

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

BARRIER DEPARTMENT SAMPLES Machine Id REIFENHAUSER WEB 15 E

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		WC0869514	WC0682507	WC0608724
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	NORMAL	NORMAL
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	6	7	8
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	0	<1
Aluminum	ppm	ASTM D5185m		2	0	0
Lead	ppm	ASTM D5185m	>100	0	<1	0
Copper	ppm		>200	2	2	2
Tin	ppm	ASTM D5185m	>25	0	<1	0
Antimony	ppm	ASTM D5185m	>5			0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		<1	0	0
	ррпп	AOTIVI DOTOSIII		<u> </u>	-	O
ADDITIVES	ppiii	method	limit/base	current	history1	history2
	ppm		limit/base		-	
ADDITIVES		method		current	history1	history2
ADDITIVES Boron Barium Molybdenum	ppm	method ASTM D5185m	3.2	current 3	history1	history2
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m	3.2 0.5 1.1	current 3 0	history1 6 0	history2 16 0 2 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	3.2 0.5	current 3 0 2 <1 2	history1 6 0 2 <1 1	history2 16 0 2 <1 1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm	method ASTM D5185m	3.2 0.5 1.1 0.1 1.6	current 3 0 2 <1 2 17	history1 6 0 2 <1 1 26	history2 16 0 2 <1 1 28
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	method ASTM D5185m	3.2 0.5 1.1 0.1 1.6 159	current 3 0 2 <1 2 17 131	history1 6 0 2 <1 1 26 186	history2 16 0 2 <1 1 28 196
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	3.2 0.5 1.1 0.1 1.6 159 0.5	current 3 0 2 <1 2 17 131 0	history1 6 0 2 <1 1 26 186 3	history2 16 0 2 <1 1 28 196 4
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	3.2 0.5 1.1 0.1 1.6 159	current 3 0 2 <1 2 17 131	history1 6 0 2 <1 1 26 186	history2 16 0 2 <1 1 28 196
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	3.2 0.5 1.1 0.1 1.6 159 0.5	current 3 0 2 <1 2 17 131 0 4780 current	history1 6 0 2 <1 1 26 186 3 7892 history1	history2 16 0 2 <1 1 28 196 4
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	3.2 0.5 1.1 0.1 1.6 159 0.5 10342	current 3 0 2 <1 2 17 131 0 4780 current 2	history1 6 0 2 <1 1 26 186 3 7892	history2 16 0 2 <1 1 28 196 4 6753
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	3.2 0.5 1.1 0.1 1.6 159 0.5 10342 limit/base >50	current 3 0 2 <1 2 17 131 0 4780 current	history1 6 0 2 <1 1 26 186 3 7892 history1 2 <1	history2 16 0 2 <1 1 28 196 4 6753 history2 2 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	3.2 0.5 1.1 0.1 1.6 159 0.5 10342 limit/base >50	current 3 0 2 <1 2 17 131 0 4780 current 2	history1 6 0 2 <1 1 26 186 3 7892 history1 2	history2 16 0 2 <1 1 1 28 196 4 6753 history2 2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	3.2 0.5 1.1 0.1 1.6 159 0.5 10342 limit/base >50	current 3 0 2 <1 2 17 131 0 4780 current 2 <1	history1 6 0 2 <1 1 26 186 3 7892 history1 2 <1	history2 16 0 2 <1 1 28 196 4 6753 history2 2 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	3.2 0.5 1.1 0.1 1.6 159 0.5 10342 limit/base >50 >20	current 3 0 2 <1 2 17 131 0 4780 current 2 <1 1	history1 6 0 2 <1 1 26 186 3 7892 history1 2 <1 0	history2 16 0 2 <1 1 1 28 196 4 6753 history2 2 <1 0
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	3.2 0.5 1.1 0.1 1.6 159 0.5 10342 limit/base >50 >20	current 3 0 2 <1 2 17 131 0 4780 current 2 <1 1	history1 6 0 2 <1 1 26 186 3 7892 history1 2 <1 0 history1	history2 16 0 2 <1 1 28 196 4 6753 history2 2 <1 0 history2
ADDITIVES 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 ppm	method 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	current 3 0 2 <1 2 17 131 0 4780 current 2 <1 1 current 15733	history1 6 0 2 <1 1 26 186 3 7892 history1 2 <1 0 history1 13477	history2 16 0 2 <1 1 28 196 4 6753 history2 2 <1 0 history2 13421
ADDITIVES 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 ppm	method ASTM D5185m method ASTM D5185m	3.2 0.5 1.1 0.1 1.6 159 0.5 10342 limit/base >50 >20	current 3 0 2 <1 2 17 131 0 4780 current 2 <1 1 current 15733 1514	history1 6 0 2 <1 1 1 26 186 3 7892 history1 2 <1 0 history1 13477 1385	history2 16 0 2 <1 1 28 196 4 6753 history2 2 <1 0 history2 13421 1679
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method 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 >5000 >640 >160 >40	current 3 0 2 <1 2 17 131 0 4780 current 2 <1 1 current 15733 1514 27	history1 6 0 2 <1 1 26 186 3 7892 history1 2 <1 0 history1 13477 1385 32	history2 16 0 2 <1 1 1 28 196 4 6753 history2 2 <1 0 history2 13421 1679 77

ISO 4406 (c) >--/19/16

Oil Cleanliness

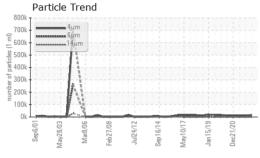
21/18/12

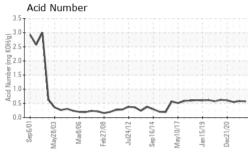
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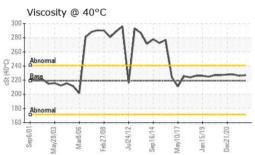
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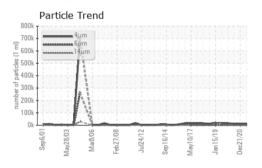


OIL ANALYSIS REPORT





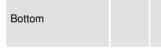




FLUID DEGRADATION		method				history2	
Acid Number (AN)	mg KOH/g	ASTM D8045		0.57	0.58	0.55	
VISUAL		method	limit/base	current	history1	history2	
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE	
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE	
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE	
Silt	scalar	*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	>0.2	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	227	226	228	

SAMPLE IMAGES	method			histor
		b.	20	

Color





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		chromiu	m	Ш			-			122,880	-								-24
****		nickel		1		-	-	Y		30,720	-		1						-2
				2	-		6	9	- ≘	7,680	1								-21
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No	n-fer	rous	Meta	ils					f parti	480			1						1
_		copper							number of	120	1			1					-1
+ 1000					1				- In	30	+			1					+1
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Sep6/01-	May28/03	Mar8/06	Feb27/08	Jul24/12	Sep16/14	May10/17	Jan15/19	Dec21/20		A	Sep6/01-	May28/03	Mar8/06	Feb27/08	Jul24/12	Sep16/14	May10/1	Jan15/19	Dec21/20
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Certificate L2367

Laboratory Sample No. Lab Number

: WC0869514 : 06014014 Unique Number : 10753158

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received Diagnosed

: 24 Nov 2023 Diagnostician : Wes Davis

: 21 Nov 2023

Test Package : IND 2 (Additional Tests: PrtCount) 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)

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