

ザンビア国
鉱業分野投資促進のための
地質・鉱物資源情報整備調査
ファイナル・レポート
Appendix

平成21年7月
(2009年)

独立行政法人国際協力機構
産業開発部

産業

JR

09-042

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Appendix I-1

Minutes of the First Steering Committee Meeting Geological Mapping and Mineral Information Service Project for Promotion of Mining Industry in the Republic of Zambia

1. Place, date, time

Geological Survey Department

March 5, 2007 at 10:00-12:0

2. Participants

(1)Zambian side

Geological Survey Department (GSD)

Mr. K. A. Liyungu, Chairman of the Steering Committee Meeting

Mr. A.P. D Dokowe, Senior Geologist

Mr. E.M. Chikambwe, Senior Geologist

Mr. M. Mwale, Acting Senior Geologist

Mines Development Department (MDD)

Mr.Charles Dindiwe, Chief Mining Engineer

(2) Japanese side

Mr. Masaharu Marutani, Team Leader

Mr. Kazuyo Hirose, Senior Geologist

Mr. Toshio Inoue, Senior Geologist

Mr. Hajime Fukuda, Assistant Resident Representative, JICA Zambia Office.

3. Agenda

(1) Opening remarks by chairman, 10:00 - 10:10

(2) Explanation of the Inception Report by JICA team, 10:10 – 10:40

(3) Explanation of Mining Circumstances and GSD's Activity by GSD, 10:40 -
11:00

(4) Discussion, 11:00 – 11:30

- Inception report

- International/Domestic Seminar for investment promotion

(5) Other Matter, 11:30 – 11:50

(6) Conclusion and closing speech by chairman, 11:50 – 12:00 Opening Speech
(Chairman)

4. Important Points of the Agenda

(1) Chairman's greeting

- I thanked JICA for accepting and starting a very important project of this nature that will be of great benefit to the nation.
- I emphasized that we have a lot of analogue and old data, which has not been revised since 2000. The outputs on this project are very important for GSD.
- Also I expect our staff capacity to be developed through this project.

(2) Explanation of the Inception Report (Masaharu Marurani, JICA Team Leader)

- I outlined the project activities and period.
- I also explained that the project will hold both local and international seminars to promote mining sector in Zambia.

(3) Explanation of Mining Circumstances and GSD's Activity by GSD.

- We have two types of Mining licences; large scale and small-scale
- We have laboratory facility, custodians of geological and geophysical data.
- We provide geological and mineral resource information to investors and the general public.

(4) Discussion

(Comments by Zambian side)

- The target area of this project is interesting for it has gold and copper potential
- The geological field survey should include other important mineral occurrence areas apart from the target area.
- We hope to discover new mineral occurrences such as IOCG using Remote Sensing data analysis and geological field surveys

(Comments by Japanese side)

- It is necessary for the cooperation of GSD and MDD for smooth implementation of the project
- Modeling of mineral deposits is one of the most important survey item of this project. For modeling the team needs to visit the main mineral occurrence areas.

During this project we will have three (3) domestic seminars and two (2)


international seminars for the investment promotion in mining sector where GSD will participate.

(5) Other Business (Mr. Hajime Fukuda, JICA Zambian Office)

- JICA is planning to provide GSD the equipments including the vehicle apart from this project.

(6) Conclusion (Mr. K. A. Liyungu, Chairman)

- 1) I thanked the team again and promised to make available the needed personnel for the project
- 2) We will make necessary arrangements to the provincial heads and the chiefs for the smooth implementation of the project.
- 3) The Steering Committee approves of the Inception Report.



K. A. Liyungu
Chairman of the Steering Committee



Masaharu Marutani
Team Leader of JICA Team of
Geological Mapping and Mineral Information
Service Project for Promotion of Mining Industry
in the Republic of Zambia

Date: 6/3/07

Appendix I-2

MINUTES OF STEERING COMMITTEE ON GEOLOGICAL MAPPING AND MINERAL INFORMATION SERVICE PROJECT FOR PROMOTION OF MINING INDUSTRY IN THE REPUBLIC OF ZAMBIA

Date: 9th July, 2008

Time: 10:30 hours

Place: Geological Survey Dept – Conference Room

PRESENT

Mr. K. A. Liyungu	-	Director GSD
Mr. Masaharu Marutani	-	Team Leader
Mr. Akimitsu Takebe	-	Geologist – JICA TEAM
Mr. Hede-hisa Watanabe	-	GIS Expert – JICA TEAM
Mr. Norio Tsushima	-	Geologist – JICA TEAM
Mr. D. Chilumbu	-	Principal Metallurgist – GSD
Mr. M. Mwale	-	Senior Geologist – GSD
Mr. B. Chewe	-	Ag. Senior Inspector of Explosives – MDD
Mr. Hajime Fukuda	-	Asst. Res. Representative JICA, Zambia
Ms. E. Phiri	-	Advisor Economic Development, JICA
Mr. F. Mwalla	-	Chief Cartographer, Secretary (GSD)

The meeting started at about 10:30 hours with the Director Geological Survey Department, Mr. K. A. Liyungu welcoming participants to the meeting. He further stated that he was happy with the project so far and hoped that everything will be concluded by the year end.

APOLOGIES

The Chairman informed the gathering that Mr. Dokowe participated in the just ended Commercial Show on the Copperbelt and could not be with us. Secondly, he informed us of the loss of Mr. Banda through resignation from the Department.

1. OPENING REMARKS

I would like to welcome and thank everyone to this meeting. Special thanks go to the JICA and Geological Survey Department Staff who have been working on the project. The Government of Zambia and Parliament have keen interest in the development of the Project. It is for this reason that we need the maps and reports published in time.

2. LAST YEAR'S MINUTES/INTERIM REPORT

Mr. Marutani went through minutes with minor corrections. Mr. Mwale observed that on the member list of Project Team the Zambian counterparts were not included. Mr. Marutani responded by saying that as this was just an interim report the final report will include all. Mr. Chilumbu noted an inclusion on the dealer mineral royalties came into effect this was corrected. With the above amendments the interim report was approved.

PowerPoint presentation on last year's activities was shown to the committee whereby a few areas were identified where further verification is needed. Mr. Mwale noted that although the area is highly fractured very few structural symbols have been shown.

3. THIS YEAR'S JICA PROGRAMMES

- JICA will continue with the revision 1:1 million scale map on Zambia.
- Work on the GIS data base

The Chair wanted to know the results of rock samples given to Dr. Watanabe, for more earth analysis. This was being done.

- Field work commence on the 15th of this month
- The chair was promised that field vehicles are in good condition. Mr. Mwale pointed out that the vehicles did not have towing hooks on them as this posed a problem if one of them is stuck and needs towing. Mr. Fukuda assured him that he will look into it.
- Mining Indaba 2009 9th – 12th February Cape Town, South Africa.
- Show case Zambian Mine Development status and resources potential via booth and panel display. Three (3) members from GSD and three (3) from JICA will man the booths.
- PDAC 2009
1st – 4th March 2009, Toronto Canada

4. FIELD SURVEY

Mr. Marutani informed the meeting that they will be mapping south of the previous sheets which falls in a Game Area.

The chair informed Mr. Marutani that they need game scouts to escort them on their exploration and that Mr. Dokowe has already gotten in touch with ZAWA on the provision of the above.

5. INVESTMENT PROMOTION

Under this Mr. Marutani gave a tentative brief on Investment Promotion through seminars lined up as follows;

- Mid December 2008 – Tokyo, Japan
Explanation of the Zambian mining investment climate mining development status and mineral resource potential to be presented by the member each from Geological Survey Department (GSD), Mines Development Department (MDD) and JICA.
- Late January 2009 – Lusaka, Zambia
Revised 1:1 m Geological map; 1:100,000 geological – Exploration of resources potential, revised database and effective analysis of satellite imager.
Two (2) personnel from GSD and four (4) from JICA will do the presentation.
- Mining Indaba 2009 9th – 12th February Cape Town, South Africa
- Show case Zambian mine development status and resources potential via booth and panel display. Three (3) members from GSD and three (3) from JICA will man the booths.
- PDAC 2009
1st – 4th March, 2009, Toronto Canada

6. A. O. B.

Ms E. Phiri wanted to know if the Act on Mines was available. Mr. Mwale informed her that this was not available since it is still not yet finalized. Mr. Marutani indicated that field work will commence on the 15th of this month, meanwhile two (2) of the geologists will have to go back for their visa which will take about two (2) weeks.

There being no other business the chair thanked the participants for their contributions and closed the meeting.



K. A. Liyungu
CHAIRMAN



M. Marutani
TEAM LEADER – JICA SURVEY TEAM

**MINUTES OF THE 3rd STEERING COMMITTEE ON
GEOLOGICAL MAPPING AND MINERAL INFORMATION
SURVICE PROJECT FOR PROMOTION OF MINING
INDUSTRY IN THE REPUBLIC OF ZAMBIA**

Date: 29th January, 2009

Time: 14:30 hours

Place: Geological Survey Department – Conference Room

PRESENT

- | | |
|---------------------------|------------------------|
| 1. Mr. Kennedy A. Liyungu | GSD-Chairperson |
| 2. Mr. Hajime Fukuda | JICA-Zambia Office |
| 3. Mrs. Elizabeth Phiri | JICA-Zambia Office |
| 4. Mr. Masaharu Marutani | JICA-Study Team Leader |
| 5. Mr. Norio Toshima | JICA-Study Team |
| 6. Mr. Akimitsu Takebe | JICA-Study Team |
| 7. Mr. Mabvuto Mwale | GSD-Secretary |

AGENDA

1. Welcoming Remarks- Chairperson
2. Apologies
3. Approval of the Final Draft Report
4. Further Investment Promotion Activity
5. Any Other Business

1.0. Welcoming Remarks.

The Chairperson called the meeting to order at 14:30 hours. He first apologized for arriving late as he and the secretary (Mr. Mabvuto Mwale) were attending another meeting at the Ministry's Headquarters. He thanked all the members for attending the meeting. He availed the Agenda of the meeting and noted that the main objective would be to go through the draft Final Report.

The agenda was adopted without inclusions or changes by all the members

2.0. Apologies

Mr. Charles Dindiwe (Acting Director - MDD).

Mr. Phineas Zulu (Principal Documentalist – MMMD)

3.0. Approval of the Final Draft Report

The Chairperson requested for any comments on the final draft report. The following was noted:

1. Mr. Mwale Mabvuto noted that there was a shift on the boundary line of the 1:1,000,000 scale geological map which was being revised. This needed to be corrected. He further noted that a sand deposit occurrence was omitted on the Chishimba Fall draft map.
2. The Chairperson noted that some fault lines needed to be inserted in the Chishimba Falls draft map.

It was agreed that the corrections would be made accordingly.

The chairperson proposed to maintain the same scale of 1:2,000,000 on newly revised mineral occurrence map

Mr. Mabvuto Mwale asked the JICA Team how many hard copy formats of the final geological maps and their reports would be given to Geological Survey Department, for example 100 CDs and 100 hard copies of 1:100,000 scale of each map. The meeting heard that there was no contractual agreement between JICA and GSD over the number of hard copy reports to be availed to GSD. However, Mr. Hajime Fukuda promised to consult with JICA Headquarters over the same. In addition to this, Mr. Masaharu Marutani said MINDECO would be able to provide at least five (5) copies to JICA.

It was noted during the meeting that the approval of the final draft report (with some comments from MDD and MMMD) will be concluded by the end of February, 2009.

4.0. Further Investment Promotion Activities

The meeting was informed by JICA of the events to come. These are:

- Mining Indaba 2009 to be held in Cape Town, South Africa, from 9th to 12th February.
- PDAC 2009 to be held at the Metro Toronto Convention Centre in Canada from 1st March to 4th March.
- Investment Promotion Seminar in Zambia to be held in May 2009 in Kitwe on the Copperbelt.

The Chairperson hinted that the Promotion CD needed to be updated due to the recent changes that have taken place in the mining sector. For instance the closure of some exploration companies due to the World Economic Crisis.

Mrs. Elizabeth Phiri asked if the upgrading could be effected via the GSD website. In response the Chairperson replied that currently the GSD website had problems and hence could not be used to update the information.

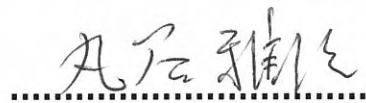
5.0. Any Other Business

Mr. Mabvuto Mwale asked Mr. Hajime Fukuda the progress made towards the computer software GSD requested from JICA. In response Mr. Hajime Fukuda said that the matter was being looked into at JICA headquarters.


There being no any other business, the meeting closed at 15:05 hours and the Chairperson thanked all the members.



