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No Minerals in
Newland

Rajasthan
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Anglo American Exploration (India) Pvt. Ltd.
Tej Kunj, Ambavgarh
UDAIPUR, Rajasthan
PIN- 313 004

17th September 2004

- To:
1. The Controller General,
Indian Bureau of Mines,
Indira Bhawan, Civil Lines
NAGPUR - 440 001
 2. The Director General,
Geological Survey of India,
27, Jawaharlal Nehru Road,
KOLKATA - 700 016
 3. The Director Mines and Geology
Government of Rajasthan
Khaniz Bhawan,
Shastri Circle
UDAIPUR - 313 001

Sub: **Final Report of Reconnaissance Work Done**
(Under Rule 7 (iii) & 7 (vii) of Mineral Concession Rules, 1960)

Ref: **Khandela RP - 4/2001 (435.20 sq km) in Sikar and Jhunjhunu Districts of Rajasthan**

Mineral(s): Copper, Lead, Zinc, Silver, Gold, Precious metals and Associated minerals

Dear Sir,

Please find enclosed herewith the **Final Report of Reconnaissance Work Done** over the above Reconnaissance Permit as required under Rule 7 (iii) & 7 (vii) of Mineral Concession Rules, 1960. All data and information acquired during the reconnaissance operations is attached.

We request you that the contents of the report are kept confidential under Rule 7(viii) of MCR, 1960.

Yours faithfully,

Signature: *Kamalendra*

Place: UDAIPUR
Date: 17th September 2004

Name in full: Kamalendra S Jhalaj
Designation: Project Leader

Enclosure 1: Reconnaissance report
Enclosure 2: Data in Compact disc

Office of the
Controller General Indian Bureau of Mines
Date: 17/9/04

Anglo American Exploration (India) Private Limited
Regd Office: 214, South Ex Plaza-1, 389, Masjid Moth, South Extension, PT-II, NEW DELHI -110 049
Tel: (011) 2625 8172, 2625 1711 Fax: (011) 2625 0551

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Anglo American Exploration (India) Pvt. Ltd.
Tej Kunj, Ambavgarh
UDAIPUR, Rajasthan
PIN- 313 004
17th September 2004

FORM-BB

(See rule 7 (iii) & 7 (vii) under MCR, 1960)

Progress report of reconnaissance survey in respect of Copper, lead, zinc, silver, gold, precious metals and associated minerals [the name of the mineral(s)] for the year ending July 2004 .
(Abandonment of reconnaissance permit).

IMPORTANT

This Form fully filled-in must reach the Concerned authorities within thirty days after expiration of one year from the date of execution of reconnaissance permit or the expiry of reconnaissance permit or abandonment of reconnaissance permit, whichever is earlier.

- To
1. The Controller General,
Indian Bureau of Mines,
Indira Bhawan, Civil Lines
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 2. The Director General,
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27, Jawaharlal Nehru Road,
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Government of Rajasthan
Khaniz Bhawan,
Shastri Circle
UDAIPUR - 313 001

Khandela RP - 4/2001 (435.20 sq km) in Sikar and Jhunjhunu

| | | |
|----|---------------------------|---|
| 1. | Name of the permit holder | Anglo American Exploration (India) Pvt. Ltd. |
| 2. | Nature of the firm | A private limited company registered under Companies Act, 1956 |
| 3. | Address of the firm | Anglo American Exploration (India) Pvt. Ltd. 214, South Ex Plaza - 1 389, Masjid Moth, South Ext Pt II New Delhi - 110 049 |

