GOVERNMENT OF ANDHRA PRADESH
DEAPRTMENT OF MINES AND GEOLOGY

From
Sri D. Srinivasa Rao, M.Sc. (Tech.),
Asst. Director of Mines and Geology,
MARKAPUR.

To
The Divisional Forest Officer,
Giddalore,
Prakasam Dist.

Letter No.425/M/11, Date:04-12-2013

Sir,

Sub: Mines and Minerals – Application for grant of Mining lease for Quartz for a period of 20 years, over an extent of 400.000 Hectares in Compartment No.475 in Mundlapadu Beat, Veligonda Reserve Forest, C.S. Puram Section, Kanigiri range of Giddaluru Forest division of Prakasam District – Applied by M/s Balaji Minerals, Mg. Partner: Sri Syed Mastan Basha – Issue of Forest Clearance – Necessary Certificate – Submitted - Regarding.

Ref: 1. This office Letter No.425/M/11, dated: 03/2/12 addressed to the Director of Mines and Geology, Hyderabad.
2. The Divisional Forest Officer, Giddalore Letter No. 3187/2011/TA, dated:14-11-13.

I invite attention to the subject and reference cited and it is to submit that vide reference 1st cited this office has submitted a proposal to the Director of Mines and Geology, Hyderabad for making arrangements to forward the Technical reports along with 7 sets of Form-A to the Principal Chief Conservator of Forest, Hyderabad to process the M.L. application of M/s Balaji Minerals, Mg. Partner: Sri Syed Mastan Basha in Compartment No.475 in Mundlapadu Beat, Veligonda Reserve Forest, C.S. Puram Section, Kanigiri range of Giddaluru Forest division of Prakasam District for issue of clearance under Section 2 of the Forest Conservation Act 1980, forest (Conservation) rules 2003, MC Rules 1960 and MM (D&R) act 1957. Subsequently, vide reference 2nd cited the Divisional Forest Officer, Giddalore has requested this office to furnish the certificate.

In this connection I am herewith enclosed for taking necessary action.

Yours faithfully

Encl: as above.

Asst. Director of Mines and Geology,
Markapur.

Copy submitted to the Director of Mines and Geology, Hyderabad for favour of information.

Certificate of the Asst. Director of Mines and Geology, Markapur for Diversion of Forest Land, over an extent of 9.110 Hectares of Forest area in Compartment No.475 in Mundlapadu Beat, Veligonda Reserve Forest, C.S. Puram Section, Kanigiri range of Giddaluru Forest division of Prakasam District.

The M.L. application of M/s Balaji Minerals, Mg. Partner: Sri Syed Mastan Basha for grant of Mining Lease for Quartz by diversion of 9.110 Hectares of Forest area in Compartment No.475 in Mundlapadu Beat, Veligonda Reserve Forest, C.S. Puram Section, Kanigiri range of Giddaluru Forest division of Prakasam District was inspected by then Asst. Geologist and Surveyor of this office from 28-11-2011 to 29-11-2011 along with Sri J. Subba Rao, Asst. Mines Officer O/o the Zonal Joint Director of Mines and Geology, Ongole and K. Jairam Prasad, Surveyor of this office, Sri M. Reddenaik, Forest Section Officer and Sri O. Ramaiah, Forest Beat Officer, who are the officials of the Forest Department as per the Memo Rc.No. 3186 to 3189 of the Divisional Forest Officer, Giddalur, dated: 22-11-2011and submitted a detailed inspection report with regard to the nature of deposit etc. Further, the survey of this office also submitted a detailed survey report along with demarcated sketches.

Further it is to submit that as per the inspection report submitted by then Asst. Geologist of this office the applied area is a hilly terrain with an undulating topography. The hills are slightly elevated on western side and gradually sloping towards south, east and north. The overall relief varies from 5mts to 30 mts. The area consists of dense vegetation which are scattered all along the applied area. The area surrounding quartz deposits are free from vegetation. There is no perennial water course in and around applied area. The surface rainwater flows through the slopes of the area and joins to a seasonal water course, which is flowing in outside the area.

