

# **OIL ANALYSIS REPORT**

## Sample Rating Trend

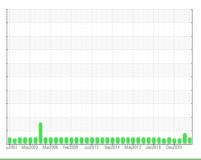
## NORMAL

# BARRIER DEPARTMENT SAMPLES Machine Id REIFENHAUSER WEB 15 H

Component

Gearbox

**TEXACO MEROPA 220 (10 GAL)** 





#### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

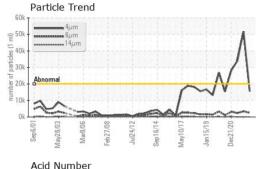
#### **Fluid Condition**

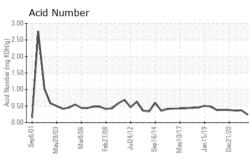
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

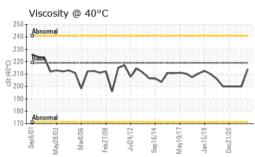
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0821049	WC0692851	WC0608727
Sample Date		Client Info		20 Nov 2023	30 Oct 2022	24 Jan 2022
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	ATTENTION	ATTENTION
CONTAMINATION	V	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	1	5	6
Chromium	ppm	ASTM D5185m	>15	<1	0	0
Nickel	ppm	ASTM D5185m	>15	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m		0	<1	<1
Aluminum	ppm	ASTM D5185m	>25	2	<1	<1
Lead	ppm	ASTM D5185m	>100	0	0	0
Copper	ppm	ASTM D5185m	>200	<1	1	1
Tin	ppm	ASTM D5185m	>25	0	0	0
Antimony	ppm	ASTM D5185m	>5			0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		<1	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current	history1	history2 24
	ppm					
Boron		ASTM D5185m	3.2	<1	10	24
Boron Barium Molybdenum Manganese	ppm	ASTM D5185m ASTM D5185m	3.2 0.5 1.1	<1 0	10 0	24
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	3.2 0.5 1.1	<1 0 6 0 29	10 0 64 0 62	24 0 67 <1 63
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	3.2 0.5 1.1 0.1 1.6	<1 0 6 0 29 6	10 0 64 0 62 14	24 0 67 <1 63 15
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	3.2 0.5 1.1 0.1 1.6 159	<1 0 6 0 29 6 292	10 0 64 0 62 14 249	24 0 67 <1 63 15 257
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	3.2 0.5 1.1 0.1 1.6 159 0.5	<1 0 6 0 29 6 292	10 0 64 0 62 14 249 83	24 0 67 <1 63 15 257
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	3.2 0.5 1.1 0.1 1.6 159 0.5 10342	<1 0 6 0 29 6 292	10 0 64 0 62 14 249	24 0 67 <1 63 15 257
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	3.2 0.5 1.1 0.1 1.6 159 0.5 10342 limit/base	<1 0 6 0 29 6 292 10 9438	10 0 64 0 62 14 249 83 12994 history1	24 0 67 <1 63 15 257 87 10848 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	3.2 0.5 1.1 0.1 1.6 159 0.5 10342 limit/base	<1 0 6 0 29 6 292 10 9438 current	10 0 64 0 62 14 249 83 12994 history1	24 0 67 <1 63 15 257 87 10848 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	3.2 0.5 1.1 0.1 1.6 159 0.5 10342 limit/base	<1 0 6 0 29 6 292 10 9438 current 2	10 0 64 0 62 14 249 83 12994 history1 3	24 0 67 <1 63 15 257 87 10848 history2 3 <1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	3.2 0.5 1.1 0.1 1.6 159 0.5 10342 limit/base	<1 0 6 0 29 6 292 10 9438 current	10 0 64 0 62 14 249 83 12994 history1	24 0 67 <1 63 15 257 87 10848 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	3.2 0.5 1.1 0.1 1.6 159 0.5 10342 limit/base	<1 0 6 0 29 6 292 10 9438 current 2 0 <1	10 0 64 0 62 14 249 83 12994 history1 3 <1 0	24 0 67 <1 63 15 257 87 10848 history2 3 <1 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	3.2 0.5 1.1 0.1 1.6 159 0.5 10342 limit/base >50 >20 limit/base	<1 0 6 0 29 6 292 10 9438 current 2 0 <1 current	10 0 64 0 62 14 249 83 12994 history1 3 <1 0 history1  ▲ 51752	24 0 67 <1 63 15 257 87 10848 history2 3 <1 0 history2   33950
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  METHOD  ASTM D5185m	3.2 0.5 1.1 0.1 1.6 159 0.5 10342 limit/base >50 >20 limit/base	<1 0 6 0 29 6 292 10 9438 current 2 0 <1 current 15556 2515	10 0 64 0 62 14 249 83 12994 history1 3 <1 0 history1  ▲ 51752 3409	24 0 67 <1 63 15 257 87 10848 history2 3 <1 0 history2 ▲ 33950 2366
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  method ASTM D5185m ASTM D7647 ASTM D7647	3.2 0.5 1.1 0.1 1.6 159 0.5 10342 limit/base >50 >20 limit/base >20000 >5000 >640	<1 0 6 0 29 6 292 10 9438 current 2 0 <1 current 15556 2515 102	10 0 64 0 62 14 249 83 12994 history1 3 <1 0 history1  ▲ 51752 3409 34	24 0 67 <1 63 15 257 87 10848 history2 3 <1 0 history2  ▲ 33950 2366 46
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur  CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  method ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647	3.2 0.5 1.1 0.1 1.6 159 0.5 10342 limit/base >50 >20 limit/base >20000 >5000 >640 >160	<1 0 6 0 29 6 292 10 9438  current 2 0 <1 current 15556 2515 102 16	10 0 64 0 62 14 249 83 12994 history1 3 <1 0 history1  ▲ 51752 3409 34 6	24 0 67 <1 63 15 257 87 10848 history2 3 <1 0 history2  ▲ 33950 2366 46 7
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur  CONTAMINANTS Silicon Sodium Potassium  FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	3.2 0.5 1.1 0.1 1.6 159 0.5 10342 limit/base >50 >20 limit/base >20000 >5000 >640 >160 >40	<1 0 6 0 29 6 292 10 9438 current 2 0 <1 current 15556 2515 102 16 2	10 0 64 0 62 14 249 83 12994 history1 3 <1 0 history1  ▲ 51752 3409 34 6 0	24 0 67 <1 63 15 257 87 10848 history2 3 <1 0 history2  ▲ 33950 2366 46 7 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur  CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  method ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647	3.2 0.5 1.1 0.1 1.6 159 0.5 10342 limit/base >50 >20 limit/base >20000 >5000 >640 >160 >40	<1 0 6 0 29 6 292 10 9438  current 2 0 <1 current 15556 2515 102 16	10 0 64 0 62 14 249 83 12994 history1 3 <1 0 history1  ▲ 51752 3409 34 6	24 0 67 <1 63 15 257 87 10848 history2 3 <1 0 history2  ▲ 33950 2366 46 7

