

HEARTY WELCOME TO HON'BLE CHAIRMAN & MEMBERS OF SEAC

FOR THE PRESENTAION OF EXTENSION OF VALIDITY
OF ENVIRONMENTAL CLEARANCE
FOR BUILDING STONE QUARRY

OF M/s. SOUTHERN ROCK & AGGREGATE MINING COMPANY
SITUATED AT SURVEY NOS.: 1019/3, 1019/4 1019/5, 1019/6, 1019/7, 1021/6,
1021/8, 1021/9, 1027P , 1028P, 1029P & 1030P. PAINKULAM VILLAGE,
THALAPPILLY TALUK, THRISSUR DISTRICT, KERALA STATE
PRODUCTION CAPACITY : BUILDING STONE 3,00,000 TPA

File No. : 285 / SEIAA / KL / 1362 / 2014

DATE : ____/02/2021

Prepared by :

METAMORPHOSIS PROJECT CONSULTANTS PVT. LTD - BENGALURU
EIA Consultants Certificate No. :

NABET/EIA/1821/RA /0129 Valid till : 30/11/2021



Company Background /History

- **Southern Rock and Aggregate Mining Company** is a Proprietorship company established in the year 1987. Company's head office is situated at Vallamkulam, Thiruvalla. The company was established by **Mr. T. Mathew Abraham**.
- **Mr. T. Mathew Abraham** is the proprietor of the company.
- **Mr. Prince Abraham** is the Authorized signatory.
- The said quarry lease was granted by the Director of Mining and Geology Govt. of Kerala for a period of twelve years which was executed on **19th March 2015 and it is valid till 18th March 2027**. the details of area and Sy. Nos. are given below:

Sr. No	Name of the Village	Survey Nos.	Taluk & District	Area in Ha.
1	Painkulam	1019/3, 1019/4 1019/5, 1019/6, 1019/7, 1021/6, 1021/8, 1021/9, 1027P , 1028P, 1029P & 1030P	Thallapilly & Thrissur	7.8000



Company Background /History

Initially, the Environmental Clearance was granted by the State Environmental Impact Assessment Authority (SEIAA) to produce 3,00,000 TPA of Building stone material on 05/12/2014 as per the EIA notification 2006.

As per the terms and conditions laid down in Environmental Clearance (EC), the EC is valid for 5 years and got expired on 04/12/2019. In view of this, The application was submitted to SEIAA requesting for the extension of the Environment Clearance validity.

Southern Rock and Aggregate Mining Company seeks the extension of validity of environmental clearance to carry out continued operation of Building stone quarrying.



Company Background /History

- ✓ Application was uploaded on web portal on 04/09/2019 vide Proposal No. **SIA/KL/MIN/42268/2014**
- ✓ Submission of Hard Copy to Authority on 01/10/2019
- ✓ Scheme of mining Approved by Department of Mining & Geology on 29/3/2019.
- ✓ Receipt of letter from SEIAA to give the PPT presentation on 11/02/2020 in 110th SEAC meeting
- Accordingly, PPT presentation was made before 110th SEAC meeting held on 11/02/2020.
- Committee directed to submit the Standard TOR and EIA.
- Standard TOR application was uploaded on web portal on 22/05/2020 vide Proposal No. **SIA/KL/MIN/52608/2020**, thereafter, hard copy was submitted to SEIAA.

Company Background /History

Southern Rock and Aggregate Mining Company is prime supplier of Ballast to Southern Railway and having the contract. Stone Ballast is one of the components of Railway track structure and it is essential for the stability of track which in turn improve the safety of running trains. Since the quality of Southern Rocks Ballast was good Railways were depending on this ballast.

Since, the EC got expired on 04/12/2019, **Southern Rock and Aggregate Mining Company** were not in a position to supply the ballast material to Southern Railway. So they have served the notice to issue the material or the contract will be terminated as per the terms and conditions.

Southern Rock and Aggregate Mining Company Filed an petition in the High Court of Kerala at Eranakulam being the writ petition WP (C) No. 17533 OF 2020 (N).

The judgment for the same was given by HONOURABLE HIGH COURT on 2nd November 2020,

In view of the judgment, we request you to kindly extend / renew the validity of the environment clearance.

Notice from Railways

Photographs showing the railway ballast

By Registered Post with Ack. Due.

SOUTHERN RAILWAY

No.J/W.148/7129

Divisional Office,
Works Branch.
Palghat,
Dt.18/11/2019

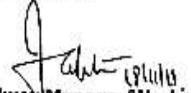
**M/s.Southern Rock & Aggregate Mining Co.,
Vallamkulam,Thiruvalla. 689 541.**

Sirs,

Sub: Proposed collection and training out 50mm machine crushed stone ballast at
shoranur Depot.
Agreeemtn No.J/269 dated 28/10/2019.

The work 'Proposed collection and training out 50mm machine crushed stone ballast at Shoranur Depot' was awarded to you vide letter of acceptance No.J/W.148/7129 dated 06/08/2019. Quantity of ballast so far collected is 3170.915cum. For the last one week no collection was done. Ballast is urgently required for ongoing track work. Caution imposed for track maintenance work and without dumping necessary ballast on track caution cannot be withdrawn. Ballast is also required to proposed BCM/Deep screening work. Therefore, please re-start the collection of ballast work with more men and material, otherwise action will be taken terminate under the provisions of General Conditions of Contract.

Yours faithfully,

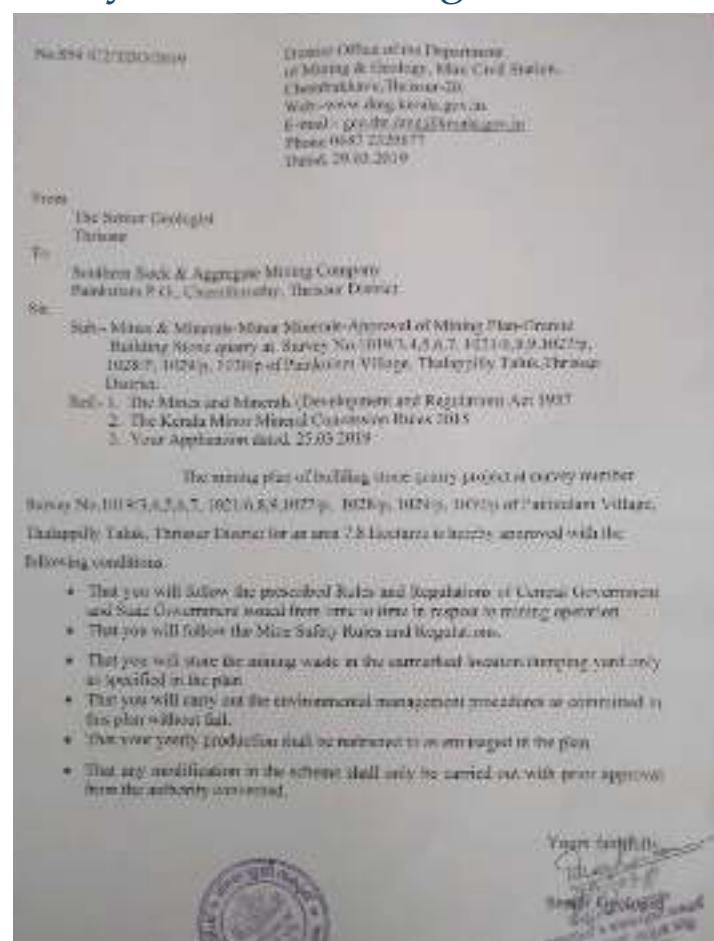
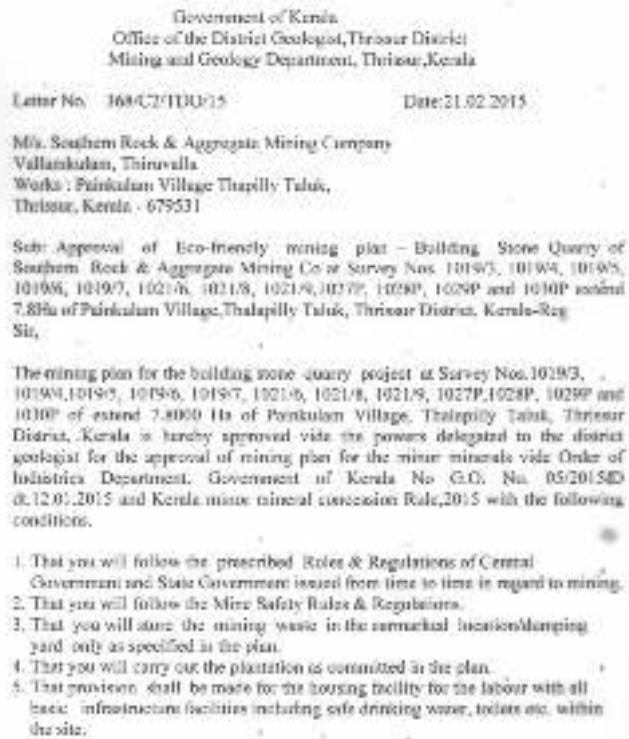

Divisional Railway Manager/Works,
S. Railway, Palakkad,

Copy to: ADEN/SRR for necessary action.



Details of approved Mining plan and Scheme of quarrying

Initially, the first Mining plan was prepared for five years (i.e, 2014 - 15 to 2018 - 19) and it was approved by District Geologist, Thrissur, which got expired on 31.03.2019. Thereafter, a Scheme of mining was prepared for next five year (i.e, 2019 - 20 to 2023-24) and the same was approved by District Geologist, Thrissur.



SALIENT FEATURES

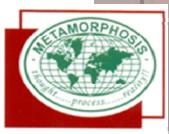
Longitude	E: $76^{\circ} 17' 38.2''$ to E: $76^{\circ} 34' 53.4''$
Latitude	N: $10^{\circ} 44' 02.6''$ to N: $10^{\circ} 44' 11.2''$
Topo sheet No.	Toposheet Number 58 B / 6
Highest & Lowest Elevation	120 MSL and 60 MSL.
Nearest Town	Nearest human settlement is 108 m from the quarry area towards west, Nearest village is Vallathol Nagar which is at a distance of 1.50 Kms towards west of the quarry lease.
Nearest Railway Station	Nearest railway Station is Vallathol Nagar Railway station which is at a distance of 1.5 Kms (Aerial Distance) towards west of quarry area.
Nearest Airport	Cochin Airport is about 65 Kms from the site.



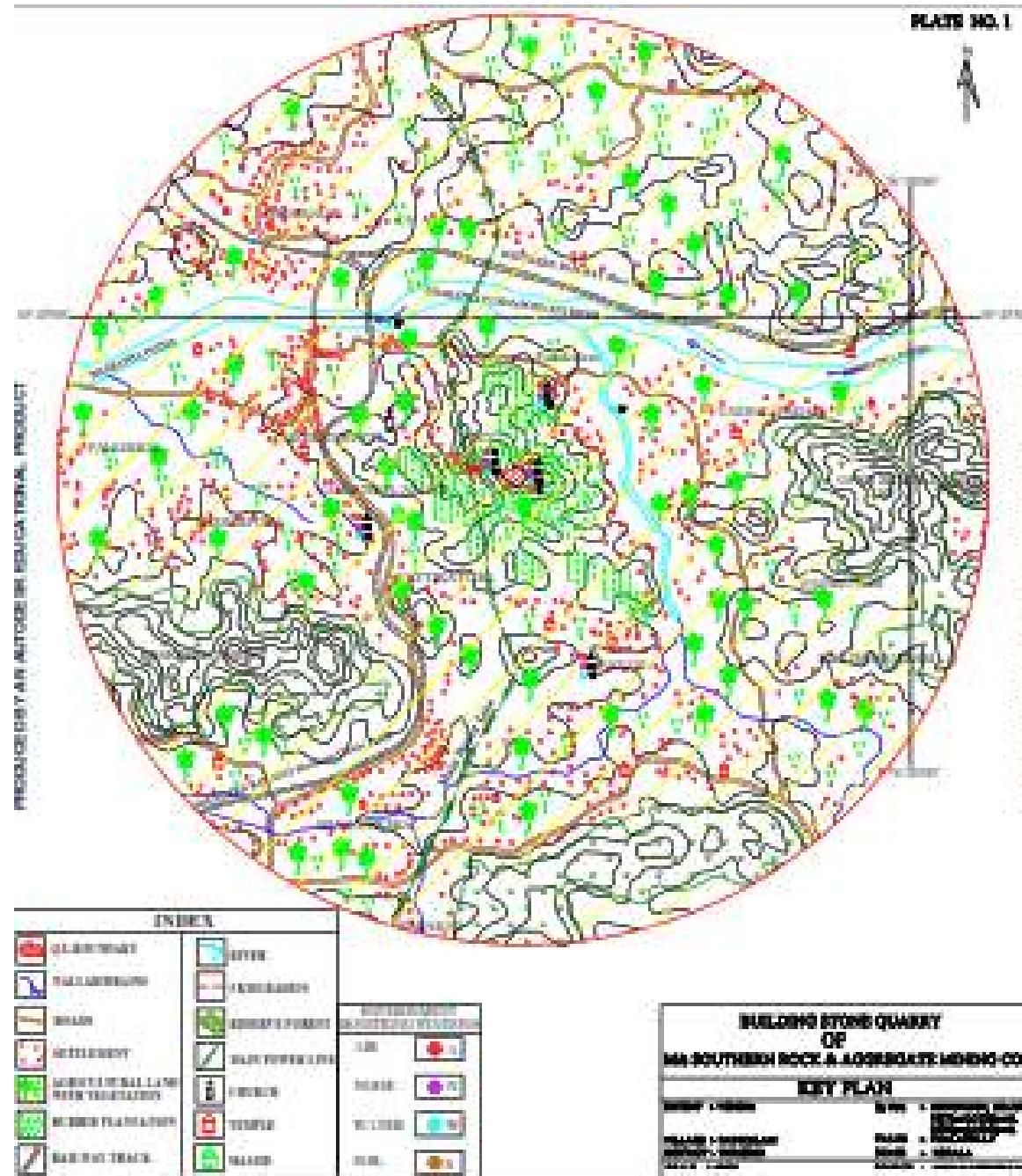
Location and accessibility to the quarry



