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Rio Tinto Exploration India Limited

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Final Relinquishment Report on Exploration Activities Within The Panna East (Mining/RP-37/2002) Reconnaissance Permit, Madhya Pradesh, India

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Copies to:

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Volume 1 of 2

1 SUMMARY

Exploration undertaken by Rio Tinto Exploration India Ltd (RTEIL) within the Panna East reconnaissance permit (Mining/RP-37/2002) of Madhya Pradesh led to identification of 1 new kimberlite (5Ha in size). Caustic fusion of RAB drill chips of this kimberlite yielded 14 diamonds of which the largest measured 1.1mm × 0.87mm.

The Panna East RP area, covering 1971.69 km^2 of Chhattarpur and Panna districts was executed on October 14th 2003. 1476.69 km^2 of the original Reconnaissance Permit ("RP") was relinquished on second anniversary, October 14th 2005 as per the provisions of the MMDR. In October 2006, all exploration work on the Panna East RP ceased on completion of three-year term pending the grant of Prospecting Licence (Plan1). Exploration work included 199 heavy mineral gravel samples and 195 –80# stream sediment geochemical samples collected at a nominal spacing of one sample per 11 square kilometres providing for complete coverage of the permit area. A further 43905 heavy mineral grains recovered from the gravel samples were subsequently analysed by manual and automated scanning electron microprobe. Analysis of mineral chemistries delineated eight catchment clusters of anomalous chromite and pyrope garnet for further prospecting and evaluation. Analysis of mineral chemistries shows a broad distribution of abundant chromite and rare pyrope garnet. At least four chromite populations are recognized ranging from distinctly crustal chromite with low or variable fractionated MgO to potentially kimberlitic varieties with high MgO and variable Cr_2O_3

Prospective areas were further evaluated by 1306-line km covering an area of 214 sq. km. of ground magnetics surveys, resulting in the definition of 23 targets. Each target was tested by combinations of ground magnetics, soil and rock geochemistry (116 samples). Finally, 2 targets were identified for drill testing. Two RAB drill holes totalling of 276 metres were completed on 2 targets confirming 1 kimberlite.

Application for 1 prospecting license (PL) covering the area of 2 km^2 confirmed as kimberlite has been submitted to the relevant government authorities. Further the evaluation of the kimberlite discovered is proposed pending grant of this PL.

2 INTRODUCTION

This report pertains to all exploration work completed by RTEIL (Formerly ARTE) in the exploration for primary diamond deposits and other mineral commodities within the Panna East RP (Mining/RP-37/2002). The RP area, covering parts of Chhattarpur and Panna districts, totalling 1971.69 km^2 was granted to ARTE on July 16th 2003 and subsequently executed on October 14 2003. In compliance with the requirements of the MMDR limiting the term of reconnaissance permits to a maximum of three years, the RP is recommended for relinquishment. Separately, 1 individual block of 2 km^2 from within the original reconnaissance permit area has been applied for as Prospecting Licence (PL). Application for this PL is currently with the government authorities pending approval.

This final relinquishment report details all exploration completed within the RP as summarised in table 1. Complimentary periodic data and maps are further reported in the previous biannual and relinquishment reports including:

- ACC Rio Tinto Exploration Limited (July 2004); 1st Bi-annual Progress Report for Exploration of the Panna East (RP-37/2002) Reconnaissance Permits for the period 14/10/2003 to 13/04/2004
- ACC Rio Tinto Exploration Limited (January 2005); 2nd Bi-annual Progress Report for Exploration of the Panna East (RP 37/2002) Reconnaissance Permits for the period 14/04/2004 to 13/10/2004
- ACC Rio Tinto Exploration Limited (July 2005); 3rd Bi-annual Progress Report for Exploration of the Panna East (RP 37/2002) Reconnaissance Permits for the period 14/10/2004 to 13/04/2005.
- ACC Rio Tinto Exploration Limited (January 2006); 4th Bi-annual Progress and Partial Relinquishment Report on Exploration Activities within the Panna East (Mining/RP-37/2002) Reconnaissance Permit for the period 14/04/2005 to 13/10/2005.
- Rio Tinto Exploration India Limited (July 2006); 5th Bi-annual Progress Report for Exploration of the Panna East (RP 37/2002) Reconnaissance Permits for the period 14/10/2005 to 13/04/2006.

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

RTEIL maintained a strong focus on health, safety, environment and community relations in its Madhya Pradesh diamond exploration projects. No lost time injuries and relatively few high-risk health and safety incidents were reported during the exploration period.

There are more than 350 villages within the RP area. Agriculture is the main occupation for over 90% of the population. Bigger market places are around Panna and Ajaygarh. Industries are mainly agrarian. Less than 20% of the land is irrigated. About 26% of the area

is covered by forest. Most of the larger forest tracts occur in the southern part of the Panna East RP and scattered all through the central and northern part of RP. Panna is the main establishment followed subsequently by Khajuraho and Lauri. The diamond mine at Panna run by NMDC is the main industry in this area. There are also several secondary diamond mines in the conglomerates, which provide small-scale employments to the people of this area. Rest of the industries are mainly agrarian. Agriculture in the region is mostly two crops restricted to the monsoon and winter season. About 26% of the area is designated reserved forest. The Ken Gharial Sanctuary and parts of Panna Tiger Reserve lie within the original RP. Most of the forest is semi arid and includes mixed teak, khair, and mahua. All necessary prior permissions to complete exploration in forest areas were obtained from District Forest Authorities whereas Madhya Pradesh State forest authorities granted drilling permission.

