A NEW KIMBERLITE PIPE IN BALKAMTHOTA VANKA, PENNAHOBILAM, ANANTAPUR DISTRICT, ANDHRA PRADESH, INDIA- FIELD ASPECTS AND PRELIMINARY INVESTIGATIONS

Running title: New Kimberlite in Balkamthota Vanka, Pennahobilam

P. Ramesh Chandra PHANI*,

Cyient Limited, Plot No 11, Software Units Layout, Madhapur, Hyderabad- 500081, Telangana, India;

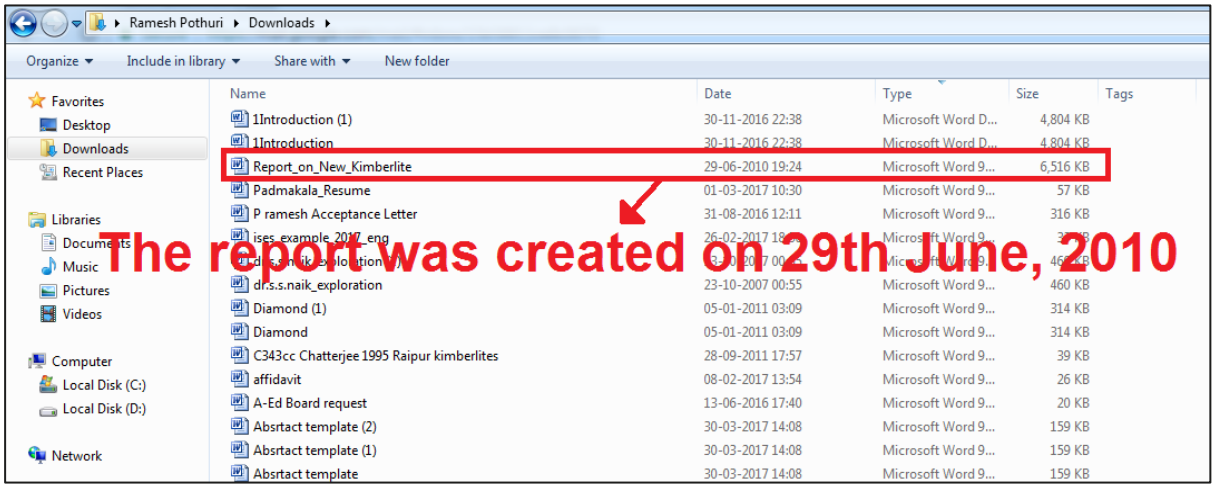
phaniprc@gmail.com

V.V.N. RAJU

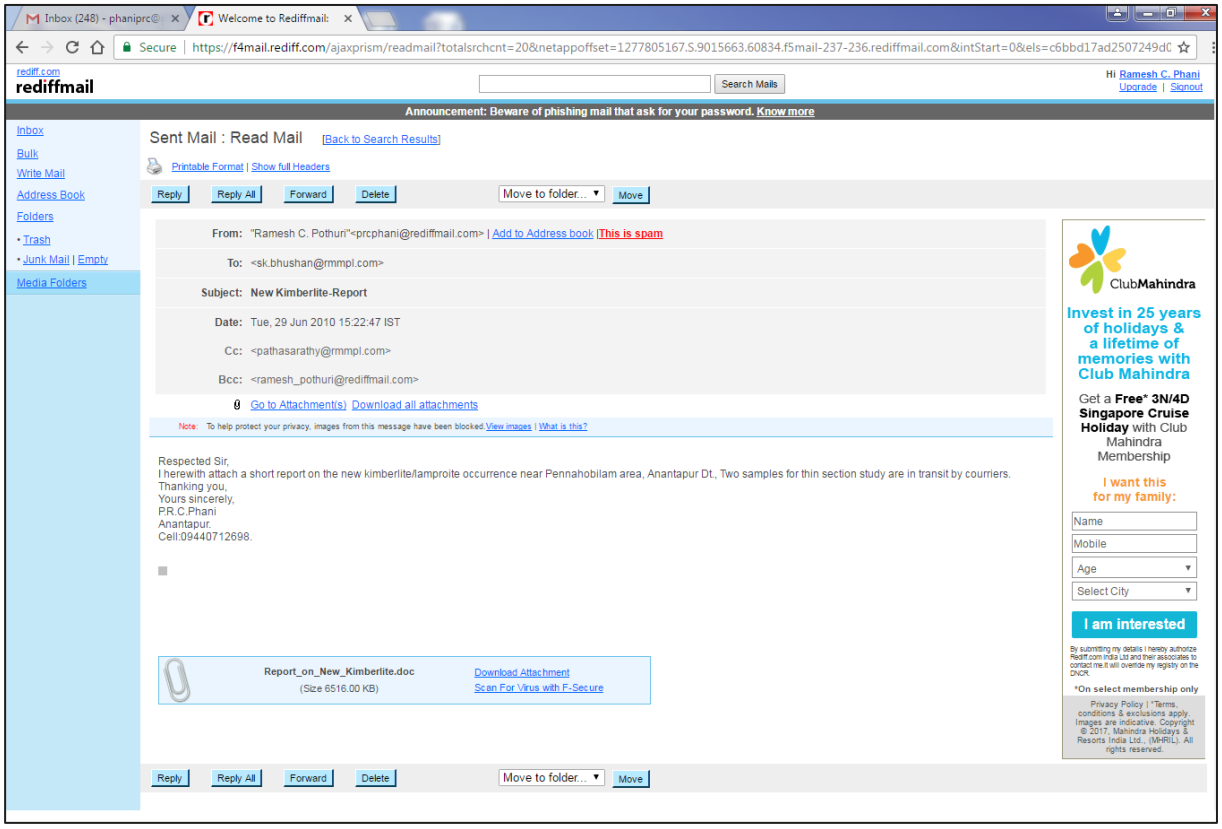
Ramgad Minerals & Mining Limited, Baldota Enclave, Abheraj Baldota Marg, Hosapete- 583 203, Karnataka, India.

