

**IN THE HIGH COURT OF SOUTH AFRICA
SOUTH GAUTENG HIGH COURT, JOHANNESBURG**

Case No:

In the matter between:

BANGUMZI BENNET BALAKAZI

First Applicant

WATU LIVINGSTONE DALA

Second Applicant

ZWELAKE DALA

Third Applicant

and

ANGLOGOLD ASHANTI LIMITED
(Registration number 1944/017354/06)

Respondent

FILING SHEET

KINDLY FIND UNDERCOVER hereof the affidavit of Jaine Roberts.

Dated at JOHANNESBURG on the 20TH day of AUGUST 2012.

ABRAHAMS KIEWITZ ATTORNEYS

PER:

CHARLES P ABRAHAMS
Applicant's attorneys
Suite 518, 5th Floor, Tygerlake Building

Niagara Way, Tyger Falls
Carl Cronje Drive
Tygervalley, Bellville
WESTERN CAPE
Tel: 021 914 4842
Ref: C Abrahams

C/o Des Naidoo Attorneys
2nd Floor, West Tower
Maude Street
Nelson Mandela
Sandton
Tel: 011 881 5476
Ref: D Naidoo

TO: THE REGISTRAR
South Gauteng High Court
JOHANNESBURG

AND TO: ANGLOGOLD ASHANTI LIMITED
Respondent
76 Jeppe Street
Newtown
Johannesburg

AFFIDAVIT OF JAINE ROBERTS

I, the undersigned,

JAINE ROBERTS

hereby make oath and say that:

1. I am an adult female Director of Research at Rhodes University, Grahamstown, Eastern Cape. The facts deposed to herein fall within my personal knowledge and belief, unless the contrary appears from the context, and are both true and correct.

2. My professional qualifications are B.A (Natal, M Soc Sci (Developmental Studies, Natal. I am the author of "*The Hidden Epidemic Amongst Former Miners: Silicosis, Tuberculosis, and Occupational Diseases in Mines and Works Act in the Eastern Cape of South Africa*", Jaine Roberts, The Health Systems Trust (June 2009). A copy of my curriculum vitae is attached marked "JR1".

3. The submissions contained in this affidavit are based on my research in the field of occupational lung disease amongst former gold mine workers in South Africa.

4. Research indicates as many as 196,000 miners in South Africa and 84,000 more migrant miners from neighboring states have silicosis. Other research estimates that there are some 500,000 cases of occupational lung disease meeting the criteria for compensation. There is evidence that the rates of occupational lung disease in this population have not been accurately determined, rather they have been underestimated.¹
5. Hnizdo and Sluis-Cremer (Hnizdo, 1993) studied silicosis in 2,235 white South African gold miners who worked between 1940 and the 1970s and reported a strong dose-response relationship. The highest cumulative silica exposure was associated with a 77% risk of silicosis.²
6. Estimates of the highest recorded rates of tuberculosis (TB) in the world have been found on the South African gold mines.^{3 4} The South African gold mines have produced tuberculosis at rates up to twenty-eight times the measure for a declared emergency by the World Health Organization.⁵
7. The prevalence of silicosis in gold miners was first reported in white miners in 1916 at about 25%.⁶ Although it was known that black gold miners had the most, dusty jobs and this meant they suffered the most severe exposure to

¹ McCullough, (2009) at 837 (referencing Dr. Trapido's research) Marks, (2001) at 3; Girdler-Brown, (2008) at 640; Roberts (2009) at 10, 37.

² Hnizdo (1993) at 447.

³ Department of Health. Tuberculosis Strategic Plan for South Africa, 2007-2011. Pretoria, South Africa: Department of Health, Republic of South Africa. 2008.

⁴ National Institute of Occupational Health. *Pathology Division Surveillance Report: Demographic Data and Disease Rates for January to December 2007*, NIOH Report 14/2008.