.....
Mr. K. A. Liyungu
(Chairperson)



.....
Mr. Masaharu Marutani
(Leader of JICA Survey Team)



.....
Mr. Mabvuto Mwale
(Secretary)



1ST WORKSHOP ON JICA – GSD PROJECT

**GEOLOGICAL MAPPING AND MINERAL INFORMATION SERVICE PROJECT
FOR PROMOTING THE MINING INDUSTRY IN THE REPUBLIC OF ZAMBIA**



9:00-12:00, 23 August 2007 at the Conference Room of ZAMCOM

AGENDA

1. Opening Address 9:00 – 9:05

by Mr. Lennard Nkhata,

Permanent Secretary, Ministry of Mines and Minerals Development

2. Basics of Relational Databases 9:05 – 9:35

by Mr. Hidehisa Watanabe, GIS Database Expert, JICA Study Team

- Review and organization of data to use
- Create tables
- Search data

3. Data extraction using GIS 9:40 – 10:10

by Mr. Hidehisa Watanabe, GIS Database Expert, JICA Study Team

- Data types and views
- Extraction conditions and results

- Discussion- 10:10 – 10:30

(Coffee Break 10:30 – 10:50)

4. Introduction of Remote Sensing 10:50 – 11:40

by Mr. Kazuyo Hirose, Senior Geologist, JICA Study Team

- Fundamentals
- Case studies in Remote Sensing Application

- Discussion- 11:40 – 12:00

5. Closing Address

by Mr. Masaharu Marutani, Team Leader, JICA Study Team



Appendix I-4 (2) The List of Participants

**Geological Mapping and Mineral Information Service Project
FOR PROMOTING THE MINING INDUSTRY IN THE REPUBLIC OF ZAMBIA**



1st Workshop on 23rd August 2007

The List of Participants

No.	Name	Position	Organization	Remark
1	Mr. A. K. Liyungu	Director	GSD	
2	Mr. E. Mbumba	Chief Geologist	GSD	
3	Mr. A. P. Dokowe	Senior Geologist	GSD	
4	Mr. E. Chikambwe	Senior Geologist	GSD	
5	Mr. M. Banda	Senior Geologist	GSD	
6	Mr. F. Chibesakunda	Geologist	GSD	
7	Mr. F. Nzabara	Geologist	GSD	
8	Mr. G. Mwila	Geologist	GSD	
9	Mr. D. Lombe	Senior Geophysist	GSD	
10	Mr. F. Mwalla	Senior Cartographer	GSD	
11	Mr. E. Kasumba	Geological Assistant	GSD	
12	Ms. J. Bwalya	Senior Cartographer	GSD	
13	Mr. B. Mwenda	Assistant Cartographer	GSD	
14	Ms. K. E. Muhamubi	Cartographer	GSD	
15	Ms. C. Chibanda	Cartographer	GSD	
16	Ms. A. Mulowezi	Senior Seismologist	GSD	
17	Mr. Shezongo	Assistant Cartographer	GSD	
18	Ms. A. Mulowezi	Senior Seismologist	GSD	
19	Mr. L. Mumba	Senior Chemist	GSD	
20	Ms. P. Kashembe	Clerical Officer	GSD	
21	Mr. H. Fukuda	Assistant Resident Representative	JICA Zambia	
22	Ms. E. Phiri	Economic Development Advisor	JICA Zambia	
23	Mr. M. Marutani	Team Leader	JICA Team	
24	Mr. K Hirose	Senior Geologist	JICA Team	
25	Mr. T. Inoue	Senior Geologist	JICA Team	
26	Mr. H. Watanabe	GIS Expert	JICA Team	

Appendix I-4 (3) Summary of Questionnaire

1. GIS Database Session

A) Basics of Relational Databases

1) What is Database?

Participant's understanding				
Poor ←————→ Excellent				
1	2	3	4	5
			10	5

2) SQL

Participant's understanding				
Poor ←————→ Excellent				
1	2	3	4	5
	2	2	8	3

B) Data extraction using GIS

1) What is GIS?

Participant's understanding				
Poor ←————→ Excellent				
1	2	3	4	5
	1	2	7	5

2) Analyses by GIS

Participant's understanding				
Poor ←————→ Excellent				
1	2	3	4	5
1		7	4	2

2. Remote Sensing Session

1) Fundamentals

Participant's understanding				
Poor ←————→ Excellent				
1	2	3	4	5
	2	3	5	5

2) Case studies in Remote Sensing Application

Participant's understanding				
Poor ←————→ Excellent				
1	2	3	4	5
	3	3	4	5

Questionnaire of 1st Workshop

No.	Name	Position	3. Impressions or comment	4. Request for next workshop
1	Mr. A. K. Liyungu	Director		
2	Mr. E. Mbumba	Chief Geologist		
3	Mr. A. P. Dokowe	Senior Geologist		
4	Mr. E. Chikambwe	Senior Geologist	Workshop was educative and informative.	Can the workshop look at practical interpretation of remote sensed data especially in deep un earthered places like most of Zambia?
5	Mr. M. Banda	Senior Geologist	Informative and educative.	It will be good to have a hands-on workshop whereby participants can appreciate the knowledge acquired in the first workshop.
6	Mr. F. Chibesakunda	Geologist	Good	Any information for use in any soft copy.
7	Mr. F. Nzabara	Geologist	Presentations were professionally done and understandable. Presentation on remote sensing however fast, especially on mineral identification using information from sensor's center (Images and colors)	I wish you would provide us with the information (Material) the way it is projected on screen.
8	Mr. G. Mwila	Geologist	The workshop was very educative and informative I really liked it	The next workshop should be longer and more participatory.
9	Mr. D. Lombe	Senior Geophysist	The workshop is alright.	A hands-on workshop where participants can go through exercises on computers would be very helpful. Two days would be enough.
10	Mr. F. Mwalla	Senior Cartographer	DBMS and GIS were well articulated. This brought back theories of yester year when I was still a student in GIS mapping and were indeed beneficial to my current understanding of the concepts.	I would like to learn more on GIS and thematic mapping.
11	Mr. E. Kasumba	Geological Assistant	The workshop was very educative and I have benefited immensely.	I would like to request for the next workshop so that we may continue to get more education
12	Ms. J. Bwalya	Senior Cartographer		
13	Mr. B. Mwenda	Assistant Cartographer	The workshop is well organized. I feel there is a lot of issue to be discussed though the element of	In depth analysis of case studies and how they apply to the Zambian scenario.

			time needs to be looked at so as to exhaust the topics raised.	
14	Ms. K. E. Muhamubi	Cartographer	It has been quiet educative an eye opener to what is GIS.	
15	Ms. C. Chibanda	Cartographer		
16	Ms. A. Mulowezi	Senior Seismologist	The first workshop was not so well presented there's very much needs to acquire computers to enable participant's hands on training and much concentration.	There is need for next workshop with computers and much time and detailed explanations.
17	Mr. Shezongo	Assistant Cartographer	It was well conducted and all the parts where actually covered in the specified period of time.	Time should be allocated for going through procedure of the system practically.
18	Ms. A. Mulowezi	Senior Seismologist		
19	Mr. L. Mumba	Senior Chemist	Very educative and I wish future workshops will be organized for a longer time (days)	
20	Ms. P. Kashembe	Clerical Officer	The workshop was well presented. The language used in the interpretation of data into information was easy to understand because it included even Diagrams which made it simple to understand. Time was not enough.	Will you please make another effort of organizing for the next workshop? It should also include problem solving of Geographical problems faced by the Zambian Government. Like chitemene system practiced in most parts of Zambia.



Appendix I-5 (1) The List of Participants
Geological Mapping and Mineral Information Service Project
FOR PROMOTING THE MINING INDUSTRY IN THE REPUBLIC OF ZAMBIA



THE SPECIAL LECTURE ON JICA – GSD PROJECT

Apatite: A Possible Source of Rare Earth Elements

By Dr. Y. Watanabe

Geological Survey of Japan, AIST

The List of Participants

No.	Name	Position	Organization	Remark
1	Mr. A. K. Liyungu	Director	GSD	
3	Mr. A. P. Dokowe	Senior Geologist	GSD	
3	Gift P. Mwaula	Senior Technician Chemist	GSD	
4	Mabvuto Mwale	Geologist	GSD	
5	Mr. Mpande	Technician	GSD	
6	Mr. Sampa	Chemist	GSD	
7	Mr. Oscar	Chemist	GSD	
8	Mr. Evaristo Kasumba	Geological Assistant	GSD	
9	Mr. Mazimba Raphael	Technician (Geophysics)	GSD	
10	Mr. Mulenga M. Brighton	Lab Assistant Technician	GSD	

Appendix I-5 (2) Summary of Questionnaire

Result of Questionnaire of Special Lecture

1. REE (Rare Earth Elements) and its use

Participant's understanding						
Poor		←————→			Excellent	
1	2	3	4	5		
		2	5	3		

2. Recent demands of REE

Participant's understanding						
Poor		←————→			Excellent	
1	2	3	4	5		
	2	2	2	4		

3. Ore deposits of REE

Participant's understanding						
Poor		←————→			Excellent	
1	2	3	4	5		
	1	2	4	3		

4. A possibility of Apatite as source of REE

Participant's understanding						
Poor		←————→			Excellent	
1	2	3	4	5		
		2	6	2		

Questionnaire of Special Lecture

No.	Name	Position	3. Impressions or comment	4. Request for next workshop
1	Mr. A. K. Liyungu	Director	The lecture is good and educative about the new applications of REE	I would not mind about another lecture.
2	Mr. A. P. Dokowe	Senior Geologist	Lecture was an eye opener. We could (ie Zambia) be having REE deposits in Zambia	
3	Gift P. Mwaula	Senior Technician Chemist	It was interesting and quite enlightening above all very informative	How is mineral deposit distribution in Japan? Are there minerals which Japan imports and are there any that are evaporated?
4	Mabvuto Mwale	Geologist	Fair to good – but some diagrams need English illustrations as footnotes	To have the presentation in digital format
5	Hangani Pande	Technician	The lecture was of well presented	Hand-out for reference in future
6	Sampa Chikumo	Chemist	Very enlightening	Another lecture is necessary
7	Oscar Mungalaba	Chemist	Lecture was very educative. Was my first time to learn about REE magnets which are about 10times stronger than ordinary Iron magnets. I would strongly welcome JICA's involvement in the exploration of REE in Zambia. Lecture was rather intensive in the sense that so much material was presented in a short time. Content was quite new to non-geologist like me who is a chemist	I would request for another lecture specifically on the possible REE deposits in Zambia and their possible uses and the uses of their by-products. Also possible scholarships to study REE for the sake of enhancing our Geological Survey Department
8	Evaristo Kasumba	Geological Assistant	It has been a very educative lecture especially the fact that it enlightened us on the direction which the new technology is taking especially with regard to Rare Earth Elements	I would like to be invited for the next lecture so that I continue to be enlightened.
9	Mazimba Raphael	Technician (Geophysics)	The lecture was wonderful and helpful	
10	Mulenga M. Brighton	Lab Assistant Technician	There should be more of such lectures in order to have a wider knowledge	Yes there should be detailed topics



2ND WORKSHOP ON JICA – GSD PROJECT

**GEOLOGICAL MAPPING AND MINERAL INFORMATION SERVICE PROJECT
FOR PROMOTING THE MINING INDUSTRY IN THE REPUBLIC OF ZAMBIA**



9:00-15:00, 10 July 2008 at the Conference Room of ZAMCOM Educational Trust

AGENDA

1. Opening Address 9:00 – 9:05

*by Mr. Kennedy A. Liyungu,
Director, Geological Survey Department*

2. GIS Course for Geologists 9:05 – 10:30

by Mr. Norio Tsushima, Senior Geologist, JICA Study Team

- **Basic of GIS**
- **Create a geological map by Arcview**
- **Apply for geological survey**

(Coffee Break 10:30 – 10:45)

3. GPS Data Processing for Geologic Field Survey 10:45 – 11:30

by Mr. Akimitsu Takebe, Senior Geologist, JICA Study Team

- **Uploading coordination data for handy GPS receiver**
- **Downloading field GPS data for PC**

- Discussion- 11:30 – 12:00

(Lunch Break 12:00 – 13:30)

4. Overview of TNT Mips and Applications

13:30 – 14:30

by Mr. Hidehisa Watanabe, GIS Database Expert, JICA Study Team

- **Displaying geospatial data**
- **Digitizing geological map**

- Discussion- 14:30 – 14:50

5. Closing Address

by Mr. Masaharu Marutani, Team Leader, JICA Study Team

Appendix I-6 (2) The List of Participants



Geological Mapping and Mineral Information Service Project FOR PROMOTING THE MINING INDUSTRY IN THE REPUBLIC OF ZAMBIA



2nd Workshop on 10th July 2008

The List of Participants

No.	Name	Position	Organization	Remark
1	K. A. Liyungu	Director	GSD	
2	F. Njamu	Chief Geologist	GSD	
3	A. P. Dokowe	Senior Geologist	GSD	
4	D. K. Lombe	Senior Geophysicist	GSD	
5	F. Chibesakunda	Geologist	GSD	
6	F. Nzambara	Geologist	GSD	
7	F. Mwalla	Chief Cartographer	GSD	
8	J. Bwalya	Cartographer	GSD	
9	K. Muhamubi	Cartographer	GSD	
10	B. Mwenda	Cartographer	GSD	
11	B. Shezongwe	Cartographer	GSD	
12	C. Chibanda	Cartographer	GSD	
13	M. Zulu	Documentalist	GSD	

Appendix I-6 (3) Summary of Questionnaire

1. GIS Course for Geologists

1) Basic of GIS

Participant's understanding					
Poor		←————→			Excellent
1	2	3	4	5	
		3	4	4	

2) Create a geological map by Arcview

Participant's understanding					
Poor		←————→			Excellent
1	2	3	4	5	
	2		4	5	

3) Apply for geological survey

Participant's understanding					
Poor		←————→			Excellent
1	2	3	4	5	
1		2	5	3	

2. GPS Data Processing for Geological Field Survey

1) Uploading coordination data for handy GPS receiver

Participant's understanding					
Poor		←————→			Excellent
1	2	3	4	5	
	2	3	2	5	

2) Downloading Field GPS data for PC

Participant's understanding					
Poor		←————→			Excellent
1	2	3	4	5	
	1	3	2	5	

3. Overview of TNT Mips and Applications

1) Displaying geospatial data

Participant's understanding					
Poor		←————→			Excellent
1	2	3	4	5	
	1	3	5	2	

2) Digitizing geological map

Participant's understanding					
Poor		←————→			Excellent
1	2	3	4	5	
	2	1	6	2	

Questionnaire of 2nd Workshop

No.	Name	Position	Impressions or comment	Request
1	K. A. Liyungu	Director		
2	F. Njamu	Chief Geologist	English a bit difficult to understand	Provide us with Arc Info 3.2a
3	A. P. Dokowe	Senior Geologist		
4	D. K. Lombe	Senior Geologist		
5	F. Chibesakunda	Geologist	The workshop was well organized and the materials displayed well to the participant.	The TNT software and other soft copies should be made available to the participants. The workshop should emphasise on hands on or practical experience.
6	F. Nzabara	Geologist	This workshop has brought more information on the use of GIS especially about new softwares (ARCVIEW, TNT mips) practice is whoever necessary for me to get familiar or conversant with them.	Due to poor level of computer, I could not follow properly demonstrations during the presentation (TNT) and as the software is available at GSD, I wish I could be given occasion to learn more, individually.
7	F. Mwalla	Chief Cartographer	Better organized than the 1 st , time was short to grasp all, especially on the methodologies.	It will be a good idea if this whole session is consolidated with hands-on exercise in the Department.
8	J. Bwalya	Cartographer	The 2 nd workshop has been educative and interesting.	More training on TNT.
9	K. Muhamubi	Cartographer		
10	B. Mwenda	Cartographer	Well presented	Need to be trained in TNT usage and more GIS knowledge
11	B. Shezongwe	Cartographer	The workshop was clear to understand and precise. However, for practical purposes there was need for having computers with Arcview software for easy application.	I need to undergo some training in GIS, more especially Arcview
12	C. Chibanda	Cartographer	Well presented	More practical work on TNT and field work for cartographers
13	M. Zulu	Documentalist	The time was too short and lack practice on the part of the participants. It was too theoretical. The content of the subjects was very relevant for the Geological Survey.	More time and practice needed so that participants have a hands on practice of the things being discussed.



