

WEAR SEVERE CONTAMINATION SEVERE FLUID CONDITION NORMAL

#### Area ALTAIR 30 [418163] Machine Id ATLAS COPCO UTY758601 - ENGINEERED DEVICES Component Compressor

# RECOMMENDATION

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We advise that you check all areas where dirt can enter the system. We recommend that you drain the oil and perform a filter service on this component if not already done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

## WEAR

The iron level is severe. The chromium level is severe.

# CONTAMINATION

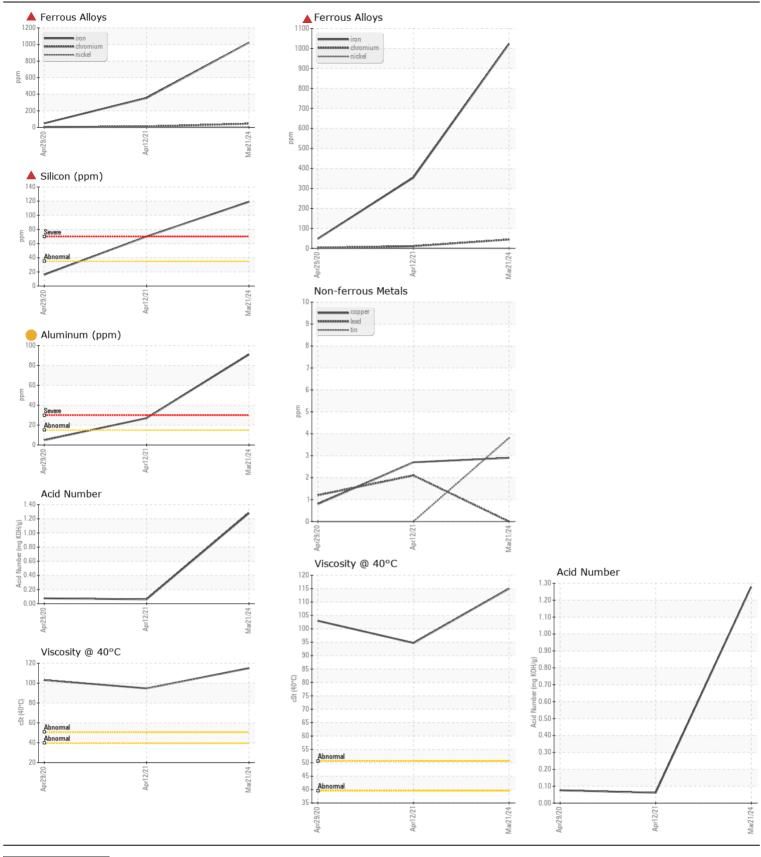
Elemental levels of silicon (Si) and aluminum (Al) indicate aluminasilicate (coarse dirt) ingress. There is a moderate amount of visible silt present in the sample.

