

NALWAYA MINERAL INDUSTRIES PVT. LTD.

C-164, MEWAR INDUSTRIAL AREA, MADRI ROAD NO.3, UDAIPUR-313003 (RAJ.)

To,

Date: 20.01.2023

The Member Secretary,

State Level Expert Appraisal Committee,

S4-Institutional Area, Jhalana Doongri, Jaipur (Rajasthan).

Sub:- Regarding submission of ADS reply for Environmental Clearance of " Nathara Ki Pal-I-A Soap stone Mine, " M. L No. 24/1978 (Renewal- 06/1998), M. L Area- 97.13 ha having production capacity - 1,04,021.4 MT (Total Excavation)-(Mineral:- 10,855.6 TPA; Over-burden/Side-burden/Inter-burden:- 93,165.8 TPA), situated at Village – Nathara Ki Pal, Tehsil – Sarada, District – Udaipur, Rajasthan of Nalwaya Mineral Ind. Pvt. Ltd. (Proposal No. –SIA/RJ/MIN/29754/2015).

Ref:- 5B.35th Meeting for State Level Expert Appraisal Committee(SEAC-2) to be held on dated 12.12.2022 (Agenda Sr. No. 7, SEAC File No. 15604).

Respected Sir,

This is with reference to above mention subject; we hereby submit the point wise reply of as under:

S.No	Query	Reply
1	ToR was granted by MoEF & CC Vide letter dated-08.01.2016 for 10,855 TPA (ROM) while the PP has submitted EC Application for -27,139 TPA (Total Excavation), Mineral- 10,855 TPA (Soap stone) & Waste- 16,284 TPA,	It is essential to mention that the ToR issued by MoEF & CC, Date-08.01.2016 was as per the trend/ritual of issuing ToR for Mineral/Run of Mine as the same was mentioned in the mining plan. Only in the recent past MoEF & CC has started to consider total excavation. Thus the corresponding excavation for the ROM stated in the ToR 1,04,021.4 MT which is in sync with then approved mining plan. Thus considering the total excavation of 1,04,021.4 with corresponding ROM 10,855.6 it will be apt to suit the descriptive reference. Copy of approved mining plan is enclosed as Annexure-I .
2	Plantation is proposed on 7.8 Ha area only whereas total area of lease area is 97.13 Ha.	The Plantation area was 7.8 ha which was 75 % of the disturbed area (in the conceptual stage) we shall ensure that 33% of the broken up area will be under green. However efforts will be made to have 33% area of total

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		lease as green in the approach road, community area, schools etc by local native species. Plantation Details is enclosed as Annexure-II.
3	The lease documents after 1999 to ascertain the violation of EIA Notification in light of common cause judgment of Hon'ble supreme court .	The lease has been effective since its operation from 1959 and the gap period of 1999-2015 is also effective as ascertained in the letter issued from the Office of DMG Udaipur, vide letter no. ME/Udi/CC/Sarada/24/1978/147, dated-17.01.2023. The same is enclosed as Annexure-III.
4	The Aravalli certificate submitted by the PP has failed to mention categorically that the expansion in the mining capacity of the existing lease holder in the Aravali Hills area has been permitted under the ambit of the direction of Hon'ble supreme court.	During the appraisal it was deliberated by our consultant that the certificate issued from the Office of DMG dated-13.01.2023 clarifies that lease is in Aravalli Hills and is not governed by the orders of Hon'ble Supreme Court (Case: 412/2004) in such circumstances any expansion, modification, amendment is not restricted/ prohibited by the Apex Court or the Authority till date in any of the orders and the same is also granted by MoEF&CC in cases of A-Category. Thus getting a document ascertained is not essential as the same is already approved in approved mining plan issued from the Office of DMG. Thus double check of the same may kindly be abstained .
5	Copy of approved mining plan.	Replied in point No. 1.

We request your goodself to kindly consider the same in the forth coming SEAC meeting for Environment Clearance at your earliest.

**Thanking you,
FOR NALWAYA MINERAL INDUSTRIES PVT. LTD.**


Raj Kumar Nalwaya
(Director & Authorized Signatory)

**Raj Kumar Nalwaya
(Director & Authorized signatory)**

Approved vide Letter No.

SME/UD-Cr./Mining Plan/Scheme/ R

F- 11/16 1373-Dtd. 22-09-17
378

NON FOREST

CATEGORY 'B'

**SCHEME OF MINING
WITH
PROGRESSIVE MINE CLOSURE PLAN**

UNDER RULE 29(4) & 29 (5 - VI) OF R.M.M.C.R. 2017

OF

NATHARA KI PAL I-A SOAPSTONE MINE

NEAR VILLAGE - NATHARA KI PAL

TEHSIL SARADA, DISTRICT UDAIPUR (RAJ.)

M.L. No. 6/98, (Lease area - 97.13 hect.)

Lease period from 1-9-1959 to 31-3-2020

Period of Scheme of Mining from 2016-17 to 2019-20.



LESSEE

M/S NALWAYA MINERAL INDUSTRIES P. LTD.,

7-A, BAPU BAZAR, UDAIPUR, 313001. (RAJ.)

Email: info@nalwayaminerals.com

PHONE- 0294-2422054, 9414055356. FAX 0294 2420182



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**PREPARED BY
SHAILENDRA SINGH BIST**

Mining Geologist

206 "APEKSHA COMPLEX" SECTOR NO. - 11,

HIRAN MAGRI, UDAIPUR-313002 (RAJ.)

CELL NO. +91 9414167672 PHONE-0294-2488672

E mail - sebist@adrminitech.com

RQP NO. RQP/SME(Udai-Circle)/2016/21. Dt. 05-09-2016.

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अधीक्षण रुचि अभियन्ता
ज्ञान एवं भू-विज्ञान विभाग
उदयपुर जूट, उदयपुर

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GOVERNMENT OF RAJASTHAN
OFFICE OF THE SUPERINTENDING MINING ENGINEER, UDAIPUR-CIRCLE,
DEPARTMENT OF MINES AND GEOLOGY, UDAIPUR (RAJ.)

No. SME/Udr-Cir./Mine-Plan/ Udaipur /P-11/16 /

Dated:-

To,

M/s Nalwaya Mineral Industries P.Ltd
7-A Bapu Bazar, Udaipur, Rajasthan.

Sub:- Approval of Scheme of Mining with Progressive Mine Closure Plan in respect of your Nathara Ki pal I-A Soapstone Mine (M.L.No.6/98) for lease area 97.13 Hect. for Mineral Soapstone Near Village Nathara ki Pal , Tehsil Sarada & District Udaipur, Raj, Submitted under Rule 29(4) & 29 (5-Vi) Of R.M.M.C.R 2017

Ref:- Your R.Q.P.'S Letter Dated 25-08-2017

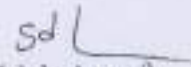
Dear Sir,

In reference of Directorate Letter No. DMG/Major/Law/F-82/11/961-1022 Dated 1.4.2015 & M.M.D.R. (Amendment) ordinance, 2015 & Notification dated 10.02.2015; I hereby Approve the above said Scheme of Mining with Progressive Mine Closure Plan. This approval is subject to the following conditions:-

1. The Scheme of Mining with Progressive Mine Closure Plan is approved without prejudice to any other laws applicable to the mine/area from time to time whether made by the central Government, State Government or any other authority.
2. It is clarified that the approval of your aforesaid Scheme of Mining with Progressive Mine Closure Plan does not in any way imply the approval of the Government in terms of any other provisions of the M.M.D.R. (Amended) ordinance 2015, R.M.M.C.R. 2017 & the rules framed there under and any other laws.
3. It is further clarified that approval of the Scheme of Mining with Progressive Mine Closure Plan is subject to the provisions of Forest (Conservation) Act, 1980, Forest (Conservation) Rules, 1981 and other relevant statutes, orders and guidelines as may be applicable to the lease from time to time.
4. The approval of the Scheme of Mining with Progressive Mine Closure Plan is subject to the compliance of the instruction contained in the order dated 21-10-2003 and subsequent orders of the Hon'ble High Court, Jodhpur in D.B.Civil writ Petition No. 3879/2002.
5. The approval of the Scheme of Mining with Progressive Mine Closure Plan is subject to the condition that the lessee would not dump the overburden on the in forest land of charagaha land. The lessee is advised to dump the overburden on the identified dumping site.
6. The Financial Assurance is may be submitted to the Mining Engineer, Udaipur as per 29(14) rule of R.M.M.C.R. 2017.
7. If anything found concealed as required by the Mines Act. In the contents of the Scheme of Mining with Progressive Mine Closure Plan and the proposal for rectification has not been made, the approval shall be deemed to have been withdrawn with immediate effect.
8. The Scheme of Mining with Progressive Mine Closure Plan is approved without prejudice to any order or direction for any court of competent jurisdiction.

Encl:- One copy of
Approved Scheme of Mining with
Progressive Mine Closure Plan

Yours Faithfully,

Sd/ 
(Asif Mohd. Ansari)
Suptdg. Mining Engineer
Department of Mines & Geology
Udaipur Circle, Udaipur (Raj.)

No. SME/Udr-Cir./Mine-Plan/ Udaipur /P-11/16 / 377

Dated: 22/09/17

Copy forwarded for kind information to:-

1. The Director of Mines Safety, Directorate General of Mines Safety Jamer Kotra Road, Udaipur along with a copy of the approved Scheme of Mining with Progressive Mine Closure Plan.
2. The Director, Directorate of Mines and Geology, Govt. of Rajasthan, Shastri Circle, Udaipur along with a copy of the approved Scheme of Mining with Progressive Mine Closure Plan.
3. Mining Engineer, Udaipur along with a copy of approved Scheme of Mining with Progressive Mine Closure Plan.
4. Shailendra Singh Bist, RQP, 206 Apeksha Complex, Hiranmagri Sector no.11, Udaipur-313002(Rajasthan)
5. Guard File

(Asif Mohd. Ansari)
Suptdg. Mining Engineer
Department of Mines & Geology
Udaipur-Circle, Udaipur (Raj.)