⁵ Ministry of Health, Republic of South Africa. *Tuberculosis Strategic Plan for South Africa 2007-2011*. Durban: 2007; World Health Organization. *Global Tuberculosis Control – Surveillance, Planning, Financing*. WHO; 2008

⁶ McCulloch (2009) at 848.




silica, the health of black gold miners was not studied while the men were on the mines and there was no medical follow-up of black gold miners when they left the mines.⁷

8. The Commission of Inquiry into Safety and Health in the Mining Industry (1994, Leon Commission) determined that the working conditions and rates of disease in the mines had not improved over the prior 50 year period.⁸ A recent review summarizing the evidence regarding silica exposure and health and safety, authored by Drs. Rees and Murray, indicated that dust control continues to be inadequate in the gold mining sector.⁹
9. The epidemic of occupational lung disease in South African gold miners has been referred to in the literature as a "hidden epidemic," and this has been widely recognized as resulting directly from the under-reporting of disease through failures in medical surveillance. The "hidden epidemic" is strongly associated with the gold mining companies' oscillating migrant labour practices. Black miners return to rural areas on completion of mine service or return prematurely due to retrenchment or illness, and many of these rural areas are within what were formerly known as the "Homelands" or "Bantustans" in South Africa, as well as to the neighbouring countries of Lesotho, Malawi, Swaziland, Mozambique, and Botswana. This oscillating migrant labour system, together

⁷ McCulloch 2009 at 846; Girdler- Brown (2008) at 648; Murray (2011) at S67; Davies (2006) at 4, 5; Roberts (2009) at 39, 41, 55.

⁸ Report of The Commission of Inquiry Into Safety and Health In the Mining Industry, David W Stanton Vol I (1995) at 46-54.

⁹ Rees (2006) at 59.

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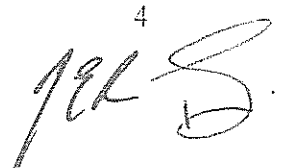
with latency in development of occupationally related disease, has largely 'hidden' the burden of disease within the rural areas of South Africa¹⁰

10. The mining industry relied on the Chamber of Mines' Employment Bureau of Africa (TEBA) to recruit and to repatriate black Africans from their "Homelands" to Johannesburg to be processed, and then transported to a gold mine to work. Workers would generally work on repeated one year contracts, and often as they aged they would be either "retrenched," or "repatriated" to their "Homelands". Some called it "medical repatriation," or "recuperation." Workers with the first signs of illness were often dismissed. Once they were gone there was no medical follow-up and any responsibility the mine owners had to the miners was reduced to the paltry payments mine owners made into the government workers compensation system, which legislation black African miners were generally not informed of, and ill-prepared to partake in.¹¹
11. Once back in their "Homelands", workers would often become progressively more ill from these latent lung diseases, be unable to work or support their families, be unable to access medical care for diagnosis and treatment, and be unable to access legal resources to assist in obtaining compensation.¹² In essence the gold mining industry in South African externalized the costs of inadequate occupational health dust controls and ventilation, and the

¹⁰ Murray (2011) at S69; Roberts (2009) at 33, 47.

¹¹ Murray (2011) at S69; Ehrlich (2007) at 12; Roberts (2009) at 34.

¹² Girdler-Brown (2008) at 644, JCA Davies (2006) at 4-5, Ehrlich (2007) at 11-13, McCulloch (2009) at 835, Murray (2011) at S 69. *Mankayi* opinion para 21; Roberts (2009) at 33, 84, 88, 93.

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occupational diseases suffered by the gold miners and their families to the rural areas of South Africa.¹³

12. The crowded and unsanitary living conditions in the "miners' barracks", or mine Hostels, the housing provided to South African gold miners , were a further contributing factor to the high rate of tuberculosis among this workforce.¹⁴
13. South African gold miners were paid an inferior wage for their work compared to the wages of white South African miners. Black miners were paid less than 1/10 of what white miners were paid.¹⁵
14. Significant exposure to silica dust has been recognized as a grave health risk to miners in Harmony's own annual medical reports,¹⁶ in reports and articles published internationally, in South Africa by the Chamber of Mines, and by industry, government, and academic investigators.¹⁷
15. Officials for the Chamber of Mines have attempted to discredit valid medical studies documenting the epidemic rates of occupational lung disease in South African black gold miners.¹⁸
16. Black miners have suffered significantly higher rates of occupational diseases than white miners.¹⁹

¹³ Murray (2011) at S 67; Roberts (2009) at 57.