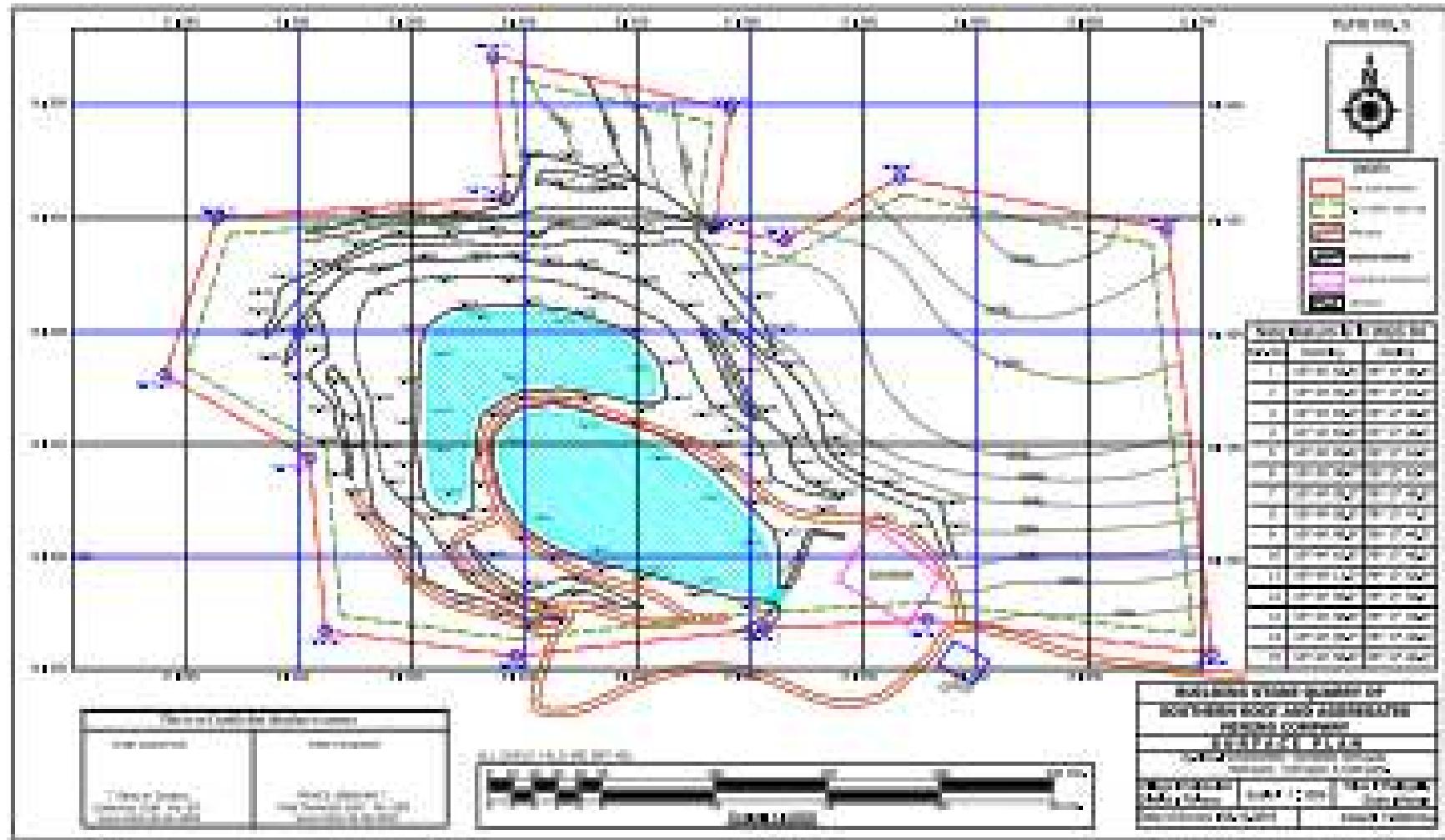
Lease area showing on village Map and Approved by Village Officer



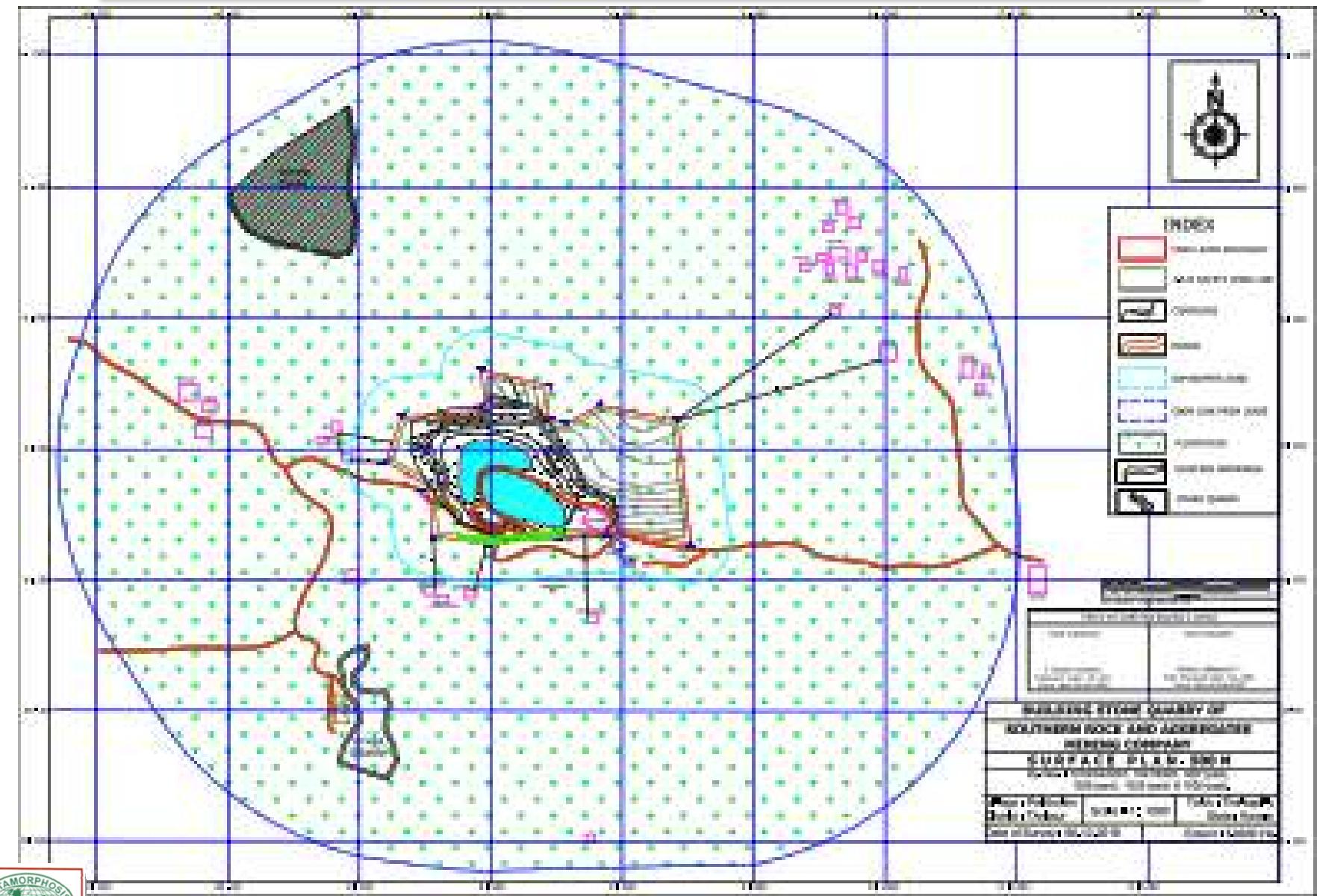
KEY PLAN



Surface Plan along with GPS readings of all the corners



Present land use around 500 m of Quarry Area



Project Site Photographs showing the boundary pillar



Quarry Site Photographs



Access Road to Quarry Site



Photographs showing the quarry benches



Photographs showing the Plant Premises



Photographs showing the quarry benches



Quarry Site Photographs



Photographs showing the quarry benches



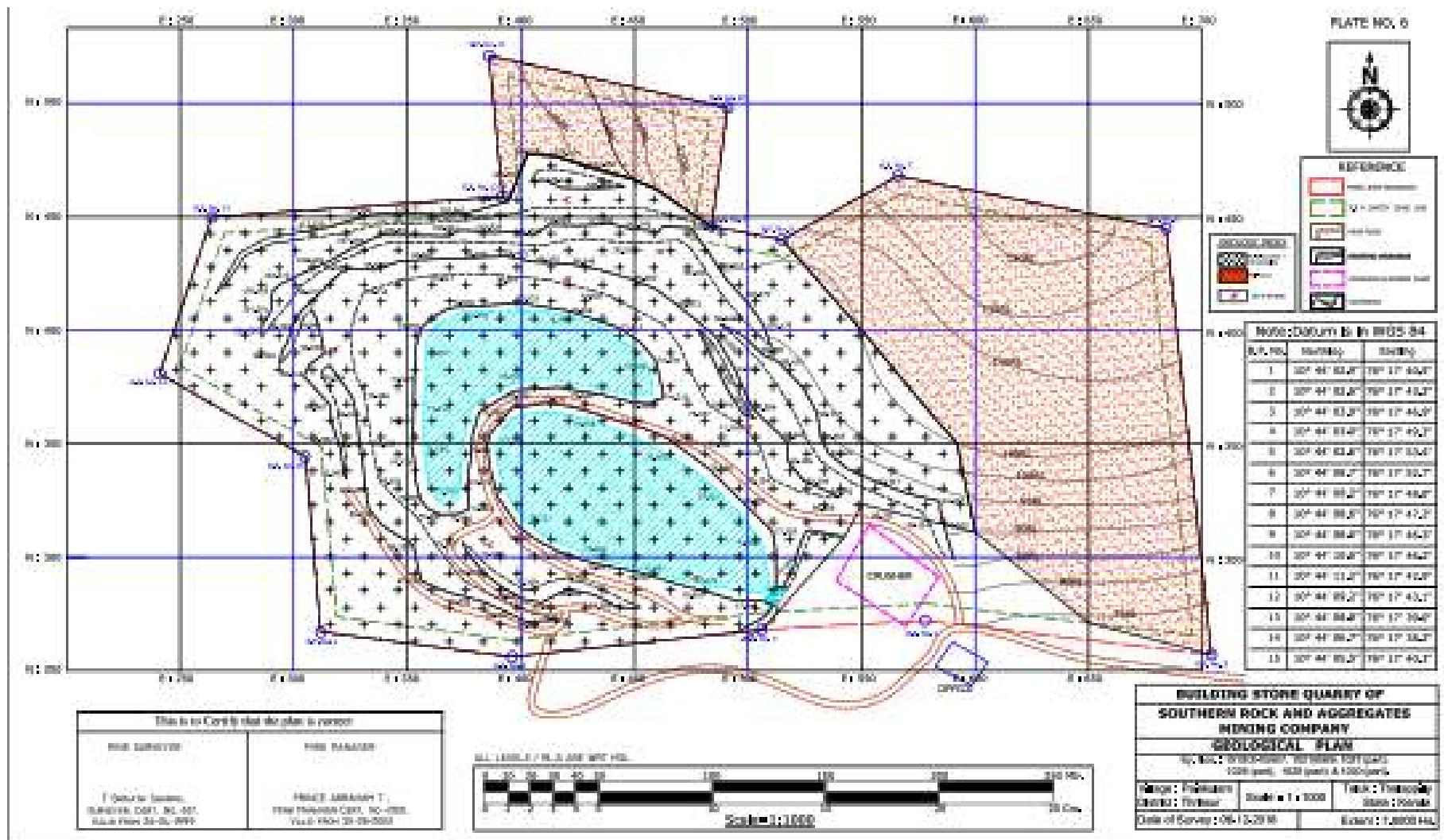
Photographs showing the quarry benches

Entire quarry area is exposed by Charnockite (commercially known as Granite), towards the south of the quarry area it covered by topsoil with the thickness varying up to 0.70 to 1.0 mts. Charnockite is the country rock in the quarry site. The geological parameters / features of the ore body as obtained from the field mapping studies reveal the following.

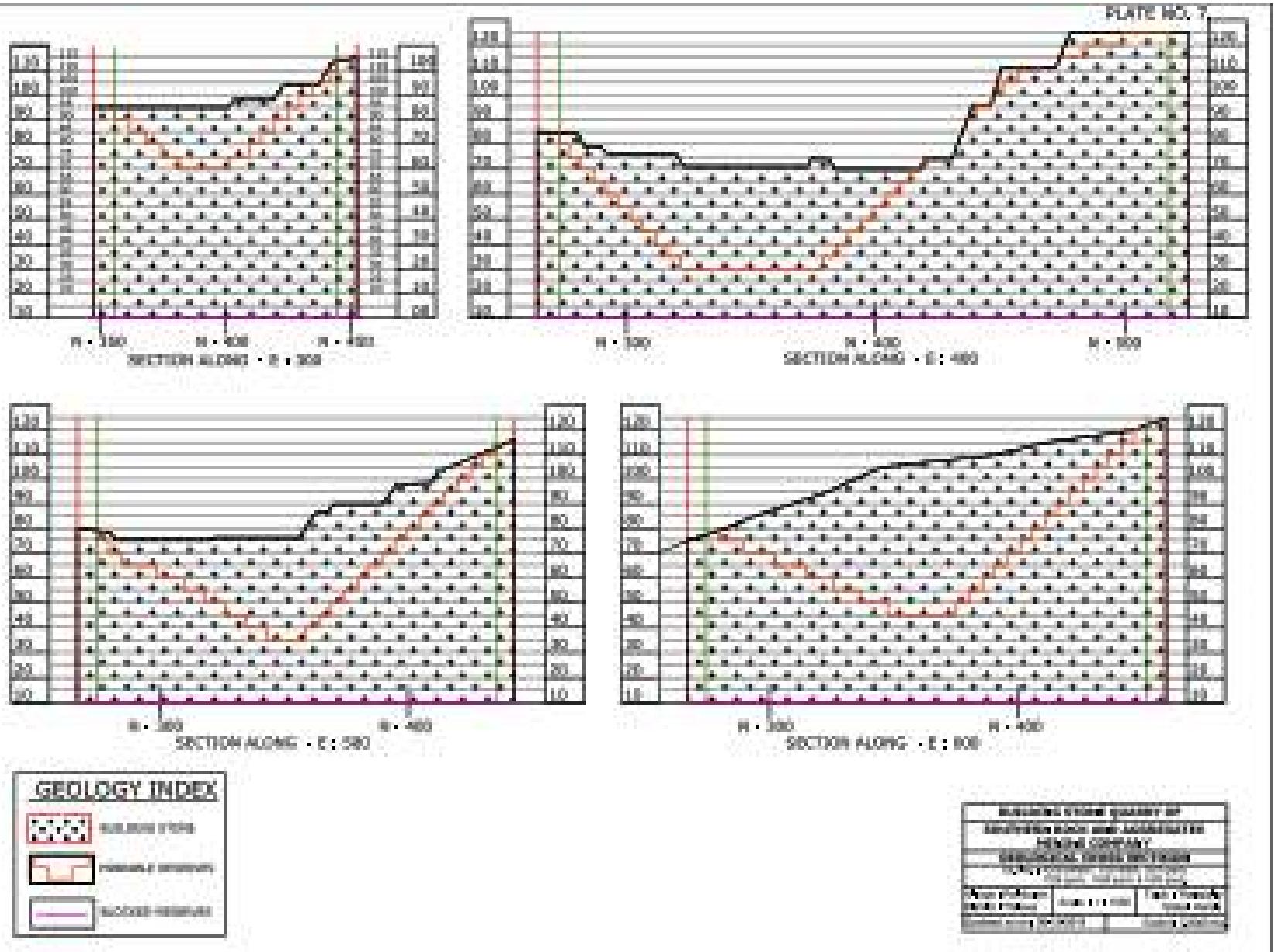
General strike	:	E - W with local variation of 10^0 - 15^0 on either side.
Dip	:	70^0 - 80^0 dipping southerly.
Length of the ore body	:	375 mts.
Width of the ore body	:	170-180 mts.
Depth of the ore body	:	80-100 mts



