

## WEAR ABNORMAL CONTAMINATION ABNORMAL FLUID CONDITION NORMAL

## Machine Id MATTEI 10023694 Component Compressor Fluid {not provided} (---- QTS) RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

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Moderate concentration of visible metal present. All component wear rates are normal.

## CONTAMINATION

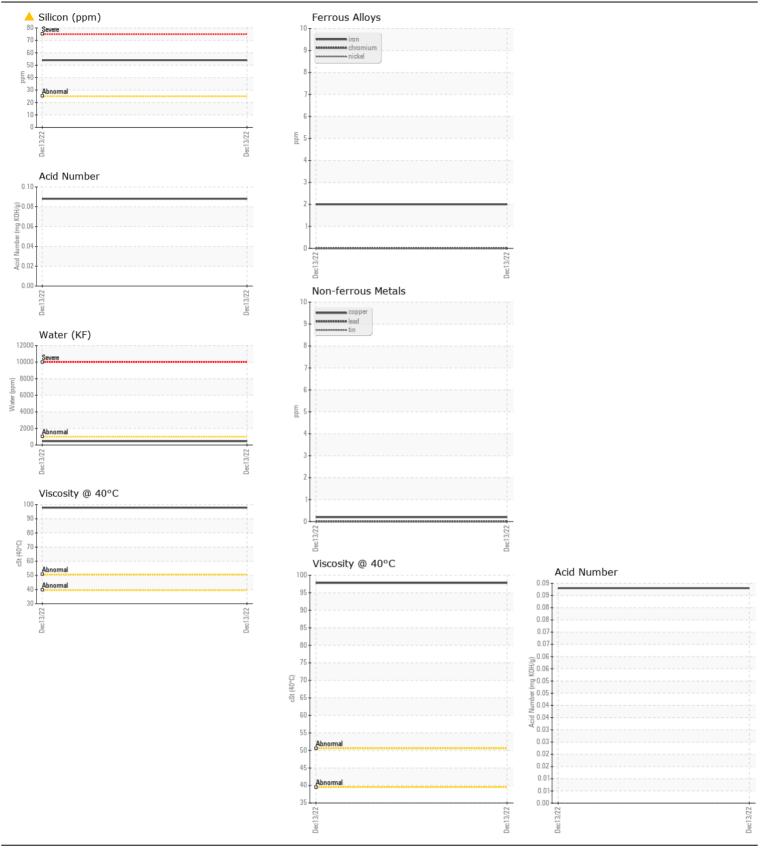
Elemental level of silicon (Si) above normal indicating ingress of seal material.