2.1 Exploration Work Completed

The exploration work commenced after the execution of RP in October 2003. Table –1 shows the quantum of work completed during the statutory 3 year RP period. The details of work carried out are briefly described below:

Between October 2003 and December 2003, first pass reconnaissance gravel and stream sediment samples were collected from dry streambeds within the RP area. Based on results of first-pass reconnaissance samples, several follow-up gravel samples were collected at closer spacings in order to delineate areas with anomalous concentrations of KIMs. At the end of this process 8 anomalous catchment areas were delineated over approximately 507 km^2 of the original RP area. These anomalous catchments were further evaluated with follow-up ground geophysics and soil sampling. 23 targets were selected and prioritised based on their profile, size and proximity to anomalous drainage samples yielding KIMs. In October 2005, 1476.69 km^2, or approximately 75% of the original RP was relinquished as per the provisions of the MMDR Act. The retained area, totalling 495 km^2 mostly covered portions of the Panna district.

The follow-up work including sampling, ground geophysics, target identification continued over the anomalous catchments during most of 2006. RAB drilling commenced over targets during September 2006 and 2 holes were completed by September-end, 2006. The RP was relinquished vide letter Dated 13 November 2006 Later a Prospecting License application over an area on 2 km^2 was submitted which is pending for grant by the Government.

Name (District)	Granted RP Area km^2	Date of Execution	Heavy Mineral Samples	Heavy Mineral Chemistry	Geochemical Samples	Geophysics	Drilling	Expenditure (Commitment) Rs Crores
Panna East RP 37/2002 (Panna and Chattarpur)	1971.69 granted 495 retained	14.10. 2003	199 gravels 4 Loams 2 Rocks	46342 grains	195 stream 117 soil 10 Rock	1306 line-km ground magnetics	276 m	4.0 (2.20)

Table 1 Summary of exploration conducted from October 2003 to October 2006 by RTEIL on the Panna East RP.

3 REGIONAL GEOLOGY

Based on a compilation from published 1:50,000 scale GSI geological maps, the geology of the area is defined by lithology of the Bundelkhand Craton and overlying Proterozoic sedimentary basin. The oldest rock types include differentiated granitoid gneiss intruded by dolerite, gabbro, amphibolite and quartz reefs – all of which have been grouped as the 2500Ma Bundelkhand Craton. Meso- to Neo-Proterozoic platformal sediments of Vindhyans overlie Bundelkhand craton in the south. These rocks are exposed in the southern most part of the RP areas. The Regional Geological compilation is shown in Plan 2.

The permit area is dominated by moderate to rugged topography over Craton and flat stepped plateau of overlying sediments and high-energy dendritic drainage with numerous hillocks composed of the Vindhyans within the permit. Over 26% of the permit including the higher topographic hills is variously designated as reserved and protected forest.

4 RESULTS OF EXPLORATION

4.1 Geologic Interpretation

The interpretation was done on overlays on TM false colour imagery at 1:250,000 scale. The basic line work was digitised and subsequently a geological/structural compilation overlay was also completed. Published 1; 250,000 scale geological maps were then used to support the geological compilation. Interpretation of the RP area was supported by 1:100,000 scale plots of the IRS panchromatic imagery, and merged TM-IRS imagery. The data was interpreted in terms of regolith cover and structural features. Analysis of remote sensed data including LANDSAT TM imagery and the high-resolution IRS panchromatic imagery has not identified any feature that is attributable to kimberlite intrusion. Geological traversing while collection of regional gravel samples did not identify any indications for kimberlite intrusion.

The IRS imagery could be used to provide a detailed interpretation at 1:50,000 scale or larger, but this would be extremely time consuming because of the fine detail of the Vindhyan stratigraphy that is visible.

4.2 KIM Gravel Sampling

Gravel sampling began in October 2003. Samples were initially collected at a spacing of approximately 1 sample per 11 sq. km. Positive results were further evaluated by additional follow-up gravel samples at closer sample spacings. A total of 199 heavy mineral gravel samples, sieved to –1mm were collected by hand evacuation of gravel from trap sites within streambeds. All samples were processed by magnetic and heavy liquid techniques to recover kimberlitic indicator minerals (KIMs). The +0.3-0.85mm paramagnetic heavy mineral concentrates are observed in full with individual KIM grains, namely pyrope, chromite, picro ilmenite, chrome diopside, and diamond being manually sorted, counted and described. Frequently less than fifty KIMs would be recovered from a 30kg sample that typically may contain several tens of millions of other non-KIM grains. Suspected KIMs were subsequently probed by scanning electron microscope and/or Mass Analysing SEM, with the data plotted on standard mineral chemistry plots to establish any kimberlite/ diamond association. The +0.3-0.85mm non-magnetic fraction of samples returning positive indicator minerals were further processed and observed for diamonds. All samples were dispatched to the Rio Tinto Laboratory in Bangalore and/or Belmont, Australia for processing, observation, and analysis.

Locations of all indicator mineral samples within the RP area are given in Plan3. Field observation results from each sample site are recorded in Appendix 1.

4.3 KIM Loam Sampling

A total of 4 heavy mineral loam samples, sieved to –1mm, were collected by hand evacuation of soil at select sample sites. All samples were processed by the same techniques and laboratories as used for gravel samples.

Locations of all loam samples within the RP area are given in Plan3. Field observations from each sample site are recorded in Appendix 2.

4.4 KIM Rock Sampling

2 rock samples of an ultramafic rock were sent for indicators mineral testing to Belmont laboratory. These samples did not return any indicators or diamonds. Locations of rock samples within the RP area are given in Plan3. Field observations from each sample site are recorded in Appendix 3.

4.4.1 Heavy Mineral Sample Diamond Results

12 diamonds, were recovered from 3 samples collected downstream of Majhgawan mine and are likely to be contaminated from the mine tailings.