Geological plan



Geological Cross sections



Reserves & Life of the Quarry

Insitu Reserves		Unit: tonnes
Category	ROM Building Stone	Waste Rock
Geological reserves	75,83,078	4,00,109
Mineable reserves	35,36,078	1,86,109
Blocked reserves	40,47,000	2,14,000

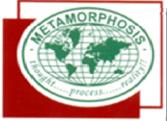
Note : Geological Reserves = Mineable Reserves + Blocked Reserves

Considering the mineable reserves and average production, the estimated life of the quarry is 10 - 12 years , when once quarry becomes operational after renewal / extension of validity of EC.

The life of the mine is estimated only for the Mineable reserves. The blocked reserves are blocked due to the practical and technical constraints such as lease boundary.



Reserves Calculations



SOUTHERN ROCKS & AGGREGATE MINING COMPANY							
TABLES SHOWING THE CROSS SECTION WISE RESERVES ESTIMATION OF MINEABLE.							
ABSTRACT - CROSS SECTION WISE							
BETN. CR. SEC.	AV. AREA	Sec Int.	VOLUME	Sp. Gr. / Bu. Dn.	TONNAGE	MINEABLE @ 95 %	WASTE @ 5 %
E : 250	E : 300	662.50	50.00	33,125.00	2.50	82,812.50	78,671.88
E : 300	E : 400	2,832.50	100.00	283,250.00	2.50	708,125.00	672,718.75
E : 400	E : 500	3,975.00	100.00	397,500.00	2.50	993,750.00	944,062.50
E : 500	E:600	4,777.50	100.00	477,750.00	2.50	1,194,375.00	1,134,656.25
E:600	E:700	2,972.50	100.00	297,250.00	2.50	743,125.00	705,968.75
TOTAL		15,220.00		1,488,875.00	2.50	3,722,187.50	3,536,078.13
							186,109.38

SOUTHERN ROCKS & AGGREGATE MINING COMPANY							
TABLES SHOWING THE BENCH WISE WISE RESERVES ESTIMATION OF MINEABLE.							
ABSTRACT - BENCH WISE							
BENCH RL	AV. AREA	Sec Int.	VOLUME	Sp. Gr. / Bu. Dn.	TONNAGE	MINEABLE @ 95 %	WASTE @ 5 %
125.00	-	100.00	-	2.50	-	-	-
120.00	110.00	100.00	11,000.00	2.50	27,500.00	26,125.00	1,375.00
115.00	130.00	100.00	13,000.00	2.50	32,500.00	30,875.00	1,625.00
110.00	235.00	100.00	23,250.00	2.50	58,125.00	55,218.75	2,906.25
105.00	430.00	100.00	42,625.00	2.50	106,562.50	101,234.38	5,328.13
100.00	580.00	100.00	56,750.00	2.50	141,875.00	134,781.25	7,093.75
95.00	690.00	100.00	66,375.00	2.50	165,937.50	157,640.63	8,296.88
90.00	990.00	100.00	90,375.00	2.50	225,937.50	214,640.63	11,296.88
85.00	1,075.00	100.00	100,250.00	2.50	250,625.00	238,093.75	12,531.25
80.00	1,105.00	100.00	104,625.00	2.50	261,562.50	248,484.38	13,078.13
75.00	1,160.00	100.00	111,625.00	2.50	279,062.50	265,109.38	13,953.13
70.00	1,530.00	100.00	150,500.00	2.50	376,250.00	357,437.50	18,812.50
65.00	1,620.00	100.00	162,000.00	2.50	405,000.00	384,750.00	20,250.00
60.00	1,395.00	100.00	139,500.00	2.50	348,750.00	331,312.50	17,437.50
55.00	1,180.00	100.00	118,000.00	2.50	295,000.00	280,250.00	14,750.00
50.00	980.00	100.00	98,000.00	2.50	245,000.00	232,750.00	12,250.00
45.00	780.00	100.00	78,000.00	2.50	195,000.00	185,250.00	9,750.00
40.00	530.00	100.00	53,000.00	2.50	132,500.00	125,875.00	6,625.00
35.00	415.00	100.00	41,500.00	2.50	103,750.00	98,562.50	5,187.50
30.00	285.00	100.00	28,500.00	2.50	71,250.00	67,687.50	3,562.50
25.00	-	100.00	-	2.50	-	-	-
20.00	-	100.00	-	2.50	-	-	-
TOTAL	15,220.00	100.00	1,488,875.00	2.50	3,722,187.50	3,536,078.13	186,109.38
					ratio	1:	0.05263

Reserves Calculations

CALCULATION BETWEEN SECTION E-1200 E-1300									
SL	E-1200	E-1300	AV. AREA	Sec Int.	VOLUME	Sp. Gr. / Re. Re.	TONNAGE	MINERALS @ 95%	WATER @ 5%
130.00	-	13.00	5.00	50.00	250.00	2.50	625.00	593.75	31.25
128.00	-	15.00	7.50	50.00	375.00	2.50	937.50	888.75	48.25
130.00	-	15.00	15.00	50.00	1,250.00	2.50	3,125.00	2,868.75	136.25
95.00	-	205.00	52.50	50.00	2,625.00	2.50	6,562.50	6,234.38	228.12
90.00	-	545.00	175.00	50.00	8,025.00	2.50	21,062.50	19,484.38	1,578.12
85.00	-	290.00	145.00	50.00	7,250.00	2.50	18,125.00	17,218.75	906.25
80.00	-	285.00	117.50	50.00	5,375.00	2.50	13,437.50	12,859.38	576.12
75.00	-	175.00	87.50	50.00	4,125.00	2.50	10,312.50	9,568.75	548.75
70.00	-	200.00	50.00	50.00	2,500.00	2.50	6,250.00	5,893.75	312.50
Total	-	1,835.00	442.50	50.00	16,125.00	2.50	42,812.50	39,671.38	4,144.62

CALCULATION BETWEEN SECTION E-1300 E-1400									
SL	E-1300	E-1400	AV. AREA	Sec Int.	VOLUME	Sp. Gr. / Re. Re.	TONNAGE	MINERALS @ 95%	WATER @ 5%
130.00	-	305.00	52.50	100.00	5,250.00	2.50	13,125.00	12,468.75	656.25
135.00	-	45.00	75.00	100.00	2,750.00	2.50	6,875.00	5,348.75	281.25
130.00	-	30.00	15.00	100.00	1,250.00	2.50	3,125.00	2,868.75	136.25
128.00	-	45.00	45.00	100.00	2,750.00	2.50	6,875.00	6,531.25	948.75
100.00	-	50.00	15.00	50.00	1,250.00	2.50	3,125.00	2,868.75	406.25
95.00	-	205.00	5.00	50.00	5,250.00	2.50	13,125.00	12,063.38	607.50
90.00	-	545.00	15.00	50.00	17,500.00	2.50	44,375.00	42,158.75	2,218.75
85.00	-	290.00	15.00	50.00	14,250.00	2.50	35,625.00	34,437.50	1,812.50
80.00	-	285.00	15.00	50.00	13,500.00	2.50	33,750.00	32,063.38	1,607.50
75.00	-	175.00	45.00	50.00	13,250.00	2.50	33,125.00	31,468.75	1,856.25
70.00	-	200.00	200.00	50.00	20,000.00	2.50	50,000.00	47,500.00	2,500.00
65.00	-	65.00	117.50	50.00	31,750.00	2.50	79,375.00	75,468.75	3,906.25
60.00	-	545.00	200.00	50.00	29,250.00	2.50	73,125.00	69,468.75	2,656.25
55.00	-	305.00	287.50	50.00	16,750.00	2.50	41,875.00	39,531.25	3,535.75
50.00	-	495.00	212.50	50.00	18,375.00	2.50	46,812.50	45,498.75	4,081.25
45.00	-	435.00	217.50	50.00	21,750.00	2.50	54,375.00	51,856.25	2,718.75
40.00	-	285.00	192.50	50.00	18,250.00	2.50	45,625.00	45,718.75	2,486.25
35.00	-	315.00	197.50	50.00	16,750.00	2.50	41,875.00	39,741.25	2,099.75
30.00	-	285.00	142.50	50.00	14,250.00	2.50	35,625.00	33,842.75	1,781.25
Total	-	3,621.00	4,843.00	50.00	281,250.00	2.50	728,225.00	672,718.75	55,486.25

CALCULATION BETWEEN SECTION E-1400 E-1500										
SL	E-1400	E-1500	AV. AREA	Sec Int.	VOLUME	Sp. Gr. / Re. Re.	TONNAGE	MINERALS @ 95%	WATER @ 5%	
130.00	105.00	-	52.50	100.00	5,250.00	2.50	13,125.00	12,468.75	656.25	
133.00	45.00	-	22.50	100.00	2,450.00	2.50	6,125.00	5,848.75	281.25	
130.00	15.00	15.00	12.50	100.00	1,250.00	2.50	3,125.00	2,868.75	136.25	
125.00	40.00	25.00	20.50	100.00	2,750.00	2.50	6,875.00	6,306.25	468.75	
100.00	50.00	45.00	37.50	100.00	5,750.00	2.50	14,375.00	13,958.75	400.75	
95.00	-	200.00	52.50	100.00	5,250.00	2.50	13,125.00	12,468.75	656.25	
90.00	-	33.00	115.00	52.50	3,350.00	2.50	8,375.00	7,848.75	281.25	
85.00	-	215.00	107.50	50.00	13,750.00	2.50	34,375.00	33,531.25	1,548.75	
80.00	-	23.00	23.00	100.00	12,750.00	2.50	31,875.00	30,381.25	1,588.75	
75.00	-	275.00	140.00	100.00	18,000.00	2.50	45,000.00	43,750.00	2,250.00	
70.00	-	200.00	375.00	100.00	42,750.00	2.50	106,875.00	103,306.25	5,468.75	
65.00	-	525.00	525.00	100.00	52,250.00	2.50	131,250.00	127,156.25	2,238.75	
60.00	-	585.00	480.00	52.50	50,750.00	2.50	126,875.00	120,531.25	6,348.75	
55.00	-	525.00	245.00	446.00	100.00	44,080.00	2.50	110,000.00	104,500.00	5,580.00
50.00	-	485.00	380.00	382.50	100.00	18,350.00	2.50	95,875.00	90,848.75	4,781.25
45.00	-	405.00	213.00	212.50	100.00	22,250.00	2.50	80,625.00	76,500.25	4,001.25
40.00	-	265.00	145.00	166.00	100.00	35,500.00	2.50	86,250.00	81,882.50	2,692.50
35.00	-	195.00	80.00	307.50	100.00	30,750.00	2.50	51,875.00	49,388.75	2,598.75
30.00	-	265.00	140.00	242.50	100.00	14,250.00	2.50	35,625.00	33,842.75	1,781.25
Total	-	4,569.00	1,610.00	1,875.00	306.00	912,500.00	3,80	993,750.00	944,842.50	48,887.50



