WEAR CONTAMINATION FLUID CONDITION

NORMAL SEVERE SEVERE

Machine Io

## **ATLAS COPCO XAS185 AC-2 (S/N HOP042532)**

Component
Diesel Engine

Sample Number	Diesel Engine	041)						
Sample Number								
We advise that you check the fuel injection system. We advise that you check the fifter, air induction system, and any areas where differ the component. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.	RECOMMENDATION		UOM		Limit/Abn		History1	History2
Contamination   Contaminatio	check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this							
Cil Age			lawa					
Filter Age		•				-		
Oil Changed   Client Info   Changed   Client Info   Changed   Changed   Client Info   Changed   Changed   Client Info   Changed   Chan								
Filter Changed Sample Status		•	1115			-		
Name								
Iron		•		Ciletti IIIIO		_		
All component wear rates are normal.    Chromium   ppm   ASTM D5185m   20   1           Nickel   ppm   ASTM D5185m   20   1           Titanium   ppm   ASTM D5185m   3   0         Alluminum   ppm   ASTM D5185m   3   0         Copper   ppm   ASTM D5185m   3   0         Tin   ppm   ASTM D5185m   3   0         Vanadium   ppm   ASTM D5185m   3   0         Vanadium   ppm   ASTM D5185m   NONE   NONE         Vanadium   ppm   ASTM D5185m   NONE   NONE         Valvation   Ppm   ASTM D5185m   NONE         Visual   NONE   NONE         Visual   NONE   NONE         Puel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.     Puel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.     Puel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.     Puel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.     Puel is present in the oil and is lowering the viscosity. The BN result indicates that there is suita	<u></u>					SEVENE		
All component wear rates are normal.    Chromium   ppm   ASTM D5185m   20   1           Nickel   ppm   ASTM D5185m   3   0       Titanium   ppm   ASTM D5185m   3   0       Aluminum   ppm   ASTM D5185m   3   0       Copper   ppm   ASTM D5185m   3   0       Vanadium   ppm   ASTM D5185m   3   0       Vanadium   ppm   ASTM D5185m   0       Vanadium   ppm   ASTM D5185m   NONE   NONE       Vanadium   ppm   ASTM D5185m   NONE   NONE       Valve   NONE   NEG       Sulfation   Abs/cm   ASTM D5185m   3   0       ASTM D5185m   3   0       Valve   NONE   NEG       Sulfation   Abs/cm   ASTM D5185m   3   0       ASTM D5185m   3   0       ASTM D5185m   NONE   NONE       NONE   NONE       Sulfation   Abs/cm   ASTM D5185m   NONE       ASTM D5185m   NONE       ASTM D5185m   NONE       ASTM D5185m   10       ASTM D5185m   161       ASTM D5185m   161       ASTM D5185m   161       ASTM D5185m   10       A	WEAR	Iron	ppm	ASTM D5185m	>100	80		
Nicker   ppm   ASTM D5185m   3   3		Chromium	ppm	ASTM D5185m	>20	1		
Silver	All component wear rates are normal.	Nickel	ppm	ASTM D5185m	>4	3		
Aluminum   ppm   ASTM D5185m   >20   7		Titanium	ppm	ASTM D5185m		<1		
Lead   ppm   ASTM D5185m   3-40   2       Copper   ppm   ASTM D5185m   3-30   24       Tim   ppm   ASTM D5185m   15   0       Tim   ppm   ASTM D5185m   15   0       Tim   ppm   ASTM D5185m   15   0       Tim   ppm   ASTM D5185m   25   0   160       Tim   Ppm   ASTM D5185m   25   0   160       Tim   Ppm   ASTM D5185m   25   0   160       Tim   Ppm   ASTM D5185m   25   0   17       Tim   Ppm   ASTM D5185m   25   0   17       Tim   Ppm   ASTM D5185m   25   0   21.0     Tim   Ppm   ASTM D5185m   25     Tim   Ppm   ASTM D5185m		Silver	ppm	ASTM D5185m	>3	0		
Copper		Aluminum	ppm	ASTM D5185m	>20	7		
Tin		Lead	ppm	ASTM D5185m	>40	2		
Vanadium   ppm   ASTM D5185m   NONE   NONE		Copper	ppm	ASTM D5185m	>330	24		
White Metal Yellow Metal   Scalar   *Visual NONE NONE NONE NONE   NONE NONE   NONE		Tin	ppm	ASTM D5185m	>15	0		
Vellow Metal   Scalar   Visual   NONE   NONE           CONTAMINATION       There is a high amount of fuel present in the oil. Elemental level of silicon (Si) above normal indicating ingress of dirt/seal material.       Fuel   % ASTM D3524   5   21.0           Water   WC Method   NONE   NEG         Glycol   WC Method   NEG         Glycol   WC Method   NEG         Soot % % 'ASTM D7844   >3   0.3         Soot % 'ASTM D7844   >3   0.3         Sulfation   Abs/rmm 'ASTM D7415   >30   25.8         Sulfation   Abs/rmm 'ASTM D7415   >30   25.8         Sulfation   Abs/rmm 'ASTM D7415   >30   25.8         Sulfation   Soot % 'Visual   NONE   NONE   NONE         Sand/Dirt   Scalar 'Visual   NONE   NONE   NONE         Appearance   Scalar 'Visual   NONE   NONE   NONE         Appearance   Scalar 'Visual   NORML   NORML   NORML   NORML         Emulsified Water   Scalar 'Visual   NORML   NORML   NORML         Emulsified Water   Scalar 'Visual   NORML   NORML         The properties of t		Vanadium	ppm	ASTM D5185m		0		