TO WHOSOEVER IT MAY CONCERN

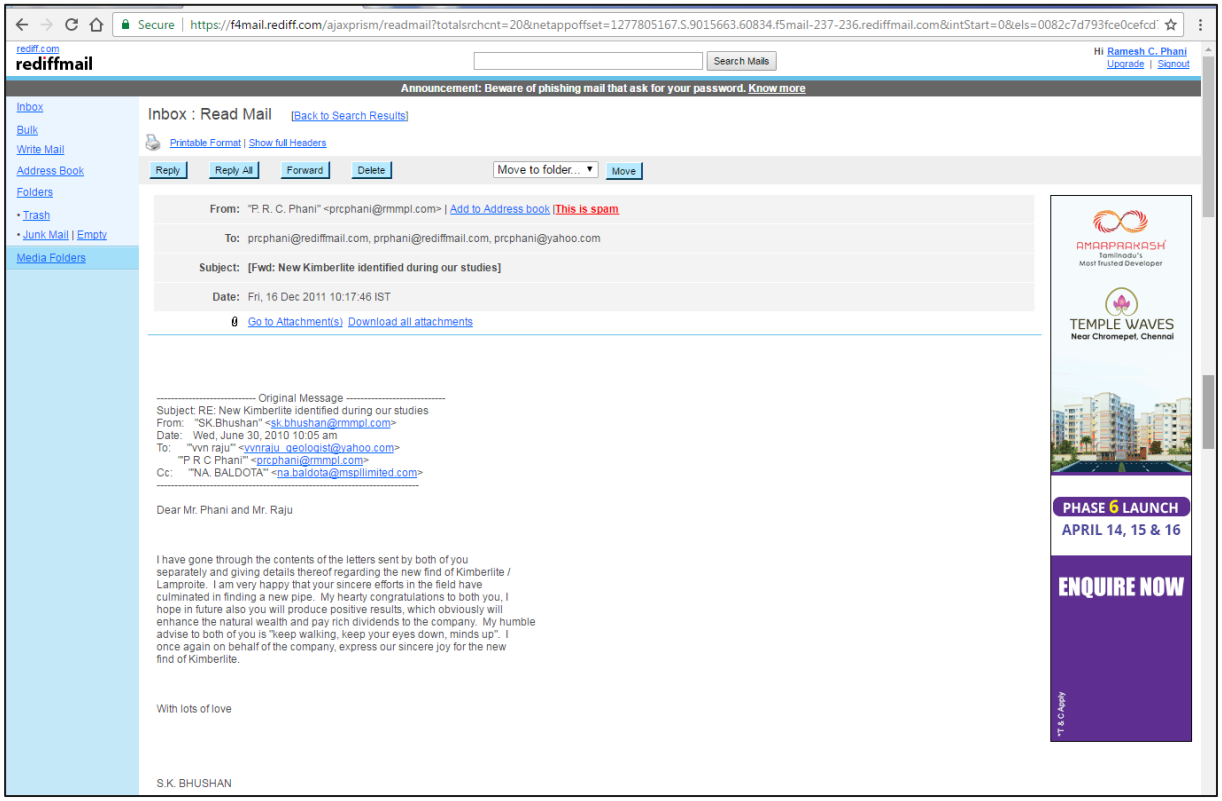
The pipe in Balkamthota Vanka stream, at Pennahobilam was discovered by the author on 26th June 2010 while searching favourable ground for applying for reconnaissance and prospecting permit to the Department of Mines & Geology, Anantapur by MSPL Limited/ Ramgad Minerals & Mining Limited (RMM Ltd.) or its subsidiaries. Subsequent to the confirmation that it is a new discovery, an internal short report was prepared and submitted by the author to Dr. S.K. Bhushan, Executive Director (Exploration), RMM Limited on the 29th June, 2010. Following snapshots support this fact.



The below image is snapshot of the email communication of initial report submitted by the author to the compay/ Executive Director (Exploration), on the discovery of new kimberlite pipe at Pennahobilam.



The below image shows an appreciation mail received from the Executive Director (Exploration), RMM Ltd., in response to the report on new discovery of kimberlite pipe.



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Media Folders

Inbox : Read Mail [Back to Search Results]

Printable Format | Show full Headers

Reply | Reply All | Forward | Delete | Move to folder... | Move

From: "P. R. C. Phani" <prcphani@rmmpl.com> | Add to Address book | This is spam

To: prcphani@rediffmail.com, prphani@rediffmail.com, prcphani@yahoo.com

Subject: [Fwd: New Kimberlite identified during our studies]

Date: Fri, 16 Dec 2011 10:17:46 IST

Go to Attachment(s) Download all attachments

---------- Original Message ----------
Subject: RE: New Kimberlite identified during our studies
From: "SK.Bhushan" <sk.bhushan@rmmpl.com>
Date: Wed, June 30, 2010 10:05 am
To: "vvn raju" <vvnraju_geologist@yahoo.com>
"P.R.C.Phani" <prcphani@rmmpl.com>
Cc: "NA. BALDOTA" <na.baldota@mspilimited.com>

Dear Mr. Phani and Mr. Raju

I have gone through the contents of the letters sent by both of you separately and giving details thereof regarding the new find of Kimberlite / Lamproite. I am very happy that your sincere efforts in the field have culminated in finding a new pipe. My hearty congratulations to both you, I hope in future also you will produce positive results, which obviously will enhance the natural wealth and pay rich dividends to the company. My humble advise to both of you is "keep walking, keep your eyes down, minds up". I once again on behalf of the company, express our sincere joy for the new find of Kimberlite.

