

Prefeasibility Report of Quartz & Feldspar of M/s Akshaya Constructions,
Mg P: Sri N.Venkata Rao., Sy. No's. 88/1A of
Lakshmipuram Village (V), Tiruvuru Mandal (M), Krishna District, AP

PRE FEASIBILITY REPORT

Of

**Quartz and Feldspar Mine
Sy No – 88/1A, Lakshmipuram Village
Tiruvuru Mandal,
Krishna District, Andhra Pradesh**

Area of Mining Lease –2.818 Ha

For

**1,01,487.51 MT/Annum OF Quartz and
Feldspar Production**

By

**M/s AKSHAYA CONSTRUCTIONS
Mg/P : SRI N. Venkata Rao**

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EXECUTIVE SUMMARY

S. No	Parameter	Details																														
1	Name & Address of the Applicant	M/S AKSHAYA CONSTRUCTIONS, Mg/P : SRI N. Venkata Rao, H.NO: Hig-108, APHB Colony, Nallapadu Road, Guntur, Guntur District.																														
2	Total Extent of the project	2.818 Ha																														
3	Location of the project	88/1A (P)																														
4	Geo Co-ordinates	<table border="1"> <thead> <tr> <th>B.P No</th> <th>LATITUDE</th> <th>LONGITUDE</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>17° 05'12.77"N</td> <td>80°39'11.68"E</td> </tr> <tr> <td>B</td> <td>17° 05'10.07"N</td> <td>80°39'15.20"E</td> </tr> <tr> <td>C</td> <td>17° 05'09.00"N</td> <td>80°39'17.17"E</td> </tr> <tr> <td>D</td> <td>17° 05'04.87"N</td> <td>80°39'14.74"E</td> </tr> <tr> <td>E</td> <td>17° 05'05.13"N</td> <td>80°39'14.06"E</td> </tr> <tr> <td>F</td> <td>17° 05'07.27"N</td> <td>80°39'11.45"E</td> </tr> <tr> <td>G</td> <td>17° 05'07.85"N</td> <td>80°39'09.28"E</td> </tr> <tr> <td>H</td> <td>17° 05'08.63"N</td> <td>80°39'09.55"E</td> </tr> <tr> <td>I</td> <td>17° 05'10.42"N</td> <td>80°39'10.67"E</td> </tr> </tbody> </table>	B.P No	LATITUDE	LONGITUDE	A	17° 05'12.77"N	80°39'11.68"E	B	17° 05'10.07"N	80°39'15.20"E	C	17° 05'09.00"N	80°39'17.17"E	D	17° 05'04.87"N	80°39'14.74"E	E	17° 05'05.13"N	80°39'14.06"E	F	17° 05'07.27"N	80°39'11.45"E	G	17° 05'07.85"N	80°39'09.28"E	H	17° 05'08.63"N	80°39'09.55"E	I	17° 05'10.42"N	80°39'10.67"E
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5	Total Mineable Reserves	5,18,422.08 MT																														
6	Proposed Production	1,01,487.51 MT -Average annual production																														
7	Life of the Mine	5 years																														
8	Method of Mining	Open Cast Semi Mechanized Method																														
9	Employment	52 persons																														
10	Water Requirement	10 KLD																														

1. INTRODUCTION OF THE PROJECT/BACKGROUND INFORMATION

(i) Identification of project and project proponent. In case of mining project, a copy of mining lease/ letter of intent should be given

M/S AKSHAYA CONSTRUCTIONS has been filed an application of quarry lease for Quartz & Feldspar over an extent of 2.818 Ha in Sy. No's 88/1A (P) of Lakshmipuram (V), Tiruvuru (M), Krishna District, Andhra Pradesh State by Ass Director of Mines & Geology, Vijayawada, Notice No. 419 / Q / 2018 dated 02-05-2018. The copy of the lease letter is enclosed as annexure.

(ii) Brief description of the nature of the project

The proposed project is a Quartz & Feldspar Quarry project located over an extent of 2.818 Ha in Sy. No's 88/1A (P) of Lakshmipuram (V), Tiruvuru (M), Krishna District, Andhra Pradesh State, The applicant proposed to produce 1,01,487.51 MT per annum from the subject quarry.

(iii) Need for the project & its importance to the country and or region

Quartz & Feldspar are used widely in the glass and ceramics industries. Albite, or soda spar as it is known commercially, is used in ceramics. The feldspar-rich rocks larvikite and a few anorthosites are employed as both interior and exterior facing slabs. Quartz & Feldspar has been used for hard stone carvings, sandpapers, sandblasting, and abrasives things.

Demand- Supply Gap

The Quartz & Feldspar which is produced from the subject Quarry will be used in ceramic and glass industry and used for abrasive mineral.