4.4.2 Heavy Mineral Sample Garnet Results

Majority of the samples in the area are devoid of garnets. Out of 203 samples only 27 samples have garnets in them. Majority of the garnets are restricted to one catchment with 16 samples containing garnets in central western part of the RP (See Plan4). The pyrope mineral chemistries of this catchment are largely G9 lherzolitic some G10 Harzburgite pyrope and minor megacrystic pyropes. This catchment lies mostly within the recently enlarged boundaries of Panna Tiger Reserve, precluding any further evaluation of the source of these pyropes. The other 11 samples with garnets are distributed mostly in the south central part of the RP. The pyrope chemistries of these garnets are few G9 lherzolitic and a G10 Harzburgitic pyrope. The remaining garnets are dominated by almandine, spessartine, andradite, grossular and minor uvarovite garnets. Most kimberlites yield lherzolitic type pyrope garnets, whereas many diamondiferous kimberlites yield harzburgitic type pyrope garnets. Pyrope garnet from diamondiferous harzburgite typically is chromium-rich, depleted in calcium and plots within the harzburgite (H) field of Figure 1. These are also similar in composition to pyropes found as inclusions in diamonds, which equilibrated at the same temperatures and pressures as the diamond during its formation and growth. Hence harzburgitic composition pyropes recovered from kimberlite concentrate indicate a potential for diamonds from a peridotitic source. The greater the number of pyrope grains with harzburgitic compositions, the greater the peridotitic diamond potential, particularly if the harzburgitic pyrope population has very subcalcic pyropes (<2.5%CaO) (Appendix 4 and 5).

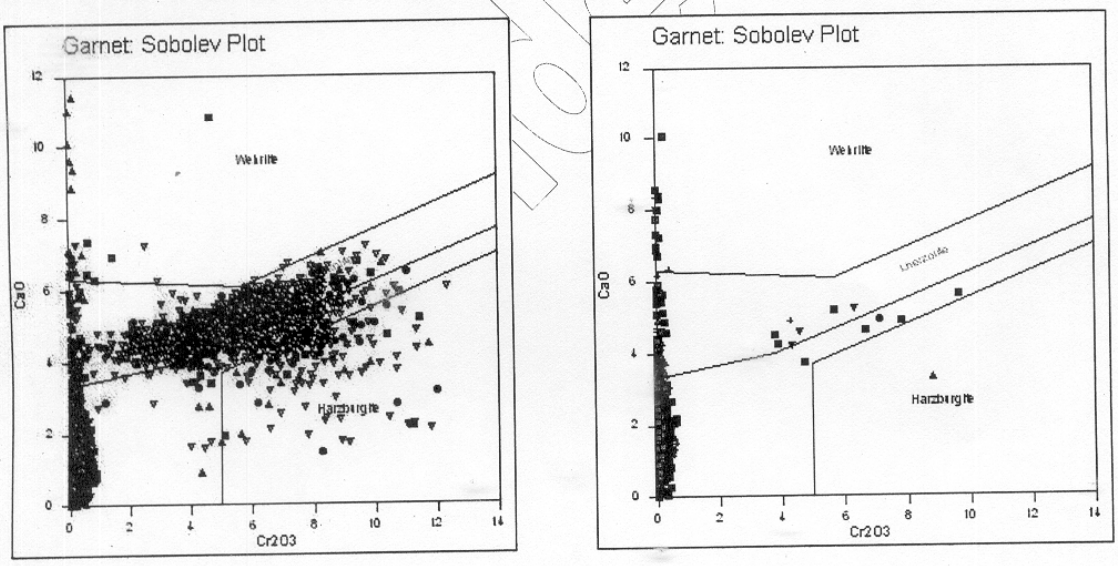

Figure 1 Garnet: Sobolev Plots (a) from the 16 samples in the western central part and (b) from the rest of the RP area

4.4.3 Heavy Mineral Sample Chromite Results

Chromites are widespread in the southern part Panna East permit with over 70% of the heavy mineral samples returning a total of 6502 probed grains from 204 samples. Further, approximately chromites in 120 samples returned potentially kimberlitic chromite

compositions of >9% MgO and 20 - 75% Cr_2O_3. But chromite populations of interest from isolated heavy mineral sample sites can be found in the southern part of the RP. Notably there is a large overlap between these kimberlitic chromites and non-kimberlitic sourced species with 35-65% Cr2O3 and 0-20% MgO making differentiation of kimberlitic species from a sample containing mixed populations difficult (figure 2).

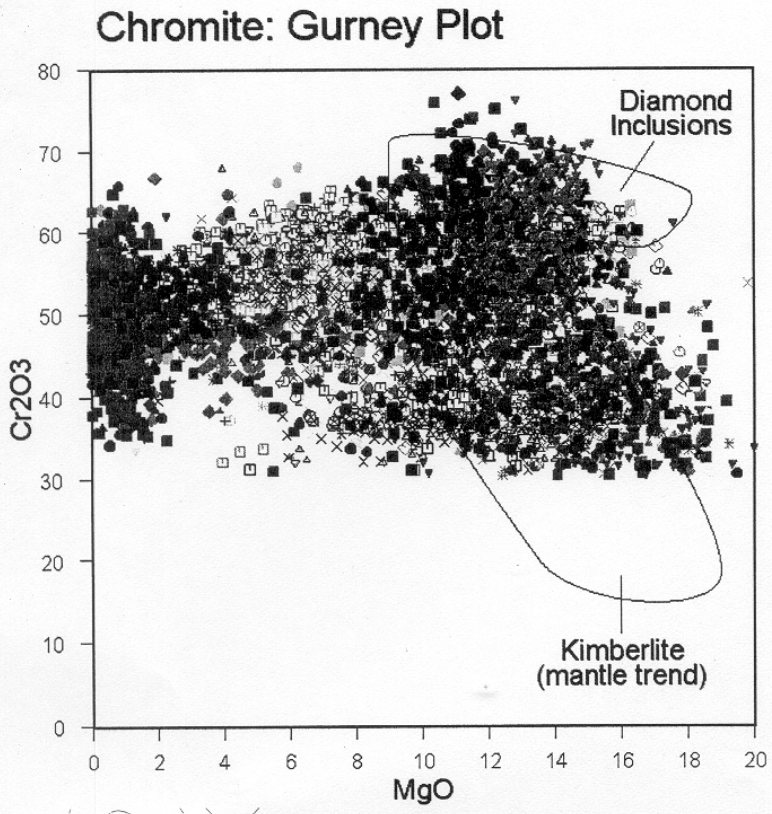

Figure 2 Chromite: Gurney Plot

4.4.4 Heavy Mineral Sample Ilmenite Results

Ilmenite of crustal composition is abundant in the Panna East permit indicator mineral samples with 12957 ilmenite grains recovered from 134 samples. However, kimberlitic picro-ilmenite grains are however rare with only 81 grains in 24 samples returning kimberlitic chemistries (Figure 3). Follow up work in the catchments of these samples did not reveal any indication of kimberlite/kimberlite mineralisation.