INTRODUCTION

Originally the lease was granted to Shri Ranjeet lal Nalwaya for a period of 20 years w.e.f. 1-9-1959. The Mining lease agreement copy dt.1-9-1959 is enclosed as Annexure no.1. The mining lease was renewed over an area of 97.13 hect. for a period of 20 years from 1-9-1979 to 31-8-1999, vide Govt. order No. P-5130 Khan/Group-3/79 dated 8-6-79 .Refer Annexure no.1.

The Lessee Shri Ranjeet lal Nalwaya expired on 29-6-92 .The Mining lease was nominated by the State government to the legal heirs of Shri R.L.Nalwaya in the name of M/S Nalwaya Mineral Industries P.Ltd. by an order no.P.5137/Khan/Gr-2/93 dt.27-1-94. Refer Annexure no.1.

The Demarcation report of the area is attached as Annexure no.2, and Lease map of the area is attached as Annexure no.3.

The Mining lease area does not involve Forest land. A Revenue Certificate Dt. 10-7-2001 was issued to this effect. Refer Annexure no.4. Jamabandi / Khatedari report of the area is also attached.

Scheme of Mining with PMCP was approved by S.M.E. Udaipur vide letter no. SME/UD-Cir/ Mine Scheme / Udr / Major /F-34 /07 /1190 dt.21-7-08. Refer Annexure no.5 .

The Mining lease no.6/98 of Nathara Ki Pal IA area does not fall into the definition of Aravalli hills, a Certificate to this effect was given by Mining Engineer D.M.G. Udaipur Refer Annexure no.6.

Date of commencement of mining operation is 1.9.1959.



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The Mining lease period has now been extended by D.M.G. up to 31-3-2020 as per amended M.M.D.R. Act 2015. Refer Annexure no.7.

The Resolution passed by Board of Directors to appoint Shri Narendra Kumar Nalwaya as Nominated owner of the mines is enclosed. Refer Annexure no.8.

Chemical Analysis Report of Soapstone and Dolomite of the area, from NABL approved laboratory is attached as Annexure no.9, and Water Analysis Report is attached as Annexure no.10.

The RQP certificate of Shri Shailendra Singh Bist, Mining Geologist, who has prepared this Scheme of Mining, is attached as Annexure no.11.

The mining operations are discontinued for want of Environment Clearance, mines are closed since 25-1-2005.

Now this Scheme of Mining with Progressive Mine Closure Plan is prepared under rule 29(4) & 29(5-VI) of RMMCR 2017, for the period of 2016-17 to 2019-20.

29 (10) 29 (13)

GENERAL

a) Name of the Lessee	M/S Nalwaya Mineral Industries P. Ltd.
Address	M/S Nalwaya Mineral Industries P. Ltd., 7-A Bapu Bazar
District	Udaipur
State	Rajasthan
Pin code	313001
Phone	+ 91-294-2422054.
Fax	+ 91-294-2420182.
Mobile No	9414055356
E-mail id	info@nalwayaminerals.com
b) Status of lessee	
Private Individual	
Public limited Company	
Public Sector Undertaking	
Other (Please Specify)	Private Limited Company, Annexure no.1.
c) Mineral (s) which are included in the prospecting license(for fresh grant)	-
d) Mineral (s) which are included in the letter of Intent/lease deed	Soapstone
e) Mineral (s) which is the applicant /lessee intends to mine	Soapstone
Ø Name &Address of RQP under rule 17 of MCR, 2016 or a person employed under clause (c) of sub rule (1) of rule 42 of MCDB, 1986 (Application for Scheme of Mining only) preparing Mining Plan.	Shailendra Singh Bist, Mining Geologist, 206, Apeksha Complex, Hiran Magri Sector no.11 Udaipur.313002. RQP/SME/(Udai-Circle)/2016/21, Dt. 29-8-2016. Valid upto 28-8-2021. Refer Annexure no.10.
Phone	0294 2489672
Fax	0294 2489672
Mobile No.	+91 9414167672
E-mail id	ssbist@udrmintech.com
Registration No	RQP/SME/(Udai-Circle)/2016/21
Date of Renewal	05.09.2016
Valid upto	28-08-2021

2. LOCATION AND ACCESSIBILITY

a) Lease Details (Existing Mine)			
Name of Mine		Nathara Ki Pal - IA Soapstone mine	
Lat/long of any boundary point		Toposheet no. 45 H/16 and latitude 24°13' 59.20", longitude 73° 47' 22.40" of Pillar no. A.	
Date of grant of lease		1-9-1959 Refer Annexure no.1	
Period/ Expiry Date		from 1-9-1979 to 31-3-2020. Refer Annexure no.7.	
Name of lease holder		M/S Nalwaya Mineral Industries P. Ltd.	
Postal Address		M/S Nalwaya Mineral Industries P. Ltd., 7-A Bapu Bazar, Udaipur	
Telephone		+ 91-294-2422054.	
Fax		+ 91-294-2420182.	
Email id		info@nalwayaminerals.com	
Mobile No.		9414055356	
b) Details of applied / lease area with location map(Fresh area/ Mine)		M.L. area 97.13 Ha	
Forest Non-forest			
Forest	Area(ha)	Non forest	Area(ha)
Nil	Nil	i) Waste land	95.78
		ii) Grazing land	-
		iii) Agriculture land	1.35
Others (specify)	-		-
Area (Ha)			97.13
Total lease area/applied area			97.13



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District & State	Udaipur, Rajasthan		
Taluka	Sarada		
Village	Nathara Ki Pal		
Whether the area falls under Coastal Regulation Zone (CRZ)?	No		
If Yes, details thereof	Nil		
Existence of public road/railway line, if any nearby & approximate distance	The lease area is 58 km from Udaipur approachable by Udaipur-Palodara Thana-Sarada-Kalyanpur tar road lead to mine site. Thus the mine is about 2 Km. far from Nathara Ki Pal village connected by a Kutchha road. The route map of the area is enclosed as plate no. 1A. Nearest railway line with station at Jaisamand road, which is 25 km. from the lease area. This railway line runs from Udaipur-Ahemdabad meter gauge line. The nearest Airport is at Dabok, 80 km from the mine.		
Toposheet No. with Latitude and Longitude of all corner boundary point/pillar:	Toposheet no. 45 H/16 and latitude , longitude of pillars given below		
	Pillar no.	Latitude N	Longitude E
	A	24°13' 59.20"	73° 47' 22.40"
	B	24°14' 23.70"	73° 47' 32.92"
	C	24°14' 37.70"	73° 46' 52.72"
	D	24°14' 13.13"	73° 46' 42.39"
Location map attached?	Yes Plate no.1A& 1B		



3. Details of Approved Mining Plan/ Scheme of Mining(if any)

3.1 Date and reference of earlier approved MP/SOM.

Scheme of Mining with PMCP was approved by S.M.E. Udaipur vide letter no. SME/UD-Cir/ Mine Scheme / Udr / Major /F-34 /07 /1190 dt.21-7-08. Refer Annexure no.5 .

3.2 Details of last modifications if any (for the previous approved period) of approved MP/SOM, indicating date of approval, reason for modification

Nil

3.3 Review of earlier approved proposal (if any) in respect of exploration, excavation, reclamation etc.

1. Exploration

Exploration was proposed in approved mining plan to fully explore by pitting prospecting and trenching. But the mining operation is closed since 25-1-2005 for Environment clearance not received from government.


2. Mining Development

No mining development took place as the mines were closed.

3. Exploitation:

No exploitation took place as the mines were closed.

(In Tonnes)



YEAR	TARGET	ACTUAL
2008-09	7056	0
2009-10	7354	0
2010-11	7440	0
2011-12	7927	0
2012-13	10855	0
Total	40632	0

4. Afforestation Programme

As per approved mining plan 15 plant every year was proposed in 0.05 hect. area. No plantation was done in the area as mining operation were closed.

YEAR	TARGET PLANTATION	ACTUAL
2008-09	15	0
2009-10	15	0
2010-11	15	0
2011-12	15	0
2012-13	15	0
Total	75	0

5. Reclamation & Rehabilitation:

No reclamation of worked out pits was proposed in approved Mining plan.

6. Control of dust, noise & ground vibration:

There were no proposals made in the previous Mining plan as the scale of operation had been small.

7. Waste Dumping

It was proposed to dump the waste, in the lease area. About 1.076 hect. area will be covered at the end of Mining plan period. But the mining work did not commence during the plan period for want of E.C. not granted.



3.4 Status of Compliance of violations pointed out by IBM

S. No.	Date of Inspection	Name of Officer	Details of Violations pointed out	Status of Compliance
Nil	Nil	Nil	Nil	Nil

3.5 Details of any suspension /closure / prohibitory order issued by any Govt. agency.

No order was issued by any authority.

3.6 In Case the MP/SOM is submitted under rules 9 and 10 of the MCDR' 88 or under rule 17 of the MCR 2016 for approval of modification, specify reason and justification for modification under these rules.

Not applicable.



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PART -A
1.0 GEOLOGY AND EXPLORATION:

- a) Brief description of the topography, drainage pattern, Vegetation, climate, rainfall data of the area applied/mining lease area.

Topography & Drainage pattern

The configuration of the lease area is rectangular in shape, denoted by pillars A, B, C & D.

Topographically, the area represents medium to high relief undulating terrain. Near pillar 'A' the area is flat and along the nalla, two small agriculture fields are there. The remaining area is full of small hillocks with altitude from 365 mRL to 525 mRL. The lowest altitude is situated in south portion of the lease area near agriculture field and highest altitude is situated in the northern side of the lease area. The area is interspersed with valleys and nallahs. Two sets of nallahs flow in the area, one in north direction and the other in south and SE direction, refer Surface plan , plate no.2A. The hills rise about 160 m above valley level, which is about 365 m above M.S.L.