SEMINAR ON GEOLOGICAL MAPPING OF

MPIKA-KASAMA AREA UNDER JICA – GSD PROJECT



**GEOLOGICAL MAPPING AND MINERAL INFORMATION SERVICE PROJECT
FOR PROMOTING THE MINING INDUSTRY IN THE REPUBLIC OF ZAMBIA**

9:30-14:00, 11 November 2008 at the Conference Room of ZAMCOM Educational Trust

AGENDA

1. Opening Address

9:30 – 9:35

By Mr. Kennedy A. Liyungu, Director, Geological Survey Department

2. Result of Geological Field Survey of 1130NE and 1130SE Sheet Area

9:35 – 10:05

By Mr. Francis Chibesakunda, Geologist, Geological Survey Department

- **Field survey of 1130NE sheet area**
- **Field survey of 1130SE sheet area**

3. Geochemical Survey in 1030NE, 1030SE, 1130NE and 1130SE Sheet Area

10:05 – 10:45

By Mr. Akimitsu Takebe, Senior Geologist, JICA Study Team

- **Result of Stream Sediments Geochemistry**
- **Sampling work of Soil Geochemistry**

(Coffee Break 10:45 – 11:15)

4. Summary of Geology in 1030NE, 1030SE, 1130NE and 1130SE Sheet Area

11:15 – 11:55

By Mr. Norio Tsushima, Senior Geologist, JICA Study Team

- **Complimentary geological survey in 1030NE and 1030SE sheet area**
- **Summary of Geology of Survey Area**

(Lunch Break 12:00 – 13:30)

- Discussion- 13:30 – 14:00

5. Closing Address

By Mr. Masaharu Marutani, Team Leader, JICA Study Team

Appendix I-7(2) List of Participants



**Geological Mapping and Mineral Information Service Project
FOR PROMOTING THE MINING INDUSTRY IN THE REPUBLIC OF ZAMBIA**



Seminar on 11th November 2008

The List of Participants

No.	Name	Position	Organization	Remark
1	K. A. Liyungu	Director	GSD	
2	M. Mwale	Senior Geologist	GSD	
3	E. M. Chikambwe	Senior Geologist	GSD	
4	F. Chibesakunda	Geologist	GSD	
5	E. Kasumba	Geological Assistant	GSD	
6	H. Sichundu	Metallurgist	GSD	
7	S. Chikumo	Chemist	GSD	
8	A. Mulowezi	Senior Seismic Analyst	GSD	
9	M. F. Mwalla	Chief Cartographer	GSD	
10	J. M. Bwalya	Senior Cartographer	GSD	
11	K. Muhamubi	Cartographer	GSD	
12	B. Z. Mweenda	Assistant Cartographer	GSD	
13	B. Shezongo	Assistant Cartographer	GSD	
14	M. C. Zulu	Documentalist	GSD	
15	M. Chiwi	Secretary	GSD	
16	C. Mutale	Secretary	GSD	



**Geological Mapping and Mineral Information Service Project
FOR PROMOTING THE MINING INDUSTRY IN THE REPUBLIC OF ZAMBIA**



SEMINAR ON JICA – GSD PROJECT

11th November 2008

Summary of Questionnaires

1. Result of Geological Field Survey of 1130NE and 1130SE sheet area

1) Field Survey of 1130NE sheet area

Participant's understanding				
Poor ← → Excellent				
1	2	3	4	5
		5	6	3

2) Field Survey of 1130SE sheet area

Participant's understanding				
Poor ← → Excellent				
1	2	3	4	5
		5	7	2

2. Geochemical Survey of 1030NE, 1030SE, 1130NE and 1130SE sheet area

1) Result of Stream Sediments Geochemistry

Participant's understanding				
Poor ← → Excellent				
1	2	3	4	5
	1	6	6	2

2) Result of Soil Geochemistry

Participant's understanding				
Poor ← → Excellent				
1	2	3	4	5
	1	5	7	2

Appendix I-7(3) Summary of Questionnaire (understanding)

3. Summary of Geology in 1030NE, 1030SE, 1130NE and 1130SE sheet area

1) Complimentary geological survey in 1030NE and 1030SE sheet area

Participant's understanding				
Poor ←—————→ Excellent				
1	2	3	4	5
		8	4	3

2) Summary of geology of survey area

Participant's understanding				
Poor ←—————→ Excellent				
1	2	3	4	5
		8	3	4

Appendix I-7(4) Summary of Questionnaire (comment)

Questionnaire of the Seminar (comments)

No.	Name	Position	3. Impressions or comment	4. Request
1	K. A. Liyungu	Director	The presentations were good but more work needs to be done on the economic geology	Work on the economic geology, industrial minerals, geochemistry etc
2	M. Mwale	Senior Geologist	The seminar was okay	Geophysical survey to be included in such terrains especially where there is scanty rock exposure.
3	E. M. Chikambwe	Snr. Geologist	Useful and updating	
4	F. Chibesakunda	Geologist	The seminar was okay but I propose that the seminar premises should be moved to another venue.	Need to send the samples to the second laboratory (control samples) Need to look at the Uranium potential in the remaining samples.
5	E. Kasumba	Geological Assistant	The seminar was educative	
6	H. Sichundu	Metallurgist	The seminar was good but needed more geologists to be present to ask more questions	Next time you collect samples it is also necessary to use the support group at GSD to analyse the samples. These are 1. THE METALLURGY LAB 2. THE CHEMISTRY LAB
7	S. Chikumo	Chemist	The seminar was very informative	
8	A. Mulowezi	Senior Seismic Analyst	This is good because it gives GSD staff an overview of what is going on in the field and what is being discovered, problems encountered and progress in terms of Geology in the country.	
9	M. F. Mwalla	Chief Cartographer	Presentation was good	I am interested in the collaboration between JICA and Drawing Office on digital map production. This is an important element in our work which needs improving all the time.
10	J. Bwalya	Senior Cartographer	The seminar has been educating	Some more seminars
11	K. Muhamubi	Cartographer		

Appendix I-7(4) Summary of Questionnaire (comment)

12	B. Z. Mwenda	Assistant Cartographer	Simple and effective. More details of the work that was going on during mapping was brought out in the seminars.	
13	B. Shezongo	Assistant Cartographer	I was impressed with the compilation of the maps with the use of satelight images, google earth and field surveys.	As a cartographer, I request that the part of explanation of symbols and other parts in the display be done with cartographers for them to learn as well.
14	M. Zulu	Documentalist	The seminar was very informative. JICA is doing a good job of ensuring that members of staff at GSD are updated on progress of projects.	JICA should continue with such seminars so that they keep GSD staff informed on the progress that has been made in these projects.



SEMINAR ON RESULTS OF JICA – GSD PROJECT



**GEOLOGICAL MAPPING AND MINERAL INFORMATION SERVICE PROJECT
FOR PROMOTING THE MINING INDUSTRY IN THE REPUBLIC OF ZAMBIA**

9:30-14:30, 27 January 2009 at the Conference Room “AMALILA” of Pamodzi Hotel, Lusaka

AGENDA

1. Opening Address

9:30 – 9:35

By Mr. Kennedy A. Liyungu, Director, Geological Survey Department

2. Summary of the JICA – GSD Project

9:35 – 10:05

by Mr. Masaharu Marutani, Team Leader, JICA Study Team

3. GIS database

**Toward Knowledge Management and Beginning
- Start to KNOW footing for the next step -**

10:05 – 10:35

by Mr. Hidehisa Watanabe, GIS Database Expert, JICA Study Team

(Coffee Break 10:35 – 11:00)

4. Geological Mapping of the Mpika – Kasama Area

11:00 – 11:30

*By Mr. Mabvuto Mwale, Senior Geologist, Geological Survey Department
Mr. Francis Chibesakunda, Geologist, Geological Survey Department*

**5. The Methodology of Geological Survey and Dating with Recommendation for the
Future Mapping**

11:30 – 12:00

By Mr. Norio Tsushima, Senior Geologist, JICA Study Team

(Lunch Break 12:00 – 13:30)

6. Result of Geochemical Survey in Mpika- Kasama Area

13:30 – 14:00

By Mr. Akimitsu Takebe, Senior Geologist, JICA Study Team

- Discussion- 14:00 – 14:30

5. Closing Address

By Mr. Masaharu Marutani, Team Leader, JICA Study Team



Appendix I-8(2) List of participants
Geological Mapping and Mineral Information Service Project
FOR PROMOTING THE MINING INDUSTRY IN THE REPUBLIC OF ZAMBIA



Seminar on Result of JICA – GSD Project

27th January 2009

The List of Participants

No.	Name	Position	Organization	Remark
1	K. A. Liyungu	Director	GSD	
2	E. Mbumba	Chief Geologist	GSD	
3	A. Dokowe	Senior Geologist	GSD	
4	M. Mwale	Senior Geologist	GSD	
5	F. Chibesakunda	Geologist	GSD	
6	F. Nzabara	Geologist	GSD	
7	P. Chipumbu	Geological Assistant	GSD	
8	H. Tumbe	Field Survey Orderly	GSD	
9	S. Mulenga	Field Survey Orderly	GSD	
10	E Chibanga	Field Survey Orderly	GSD	
11	S. Chongo	Field Surveyor	GSD	
12	E. Kasumba	Geological Assistant	GSD	
13	S. Chama	Ag. Administrative Officer	GSD	
14	B. Shezongo	Learner Cartographer	GSD	
15	A. Mulowezi	Senior Seismologist	GSD	
16	F. Mwalla	Chief Cartographer	GSD	
17	J. Bwalya	Senior Cartographer	GSD	
18	E. Chibanda	Cartographer	GSD	
19	E. Muhamubi	Cartographer	GSD	
20	B. Mwenda	Cartographer	GSD	
21	C. Mazibuko	Seismogram Analyst	GSD	
22	M. Solani	Secretary	GSD	
23	M. Chiwi	Secretary	GSD	
24	L. Mumba	Senior Chemist	GSD	
25	S. Chikumo	Chemist	GSD	

Appendix I-8(2) List of participants

No.	Name	Position	Organization	Remark
26	M. Nguni	Metallurgist	GSD	
27	B. C. Katebe	Secretary	GSD	
28	C. Mutale	Secretary	GSD	
29	G. Musonda	Technician	GSD	
30	P. Chungu	Technician	GSD	
31	K. Mulenga	Technician	GSD	
32	C. Hamutunda	Acountant	MMD	
33	B.. Mwakacheya	Senior Documantalist	MMD	
34	Z. Zumani	Human Resources Officer	MMD	
35	M..Mweemba	Registry Officer	MMD	
36	M. Marutani	Team Leader	JICA Study Team	
37	H. Watanabe	GIS Expert	JICA Study Team	
38	N. Tsushima	Senior Geologist	JICA Study Team	
39	A. Takebe	Senior Geologist	JICA Study Team	
40				
41				
42				
43				
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46				
47				
48				
49				
50				



Seminar on Result of JICA – GSD Project

27th January 2009

Summary of Questionary

1) Summary of JICA-GSD Project

Participant's understanding				
Poor	←—————→			Excellent
1	2	3	4	5
	1	6	12	10

2) GIS Database

Participant's understanding				
Poor	←—————→			Excellent
1	2	3	4	5
	3	8	8	11

3) Geological Mapping of the Mpika – Kasama Area

Participant's understanding				
Poor	←—————→			Excellent
1	2	3	4	5
	1	4	11	14

4.) The Methodology of Geological Survey and Dating Analysis with Recommendation for the Future Mapping

Participant's understanding				
Poor	←—————→			Excellent
1	2	3	4	5
	4	6	13	7

5) Result of Geochemical Survey in Mpika – Kasama Area

Participant's understanding				
Poor	←—————→			Excellent
1	2	3	4	5
	4	9	8	8

Questionnaire of Draft Final Seminar

No.	Name	Position	3. Impressions or comment	4. Request
1.	K. A. Liyungu	Director		
2.	E. Mbumba	Chief Geologist	It was well prepared and organized.	
3.	A. P. Dokowe	Senior Geologist		Make soft copies of the presentations available to GSD staff
4.	M. Mwale	Senior Geologist	The Seminar was nicely organized in terms of time observation, venue and contents	Please if we could invite other relevant institutions in the future presentations such as UNZA etc. This would broaden the scope of the projects.
5.	F. Chibesakunda	Geologist	The seminar was well organized	Areas poorly exposed should be subjected to Geophysical survey
6.	F. Nzabara	Geologist	The Seminar was well organized and I think it was very educative especially for people who are not form field of geology.	Looking at recommendations made by presenters, I feel it would be of great interest to put up a project to work on them.
7.	P. Chipumbu	Geological Assistant	The Seminar was well organized and the information was well obtained.	
8.	H. Tumbe	Field Assistant	The seminar was conducted with JICA and GSD was encouraging and brought JICA people together with GSD and this should continue	Please the projects should continue with GSD so that we are able to cover more areas in the country.
9.	S. Mulenga	Field Survey Orderly	The seminar conducted was encouraging and promoted co-operation between JICA Team and GSD Team	Team work between JICA Study Team and GSD Team to be continued.
10.	E. Chibanga	Field Survey Orderly	The seminar was fantastic	
11.	S. Choongo	Field Survey Orderly	Well organized seminar, well presented but not explained articulately by the presenters	I would like the maps (Geological) and Geological Reports to be ready before next year. I would also like to request JICA to partner with GSD in future programmes.
12.	E. Kasumba	Geological Assistant		
13.	S. Chama	Administrative Officer	The workshop was nicely conducted but the JICA team was too fast in their presentation. Other wise, all was ok.	