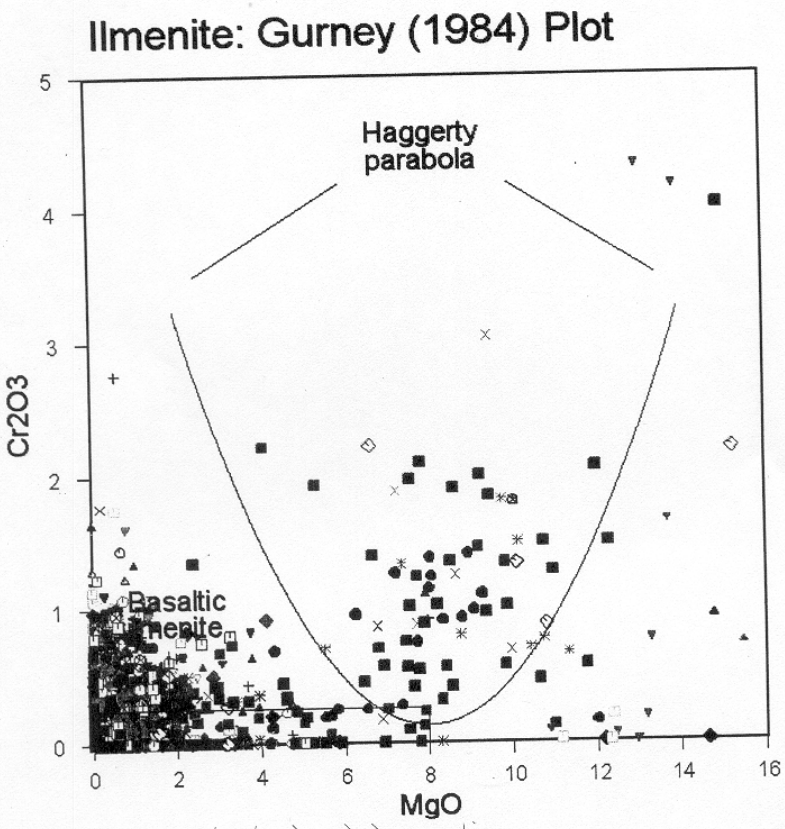

Figure 3 Ilmenite Gurney (1984) Plot

4.4.5 Heavy Mineral Sample Chrome Diopside Results

Chrome diopside is always rarest among indicator minerals. The pyroxene results from Panna East RP did not show any significant trend (Figure 4).

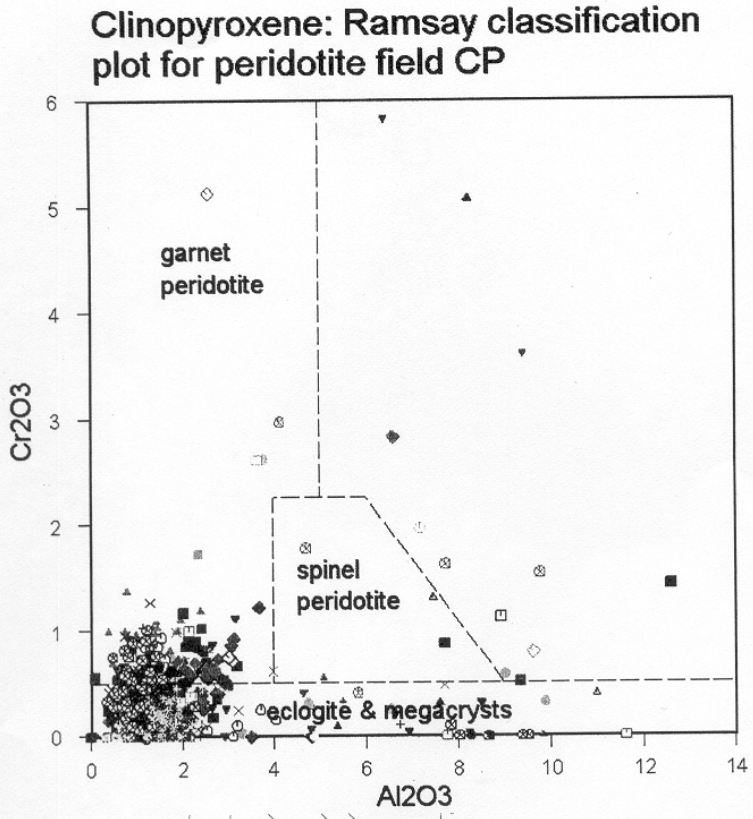

Figure 4 Pyroxene Ramsay Plot

4.5 Stream Sediment Geochemistry

A total of 195 stream sediment samples have been collected at some of the gravel sample sites. Each sample consists of approximately 100gm of –80# (-180mm) silt collected from the active streambed in the centre or lowest part of the stream. All samples have been analysed at the Shiva Laboratory in Bangalore to analyse for a suite of 35 lithophile, chalcophile and precious metals by Multi-acid digest including both ICP-MS, ICP-ES and Fire Assay finish to fully optimize detection limits. Elements and detection limits for each are as follows: Ag (0.1 ppm); Al (10 ppm); As (0.5 ppm); Au (10 ppb); Ba (10 ppm); Bi (0.1 ppm); Ca (10 ppm); Cd (0.1 ppm); Ce (0.5ppm); Co (2 ppm); Cr (2 ppm); Cu (2 ppm); Fe (100 ppm); K (10 ppm); La (0.5ppm) Mg (10 ppm); Mn (5 ppm); Mo (0.1 ppm); Na (10 ppm); Nb (0.2 ppm); Ni (2 ppm); P (5 ppm); Pb (0.5 ppm); Pd(10 ppb); Pt(3 ppb); Sb (0.5 ppm); Sr (2 ppm); Ta (1ppm); Te (0.2 ppm); Ti (10 ppm); V (2 ppm); Y (0.05ppm); W (0.1 ppm); Zn (2 ppm); Zr (10 ppm).