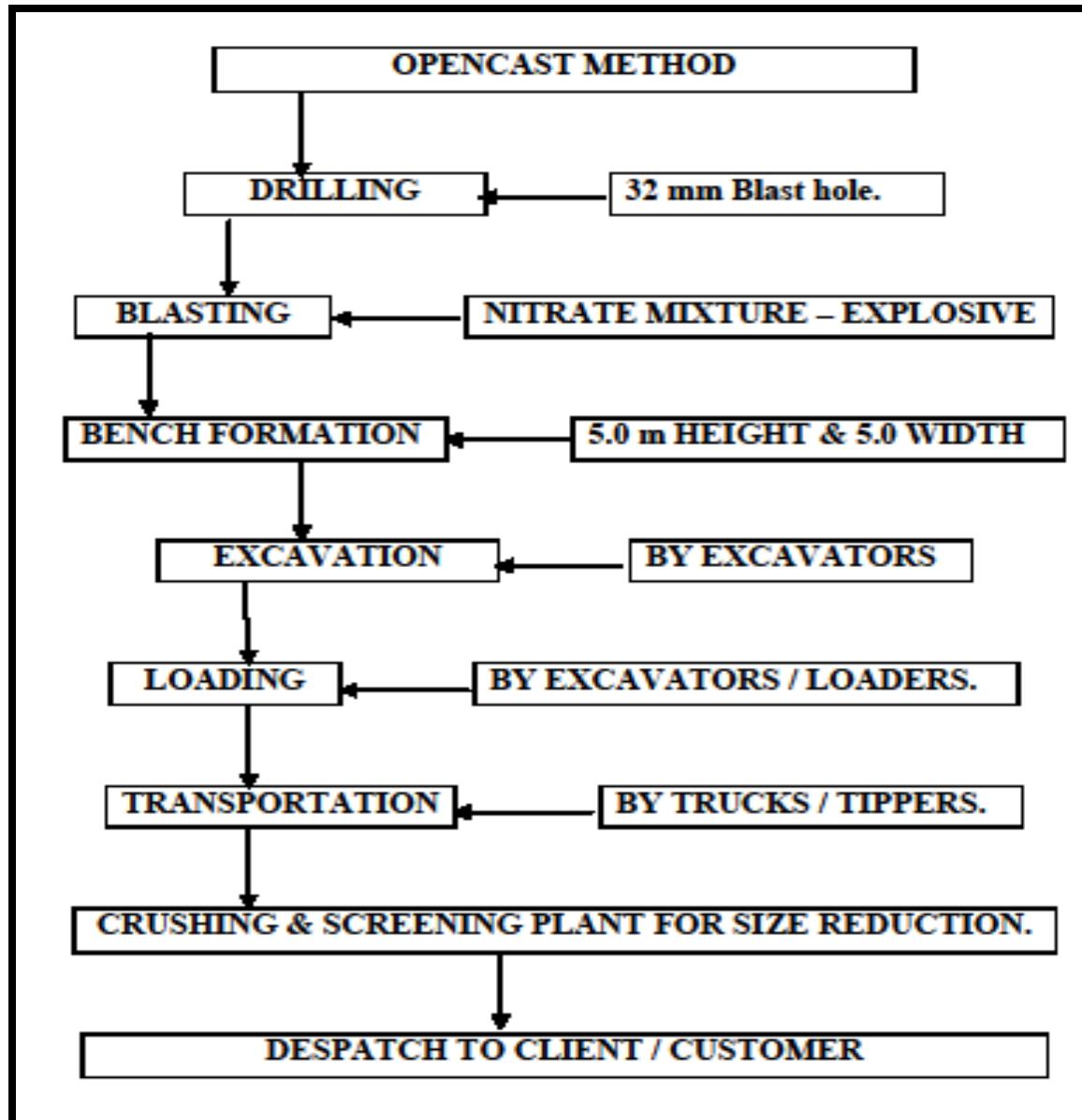
Reserves Calculations

CALCULATION BETWEEN SECTION E : 500 E:600				Sec Int.	VOLUME	Sp. Gr. / Bu. Dn	TONNAGE	MINEABLE @ 95 %	WASTE @ 5 %
B.L	E : 500	E:600							
120.00	-	5.00	2.50	100.00	250.00	2.50	625.00	593.75	31.25
115.00	-	85.00	42.50	100.00	4,250.00	2.50	10,625.00	10,093.75	531.25
110.00	10.00	200.00	105.00	100.00	10,500.00	2.50	26,250.00	24,937.50	1,312.50
105.00	35.00	340.00	187.50	100.00	18,750.00	2.50	46,875.00	44,531.25	2,343.75
100.00	60.00	455.00	257.50	100.00	25,750.00	2.50	64,375.00	61,156.25	3,218.75
95.00	100.00	480.00	290.00	100.00	29,000.00	2.50	72,500.00	68,875.00	3,625.00
90.00	115.00	520.00	317.50	100.00	31,750.00	2.50	79,375.00	75,406.25	3,968.75
85.00	215.00	570.00	392.50	100.00	39,250.00	2.50	98,125.00	93,218.75	4,906.25
80.00	220.00	615.00	417.50	100.00	41,750.00	2.50	104,375.00	99,156.25	5,218.75
75.00	270.00	625.00	447.50	100.00	44,750.00	2.50	111,875.00	106,281.25	5,593.75
70.00	575.00	555.00	565.00	100.00	56,500.00	2.50	141,250.00	134,187.50	7,062.50
65.00	520.00	465.00	492.50	100.00	49,250.00	2.50	123,125.00	116,968.75	6,156.25
60.00	430.00	380.00	405.00	100.00	40,500.00	2.50	101,250.00	96,187.50	5,062.50
55.00	345.00	300.00	322.50	100.00	32,250.00	2.50	80,625.00	76,593.75	4,031.25
50.00	280.00	215.00	247.50	100.00	24,750.00	2.50	61,875.00	58,781.25	3,093.75
45.00	210.00	135.00	172.50	100.00	17,250.00	2.50	43,125.00	40,968.75	2,156.25
40.00	145.00		72.50	100.00	7,250.00	2.50	18,125.00	17,218.75	906.25
35.00	80.00		40.00	100.00	4,000.00	2.50	10,000.00	9,500.00	500.00
Total	3,610.00	5,945.00	4,777.50	100.00	477,750.00	2.50	1,194,375.00	1,134,656.25	59,718.75

CALCULATION BETWEEN SECTION E:600 E:700				Sec Int.	VOLUME	Sp. Gr. / Bu. Dn	TONNAGE	MINEABLE @ 95 %	WASTE @ 5 %
B.L	E:600	E:700							
120.00	5.00		2.50	100.00	250.00	2.50	625.00	593.75	31.25
115.00	85.00		42.50	100.00	4,250.00	2.50	10,625.00	10,093.75	531.25
110.00	200.00		100.00	100.00	10,000.00	2.50	25,000.00	23,750.00	1,250.00
105.00	340.00		170.00	100.00	17,000.00	2.50	42,500.00	40,375.00	2,125.00
100.00	455.00		227.50	100.00	22,750.00	2.50	56,875.00	54,031.25	2,843.75
95.00	480.00		240.00	100.00	24,000.00	2.50	60,000.00	57,000.00	3,000.00
90.00	520.00		260.00	100.00	26,000.00	2.50	65,000.00	61,750.00	3,250.00
85.00	570.00		285.00	100.00	28,500.00	2.50	71,250.00	67,687.50	3,562.50
80.00	615.00		307.50	100.00	30,750.00	2.50	76,875.00	73,031.25	3,843.75
75.00	625.00		312.50	100.00	31,250.00	2.50	78,125.00	74,218.75	3,906.25
70.00	555.00		277.50	100.00	27,750.00	2.50	69,375.00	65,906.25	3,468.75
65.00	465.00		232.50	100.00	23,250.00	2.50	58,125.00	55,218.75	2,906.25
60.00	380.00		190.00	100.00	19,000.00	2.50	47,500.00	45,125.00	2,375.00
55.00	300.00		150.00	100.00	15,000.00	2.50	37,500.00	35,625.00	1,875.00
50.00	215.00		107.50	100.00	10,750.00	2.50	26,875.00	25,531.25	1,343.75
45.00	135.00		67.50	100.00	6,750.00	2.50	16,875.00	16,031.25	843.75
Total	5,945.00	-	2,972.50	100.00	297,250.00	2.50	743,125.00	705,968.75	37,156.25



Process Flow Chart of Quarry Operation



Proposed Production for next Five year.

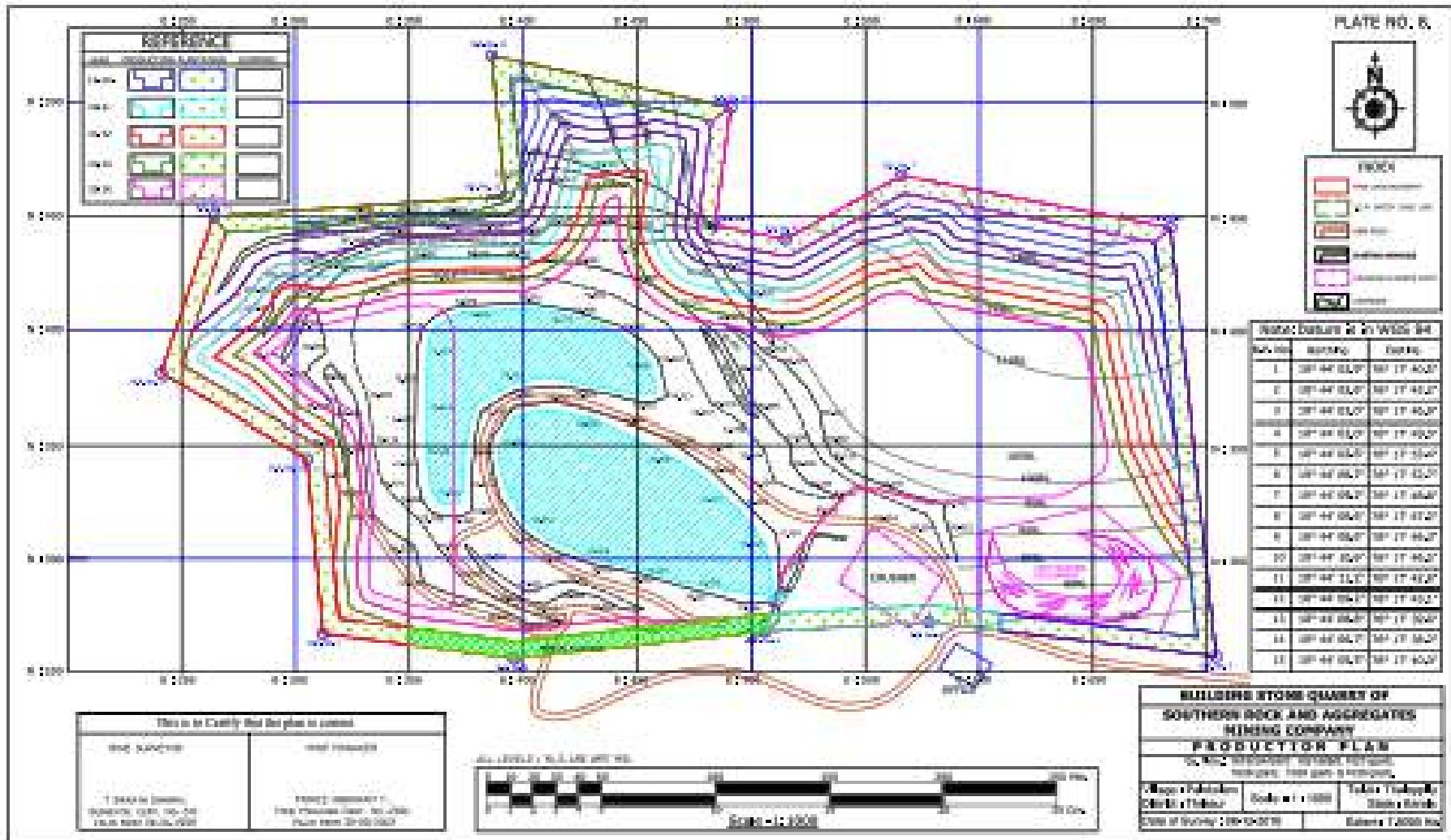
Unit in Tonnes			
Year	ROM	Waste	Strip Ratio
1st Year 2019 - 20	2,99,547	15,766	1: 0.05
2nd Year 2020 - 21	2,97,469	15,656	1: 0.05
3rd Year 2021- 22	2,99,844	15,781	1: 0.05
4th year 2022 - 23	2,99,547	15,766	1: 0.05
5th year 2023 - 24	2,98,359	15,703	1: 0.05
Total	14,94,766	78,672	1: 0.05

Proposed Production for next Successive block of Five year.

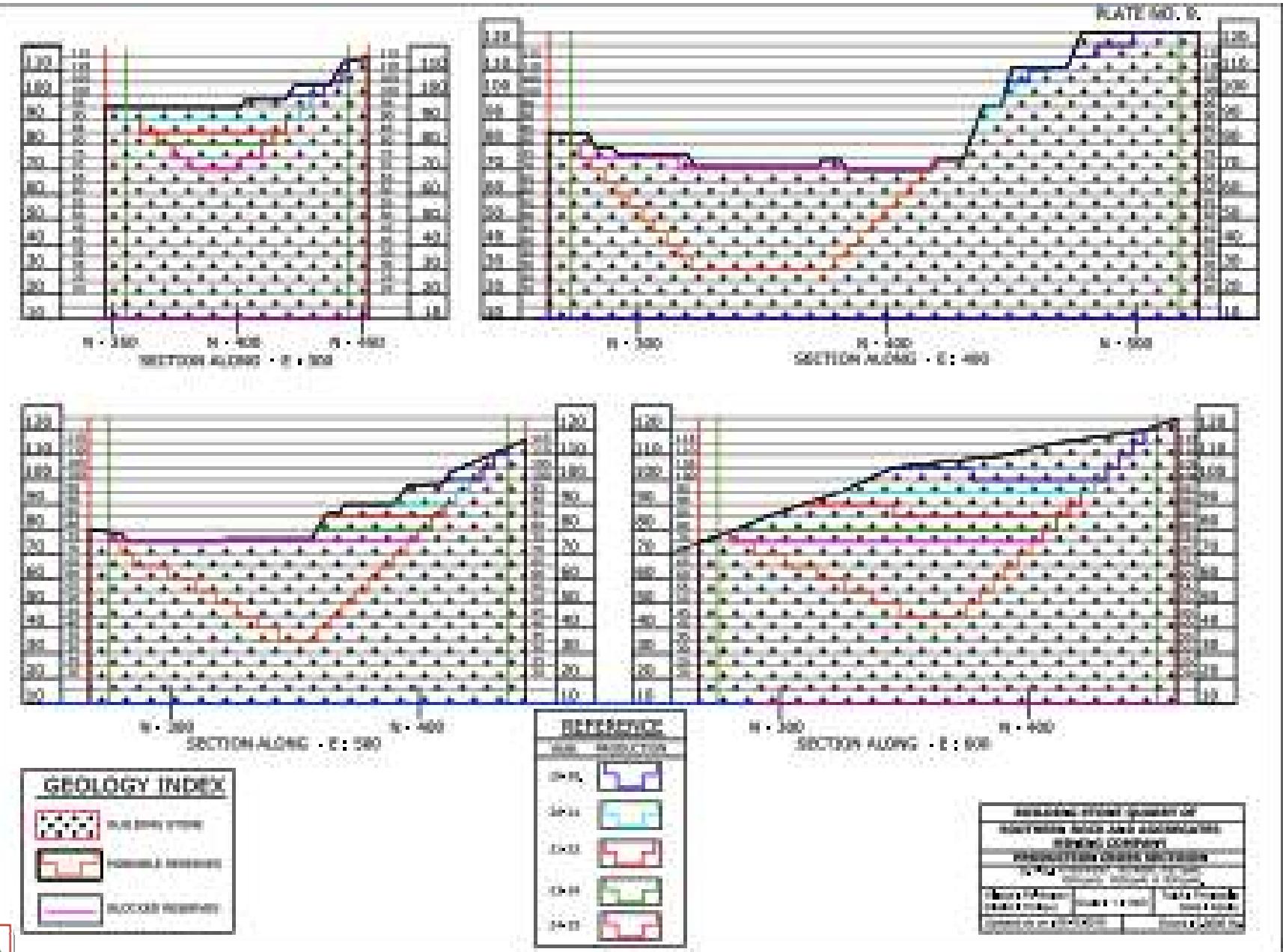
Qty in tonnes	
Block of five years	Proposed Production
1 st block of 5 year 2019 – 20 to 2023 – 24	14,94,766
2 nd block of 5 year 2024 – 25 to 2028 – 29	15,00,000
3 rd block of 5 year 2029 – 30 to 2033 – 34	5,41,312
Total	35,36,078



