check for the source of water entry. We advise that you perform a filter service and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition. All component wear rates are normal. Appearance is milky. There is a high amount of silt (particulates < 6 microns in size) present in the oil. There is a high concentration of water present in the oil. The AN level is acceptable for this fluid.



19 Apr 2023 Diag: Doug Bogart

WATER



We advise that you check for the source of water entry. We advise that you perform a filter service and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition. We were unable to perform a particle count due to a high concentration of particles and water present in this sample. All component wear rates are normal. Appearance is milky. There is a high concentration of water present in the oil. Moderate concentration of visible sediment present in the oil. The AN level is acceptable for this fluid.



25 Jan 2023 Diag: Jonathan Hester

WATER



We advise that you check for the source of water entry. We advise that you perform a filter service, and use offline filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition.All component wear rates are normal. Appearance is milky. There is a high concentration of water present in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid.



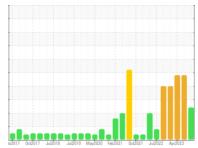


OIL ANALYSIS REPORT

PLATE FREEZER **PLATE FRZR 1-5**

Hydraulic System

LUBRIPLATE L0867-062 (--- GAL)



Sample Rating Trend



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is a high amount of silt (particulates < 6 microns in size) present in the oil. There is a light concentration of water present in the oil.