With lots of love

S.K. BHUSHAN

Due to several obvious reasons such as availability of funds for conducting petrographic and geochemical analyses, time to prepare the manuscript, this discovery has not been published by the authors in time.

The original report submitted by the author (PRCP) on this new kimberlite pipe is incorporated in following pages.

Report on New Kimberlite/Lamproite Occurrence

P.R.C.Phani.

Introduction:

A new well-exposed kimberlite/Lamproite body has been discovered during the field traverses carried out around WK Pipes 5 &13 in the end of June 2010. The lands, in which outcropping kimberlite is found, belong to *Pennahobilam Devasthanam*, a 500 year old Temple of Lord Narasimha, of Sri Krishnadevaraya reign and belong to Uravakonda Mandal, Anantapur District, Andhra Pradesh. The location of the body is checked with geographic co-ordinates of pre-existing Pipes (5 & 13) & Lamproite dykes discovered by GSI in the vicinity and the new pipe is found to be not coinciding with the former pipes.

Location:

The new body occurs at a distance of 1.5 and 4.5Km in NW direction to Pipes 5 & 13 respectively, which are close to Mulagiripalli village. The site is situated at a distance of 36Km NW of Anantapur; at the confluence of Penna River and a tributary viz., Balkamtota Vanka. (Fig.1).

Geology:

The PGC Country with granite and granodioritic rocks of Archean age forms the terrain into which kimberlite/Lamproite has been emplaced. Typical ferritization as an indication of kimberlitic emplacement in the country rock is clearly observed. The rock is obviously carbonatized to calcrete on the surface, away from the river bank. A slight baking effect is observed at the contact of PGC and the pipe rock, evidenced by thin ultramafic vienlets with abrupt variation in texture and granularity of the granitic host rock.

Geomorphology:

The outcrop is well-exposed in the valley portion at the confluence of Penna and 4th order stream viz., *Balkamtota Vanka*. The stream is always over flown, submerging the kimberlite outcrop and the outcrop is only exposed during summer season. The outcrop occurs at the base level of erosion of the stream, while it is covered with *caliche* and ~4-5mt thick colluvial soil away from the river bank (south). The terrain is flat to gently sloping forming pediplain with an average relief of 360 Mt. The first order streams originate right at the Lattavaram pipes (3,4,8 & 9) hence good trap sites for indicator mineral sampling should be selected in the close vicinity, towards down stream, of the body before the confluence.

Structure:

The pipe appears to be controlled by NE-SW trending major fault possibly associated with magmatic activity of Marutla and Katrimala Domal structures in the North (Fig2). Cross-cutting

lineaments trending NE-SW, ENE-WSW, NNE-SSW, NW-SE are observed through satellite image; out of which NE-SW lineament is prominent. The outcrop is in alignment with Pipes 5 & 13 in a NE-SW fashion.

Texture & Mineralogy:

The hard, greenish-blue melanocratic rock exhibits porphyritic texture with serpentinized olivine & macrocrystic olivine (1mm to 1.5cm), angular xenoliths of granite, amphibolites (1cm to 5cm), autoliths of parent kimberlite magma (0.3 to >2cm). Relict reaction rims of olivine are clearly observed. Based on texture and mineralogy, the pipe rock is broadly classified as hypabyssal Lamproite/kimberlite. Typical incipient blue-ground formed due to altered olivine is observed on broken rock surfaces. The visibly observable indicator minerals include garnet (almandine/pyrope?), ilmenite, and magnetite. Few grains of garnet exhibit chloritization and polygonal cracks. The rock shows more affinity towards kimberlitic clan than lamproitic by virtue of absence of mica. (Plates 1 to8).

Dimensions of the body:

The surficial size of the body is approximately measured to be 100x80 Meters with a fairly developed elongation in NE-SW direction. The NE extent is invisible and in the southern portion of the outcrop, the body is possibly covered with colluvial debris where sporadic occurrence of kimberlite float is observed amidst PGC/Granodiorite country.