There are small valleys in the area through which water flows during rainy season only. These drainages ultimately merge into one main nallah runs along west to east in the area. There is one Well in the private agriculture land near pillar 'A'. Water from this nallah flows into Thana river, which runs outside mine area and ultimately joins with Pratap sagar.

The region is characterized by tropical condition with as average rainfall of about 650 mm which is received during monsoon season from June to September. In winter the minimum temperature goes down to 4°C and in summer the temperature rises upto 46°C. Average relative humidity varies from 50% to 80%. Prominent wind direction is SW- NE.



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Flora & Fauna:

There is no flora and fauna of any importance. It is to be mentioned that this area is generally arid and devoid of high moisture in the atmosphere. There are scanty local varieties of trees like Babul and thorny bushes/shrubs which are the main vegetation. Except these vast tract of the area does not have any flora of importance.

Natural fauna is field mice, rabbits, foxes. The study area reveals no endangered species.

Climatic Conditions:

The region falls under torrid climatic zone. It is characterized by warm-humid climatic condition with poor and irregular precipitation.

The climatic conditions observed in the region are as under:

(1) Weather seasons:

- (i) Cold weather season (winter) : Dec.-Feb.
- (ii) Hot weather season (summer) : March-May
- (iii) South-west monsoon season (rainy): June-Sept.
- (iv) Retreating south-west monsoon season (post monsoon) :Oct.-Nov.

(2) Climatic temperatures:

The maximum and minimum temperatures of the area/region are as under:

Maximum temperatures:

	Post monsoon	Winter	Summer
Range	33°C - 40°C	4°C - 34°C	38°C - 46°C
Highest	40°C	34°C	46°C

Minimum temperatures:

	Post monsoon	Winter	Summer
Range	20°C - 27°C	4°C - 21°C	23°C - 26°C
Lowest	20°C	4°C	23°C



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As usual there are 3 types of seasons, (1) Summer, (2) Rainy and (3) Winter in this region. Summer season during March - June is very hot and temperature rises up to 46° C. Rainy season is neither hot nor cold. Only due to cold breeze coming from Bay of Bengal and Arabian Sea following the depression of pressure the temperature goes down from 20°C to 40° C. Winter season (Dec - Jan) is very cold with minimum temperature of 4°C. Rains are nearly 60-70 cm. annually. General wind direction is S-W to N-E., N-E to S-W directions of winds indicates heavy rain fall. Relative humidity varies from 20% - 65%. Average wind velocity is 5 km/h

b) Brief description of Regional Geology with reference to location of lease/applied area.

Regional Geology:

The mining lease area is located 58 km by road from Udaipur and falls in part of Survey of India Toposheet no.45 H/16. It forms a part of the western upright limb of the inverted anticline in the folded lower most unit of beds of upper hills Archean super group's quartzite covering the Banded Gneissic Complex of Sarara inlier. Ultrabasic veins along the SI cleavage planes of this foliated quartzite were metamorphosed to give rise to soapstone and further affected by later 3 folding.

Nathara Ki Pal area forms the southern part of the central sector of the rocks of Archean Aravali Super group syncline of Rajasthan. In the region the rocks contain carbonates and thus are shelf deposits.

The generalized succession of rocks are tabulated below in the table, which has been modified by different workers and by GSI:-



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Super Group	Groups	Formation	Rocks
Intrusives		Ultrabasics	Chlorite schist
		Tidi	-Phyllite, Dolomite with Quartzite
		Machlamagra	-Phyllite, Quartzite, Quartz
		Upper Udaipur	-Graywacks, Schist etc.
		Shishmagra	-Quartzite, Arkose Conglomerate

Archean	Udaipur		Carbonaceous Phyllite/ Schist
		Jhamarkotra	Quartzite, Conglomerate
		Lower Delwara	Volcanic Tuff, Dolomite Quartzite, Conglomerate
Bhilwara super group		B.G.C.	Granite, Pegmatites, Gneisses, Amphibolites

c) Detailed description of geology of the lease area (Such as shape and size of the mineral/ore deposit, disposition various litho-units indicating structural features if any etc.)

Local Geology

The litho-units occurring in the lease area can be summarized as

- Alluvium
- Mica schist
- Dolomite
- Quartzites



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Lithological Description:-

i) MICA SCHIST

It is light colour foliated metamorphic rock, it overlies Dolomite. It is exposed parallel to and either side of Dolomite from east to west. It does not have any Soapstone mineralization.

ii) DOLOMITE

It is the most prominent formation in the leasehold area. It extends from eastern boundary to western boundary in the southern portion of the area. It is generally white to greenish white in colour, this is the host rock for Soapstone mineralization. Dolomite is crystalline and occurs in the form of fine angular aggregates. It is metamorphosed and crystalline in nature therefore bedding is not visible in the lease area. A Sample of Dolomite from the mine is analyzed and it is found that it has no commercial value. Analysis report is enclosed as Annexure no.9.

iii) QUARTZITE

Quartzite is hard, brittle, both bedded and massive, light reddish, white to reddish or pinkish coloured. At some places, it is greyish coloured, reddish and pinkish quartzites are generally seen on ridge of the hill. It is fine to medium grained. Bedded quartzite breaks in tabular shape, whereas massive quartzite breaks in conchoidal shape. The quartzites are exposed in south east corner and western flank of the leasehold area and mostly on hill top to



down side.
Soapstone is the single major economic mineral found so far. It is soft, friable, and grayish to white in colour.

36/10/2017
The general trend of litho units is NE-SW, dip is 60° to 80° due NW and SE.
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d) (i) Name of Prospecting/ Exploration agency

No outside agency was appointed for this work. The lessee himself has carried out prospecting and exploration over the years.

(ii) Address : M/s Nalwaya Mineral Ind. P. Ltd., 7-A Babu Bazar Udaipur.

(iii) Email address : info@nalwayaminerals.com

(iv) Phone no.: 0294-2422054, 9414055356.

e) Details of prospecting / exploration already carried out

i) Number of pits and trenches indicating dimensions, spacing etc along and across the strike/ foliation with reference to geological plan.

EXPLORATION AND RESERVES

Exploration has been carried out in the area by means of pitting by present lessee during the last 40 years. Lessee has done mining & exploration by pits during previous years.

(See plate no. 2B). Details of these pits showing their size, number of veins, presence of mineralisation, dip & strike is given as follows:-.

DETAILS OF PITS, AND MINERALISED ZONE

PIT DESCRIPTION										
PIT NO.	L m	W m	D m	No of Vein	VEIN DIMENSION			Dip	Strike	Remarks
					L	W	D			
P-1	30	10	20	V1	30	4	20	Vert	E-W	377 mRL
P-2A	60	40	19	4 V1	60	8	19	Vert	E-W	401 mRL
2B	19	12	10	V1	19	4	10	Vert	E-W	415 mRL
2C	10	7	10	V1	10	4	10	Vert	E-W	405 mRL
2D	20	8	5	V1	20	3	5	Vert	E-W	403 mRL
P-3	30	15	9	V1	30	3	9	86° E	N - S	421 mRL
P-4	92	34	30	V1	92	9	30	72° SW	NW-SE	390 mRL
P-5	17	8	5	V1	17	2.5	5	71° SW	NW-SE	381 mRL
P-6	95	20	20	V1	95	15	20	65° W	N - S	380 mRL
P-7	115	40	21	V1	115	12	21	72° SW	NW-SE	359 mRL
P-8	20	10	20	V1	20	4	20	Vert	N-S	410 mRL
P-9	25	9	15	V1	25	6	15	Vert	NNW - SSE	395 mRL



ii) Number of Boreholes indicating type (Core/RC/DTH), diameter, spacing, inclination, Collar level, depth etc with standard borehole logs duly marking on geological plan/sections.

S. No.	Bore Hole No.	Type(Core/RC /DTH)	Diameter	Spacing	Inclination	Collar level	Depth

No boreholes were drilled.

iii) Details of samples analysis

S. No.	Sample No.	Sample Type (Surface/sub-surface from pits/trenches/borehole etc.)	Details of Chemical Analysis	Whether in accordance to BIS? Yes/No	Name of NABL accredited/other govt. laboratory
1	UMT-16-17/131	Pit DDT grade	See Annexure no.8	yes	Udaipur Min-Tech P. Ltd.

Details of Chemical Analysis (See Annexure no.8)

Grade	LOI %	CaO%	MgO%	Al ₂ O ₃ %	Fe ₂ O ₃ %	SiO ₂ %
DDT	23.20	14.60	23.0	1.70	03.0	32.80

iv) Expenditure incurred in various prospecting operations.

Sl.	Year	Item	Expenditure incurred in Rs.
	Nil		Nil

No data is available, as the prospecting work has been done along with the mining and separate account of such mining expenses was not made over the years.

Is Surface Plan attached?

Yes, Surface plan has been prepared on scale of 1:2000 with contour interval of 5m.

(Refer Plate No. 2A).

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g) Geological Plan attached?

Yes, Geological plan has been prepared on scale of 1:2000. (Refer Plate No. 2B).

h) Geological Sections attached?

Yes, Geological sections have been prepared on scale of 1:1000 (Refer plate No. 2B1, 2C & 2D). Sections depict the reserve category as per UNFC code.

i) Future programme of exploration with due justification:

Year	No. of boreholes (core/RC/DTH)	Grid interval	Total meterage	No. of pits, dimension and volume	No. of Trenches, dimensions and volume
2016-17	Nil		Nil	Nil	4 trenches 5x3x3
2017-18	Nil		Nil	Nil	4 trenches 5x3x3
2018-19	Nil		Nil	Nil	2 trench 5x3x3
2019-20	Nil		Nil	Nil	Nil

Exploration is proposed for next four years' period by means of deepening of pits and trenching. 10 Proposed trenches size (5x3x3) will be marked across the strike direction of soapstone mineralised area.

j) Reserves and Resources as per UNFC with respect to the threshold value notified by IBM: No threshold value is notified by IBM.

