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RIO TINTO

Chhattisgarh 8

Rio Tinto Exploration India Limited

A member of the Rio Tinto Group

Final Relinquishment Report for the Pathalgaon Reconnaissance Permit Raigarh and Jashpur District, Chhattisgarh, India.

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1 EXECUTIVE SUMMARY

Rio Tinto Exploration India Ltd. (Earlier known as ACC Rio Tinto Exploration) executed the Pathalgaon Reconnaissance Permit (RP) of 800 km^2 on 24th February 2003 in the Raigarh and Jashpur district of Chhattisgarh. RTE relinquished over half the original RP area to retain 370-km^2 area at the end of second year of the RP permit in compliance with MMDR Act through dated 22nd February 2005. The current report pertains to the work carried out in the RP area during the period February 24th 2003 – February 23rd 2006.

While no kimberlite or precious metal or base metal mineralization has yet been found in the RP area during the regional exploration, however, the analytical results indicate interesting kimberlite indicator anomalies. Based on the results, two applications namely Pathalgaon East (75km^2)and Pathalgaon West (25km^2) have been lodged for grant of Prospecting licenses.

161 heavy mineral gravel samples for kimberlitic indicators and 161 stream sediment samples for a comprehensive regional geochemistry have been collected from the entire Pathalgaon RP since the beginning of the project. Approximately 28,000 heavy mineral grains recovered from the gravel samples were subsequently analyzed for major oxide elements by manual and automated scanning electron microprobe. This phase of reconnaissance sampling indicated occurrence of kimberlitic indicators in parts of the Pathalgaon RP. However, no discrete prospect areas are defined from these kimberlitic indicators.

2 INTRODUCTION

This Final Relinquishment report pertains to the work carried out by RTE (ACC Rio Tinto has been renamed as Rio Tinto Exploration India Ltd hence the new name RTE will be used in further reference) for the exploration of diamonds and other mineral commodities during the period February 24th 2003 to February 23rd 2006.

The Pathalgaon RP area, totaling 800 km^2 was granted to Rio Tinto Exploration India Ltd on the 28th December 2002 and subsequently executed on 24th February 2003. RTE relinquished more than half the original RP area as per the MMRD Act permit and as per the letter addressed to the DMG Chhattisgarh dated 22nd February 2005, to retain 370 km^2 area at the end of the second year of the RP.

The Pathalgaon RP area is located in the northeastern part of Chhattisgarh State, approximately 70 km north of Raigarh town. The field area is accessed from Raigarh via the Highway connecting Gharghora and Dharamjaygarh to Jashpur.

Pathalgaon RP area covers about 94 towns and villages with a population of over 50,000. Approximately 90% of the population is agrarian. Dharmajaygarh is the largest town in the RP area.

This is the Final relinquishment report detailing all exploration completed by Rio Tinto Exploration India Ltd (RTE) within our 800 km^2 Pathalgaon reconnaissance permit in the three year of operation. This report compliments previous biannual reports including:

- ACC Rio Tinto Exploration Limited (November 2003); 1st Bi-annual Progress Report for Exploration of the Pathalgaon Reconnaissance Permits For the period 24/02/2003 to 23/08/2003.
- ACC Rio Tinto Exploration Limited (May 2004); 2nd Bi-annual Progress Report for Exploration of the Pathalgaon Reconnaissance Permits For the period 24/08/2003 to 23/02/2004.
- ACC Rio Tinto Exploration Limited (October 2004); 3rd Bi-annual Progress Report for Exploration of the Pathalgaon Reconnaissance Permits For the period 24/02/2004 to 23/08/2004.
- ACC Rio Tinto Exploration Limited (May 2005); 4th Bi-annual Progress Report for Exploration of the Pathalgaon Reconnaissance Permits For the period 24/08/2004 to 23/02/2005.
- ACC Rio Tinto Exploration Limited (November 2005); 5th Bi-annual Progress Report for Exploration of the Pathalgaon Reconnaissance Permits For the period 23/02/2005 to23/08/2005.

All the above reports have been submitted with the relevant government institutions and are further archived with Rio Tinto Exploration India Ltd. in Bangalore.

Regional reconnaissance surveys including stream gravel indicator mineral sampling, stream sediment geochemistry sampling, mapping and remote sensed imagery interpretation has been completed over the entire Pathalgaon RP area. No kimberlite or precious metal or base metal mineralization is identified anywhere in the project area. A summary of exploration activities carried out till date is detailed in table 1. Gravel sample details and probe results of the sampled heavy minerals and stream sediment samples within the permit area are detailed in appendix 1 and 2.