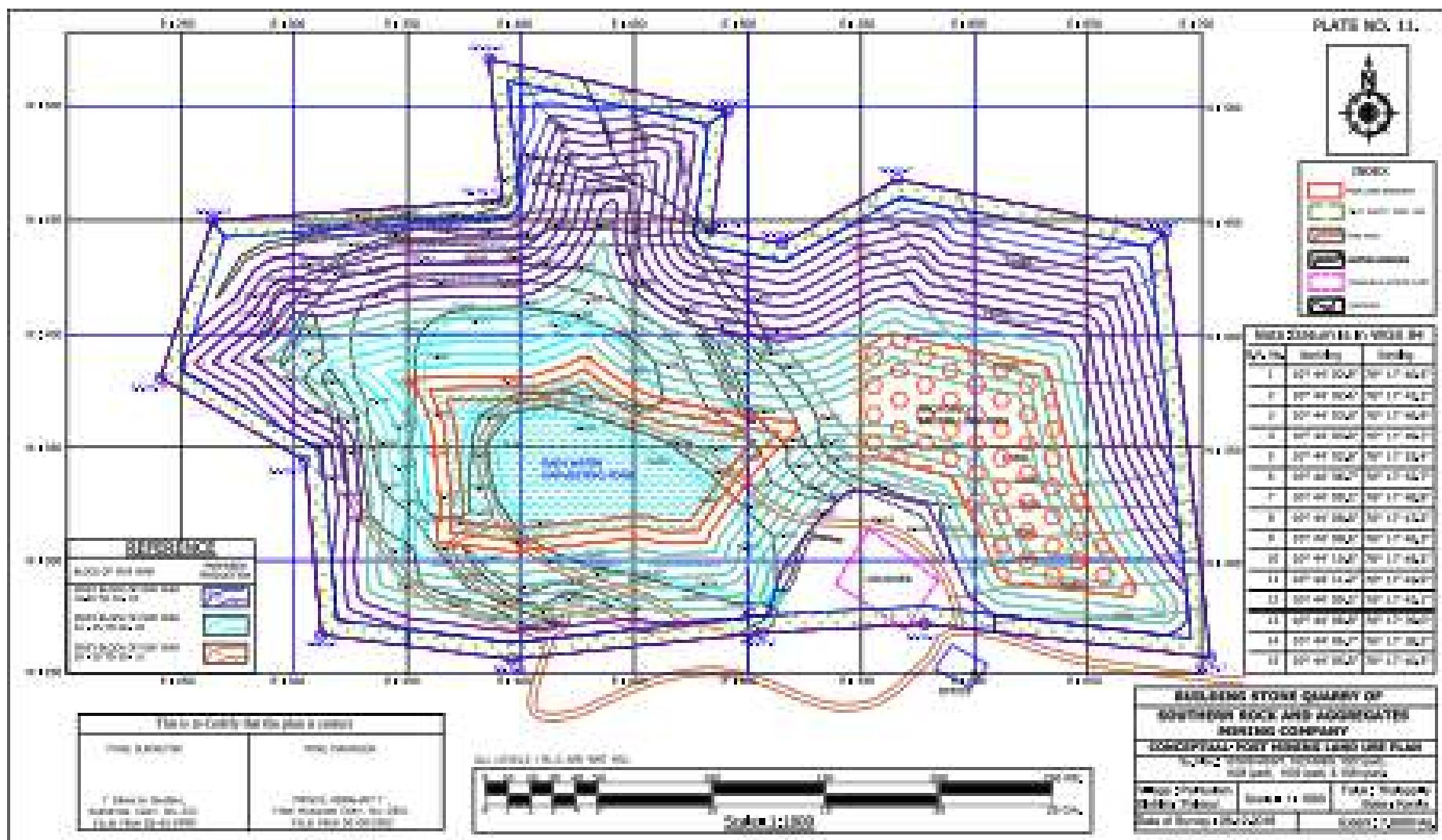
Production plan – proposed five years



Production Cross sections



Conceptual Plan



STATUS OF COMPLIANCE TO EC CONDITIONS



Compliance to EC Conditions

(i) Rain Water Harvesting capacity should be installed as per the prevailing provisions of KMBR / KPBR, unless otherwise specified elsewhere.

Rain Water Harvesting pits is provided to collect the rain water as per the KMNR /KPBR.



(ii) Environmental Monitoring Cell as agreed under the affidavit filed by the proponent should be formed and made functional.

Environmental Monitoring Cell headed by Quarry / Mines Manager along with qualified Environmental Consultant / Engineers is being engaged for effective implementation of the pollution control measures.



Compliance to EC Conditions - Contd.,

(iii) Suitable avenue trees should be planted along either side of the tarred road and open parking areas, if any, inclusive of approach road and internal roads.

Avenue trees planted either side of the road, approach road and internal roads. The photographs of the same shown below:



Compliance to EC Conditions - Contd.,

(iv) The project shall incorporate devices for solar energy generation and utilization wherever possible.

Installation of solar lights and Surveillance cameras on the parking area/approach roads has been initiated and much more lights will be installed on roads in near future.



Compliance to EC Conditions - Contd.,

(v) Sprinkles shall be installed and used in the project site to contain dust emissions.
Sprinklers are installed in the project site and also outside the project site to minimize the dust emission from the process and vehicles. Photographs for the same are enclosed herewith.



Compliance to EC Conditions - Contd.,

(vi) The eco-restoration plan submitted with the proposal should be fully implemented.

Eco-restoration plan as per the Post Mine Closure Plan Will be Implemented in the quarry as per the plan submitted. However plantation, protective bunds and etc., has been carried out few photographs of the same is shown in below :



Compliance to EC Conditions - Contd.,



Photographs showing the plantation within quarry on road and safety buffer (7.50 mts)



Compliance to EC Conditions - Contd.,



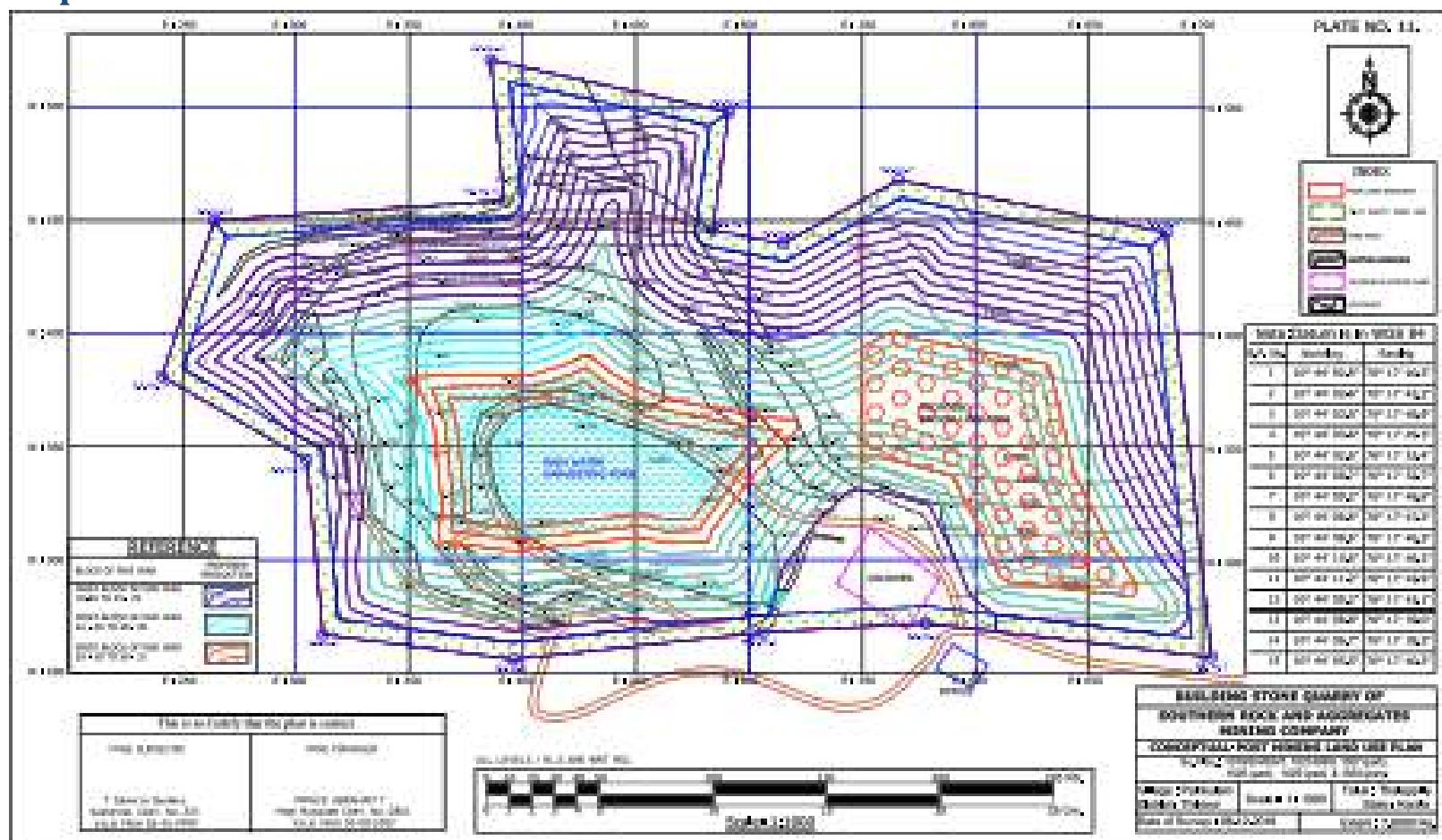
PHOTOGRAPHS SHOWING THE PROTECTIVE AND SAFETY MESURES





(vii) At least 10 percent of the total excavated pit area should be retained as water storage area and the remaining area should be reclaimed with stacked dumping and overburden and planted with indigenous plant species that are eco-friendly.

It is proposed to convert 1.00 ha of excavated pit area (out of 7.80 ha of total area which is 13%) for water storage and 0.75 Ha for back filling of waste. This will be done at the final stage of the quarry closure. The same is dealt in the approved mining plan. Conceptual Plan is shown below:



Compliance to EC Conditions - Contd.,

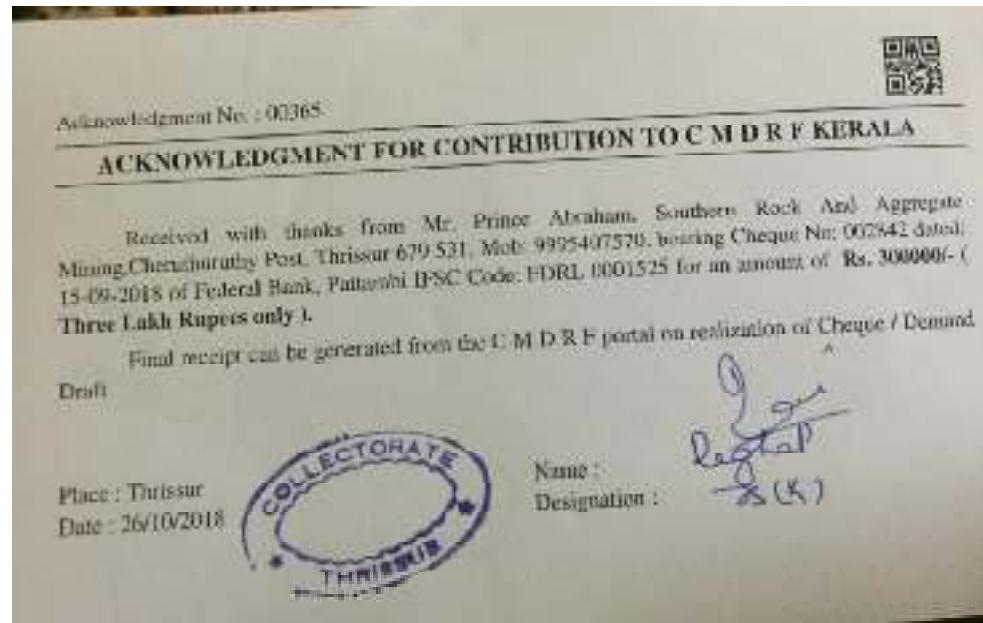
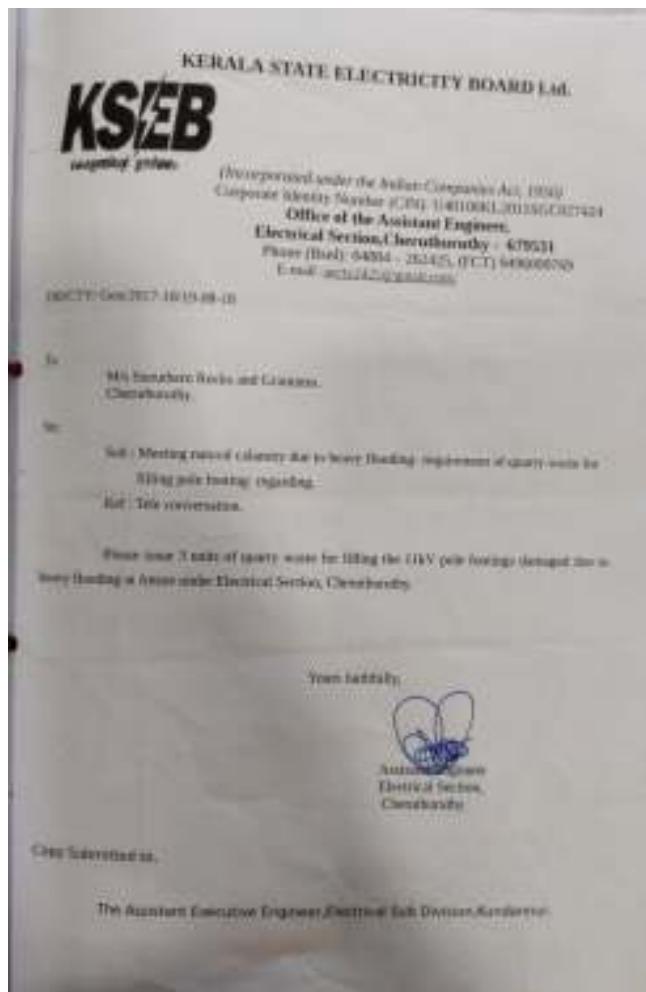
(viii) Corporate Social Responsibility (CSR) agree upon by the proponent should be implemented in tune with the conditions specified in the Companies Act, 2013.