Locations of these samples are presented in Plan 5, and geochemical assays and descriptions are listed in Appendix 6.

The kimberlites are associated with only background stream sediment geochemistry. Minor potential for base and precious metal mineralisation is indicated within the RP area with several point sources returning anomalous results, however, the lack of continuity and lack of multi element signatures suggest associated mineralisation to be minor or the anomalies themselves to be non-mineralisation associated.

	Ag	Al	As	Au	Ba	Bi	Ca	Cd	Ce	Co	Cr	Cu
	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Mean	0.91	51838	3	-10	558	0.52	16365	-0.10	129	17	162	26
Median	0.99	55939	1	-10	557	0.41	8995	-0.10	104	14	145	24
Mode	-0.10	N/A	-1	-10	749	-0.10	N/A	-0.10	167	11	86	22
Standard Deviation	0.64	16863	6	11	275	0.67	18251	0.20	118	10	77	14
Minimum	-0.10	8579	-1	-10	48	-0.10	671	-0.10	28	5	40	9
Maximum	2.29	85166	70	63	2068	2.74	126730	0.92	1389	62	401	168

	Fe	K	La	Mg	Mn	Mo	Na	Nb	Ni	P	Pb	Pd
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb
Mean	46650	26427	71	5519	600	2.80	10711	24	37	567	11	-10.00
Median	37932	28689	57	4069	489	1.57	12005	18	24	438	3	-10.00
Mode	37932	N/A	N/A	4394	413	-0.10	N/A	N/A	14	262	2	-10.00
Standard Deviation	37945	13655	64	6675	474	3.94	6223	18	58	519	13	4.88
Minimum	12123	1340	14	575	118	-0.10	712	6	8	69	-1	-10.00
Maximum	300590	54665	746	54738	5176	35.12	22963	118	482	3944	55	10.00

	Pt	Sb	Sr	Ta	Te	Ti	V	W	Y	Zn	Zr
	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Mean	-1.97	-0.50	163	2	-0.20	3770	119	1.34	62	55	409
Median	-3.00	-0.50	162	1	-0.20	3056	84	1.16	37	47	304
Mode	-3.00	-0.50	196	1	-0.20	4945	36	0.93	N/A	38	225
Standard Deviation	1.96	0.23	95	2	0.00	2972	135	0.79	63	31	416
Minimum	-3.00	-0.50	19	-1	-0.20	624	25	0.45	9	16	54
Maximum	6.00	1.00	624	22	-0.20	26003	1122	4.90	396	212	2810

Table 2 Basic statistics of stream sediment geochemistry

4.6 Soil Sample Geochemistry

Soil samples were collected within anomalous catchments, and over geophysical targets identified during the course of the ground geophysics program in this area. Soil samples consist of approximately 100 grams of –80# (-180□m) C – horizon soil typically collected from a shallow 10 - 20 cm deep pit or at the bottom of an auger hole. Soil samples have been variably sampled either in a nominal 150 metre line spacing and 50m sample spacing grid or as crosshair or single line traverses with sample spacings varying from 25 – 100metres. A total of 117 soil samples sieved at -80# were collected. Samples were analysed by ICP-OES and ICP-MS (*=ICP-MS) techniques at Shiva Laboratories in Bangalore. Elements and detection limits for each are as follows: Ag* (0.1 ppm), Al (10 ppm), As* (0.5 ppm), Ba (10 ppm), Bi* (0.1 ppm), Ca (10 ppm), Cd* (0.1 ppm), Ce (0.5 ppm), Co (2

ppm), Cr (2 ppm), Cs (0.1 ppm), Cu (2 ppm), Fe (100 ppm), Ga (0.1 ppm), In (0.05 ppm), K (10 ppm), La (0.5 ppm), Mg (10 ppm), Mn (5 ppm), Mo* (0.1 ppm), Na (10 ppm), Nb* (0.1 ppm), Ni (2 ppm), P (5 ppm), Pb* (0.5 ppm), Rb (0.1 ppm), Sb* (0.5 ppm), Se (0.5 ppm), Sr (2 ppm), Ta* (0.5ppm)Te (0.2 ppm), Th (0.2 ppm), Ti (10 ppm), Tl (0.1 ppm), U* (0.02 ppm), V (2 ppm), W* (0.1 ppm), Y (0.05 ppm), Zn (2 ppm), Zr (10 ppm). Locations and results of these samples can be found in Appendix 7. Plan 6 details the locations and Nb results for soils collected within the Panna East RP Area.

The results highlighted discrete single point soil geochemical targets enriched in key pathfinder trace elements for kimberlite (eg: Nb, Zr, La, Ce). These elements are relatively immobile, and indicate a close proximity to source in this residually weathered environment. Further ground follow-up of these isolated positive results did not identify any float or outcrop of kimberlite.