Anglo American Exploration (India) Private Limited
Regd Office: 214, South Ex Plaza-1, 389, Masjid Moth, South Extension, PT-II, NEW DELHI -110 049
Tel: (011) 2625 8172, 2625 1711 Fax: (011) 2625 0551

| | | |
|-----|---|--|
| 4. | Area under permit | 435.20 sq km |
| 5. | Location: (i) Topo sheet No. (s) (ii) Co-ordinates of corner points (iii) District (s) (iv) State | 45 M/9 and 45 M/10 Given in Figure 1 in the attached report Sikar and Jhunjhunu Rajasthan |
| 6. | Date of grant of permit | 21 st August 2003 |
| 7. | Period of permit | 3 years, from 21.08.2003 to 20.08.2006 |
| 8. | Reconnaissance survey work done (A brief description of the work involved along with particulars of the machines and instruments used would be given against each of the following items) (i) Regional Survey (ii) Aerial / Photogeological work (iii) Geological mapping including area covered and scale (iv) Geophysical (v) Geochemical (vi) Test drilling: Number, area of influence meterage and sampling. | Please refer to report attached for the details. Please refer to report attached for the details. None Please see attached report under heading: Reconnaissance survey work done - Geological Please see attached report under heading: Reconnaissance survey work done - Geophysical Please see attached report under heading: Reconnaissance survey work done - Geochemical Please see attached report under heading: Reconnaissance survey work done - Drilling |
| 9. | Nature and structure of the ore body | No mineralisation located |
| 10. | Analysis of the ores or minerals | Not applicable |

| | | |
|-----|---|---|
| 11. | If abandonment (i) Date of abandonment (ii) Reasons for abandonment | 13 th September 2004 Exploration activities completed Signature: <i>Kamleendra</i> KAMALENDRA SINGH JHALA (Full name of the Signatory) Designation: PROJECT LEADER and Address: Anglo American Exploration (India) Pvt. Ltd. Tej Kunj, Ambavgarh UDAIPUR, Rajasthan PIN- 313 004 Date of despatch: 17 th September 2004 |
|-----|---|---|

Report by Anglo American Exploration (India) Private Limited

Final Report of Reconnaissance Work Done
(See Rule 7 (iii) & 7 (vii) of MCR, 1960)

A. INTRODUCTION -

In August 2003, Anglo American Exploration (India) Private Limited (AAEIPL) executed Reconnaissance Permit (RP) over an area of 435.20 sq km (Khandela RP) in Sikar and Jhunjhunu districts of Rajasthan. The area has been licensed for prospecting of Copper, Lead, Zinc, Silver, Gold, Precious metals and Associated minerals.

This final report describes the reconnaissance work accomplished in the Reconnaissance permit area and data and information collected during reconnaissance operations.

B. AREA OF RECONNAISSANCE -

The RP (see Figure 1) constitute an area of 435.20 sq km in Rajasthan, falling within Sikar and Jhunjhunu districts in the state of Rajasthan.

Location, area and date of execution of the RP are tabulated below and depicted in Figure- 1.

| RP Block | Falls in Districts | Date of execution | Original Area (sq km) | Area Relinquished (sq km) | Present Area (sq km) |
|-----------|--------------------|-------------------|-----------------------|---------------------------|----------------------|
| RP-4/2001 | Sikar & Jhunjhunu | 21/08/2003 | 435.20 | 435.20 | 0.00 |

C. GEOLOGY OF THE AREA -

Regional Geology:

Regionally, the rocks of the area belong to North Delhi Fold Belt of Proterozoic age. The rocks are primarily meta-sediments comprising of pelites, meta-carbonates and quartzites. A number of ENE trending structures traverse the area. Metamorphic grade varies from middle amphibolite to granulite facies.

The Saladipura pyrite deposit and Manaksas zinc occurrence lie in adjoining areas to the west, but outside of this RP. Kayar zinc deposit, near Ajmer, is also hosted in the pelitic rocks of the North Delhi Fold Belt. Generative work carried out by AAEIPL indicates that this area is prospective for base metal mineralisation.

D. RECONNAISSANCE WORK DONE –

GENERAL:

The permit area has been covered by several airborne geophysical surveys in the past including that of RTZ in 1998 and hence the company has no plans to undertake any aerial survey. Instead, emphasis will be laid on ground based geophysical and geochemical surveys to explore the area. However, efforts will be made to procure airborne geophysical data from relevant government agencies for reprocessing and interpretation.