Diamond Potentiality:

The olivine percentage is visually/megascopically estimated to be >65%, which is encouraging in terms of diamond potentiality. However the Pipes 5 & 13 in the vicinity are barren. As this is a new occurrence, the pipe deserves detailed examination.

Action Plan:

- Large scale mapping is planned for an area of 0.5 to 1 Sq.Km area for demarcating the pipe boundary.
- Preliminary sampling for petrologic, geochemical and indicator mineral chemistry studies.
- Simultaneously to submit an application for PL for an area of 6-10 Sq.Km surrounding the pipe.

Respectfully submitted,

P.R.C.Phani
Manager (Geology) RMM Ltd., Anantapur.

Figures & Plates follow in next pages

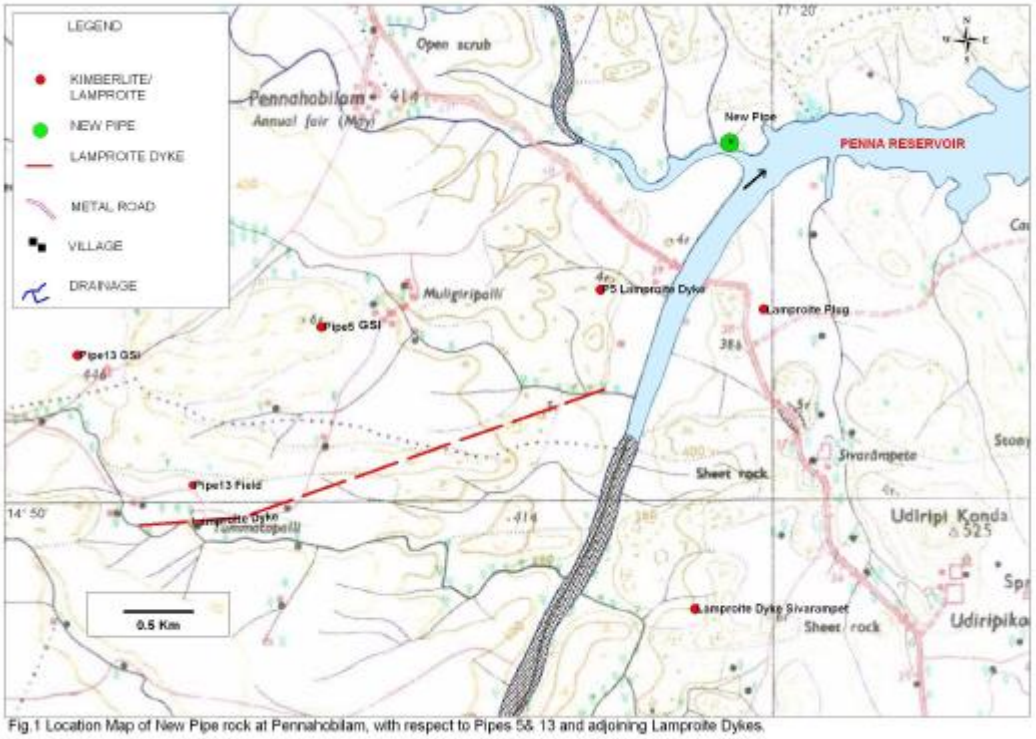

Fig.1 Location Map of New Pipe rock at Pennahobilam, with respect to Pipes 5& 13 and adjoining Lamproite Dykes.


1 Main Outcrop in h stream valley


2 Kimberlite emplaced in granite (camera facing east)


3 Outcrop in stream valley (Facing NW)


4 NE-SW alignment

5 Xenolith showing reaction rim.

6 Fenitization in granite

7 Aligned calcite/carbonate viens.

8. Kimberlite in ganite (facing south).

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