	Ag	Al	As	Ba	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Mean	0.20	62123	1.26	485	-0.10	6388	-0.10	107	26	144	5	45	41369
Median	0.26	62915	1.68	443	-0.10	5016	-0.10	89	22	104	6	38	37978
Mode	-0.10	N/A	-0.50	410	-0.10	3656	-0.10	N/A	24	85	6	38	N/A
Standard Deviation	0.23	14141	1.27	184	0.00	9453	0.00	60	11	120	2	25	14939
Minimum	-0.10	18272	-0.50	203	-0.10	2278	-0.10	40	14	43	2	21	21563
Maximum	0.86	90859	3.55	1598	-0.10	103510	-0.10	429	65	800	10	198	100870

	Ga	In	K	La	Mg	Mn	Mo	Na	Nb	Ni	P	Pb	Rb
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Mean	18	0	18655	55	7611	588	1	4943	13	80	336	23	111
Median	17	0	17721	48	5960	546	1	4440	11	59	265	22	115
Mode	21	0	N/A	N/A	4722	794	0	N/A	N/A	55	149	22	116
Standard Deviation	5	0	5130	28	8187	249	1	2038	12	77	474	11	27
Minimum	9	0	6915	21	3335	236	0	1510	3	25	97	-1	41
Maximum	31	0	36099	196	90479	1458	3	11533	100	755	5200	59	220

	Sb	Se	Sr	Ta	Te	Ti	Tl	V	W	Y	Zn	Zr
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Mean	-0.50	-0.50	95	4	0	4355	0.67	101	2	20	67	131
Median	-0.50	-0.50	80	3	0	4183	0.67	94	2	19	64	92
Mode	-0.50	-0.50	63	-1	0	3468	-0.10	99	2	N/A	62	78
Standard Deviation	0.74	0.00	82	8	1	1611	0.37	33	1	4	19	97
Minimum	-0.50	-0.50	37	-1	0	2540	-0.10	57	0	15	35	62
Maximum	3.27	-0.50	913	78	6	17689	1.46	273	10	38	147	659

Table 3 Basic statistics of soil geochemistry

4.7 Rock Sample Geochemistry

Rock samples were collected during the course of the exploration program within the RP area. A total of 10 samples were collected. Rock samples, wherever possible are composited either as rock chips from an outcrop or as of similar lithology for float samples. Samples were analysed by ICP-OES and ICP-MS (*=ICP-MS) techniques at Shiva Laboratories in Bangalore. Elements and detection limits for each are as follows: Ag* (0.1 ppm), Al (10 ppm), As* (0.5 ppm), Ba (10 ppm), Ca (10 ppm), Cd* (0.1 ppm), Ce (0.5 ppm), Co (2 ppm), Cr (2 ppm), Cs (0.1 ppm), Cu (2 ppm), Bi* (0.1 ppm), Fe (100 ppm), Ga (0.1 ppm), K (10 ppm), In (0.05 ppm), La (0.5 ppm), Mg (10 ppm), Mn (5 ppm), Mo* (0.1 ppm), Na (10 ppm), Nb* (0.1 ppm), Ni (2 ppm), P (5 ppm), Pb* (0.5 ppm), Rb (0.1 ppm), Sb* (0.5 ppm), Se (0.5 ppm), Sr (2 ppm), Te (0.2 ppm), Th (0.2 ppm), Ti (10 ppm), Tl (0.1 ppm), U* (0.02 ppm), V (2 ppm), W* (0.1 ppm), Y (0.05 ppm), Zn (2 ppm), Zr (10 ppm). Locations and results of these samples can be found in Appendix 8. Plan 6 details the locations of these samples. These rocks, as is evident, did not show any association with kimberlite mineralisation.

	Ag	Al	As	Ba	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Mean	0.35	49818	2.2	278	0.18	87478	-0.09	89	47	480	1.1	29	69716
Median	0.38	57442	-0.5	172	-0.01	10640	-0.10	58	59	484	0.6	20	79890
Mode	0.38	N/A	-0.5	N/A	-0.10	N/A	-0.10	N/A	63	N/A	N/A	9	N/A
Standard Deviation	0.39	27293	4.2	281	0.39	157137	0.03	111	34	402	1.3	27	45749
Minimum	-0.10	0	-0.5	86	-0.10	0	-0.10	27	0	27	0.0	6	0
Maximum	1.11	92537	11.7	857	1.04	470170	0.00	402	87	998	3.4	96	114560

	Ga	In	K	La	Mg	Mn	Mo	Na	Nb	Ni	P	Pb	Rb
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Mean	19	-0.04	8890	48	46067	808	0.56	5827	12	350	754	9	48
Median	22	-0.05	3729	32	42079	902	0.68	1502	9	312	684	3	20
Mode	N/A	-0.05	N/A	N/A	N/A	1045	-0.10	N/A	N/A	N/A	N/A	N/A	N/A
Standard Deviation	11	0.03	16339	61	36945	355	0.50	8003	9	319	379	9	86
Minimum	0	-0.05	658	17	0	0	-0.10	0	4	23	282	1	2
Maximum	32	0.06	54379	222	96959	1170	1.13	23240	32	776	1488	25	286

	Sb	Se	Sr	Ta	Ti	Tl	U	V	W	Y	Zn	Zr
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Mean	-0.42	-0.28	138	0.84	5406	0.43	0.28	186	0.41	26	103	116
Median	-0.50	-0.50	74	0.70	4385	0.18	0.00	222	0.37	26	110	111
Mode	-0.50	-0.50	N/A	N/A	N/A	-0.10	0.00	29	-0.10	N/A	N/A	N/A
Standard Deviation	0.25	0.53	173	0.97	4010	0.77	0.89	117	0.40	9	46	52
Minimum	-0.50	-0.50	19	-0.50	894	-0.10	0.00	29	-0.10	10	27	46
Maximum	0.30	1.17	593	3.23	14447	1.97	2.80	386	0.96	41	152	219

Table 4 Basic statistics of rock geochemistry.

4.8 Geophysics

Ground magnetics surveys were employed to cover catchments yielding anomalous kimberlitic indicator minerals within the Panna East RP and to cover areas where traditional sampling techniques were considered to be ineffective. A total of 1306 line km of ground magnetics were completed during the period of the RP. Ground magnetics grids were established over parts of seven catchments with an additional two detailed grids being established over targets defined by the primary magnetic grids. The extents of some of the survey grids were restricted, by the adjacent Panna Tiger Reserve.