¹⁴ *South African gold mines a "TB factory,"* Lesley Odendal, Published: 10 June 2010.; Murray, J. et al. (2004).

¹⁵ Crush (1991) at 84, 86, 231; Wilson (1972) at 66 (table 7).

¹⁶ See Central Mining Health Reports (1958, 1959, 1961).

¹⁷ Murray (2011) at S 65; Ehrlich (2007) at 4-6; Burke and Richardson (1977) at 147; McCulloch (2009) at 838, Burke and Richardson (1977) at 148-157.

¹⁸ La Grange, M.A.C. (1996) *Occupational lung diseases in former mineworkers.* South African Medical Journal, Volume 86, no 7, July 1996; Roberts (2009) at 35.



17. A significant percentage of South African black gold miners did not receive an exit medical exam (EME) when leaving employment.²⁰


DATED AT GRAHAMSTOWN ON THIS DAY OF AUGUST 2012



Jaine Roberts

I certify that:

1. The deponent acknowledged to me that:
 - 1.1 she knows and understands the contents of this declaration;
 - 1.2 she has no objection to taking the prescribed oath;
 - 1.3 she considers the prescribed oath to be binding on his conscience.
2. The deponent thereafter uttered the words: "I swear that the contents of this declaration are true, so help me God".
3. The deponent signed this declaration in my presence at the address set out hereunder on the above date.



COMMISSIONER OF OATHS
DESIREE WICKS
MANAGER : STUDENT BUREAU
Commissioner of Oaths, Cacadu District
Rhodes University, Drostdy Road,
Grahamstown 6139

¹⁹ National Institute for Occupational Health (2008) *Pathology Division Surveillance Report: Demographic Data and Disease Rates for January to December 2007, NIOH Report 14/2008*, Johannesburg; Roberts (2009) at 31, 39-41.

²⁰ Roberts (2009) at 84, 88



BIBLIOGRAPHY

Burke, Gillian. The Profits of Death: A Comparative Study of Miners' Phthisis in Cornwall and the Transvaal, 1876-1918. *Journal of Southern African Studies*, April, 1978.

Central Mining Health Reports (1958, 1959, 1961).

Crush, J., et al. *South Africa's Labor Empire: A History of Black Migrancy to the Gold Mines* (Cape Town: David Philip, 1991).

Davies JCA. Silicosis and Tuberculosis among Miners in South Africa during the 20th Century. Exeter Lecture, 7 March 2006.

Department of Health. *Tuberculosis Strategic Plan for South Africa, 2007 2011*. Petoria, South Africa: Department of Health, Republic of South Africa. 2008.

Ehrlich R. A Century of Miners' Phthisis on the South African Gold Mines. Any End in Sight? Paper presented at Collegium Ramazzini, Carpi, Italy, 2007.

Girdler-Brown, Brendan. The Burden of Silicosis, Pulmonary Tuberculosis and COPD Among Former Basotho Goldminers. *American Journal of Industrial Medicine*, 2008.

Hnizdo E and Sluis-Cremer GK. Risk of silicosis in a cohort of white South African gold miners. *Am J Ind Med* 24:447-457, 1993.

La Grange, M.A.C. (1996) *Occupational lung diseases in former mineworkers*. *South African Medical Journal*, Volume 86, no 7, July 1996.

Mankayi v. AngloGold Ashanti (126/2009) [2010] ZASCA 46 (31 March 2010)

Marks S. The Silent Scourge? Silicosis, Respiratory Disease and Gold-mining in South Africa. *Journal of Ethnic and Migration Studies*, May 2006.

McCullough J. Hiding a pandemic: Dr G.W.H. Schepers and the Politics of Silicosis in South Africa. *Journal of Southern African Studies* 35(4):1-14, 2009.