Level of exploration	Area considered	UNFC Code for area	Category of reserve/resources estimation	Reserves/Resources as per UNFC
G1		331	Measured category	54835.0 MT
G2		332	Indicated category	38716.0 MT
G3		333	Inferred category	41435.0 MT
	Total			134986.0 MT



- Feasibility/ pre-feasibility study report attached

Yes, Feasibility study report along with financial analysis for economic viability of the deposit as specified under the UNFC field guidelines as Annexure no. 14

k) Detailed calculation of reserves/ resources section wise.

As per approved mining plan, reserves of soapstone are as under:

(Please refer item 3e of Chapter 3 of approved mining plan)

Category	Reserves in Tonnes
Measured - 331	54835
Indicated - 332	38716
Inferred - 333	41435
Total	134986

Mineable reserves (Refer item 3f of Chapter 3 of approved mining plan)

5 % Less for mining losses:

Proved = 52093.25 MT

Probable = 36780.20 MT

Possible = 39363.25 MT

Total = 128236.70 MT

Depleted reserves during last five years = 2856 MT

Remaining mineable reserves $128236 - 2856 = 125480$ MT



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D) Mineral Reserves/Resources:

Summary of the Geological Reserves is given below :

GEOLOGICAL RESERVES (TONNES)

CATEGORY	UNFC CODE	RESERVES
		TONNES
PROVED	111	49337
PROBABLE	122	36780
POSSIBLE	333	39363
	TOTAL	125480

Soapstone found in the lease area is Insecticide grade and recovery is 100 % of production and used in the manufacturing of Insecticide, Detergent.

	UNFC Code	Quantity in tons	Grade
A. Total Mineral Reserve		125480	Insecticide
Proved Mineral Reserve	111	49337	
Probable Mineral Reserve	121 and 122	36780	
B.Total Remaining Resources			
Feasibility mineral Resource	211		
Prefeasibility mineral Resource	221 and 222		
Measured mineral Resource	331		
Indicated mineral Resource	332		
Inferred mineral Resource	333	39363	
Reconnaissance mineral Resource	334		

Life of Mine = (Reserves under UNFC code 111 and 122) / Rate of ROM production

Life of Mine = 86117 / 10855 = 7.93 years



2.0 MINING

A. OPEN CAST MINING

a) Brief description of the existing as well as proposed method for excavation with all design parameters indicating on plans / sections.

(i) Existing method for excavation : Design Parameters :

Present mining method is semi mechanised opencast method with the use of JCB / dumper combination. Benches of 3.0 m height are mined. Width of benches is maintained at not less than the height. 3.0 m high bench is excavated in two slices of 1.5 m each. Holes are drilled by jack hammer and blasted using ANFO and high explosive as booster charge. Soapstone is excavated manually, sized and sorted. Waste is loaded into dumpers with JCB and dumped at the waste dump site. Sorted soapstone is loaded into dumpers and dispatched.

For next four year mining scheme, it is proposed to concentrate working in pit no.6. This is selected for mining for next four years, because :

- (a) The pit has highest reserves.
- (b) Pit is ready for production .
- (c) Pit has an access road established up to pit edge.

(i) Proposed method for excavation design parameters:

It is proposed to work in next four year in pit no. 6 , 8 & 9 by forming 3.0 m height bench and width not less than height. It is proposed to mine upto 375 mRL in this pit during next four year period.

(c) Year wise tentative Excavation in M³ indicating development, ROM, pit wise as in table below:

Insitu Tentative Excavation



Year	Pit No.	Total tentative Excavation Cum	Top Soil (cum)	OB/SB/IB (cum)	ROM(cum)		ROM cum/Waste cum Ratio
					Insecticide grade (cum)	Mineral reject cum	
2016-17	6,8,9	182520	0	180000	2520.0	0	1:71.4
2017-18	6,8,9	47966	0	45339.6	2626.4	0	1:17.2
2018-19	6,8,9	50573	0	47915.8	2657.2	0	1:18
2019-20	6,8,9	30497.5	0	26620.5	3877.0	0	1:6.8

Estimated available material (cum)

Dump Identification/no	Year wise handling (cum)	Estimated recovery of saleable material(cum)	Reject(cum)
Nil	Nil	Nil	Nil

- 'A' Category Mine: No
- Individual year wise development plans and sections showing pit layouts, dumps, stacks of mineral reject attached?: No
- 'B' Category Mine: Yes
- Composite development plans showing pit layouts, dumps, stacks of mineral, reject, if any etc. and year wise sections attached?: Yes

(d) Brief description giving salient features of the proposed method of working indicating category of mine.

The mine is being worked by mechanised opencast method of mining, and same method is envisaged for next four year mining scheme period. Soapstone mineralisation is seen in the all the pits.

For next four years, it is proposed to concentrate working in pit no.6, 8 & 9.

- The pit has highest reserves.
- Pit is ready for production.
- Pit has an access road established up to pit edge.

So, it has been proposed to work pit no. 6, 8 & 9 during the next four years.



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The side of excavation shall be adequately benches shaped and secured as to prevent danger from fall of sides as per Regulation 106 of the Metalliferous Mines Regulations 1961.

It is proposed to work in next four years in pit no. 6, 8 & 9 by forming 3.0 m height bench and width is not less than height. It is proposed to mine upto 375 mRL in the pit during next four year period.

Bulk density of mineral and waste is taken as 2.8.

(e) Brief description of the layout of mine workings, pit road layout, the layout of faces and sites for disposal of O/B, waste along with ground preparation prior to disposal of waste, reject etc. A reference to the plans and sections may be given. UPL or ultimate size of the pit is to be shown for identification of the suitable dumping site.

The following year wise sequence of mining of mineral & side burden benches shall be followed :

FIRST YEAR : (Year 2016 - 17)

During this year work of development will take place in pit no.6, 8 & 9 from east to west side, in the L section where the development benches has already been made 24 nos. From 456 mRL to 387 mRL will be developed. The maximum length of bench will be 82 m and the minimum will be 12.5 m.

Similarly in the L section in the south side 11 benches from 423 mRL to 387 mRL will be developed. The length of bench will be 38 m maximum and 12.5 m minimum.

The bottom bench is proposed at 387 mRL.

In the L section in the west side 12 benches from 426 mRL to 387 mRL will be developed. Keeping maximum length of bench as 85 m and minimum length as 32.5 m. The total soapstone production in this year will be 7056 MT and



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overburden will be 180000 cum. The total work will be done in an area of 10500 sqm.

As a matter of fact, in this year of development the overburden generation will be huge, but this development will be useful for future years for working.

Proposed Overburden calculation for First year 2016-17.

S.no.	Year	Section line	C.S. area in sqm (Width x Depth)	Influence length in m	Side burden vol. cum	Inter burden cum	Total O.B. Vol. cum
1	2016-17	A-B & C-D	4030	9.0	36270	3780	40050
2	2016-17	NW side benches O.B. 456 to 387 mRL				139950	139950
	Total				176220	3780	180000

Proposed Soapstone production for First year 2016-17. Bulk Density 2.8.

S. no.	Year	Section line	C.S. area in sqm (Width x Depth)	Influence length in m	Volume cum	Tons	Recovery M.T.	
							40% Soapstone	60% inter burden
1	2016-17	A-B	700.0	9.0	6300.0	17640	7056	3780

SECOND YEAR (Year 2017 - 18):

The development of first year will be further pushed in all direction for 6-10 m. In the L section of north side 27 benches From 456 mRL to 381 mRL will be developed, keeping common length of 13 m.

Similarly in the L section in the south side 11 benches from 408 mRL to 381 mRL will be developed. The length of bench will be 13 m The bottom bench is proposed at

381 mRL.



The total soapstone production in this year will be 7353 MT and overburden will be 45339.60 cum. The total work will be done in an area of 2020 sqm.

Proposed Overburden calculation for Second year 2017-18.

S.no.	Year	Section line	C.S. area in sqm (Width x Depth)	Influence length in m	Side burden vol. cum	Inter burden cum	Total O.B. Vol. cum
1	2017-18	A-B	4030	6.0	24180	2520	26700
2	2017-18	C-D & E-F	2460	7.0	17220	1419.6	18639.6
	Total				41400	3939.6	45339.6

Development in all directions, benches from 462 to 381 mRL.

Proposed Soapstone production for Second year 2017-18. Bulk Density 2.8.

S. no.	Year	Section line	C.S. area in sqm (Width x Depth)	Influence length in m	Volume cum	Tons	Recovery M.T.	
							40% Soapstone	60% inter burden
1	2017-18	A-B	700.0	6.0	4200.0	11760	4704	2520
2	2017-18	C-D & E-F	338.0	7.0	2366.0	6624.8	2649.92	1419.6
	Total				6566.0	18384.8	7353.92	3939.6

THIRD YEAR (Year 2018 - 19):

The development of second year will be further pushed in all direction for 21.5 m. In the E section of north side 28 benches From 462 mRL to 378 mRL will be developed, keeping constant length of 21.5 m.

Similarly in the L section in the south side 11 benches from 408 mRL to 375 mRL will be developed. The length of bench will be 21.5 m maximum and 10 m minimum.

The bottom bench is proposed at 375 mRL.

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The total soapstone production in this year will be 7440.6 MT and overburden will be 47915 cum. The total work will be done in an area of 3207 sqm.

Proposed Overburden calculation for Third year 2018-19.

S.no.	Year	Section line	C.S. area in sqm (Width x Depth)	Influence length in m	Side burden vol. cum	Inter burden cum	Total O.B. Vol. cum
1	2018-19	A-B & C-D	2460	13.5	33210	2737.8	35947.8
2	2018-19	E-F	1340	8.0	10720	1248	11968
	Total				43930	3985.8	47915.8

Development in all directions, benches from 462 to 375 mRL.