Surveys were completed using Scintrex Envimag magnetometers operating in "walkmag" mode. Survey line spacing was nominally 150m and 200m metres, which was considered sufficient to detect kimberlite/kimberlite bodies of 4Ha or greater and provide reasonably quick ground coverage of the prospective catchments. In this, a reading is taken every two seconds, equating to a station spacing of 2-3m. Navigation was by hand-held GPS, providing a positional accuracy of +/- 10 meters. A magnetic base station, positioned central to the individual grids, measured diurnal variations at 20 second intervals.
Raw field data were corrected for diurnal variations and manually filtered to remove "movement noise" inherent to the Envimag system. The filtered data were then reduced to magnetic pole to remove the apparent effects of geomagnetic inclination and declination on the anomaly geometry.

Detailed ground magnetic grids (50m line spacing) were also established over targets B126 and the Dongraha ultramafic dyke. A summary of magnetic data from each grid is given in the Table 5 and Plan 7 to Plan10.

Survey Grid	Description	Line km
Panna East	Rewa Group overlies prospective stratigraphy. Depth to target 150-200m	582
B126	Infill and repeat lines to confirm existing B126 target.	25
Panna East 1	Catchment yielding pyrope, supported by mixed chemistry chromites. Catchment on crystalline basement.	331
Panna East 2	Catchment on crystalline basement. Under-sampled area, due to broad alluvial cover, adjacent to Ken River.	197
B126 Extension	Additional confirmation survey over anomaly identified from first-pass ground magnetics.	72
Dongraha	Detailed grid over ultramafic dyke.	99
TOTAL km		**1306**

Table 5 Ground Magnetic Survey Coverage

4.8.1 Panna East

Regional ground magnetic surveying was completed over the Neo-Proterozoic Rewa Group sediments of the Vindhyan supergroup at 200m line spacing. The line spacing was considered sufficient to detect kimberlite/kimberlite at the expected depth of the Rewa Group thickness (150-200m). The grid is characterised by a quiet magnetic background, consistent with the Rewa Group cover, interspersed with regions of high surficial noise. An ENE-

trending broad wavelength anomaly is evident on the grid, possibly representing basement topography. Within this broad wavelength feature is anomaly B126, identified as possibly due to a kimberlite source.

4.8.2 Panna East B126

Target B126 is characterised by a 30nT broad wavelength anomaly with high levels of surficial noise superimposed. Infill ground magnetics confirmed the anomaly and re-defined the geometry of the pipe as sub-circular.

Magnetic modeling suggests a sub-circular magnetic source of 600SI with a dimension of 300mx300m at a depth of approximately 150m, consistent with the approximate thickness of Rewa cover in the area. Subsequent RAB drilling confirmed the source of the other magnetic anomaly (B126) as kimberlite. (See Plan 7-10)

Additional surveying denoted as B126 Extension failed to confirm the suspected anomaly identified from the regional ground magnetics survey.

Detailed magnetics grids were established over these distinct magnetic anomalies (B126, and B126 Extension), further constraining the extents of the magnetic source. One such anomaly (B126 Extension), when followed up with detailed 50m line spacing grid failed to identify any distinct anomaly, whereas, subsequent RAB drilling confirmed the source of the other magnetic anomaly (B126) as kimberlite.(See Plan 7-10)

4.8.3 Panna East Grid 1

The Panna East Grid 1 is characterised by an active magnetic background, typical of the gneissic terrain, cross-cut by NE and NW-trending lineaments sourced by dykes and fractures. 14 targets, predominantly discrete sub-circular or strike limited features were identified, which were followed up with field checks and/or soil geochemistry surveys. None of the targets selected and subsequently followed up were sourced by kimberlite/kimberlite.

4.8.4 Dongraha

A detailed (50-100m line spacing) grid was completed over the Dongraha ultramafic dyke and North-East extensions. The dyke is characterised by a linear RTP magnetic high, trending approximately NE. A parallel linear feature to the north-east is coincident with the Kharouri alkaline. The magnetics suggests the dyke has a strike length of 1km.

4.8.5 Panna East Grid 2

The Panna East Grid 2 is located mostly on the alluvial cover (of the Ken River) which overlies the Bundelkhand Granite basement. This grid is characterised by a moderately active magnetic background. 8 low priority targets, predominantly discrete or disruptions within the background magnetic fabric were identified. None of the targets selected and subsequently followed up were sourced by kimberlite/kimberlite.

4.9 Kimberlite Description

To date, 1 kimberlite has been found within the Panna East RP through a combination of gravel sampling, ground geophysics (ground magnetics) and drilling. This kimberlite was picked mainly by near surface ground magnetics, further tested by drilling. This Kimberlite was found to be intrusive into the host sequence of Neo-Proterozoic Rewa Group sediments. The location of drill hole on this kimberlite is shown in Plan 11.

The drill hole intersected highly altered, fragmental kimberlite at a depth of about 182m beneath almost flat lying; hard Neoproterozoic sandstone and shale cover rock. The kimberlite is a fragmental rock composed of small clasts of a porphyritic material, subhedral macrocrysts, and microxenoliths of crustal material set in a serpentine/chlorite matrix.

4.10 RAB Drilling

The diamond-drilling program commenced at Panna East Prospect (targets B-126, JH-1) during mid September 2006 and was concluded by 30th September 2006. A total of 276m of RAB drilling was completed by 2 drill holes. Drilling was focused on to find out the ore body beneath. Mining Associates Drilling Company of Asansol, (West Bengal), were contracted to complete the drilling operations using a KLR-650 drill rig. The locations of the drill holes, in addition to drilling logs can be found in Plan 11, and Appendix 9 & 10.

Prior to drilling, permission was obtained from the State forest department to complete this work. RTEIL complied with all terms and conditions of this work.

The drill hole locations were surveyed using handheld GPS measurements. Drilling was carried out in only day shift and was under continuous supervision of Rio Tinto staff.

Hole No.	Hole ID	Prospect Name	Total Depth	Kimberlite Depth from (m)	Kimberlite Depth to (m)	Azimuth	Inclination
1	B-126-1	Panna East	216	182	216	0	90
2	JH-1	Panna East	60	----	----	0	90

Table 6 Drilling Details of Panna East Prospect

Drill hole B-126, drilled vertically testing a 5 Ha target intersected kimberlite from 182m to 216m where the hole was terminated.