Ministry of Health, Republic of South Africa. *Tuberculosis Strategic Plan for South Africa 2007-2011*. Durban: 2007; World Health Organization. *Global Tuberculosis Control – Surveillance, Planning, Financing*. WHO; 2008

Murray J, Davies T, Rees D. Occupational lung disease in the South African mining industry: Research and policy implementation. *Journal of Public Health Policy* 32:S65-S79, 2011.

A handwritten signature in black ink, appearing to be 'PER' followed by a stylized flourish.

Murray, J. et al. *Occupational respiratory disease in mining*. Occupational Medicine 54:304:310, 2004.

National Institute of Occupational Health. *Pathology Division Surveillance Report: Demographic Data and Disease Rates for January to December 2007*, NIOH Report 14/2008.

Odendal, L. *South African gold mines a "TB factory,"* Published: 10 June 2010.

Rees, D. Action on Silica, silicosis and tuberculosis. A project of Work and Health in Southern Africa. African Newsletter on Occupational Health and Safety, 2006.

Report of The Commission of Inquiry Into Safety and Health In the Mining Industry, David W Stanton Vol I (1995) at 46-54.

Roberts, J. The Hidden Epidemic Amongst Former Miners: Silicosis, Tuberculosis, and the Occupational Diseases in Mines and Works Act in Eastern Cape, South Africa (Westville: Health Systems Trust, 2009): 2. Available at <http://www.hst.org.za/uploads/files/ODMWA.pdf>.

Wilson, F. *In the South African Gold Mines 1911–1969* (Cambridge University Press, Cambridge, 1972).

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JEL

CURRICULUM VITAE - MS JAINE ROBERTS

Current Position:

**Director: Research
Rhodes University
Grahamstown**

Recent Publications:

1. Roberts, J. (2009) *The Hidden Epidemic Amongst Former Miners. Silicosis, Tuberculosis and the Occupational Diseases in Mines and Works Act*. Health Systems Trust, Durban.
<http://www.hst.org.za/publications>
2. Roberts, J. (2007) *Barriers to Women's Rights in Implementation of the Choice on Termination of Pregnancy Act (CTOPA) in Kwazulu-Natal*, Health Systems Trust, Durban.
<http://www.hst.org.za/publications/736>
3. Hall, W. and Roberts, J. (2007) *Understanding the Impact of Decentralization on Reproductive Health Services in Africa: South Africa Report*. Nuffield Institute for Health and International Development, Leeds and Health Systems Trust, Durban.
<http://www.hst.org.za/publications/706>
4. Hall, W., Radebe, D. and Roberts, J. (2006) *Transport Policy for Health services in the Public Sector. Lessons Learned from a Study of the Impact on Health Services of a Public-Private Partnership for Transport in the Eastern Cape*. Health Systems Trust, Durban.
<http://www.hst.org.za/publications/698>
5. Roberts, J. (Ed.) (2004) *The National Primary Health Care Facilities Survey 2003*. Health Systems Trust, Durban.
<http://www.hst.org.za/publications/617>

J.R.

Educational Qualifications:

Current and at advanced stage: Doctoral Candidate (Social Epidemiology).

1. Master of Social Science (Development Studies) Cum Laude.

University of Natal, Durban.

Coursework: 1999

Dean's Certificate of Merit: Comparative Development Problems and Policies.

Research Thesis – 2000, Cum Laude

'What Is The Price of 80kg's? The Failure of the Detection of, and Compensation for, Asbestos-Related Disease: Social Exclusion in Sekhukhumeland.

2. B.A. Majors: Philosophy, English

University of Natal, Pietermaritzburg, 1981.

Scholarships - Emma Smith

- University Entrance Scholarship.

1978 – BV Sc Year 1.

3. Natal Senior Certificate – Westville Girls High, 1977.

“A” Aggregate, Dux Approximae, and subject prizes for English and History.

