

## **OIL ANALYSIS REPORT**

Sample Rating Trend

ISO

TOP TOOL LOCK Component Tank Hydraulic System Fluid ECOSAFE FR-46 (200 GAL)

### DIAGNOSIS

Area
PRESS
Machine Id

#### A Recommendation

We recommend you service the filters on this component if applicable. 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 INFORM	ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0905616	WC0920358	WC06129943
Sample Date		Client Info		21 Apr 2024	07 Apr 2024	25 Mar 2024
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	ABNORMAL	NORMAL
CONTAMINATION	N	method	limit/base	current	history1	history2
Water		WC Method	>0.05	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	1	0	<1
Chromium	ppm	ASTM D5185m	>20	0	0	0
Nickel	ppm	ASTM D5185m	>20	0	0	<1
Titanium	ppm	ASTM D5185m		<1	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	0	<1
Tin	ppm	ASTM D5185m	>20	1	<1	1
Vanadium	ppm	ASTM D5185m	220	<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<1	0	<1
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	0	<1
Calcium	ppm	ASTM D5185m		2	1	2
Vaicium				606	641	638
	ppm	ASTM D5185m				
Phosphorus	ppm	ASTM D5185m				
Phosphorus Zinc	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		12 3805	7 3865	9 3702
Phosphorus Zinc	ppm ppm	ASTM D5185m	limit/base	12 3805	7	9
Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm	ASTM D5185m ASTM D5185m		12 3805	7 3865	9 3702
Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm	ASTM D5185m ASTM D5185m method		12 3805 current	7 3865 history1	9 3702 history2
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm	ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m	>15	12 3805 current 2	7 3865 history1 0	9 3702 history2 1
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m	>15	12 3805 current 2 0 <1	7 3865 history1 0 0	9 3702 history2 1 <1
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m ASTM D5185m ASTM D5185m	>15 >20	12 3805 current 2 0 <1	7 3865 history1 0 0 0	9 3702 history2 1 <1 <1 1
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m method	>15 >20 limit/base >5000	12 3805 current 2 0 <1 current	7 3865 history1 0 0 0 0 history1	9 3702 history2 1 <1 1 1 history2
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D7647	>15 >20 limit/base >5000	12 3805 current 2 0 <1 current 0 <1 0 x 10883	7 3865 history1 0 0 0 0 history1 ▲ 15180	9 3702 history2 1 <1 <1 1 history2 2096
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D7647 ASTM D7647	>15 >20 limit/base >5000 >1300 >160	12 3805 current 2 0 <1 2 00<1current▲ 10883▲ 3286	7 3865 history1 0 0 0 0 history1 ▲ 15180 ▲ 2362	9 3702 history2 1 <1 <1 1 1 history2 2096 545
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647	>15 >20 limit/base >5000 >1300 >160	12 3805 current 2 0 <1 current 10883 ▲ 3286 ▲ 241	7 3865 history1 0 0 0 0 history1 ▲ 15180 ▲ 2362 120	9 3702 history2 1 <1 <1 1 history2 2096 545 38
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>15 >20 limit/base >5000 >1300 >160 >40 >10	12 3805 current 2 0 <1 current 10883 ▲ 10883 ▲ 3286 ▲ 241 ▲ 47	7 3865 history1 0 0 0 history1 ▲ 15180 ▲ 2362 120 27	9 3702 history2 1 <1 1 1 history2 2096 545 38 38 11
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>15 >20 limit/base >5000 >1300 >160 >40 >10	12 3805 current 2 0 <1 current 10883 ▲ 3286 ▲ 241 ▲ 47 1	7 3865 history1 0 0 0 0 history1 ▲ 15180 ▲ 2362 120 27 0	9 3702 history2 1 <1 1 * history2 2096 545 38 11 0
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm Particles >71µm	ppm ppm ppm ppm ESS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>15 >20 limit/base >5000 >1300 >160 >40 >10 >3	12 3805 current 2 0 <1 current 10883 ▲ 3286 ▲ 241 ▲ 47 1 0 0 ▲ 21/19/15	7 3865 history1 0 0 0 history1 ▲ 15180 ▲ 2362 120 27 0 0 0	9 3702 history2 1 <1 1 * 1 * 1 2096 545 38 11 0 0 0
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm Particles >71µm Oil Cleanliness	ppm ppm ppm ppm ESS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>15 >20 limit/base >5000 >1300 >160 >40 >10 >3 >3 >19/17/14	12 3805 current 2 0 <1 current 10883 ▲ 3286 ▲ 241 ▲ 47 1 0 0 ▲ 21/19/15	7 3865 history1 0 0 0 0 history1 ▲ 15180 ▲ 15180 ▲ 2362 120 27 0 0 0 0 0 21/18/14	9 3702 history2 1 <1 1 1 history2 2096 545 38 11 0 0 0 18/16/12

Report Id: ALLMONSAF [WUSCAR] 06155856 (Generated: 04/24/2024 12:55:39) Rev: 1

Contact/Location: JEREMY ALMOND - ALLMONSA



-eb2/20

Acid Number

Feb2/20

Viscosity @ 40°C

May3/21

May3/21

Aug29/7

2 (

nber (mg KOH/g)

Pio 0.5

Aug29/1

60

55

cSt (40°C)

40

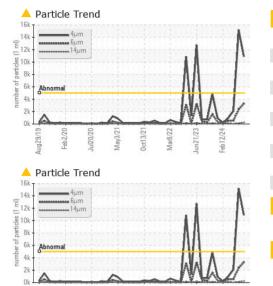
45

Abr

Aug29/19

C/CHa

# **OIL ANALYSIS REPORT**



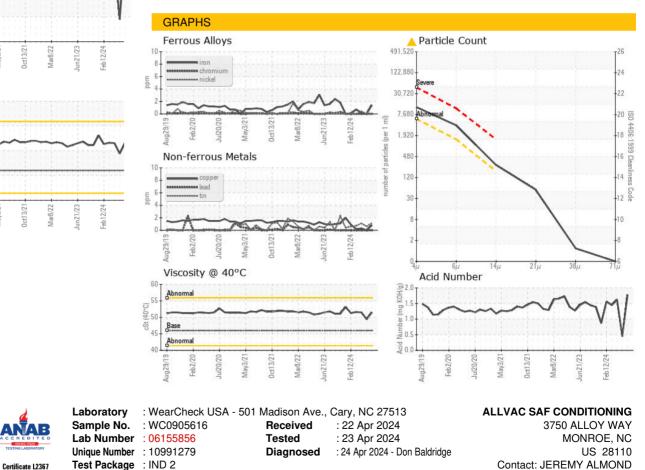
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Feb12/2

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46	51.5	49.4	51.5
SAMPLE IMAGES		method	limit/base	current	history1	history2
Color						3. DX

Bottom





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)

Report Id: ALLMONSAF [WUSCAR] 06155856 (Generated: 04/24/2024 12:55:39) Rev: 1

Contact/Location: JEREMY ALMOND - ALLMONSAF

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