### FLUID CONDITION

The AN level is acceptable for this fluid. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Sample DateClient Info21 Mar 202412 Apr 202129 Apr 2020Machine AgehrsClient Info000Oil AgehrsClient Info000Filter AgehrsClient Info000					$\sim$		
Sample DateClient Info21 Mar 202412 Apr 202129 Apr 2020Machine AgehrsClient Info0000Oil AgehrsClient Info0000Filter AgehrsClient InfoN/AN/AN/AN/AGlient InfoN/AN/AN/AN/AN/ASample StatusClient InfoN/AN/AN/AN/ASample StatusStM D5185>50A 1023A 35448ChromiumppmASTM D5185>5A 44113NickelppmASTM D5185SA 44113NickelppmASTM D51850<100AluminumppmASTM D5185S31<1SilverppmASTM D5185>5533<1<1CopperppmASTM D5185>104000VanadiumppmASTM D5185>104000VanadiumppmASTM D5185>1040000VanadiumppmASTM D5185>10A161610VanadiumppmASTM D5185>20716<100VanadiumppmASTM D5185>20716<100SiliconppmASTM D5185>20716<10000 </th <th>Test</th> <th>UOM</th> <th>Method</th> <th>Limit/Abn</th> <th>Current</th> <th>History1</th> <th>History2</th>	Test	UOM	Method	Limit/Abn	Current	History1	History2
Machine Age hrs Client Info 0 0 0   Oil Age hrs Client Info 0 0 0   Filter Age hrs Client Info N/A N/A N/A   Gil Changed Client Info N/A N/A N/A N/A   Sample Status Client Info N/A N/A N/A N/A   Iron ppm ASTM D5185m >50 A 1023 A 354 48   Chromium ppm ASTM D5185m >50 A 144 11 3   Nickel ppm ASTM D5185m >51 -91 -27 5   Lead ppm ASTM D5185m >15 91 -27 5   Lead ppm ASTM D5185m >55 3 3 -11   Qpper ppm ASTM D5185m >10 4 0 0   Vanaduum ppm ASTM D5185m >55 3 3 -11   Yellow Metal<	Sample Number		Client Info		UCH06125766	UCH05228143	UCH04975418
Oil Age hrs Client Info 0 0 0   Filter Age hrs Client Info N/A N/A N/A   Glient Changed Client Info N/A N/A N/A   Filter Changed Client Info N/A N/A N/A   Sample Status SEVERE SEVERE SEVERE NORMAL   Iron ppm ASTM D5185m >50 A 1023 A 354 48   Chromium ppm ASTM D5185m >50 A 44 A 11 3   Nickel ppm ASTM D5185m >50 A 44 A 11 3   Silver ppm ASTM D5185m >50 A 44 A 11 3   Copper ppm ASTM D5185m >50 A 102 1 0   Vanadium ppm ASTM D5185m >50 3 3 -11   Yellow Metal scalar *Visual NONE NONE NONE NONE   Silicon ppm <th>Sample Date</th> <th></th> <th>Client Info</th> <th></th> <th>21 Mar 2024</th> <th>12 Apr 2021</th> <th>29 Apr 2020</th>	Sample Date		Client Info		21 Mar 2024	12 Apr 2021	29 Apr 2020
Filter Age hrs Client Info 0 0 0   Gil Changed Client Info N/A N/A N/A N/A   Sample Status Client Info N/A N/A N/A N/A   Sample Status SEVERE SEVERE SEVERE NORMAL   Iron ppm ASTM D5185m >50 4 44 11 3   Nickel ppm ASTM D5185m >50 4 44 11 3   Nickel ppm ASTM D5185m 50 4 44 11 3   Silver ppm ASTM D5185m 55 0 -1 0   Aluminum ppm ASTM D5185m >65 3 3 -1   Copper ppm ASTM D5185m >10 4 0 0   Vanadium ppm ASTM D5185m >10 4 0 0   Vellow Metal scalar *Visual NONE NONE NONE NONE   Ve	Machine Age	hrs	Client Info		0	0	0
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Filter Changed Sample Status Client Info N/A N/A N/A   Iron ppm ASTM D5185m >50 A 1023 A 354 48   Chromium ppm ASTM D5185m >5 A 44 A 11 3   Nickel ppm ASTM D5185m >5 A 44 A 11 3   Silver ppm ASTM D5185m >5 A 1 C1 0   Aluminum ppm ASTM D5185m 5 G <1 C1 0   Aluminum ppm ASTM D5185m >15 91 Q 2 1   Copper ppm ASTM D5185m >65 3 3 <1 1   Yellow Metal scalar Visual NONE NONE NONE NONE NONE   Silicon ppm ASTM D5185m >35 A 119 A 70 16 <1   Yellow Metal scalar Visual NONE NONE NONE NONE NONE	Filter Age	hrs	Client Info		0	0	0
Sample Status SEVERE SEVERE SEVERE NORMAL   Iron ppm ASTM D5185m >50 A 1023 A 354 48   Chromium ppm ASTM D5185m >5 A 44 A 11 3   Nickel ppm ASTM D5185m >5 A 44 A 11 3   Silver ppm ASTM D5185m 5 3 1 -1 0   Aluminum ppm ASTM D5185m >55 0 2 1   Copper ppm ASTM D5185m >65 0 2 1   Copper ppm ASTM D5185m >55 3 3 -1 1   Yellow Metal scalar Visual NONE NONE NONE NONE NONE   Silicon ppm ASTM D5185m >35 4 119 4 70 16   Potassium ppm ASTM D5185m >35 A 119 NONE NONE <t< th=""><th>Oil Changed</th><th></th><th>Client Info</th><th></th><th>N/A</th><th>N/A</th><th>Not Changd</th></t<>	Oil Changed		Client Info		N/A	N/A	Not Changd
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Nickel ppm ASTM D5185m <1	Iron	ppm	ASTM D5185m	>50	<b>1023</b>	▲ 354	48
Titanium ppm ASTM D5185m 3 1 <1	Chromium	ppm	ASTM D5185m	>5	<b>4</b> 4	<b>1</b> 1	3
Titanium ppm ASTM D5185m 3 1 <1	Nickel		ASTM D5185m		<1	<1	0