Geology of the Area: The subject area forms as part of Northern part of the Nellore Schist Belt. Schist is predominant formation in the subject area. It is light green in colour. Schist exhibits a foliation trend with sub-vertical to vertical dips. The significant and economical important of this deposit is represented by Quartz Reefs occurred along with fracture zone within country rock like Schist. The Quartz reefs show N-S strike direction with gently dipping towards SE. The Quartz reefs exhibit two sets of joints namely strike and dip joints. As per the field observations, the Quartz deposit may be extended up to a maximum depth of 30 mts. Going to depth the quality of the quartz may be increase and recommended that the applied areas are located in hillock, naturally the recovery of the deposit quality wise and quantity wise is very good. Based on the field observations it is noticed that where quartz mineralization occurred, surrounding areas are free from vegetation. Further, it is to submit that there are 67 mining leases are in forced. Out of 69 leases only 10 leases are working and remaining is having no economical values due depletion of deposit and low % SiO2. Even though all these leases are working, yet they are unable to meet the domestic and foreign demands. Now there is very much demand for the quartz and the demand may be doubled within next 2 to 3 years. Further, it is to submit that trees will grow anywhere and to create forest any time. But we do not create or made any mineral by manual.

In view of the above I recommended for diversion of forest land in Compartment No.475 in Mundlapadu Beat, Veligonda Reserve Forest, C.S. Puram Section, Kanigiri range of Giddaluru Forest division of Prakasam District for grant of Mining Lease for Quartz in favour of M/s Balaji Minerals, Mg. Partner: Sri Syed Mastan Basha subject to satisfaction of Forest Conservation Act 1980, forest (Conservation) rules 2003, MC Rules 1960, MM (D&R) act 1957, Mineral Conservation and Development Rule, 1988, Mines Act, 1952 and Environment Impact Assessment Notification, 2006 issued by Ministry of Environment and Forest, dated: 14-9-06 and Air (Prevention & Control of Pollution) Act, 1981 and Water (Prevention and Control of Pollution) Act, 1974.

Asst. Director of Mines and Geology,
Markapur.

GEOLOGICAL REPORT ON THE OCCURRENCE OF QUARTZ DEPOSITS IN MUNDLAPADU BEAT, VELIGONDA RESERVE FOREST, C.S. PURAM SECTION, KANIGIRI RANGE OF GIDDALURU FOREST DIVISION OF PRAKASAM DISTRICT

Introduction: As per the instructions of the Asst. Director of Mines and Geology, Markapur the application filed by M/s Sree Balaji Minerals, Mg. P. Sri Syed Mastan Basha for grant of Mining Lease for Quartz, over an extent of 400.00 Hectares in Compartment No. 475 of Mundlapadu Beat, Veligonda Reserve Forest, C.S. Puram Section, Kanigiri range of Giddaluru Forest division of Prakasam District have been inspected by me from 28-11-2011 to 29-11-2011 along with Sri J. Subba Rao, Asst. Mines Officer O/o the Zonal Joint Director of Mines and Geology, Ongole and K. Jairam Prasad, Surveyor of this office, Sri M. Reddenaik, Forest Section Officer and Sri O. Ramaiah, Forest Beat Officer, who are the officials of the Forest Department as per the Memo Rc.No. 3186 to 3189 of the Divisional Forest Officer, Giddalur, dated 22-11-2011. On the day of inspection the applicant co. has accompanied with us and shown the area opted for grant on the ground.

Location: The applied areas are marked on the Survey of India Topo Sheet No: 57M/3 and 57 M/4 and are situated about 2.5 Kms North of Ekunampuram Village which is situated at a distance of 7Km SE from the Mandal Head Quarter C.S. Puram. The area is approachable by bituminous top road from C.S. Puram to Eknampuram and then cart track available to the applied area. The connectivity to the applied area is available in all seasons. The nearest railway station is located at Singarikonda Village at a distance of nearly 100 Km NE from the applied area on South Central Railway line between Vijayawada to Guduru Section.

Physiography: The applied area is a hilly terrain with an undulating topography. The hills are slightly elevated on western side and gradually sloping towards south, east and north. The overall relief varies from 5mts to 30 mts. The area consists of dense vegetation which are scattered all along the applied area. The area surrounding quartz deposits are free from vegetation. There is no perennial water course in and around applied area. The surface rainwater flows through the slopes of the area and joins to a seasonal water course, which is flowing in outside the area. Further, on local enquiry, it is revealed that no wild animals are witnessed since long time and the human settlement is very far away from the applied area.

Geology of the Area: The subject area forms as part of Northern part of the Nellore Schist Belt. Schist is predominant formation in the subject area. It is light green in colour. Schist exhibits a foliation trend with sub-vertical to vertical dips. The significant and economical important of this deposit is represented by Quartz Reefs occurred along with fracture zone within country rock like Schist. The Quartz reefs show N-S strike direction with a strike length of 350 mts and width of 50 mts with gently dipping towards SE. The Quartz reefs exhibit two sets of joints namely strike and dip joints. As per the field observations, the Quartz deposit may be extended up to a maximum depth of 30 mts. Going to depth the quality of the quartz may be increased.