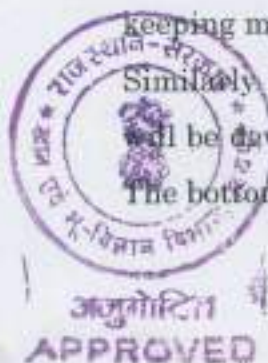
Proposed Soapstone production for Third year 2018-19. Bulk Density 2.8.

S. no.	Year	Section line	C.S. area in sqm (Width x Depth)	Influence length in m	Volume cum	Tons	Recovery M.T.	
							40% Soapstone	60% inter burden
1	2018-19	A-B & C-D	338.0	13.5	4563.0	12776.4	5110.56	2637.8
2	2018-19	E-F	260.0	8.0	2080.0	5824	2329.6	1248.0
	Total				6643.0	18600.4	7440.16	3985.8

FOURTH YEAR (Year 2019-20):

The development of third year will be further pushed to Eastside for 25 m. In the L section of north side 27 benches From 462 mRL to 378 mRL will be developed, keeping maximum length of 25 m and minimum length of 12 m.

Similarly in the L section in the south side 8 benches from 399 mRL to 378 mRL will be developed. The length of bench will be 25 m maximum and 7.5 m minimum. The bottom bench is proposed at 375 mRL.



The total soapstone production in this year will be 10855 MT and overburden will be 47915 cum. The total work will be done in an area of 3230 sqm.

Proposed Overburden calculation for Fourth year 2019-20.

S. no.	Year	Section line	C.S. area in sqm (Width x Depth)	Influence length in m	Side burden vol. cum	Inter burden cum	Total O.B. Vol. cum
1	2019-20	C-D &E-F	1340	14.5	19430	2262	21692
2	2019-20	G-H	914	10.5	9597	1984.5	11581.5
	Total				29027	4246.5	33273.5

Proposed Soapstone production for Fourth year 2019-20. Bulk Density 2.8.

S. no.	Year	Section line	C.S. area in sqm (Width x Depth)	Influence length in m	Volume cum	Tons	Recovery M.T.	
							40% Soapstone	60% inter burden
1	2019-20	C-D & E-F	315	14.5	4567.5	12789	5115.6	2740.5
2	2019-20	G-H	125	41	5125	14350	5740	3075
	Total				9692.5	27139	10855.6	5815.5

EXTENT OF MECHANISATION

Mining operation is carried out by mechanised opencast method and lessee will follow same method for next four year. No further mechanisation will be done in next four years. Only Tractor mounted compressor and Jackhammer drill machine are used for drilling of blast holes. A diesel engine operated pump has been deployed in the mine for pumping out accumulated rain water from pit bottom.

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Benches shall be developed and mineral shall be handled from the pit to the stockpile by JCB loader and dumper. Removal of waste will be done by JCB loader into Dumper to waste dump site. Drilling shall be carried out using compressed air operated jackhammer. However loading of soapstone lumps into trucks/dumpers shall be done manually by labours on contract basis.

DRILLING AND BLASTING

Jack hammer shall be used for drilling holes in benches. Tractor mounted compressor shall be used for supply of compressed air. Drilling parameters are as follows :

Hole diameter	36 mm
Depth of hole	1.5 m
Burden	1.0 m
Spacing	1.3 m

Holes shall be drilled using integral drill steels with chisel bit of length 800 mm and 1600 mm (drill steel series 11-714 of sandvik Asia). Mineralisation of Soapstone is in Ultra basic rock and in addition to hand picking, drilling and blasting is also required because side burden is compact.

Present practice is to dig Soapstone all along its length and side walls are left to stand. The side walls are blasted, as and when required by drilling 32 mm dia. holes of 1.5 m depth. Spacing and burden may vary, according to personal judgement of the supervisor. However broad blasting parameters are as under :

BROAD BLASTING PARAMETERS :

Bench height	3.0 m
Depth of hole	1.5 m
Dia of hole	36 mm



Burden	1.0 m
Spacing	1.3 m
Volume of rock broken per hole	1.95 Cum.
Explosive efficiency	7.0 T/Kg.
Explosive per hole	0.78 Kg.

Drilling and blasting will be done in stages as the height of bench is more than the depth of the holes.

The explosive will be special gelatine which will be used as booster and the main explosive will be ANFO mixture (Ammonium Nitrate and Fuel Oil Mixture). Ammonium Nitrate is one of the principal ingredient used in manufacturing of explosives though normally not classified as an explosive, being relatively insensitive.

1. ANFO
2. Sp. Gelatine
3. O/D Detonators and Fuse

Powder factor 7 tonne / Kg. is used for waste rock. No secondary blasting is proposed to carry out. Number of holes drilled, blasted and explosive required during four year period is given in tabular form as below :

YEAR	VOLUME TO BE BLASTED	NO. OF HOLES REQUIRED*	EXPLOSIVE PER YEAR Kg.*	DETONATOR PER YEAR No.*	EXPLOSIVE PER DAY Kg.*
FIRST	180000	92308	72000	92308	240
SECOND	45000	23077	18000	23077	60
THIRD	48000	24615	19200	24615	64
FOURTH	33000	16923	13200	16923	44
TOTAL	306000	156923	122400	156923	

NOTE :- * FRACTION ARE ROUNDED OFF.

PRECAUTIONS TO BE OBSERVED DURING DRILLING AND BLASTING



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To carry out the mining operation with precautionary measures, so that no adverse effect is caused to the working labours and habitants the following steps will be taken,

- (a) Four bags filled with sand, having about 50 Kg. of sand in each bag, shall be placed on top of the hole to be blasted. This will have a "muffled blasting" effect. The negative effects caused by any blasting could be mainly due to vibration, noise and fly rocks. The steps which are taken to minimise the effect of these hazards are out lined below :-

(I) Vibration Control

Vibration control is achieved by the following :-

- i) Blast holes are always initiated by short delay detonators, rather than adopting instantaneous detonation. Short delay in blasting of successive blast holes effectively reduces the vibration problems.
- ii) Number of holes per delay and per blast is kept to minimum to guide the throw in the desired direction while keeping vibration and noise to minimum.
- iii) Multiple blasting and 'V' pattern of firing is adopted to minimum forward throw and have a good rock pile.
- iv) Mostly holes are fired towards the free face.
- v) Use of ANFO, which has low velocity of detonation, also reduced the vibration problem.

(II) Noise Control

Noise control is achieved by the following :

- Detonating fuse is not used for trunk lines.
- Blasts are planned to eliminate or minimise secondary blasting.
- iii) No blaster shooting is taken up as this is the main reason of noise pollution.



(III) Fly rock hazard control

- i) Stemming length is kept less than the burden.
- ii) It is ensured that the burden is not excessive.
- iii) Inter row delay is selected in a manner so that each row pushes its burden in a forward rather than in an upward direction.

(f) Conceptual Mine planning upto the end of lease period taking into consideration the present available reserves and resources describing the excavations, recovery of ROM, Disposal of waste ,backfilling of voids, reclamation and rehabilitation showing on a plan with few relevant sections.

Conceptual Mining plan (Refer Plate No. 6):

The available reserves in the area still enough to last for 7 years at the present rate of production. In all there are 9 Pits in the area, (See plate no. 2). Details of these pits, showing their size, number of veins, presence of mineralisation, dip & strike is given on page 15 of this report. The excavation for future will continue in Pit no.6 , 8, & 9. Size of excavation will be 185m x 160m upto 365mRL, depth of 13 m.

Following parameters have been assumed for preparation of conceptual mining plan:

Geological consideration:

Geological investigation reveals that the deposit is exposed on the surface and veins of soapstone are seen underneath some overburden.

Exploration

Exploration already carried out:

Exploration has been done in way of pits, prospecting pits already.

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Exploration proposed to be carried out:

Proposed Exploration during next scheme period is given below.

Year	No. of Trenches, dimensions
2016-17	4 trenches, size of trench 5x3x3
2017-18	4 trenches, size of trench 5x3x3
2018-19	2 trench, size of trench 5x3x3
2019-20	Nil

Exploration is proposed for next four years' period by means of deepening of pits and trenching. 10 Proposed trenches size (5x3x3) will be marked across the strike direction of soapstone mineralised area.

Mining consideration:

- **Mining:**

The mining proposals made for ensuing four years period, envisage total 32705 tonnes ROM of Soapstone. It is anticipated that after proposed fourth year period total 16632 tonnes of proved Soapstone shall be available for exploitation. Ultimate pit limit all pit merge at the end of mine life covered total 9.58 hect will be used for mineral excavation. Maximum pit depth is 76.0m (at 369.0 mRL) marked on plate no. 6 .

Details of conceptual stage blocks dimension are given below.

Length in m	Width in m	Depth in m	Depth in mRL	Remarks
267.0	240.0	76.0	369.0mRL	Pit 1 to 9 in this block & 9.58 hect covered, 2.74 hect area backfilled, mined out benches plantation 1.16 hect, & remaining area 5.68 hect. mine out area will be used for rain water storage.

Waste rejects/disposal management:

Side burden is involved during four years as 306000 cum or 856800 tons. This insitu volume will swell 1.25% to 382500 cum is proposed to dump in N-E corner on an area earmarked 4.50 Ha. upto the height of 9 m to accommodate this quantity of



waste, as shown on the plan Plate no.6. At the end of mine life 4.50 hect external dump will be plantation.

Environmental consideration:

• **Proposal for afforestation/plantation:**

Plantation along the lease boundary, along road side and on the dump will be made up to lease period. Plantation @ 7200 saplings per annum will be undertaken. At the end of 4 years it is anticipated that there shall be around 28800 grown trees and shall cover surface area of 29.15 hectares. Provision will be made for additional 10% saplings (720 tree) to replace any dead plant. Garland drains will be made wherever required to prevent uncontrolled flow of water.

• **Rehabilitation of displaced persons:**

No major displacement or evacuation of human settlement has been anticipated during mining operation.

• **Post Mining land use pattern:**

From the geological account of the area and the base line information on land environment, it is quite apparent that there is absence of top soil cover. All waste rock side burden is visualized during the mining operation will be kept at the place marked over plate no.6. Hence any environmental degradation due to acquisition of land or dumping over it is ruled out.