As a Corporate Social Responsibility, management has initiated and taken up the following works towards social commitment:

1. Supply of waste material to KSEB for filling the 11 kv poles , damaged due to natural calamity.
3. Contribution to CM Disaster Relief Fund Rs. 3,00,000/-
4. Supply of material towards Flood relief
5. Supply of Cargo Van (Battery Operated)to Mental Hospital - Thrissur
6. Supply of road metal to Shoranur municipality to repair the damaged road due to floods.
7. Supply of quarry waste to Panjal Gramma Panchayat, Shoranur Police station to repair the damaged road due to floods.
8. Similarly, quarry waste was supplied for few local panchayat, local person to rectify their damaged structure due to floods.
9. Distribution of Tab / TV for students during the pandemic situation to attend their online classes.
10. Distribution of food grains / groceries to the needy people at Panjal during the pandemic situation.
11. Renovation / repair of three houses through local panchayat for needy people by supplying the required materials.



Compliance to EC Conditions - Contd.,



Compliance to EC Conditions - Contd.,



മാനസികാരാധാരം ആര്യുപത്രിയിൽ വെച്ചുതി വാസ്



After the first year, the first-year students will be assigned to a dormitory, and other students will be assigned to a dormitory.

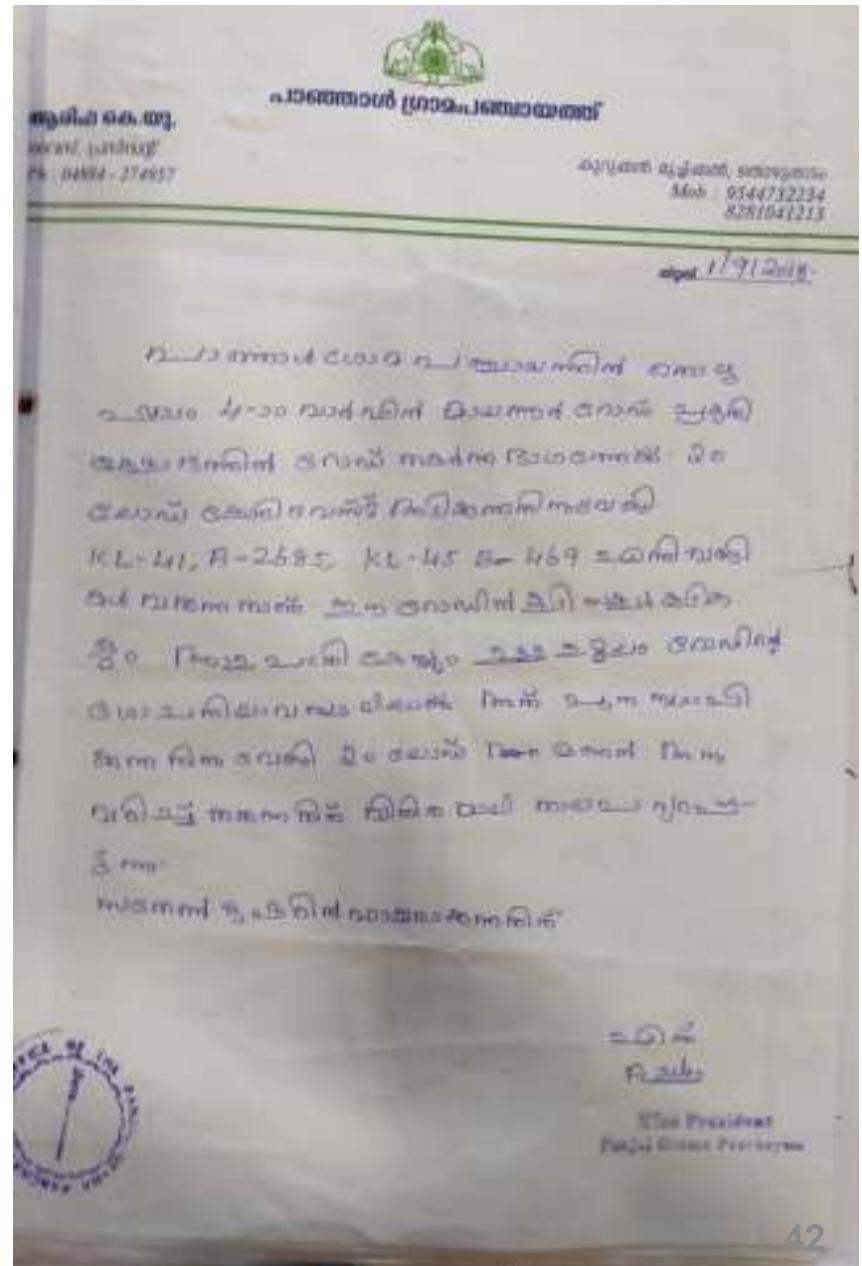
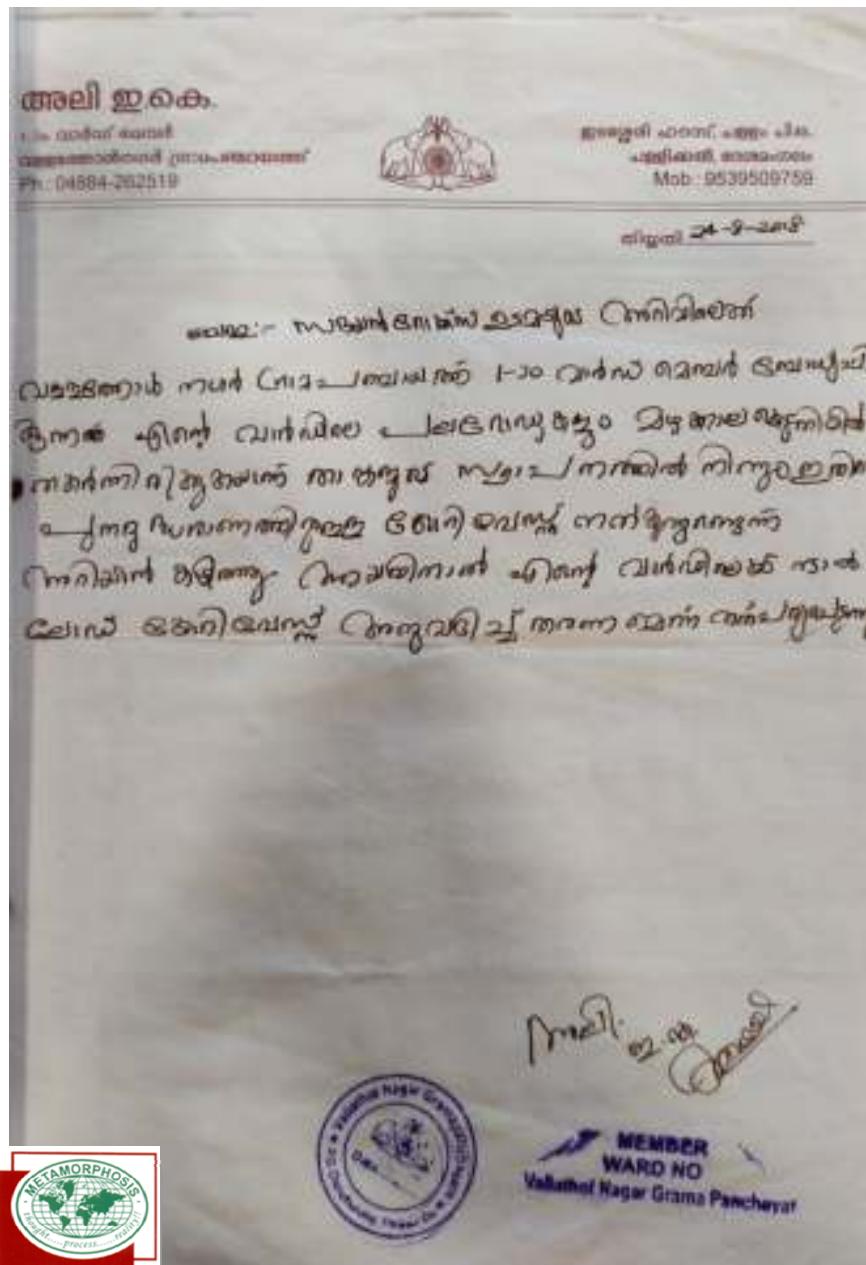
• **advertisers** have been using their
advertising media to capture
audience more accurately, which
means more efficient, better quality
advertising.



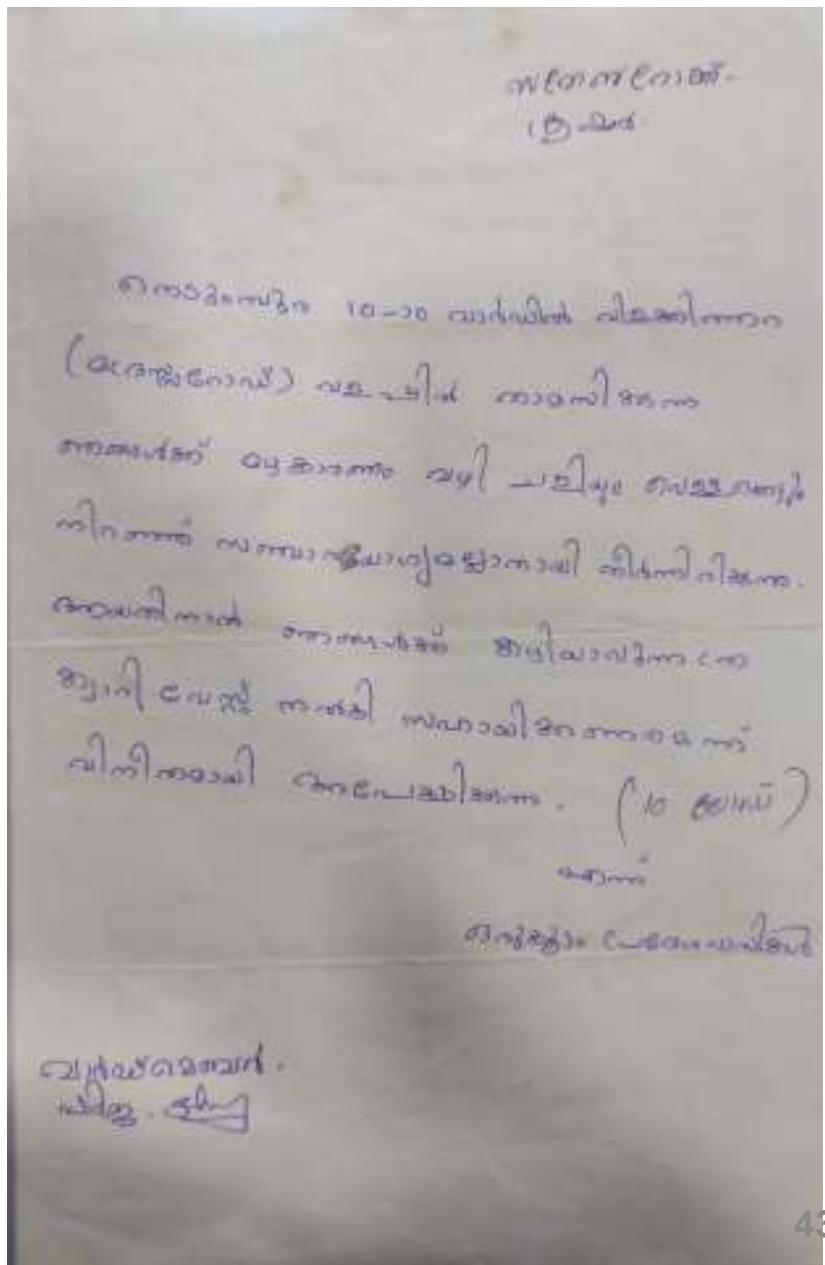
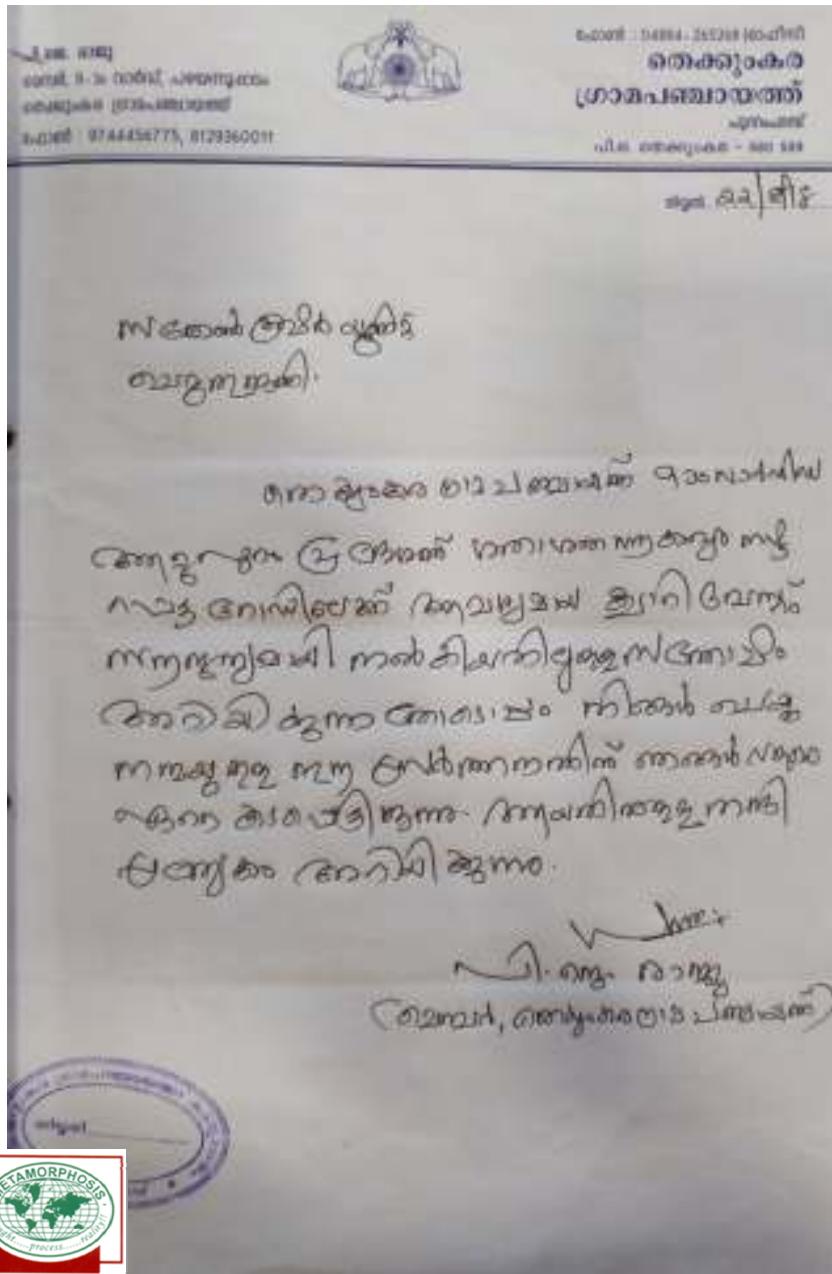
Compliance to EC Conditions - Contd.,