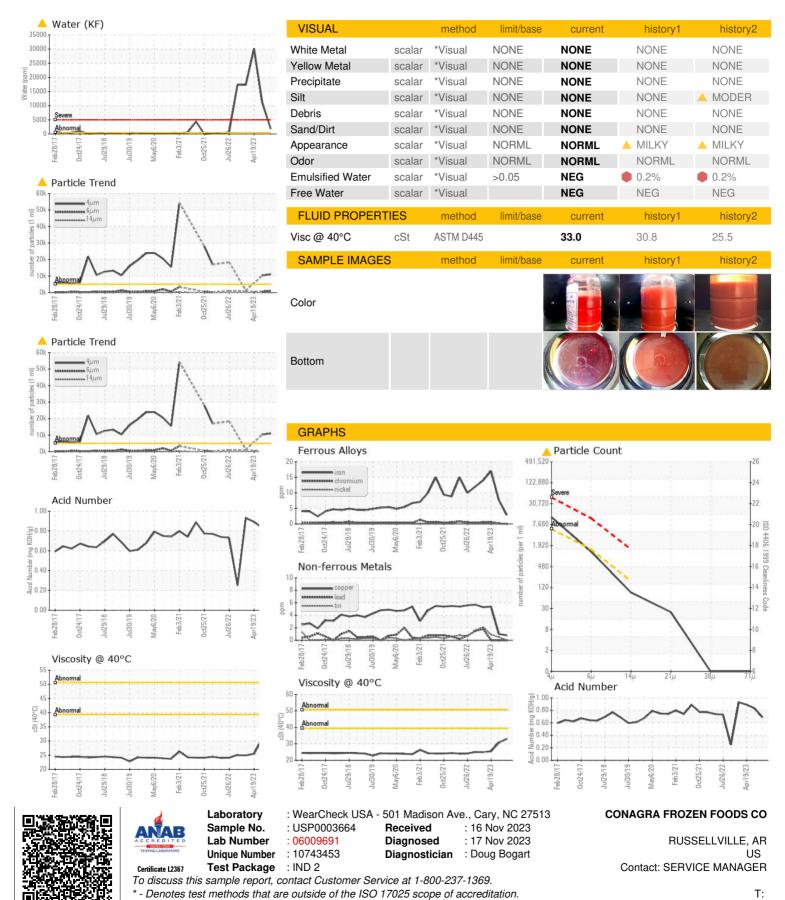
Fluid Condition

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

		62017 Oct201	7 Jul2018 Jul2019 May	2020 Feb2021 Oct2021 Jul2022	Apr2023	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		USP0003664	USP0000567	USP248825
Sample Date		Client Info		15 Nov 2023	19 Aug 2023	19 Apr 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				ABNORMAL	SEVERE	SEVERE
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	3	8	17
Chromium	ppm	ASTM D5185m	>20	0	<1	<1
Nickel	ppm	ASTM D5185m	>20	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>20	<1	0	<1
Lead	ppm	ASTM D5185m	>20	0	0	0
Copper	ppm	ASTM D5185m	>20	<1	1	5
Tin	ppm	ASTM D5185m	>20	0	<1	<1
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		64	62	65
Barium	ppm	ASTM D5185m		0	<1	<1
Molybdenum	ppm	ASTM D5185m		<1	0	<1
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		2	4	4
Calcium	ppm	ASTM D5185m		54	80	138
Phoophorus	PPIII				000	232
Phosphorus	ppm	ASTM D5185m		168	200	232
Zinc		ASTM D5185m ASTM D5185m		168 37	124	248
·	ppm					
Zinc	ppm ppm ppm	ASTM D5185m	limit/base	37	124	248
Zinc Sulfur CONTAMINANTS	ppm ppm ppm	ASTM D5185m ASTM D5185m method		37 833 current	124 1091 history1	248 1360 history2
Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m		37 833 current 7	124 1091	248 1360
Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m		37 833 current 7 0	124 1091 history1	248 1360 history2
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m	>15 >20	37 833 current 7 0	124 1091 history1 3 4 <1	248 1360 history2 9 7 <1
Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m	>15 >20	37 833 current 7 0	124 1091 history1 3	248 1360 history2 9 7 <1
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304	>15 >20 >0.05	37 833	124 1091 history1 3 4 <1	248 1360 history2 9 7 <1
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304	>15 >20 >0.05 >500	37 833	124 1091 history1 3 4 <1 • 1.11	248 1360 history2 9 7 <1 • 3.01 • 30100
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 method	>15 >20 >0.05 >500 limit/base >5000	37 833	124 1091 history1 3 4 <1 • 1.11 • 11100 history1	248 1360 history2 9 7 <1 • 3.01 • 30100 history2
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 method ASTM D7647	>15 >20 >0.05 >500 limit/base >5000	37 833 current 7 0 1 ▲ 0.179 ▲ 1794.1 current ▲ 10981	124 1091 history1 3 4 <1 • 1.11 • 11100 history1	248 1360 history2 9 7 <1 • 3.01 • 30100 history2
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 method ASTM D7647 ASTM D7647	>15 >20 >0.05 >500 limit/base >5000 >1300 >160	37 833 current 7 0 1 ▲ 0.179 ▲ 1794.1 current ▲ 10981 1118	124 1091 history1 3 4 <1 1.11 11100 history1 10305 556	248 1360 history2 9 7 <1 3.01 30100 history2
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 method ASTM D7647 ASTM D7647 ASTM D7647	>15 >20 >0.05 >500 limit/base >5000 >1300 >160	37 833 current 7 0 1 ▲ 0.179 ▲ 1794.1 current ▲ 10981 1118 76	124 1091 history1 3 4 <1 1.11 11100 history1 10305 556 42	248 1360 history2 9 7 <1 3.01 30100 history2
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 Method ASTM D7647 ASTM D7647 ASTM D7647	>15 >20 >0.05 >500 limit/base >5000 >1300 >160 >40 >10	37 833 current 7 0 1 ▲ 0.179 ▲ 1794.1 current ▲ 10981 1118 76 21	124 1091 history1 3 4 <1 1.11 11100 history1 10305 556 42 12	248 1360 history2 9 7 <1 3.01 30100 history2
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 method ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>15 >20 >0.05 >500 limit/base >5000 >1300 >160 >40 >10	37 833 current 7 0 1 ▲ 0.179 ▲ 1794.1 current ▲ 10981 1118 76 21 0	124 1091 history1 3 4 <1 1.11 11100 history1 10305 556 42 12	248 1360 history2 9 7 <1 3.01 30100 history2
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >38µm Particles >71µm	ppm ppm ppm ppm ppm ppm ppm ppm Sess	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 method ASTM D7647	>15 >20 >0.05 >500 limit/base >5000 >1300 >160 >40 >10 >3	37 833 current 7 0 1 △ 0.179 △ 1794.1 current △ 10981 1118 76 21 0 0	124 1091 history1 3 4 <1 ● 1.11 ● 11100 history1 ▲ 10305 556 42 12 1	248 1360 history2 9 7 <1 3.01 30100 history2



OIL ANALYSIS REPORT



Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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