Therefore, in the present context proposal of reclamation has been proposed. At the end of mine life total 2.74 hect will be mined out area back filled, 1.16 hect. mined out benches will be plantation & 5.68 hect area will be used for rain water storage.

Prior to abandonment of working / at the end of lease period a protecting barbed fencing shall be laid around the periphery of the worked out area to check the inadvertent entry of men and animals.

It is anticipated that ultimately, the worked out area formed after complete exploitation of mineral may be utilized as water reservoir / pit floor cultivation of seasonal crops after levelling & spreading of top soil over the levelled area.

A parapet wall shall be constructed along the periphery of the quarry to render it safe and prevent accidental fall of men and animals into it. All necessary precaution shall be taken as per Reg. 115(1) of MMR, 1961. So that it can be gainful post mining use to the society.

Proposed Land Use in hectares ,

S. No.	Description	Present position of the area Hect.	Position at the end of 4 th year Hect.
1	Mining (Quarry)	2.411	4.4035
2	Dump	1.076	4.5000
3	Road and Building	0.310	0.8125
4	Plantation	0.050	29.150
5	Mineral Stack	0.010	0.0800
6	Remaining land	93.273	58.184
	Total	97.130	97.130

B. UNDERGROUND MINING

i) Mode of entry:

Not applicable

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3. MINE DRAINAGE

a) Minimum and maximum depth of water table based on observations from nearby wells and water bodies.

Minimum depth of water table	Maximum depth of water table	Source	Remark
365 mRL	355 mRL	Ground water	Open well in SE corner of ML area

b) Indicate maximum and minimum depth of workings.

Year	Maximum depth of working mRL	Minimum depth of working mRL
I	387	456
II	378	456
III	378	462
IV	378	462

c) Quantity and quality of water likely to be encountered, the pumping arrangements and places where the mine water is finally proposed to be discharged.

Year	Quantity of water likely to be encountered	Quality of water likely to be encountered	Pumping arrangements	Final place of discharge of mine water	Remark
I	100 KL	Rain water	Not required	Percolation in ground	
II	100 KL	Rain water	Not required	Percolation in ground	
III	100 KL	Rain water	Not required	Percolation in ground	
IV	100 KL	Rain water	Not required	Percolation in ground	



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- d) Description of regional and local drainage pattern indicating annual rain fall, catchments area, and likely quantity of rain water to flow through the lease area, arrangement for arresting solid wash off etc.

There is no permanent water body or any perennial stream located in the area/proposed working site. The surface accumulated water body in the area is out of question. The quantity of ground water in the region is sufficient but it is not of potable nature.



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4. STACKING OF MINERAL REJECT/ SUB GRADE MATERIAL AND DISPOSAL OF WASTE

a) Brief description of the nature and quantity of top soil, overburden/ waste and mineral reject to be disposed off.

Year	Top soil(cum)		Mineral Reject(cum)			Beneficiation
	Reuse/spreading	Storage	Backfilling	Waste Storage	Blending	
I	Nil	Nil	Nil	180000	Nil	Nil
II	Nil	Nil	Nil	45339	Nil	Nil
III	Nil	Nil	Nil	48000	Nil	Nil
IV	Nil	Nil	Nil	33273	Nil	Nil

b) Location of proposed dumping ground within the lease area weather proved for presence or absence of mineral and be outside the UPL unless simultaneous backfilling is proposed or purely temporary dumping for a short period is proposed in mineralized area with technical constraints & justification.

The proposed dump site is in Northeast corner of the ML area . The area is devoid of mineral and outside UPL.

c) Note indicating the manner of disposal of waste, configuration and sequence of year wise build up of dumps along with the proposals for protective measures.

The location and configuration of dump area is shown in Plan and sections drawn over Conceptual plan Plate no.6. The total volume of insitu waste is 306612 cum and swelled volume after breakage will be 383265 cum, requiring an area of 4.50 Ha upto the height of 3.0 m is proposed to keep this quantity of waste. A Garland drain of size 2x1 m shall be made around the bottom side of dump to contain any silt from flowing out in the area due to water.

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5.0 USE OF MINERAL AND MINERAL REJECT

- a) Brief description of the requirement of end user industries involved in up gradation of mineral before its end use.
- b) Soapstone in pulverized form is mostly used as filler in paper, textile, rubber, insecticides and fertilizer industries. Pure talc after calcining, called 'Lava', is used in the manufacture of low-loss ceramic materials essential for radio, radar, television, etc. In roofing products, such as, tar, paper, asphalt shingles and roll roofing, talc acts as a fire retardant and increases weather resistance. Body and face powders (talcum powder) are prepared from the finest quality talc after adding deodorant and perfumes. Massive steatite, when cut into panels is used for switchboards and acid proof tabletops in laboratory, laundry and kitchen sinks, in tubs and tanks as well as for lining alkali tanks in Paper Industry. Due to its high melting point (1630°C), soapstone can be used in refractories and fire places. It is also quite useful in sculpturing.
- c) Talc having more than 92% brightness, less than 1% Fe_2O_3 and less than 1.5% CaCO_3 is preferred for exports. Soapstone powder is also used as parting agent in Foundry Industry. Parting agents are used for easy release of moulds and cores from pattern equipment and core boxes.

d) Gradewise Consuming Industry

Grade	Whitness %	Industry
Grade - A	90 to 95	Phramaceutical Cosmetic
Grade - B	85 to 90	Superior grade paper Textile Ceramic
Grade - C	78 to 85	Paper Inferior grade Paint



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		Rubber Plastic Detergent
Grade -D	78 or below	DDT

e) A general specification of different user industries is under

Name of industries	Compositional range of different radicals						
	MgO	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	CaO	LOI	Whitene SS
plastic industries	31.5-32.0	60.4-60.5	0.6-0.8	1.0	0.9-1.2	5.0-5.1	93.0-96.0
Paint industries	31.2-32.0	60.2-60.5	0.6-1.0	1.0-1.2	0.9-1.2	5.0-5.4	89.0-96.0
Soap & detergent industries	30.0-32.0	60.2-61.5	0.6-1.3	1.0-1.5	0.9-1.5	5.0-5.6	82.0-96.0
Paper industries	30.0-32.0	60.7-61.5	0.5-1.0	0.6-1.4	0.9-1.5	4.9-5.3	83.0-95.0
Cosmetic industries	30.0-32.0	60.7-61.5	0.7-1.0	0.6-1.2	0.9-1.3	4.9-5.2	88.0-95.0
Pharmaceutical industries	30.8-32.0	60.7-61.5	0.7-1.0	0.6-0.8	0.9	4.9-5.2	92.0-95.0
Textile industries	30.0-31.2	60.2-61.5	0.7-1.3	1.2-1.5	1.0-1.5	5.2-5.6	85.0-90.0
Foam industries	30.0-30.5	60.2-61.0	0.5-1.3	1.2-1.5	1.2-1.5	5.2-5.6	83.0-87.0
Rubber industries	30.0-30.5	60.2-61.0	0.7-1.3	1.2-1.5	1.2-1.5	5.3-5.6	84.0-87.0
Sheller industries	30.0-30.5	60.2-61.5	0.8-1.3	1.2	1.2-1.3	5.2-5.6	86.0-89.0
Fertilizer industries	30.0-30.3	61.0	0.5-0.7	1.5	1.5	5.2-5.3	82.0-85.0
Pesticide industries	30.0-30.3	61.0	0.5-0.7	1.5	1.5	5.2-5.3	82.0-85.0
Oil cake industries	30.3	61.0	0.5	1.5	1.5	5.2	82.0-83.0



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f) Specifications of Steatite for use in Paper, Textile, Pyrotechnics & Rubber Industries (IS 380:1978 Second Revision, Reaffirmed 2003)

Parameters	Paper	Textile	Pyrotechnics	Rubber
LOI	4%(max)	45(max)	4%(max)	4%(max)
Matter insoluble in HCl	95%(min)	95%(min)	95%(min)	95%(min)
Grit % by mass	0.02	0.02	0.02	0.02
Chloride(NaCl)	0.5(max)	0.5(max)	0.5(max)	0.5(max)
Iron (Fe ₂ O ₃) 5 by mass	0.3	0.3	0.3	-
pH (max)	8.5(max)	8.5(max)	8.5(max)	8.5(max)
Whiteness, reflectance to blue light of wave length 5040A° (% min)	80(min)	80(min)	80(min)	-
Relative Density	8.5(max)	8.5(max)	8.5(max)	8.5(max)

g) Specifications for use in Insecticide & Ceramic Industries

Parameter	Insecticide	Ceramics (IS 10429-1982)	
		Grade-I	Grade-II
LOI %	7	5.5	6.5
Silica %	-	60	56
Alumina %	-	1.5	2.5
Iron Oxide %	1-1.5	1.0	1.5
Calcium Oxide %	-	1.0	3.5
Magnesia %	-	30	28
Alkali %	-	0.4	0.5
pH	6-7	-	-
Fineness	300mesh	-	-
Sizing			
Material passing through 75 microns IS sieve %	-	99	99
Material passing through 45 microns IS sieve %	-	80	80
Specific Gravity	-	2.7-2.8	2.7-2.8
Fusibility	-	18 to 23	16 to 18
Linear Shrinkage %	-	12	-
Water absorption %	-	0.1	-

h) Brief description of requirement of intermediate industries involved in up gradation of mineral before its end-use.

As given above

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- i) Detail of requirements for other industries, captive consumption, export, associated industrial use etc.

Given above

- j) Precise physical and chemical specification stipulated by buyers.

Given above

- k) Details of processes adopted to upgrade the ROM to suit the use requirements.

No changes are imposed by the user industry. The mineral produced in this mine will be used by the insecticides, paper and cosmetics industries of Rajasthan and Gujarat.