கலைஞரின் பாந்தி காம் ஜான் (காலைஞர்)
கலைஞர் பாந்தி காம் ஜான்
பிரதிவேலி முன் - 100 100
திங்கள் 3-4. 2010

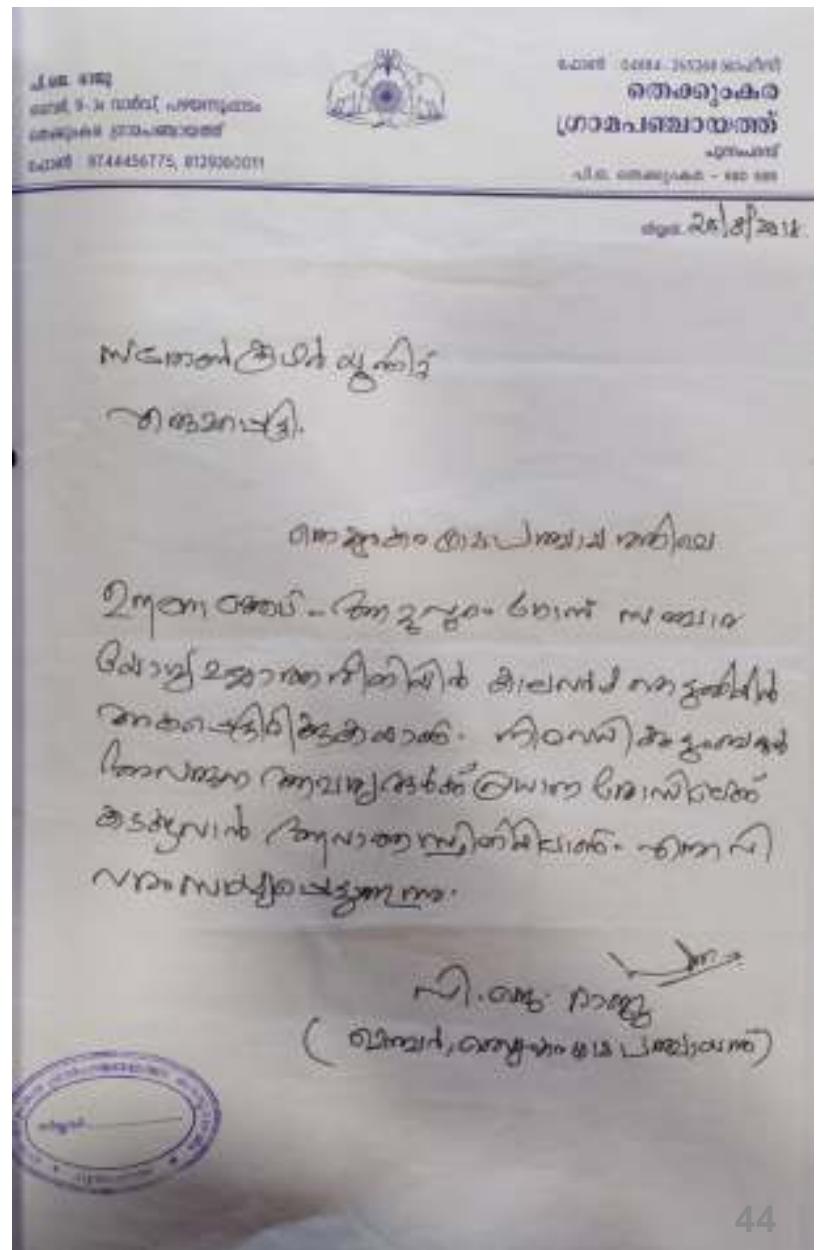
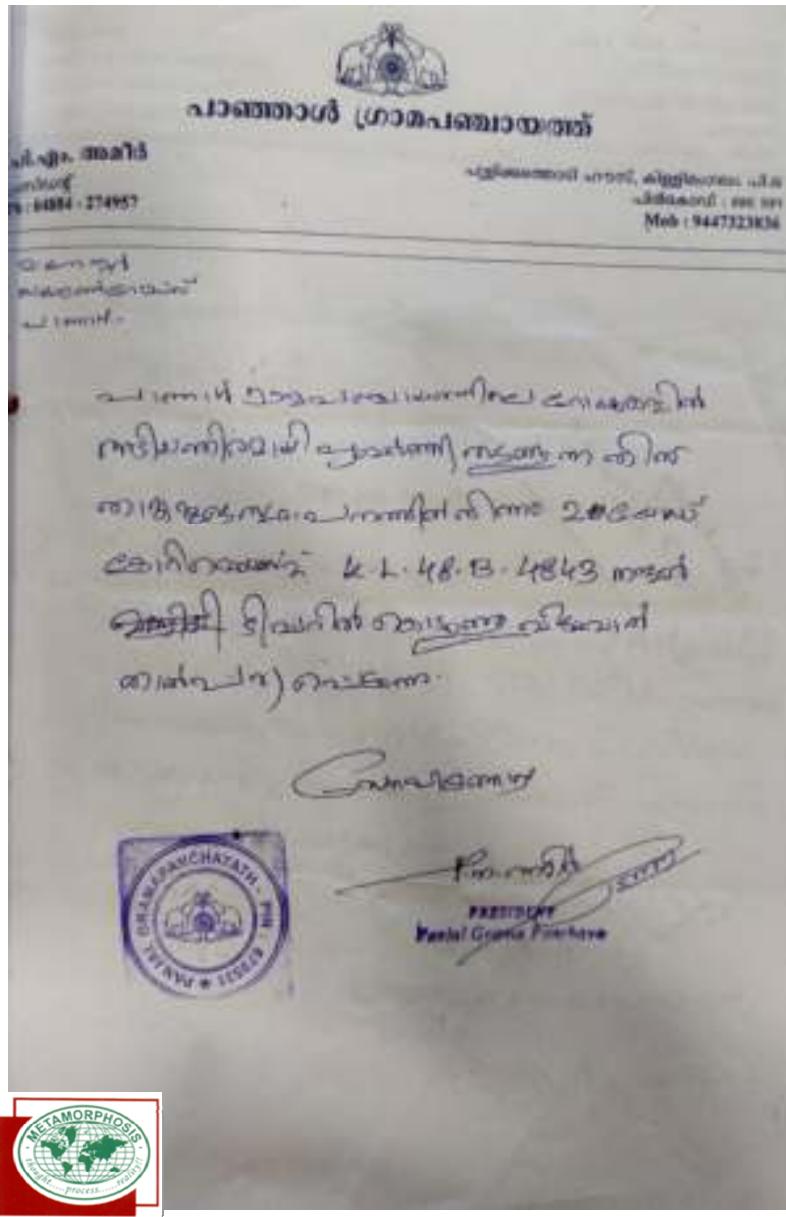
Compliance to EC Conditions - Contd.,



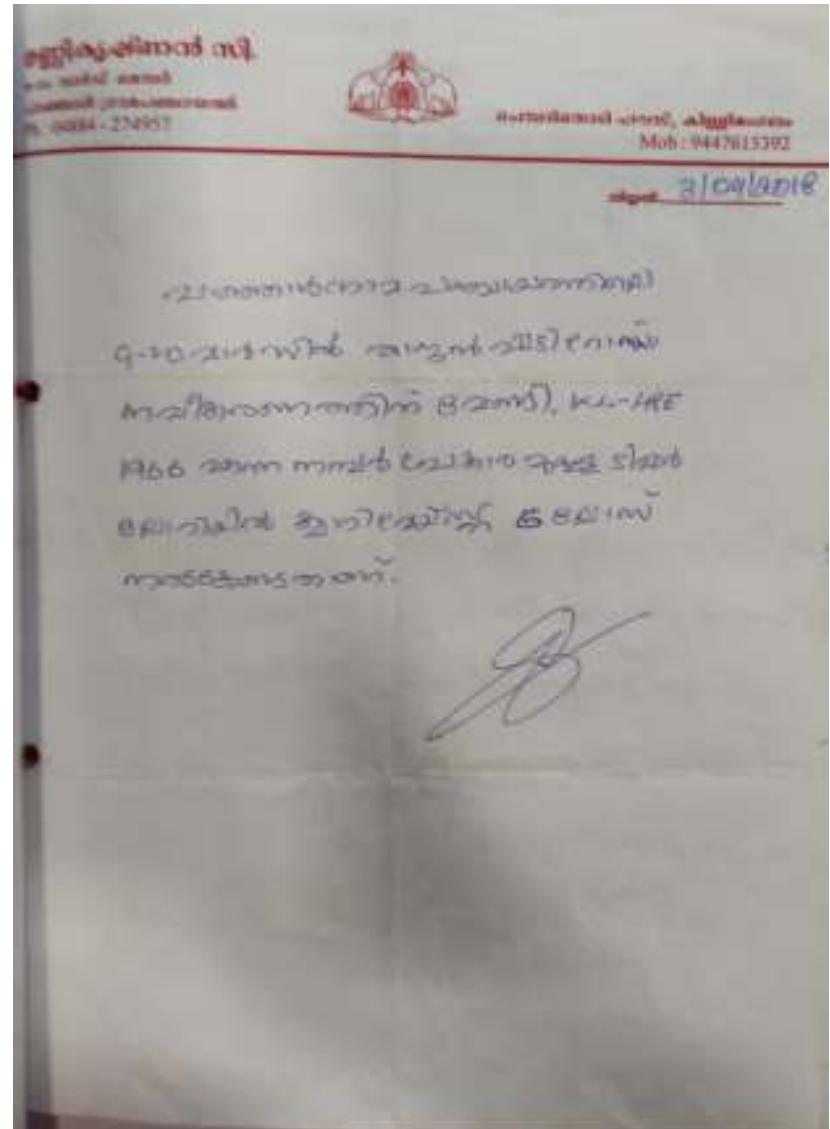
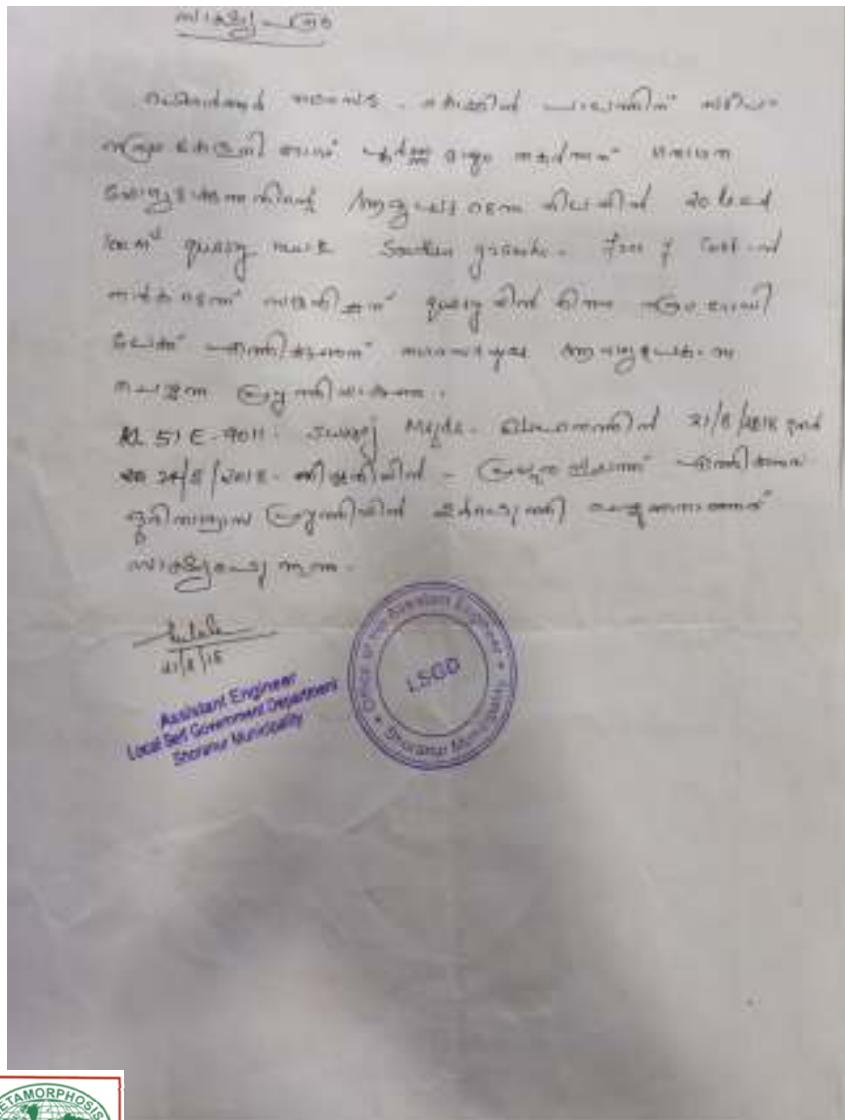
Compliance to EC Conditions - Contd.,



Compliance to EC Conditions - Contd.,



Compliance to EC Conditions - Contd.,



Compliance to EC Conditions - Contd.,

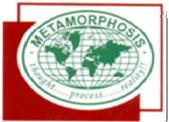


Photograph showing the Distribution of Tab / TV for students during the pandemic situation to attend their online classes.