14.	B. Shezongo	Assistant Cartographer	Precise but educative and enlightening. The combination of satellite imagery with the ground survey data to make a geological map was impressive.	GSD Database upgrade
15.	A. Mulowezi	Senior Seismogram Analyst	The Seminar was well presented and it gives me an ideal that there's a lot to be done in terms of database for the Department	
16.	F. Mwalla	Chief Cartographer		Is it possible to have Mr. Tsushima work with us in finalizing our Geological maps to printing stage. We had a brief start with him and it was extremely beneficial.
17.	J. Bwalya	Cartographer	The seminar has been very educative and interesting	We should be having more seminars
18.	C. Chibanda	Cartographer	Well presented	Nil as never implemented
19.	K. Muhamubi	Cartographer		
20.	B. Mwenda	Cartographer	This has been a very informative and mind opening seminar. Well organized and gives a clear picture on how best GSD would improve the data management system and procedures	I would request for assistance on the Information set up and Training
21.	B. Shezongo	Cartographer		
22.	C. Mazibuko	Seismogram Analyst		If the DEM and ASTER are introduced, won't they affect officers whose job description is to survey areas?
23.	M. Solani	Secretary		
24.	L. Mumba	Senior Chemist	The seminar has brought the errors where not in the GIS data base.	
25.	S. Chikumo	Chemist	It was very well presented	
26.	M. Ng'uni	Metallurgist	The seminar was very helpful. It was an eye opener. I mostly appreciated the presentation on GIS Database.	My request is that you also consider looking into the way forward now that the mapping has been done, what next to make use of the information collected.
27.	B.C. Katebe	Secretary	The presentations were well presented except the language barrier of the JICA personnel but well presented.	
28.	G. Zumani	Human Resource Officer	The seminar was an important aspect of making the larger	So for the future, it is important to include all departments i.e. MSD

			population of the Ministry understand what each department is undertaking.	and MDD
29.	L. Hamutunda	Accountant	The seminar was well organized and educative to the participants especially non Geological staff	Such seminars should be held at least twice a year to update support staff and management of Geological works going on in Zambia.
30.	B.Mwakacheya	Senior Documentalist	The workshop was well organized and informative especially for participants with knowledge in geological issues	If possible simplify the presentations for lay people to understand the issues. Need to wide participation to include other organizations such as University of Zambia
31.	B.Mweemba	Registry Officer	Too technical for a non geologist to understand	To organize more of such kind of seminars to sensitize all members of staff at GSD in order for them to acquire more knowledge in the field of geology.
32.	G. Musonda	Station Handyman		
33.	P. Chungu	Asst. Procurement Officer	The seminar was well organized especially the venue where the seminar was held it is absolutely excellent. All the presentations were clearly understood and concise. I would like to commend everyone behind the organization of this seminar because it has generally been a success.	To be having such seminars from time to time so that we get to learn more of which areas in Zambia are potentially targets for petroleum exploration and mineral exploration. Offer some training to the field survey orderlies who work closely with the geologists in the field.

Appendix I-9 (1) Tokyo Seminar Program

ザンビア鉱業投資セミナー Seminar for Promoting Investment in Zambia

日時：2008年12月16日（火）14:00～16:30

場所：(独)石油天然ガス・金属鉱物資源機構 東京カンファレンス

共催：駐日ザンビア共和国大使館、(独)国際協力機構(JICA)、

(独)石油天然ガス・金属鉱物資源機構(JOGMEC)

Date and time: Tuesday, 16 December, 2008 14:00hrs~16:30hrs

Location: Tokyo Conference Room, Japan Oil, Gas and Metals National Corporation

Co-organized by: Embassy of the Republic of Zambia, Japan International Cooperation Agency (JICA)

Japan Oil, Gas and Metals National Corporation (JOGMEC),

プログラム／Program（日英同時通訳付：with English/ Japanese simultaneous interpretation）

- 14:00 – 14:10 開会挨拶
永塚 誠一（国際協力機構(JICA) 理事）
Opening Remarks
Mr. Seiichi Nagatsuka, Vice President, Japan International Cooperation Agency (JICA)
- 14:10 – 14:20 開会挨拶
ゴッドフリー・シマシク閣下（駐日ザンビア共和国大使）
Opening Remarks
H.E. Mr. Godfrey S. Simasiku, Ambassador of the Republic of Zambia to Japan
- 14:20 – 15:00 ザンビアの投資環境と投資機会
フローレンス・ムンバ（ザンビア開発庁 投資促進民営化局長）
Investment Climate and Opportunities in Zambia
Mrs. Florence Mumba, Director of Investment Promotion and Privatisation
Zambia Development Agency
- 15:00 – 15:40 ザンビアの鉱物資源ポテンシャルと探査活動
ケネディ・リユング（ザンビア鉱山鉱物開発省 地質調査局長）
Mineral Resource Potential and Exploration Activity in Zambia
Mr. Kennedy. A. Liyungu, Director of Geological Survey Department,
Zambian Ministry of Mines and Mineral Development
- 15:40 – 16:10 ザンビアの鉱業セクターの位置付けと鉱業活動の現状
丸谷 雅治（JICA 開発調査チームリーダー）
Role of Mining Sector and Current Status of Mining Activity
Mr. Masaharu Marutani, Team Leader, Japan International Cooperation Agency (JICA)
- 16:10 – 16:25 質疑応答／Questions & Answers
- 16:25 – 16:30 閉会挨拶／Closing Remarks

Appendix I-9 (2) List of Participants

	Company	Name	Section
1	Daiwa Institute of Reserch Ltd.	NISHIKAWA Syusaku	Equity Reserch
2	Sumitomo Mitsui Banking Corporation	Asano Kayoko	Environment Analysis Dept. Credit Dept.
3	Sumitomo Mitsui Banking Corporation	Hiromi Watanabe	Environment Analysis Department
4	Mesco, Inc.	Tetsuo Nonoyama	Overseas Marketing & Sales Dept.
5	Mesco, Inc.	Kazumasa Yoshida	Overseas Marketing & Sales Dept.
6	Mitsui Mining & Smelting Co., Ltd.	Atsushi Gomi	Mineral & Energy Resources Department
7	Mitsui & Co., Ltd.	Kimihiko KOBAYASHI	Mineral Resources Research Dept
8	Mitsui & Co., Ltd.	Daisuke Chihara	Non-Ferrous Raw Materials First Division
9	Mitsui & Co., Ltd.	Soichi Nakayama	Investment Dept.
10	Mitsubishi UFJ Trust and Banking Corporation	junich oku	Frontier Strtegy Planning and Suppot Division
11	Mitsubishi Materials Corporation	Masayuki Shirai	Overseas Project Department
12	Mitubishi Material Tecno Corporation	Masatsugu Okazaki	Natural Resources Survey Dept.
13	Mitsubishi Materials Techno Corporation	Fujita Minoru	Natural Resources and Energy Engineering Division
14	Mitsubishi Corporation	Yoshikazu Oishi	Ferrous Raw Materials Sales and Marketing Business Unit
15	Mitsubishi Corporation	Masayuki Kasahara	Global Strategy & Coordination Dept.
16	MITSUBISHI CORPORATION	TATSURO SAKO	BASE METALS BUSINESS UNIT
17	MITSUBISHI CORPORATION	TADA MINORU	METALS GROUP
18	MITSUBISHI CORPORATION	Yusuke Yamanaka	Non-Ferrous Metals Division
19	The Bank of Tokyo-Mitsubishi UFJ	Takeshi SAGAWA	Global Planning Division
20	Sojitz Corporation	Yasuyuki Sasaki	Business Promotion Dept.
21	The University of Tokyo	Michiko Ishisone	
22	JGC Corporation	Harumi KAWAMUTO	Oil, Gas & Mining Business Department
23	NIKKO Exploration & Development Co., Ltd.	TSUSHIMA Norio	Exploration Division
24	Private	HIROTAKE GUNJI	
25	JJI PRESS	Yasuro Iwama	Commodities News Desk
26	Japan broadcasting corpotartion	Emiko Yamakawa	News Feature Production Center (Current Affairs Program)
27	Japan broadcasting corpotartion	kazuta Hioki	Special Program
28	Ministry of Foreign Affairs	Misa Ono	Second Africa Division, Middle Eastern and African Affairs Bureau
29	Metal Economics Reserch Institute,Japan	Masato Nakajima	Senior Analysit
30	Japan Mining Engineering Center for International Cooperation	ITO TADASHI	International Cooperation Department
31	Japan Mining Engineering Center for International Cooperation	Morozumi Haruhisa	International Cooperation Department
32	Japan External Trade Organization	HIROKI, Taku	Overseas Research Department
33	Embassy of the Republic of Zambia	Sylvester Mundanda	First Secretary
34	Republic of Zambia, Ministry of Mines and Minerals Development, Geological Survey Department	Mabvuto Mwale	Senior Geologist
35	Republic of Zambia, Ministry of Mines and Minerals Development, Geological Survey Department	Chibesakunda Francis	Geologist
36	Zambia Development Agency	Noah Ndumingu	Senior Privatization Officer
37	Japan International Cooperation Agency	Sakae Yoshida	Industrial Development Department
38	Japan International Cooperation Agency	KOBAYASHI Hiroyuki	Industrial Development Department
39	Japan International Cooperation Agency	EHARA Yoshiki	Industrial Development Department
40	Japan International Cooperation Agency	IMAMURA Yoshihiro	Industrial Development Department
41	Japan International Cooperation Center	Yukio Kimura	Training Coordinator
42	Japan Oil, Gas and Metals National Corporation	Hisamitsu Moriwaki	Exective Director Member of Board
43	Japan Oil, Gas and Metals National Corporation	Masao Kando	Metals Strategy Department
44	Japan Oil, Gas and Metals National Corporation	Koie Masato	Metals Strategy Department
45	Japan Oil, Gas and Metals National Corporation	Toru Suzuki	Metals Strategy Department
46	Japan Oil, Gas and Metals National Corporation	Taeko Kudo	Metals Strategy Department
47	Mitsui Mineral Development Engineering Co., Ltd	Kunitoshi Oe	President
48	Mitsui Mineral Development Engineering Co., Ltd	Noboru Fujii	Mineral Resources Division
49	Mitsui Mineral Development Engineering Co., Ltd	Morio HASHIMOTO	Mineral Resources Division
50	Mitsui Mineral Development Engineering Co., Ltd	Akimitsu Takebe	Mineral Resources Division
51	Mitsui Mineral Development Engineering Co., Ltd	MIYAUCHI KEI	Mineral Resources Division
52	Mitsui Mineral Development Engineering Co., Ltd	SHUKUWA RYUTA	Mineral Resources Division
53	Mitsui Mineral Development Engineering Co., Ltd	Tsuyoshi Yamada	Mineral Resources Division

Where the Mining Industry Gathers to Transact and Network



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INDABA
CAPETOWN, SOUTH AFRICA • 2009

EXHIBITOR KIT

9-12 February 2009

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Shipping your booth.....	ASAP	page 5
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EXHIBITION INFORMATION



Early Registration
Sponsors and Speakers ONLY
Sunday 8 Feb
3:00 pm-6:00 pm

Set-up
Monday, 9 Feb
5:00 AM
All materials shipped through Exhibition
Freighting will be in the booths at move-in time.
Our staff will be available during set-up hours
to assist you.