Silver ppm ASTM D5185m 0 <1	Titanium		ASTM D5185m		3		<1
Aluminum ppm ASTM D5185m >15 91 27 5   Lead ppm ASTM D5185m >65 0 2 1   Copper ppm ASTM D5185m >65 3 3 <1   Tin ppm ASTM D5185m >10 4 0 0   Vanadium ppm ASTM D5185m >10 4 0 0   White Metal scalar *Visual NONE NONE NONE NONE NONE   Yellow Metal scalar *Visual NONE NONE NONE NONE NONE   Silicon ppm ASTM D5185m >20 7 16 <1   Water % ASTM D5185m >20 7 16 <1   Water % ASTM D5185m >20 7 16 <1   Debris scalar *Visual NONE NONE NONE NORE   Appearance scalar *Visu	Silver		ASTM D5185m		0	<1	0
Lead ppm ASTM D5185m >65 0 2 1   Copper ppm ASTM D5185m >65 3 3 <1   Tin ppm ASTM D5185m >10 4 0 0   Vanadium ppm ASTM D5185m >10 4 0 0   White Metal scalar *Visual NONE NONE NONE NONE NONE   Yellow Metal scalar *Visual NONE NONE NONE NONE NONE   Silicon ppm ASTM D5185m >20 7 16 <1   Water % ASTM D5185m >20 7 16 <1   Water % ASTM D5185m >20 7 16 <1   Debris scalar *Visual NONE NONE NONE NORE   Appearance scalar *Visual NOR NORML NORML NORML   Emulsified Wate scalar				>15	-		5
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Emulsified Waterscalar*Visual>0.1NEGNEGNEGSodiumppmASTM D5185m262230BoronppmASTM D5185m0<10BariumppmASTM D5185m0<10MolybdenumppmASTM D5185m0<10ManganeseppmASTM D5185m93<1MagnesiumppmASTM D5185m93<1CalciumppmASTM D5185m11437<1PhosphorusppmASTM D5185m5310542ZincppmASTM D5185m0696SulfurppmASTM D5185m12997161066Acid Number (AN)mg KOH/gASTM D80451.2790.0610.076				-	-	-	
Sodium ppm ASTM D5185m 26 22 30   Boron ppm ASTM D5185m 0 <1 0   Barium ppm ASTM D5185m 0 <1 0   Barium ppm ASTM D5185m 0 <1 0   Molybdenum ppm ASTM D5185m 0 0 0   Maganese ppm ASTM D5185m 9 3 <1   Magnesium ppm ASTM D5185m 9 3 <1   Calcium ppm ASTM D5185m 114 37 <1   Phosphorus ppm ASTM D5185m 53 105 42   Zinc ppm ASTM D5185m 0 69 6   Sulfur ppm ASTM D5185m 1299 716 1066   Acid Number (AN) mg KOH/g ASTM D8045 11.279 0.061 0.076					-		
Boron ppm ASTM D5185m 0 <1	Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG
Barium ppm ASTM D5185m 0 <1	Sodium	ppm	ASTM D5185m		26	22	30
Molybdenum ppm ASTM D5185m 0 0 0   Manganese ppm ASTM D5185m 9 3 <1   Magnesium ppm ASTM D5185m 9 3 <1   Magnesium ppm ASTM D5185m 14 37 <1   Calcium ppm ASTM D5185m 176 250 15   Phosphorus ppm ASTM D5185m 53 105 42   Zinc ppm ASTM D5185m 0 69 6   Sulfur ppm ASTM D5185m 299 716 1066   Acid Number (AN) mg KOH/g ASTM D8045 1.279 0.061 0.0761	Boron	ppm	ASTM D5185m		0	<1	0
Manganese ppm ASTM D5185m 9 3 <1	Barium	ppm	ASTM D5185m		0	<1	0
Magnesium ppm ASTM D5185m 14 37 <1	Molybdenum	ppm	ASTM D5185m		0	0	0
Calcium ppm ASTM D5185m 176 250 15   Phosphorus ppm ASTM D5185m 53 105 42   Zinc ppm ASTM D5185m 0 69 6   Sulfur ppm ASTM D5185m 299 716 1066   Acid Number (AN) mg KOH/g ASTM D8045 1.279 0.061 0.076	Manganese	ppm	ASTM D5185m		9	3	<1
Phosphorus ppm ASTM D5185m 53 105 42   Zinc ppm ASTM D5185m 0 69 6   Sulfur ppm ASTM D5185m 299 716 1066   Acid Number (AN) mg KOH/g ASTM D8045 1.279 0.061 0.0761	Magnesium	ppm	ASTM D5185m		14	37	<1
Zinc ppm ASTM D5185m 0 69 6   Sulfur ppm ASTM D5185m 299 716 1066   Acid Number (AN) mg KOH/g ASTM D8045 1.279 0.061 0.076	Calcium	ppm	ASTM D5185m		176	250	15
Sulfur ppm ASTM D5185m 299 716 1066   Acid Number (AN) mg KOH/g ASTM D8045 1.279 0.061 0.076	Phosphorus	ppm	ASTM D5185m		53	105	42
Acid Number (AN) mg KOH/g ASTM D8045 1.279 0.061 0.076	Zinc	ppm	ASTM D5185m		0	69	6
	Sulfur	ppm	ASTM D5185m		299	716	1066
Visc @ 40°C cSt ASTM D445 115 94.7 103.0	Acid Number (AN)	mg KOH/g	ASTM D8045		1.279	0.061	0.076
	Vice @ 10°C	cSt	ASTM D445		115	94.7	103.0

Contact/Location: ELVIN DIAZ - UCAIRCAR



AIRMATIC COMPRESSOR SYSTEMS Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 : UCH06125766 700 WASHINGTON AVE Sample No. Received : 21 Mar 2024 : 26 Mar 2024 CARLSTADT, NJ Lab Number : 06125766 Tested Diagnosed : 26 Mar 2024 - Jonathan Hester US 07072 Unique Number : 10939917 Test Package : IND 2 (Additional Tests: KF, PrtCount) Contact: ELVIN DIAZ Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. ediaz@airmaticcompressor.com;canastasio@wearcheckusa.com \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (800)864-7621 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (201)342-6241

Contact/Location: ELVIN DIAZ - UCAIRCAR

Page 2 of 2