6.0 PROCESSING OF ROM AND MINERAL REJECT

- a) If processing / beneficiation of the ROM or Mineral Reject is planned to be conducted, briefly description of nature of processing/ beneficiation, indicating size and grade of feed material and concentrate, recovery etc.
Not proposed.
- b) Material balance chart with a flow sheet or schematic diagram of the processing procedure indicating feed, product, recovery, and its grade at each stage of processing.
Not applicable.
- c) Disposal method for tailing or reject from the processing plant.
Not applicable.
- d) Quantity and quality of tailing / reject proposed to be disposed, size and capacity of tailing pond, toxic effect of such tailing, if any, with process adopted to neutralize any such effect before their disposal and dealing of excess water from the tailing dam.
Not applicable.
- e) Quantity and type of chemicals if any to be used in the processing plant.
Not applicable.
- f) Specify quantity and type of chemicals to be stored on site/ plant.
Not applicable.
- g) Quantity (cum per day) of water required for mining and processing and sources of supply of water, disposal of water and extent of recycling along with water balance chart.

Water is not proposed to be used for any processing at the site.



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7.0 OTHER

Brief description of the following:

a) Site services

A Mines office and Rest room for Workmen already exists in the area. Therefore other supporting facilities like store, first aid room, latrine & urinals, drinking water, small scale workshop etc. will be developed within the lease area.

b) Employment potential:

c) Labour – skilled, semi – skilled & un-skilled proposed to be employed

d) Local labours are employed for mining in this area. The quantity of mineral expected to be removed during ensuing 4 years period is given. Planned production per day is about 36 tonnes per day. Considering an average OMS of 5 for unskilled labour, the Manpower requirement for Safe & systematic mining sufficient technical, supervisory staff is required and discussed below:

<u>Designation</u>	<u>Qualification</u>	<u>Number</u>
Mine Manager under Reg. 34 of MMR 1961	Mine Manager's certificate of competency	One
Mining Engineer under Rule 42(1)(b) of MCDR 1988	BE Mining	One
Geologist under Rule 42(1)(b) of MCDR 1988	M.Sc. (Geology)	One
Mine Foreman	Certificate of Competency	One
Mining Mate	Certificate of Competency	One
JCB operator		1
Dumper Driver		1
Blaster		1
Drill Operator		1
Semi-skilled (Helpers)		3
Unskilled (5 tonnes O.M.S.)		9 (including for plantation & office)
	Total	21

Therefore, 21 persons will be employed in the mine.



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8.0 PROGRESSIVE MINE CLOSURE PLAN

UNDER RULE 29 (5 - VI) OF RMMCR 2017

8.1 Environment Base Line Information:

Note on the status of base line information with regard to the following.

- Existing land use pattern
- Proposed Land Use in hectares,

S. No.	Description	Present position of the area Hect.	Position at the end of 4 th year Hect.
1	Mining (Quarry)	2.411	4.4035
2	Dump	1.076	4.5000
3	Road and Building	0.310	0.8125
4	Plantation	0.050	29.150
5	Mineral Stack	0.010	0.0800
6	Remaining land	93.273	58.184
	Total	97.130	97.130

Water Regime

The proposed mining activity for next four year is likely to remain above the existing water table from proposed mining in next four year in these pits. It is expected that mining will not affect the water table in the area.

A garland drain of size 2m x 1m will be made at the bottom side of the dump so as to prevent washout from the dumps to reach to nearby nallah.

Mine water pumped during rainy season will carry some silt with. This water will be discharged to a nearby sump to assist in setting down of silt and remaining clear water will be coursed in the nearby nallah.

The discharged mine water will not carry any toxic or poisonous matter dissolved in the water. So no treatment of water is required in the mine.



Quality of Water, Air & Ambient Noise Level:

As no water bodies are present in the mine lease area. Water which will come from the mining activities will be treated in the settling tank before discharging outside the mine area.

As the mine operation will be carried out, there will be no pollution of air in the close vicinity of the mine area.

Noise will be created due the Excavator, Dumpers, and Compressor and due to the drilling by the Jack hammer drill, which will be in the permissible limit.

Flora & Fauna:

The lease area have the vegetation of Babool, a few Thor and Aak.

No fauna exist in the lease area.

Climatic Conditions:

The climatic condition of the area is tropical, semi-arid and hot with the extreme temperature and low rainfall. The rainfall is very irregular in this area. The maximum temperature during summer between March to June is recorded up to 45°C and in winter from mid-November to the beginning of the March, the temperature varies between 8°C to 4°C.

- **Human settlements**

There are no human settlements within the lease area.

- **Public buildings, places of worship and monuments**

There are no public buildings, place of worship and monuments in the lease area.



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8.2 Impact Assessment:

i) Land area

Land Use in hectares.

S. No	Description	Present position of the area Hect.	Position at the end of 4 th year Hect.	Conceptual pit limit up to end of mine life Hect.
1	Mining (Quarry)	2.411	4.4035	3.9000
2	Dump	1.076	4.5000	7.5000
3	Road and Building	0.310	0.8125	0.8125
4	Plantation	0.050	29.150	29.1500
5	Mineral Stack	0.010	0.0800	0.0000
6	Mined out area , converted to water reservoir	0.000	0.000	5.6800
7	Remaining land	93.273	58.184	50.0875
	Total	97.130	97.130	97.1300

Total degraded land by the end of life of mine will be about 9.58 hect where as total plantation will be carried out over an area of 40.55 hect. Total plantation will be over 40.55 hectares out of which 2.74 hect. over back filled mine out area, 29.15 ha. on 7.5m statutory barrier & barren land, 7.5 hect. on dump area and 1.16 ha. over mined out benches.

The vegetation of herbs on waste dumps may provide the economic uplift men for the poor people.

ii) Air quality

The proposed mining method will involve drilling & blasting operation with removal of mineral / waste by Loader and regular plying of dumpers & trucks for transportation of mineral. Therefore, periodic Air pollution may be there due to above mentioned mining work. For the management of this it is proposed to spray water twice a day to reduce much of dust and fumes to cause any damage to ambient air quality of the area.



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It is also provided to dusk mask of mine workers in the dust area and advised to worker should be use face mask as far as possible.

iii) Water quality

There is no surface water body like pond, river within or surrounding the lease area. Therefore question of adverse impact on surface water bodies does not arise. The water level in the well is at 365 mRL during rainy season. During four years period, mining will reach upto 375 mRL depth in these pits. Hence, there is no make of water due to mining in the area.

The mineral soapstone is well known inert substance and no chemical are used during mining. Therefore, there is no chance of any toxic substance dissolving in the water. Therefore, any type of treatment is not required before discharging it into nearby nallah.

iv) Noise levels

During the proposed mining the noise pollution can take place due to following operations.

- (a) Excavator loader, transport machinery as dumper / tractor etc.
- (b) Blasting operation.

Noise levels / pollution caused by above source will not be above the recommended noise standards of DGMS Circular No. 18 of 1975 and Circular No. 05 of 1990. In general, noise levels of the area are within the tolerance limit of 80dB (A).

v) Vibration levels (due to blasting)

Blast holes of 36 mm dia. & 1.5mtr. depth with optimum charge per hole of 0.8 Kg. Explosive has been proposed for imparting shattering effect. During blasting lower Velocity of Detonation (VOD) explosive, plain detonators and safety fuse will be used. Therefore, the intensity of blasting shall not be much cause of ground vibration.

'vi) Water regime

The water regime in the region is controlled only by monsoon rain. The surface accumulated water body in the area is out of question, as the sub-surface formation is loose, which allow water to percolate fast into sub-surface making the area dry very soon. It will not carry any wash-off from the area. As a result of extraction of mineral the rate of charging of ground water is likely to be increased considerably.

On water qualities as neither toxic nor polluted water will be discharged from the mine / neighbouring area. Nor any toxic substances will be used in the mining and allied activities. Therefore, no detrimental impact on water regime is apprehended.

'vii) Acid mine drainage

There will be no drainage of acid with the discharge of mine water in the mine.

'viii) Surface subsidence

There is no apprehension of subsidence of surface in this mine area.

'ix) Socio- economics

The surrounding inhabitants are mainly agricultural oriented. The frequent drought prone condition leads migration of the people. Unemployment and underemployment are the main problems of the inhabitants. The proposed mining dose not involves evacuation of the habitants in any way. While it envisages employment opportunity to the local people and can be considered as famine relief work of aid for their livelihood.

x) Historical monuments etc.,

No historical monuments are present within the lease area. Therefore, no detrimental impact in this regard is apprehended.



ENVIRONMENT MONITORING:

To evaluate the effectiveness of environmental management Programme, regular monitoring of the important environment parameters will be taken up. The schedule, duration and parameters to be monitored are shown in table:

Particulars	Monitoring Frequencies	Duration of Station	Important Monitoring Parameters
Surface water / Tube well	Once in a year	Grab	pH, SS, TDS, Iron, Hardness, Alkalinity Chlorides, Nitrates Sulphate&Flourides
Ambient air monitoring	Twice in a year.	24 hr.	PM ₁₀ , SO _x and NO _x
Noise Pollution	Twice in a year.	8 hr.	Level in dB(A) and dB(C)

8.3 Progressive reclamation Plan:

To mitigate the impacts and ameliorate the condition, yearwise steps proposed for phased restoration, reclamation of lands already/to be degraded in respect of following items separately for 4 years period.

8.3.1 Mined out land

None of the pit/area will be matured for reclamation. Therefore, no proposal has been for reclamation of the land during ensuing four years.

But at the end of fourth year period a protecting barbed fencing shall be laid around the periphery of the worked out area to check the inadvertent entry of men and animals.

Present Land use pattern of lease area is given in para 8.1 on page 42.

8.3.2 Top soil Management:



Area is devoid of soil cover. However, if any soil will be encounter efforts shall be made to recover even thin layer of soil, it shall be scrapped in separate slice and shall be kept preserved for plantation work.

8.3.3 Tailings Dam Management:

There is no proposal of beneficiation for processing of mineral as is used directly in crude form, so no effluents will be generated. Therefore, no tailing dam is required.