Name (District)	Granted RP Area km^2	Date of Execution	Heavy Mineral Samples	Heavy Mineral Chemistry (grains)	Geochemical Samples	Geophysics	Drilling
Pathalgaon RP (Raigarh and Jashpur)	800 granted 370 retained	24.02.2003	161 gravel	27997	161 stream	Nil	Nil

Table 1: Summary of exploration completed by RTE on the Pathalgaon RP.

3 REGIONAL GEOLOGY and MORPHOLOGY

The Pathalgaon RP area is part of a low-grade metamorphic belt, which is the western extension of Palaeo- to Meso Proterozoic North Singbhum Mobile Belt of Bihar. Geological Survey of India (GSI) has mapped the area in 1: 50,000 scale, though the map is unpublished. A published 1: 250 k map is available to RTE. The rock types in the metamorphic belt are comprised of E-W elongated enclaves of metasediments within granitic and tonalitic plutons. The metasedimentary enclaves include quartz-muscovite schist, quartz-felspar-biotite schist, diopside-epidote bearing quartz-felspar biotite schist, hornblende schist / amphibolite and quartz-chlorite schist. Outcrops of dolerite intrusives are also common. The regional trend of the rocks is WNW-ESE to E-W, which is also the dominant foliation and trend of strongest deformation in the region. Numerous E-W brittle ductile shear zones are commonly filled with quartz reefs. The western part of the Pathalgaon RP is occupied by NE-SW trending Palaeozoic Lower Gondwana Supergroup of sediments, which, include tillites, sandstones and shales and which are part of fluvio-deltaic deposition in the larger intracratonic Mahanadi Rift Basin. Quaternary to Recent river beds and flood plain terraces are exploited by local "Sonajhors" (gold panners) for extracting gold. Occasional diamonds are also reported from these sediments.

The permit area is dominated by rugged hills in the west, which are underlain by Gondwana sediments, fringed by colluvium to broadly undulating areas of gently rolling pediplains in the east. The drainage is controlled by Mand River and it's tributaries, which flows to the southwest through the RP area into Mahanadi River. Intense agricultural activities throughout have frequently diverted the drainage channels to paddy fields.

More than 60% of the permit area is designated as forestland.

4 RESULTS OF EXPLORATION

4.1 Geology

Prospect Geology

In the 4th biannual report, a remote sensed geological interpretation map integrated with geological traversing and published GSI geological maps at 1:250,000 scale was appended. Analysis of remote sensed data including clay differentiation from Landsat TM imagery, which was not able to identify any kimberlite or features that could be attributed to kimberlite intrusion in the RP area.

4.2 Reconnaissance Heavy Mineral (Gravel) Sampling

A total of 161 gravel samples were collected from second and third order streams at a nominal spacing of 1 sample per 5 square kilometers effectively sampling all active drainage areas over the entire Pathalgaon RP.

Each gravel sample comprised approximately 30kg of –1mm sand collected by hand from heavy mineral concentration zones within the active stream sediment bed load. All samples are processed at the company's specialist processing facilities by dense media separation, magnetic and heavy liquid techniques with mineral concentrates manually observed for any potential kimberlitic indicators.

The following table gives an analysis of observation and major oxide SEM mineral chemistries (table 2) of kimberlitic indicator minerals in gravel samples collected from the RP area 341 potentially kimberlitic indicator mineral grains were found from selected and probed heavy mineral grains. Notably gravel samples from the Pathalgaon RP contain only minor pyrope garnet with 1 sample (1%) returning a maximum of 10 grains. Details of the sample locations of kimberlitic indicator minerals are given in appendix 1. Plan 1 gives the location of all stream sediment heavy mineral samples collected within the RP area.

	Pyrope	Kimberlitic Chromite	Picro Ilmenite	Chrome Diopside
No of grains	10	330	0	1
Maximum grain count	10	56	0	1
No of positive samples	01	11	0	1
% of positive samples	1.14%	12.6%	0%	1.14%

Table 2: Summary of kimberlitic indicator minerals in the stream sediment heavy mineral samples of Pathalgaon RP and positive kimberlitic indicator samples identified on the basis of major element oxide scanning electron microprobe data.

4.3 Geochemical Exploration:

161 (–80#) stream sediment samples were collected and assayed for a suite of lithophile, chalcophile, precious metals and kimberlitic compatible and incompatible elements. The analyses were carried out by ICP-OES and ICP-MS techniques. Precious metal analysis for Au, Pt and Pd included fire assay with ICP-OES finish. The detailed assay of these elements is presented in appendix 3. Stream sediment geochemistry indicates no potential for precious and base metal mineralization. Stream sediment sample locations with results of Au, Cu, Pb and Zn are given in Plan 2, 3, 4 and 5.