Breakdown
Thursday, 12 Feb, 2:00 pm

**EXHIBIT BOOTHS ARE LOCATED ON GROUND
LEVEL (0) OF THE CTICC**

Conference Hours

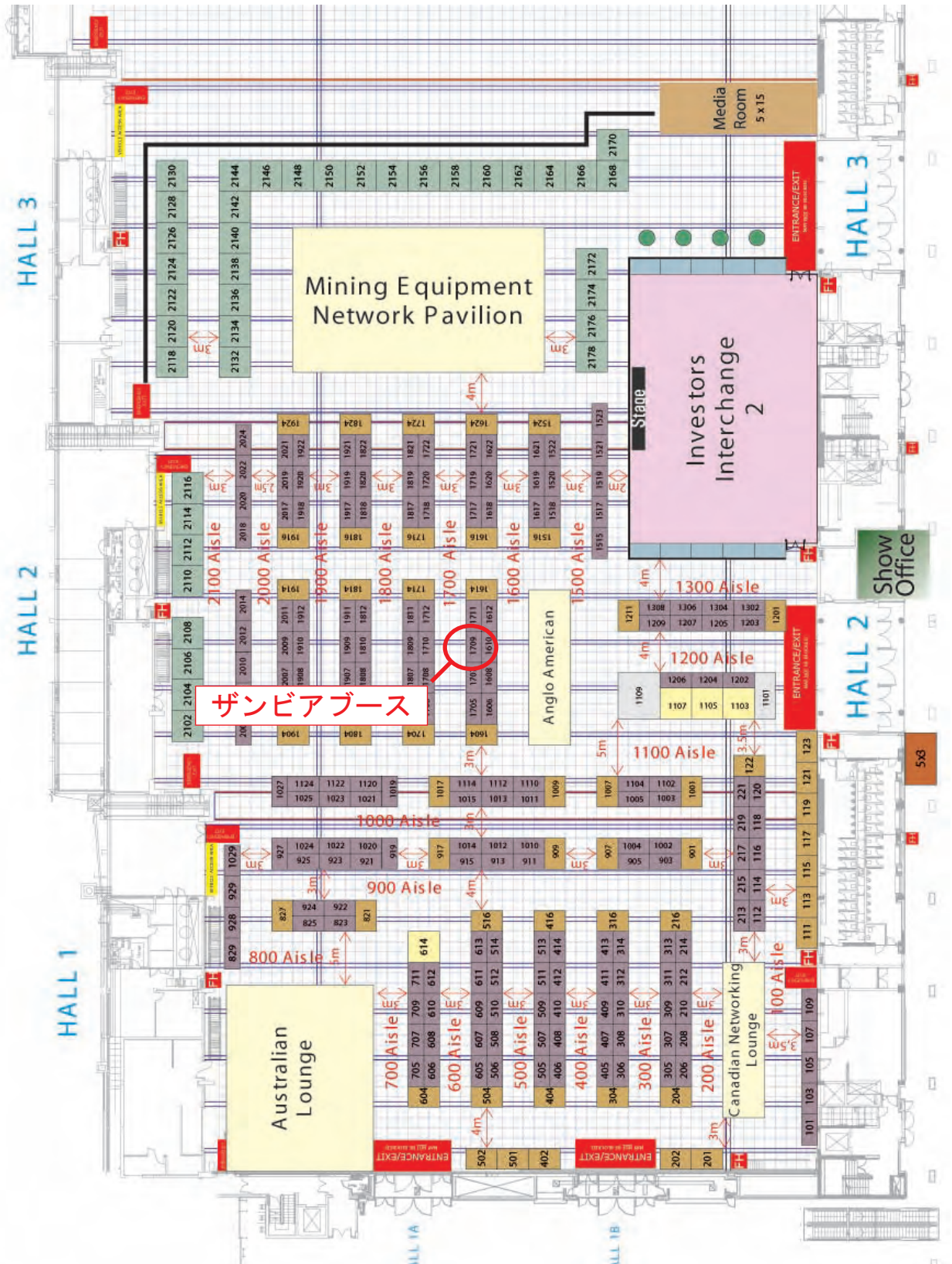
- Monday , 9 Feb, 1:15 pm - 6:00 pm
- Tuesday , 10 Feb, 8:20 am - 5:30 pm
- Wednesday , 11 Feb, 9:00 am - 5:30 pm
- Thursday , 12 Feb, 9:00 am - 12:30 pm

Exhibit HALL Hours

- Tuesday , 10 Feb, 9:00 am - 5:00 pm
- Wednesday , 11 Feb, 9:00 am - 5:00 pm
- Thursday , 12 Feb, 9:00 am - 2:00 pm



Appendix I-10(3) Booth Assignment

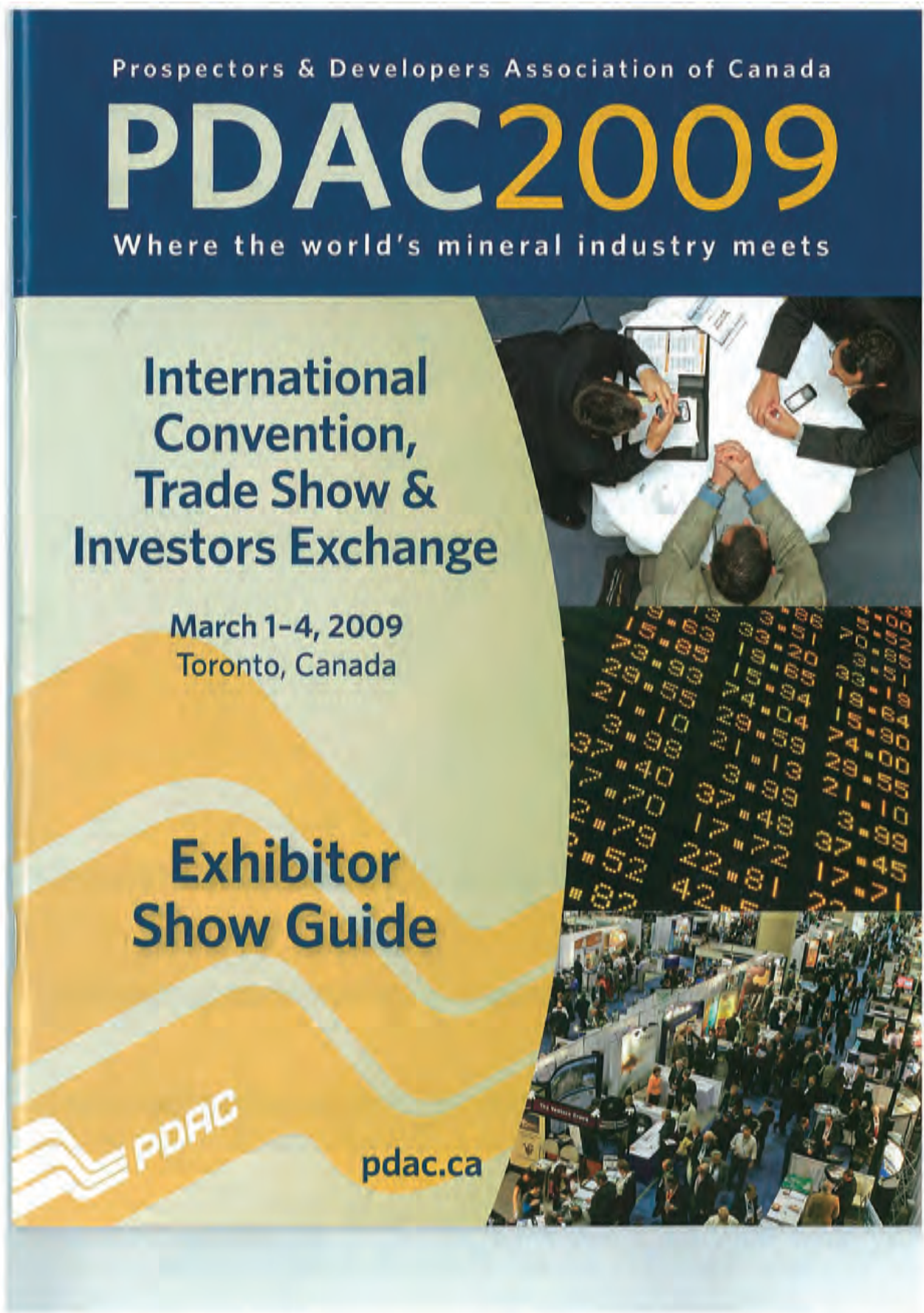


List of Vistors for Zambian booth in Mining INDABA 2009 (1/2)

Ser	Lastname	First name	Title	Company	Country
1	Greblo	Frank	Principal Mining Engineer	AMC Consultants	Australia
2	Carman	Yvette	Industry Advisor	Australian Government	Australia
3	Crowe	Jon		Baobab Resources	Australia
4	Warburton	Neil	CEO	Barmingo	Australia
5	Hunt-Davies	Nick	General Maneger	CGA mining Ltd	Australia
6	Courtney	John	Ambassador	Embassy of Australia	Australia
7	Anderson	Helen	Mnager, Interpretation	Fugro Airbone Survey	Australia
8	Elong	Ferdinated Rodger	P. Eng. Sales Dept.	RHEWUM	Australia
9	Edwards	Glen	Exploration Manager	Western Metals	Australia
10	Munalula	Evans	Excutive business Advisory Services	BDO	Botswana
11	Suzuki	Tesuo	Director, Geological Information Center, Botswana	JOGMEC	Botswana
12	Donaldson	Jeff	General Manager	Titeline Drilling ltd	Botswana
13	Stergiou	Andreas	Operations Manager	Titeline Drilling ltd	Botswana
14	Schafer	Robert	Vice President	Hunter Dickinson Inc	Canada
15	Sperinck	Mike	President and CEO	Luri Gold Limited	Canada
16	Cox	David E.	Vice President, Sales	Metals Economic Group	Canada
17	Shapiro	Bruce		Mineafrica	Canada
18	Ine Lu	Kuangu	Principal	SE ASIA Resources Ltd	Canada
19	Poylo	Joachim	President & CEO	Aden Services	China
20	Q	Peter	Manager	Anshan Zizhu Metal Co., LTD.	China
21	Shi	Sophia	Manager International Trading	Anshan Zizhu Metal Co., LTD.	China
22	Chao	Zhang	President	China-Africa Investment and Development Co.,Ltd	China
23	Jingjin	Liu	Deputy General Manager	China-Africa Investment and Development Co.,Ltd	China
24	Ngoy	Raphael	Administrateur Directeur	First Quantum Minerals	Congo
25	Raju	D.R.K.	head geology & Exploration	Rubaco SPRL	Congo
26	Rey	Jean	Deputy Managing Director	Standard Bank	Congo
27	Dalmia	Navin	Managing Director & CEO	Rubaco SPRL	DRC
28	Kibreab	Alem	Director General	Ministry of Energy & Mines, Department of Mines, Eritorea	Eritorea
29	Tegenu	Alemayehu	Minister of Mines & Energy	Federal Democratic Republic Ethiopia	Ethiopia
30	VERNERON	Jean-Marie	Directeur géographique Afrique	BRGM	France
31	Vasiliades	Socrates	Chief Excutive Officer	Core Mining Limited	France
32	Wagner	Gernot	Chiarman	Evagor Gmbh	Germany
33	Heard	Glenn	Contracts Manager	African Underground Mining Services Ltd.	Ghana
34	Parikh	Sunil	manager	Kishore Vadilal LTD	India
35	Kondo	Satoshi	Group Managemer Metals, Mineral Resources & Coal Division	ITOCHU Corp. Johannesburg Branch	Japan
36	Moriwaki	Hisamitsu	Director	JOGMEC	Japan
37	Komamura	Kazuhiko	Environmental & Resource consulting unit, Social System Consulting Department	Nomura Reserch Institute (NRI)	Japan
38	Kageyama	Takashi	Assistant Manager	Sumitomo Corporation	Japan
39	Kamon	Hideki	Manager, Attorney at Law	Sumitomo Corporation	Japan
40	Ueda	Tsuyoshi	Manager, Metal and Minerals	Sumitomo Corporation	Japan
41	Kinloch	Stewart	Chief Underwriting Officer	ATIACA ltd	Kenya
42	Marques	Joao Manuel	Senior Geologist	Gondwana Ltd	Mozambique
43	Pale	Estevao Rafael	C.E.O	Companhia Mocambicana de Hirocarbonetos SA	Mzambique
44	Ahmad	Hussein Ali	Chairman	Manicaland Corporation, LDA	Mzambique
45	Malango	Veston	General Manager	The chamber of Mine of Namibia	Namibia
46	Sheikh	Engr Goni	Director	Ministry of Mine and steel development, Nigeria	Nigeria
47	Afonso Fialho	Joao	Advogado	Miranda	Portugal
48	CISSE	Ousmane	Geol. Eng	Ministry of Mines, Industry	Senegar
49	Nel	Barry	Director Sales, Africa	Advanced Braking Technology	South Africa
50	Grows	Derek	General Manager	Afgen Ltd	South Africa
51	Legong	Lerato	Legal Commercial Manager	Anglo American	South Africa
52	Russell	Danny	Principal Process Engineer	Ausenco	South Africa
53	Baba	Koji	Chief Representative	Bank of Tokyo-Mitsubishi UFJ	South Africa
54	Weldhagen	Willem	Sales Excutive	Barloworld Logistics Africa	South Africa
55	Lemmer	Johann	Partner	BDO	South Africa
56	Hambleton- Jone	Brian	Chairman	Bikwe Resources	South Africa
57	Baboolal	Ishaan	Operations Manager	Bridge Shipping	South Africa
58	Sullivan	Michael	Excutive Director	Central Rand Gold	South Africa
59	Moinet	Frederic	Country Manager	CGG Veritas	South Africa
60	Adeosun	Rotimi	Cash Product Manager	Citibank, N. A.	South Africa

List of Vistors for Zambian booth in Mining INDABA 2009 (2/2)