## FLUID CONDITION

The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		AN38879		
Sample Date		Client Info		13 Dec 2022		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Filter Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A		
Filter Changed		Client Info		N/A		
Sample Status				ABNORMAL		
Iran			. 50	•		
Iron	ppm		>50	2		
Chromium	ppm	ASTM D5185m	>10	0		
Nickel	ppm	ASTM D5185m		0		
Titanium Silver	ppm	ASTM D5185m		0		
Aluminum	ppm		× 05	•		
	ppm	ASTM D5185m ASTM D5185m	>25 >25	0		
Lead	ppm	ASTM D5185m	>25 >50	0 <1		
Copper	ppm					
Tin	ppm	ASTM D5185m	>15	0		
Vanadium White Metal	ppm scalar	ASTM D5185m *Visual	NONE	U NONE		
Yellow Metal	scalar	*Visual	NONE			
	Scalai	v isuai				
Silicon			05			
Shicon	ppm	ASTM D5185m	>25	🔺 54		
Potassium	ppm	ASTM D5185m	>25	▲ 54 1		
Potassium	ppm	ASTM D5185m	>20	1		
Potassium Water	ppm %	ASTM D5185m ASTM D6304	>20 >0.1	1 0.045		
Potassium Water ppm Water	ppm % ppm	ASTM D5185m ASTM D6304 ASTM D6304	>20 >0.1 >1000	1 0.045 454.1		
Potassium Water ppm Water Silt	ppm % ppm scalar	ASTM D5185m ASTM D6304 ASTM D6304 *Visual	>20 >0.1 >1000 NONE	1 0.045 454.1 NONE		
Potassium Water ppm Water Silt Debris	ppm % ppm scalar scalar	ASTM D5185m ASTM D6304 ASTM D6304 *Visual *Visual	>20 >0.1 >1000 NONE NONE	1 0.045 454.1 NONE NONE	  	  
Potassium Water ppm Water Silt Debris Sand/Dirt	ppm % ppm scalar scalar scalar	ASTM D5185m ASTM D6304 *Visual *Visual *Visual	>20 >0.1 >1000 NONE NONE	1 0.045 454.1 NONE NONE NONE	   	   
Potassium Water ppm Water Silt Debris Sand/Dirt Appearance	ppm % ppm scalar scalar scalar scalar	ASTM D5185m ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual	>20 >0.1 >1000 NONE NONE NONE	1 0.045 454.1 NONE NONE NONE NORML	    	    
Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water	ppm % ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual	>20 >0.1 >1000 NONE NONE NORE NORML	1 0.045 454.1 NONE NONE NORML NORML NEG		
Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium	ppm % ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m	>20 >0.1 >1000 NONE NONE NORE NORML	1 0.045 454.1 NONE NONE NORML NORML NEG 0		
Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron	ppm % ppm scalar scalar scalar scalar scalar scalar ppm	ASTM D5185m ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m	>20 >0.1 >1000 NONE NONE NORE NORML	1 0.045 454.1 NONE NONE NORML NORML NEG 0 0		
Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium	ppm % ppm scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D5185m ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m	>20 >0.1 >1000 NONE NONE NORE NORML	1 0.045 454.1 NONE NONE NORML NORML NEG 0 0		
Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum	ppm % ppm scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D5185m ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m	>20 >0.1 >1000 NONE NONE NORE NORML	1 0.045 454.1 NONE NONE NORML NORML NEG 0 0 0 0		
Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese	ppm % ppm scalar scalar scalar scalar scalar scalar ppm ppm ppm	ASTM D5185m ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >0.1 >1000 NONE NONE NORE NORML	1 0.045 454.1 NONE NONE NORML NORML NEG 0 0 0 0 0 0		
Potassium Water ypm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium	ppm % ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	ASTM D5185m ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >0.1 >1000 NONE NONE NORE NORML	1 0.045 454.1 NONE NONE NORML NORML NEG 0 0 0 0 0 0 0 0 0		
Potassium Water ypm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Malybdenum Manganese Magnesium Calcium	ppm % ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	ASTM D5185m ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >0.1 >1000 NONE NONE NORE NORML	1 0.045 454.1 NONE NONE NORML NORML NEG 0 0 0 0 0 0 0 0 0 0 0 0		
Potassium Water ypm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium	ppm % scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	ASTM D5185m ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >0.1 >1000 NONE NONE NORE NORML	1 0.045 454.1 NONE NONE NORML NORML NEG 0 0 0 0 0 0 0 0 0		
Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm % scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >0.1 >1000 NONE NONE NORE NORML	1 0.045 454.1 NONE NONE NORML NORML NEG 0 0 0 0 0 0 0 0 0 1 1 18 2		
Potassium Water Jpm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Malybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm % scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >0.1 >1000 NONE NONE NORE NORML	1 0.045 454.1 NONE NONE NORML NORML NEG 0 0 0 0 0 0 0 0 0 1 1 18 2 35		
Potassium Water Jpm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm % scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >0.1 >1000 NONE NONE NORE NORML	1 0.045 454.1 NONE NONE NORML NORML NEG 0 0 0 0 0 0 0 0 0 1 1 18 2		

Contact/Location: MARTY WARD - MATTEI



MATTEI COMPRESSORS--OEM Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. 9635 LIBERTY ROAD, SUITE E : AN38879 Received : 19 Jan 2023 Lab Number : 05744199 RANDALLSTOWN, MD Tested : 20 Jan 2023 : 20 Jan 2023 - Doug Bogart US 21133 Unique Number : 10298798 Diagnosed Test Package : IND 2 Contact: MARTY WARD Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. jward@matteicomp.com \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (410)521-7020 F: (410)521-7024

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

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Contact/Location: MARTY WARD - MATTEI

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