5 HEALTH, SAFETY, ENVIRONMENT AND COMMUNITY

Rio Tinto recognizes that excellence in managing health, safety, environment and community responsibilities is essential to long-term success. Through effective management practices the Group aims to ensure the health and safety of its employees, to minimise any adverse impacts its activities may have on the environment and to make a positive contribution to local community life.

The policies apply to all Rio Tinto subsidiaries and managed by the concerned company including RTE and the Pathalgaon reconnaissance project.

5.1 Health and Safety

Rio Tinto Group policies on Health and Safety are designed to minimise the risk of injury or occupation illnesses. A minimum management requirement at all of the company-managed operations is to ensure full compliance with the Rio Tinto Standards. The goal is for zero work related injuries or occupation illnesses.

Minimum prerequisites require that all work activities be based on risk assessments ensuring that effective controls and safe work procedures exist for all hazardous activities. Further the standards require a system for ensuring that employees are trained, equipped and where applicable, certified to carry out their work according to the applicable safe work procedures, and that their competence has been tested. On the Chhattisgarh project the major hazardous activities were assessed to incorporate vehicles and driving, manual handling and electrical work. Risk assessments and selective standard operating procedures have been developed for specific tasks associated with each of these and for many other potentially hazardous activities.

Numerous frontline management and three annual Rio Tinto corporate safety audits have been conducted on the exploration groups operations in India. Audits in all cases have found the Indian operations to be of a high standard and compliant with only minor exceptions that have subsequently been rectified. In 2004 the Rio Tinto Exploration –Australasia region, including the Indian operations that contributed significantly, was awarded a Rio Tinto Group Chief Executive Safety award. Over 85 Rio Tinto managed companies from all over the world were reviewed with only three receiving the award in recognition of the excellent safety performance over the proceeding three years. A commendation for the same was received in 2003 and 2004. RTE India has received the Head of exploration award in 2006 for its performance in HSEC.

5.2 Environment

Rio Tinto Environmental Policy aims to prevent or otherwise minimise, mitigate and rehabilitate any harmful effects that the group's operations have on the environment. Although exploration activities including those completed in RTE Pathalgaon reconnaissance permits is essentially non-invasive to the environment, the same rigor and level compliance to the standards, systems and procedures is applicable.

For all the Chhattisgarh RP's an Environmental Management Plan was devised prior to the initiation of field activities and subsequently updated as the program developed. The plan evaluated potential environmental impacts associated with the activities and provided procedures to prevent or minimize impacts. In case where an impact was unavoidable or accidental, appropriate rehabilitation procedures were in place. Relevant exploration personnel

including those of contractors were inducted and trained in these procedures. Otherwise a competent person supervised the work to ensure minimal environmental impact. Control systems included incident reporting and annual environmental reporting to first-line management and corporate audits. RTE has obtained the ISO 14001 Certification in 2005.

5.3 Community Relations

There are more than 94 villages within the RP areas with a total population estimated to be over 50000. Agriculture is the main occupation for over 80% of the population. Industrial activity is mainly agrarian. Agriculture is mostly single crops restricted to the monsoon season with less than 5% under irrigation.

During the term of the exploration specific community relations policy applications included distribution of community briefing sheets, employment of local people for work, relationships with preferred local suppliers/services, continuous consultation with stockholders and development of internal system of recording, reporting, monitoring community activities.

6 REFERENCES

- ACC Rio Tinto Exploration Limited (November 2003); 1st Bi-annual Progress Report for Exploration of the Pathalgaon Reconnaissance Permits For the period 24/02/2003 to 23/08/2003.
- ACC Rio Tinto Exploration Limited (May 2004); 2nd Bi-annual Progress Report for Exploration of the Pathalgaon Reconnaissance Permits For the period 24/08/2003 to 23/02/2004.
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Keywords

India, Chhattisgarh, Diamond Exploration, Pathalgaon, Kimberlite, Diamonds, Kimberlitic Indicators, Geochemical-Soil Sampling, Loam Sampling, Geophysics, Magnetic & Drilling.

Locality

Chhattisgarh 64N & 64M 1:250 000 sheets

Descriptor

Final Relinquishment report of all exploration for diamond and other mineral commodities completed in the Raigarh & Jashpur districts of Chhattisgarh by RTE, during the three-year term of Pathalgaon RP; from 24th February 2003 to 23rd February 2006.