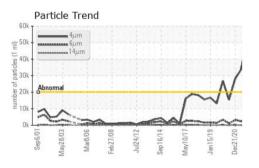


## **OIL ANALYSIS REPORT**





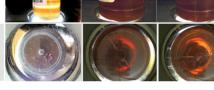


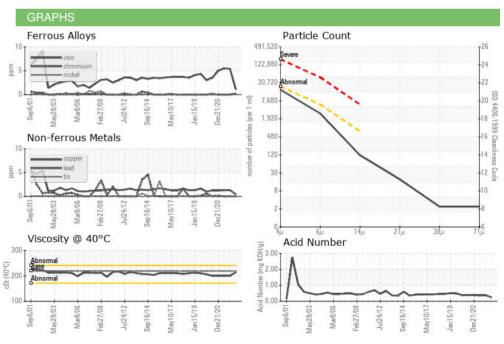


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.24	0.37	0.36
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	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
<b>Emulsified Water</b>	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	TES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	219	214	200	200

SAMPLE IMAGES Color











Laboratory Sample No. Lab Number **Unique Number** 

: WC0821049 : 06014013 : 10753157

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 21 Nov 2023 Diagnosed : 24 Nov 2023

: Wes Davis Diagnostician

Test Package : IND 2 ( Additional Tests: PrtCount ) Certificate L2367 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.

**SEALED AIR CORP - CRYOVAC DIVISION** 

1301 WEST MAGNOLIA AVE IOWA PARK, TX

US 76367

Contact: KEVIN KETCHERSID kevin.a.ketchersid@sealedair.com

> T: (940)592-2111 F: (940)592-2513

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