Mineralogy: The Quartz litho unit is the most economical one available in the area. The mineral is known as "PALUGU RAI" in Telugu. The Quartz is naturally occurring as Silicon dioxide. It has semi glassy and granular texture with brown in colour on the surface and shows milk white after remove the skin. Here the % of semi glassy Quartz is more than the granular Quartz. The deposit available here is said to be good grade and the grade of the deposit increases towards deeper levels. As per the preliminary analytical report available with the applicant the available Quartz is having SiO_2 is 99.68% with a Specific gravity of 2.7 Gm/cc. Quartz is one of several minerals which are piezoelectric, meaning that when pressure is applied to quartz, a positive electrical charge is created at

one end of the crystal and a negative electrical charge is created a the other. It is also strongly pyroelectric which means that temperature changes can cause the development of positive and negative charges within the crystal. These properties make quartz valuable in electronics application. While some other minerals may have these properties, quartz I used because it is transparent, though, and of unvarying chemical composition. Even impure quartz can be purified and processed to create cultured quartz crystals which are used in electronic application, where its special physical properties are valuable. There is no adequate substitute for quartz in electronic applications. The texture, structure, composition and its physical properties are much suitable for Glass industries, Ceramics and manufacture of semi conducts. As per the physical observations, the available deposit is much valuable.

Quartz mineralization occurred in the form of reef

Other Information: The area was surveyed by the surveyor of this office with the help of J. Subba Rao, A.M.O., O/0 the Zonal Joint Director of Mines and Geology, Ongole on the day of inspection and the applicant firm has opted the area required by them for grant of Mining Lease and shown their limits in the Mundalpadu beat of Veligonda Reserve Forest. The opted area has been surveyed and demarcated with reference to the permanent reference line / base line whose bearing is 305^0 (EKR3-EKR2) and connected by required number of tie lines. This permanent reference line (G-line) runs almost East-West and lies Eastern side of water course namely Chelimivani Vagu and finally the required area come to an extent of 9.110 Hectares as against the applied area of 400.00 Hectares. The detailed survey report and surveyed sketch may please be verified. Further, the surveyor of this office has stated that there are no pending applications over the present applied area.

Justification for Section 5 (2) (a) of M&M (D&R) Act, 1957: The Quartz reefs are noticed in the applied area and the depth of mineralization may be nearly 30mts. Majority of the accessible reefs have most likely been shown on the ground. As per the physical observations, the available deposit is enough to do mining directly without any prospecting and thus satisfying the rule 5 (2) (a) of M&M (D&R) Act, 1957. Further the quantities are also estimated as approximately 0.0750 Million Tonnes. Further the analytical report of the samples contains 99.68% of SiO2 which is considered to be good grade. Hence, the grant of Mining Lease for Quartz in favour of M/s Sree Balaji Minerals, Mg. P. Sri Syed Mastan Basha, over an extent of 9.110 Hectares in Compartment No. 475 of Mundlapadu beat of Veligonda R.F. in C.S. Puram Section, Kanigiri range, Giddalur Forest Division of Prakasam District

is satisfying Section 5 (2) (a) of M&M (D&R) Act, 1957 and needs for consideration for grant of Mining Lease.

Recommendations: The applied area is located in hillock, naturally the recovery of the deposit quality wise and quantity wise is very good. Based on the field observations it is noticed that where quartz mineralization occurred, surrounding areas are free from vegetation. Further, it is to submit that there are 67 mining leases are in forced. Out of 67 leases only 10 leases are working and remaining is having no economical values due depletion of deposit and low % SiO2. Even though all these leases are working, yet they are unable to meet the domestic and foreign demands. Now there is very much demand for the quartz and the demand may be doubled within next 2 to 3 years.

Keeping in view of the above details and facts, the Mining Lease applications of M/s Sree Balaji Minerals, Mg. P. Sri Syed Mastan Basha for Hectares 9.110 in Mundlapadu beat of Compartment No. 475 of Veligonda R.F. and approach road area approximately required 1.000 hectare in C.S. Puram Section, Kanigiri range, Giddalur Forest Division of Prakasam District may be considered and the areas are deleted from Reserve Forest subject to Section 2 of the Forest Conservation Act 1980, forest (Conservation) rules 2003, MC Rules 1960 and MM (D&R) act 1957.

(P. PRAKASH KUMAR)
Asst. Geologist.