

**GOVERNMENT OF ANDHRA PRADESH  
DEPARTMENT 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.417/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 Sree Shirdi Sai Minerals, Mg. Partner: Sri G. Venkata Subba Reddy – Issue of Forest Clearance – Necessary Certificates – Submitted - Regarding.

- Ref: 1. This office Letter No.417/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.

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I invite attention to the subject and reference cited and it is to submit that vide reference 1<sup>st</sup> 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 Sree Shirdi Sai Minerals, Mg. Partner: Sri G. Venkata Subba Reddy 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 2<sup>nd</sup> 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 10.200 Hectares 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 Sree Shirdi Sai Minerals, Mg. Partner: Sri G. Venkata Subba Reddy for grant of Mining Lease for Quartz by diversion of 10.200 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: 22-11-2011 and 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 % SiO<sub>2</sub>. 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 tress 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 Sree Shirdi Sai Minerals, Mg. Partner: Sri G. Venkata Subba Reddy for grant of Mining Lease for Quartz 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.**

GOVERNMENT OF ANDHRA PRADESH  
DEPARTMENT OF MINES AND GEOLOGY

From

E.Narasimha Reddy, M.Sc.,  
Assistant Director of Mines & Geology (FAC)  
Markapur,

To

The Director of Mines & Geology,  
HYDERABAD.

**Letter No. 417/M/11, dated :09-04-2015**

Sir,

Sub:- Mines and Minerals – Mining Lease application for Quartz over an extent of 10.572 Hectares in Compartment No. 475 in Mundlapadu Beat, Veligonda Reserve Forest, C.S.Puram Section, Kanigiri Range of Giddaluru Forest Division of Prakasam District – Application filed by M/s. Sree Shirdi Sai Minerals, Mg. Partner: Sri G. Venkata Subba Reddy – Further Report called for - submitted – Regarding.

- Ref:-
1. Mining Lease application dated 18.02.2010 from M/s. Sree Shirdi Sai Minerals.
  2. ADM&G, Markapur Lr.No.417/M/2011, dt. 04.12.2013.
  3. Representation dated. 30.03.2015 from M/s. Sree Shirdi Sai Minerals, Mg. Partner: Sri G. Venkata Subba Reddy.
  4. Memo No. 47338/R2-2/2010, dt. 04.04.2015 from the Director of Mines and Geology, Hyderabad

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I invite kind attention to the subject and references cited and submit that through the reference 4<sup>th</sup> cited the Director of Mines and Geology, Hyderabad while enclosing a representation dated 30.03.2015 M/s. Sree Shirdi Sai Minerals along with enclosures of and requested to furnish the information as called for by the Divisional Forest Officer, Giddaluru for taking further necessary action in the matter.

In this connection, it is submitted that the Asst. Geologist of this office has inspected the subject area, as seen from reports and records, it reveals that the mineral available in the subject area is not available outside the forest area and available Quartz mineral in the outside of the Reserve Forest is inferior quality comparing with Quartz available in the Reserve Forest applied area.

Further it is submitted that as per this office records, there is no existing Mining /Prospecting Leases inside the 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 i.e., Out side of the Reserve Forest area.

Further it is also submitted that there is only two Mining Leases for Quartz located in C.S.Puram Mandal, Prakasam District.

Sl.No.	Name of the Lessee	Sy.No.	Extent in Hect.	Village	Remarks
1	Sd. Mastan Basha	60	38.397	Ekunampuram	Working
2	Sd. Mastan Basha	76/2A	14.571	Ekunampuram	Non-Working since execution of Lease i.e. 23-12-2003

The Mining Lease mentioned at Sl. No. 1 was granted vide G.O.Ms. No. 605 Industries & Commerce Department, dated 02-12-2000 and the same was executed and the lease period is for 20 years valid from 21-07-2001 to 20-07-2021. Since execution of lease, the lessee has obtained dispatch permits 13,053 MT of Quartz mineral and as per Mining 2<sup>nd</sup> Scheme the estimated reserves are 3,19,360 MT.

The lease mentioned at Sl. No. 2 was granted vide G.O.Ms.No. 339, Industries & Commerce Department, dated 08-10-2002 and the same was executed and the lease period is for 20 years valid from 23-12-2003 to 22-12-2013. Due to nonworking of the lease since more than two years, this office has submitted proposals for cancellation under 28(1) of M.C. Rules, 1960 vide this office Lr.No. 34/M/2003, dated 08-11-2006. The action is pending on this office proposal at higher authorities and estimated reserves and quantity extracted is enclosed in Annexure-II.

This is submitted for information and taking necessary action.

Enclosures : As above

Yours faithfully,

*E. Narasimha Reddy*  
Asst. Director of Mines & Geology,  
Markapur(FAC)

Copy to M/s. Sree Shirdi Sai Minerals, Mg. Partner: Sri G. Venkata Subba Reddy.