(iv) imports vs. Indigenous production

The Quartz & Feldspar will be consumed in the domestic as well as international market

(v) Export possibility

The Quartz & Feldspar of this area will be sold to the Ferro Alloy Industries, Foundries, Ceramics and to Glass Industries, Located in and around Telangana and Andhra Pradesh. Quartz & Feldspar and Feldspar will be consumed in the domestic as well as international market hence it is export products.

(vi) Domestic/Export Markets

There is a possibility of Export. The Quartz & Feldspar will be consumed in the domestic and International market also

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(vii) Employment generation (direct and indirect) due to the project

About 52 persons will be employed directly and indirect employment will also be provided in the form of helpers, drivers etc., It will provide employment to the people residing in vicinity.

2. PROJECT DESCRIPTION

(i) Type of Project Including Interlinked And Independent Projects, If Any:

The Subject project is a Quartz & Feldspar Quarry project located over an extent of 2.818 Ha in Sy. No's 88/1A (P) of Lakshmipuram (V), Tiruvuru (M), Krishna District, Andhra Pradesh State, The applicant proposed to produce 1,01,487.51 MT per annum of the subject quarry. Open Cast Semi Mechanized Method of Mining will be adopted.

(ii) Location (map showing general location, specific location, and project boundary & project site layout) with coordinates

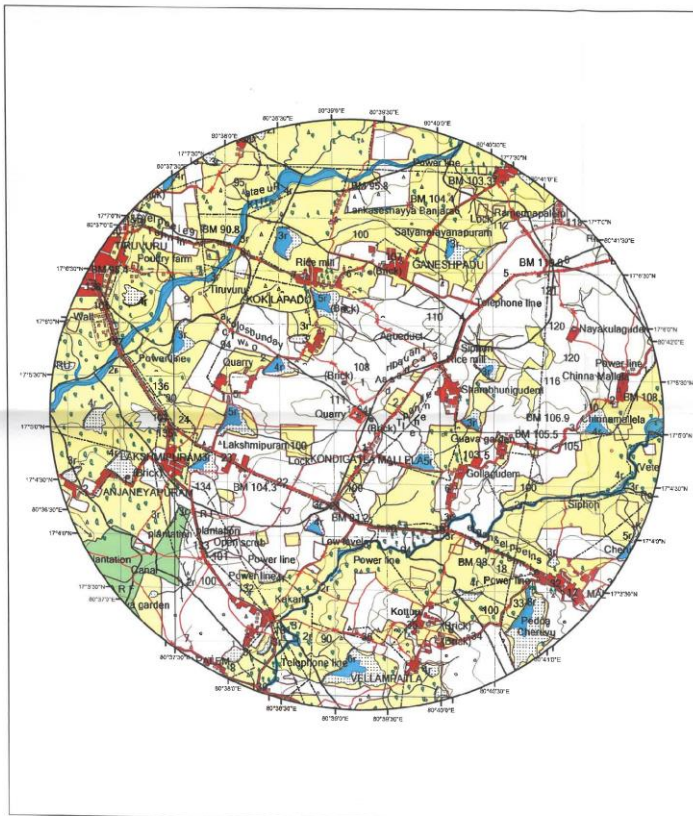


PLATE -1 KEY CUM LOCATION MAP
FOR
QUARTZ & FELDSPAR
Over an extent of 2.818 Hectares in Sy. No. 88/1A
Of Lakshmipuram (V), Tiruvuru (M),
Krishna District, Andhra Pradesh State
Part of Toposheet No. 65 C/12 Scale 1 : 50,000

B.P No.	LATITUDE	LONGITUDE	B.P No.	LATITUDE	LONGITUDE
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MAP DATUM : WGS - 84	
Position Format	hddd - mm - ss.s
Map Datum	WGS - 84
Units	Metric
North Reference	True North
Variance	001" N
Angle	Degrees



LEGEND

	STREAM		FOREST AREA		METAL ROAD
	TANK		HILLS		LOCATION OF AREA
	RIVER		ROAD		VILLAGE

LESSEE
 M/s AKSHAYA CONSTRUCTIONS,
 M/P: SRI N. VENKATA RAO

The Plans and Sections are prepared
 based on lease may authenticated
 by the State Government
CORRECTNESS CERTIFIED

 RQP

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(iii) Details of Alternate Sites Considered and the basis of selecting the proposed site, particularly the environmental considerations gone into should be highlighted.

No Alternative sites were considered as it is site specific project.

(iv) Size or Magnitude of Operation

The total extent of the quarry lease area is 2.818 Ha and it is proposed to produce 1,01,487.51 MT per annum from this quarry.

The year wise production proposed is shown in the following table.