Drill Hole JH-1, drilled vertically to test a reported "kimberlitic" intersect in a third party bore well 7-km southwest of B126 failed to intersect any kimberlitic material, and was terminated at 60m.

4.11 Drill Chip Samples Diamond Results

Approximately 193kg of drill chips from 5Ha B-126 Kimberlite, returned a total of 14 diamonds. Details of diamond descriptions can be found in Appendix 11. The largest stone measured 1.1mm x 0.87mm.

5 HEALTH, SAFETY, COMMUNITY RELATIONS AND ENVIRONMENT

Rio Tinto recognises 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 RTEIL and the Panna East reconnaissance project. Rio Tinto Exploration HSEC Policy outlines its HSEC aims and actions to achieve them, a copy of which is provided in Appendix 12.

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 entire Bundelkhand project the major hazardous activities were assessed to incorporate forest fire, 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. Safety training and other initiatives have focused mainly on these higher risk areas including but not restricted to the following:

Employment of dedicated drivers for all company vehicles.

- Training of a staff supervisor as an accredited defensive and 4 – wheel driver instructor.
- Annual competency based defensive and 4 wheel driving training for all drivers including for all licensed technical and support staff. All three training programs to date have been undertaken by accredited and experienced Indian field supervisor.

- Annual first aid, accident management and emergency response training to all senior staff. Professional paramedical instructors sourced from various accredited international companies have undertaken four programs.

- Provision, installation and enforced use of drill rig safety accessories including specialised high-pressure air hoses, high-pressure hose whip arrestors and fall from height protective equipment.

- Selected personnel have been trained in managing "work at height", "confined spaces" and in "manual handling" issues by accredited International companies. Knowledge gained from this training has been utilised by the individuals in minimising exposure to such risks and by coaching other personnel to be able to recognise the risk and where appropriate, designed and implemented safe operating procedures.

- Hire of designated field accommodation and office facilities each upgraded to meet company standards including electrical which required significant rewiring and installation of specialised equipment. Local private electrical contractors were identified and trained to maintain the electrical system to international standards.

The corporate systems have a requirement for all employees, including staff and contractors, to report hazards and incidents and for management to have a system for review and analysis of higher risk incidents and for the implementation of appropriate mitigating measures. The objective of having incident reporting system is to avoid the repetitions of any incident through out-group operations and improve up on the safety culture.

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 2005 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, 2004 and 2005.

5.2 Environmental

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 RTEIL Panna East reconnaissance permits is essentially non-invasive to the environment, the same rigor and level compliance to the standards, systems and procedures is applicable.

For the Panna East reconnaissance permits 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.

Identified areas for potential environmental impact on the Panna East permits for which procedures were designed and implemented include the following:

- Ground disturbance due to access tracks: No access tracks were constructed for exploration in the permit areas. Access in all cases was achieved by using the existing infrastructure or during the dry season and when no crops were present, by driving cross-country. In the latter case, care was taken to ensure minimal compaction of ground and minimal potential for soil erosion.

- Sampling: Sampling operations had minimal to zero environmental impact. Gravel and stream sediment samples were in all cases taken from the active streambed load and care was taken to avoid any damage to the stream banks. For soil sampling and auger sampling excess soil was filled back into the excavated hole. In all cases sample sites were accurately located by GPS thus eliminating the need for flagging tape or other tags to mark the sample sites. All sample site photos are incorporated in to the database and a few representative photos are published in annual environmental report.

- Ground Geophysical Surveys; All geophysical surveys were carried out without cutting any trees or bushes with the help of the state of the art GPS facility. Access along prognostic grid lines was by foot and wherever possible trees and other obstacles were avoided by diverting the line.

Most of the forest in the area of operations is dry (arid) deciduous thorny type with dominantly Sal flora. Limited surface sampling was conducted within the forest areas with the permission and cooperation of the relevant forest authorities. No significant environmental incidents were experienced during the period of this survey.

5.3 Community Relations

There are more than 350 villages within the RP area with a total population estimated to be over 75000. Agriculture is the main occupation for over 90% 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:

- Brief sheet: About 2500 community brief sheets were distributed among the local community to share with them the exploration process and the results so far. The brief sheet would be revised once in six months and up dated with latest results of our activities.

- Employment to a number of local people to work in various roles in the organisation including camp assistants, community relations staff, drivers technical assistants, cooks and housekeeping staff and others. In total up to

30 employees, the majority sourced locally were employed in the field based out of our operational bases at Panna, Chhattarpur, Kishangarh, and Amanganj.

- Established preferred supplier/service relationships with several local businesses for the purchase and supply of most of the required field consumables, notably for food, water and fuel and for service and repair of field equipment.

- Conducted over 1000 consultations with stakeholders including village elders, village leaders teachers, individual landowners and others. The main focus of these consultations was to request access and to keep the community informed of our presence and activities.

Briefing sheets in vernacular summarising the exploration activities were distributed to the community in the RP area. The purpose of these sheets was to keep the community informed of the exploration activities and to minimize rumours and misinformation.

6 CONCLUSIONS AND RECOMMENDATIONS

RTEIL has explored its Panna East RP with maximum speed, safety and efficiency in a technically competent manner. As a result of these diligent efforts it has been able to delineate a relatively small area that is prospective for economically viable diamondiferous kimberlites. One PL application has been filed over this area of the known kimberlite discovered to date.

The discovery of 1 kimberlite within the Panna East RP validates the exploration process used by Rio Tinto in the search for diamondiferous kimberlites. The combination of gravel sampling, ground geophysics (especially ground magnetics) and soil sampling has proved to be an invaluable cost effective exploration technique.

The B-126 kimberlite will be further evaluated for their diamond potential making an affirmative approach that diamonds are present in scattered form within kimberlite.