**Certificate of the Asst. Director of Mines and Geology, Markapur for Diversion of Forest Land, over an extent of 10.572 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. applied area of M/s. Sree Shirdi Sai Minerals, Mg. Partner: Sri G. Venkata Subba Reddy for grant of Mining Lease for Quartz by diversion of 10.572 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 the Asst. Geologist and the 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. Further, 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, Giddaluru, dated 22.11.2011 also attended. The Asst. Geologist has submitted a detailed inspection report with regard to the nature of deposit etc., Further, the surveyor 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 the 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 5 mts 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.

The Quartz mineral is used in Glass Industry as well as Ceramic Industry, Ferrow Alloys. The proposed deposits in this area are having good quality of SiO<sub>2</sub> % and Electrical Conductivity. Further as seen from this office records it is reveals that the same quality of mineral is not available in the surrounding / outside Forest areas in terms of quantity, demand and supply. Now there is very much demand for the quartz and the demand may be doubled within next 2 to 3 years.

In view of the above I recommended for diversion of forest land, over an extent of 10.572 Hectares 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. Sree Shirdi Sai Minerals, Mg. Partner: Sri G. Venkata Subba Reddy 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 14-09-06 and Air (Prevention & Control of Pollution) Act, 1981 and Water (Prevention and Control of Pollution) Act, 1974.

*E. Narasimhan Reddy*  
Asst. Director of Mines and Geology,  
Markapur(FAC).

**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 Shirdi Sai Minerals, Mg. Partner: Sri G. Venkata Subba Reddy 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 Giddalur 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.

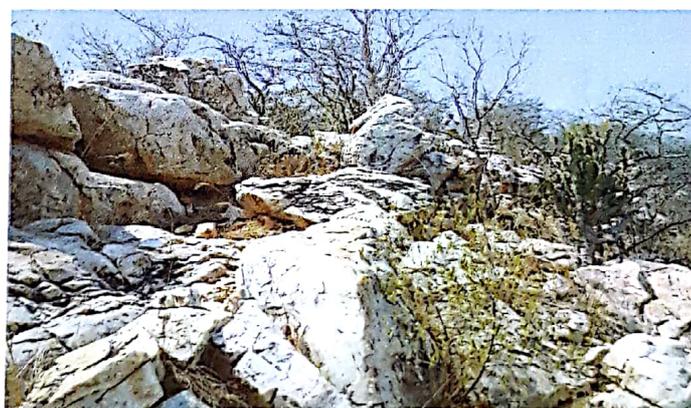
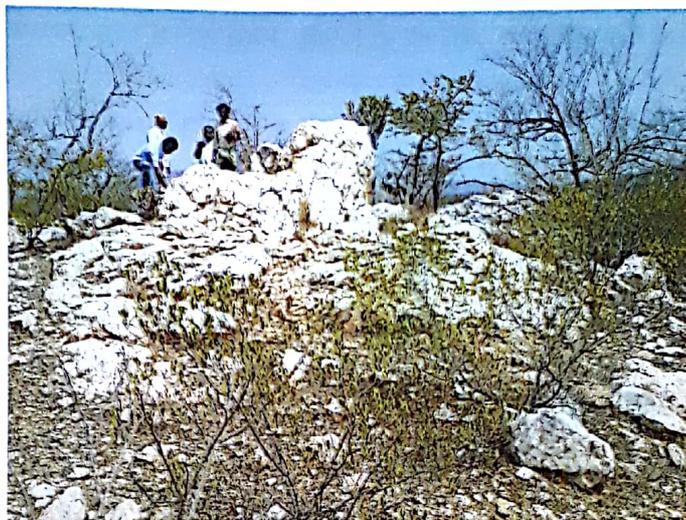
**Location:** The applied areas are marked on the Survey of India Topo Sheet No: 57M/3 and 57 M/4 and are situated about 2.5 Kms North of Ekunampuram Village which is situated at a distance of 7Km SE from the Mandal Head Quarter C.S. Puram. The area is approachable by bituminous top road from C.S. Puram 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 400 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<sub>2</sub> 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 at 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 is used because it is transparent, tough, 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 conductors. 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/o 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  $305^{\circ}$  (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 10.2 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 SiO<sub>2</sub> which is considered to be good grade. Hence, the grant of Mining Lease for Quartz in favour of M/s Sree Shirdi Sai Minerals, Mg. Partner: Sri G. Venkata Subba Reddy over an extent of 10.20 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 % SiO<sub>2</sub>. 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 Shirdi Sai Mineral, Mg. Partner: Sri G. Venkata Subba Reddy for Hectares 10.200 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.