1. Geology:

Regional geological traverses were taken to understand the litho package and structure of the area. Most of the area in W and NW part of the permit area is outcropping while major portion of the eastern and south eastern part of the block is under thick transported (wind blown sand) cover. Where the exposures are limited the geological information was collected from well spoils for geological interpretation. Mostly quartzites, granite gneiss, amphibolites and carbonates are exposed being more resistive to weathering compared to pelites and psammopelites which occur as recessive units mainly seen in well spoils. General geological map of the area is shown in figure 2.

2. Geophysics:

Ground magnetic survey was conducted to use different approach in exploration compared with what other companies have done in the past.

2478 line km of ground mag was planned to cover this tenement area. Figure 3 shows the linepath and figure 4 shows the processed TMI grey scale image of the tenement area. This survey was done by using GSM-19 (V6.0) overhauser magnetometers which is having inbuilt GPS. Another magnetometer was used as a base magnetometer to correct the diurnal variations during the survey period. The specifications of the survey is mentioned below:

| | |
|----------------------|------------------|
| Total No. of Line km | : 2478 |
| Line spacing | : 200m |
| Line Direction | : EW |
| Station Spacing | : 0.5m (approx.) |

Data interpretation identified few anomalies to be followed up by ground geophysics. Fig 8 shows location of anomalies where ground EM was carried out. Based on interpretation of ground EM data two anomalies (KHG19 & KHG23) were prioritized for drilling.

Details of the ground EM survey are given in Annexure 1. Raw data is given in attached CD.

3. Geochemistry:

Details of the geochemical activities undertaken in the area are listed below:

a. Soil Sampling:

Regional soil sampling was carried over entire RP area. Samples were collected at 1000 x 200m grid over EW lines (Figure 5). The proposed site of sampling was reached with the help of a handheld GPS and the topsoil was scraped. Soil samples, approximately 160gms from $-250\mu\text{m}$ fractions, were collected from a depth of 20-30cm.

Data interpretation from the regional soils has identified 17 areas (Figure 6) with little elevated geochemical values.

Geochemical samples were analyzed for a large number of major and trace elements using ultra-trace analytical methods and ICP-MS / ICP-AES at ACME Laboratories, Vancouver (Canada).

Soil results for the key elements are attached in table 2 and results for all the elements are given in attached CD.

b. Regolith Mapping:

Regolith mapping was done over the entire permit area using Landsat image and field observation. Major part of the area in the east and south east of the tenement area lies within transported environment with thickness of sand cover being plus 40m. The geochem signature gets masked due to transported nature of soil and this was kept in mind during regional soil interpretation.

c. Rock Sampling:

Besides systematic soil sampling, several rock chip samples were collected from well-spoils and outcrops during the process of mapping and sampling. Samples were analyzed for 53 elements. As major part of the tenement is covered by transported soils which makes it difficult to see the geochemical signature so rock samples were collected and they are shown in figure 7.

Rock results for the key elements are attached in table 1 and results for all the elements are given in attached CD.

4. Drilling:

Based on the interpretation of geological, geochemical and geophysical datasets two anomalies (KHG19 & KHG23) were selected for drill testing. Figure 9 shows location of drill holes.

Drilling failed to intersect significant Pb Zn mineralisation. Summary of the drill holes is given in table 3.

Detailed drill logs and drill assays are given in attached CD.

E. PERSONS ENGAGED FOR THE WORK -

Geological mapping and geochemical sampling programmes was carried out by a number of geologists working for the company as well as consultants from abroad were used for mapping and data interpretation. Field assistants were hired locally to assist the field teams.

The company geophysicist undertook most of the ground geophysical surveys. Several field assistants, as per requirement, were hired locally to carry out the surveys.