EMPLOYMENT HISTORY

Deputy Director, Research, Health Systems Trust

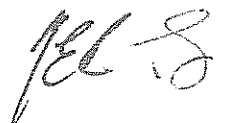
January 2003 – August 2009

Acting Director, Research: February 2003 - September 2003

Acting Director, Research: December 2004 - May 2005

Acting Director, Research: August 2005 - October 2005

Health Systems Trust: The Health Systems Trust (HST) is a large non-profit public benefit organization (NPO) working in public health, and in partnership with the Department of Health. It has a staff complement of 100. While the head office is in Durban, it has offices in Johannesburg, Cape Town, Pretoria and Pietermaritzburg, and works throughout South Africa and in the SADC region. One of the major publications of the HST is the annual South African Health Review.



**DESIGNATION AND
EMPLOYER**

DETAILS

**PROJECT MANAGER:
INDUSTRIAL HEALTH
UNIT (IHU)**

**School of Public Health,
Nelson R. Mandela School
of Medicine,
University of Natal
(now University of
Kwazulu-Natal)**

**May 2001 – December
2002**

I was Project Manager of the IHU. I additionally fulfilled the role of principal investigator in certain projects, and lecturer.

My key responsibilities were all the day-to-day activities of the Unit, measurement of problems in the field of occupational and environmental health, determining and developing projects and programmes to address existing problems.

As an Industrial Health Sociologist I had research and teaching duties, including teaching students doing the Diploma in Occupational Health, Masters in Public Health and in the Faculty of Humanities eg Sociology of Occupational Health for Industrial Psychology students.

**PROJECT MANAGER &
PRINCIPAL
RESEARCHER**

**Department of Economic
Development, eThekweni
Metro, Durban
March – August 2001**

A research study on informal street, trolley and traffic intersection traders in Durban with a view to improving policies for this informal sector within the Metro Municipality.

RESEARCH FELLOW

**Health Economics &
HIV/AIDS Research
Division (HEARD),
University of Natal,
Durban**

Producing research and policy briefs for the Provincial Department of Health, Kwazulu-Natal.
Facilitating workshops and doing presentations on HIV/AIDS to many of the different departments within the Province, Metro Municipality and Local Municipalities.

September 2000 – February
2001

**SOUTHERN AFRICA
BUREAU MANAGER &
REPORTER**

LOS ANGELES TIMES

September 1991 – January
1999

The Los Angeles Times Johannesburg Bureau covers southern Africa – South Africa, Mozambique, Zimbabwe, Botswana, Zambia, Malawi and Namibia. Although central and eastern Africa fell under the L.A. Times Nairobi Bureau, the Nairobi Bureau was considerably smaller and at times without staff so that the Johannesburg Bureau served sub-Saharan Africa.

The Johannesburg Bureau was a large and well-resourced Bureau during this time with a permanent Bureau Chief and Foreign Correspondent. During the first South African democratic election we had a staff complement of 12.

PRODUCER
**International News &
Features,**
Johannesburg
May – August 1991

Responsible for a range of television and print stories

MANAGING EDITOR
**Southlight Photographic
Agency, Johannesburg**

December 1990 – April
1991

Initiated and established a new photographic agency with 12 documentary and news photographers.

RESEARCHER

“THE RETURN OF THE NATIVE” (1991)

BBC TELEVISION, UK
August – December 1990

A film about Donald Woods’ return to South Africa after 17 years in exile; Directed by John Bridcut and presented by Donald Woods for the BBC series “Assignment”.

MANAGING EDITOR

Afrapix was a non-profit organization; a collective of

**Afrapix Photographic
Collective,**
Johannesburg
November 1989 – July
1990

documentary and news photographers who were attempting to tell the true story of apartheid South Africa.

**PRODUCTION
SECRETARY**

Feature film "*WINDPRINTS*" (1989) shot on location in Namibia, directed by David Wicht and starring and John Hurt.

David Wicht Films
January 1989 – April 1989

**PRODUCTION
SECRETARY**

Feature film "*JOBMAN*" (1989) shot on location in Johannesburg and Eastern Cape

Anant Singh Films
October 1988-December
1988

Directed by Darryl Roodt

LIBRARIAN

**Sage Holdings (Pty)
Limited, Johannesburg**
August 1983 – September
1988

This was my second full-time position subsequent to completing my undergraduate degree. I developed and expanded the Sage Holdings Library from being a fairly limited investment information centre into a resource centre that encompassed broader socio-economic information for the Sage group of companies.