YEAR WISE PRODUCTION FOR 5 YEARS (Quartz & Feldspar)

Year	Surface Area	Depth (M)	Volume (M ³)	Quartz	Feldspar	Quartz	Feldspar	Total Volume In T.F.
				(40%)	(60%)	T.F.(2.7)	T.F.(2.6)	
				(M ³)	(M ³)	Tons	Tons	
1 st Year	5,953	6.5	38,697.1	15,478.84	23,218.26	41,792.87	60,367.47	1,02,160.34
2 nd Year	5,953	6.5	38,697.1	15,478.84	23,218.26	41,792.87	60,367.47	1,02,160.34
3 rd Year	3,912	6	19,152	7,660.8	11,491.2	20,684.16	29,877.12	50,561.28
	2,559	6.5	16,623.5	6,649.4	9,974.1	17,953.38	25,932.66	43,886.04
	1,404	2	2,808	1,123.2	1,684.8	3,032.64	4,380.48	7,413.12
	TOTAL			38,583.5	15,433.4	23,150.1	41,670.18	60,190.26
4 th Year	4,958	6.5	32,162	12,864.8	19,297.2	34,734.96	50,172.72	84,907.68
	3,267.5	2	6,535	2,614	3,921	7,057.8	10,194.6	17,252.4
	TOTAL			38,697	15,478.8	23,218.2	41,792.76	60,367.32
5 th Year	4,537	6.5	29,490.5	11,796.2	17,694.3	31,849.74	46,005.18	77,854.92
	2,682	3	8,046	3,218.4	4,827.6	8,689.68	12,551.76	21,241.44
	TOTAL			37,536.5	15,014.6	22,521.9	40,539.42	58,556.94
TOTAL			1,92,221.2	76,884.48	1,15,326.72	2,07,588.1	2,99,849.46	5,07,437.56
AVERAGE			38,444.24	15,376.89	23,065.34	41,517.62	59,969.89	1,01,487.51

(v) Project Description with Process Detail (a schematic diagram/ flow chart showing the project layout, components of the project etc. should be given)

The Mineral in the quarry lease applied area is proposed to quarry the sheet by Open Cast Semi Mechanized Method by deploying an Excavator will be deployed to slice the mineral vein (from one end to another) and load into trucks.

(vi) Demands-Supply Gap

The demand for Quartz & Feldspar has been steadily increasing over the years to the requirement of Ferro-silicon, silica refractories, glass and for moulding and casting purposes. The requirements of these products except glass are linked directly with iron & steel industry including alloy steel production. Further, setting up foundries and enhancing their capacities are also linked with metallurgical industry. It is reported that glass industry is expected to grow by 10% every year due to rapid rise in infrastructural activities in the country. At present the domestic market for Quartz & Feldspar crystal components of the annual demand is about 13 ~ 1.6 billion, annual growth rate of nearly 20%.

(vii) Availability of Water Its Source, Energy /Power Requirement and Source

The total water requirement of the project is 10KLd which will be used for Dust Suppression, Green Belt Development and Domestic Purposes. This water will be sourced from water tankers.

(viii) Exploration already carried in the area:

Applied area for grant of mining lease was demarcated on the ground with reference to revenue pillars. Later the topographical survey of the area was carried out by ETS.

SITE ANALYSIS

(i) Connectivity

(ii) The location of quarry is well connected with good infrastructure as National Highway connecting to A. Konduru town is at 10 Km away from the quarry and adequate availability of skilled manpower is available for quarry operations.

(iii) Land Form, Land Use and Land Ownership

The mining lease is located in govt land. The QL applied area is a flat area in the form of **Topography along with Map**

The quarry lease applied area is located on a part of plain land over the clay silty outcrop with a maximum elevation of less than 7 M above ground level within the quarry lease applied area. The lowest contour is 92 M and highest contour is 99 M in topo plan

(iv) Soil Classification

The soil observed in the area is Clay Sand Soil

(v) Climatic Data from Secondary Sources

The area is falling under semi-arid tropical zone. The area is having dry climate. The temperature recorded in this area is 25°C in winter and about 48°C in summer seasons. The wind direction is in SW to NE. The average annual rainfall of the area is 1000 mm.

(vi) Environmental Requirements:

Proper planning of Approach Roads, Crushing Plant with green belt management and water sprinkling of haul roads will achieve hygienic quarry. Closure and Reclamation program shall be strictly implemented after exhaustion of ore in the quarry.

(vii) Legal Parameters and Others :

The quarry lease is valid up to 30 Years and granted over in Govt. Land. The quarry is under operation without any hindrances, which indicates the public acceptance for quarrying. The quarry is providing an employment for local labour of about 25 members. The quarry authorities / owner has to strictly adhere to future forthcoming any new rules and regulations. The area is not situated in tribal area and any national parks are not situated in the surrounding area.