Ser	Lastname	First name	Title	Company	Country
61	Kasolo	Pius	Excutive Chairman	Concrete Lining Products	South Africa
62	Mathabatha	Stan	Chairman	Corridor Mining Resources	South Africa
63	Monyepao	Maleka J.	Manager Business Development	Council for Geoscience	South Africa
64	Claassens	Niel		Coza Mining	South Africa
65	Mpinga	Mutoba	Legal Consultant	Fasken Martineau	South Africa
66	Hutchinson	Christina	Sales & Marketing Manager	Fugro Airbone Survey	South Africa
67	Davidson	Tony	Mineral Recovery Consultancy & Project Manager	Gondwana Solutions	South Africa
68	Takano	Masato	Manager Energy, Metals & Minerals	ITOCHU Corp. Johannesburg Branch	South Africa
69	Takazaki	Sawaka	Director	JETRO	South Africa
70	Mtonga	Jacob	Business Development Manager	K'enyuka	South Africa
71	Bajorat	Catrin		MACS maritime Carrier Shipping Ltd	South Africa
72	Roestorf	Margaret	Businness Manager South Africa, Australia	Mineweb	South Africa
73	O'sullivan	Steven	Online Editor	Miningne	South Africa
74	Mifune	Masaki	Assitant Manager	Mitsubish Corporation, Johannesburg	South Africa
75	Hori	Tesuya	General Manager	Mitsui & Co. Europe Plc	South Africa
76	Du Plessis	Lourens	Managing Director	Modular	South Africa
77	Khumbrane	Jacob	Director, Customer services	Modular	South Africa
78	Vosser	Wynand	New business Development Manager	Modular	South Africa
79	Qhojeng	Nyakale	Managing Director	NC Oils & Petroleum	South Africa
80	Siebert	Christian	Africa mining Analyst	NEDGROUP	South Africa
81	Hariperad	Ashwin	Managing Director	Osho Limpopo Mining (PTY) Limited	South Africa
82	Makino	Masahiro	Manager, Metals & Ore Dept	Sojitsu Corporation	South Africa
83	Steadman	J	Professional Valuer	Steadman & CO	South Africa
84	Uryu	Shinich	Divisional Manager, Metals & Minerals	Sumitomo Corporation	South Africa
85	McLean	Nikki	South African Branch	Trafigura Service Pte LTD	South Africa
86	Reddy	Sagie	Exloration Manager	Tranter Holdings	South Africa
87	Thabo	Eric	Mineral Resources Manager	Tranter Holdings	South Africa
88	Thomson	Anne	Non-Executive Chairman	UG2 Platinum ltd	South Africa
89	Fieldhouse	Ian	Ni Geologist	VALE	South Africa
90	YOUSSEFI	Bareja	Directeur d'analyse d'addaires	VALE	South Africa
91	Sambo	Charles	Chief Operating Officer	Wesizwe	South Africa
92	Ericsson	Magnus	Partner	Raw Materials Groups	Sweden
93	Tarras-Wahlberg	Hakan	Managing Director	Swedish Geological AB	Sweden
94	Park	John	Chairman	African Eagle Resources plc	UK
95	Acheson	Denis	Chairman	Behre Dolbear	UK
96	Ellison	Richard	Regional Manager, BGS International	British Geological Survey	UK
97	Grimaudo	Benito	Investoment Adviser	Froteir Markets	UK
98	Janssens	Roland	Senior Investment Adviser	Froteir Markets	UK
99	Harrison	Alexadra	Mining Geologist	Golder Associates	UK
100	French	Kaori	Resercher	JOGMEC	UK
101	Takeya	Masahiko	Asistant General Manager, London Office	JOGMEC	UK
102	Lancereaux	Stephane	Director	Societe General Corporate & Investment Banking	UK
103	Gostevskikh	Alex	Managing Director	Urnium resources	UK
104	Claridge	Frederic	Senior Technical Director	WorleyParsons	UK
105	Kamon	Hideki	Sub-leader	Sumitomo Corporation	USA
106	Foose	Michael	International Programs	US Geological Survey	USA
107	Hantuba	Muna	Chief Excetive	AFLIFE	Zambia
108	Simwaka	Gift	Coutry Manager, Zambia	African Trade Insurance Agency	Zambia
109	Hunt	Jonathan	Exploration Project Manager	Coffey mining	Zambia
110	Le Roux	Ian	Director	Joint Venture Cicils Ltd	Zambia
111	Burton	Mark Grelg	Managing Director	Lendor Burton	Zambia
112	Geldenhuis	Rob		OX Drilling	Zambia
113	O'Neill	Garry		OX Drilling	Zambia
114	Kapende	Martin	Business Editor	Zambia Daily Limited	Zambia
115	Shi	Charles	Vice Chairman	Zhonghui International Mining Industry Group Ltd.	Zambia
116	Steyn	Sid		OX Drilling	Zimbabwe
117	Munshi	Arshad	Finance Director	Todal Mining	Zimbabwe



General Information

Registration Desk

Sponsored by



Level 600

Friday	February 27	7:00 am – 10:00 am*
Saturday	February 28	7:00 am – 6:00 pm
Sunday	March 1	7:00 am – 5:30 pm
Monday	March 2	7:00 am – 5:30 pm
Tuesday	March 3	6:30 am – 5:30 pm
Wednesday	March 4	8:00 am – 12 noon

*Short course participants only

Exhibit Hours

Level 800

Sunday	March 1	10:00 am – 5:30 pm
Monday	March 2	10:00 am – 5:30 pm
Tuesday	March 3	10:00 am – 5:30 pm
Wednesday	March 4	9:00 am – 12 noon

Media Centre

Sponsored by City of Toronto

Room 709

Sunday	March 1	9:00 am – 5:30 pm
Monday	March 2	8:00 am – 5:30 pm
Tuesday	March 3	8:00 am – 5:30 pm
Wednesday	March 4	8:00 am – 3:00 pm

Speaker Ready Room

Room 706

Friday	February 27	7:00 am – 5:00 pm
Saturday	February 28	7:00 am – 5:00 pm
Sunday	March 1	8:00 am – 5:00 pm
Monday	March 2	8:00 am – 5:00 pm
Tuesday	March 3	8:00 am – 5:00 pm
Wednesday	March 4	8:00 am – 2:00 pm

Badge & Ticket Access

Wear your name badge at all times to ensure access to convention events.

Badge Access

White Delegate Badge:

Technical program, Trade Show and Investors Exchange

Yellow Delegate Badge:

Business Class Lounge, Technical Program, Trade Show and Investors Exchange

Business Class Lounge sponsored by
Inmet Mining Corporation

Red Guest Badge:

Guest Hospitality Program, Trade Show and Investors Exchange

Red Exhibitor Badge:

Trade Show and Investors Exchange

Green Day Pass Badge:

Trade Show and Investors Exchange on specified days

Blue Investors Exchange Badge:

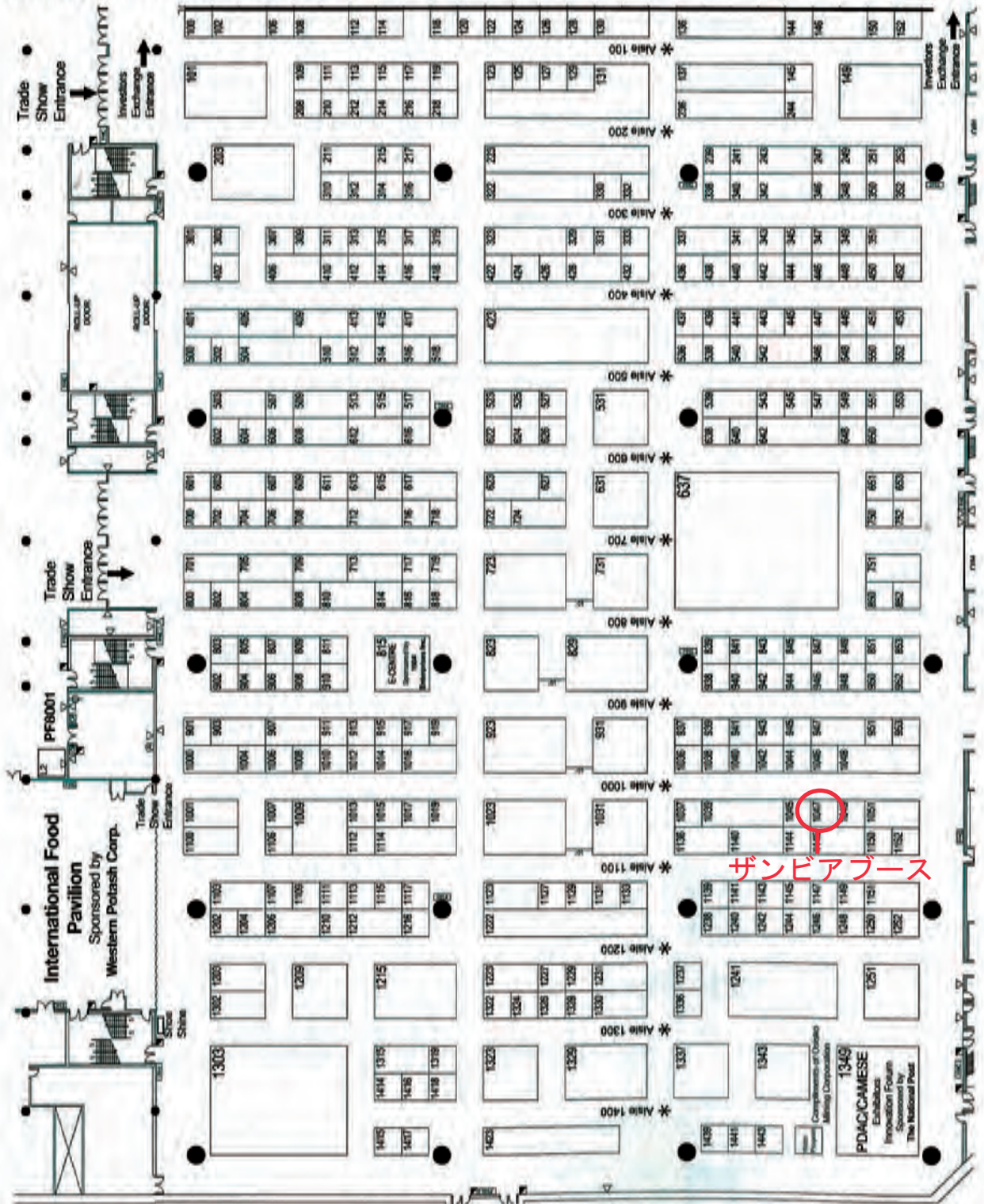
Investors Exchange only

Tickets

Admission to convention luncheons and dinner events is by ticket only. Tickets may be purchased, subject to availability, at the registration desk, Level 600, Metro Toronto Convention Centre, South Building.

Trade Show Floorplan

Sponsored by **Deloitte.**



8 Trade Show Floorplan

Appendix I-11(4) List of Visitors for Zamia Booth in PDAC 2009 (1/4)

Ser	Lastname	Firstname	Title	Company	Country
1	Bagalciaga	Ricardo	Consultant Geologist	Ricardo Bagalciaga & Asociados	Argentina
2	Bauk	George	Managing Director	Western Metals Ltd	Australia
3	Croaker	Mawson	Principal Geologist	Rio Tinto Exploration	Australia
4	Katchan	George	Managing Director	Pegasus Metals Limited	Australia
5	Moore	Jeffrey	Managing Director	ABRA Mining Limited	Australia
6	Park	John	Chairman	African Eagle Resources plc	Australia
7	Porter	Ralph	Exploration Director	Magma Metals Limited	Australia
8	Render	Melissa	Junior Geologist	AusQuest Limited	Australia
9	Schodde	Richard	Managing Director	MinEx Consulting Pty Ltd.	Australia
10	Wood	Anthony	Director	Turner & Townsend	Australia
11	Janssens	Jean-Jacques	New Business Manager	Cta - Commercial Trading Agency	Belgium
12	Santana	Paulo		Brasil Pavilion	Brazil
13	Wirth	Christian			Brazil
14	Akamaluk	Thomas		Geological Survey Department of Ghana	Canada
15	Amedofu	Samuel Kwabla		Geological Survey Department of Ghana	Canada
16	Barrie	C. Tucker	Geologist	C.T. Barrie and Associates, Inc.	Canada
17	Barrie	Charles		Terraquest Ltd.	Canada
18	Bassoo	Roy			Canada
19	Bottrill	Terrence		University of Toronto Mississauga	Canada
20	Brough	Don		FLSmidth Minerals Ltd	Canada
21	Broughton	David	Vice President Exploration	Ivanhoe Nickel and Platinum Ltd	Canada
22	Bruno	Lou		WorleyParsons Minerals & Metals	Canada
23	Burda	David		Bear Paw Resources Inc.	Canada
24	Cacos	Spiros	Manager, Investor Relations	Pacific North West Capital Corp.	Canada
25	Cameron	Driffield	Vice President, Exploration	High River Gold Mines Ltd.	Canada
26	Campbell	Michael		MEG Systems Ltd.	Canada
27	Carlin	Ian		SDV Logistics (Canada) Inc.	Canada
28	Carriere	Don		CPM	Canada
29	Chaiyanetra	Boonyarithi		Southeast Asia Mining	Canada
30	Chater	Andy		Andy Chater Exploration	Canada
31	Chornyj	Nick		FailSafe Campus Inc.	Canada
32	Christopher	Peter		African Queen Mines Ltd.	Canada
33	Clarke	Curtis	President And Ceo	Behre Dolbear & Company Ltd.	Canada
34	Clarke	Don		Corriente	Canada
35	Coleman	Tim	Director	Government of the Northwest Territories	Canada
36	Cooper	Art		WorleyParsons Minerals & Metals	Canada
37	Coyne	Howard		Kluane Drilling Ltd	Canada
38	Curran	Michael D.	Director, Global Mining Research	RBC Capital Markets	Canada
39	Dahlenborg	Lars		Tumi Resources Limited	Canada
40	Daly	Tim		Aero Geometrics Ltd	Canada
41	Dehghan	Mahdi			Canada
42	Dikizeyeko	Marie-France		Merrex Gold Inc.	Canada
43	Donnelly	Sharon		Pajari Instruments Ltd.	Canada
44	Dookie	Edris	Founder	CGX Energy Inc.	Canada
45	Edwards	Daniel	Mr		Canada
46	Evans	Chris		New-Sense Geophysics Ltd.	Canada
47	Figueira	Raquel		Aquiline Resources Inc.	Canada
48	Flood	Eugene	Geological Consultant	B2Gold Corp.	Canada
49	Floreani	Wayne		Mine Africa	Canada
50	Fonk	Shannon	Earth And Environmental Science Student	McMaster University	Canada

Appendix I-11(4) List of Visitors for Zamia Booth in PDAC 2009 (2/4)