**ASSISTANT
LIBRARIAN**
**Liberty Life of Africa
(Pty) Ltd, Johannesburg**
November 1982 – July
1983

First full-time position subsequent to graduating. I had registered for Philosophy Honours in 1982 but had to withdraw due to financial constraints.

FREELANCE & VOLUNTARY POSITIONS

LECTURER

Annual series of lectures on the sociology of health, and occupational health

Dept. of Industrial
Psychology, University of
Kwazulu-Natal

2002 - 2006

LECTURER

Lectures on asbestos and asbestos-related disease for the Diploma in Occupational Health, and for the Masters in Public Health.

Dept. of Community
Health, Nelson. R.
Mandela School of
Medicine School, UKZN

2001 - 2004

GENERAL SECRETARY

An organization representing all foreign correspondents based in South Africa.

Foreign Correspondents
Association (FCA), South
Africa
1996, 1997, 1998

RESEARCHER & FIXER

A 4 part series "*Days of Good Hope*" (1994), a pre-election series on South Africa presented by Donald Woods

BBC RADIO 4, U.K

January to April 1994

MANAGING EDITOR

A photographic journal established by myself and a group of documentary photographers.

FULL FRAME Journal

1991 - 1992

RESEARCHER

A variety of research needs for different articles as and when needs arose. I worked with Dene Smuts (Editor) and David Goldblatt (Photographic Editor).

LEADERSHIP Magazine
1986 - 1988

TEACHER

Educational Support
Project, Mamelodi,
Pretoria

Voluntary teaching every Saturday throughout the school year
of the English and History syllabus to Grade 11 and 12
Learners from a range of Mamelodi and other 'township'
schools.

1986, 1987 & 1988

TUTOR

Department of
Philosophy, University of
Natal

Tutor in the Department of Philosophy.

1981 - 1982

ACCREDITED DOCUMENTARY FILMS

DESIGNATION AND EMPLOYER

DETAILS

CHIEF RESEARCHER

Carlton Television, U.K

October 1997 – April 1998

"Apartheid Did Not Die."

A Special Report by John Pilger (1998)

Gold Award – Film & Video Production:
Political/International Issues, Worldfest-Flagstaff,
1998

Certificate for Creative Excellence, US
International Film & Video Festival, Elmhurst,
Illinois, 1999.

RESEARCHER

South African Broadcasting
Corporation (SABC)

1996

"GOD BLESS AFRICA" (1996)

A three part series on the history of missionaries in
Southern Africa

RESEARCHER

Australian Broadcasting Corporation

"SOUTH AFRICA LAND" (1995)

On the policies and processes around land

(ABC, Australia)

redistribution and restitution in South Africa.

March – May 1995

RESEARCHER

“CONFRONTING THE HITMEN” (1995)

Yorkshire Television, U.K

About the apartheid years and the question of truth and reconciliation.

November 1994 – February 1995

For Network First, ITV

RESEARCHER

“MANDELA: FROM PRISON TO PRESIDENT”
(1994)

Yorkshire Television, U.K

A film biography of Mandela’s life.

October 1993 – March 1994

For Network First, ITV

RESEARCHER

“A SHORT BREAK IN THE INTERFERENCE”
(1993)

BBC Television, U.K

Presented by Donald Woods and about changes in the SABC as South Africa’s public broadcaster - for the BBC series “Assignment”.

July 1993 - September 1993

RESEARCHER

“THE GLUCKMAN FILES” (1993)

Channel Four, U.K

Directed by John Bridcut and about pathologist Dr Jonathan Gluckman who had exposed deaths in police custody in South Africa - for the series “Dispatches”.

November 1992 – March 1993

Winner of the Amnesty International Documentary of the Year award, 1993

RESEARCHER

“THE RETURN OF THE NATIVE” (1991)

BBC Television, U.K

A film about Donald Woods’ return to South Africa after 17 years in exile. Directed by John Bridcut and presented by Donald Woods for the BBC “Assignment” series.

August – December 1990