Distribution of food grains / groceries to the needy people at Panjal during the pandemic situation.



Renovation / repair of three houses through local panchayat for needy people by supplying the required materials.



Compliance to EC Conditions - Contd.,

(ix) – Lease area shall be fenced off with barbed wire to a maximum height of 4 ft around, before starting the mines. Fencings all around the boundary of quarrying area has been provided.



(x) - Warning alarms indicating the time of blasting (to be done specific timing) has to be arranged as per stipulations of Explosive Department.

As per the stipulations of Explosive Department the warning alarms is being given during the blasting time and it is ensured that no person shall enter the premises at this time.

(xi) - Control measure for noise and vibration prescribed by SPCB - Kerala should be implemented

All the necessary measures are implemented to control noise and vibration as per KSPCB guidelines



Compliance to EC Conditions - Contd.,

(xii) - Quarrying activities should be implemented to day time as per KSPCB guidelines.

Quarrying activities are restricted to only day time as per the KSPCB Guidelines.

(xiii) - Blasting should be done in a controlled manner as specified by the regulations of Explosives Department or any other concerned agency.

Controlled blasting is being followed / practiced as per regulation of explosive department under the supervision of competent persons. Blasting Time 10.0 AM to 10.30 AM & 1.00 PM to 1:30 PM

(xiv) - A licensed person should supervise/ control the blasting operations

Having one competence mines manger, second class manager, foreman and two mates.

(xv) - Access road to the quarry shall be tarred to contain dust emission that may arise during transportation of materials.

Access road has been tarred and maintained effectively. and also the avenue plantation has been carried out.



Compliance to EC Conditions - Contd.,



Photographs showing the roads
asphalted



Compliance to EC Conditions - Contd.,

(xvi) - Overburden materials should be managed within the site and the old quarries, if any, should be reclaimed and restored

Overburden material has been stacked inside the quarry and the same will be utilized to back fill the mined out area during the mine closure.

(xvii)- Height of benches should not exceed 5m and width should not be less than 5 m.

Height of the benches are maintained such that it is not exceeding 5m similarly width of the benches are not less than 5 m.



(xviii) - Mats to reduce fly rocks blast to a maximum of 10 PPV should be provided.

Mats to reduce the fly rocks blast to a maximum of 10 PP has been provided.



Compliance to EC Conditions - Contd.,

(xix) - Maximum depth of mining from general ground level at site shall not exceed 10 m.

(xx) - No mining operations should be carried out at places having a slope greater than 45° .

(xxi) - Acoustic enclosures should have been provided to reduce sound amplification in addition to the provisions of green belt and hollow brick envelop for crushers to that the noise level is kept within prescribed standards given by CPCB/KSPCB.

(xxii) - The workers on the site should be provided with the required protective equipments such as ear muffs, helmets, etc. It is ensured that, the PPE are provided to all the workers on site

It is ensured that, no mining operations shall exceed below 10 m from the general ground level..

It is ensured that, no mining operations shall be carried out at places having a slope greater than 45°

In the crushing units, entire activity is made in-house and Closed Conveyor System is practiced by constructed with hollow bricks wall and regular monitoring is being carried-out.



Compliance to EC Conditions - Contd.,

(xxiii) - Garland drains with clarifiers to be provided in the lower slopes around the core area to channelize storm water.

In the crushing units, entire activity is made in-house and Closed Conveyor System is practiced by constructed with hollow bricks wall and regular monitoring is being carried-out.



(xxiv) - The transportation of minerals should be done in covered trucks to contain dust emissions

Transportation trucks carrying minerals is covered to contain dust emission



(xxv) - The proponent should plant trees at least 5 times of the loss that has been occurred while clearing the land for the project. It is ensured that, it will be planted 5 times of the loss that has been occurred while clearing.

Compliance to EC Conditions - Contd.,

(xxvi) - Disposal of spent oil from diesel engines should be as specified under relevant Rules/ Regulations.

Spent oil from diesel engines will be stored in the empty barrel and the same will be sold to the approved / authorized recycler / processors as per HMW Rules, 2016.

(xxvii) - Explosives should be stored in a magazines in isolated place specified and approved by the Explosives Department.

Explosives will be stored in a magazine at isolated places with a stipulated safety distance from quarry area, nearest dwelling and any other structure. It will be transported, handled and used in accordance with Indian Explosive Act 1884, MSIHC Rules 1989, Mines Act, 1952 and regulations there under.CAM

(xxviii) - A minimum buffer distance of 100 m from the boundary of the quarry to the nearest dwelling unit or other structures, not being any facility for mining shall be provided.

Minimum buffer distance of 100 m from the boundary area to the nearest dwelling unit or any other structures has been left.

(xxix) - 200 m buffer distance should be maintained from forest boundaries.

200 mts buffer distance has been maintained from the forest boundaries.



Compliance to EC Conditions - Contd.,

(xxx) - Consent from Kerala State Pollution Control Board under Water and Air Act (s) should have been obtained before initiating activity.

Consent from Kerala State Pollution Control Board under water and Air Act has been obtained and renewed regularly.



Compliance to EC Conditions - Contd.,

(xxxi) - All other statutory clearance should have been obtained, as applicable, by project proponent from the respective competent authorities including that for blasting and storage of explosives.

All the statutory clearances / permissions which are applicable are obtained eg. Explosive license, Consent form KSPCB and etc.,

(xxxii) - In the case of any change(s) in the scope of the project, that project would require a fresh appraisal by this authority.

No changes in the scope of the project hence the same is not applicable.

(xxxiii) - The Authority reserves the right to add additional safeguards measures subsequently, if found necessary, and take actions including revoking of the Environment clearance under the provisions of the Environment (Protection) Act 1986, to ensure effective implementation of the suggested safeguards measures in a time bound and satisfactory manner.

NOT APPLICABLE



Compliance to EC Conditions - Contd.,

(xxxiv) - The stipulations by Statutory Authorities under different Acts and notifications should be complied with, including the provisions of Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act 1981, the Environment (protection) Act 1986, the Public liability (Insurance) Act 1991 and EIA Notification, 2006.

The stipulations laid down by the Statutory Authorities under different Acts and notifications is being complied with, including the provisions of Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act 1981, the Environment (protection) Act 1986, the Public liability (Insurance) Act 1991 and EIA Notification, 2006.

(xxxv) - The Project proponent should advertise in at least two local newspapers widely circulated in the region, one of which shall be in vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the Department of Environment and Climate Change, Govt. of Kerala and may also be seen on the website of the Authority at www.seiaakerala.org. The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the office of this Authority as confirmation.

It has been published in two local news paper namely : English version in HINDU and Malayalam version in MALAYALA MANORAMA



Compliance to EC Conditions - Contd.,

(xxxvi) – The copy of the clearance letter shall be sent by the proponent to concerned Grama Panchayat / District Panchayat / Municipality/Corporation/Urban local body and also to the Local NGO, if any, from whom suggestions / representations, if any, are received while processing the proposal. The Clearance letter shall also be put on the website of the company by the proponent.

The copy of the clearance letter has been submitted to concerned Grama Panchayat / District Panchayat / Municipality/Corporation/Urban local body and also to the Local NGO, if any, from whom suggestions / representations, if any, are received while processing the proposal. The Clearance letter shall also be put on the website of the company by the proponent.

(xxxvii) – The Proponent shall submit half yearly reports on the status of compliance of the stipulated EC conditions including results of monitored data **(both in hard copies as well as by e-mail)** and upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the respective Regional office of MoEF, Govt. of India and also to the Directorate of Environment and Climate Change, Govt. of Kerala.

Half yearly compliance report is being submitted to Regional office of MoEF & CC, Government of India and also to the Director of Environment and Climate Change, Government of Kerala.



Compliance to EC Conditions - Contd.,

(xxxviii) - The conditions of Environmental Clearance should be prominently displayed in a metallic board of 3 ft X 3 ft. with green background and yellow letters of Times New Roman font of size of not less than 40.

The conditions of Environment Clearance has been displayed in a metallic board at entrance of the quarry area.



Sl No	License	Number	Issue Date	Validity
1	Environmental Clearance	Na/185/MEIAHQ/1/163/9814	4/5/2014	20 Years
2	Mining Lease Area (3.8 Hectares)	Na/830/2014-TS/1794/93/2015	1/7/2015	12 Years
3	GST	SEMURPT1245L125	7/1/2017	
4	Pollution Control Board			
4.1	Quarry	Na/PCB/00/118/94/1CD/304/2017	5/6/2017	3 years
4.2	Crusher	Na/PCB/00/258/94/1CD/304/2018	8/12/2018	3 Years
5	Explosive License	Na/ISG/IL/23/947/94/147	1/26/2019	3 Years
6	Biocides License	CI-CL/946/2019/2019-39-114	4/5/2019	3 Years
7	Facility Compounded	Na/1806/M/1/2615	3/23/2019	Every Year
8	Permit Manager	PRINCE ABBUAR		

(xxxix) - The proponent should provide notarized affidavit (including the number and date of environmental clearance proceedings) that all conditions stipulated in the EC shall be scrupulously followed.

Notarized affidavit has been submitted stating that all EC conditions will be followed.

Amount spent towards CER / CSR activities.

SOUTHERN ROCK & AGGREGATES MINING COMPANY		
Below table shows the CSR / CER amount spent		
Year	2017-18	Amount in INR
1	Donation to Kidney Federation	50,000.00
2	Distribution of school kit to students at Government schools	40,000.00
3	Contribution towards road repairs through panchayath.	100,000.00
4	Donations to the Orphanages & Patients - Tribel group	85,000.00
5	Onam Kit Distribution	50,000.00
6	Supply of aggregates for construction to the needy peoples nearby	100,000.00
7	Contribution towards renovation / repair of Church / Masjid / Temple and local festivals	150,000.00
	Total	575,000.00

SOUTHERN ROCK & AGGREGATES MINING COMPANY		
Below table shows the CSR / CER amount spent		
Year	2018-19	Amount in INR
1	CM Disaster Relief Fund during Floods	300,000.00
2	Distribution of school kit to students at Government schools	50,000.00
3	Contribution towards road repairs through panchayath.	150,000.00
4	Donations to the Orphanages & Patients - Deshmangalam	88,000.00
5	Onam Kit Distribution	80,000.00
6	Supply of aggregates for construction to the needy peoples nearby	125,000.00
7	Contribution towards renovation / repair of Church / Masjid / Temple and local festivals	250,000.00
	Total	1,043,000.00

Year	2019-20	Amount in INR
1	Eletric Van Donated to Mental Hospital Thrissur	200,000.00
2	Distribution of school kit to students at Government schools	50,000.00
3	Contribution towards road repairs through panchayath.	180,000.00
4	Contribution towards renovation / repair of Church / Masjid / Temple and local festivals	325,000.00
5	Supply of aggregates for construction to the needy peoples nearby	225,000.00
6	Donations to the Orphanages & Patients Tribels group	50,000.00
7	supply of food grains to the needy people in nearby villages	50,000.00
	Total	1,080,000.00

Year	2020-21	Amount in INR
1	Tv / Tab Donation for school children during pandemic situation	75,000.00
2	Towards Coats / matteress for setting up first line Covid centre at Thrissur & COVID PPE's	200,000.00
3	Contribution towards road repairs through panchayath.	200,000.00
4	Contribution towards renovation / repair of Church / Masjid / Temple and local festivals	200,000.00
5	Supply of aggregates for construction to the needy peoples nearby	150,000.00
6	Donations to the Orphanages & Patients - Deshmangalam	30,000.00
7	Contribution towards Renovation / Repair of three houses at Valathoal Nagar	200,000.00
	Total	1,055,000.00

Grand Total being the amount the sum of Rs. Thirty Seven Lakh Fifty Thirty Thousand only.	3,753,000.00
---	--------------



Photographs of CER / CSR



Photographs showing matteress supplied for setting up the first line covid centre at Thrissur



Photographs of CER / CSR

Photographs showing the peoples of Southern Rocks engaged in the Flood relief / evacuation activities



Barry Tuckerman

Photographs of CER / CSR

Photographs
showing the
supply of food
from Southern
Rocks during
the Flood



Proposed CER activities

As a part of Corporate Environment Responsibility, the Project proponent has proposed to initiate certain socio-economic activities in the surrounding villages which are given in below **Table**

Sr. No	Description	Amount in INR	Remarks
1.	Medical checkup camps nearby villages Cheruthuruthy, Painkulam, Killimangalam	75,000/-	yearly
2.	Distribution of school bag, umbrella, text and note books for the school children	75,000/-	yearly
3.	Contribution to construction of houses for poor / needy people at least 3 – 5 people @ Rs. 50,000/- each	2,50,000/-	yearly
4.	Contribution for marriages to poor / needy people at least 6 people @ Rs. 25,000/- each	1,50,000/-	yearly
5.	Contribution for local cultural and festivals	1,50,000/-	yearly
6.	Distribution of ration through panchayat to the needy people during Onam / Ramzan / Christmas festival at least 50 families @ Rs. 500/- per family each festival	25,000/-	yearly
7.	Repair and maintenance of road / construction of Bus shelter	2,50,000/-	--
8.	Financial/Machineries support for differently abled peoples for manufacturing of paper bags.	2,50,000/-	One time
	Total	12,25,000/-	--

Additionally, 1% of the annual profit shall be given to the concerned Panchayath for Biodiversity Management Committee towards eco-restoration.



Conclusion

This is to bring to the knowledge of the SEAC that we have been operating the quarry following all the EC conditions and abiding with the concerned rules, regulations and laws.

in view of the above, we humbly request the Hon'ble SEAC to consider our request and extend the validity of the Environment clearance.

THANK YOU