Ser	Lastname	Firstname	Title	Company	Country
51	Francis	Carlton		Niagara College	Canada
52	Golan	Doron		AMEC	Canada
53	Gow	Neil	Geological Consultant	Castle Gold Corp.	Canada
54	Granot	Naftali		Talon Metals	Canada
55	Grifi	Meriem	Ms.	University of WESTERN Ontario	Canada
56	Guertin	MManie		Canada, Government of	Canada
57	Haile	Tes		Phoenix Geophysics Ltd.	Canada
58	Hanssen	Eric	West Africa Exploration Manager	Iamgold Corporation	Canada
59	Harris	David		Midlands Minerals Corporation	Canada
60	He	Weiguo			Canada
61	Hogg	Irene		Scott Hogg & Associates Ltd.	Canada
62	Holbek	Peter	Vice President, Exploration	Copper Mountain Mining Corp.	Canada
63	Horscroft	Richard		Airborne Petroleum Geophysics Ltd.	Canada
64	Hosein	Gabrielle		Probe Mines Limited	Canada
65	Hudon	Michel G.	Attorney	Colby,Monet,Demers,Delage & Crevier	Canada
66	Johannsen	Tina		Thor Global Enterprises Ltd.	Canada
67	Jones	Larry		British Columbia Ministry of Energy, Mines & Petro	Canada
68	Jones	Glen		Intierra Ltd.	Canada
69	Kallaghe	Peter	High Commissioner	Tanzania High Commission	Canada
70	Katto	Edwards		Uganda, Government of	Canada
71	Kerr	William	Vp, Exploration	Denison Mines Corp.	Canada
72	King	Brian		Georeference Online Ltd.	Canada
73	Komperdo	Loren		Celtic Minerals Ltd.	Canada
74	Kowalczyk	Benjamin	Production Geologist	Williams Operating Corporation	Canada
75	Ladha	Karim		NB	Canada
76	Levasseur	Patrick		Ice Age Gold	Canada
77	Lockhart	A. Wayne	President	Lockhart Exploration Services Ltd.	Canada
78	Lv	Lei		Wenfeng Gang Tie	Canada
79	Malone	Laura		University of New Brunswick	Canada
80	Marsden	Pam	Director Of Communications	Mining Association of Manitoba Inc.	Canada
81	Mclaughlin	Patrick		University of Manitoba	Canada
82	Miller	Jared			Canada
83	Monteiro	Rogerio	Area Geologist	Vale Exploration	Canada
84	Montgomery	Joe		Cosigo/Rio Verde Group	Canada
85	Mooney	Matthew		ShotCrete plus	Canada
86	Munro	Cathy		Scott Hogg & Associates Ltd.	Canada
87	Muroi	Elisa		Japan Oil, Gas & Metals National Corporation	Canada
88	Murphy	Maeve	Acquire Support Analyst	Golder Associates	Canada
89	Nagy	Larry	Chairman & Ceo	Solomon Resources Ltd.	Canada
90	Needham	Blair		R. Blair Needham Mineral Exploration Services	Canada
91	Ohno	Takayuki		Japan Oil, Gas & Metals National Corporation	Canada
92	Park	Kil-Cheon		Korea Resources Corporation	Canada
93	Park	Bernie			Canada
94	Pellerin	Jennifer		University of New Brunswick	Canada
95	Phillips	Carson		Raytec Metals Corp.	Canada
96	Phipps	Donald	Consulting Geologist	Phipps Geological Services	Canada
97	Power-Fardy	David	Senior Geologist	Watts, Griffis and McQuat Limited	Canada
98	Ratcliffe	Stuart		Ausenco	Canada
99	Raymond	Denis		DENIS RAYMOND Geology Consultant	Canada
100	Richards	Michael		University of New Brunswick	Canada

Appendix I-11(4) List of Visitors for Zamia Booth in PDAC 2009 (3/4)

Ser	Lastname	Firstname	Title	Company	Country
101	Robert	Muongo		Shamika Resources	Canada
102	Roy	Mario		Mroy International	Canada
103	Rutherford	Roger	Senior Consultant	DAR	Canada
104	Sawitzky	Eduard	Consultant		Canada
105	Secord	Scott	Captain Of Industry	Scott Secord Geological Services	Canada
106	Shewchuk	Patrick	Investor		Canada
107	Shigley	James E.		Gemological Institute of America	Canada
108	Simon	Armando		AMEC	Canada
109	Sveinson	Fred	President & Ceo	Merit Mining Corp.	Canada
110	Taylor	Kelly		Canwealth Minerals Corporation	Canada
111	Tomes	Heidi	Exploration Geologist	CCIC	Canada
112	Underhay	Sara Lise			Canada
113	Van Straaten	Peter		University of Guelph	Canada
114	Vettese	Aldo		Vetmar	Canada
115	Wang	Haiying		Worldlink(Canada) Resources Ltd.	Canada
116	Ward	Julie	Senior Consultant	Hatch	Canada
117	Whyte	James	Senior Geologist	Ontario Securities Commission	Canada
118	Wondimu	Haileyesus		JVX LTD.	Canada
119	Yang	Chunlei			Canada
120	Zhang	Ge	Chairman	3S Mineral Mapping	Canada
121	Aguilar	Angelo	International Exploration Manager	Codelco-Chile	Chile
122	Hirai	Koji	Technical Engineer	Pan Pacific Copper Co., Ltd.	Chile
123	Hishida	Hajime	General Manager, Santiago Office	Japan Oil, Gas and Metals National Corporation	Chile
124	Lopez Ogalde	Nestor	Geologist	Atacama Drilling	Chile
125	Brueggemeier	Kathrin		All Exhibition and Conference Co.,Ltd	China
126	Congbin	Liu	President	Richstone Industry Investment Group	China
127	Han	Jiuxi	Program Officer	China Geological Survey	China
128	Li	Chenyong		Fambition Mining Technology Co.,Ltd	China
129	Mao	Anna		Seven Platinum Co.,Ltd	China
130	Shi	Junfa	Division Director	China Geological Survey	China
131	Van Der Wath	Kobus		The Beijing Axis	China
132	Wu	Jun	Deputy Division Director	China Geological Survey	China
133	Yan	Changhai	Henan institute Of Geological Survey	Henan Institute of Geological Survey	China
134	Yu	Haifeng	Vice Division Director	Exploration Department, Ministry of Land and Resou	China
135	Zhang	Yongsheng	Chairman	Zhejiang Overseas Metals Industry Co., Ltd	China
136	Bakr	Mohamed		Egyptian mining and mineral Resources	Egypt
137	Kauppinen	Velimatti			Finland
138	Miehe	Jean-Marc	Chief Geophysicist	Areva Nc	France
139	Schira	Bruno	Director	Areva Nc	France
140	Loos	Michael		DMT	Germany
141	Yaw Aboagye	Joseph		Ghana, Minerals Commission of	Ghana
142	Pryor	Mark		Montero Mining & Exploration Ltd	Great Britain
143	Chan	King Yuet Fanny	Manager - Private Clients	Thornton Capital Management Ltd	Hong Kong
144	Kobayashi	Kimihiko		Mitsui & Co., Ltd.	Japan
145	Tagaya	Teppei		Mitsui & Co., Ltd.	Japan
146	Kim	Min-Sup	Deputy Manager	Daewoo International Corporation	Korea
147	Oh	Ji-Eun		Korea Resources Corporation	Korea
148	Oh	Hyang-Sup		Korea Resources Corporation	Korea
149	Park	Seok-Jo		Korea Resources Corporation	Korea
150	Park	Jeong-Hak		Consulate General of the Republic of Korea	Korea

Appendix I-11(4) List of Visitors for Zamia Booth in PDAC 2009 (4/4)

Ser	Lastname	Firstname	Title	Company	Country
151	Park	Jung-Ho		Kolon Group	Korea
152	Harnish	Steven A.		Super Sun Consultants Limited	Laos
153	Cushman	Tom	Managing Director	Richfield Investor Services	Madagascar
154	Ffooks	John		John W. Ffooks & Co	Madagascar
155	Dembele	Dramane			Mali
156	Kone	Abdoulaye		UEMOA	Mali
157	Feehan	Thomas		Sierra Drilling International	Mexico
158	Enkhbold	Liguu		Embassy of Mongolia in Canada	Mongolia
159	Hutchins	Dave	Chief Geophysicist	Geological Survey of Namibia	Namibia
160	Hodkiewicz	Paul		Leapfrog Software	New Zealand
161	Aichatou	Alhou Salifou	Ingenieur Des Mines	SOPAMIN-SA	Niger
162	Toe	Ghislain		SEMM LOGGING INC.	Niger
163	Sheikh	Goni	Director Mining Cadastre Office	Ministry of Mines and Steel Development	Nigeria
164	Sandstad	Jan Sverre		Norway, Geological Survey of	Norway
165	Himata	Shadrach		Department of Mineral Policy and Geohazards Manage	Papua New Guinea
166	Cedron	Mario		Cetemin	Peru
167	Donayre	Carlos		Consorcio Minero S.a.	Peru
168	Balykov	Dmitry		St. Petersburg State Mining Institute	Russia
169	Derevyanko	Igor	General Manager	Mireko	Russia
170	Egorov	Alexey		St. Petersburg State Mining Institute	Russia
171	Makarov	Vladimir	Director	Institute o Geology, Mininig and Geotechnology	Russia
172	Taylor	Piers	Mr.	Saudi Arabian Mining Co. (Ma'aden)	Saudi Arabia
173	Harrison	Peter	Exploration	Impala Platinum Limited	South Africa
174	Mckenzie	Alan		Mintek	South Africa
175	Schlegel	Claus	Vp Exploration & Business Development	TEAL Exploration & Mining Inc.	South Africa
176	Snyman	Coenraad	Director	Turner & Townsend	South Africa
177	Minde	Anicet		Tanzania, Geological Survey	Tanzania
178	Valente	Damien	Mr.	Minesite Tanzania Limited	Tanzania
179	Katumwehe	Andrew		Uganda, Ministry of Energy and Mineral Development	Uganda
180	Butcher	Mark		A.C.A Howe International	United Kingdom
181	Davies	Chris	Operations Director	African Eagle Resources plc	United Kingdom
182	Waverley	John Desmond	Vp	CC Mining	United Kingdom
183	Coirolo	Carlos		Uruguay Mineral Exploration Inc.	Uruguay
184	Daniels	Leon		Precambrico SA	Uruguay
185	Courtney	Jody		Behre Dolbear Group Inc.	USA
186	Farrell	Michael	Mr	World Mine Cost Data Exchange Inc	USA
187	Hammond	Orian (Buck)		Baroid Industrial Drilling Products	USA
188	Hansen	Rob		Behre Dolbear International Ltd.	USA
189	Hare	Jennifer		Zonge Engineering	USA
190	Lapoint	Dennis	President	Appalachian Resources LLC	USA
191	Morris	Willam		Great Southern Mining Co.	USA
192	Reid	Kenneth	President	MINENCO	USA
193	Romero Lage	Fernando		Telsmith Inc	USA
194	Sehnke	Errol D.	Senior Geologist	Solway Resources, LLC	USA
195	Sipols	Reinis	President	Behre Dolbear & Company (USA) Inc.	USA
196	Wilkinson	William	Vice President Exploration	Freeport-McMoRan Copper & Gold, Inc	USA
197	Al-Sabri	Amer		GSMRB, Yemen	Yemen
198	Milimbo	Solomon		Canadian High Commission	Zambia

OFFICIAL EXHIBITION CATALOGUE

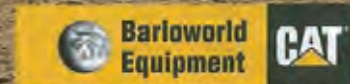
ZAMINEX SHOW 2009

THE COPPERBELT MINING AND COMMERCIAL SHOW

27 MAY - 31 MAY 2009 KITWE ZAMBIA

"PRODUCTIVITY IN ADVERSITY"

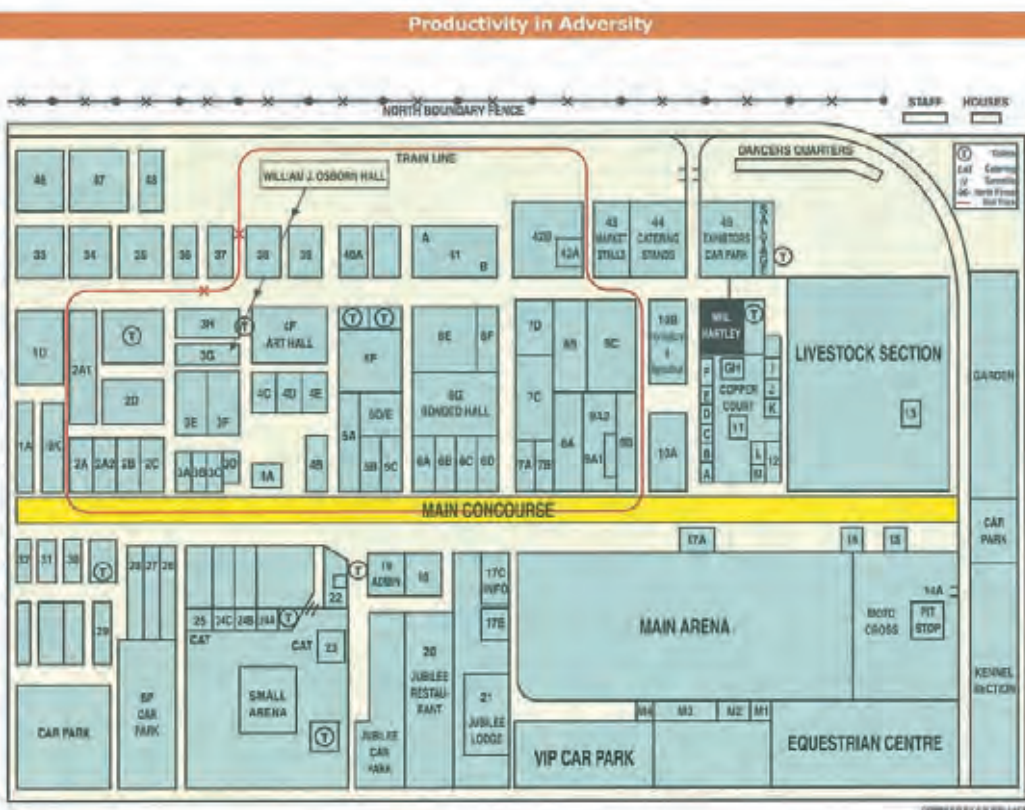
CAT ARTICULATED
TRUCKS, A VISION OF
THE FUTURE.