Silicon   ppm   ASTM D5185m   >25   160   17   17   17   17   17   17   17   1			scalar	*Visual	NONE	NONE		
Potassium   ppm   ASTM D5185m   >20   17		Yellow Metal	scalar	*Visual	NONE	NONE		
Potassium   ppm   ASTM D5185m   >20   17	CONTANUNATION	0		AOTH DE LOS	0.5	400		
There is a high amount of fuel present in the oil. Elemental level of silicon (Si) above normal indicating ingress of dirt/seal material.    Fuel	CONTAMINATION					*		
Silicon (Si) above normal indicating ingress of dirt/seal material.   Water	·							
Glycol			%			*		
Soot %					>0.2			
Nitration   Abs/cm		,	0/		. 0			
Sulfation								
Silt   scalar *Visual   NONE   NONE   Debris   scalar *Visual   NONE   NONE   Sand/Dirt   scalar *Visual   NORML   Scalar *Visual   NORML   NORML   NORML   Scalar *Visual   NORML   NORML   Scalar *Visual *Visual *Visua								
Debris   Scalar   *Visual   NONE   NONE   Sand/Dirt   Scalar   *Visual   NONE   NONE   NONE   Sand/Dirt   Scalar   *Visual   NONE   NONE   Sand/Dirt   Scalar   *Visual   NORML   NORML   NORML   Scalar   *Visual   NORML								
Sand/Dirt   scalar   *Visual   NONE   NONE           Appearance   scalar   *Visual   NORML   NORML   NORML           Odor   scalar   *Visual   NORML								
Appearance   Scalar   *Visual   NORML   NORM								
Codor   Scalar   *Visual   NORML   NORML								
Emulsified Water   scalar   *Visual   >0.2   NEG		• •						
FLUID CONDITION           Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.         Sodium ppm ASTM D5185m         5             Barium ppm ASTM D5185m         10             Molybdenum ppm ASTM D5185m         161             Magnesium ppm ASTM D5185m         15             Magnesium ppm ASTM D5185m         622             Calcium ppm ASTM D5185m         1030             Phosphorus ppm ASTM D5185m         671						l		
Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.    Boron   ppm   ASTM D5185m   10								
Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.  Barium ppm ASTM D5185m 10 Molybdenum ppm ASTM D5185m 15 Magnesium ppm ASTM D5185m 622 Calcium ppm ASTM D5185m 1030 Phosphorus ppm ASTM D5185m 671	FLUID CONDITION	Sodium	ppm	ASTM D5185m		5		
indicates that there is suitable alkalinity remaining in the oil.    Molybdenum   ppm   ASTM D5185m   161         Manganese   ppm   ASTM D5185m   15         Magnesium   ppm   ASTM D5185m   622         Calcium   ppm   ASTM D5185m   1030         Phosphorus   ppm   ASTM D5185m   671			ppm					
Molybdenum         ppm         ASTM D5185m         161             Manganese         ppm         ASTM D5185m         15             Magnesium         ppm         ASTM D5185m         622             Calcium         ppm         ASTM D5185m         1030             Phosphorus         ppm         ASTM D5185m         671		Barium	ppm	ASTM D5185m		10		
Magnesium         ppm         ASTM D5185m         622             Calcium         ppm         ASTM D5185m         1030             Phosphorus         ppm         ASTM D5185m         671		Molybdenum	ppm			161		
Calcium         ppm         ASTM D5185m         1030             Phosphorus         ppm         ASTM D5185m         671		-	ppm					
Phosphorus ppm ASTM D5185m 671			ppm			622		
			ppm					
Zinc ppm ASTM D5185m 772			ppm					
Sulfur         ppm         ASTM D5185m         2515								
Oxidation								
Base Number (BN)         mg KOH/g         ASTM D2896         13.6         4.4								
Visc @ 100°C cSt ASTM D445 15.4 6.7		Visc @ 100°C	cSt	ASTM D445	15.4	6.7		







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

: JR0196382 : 06064059 : 10835441

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

: 24 Jan 2024 Diagnostician : Doug Bogart

: 18 Jan 2024

Test Package : CONST ( Additional Tests: FuelDilution, PercentFuel, TBN ) 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) **DIVERSIFIED BIO-MASS** 

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