Appendix I-12(2) Floor Plan and the Stand List of the Copperbelt Show

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ZAMINEX 2009



EXHIBITORS 2009 FLOOR PLAN

ZAMINEX 2009

1A Sandvik Mining & Construction	9B Bank of Zambia	33 Tweepelwa Industrial Corp
1B/C Scaw Foundries	9C	34
1D-1-2 EC Mining	10A Southern Cross Motors	35
2A	10B HORTICULTURE & AGRICULTURE HALL	36 Copperbelt University
2A-1	11A Helderman/Tyton	37
2A-2	11B Ministry of Mines	38
2B Ndola Lime Company	11C NAPSA	39
2C ZSIC	11D ECZ	40 Radio Incengelo
2D	11E Workers Compensation	40A
3A Afrac	11F ZCCM-Industrial Holdings	41
3B Zamseed	11G/H Zamefa Metal Fabricators	42A
3C Pex Hydraulics	11I	42B
3D Zambia Bota Shoe	11J LUUNET	43
3E Weir Warman	11K Transformco	44
3F Nova Engineering/Plant Agrichem	11L	45
3G WJ OSBORN HALL (Modules)	11M	46
3H Barclays Bank	NH NEIL HARTLEY HALL	47
4A Stahis Hi-Tech	12 Zambia National Broadcasting	48
4B SKF	13 LIVESTOCK SECTION	
4C Morganite Zambia	14A Super X Clubhouse	Stand 3G WILLIAM J. OSBORN HALL
4D Lanox Central Africa	15 Snake Display	MODULES
4E Scaw Ltd	16 MEDICAL STAND	WJ01 Kafue Gorge Regional Training Centre
4F ART HALL	17A Catering	WJ02/3/4 RSA Pavilion Reception
5A Catering	17B Harriet Sikasila	WJ05 Staalmester Agricultural Imports
5B Romeo Kitchens	17C INFORMATION	WJ06 Pandra Industrial Weighing
5C Ministry of Agriculture	18 Matop	WJ07 Kappa Engineering Limited
5D Ministry of Agriculture	19 ADMINISTRATION	WJ08 Blue Cube Systems
5E Ministry of Agriculture	20 JUBILEE RESTAURANT	WJ09 Chattals T/A Fredsneff
5F JEWEL SCHOOL	21 JUBILEE RESTAURANT	WJ10 Yale Industrial Products
6A Realtime Technology	22 Duys Components	WJ11 Powertech Est. Energy
6B/C Zerstel	23 Catering	WJ14 Belyre Africa Ltd
6D Zambeef	24A	WJ15 Dept Industry SA
6E	24B Galison Zambia	WJ16 Bird Machines Ltd
6F Mindolo Ecumenical	24C Safintra Zambia	WJ17 Turner Morns Manufacturing
6G BONDED WAREHOUSE	25 Catering Take away	WJ18 Thoroughbred Technologies
7A Zambia National Service	26 Griopa Manufacturing	WJ19 Consulment Ltd
7B	27 Total Zambia	WJ20 Netgroup South Africa
7C	28 Toyota Zambia	WJ21 Gear Pump Manufacturing
7D Future Search	28A	WJ22 Origin Solutions
8A Saro Agri Equipment	29 JEWEL SCHOOL	WJ23 Mechal Ltd
8B Iwatalyzya School	30 Chamber of Mines	WJ24 Infraset Zambia
9A-1 Olympic Milling	31	
9A-2 Zamnet Communications	32 CACSS-TICKET OFFICE	

EXHIBITORS 2009 STAND LIST

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Appendix I-12(3) List of Visitors for GSD pavilion in Copperbelt Show

Ser	Name	Organization
1	Hon. Maxwell Mwale	Minster of Mines and Minerals Development
2	Dr. G. M Beene	Permanent Secretary, MMMD
3	K. A. Liyungu	Director GSD, MMMD
4	M.B.C. Lumamba	Director MSD, MMMD
5	Lubasi Sakwiba	Director HRA, MMMD
6	Bernadette Mwakacheya	Economist, HRA
7	Jessica Chomba	Zambian Development Agency
8	Wilson Chilembo	MACO (Ministry of Agriculture and Cooperatives)
9	Emeldah Banda	Ministry of Education (MOE)
10	Howard Simpemba	Chibuluma Mine
11	Chambo Moses	Chibuluma Mine
12	Charles Lupiya	Mopani Copper Maines
13	Noble Mfula	Mopani Copper Maines
14	Mangilashi Samuel	Mopani Copper Maines
15	A. K. Malolo	Mopani Copper Maines
16	Kennedy Mpolwa	Mopani Copper Maines
17	Wellington Mukumba	Mopani Copper Maines
18	P. C. Bwalya	Konkola Copper Mines Inc.
19	Brad Gnanasivam	Konkola Copper Mines Inc.
20	M. K. Dauchi	Twapenga Mining LTD
21	GLC Nyendwa	Shalom Mining Company
22	Moses Chanda	Lab. Zambia Metal Fabricators (ZAMEFA)
23	Lazarous Sinyinza	Nonferrous Metals Africa Mining plc (NFC)
24	Fredy Katebe	Nonferrous Metals Africa Mining plc (NFC)
25	Thomas Mkandawire	Jowsiet Ent.
26	M. Mwila	Pollux Investments
27	E. Mwila	HITACH CMSA
28	W. Chanda	AVATEC LTD
29	Gabriel Chishinka	Zambia State Insurance Coperation (ZSIC)
30	Christopher Banda	Kanetech Ltd.
31	Angel Malama	Dinovo Investments Ltd.
32	Kenneth Mwanza	GAU Industry
33	Wiscort Banda	African Energy
34	E. Mutale	PBE
35	Cornelius Mukuka	Small Scale
36	M. Nkamba	Technical and Vocational Teachers College
37	Richard Mukuka	Luansha Boys High School
38	Sgt. Tembo	Police Services
39	Subinspector Shamano	Police Services
40	B. Njukome	Agriculture
41	Davis Mwansasu	Agriculture
42	A. Kaluba	NA
43	O. Mawere	NA
44	D. Chayuwa	NA
45	Michael Kabwe	Private
46	K. L. Verina	Gemfields Mining
47	S. Njamba	Private
48	Sumit	Kagem Mining Ltd.
49	Nibas	Kagem Mining Ltd.
50	Arunkumar	Kagem Mining Ltd.
51	Peter Chamfa	ZESCO Ltd.

Appendix I-13 Photographs of the Meetings and Office works 1/2



Meeting with JICA in Zambia



Courtesy visit to Embassy of Japan in Zambia



Meeting with GSD



Courtesy visit to the Permanent Secretary of MMMD



First Steering Committee Meeting
(5 March, 2007))



Second Steering Committee Meeting
(9 July, 2008))

Appendix I-13 Photographs of the Meetings and Office works 2/2



Meeting with a Project manager of EU/MSDP



Meeting with GDS about geological survey plan



JICA survey team office



Interview to the Cadastral unit of MDD



Courtesy visit to the Kasama Minicipal Council

Appendix I-14 Photographs of the Technical Transfer, Workshops and Seminar 1/5

Meeting of the survey



Explanation of Satellite image analysis by Japanese Senior geologist



Discussion on the geological survey result of the 2nd year

First Workshop (23 July, 2007)



Opening address by Mr. Liyungu, Director of GSD



Participants from GSD



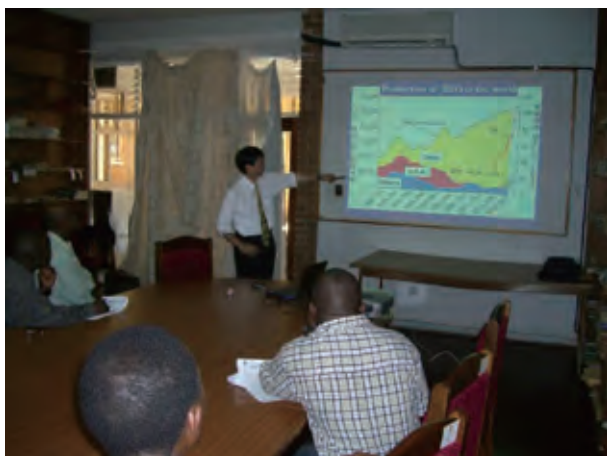
Lecture of GIS database by Japanese GIS Expert



Introduction of basic technique of remote sensing by Japanese senior geologist

Appendix I-14 Photographs of the Technical Transfer, Workshops and Seminar 2/5

Special Seminar (20 November, 2007)



Special seminar by Dr. Watanabe, Geological Survey of Japan, AIST. He explained supply and demand of rare earth elements, and a possibility of apatite deposit as a source of rare earth elements.



Discussing with staff of GSD on apatite deposits in Zambia

Second Practical Workshop (10 July, 2008)



Creation of geological map using Arcview by Japanese senior geologist



GPS data processing for geological survey by Japanese senior geologist



Digitizing geological map by TNT Mips by Japanese GIS expert



Participants from GSD

Appendix I-14 Photographs of the Technical Transfer, Workshops and Seminar 3/5

Geological Mapping Seminar (11 November, 2008)



Opening address by Mr. Liyungu, Director of GSD



Geological Mapping by Japanese senior geologist



Geological Mapping by GSD Geologist



Participants from GSD

Appendix I-14 Photographs of the Technical Transfer, Workshops and Seminar 4/5

Tokyo Seminar (16 December, 2008)



Reception



Mr. Hiroyuki Kobayashi (Chairman)



H.E. Mr. Godfrey S. Simasiku



Mr. Seiichi Nagatsuka



Appendix I-14 Photographs of the Technical Transfer, Workshops and Seminar 5/5



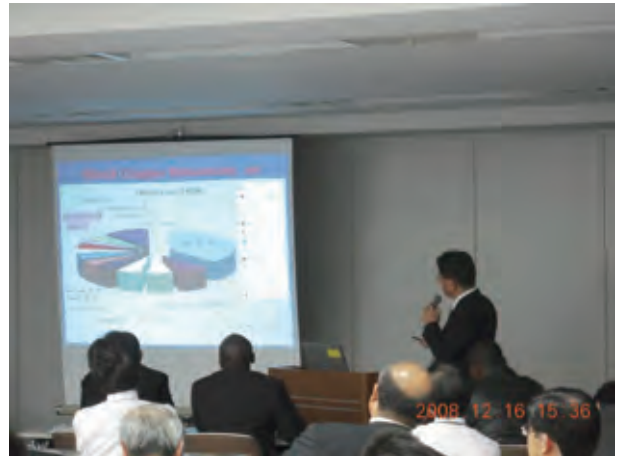
Mr. Nagatsuka & H.E. Mr. Simasiku



Mrs. Florence Mumba



Mr. Kennedy A. Liyungu



Mr. Masaharu Marutani



Q&A session



Appendix I-15 Photographs of Investment Promotion Activities

Mining INDABA



Cape Town International Convention Center (CTICC)



Entrance to the Convention Room



Convention hall



Zambia Booth

Mr.Ndumingu(ZDA), Mr.Zulu(MMMD),
Mr.Marutani (JICA Team),
H.E.Mr.Nkhata(MMMD), Mr.Mwalimu(MDD),
Mr.Tsushima(JICA Team)



Handout Materials



Explaining to Visitors

Appendix I-15 Photographs of Investment Promotion Activities

Prospectors and Developers Association of Canada (PDAC)



Metro Toronto Convention Center



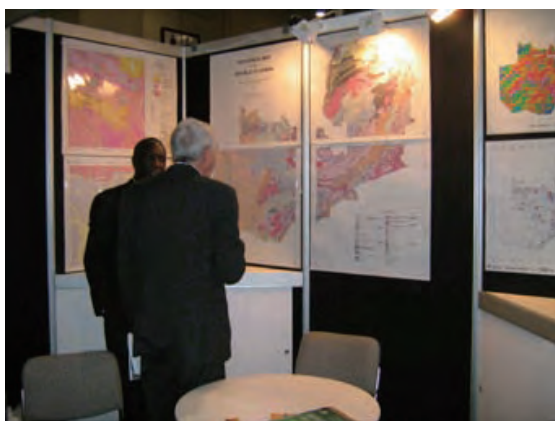
Entrance to the Convention Floor



Zambia Booth
Mr.Liyungu (left), Mr.Mbumba (right)



Explaining to Visitors



Explaining to Visitors



Convention Floor

Appendix I-15 Photographs of Investment Promotion Activities

Copperbelt Show



MMMD pavilion



Vice President George Kunda (centre)



Mr. Liyungu(GSD), Mr. Lumamba(MSD), Mr. Beene PS(MMMD), Mr. Sakwiba (HRA), Mr. Fukuda (JICA Zambia)



Mr Beene, Permanent Secretary of MMD and JICA member



Main concourse of the show



Chamber of Mines pavilion

Appendix I-16 Photographs of Field Survey



Checking location using GPS



Meeting before start of cooperative geological survey



Geologic observation in Outcrop



Field observation sheet recording



Soil geochemical survey (pitting)



Sampled pit soil geochemical survey

Appendix I-16 Photographs of Field Survey



Soil sample (500g)



River ferry by local people



Field Camp in Mukonge area