8.3.4 Acid Mine drainage, if any and its mitigative measures.

There will be no drainage of acid with the discharge of mine water in the mine.

8.3.5 Surface subsidence mitigation measures through backfilling of mine voids or by any other means and its monitoring mechanism

There is no apprehension of subsidence of surface in this mine area.

The information on protective measures for reclamation and rehabilitation works yearwise may be provided as per the following table.



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SUMMARY OF YEARWISE PROPOSAL FOR ITEM No.8.3

Items	Details	Proposed	Actual	Remarks
Dump management	Area afforested (Ha)			There is no Proposal for dump plantation
	No. of saplings planted			
	Cumulative no. of plants			
	Cost including watch and care during the year			
Management of worked out benches	Area available for rehabilitation Ha			There is no Proposal
	Afforestation done Ha			
	No. of saplings planted in the year			
	Cumulative no. of plants Any other method of rehabilitation (specify)			
	Cost including watch and care during the year			
Reclamation and Rehabilitation by backfilling	Void available for Backfilling (LxBxD) pit			There is No proposal
	Pit wise/ Stope wise			
	Void filled by waste/tailings			
	Afforestation on the backfilled area			
	Rehabilitation by making water reservoir			
	Any other means (specify)			
Rehabilitation of waste land within lease	Area Available Ha			There is no proposal
	Area rehabilitated			
	Method of rehabilitation			
Others (specify) Plantation	Plantation along lease boundary, Road, in plantation area	50		Area 0.25Ha



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8.4 Disaster Management and Risk Assessment:

Detailed action plan for high risk accidents like land slides, subsidence, flood, inundation in underground mines, fire, seismic activities, tailing dam failure etc., and emergency plan proposed for quick evacuation, ameliorative measures to be taken etc. Details of the capability of lessee to meet such eventualities and the assistance to be required from the local authority.

As per proposal made under Mining plan, the working area shall be developed by means of semi mechanised opencast mining method with adoption of drilling and blasting. Exploitation and transportation of mineral are to be carried out by trucks. Maximum depth of working is concentrated at average 18 mtr depth from the surface. Bench height is maintained at 3.0 m. Water table will not touch during proposed working.

But possibility of accidental disaster is also not ruled out. Therefore, all the statutory precautions shall be undertaken into account for quick evacuation as per Mines Act 1952, Mines Rules 1955, Reg. of MMR- 1961 and Rules of MCDR-1988.

Possible disasters together with corrective and remedial measures are described as under:

(i) **Landslides:** The rocks are blasted to win the mineral causing cracks and opening in natural binding. Such loose may fall at any time causing damage to human life and machinery. The only remedy to the effect of such situation will dress the blasted part. Besides it, all necessary precaution shall be taken as per Reg. 115(1) of MMR 1961 to avoid any disaster.

(ii) **Subsidence flood:** The area devoid of any perennial water courses. The water accumulated in the pit is not much to cause the disaster.

(iii) **Inundation in underground mines:** It is not applicable as the mine is opencast.



(iv) Fire: No surface fire is involved in the mining operation. The forest fire may occur due to dry leaves and wood in vegetated part and result in a disaster. In the area under reference, there is no such situation and there is no danger of forest fire. No oil, grease, canvas or other inflammable material shall be stored in mine except in a fire-proof receptacle.

(v) Seismic activities: Earthquakes cannot be prevented but their forecast can be of immense value in minimizing the disastrous effects by keeping people alert against the consequences of subsequent earthquakes.

(vi) Tailing dam failure: There is no tailing dam involved in mining and allied activities. No emergency plan is proposed for quick evacuation and ameliorative measure because there is no need of as such plan.

8.5 Care and maintenance during temporary discontinuance:

Description of emergency plan for the situation of temporary discontinuance due to court order or due to statutory requirements or any other unforeseen circumstances may indicate measures of care, maintenance and monitoring of status of discontinued mining operations expected to reopen in near future.

At the time of temporary discontinuance of mine, notice (as per Rule 24 of MCDR, 1988 & Reg. 6 of MMR, 1961) shall be sent to IBM and Mines Safety authorities. All precautionary steps shall be taken into account in respect of care and maintenance.



8.6 Financial Assurance:

The details of calculation of amount of bank guarantee, issuing bank and period of expiry. Total 11.796 hect. area will be put in use in next four year for mining. Details of area put in use as given below:-

Table indicating the break up of areas in the Mining lease for calculation of Financial Assurance

S. No.	Item	Area put on use at start of plan (Ha) (A)	Additional requirement during plan period (Ha) (B)	Total (Ha) C = (A+B)	Area considered as fully reclaimed & rehabilitated (Ha) (D)	Net area considered for calculation (Ha) E = (C-D)
1.	Area under mining	2.411	1.9925	4.4035	0	4.4035
2.	Storage for topsoil	0	0	0	0	0
3.	Waste dump site	1.076	5.424	6.50	0	6.50
4.	Mineral storage	0.010	0.070	0.080	0	0.080
5.	Infrastructure (Workshop, Adm. Building, etc.)	0.310	0.5025	0.8125	0	0.8125
6.	Roads	0	0	0	0	0
7.	Railways	0	0	0	0	0
8.	Tailing pond	0	0	0	0	0
9.	Effluent treatment plan	0	0	0	0	0
10.	Mineral separation plant	0	0	0	0	0
11.	Township area	0	0	0	0	0
12.	Others (to specify)	0	0	0	0	0
	Grand Total	3.807	7.989	11.796	0	11.796


Note : Total 11.796 hect. area out of 97.13 hect. area will be put in use in next four years. Financial assurance @ Rs15000/- per hect. is $(11.796 \times 15000) = \text{Rs}176940/-$ as per rule 29 (14) of R.M.M.C.R. 2017. Lessee will give Bank FDR for Rs. 176940/- as security.

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Place: Udaipur

Date: 25/09/2017

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आन एच मू-विज्ञान विभाग
उदयपुर वृत, उदयपुर


Shailendra Singh Bist
Mining Geologist



NALWAYA MINERAL INDUSTRIES PVT. LTD.

7-A, Babu Bazar, UDAIPUR - 313 001 (Raj.) INDIA



PART B

9.0 Certificates / Undertakings / Consents

CONSENT LETTER / UNDERTAKING / CERTIFICATE

1. The Scheme of Mining in respect of Nathara Ki Pal IA Soapstone Mine M.L.no.6/98 over an area of 97.13 Ha in village- Nathara Ki Pal, P.O. Nathara Ki Pal, Tehsil Sarada, District Udaipur, State Rajasthan under rule 29(4) of R.M.M.C.R. 2017 has been prepared by RQP Shri Shailendra Singh Bist.

This is to request the Superintending Mining Engineer, Department of Mines & Geology, Udaipur, to make further correspondence regarding any correction of the Scheme of Mining with the said recognized person at his address below:

Shailendra Singh Bist

206, Apeksha Complex, Hiranmagri Sector no.11,

Udaipur. 313002. Raj.

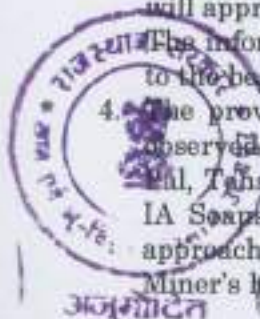
E Mail: ssbist@udrmintech.com.

We hereby undertake that all modifications/updates as made in the said Scheme of Mining by the said recognized person be deemed to have been made with our knowledge and consent and shall be acceptable to us and binding in all respects.

2. It is certified that CCOM circular no.2/2010 will be implemented and complied with when an authorized agency is approved by the State government.
3. It is certified that the Progressive Mine Closure Plan of Nathara Ki Pal IA Soapstone Mine M.L.no.6/98 of M/S Nalwaya Mineral Industries P.Ltd. over an area of 97.13 Ha complies with all statutory rules, regulations, Orders made by the Central or State government, Statutory organisation, Court etc., which have been taken into consideration and wherever any specific permission is required, the lessee will approach the concerned authorities.

The information furnished in the Progressive Mine Closure Plan is true and correct to the best of our knowledge and records.


4. The provisions of Mines Act, Rules and Regulations made thereunder have been observed in the Scheme of Mining over an area of 97.13 Ha in village Nathara Ki Pal, Tehsil Sarada, District Udaipur, State Rajasthan belonging to Nathara Ki Pal IA Soapstone Mine and where specific permissions are required, the Lessee will approach the D.G.M.S. Further, standards prescribed by D.G.M.S. in respect of Miner's health will be strictly implemented.



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Place : Udaipur

Date : 25 / 08 / 2017


Narendra Kumar Nalwaya

Nominated owner

M/S Nalwaya Mineral Industries P.Ltd.,

7-A Babu Bazar, Udaipur.

CERTIFICATE FROM RQP

The provisions of the Rajasthan Minor Mineral Concession Rules 2017 have been observed in the preparation of Scheme of Mining for Nathara Ki Pal IA Soapstone Mine M.L.no.6/98 over an area of 97.13 Ha of M/s Nalwaya Mineral Industries P.Ltd., in Village Nathara Ki Pal P.O. Nathara Ki Pal Tehsil Sarada District Udaipur of Rajasthan state and whenever specific permissions are required, the Lessee will approach the concerned authorities of Department of Mines and Geology.

The information furnished in the Scheme of Mining is true and correct to the best of my knowledge.

Place: Udaipur

Date : 25/08/2017

Shailendra Singh Bist

Mining Geologist

RQP/SME/(Udai-Circle)/2016/21.Dt.05-09-16.



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PROPOSED PLANTATION PROGRAMME

Year	Plantation on M.L. Boundary & barren land along Road		Plantation on backfilled area		Dump area		Plantation on mine out benches		Avenue Plantation		outside the Lease Area (Community Area & Schools)		Total	
	Area (Ha.)	Trees	Area (Ha.)	Trees	Area (Ha.)	Trees	Area (Ha.)	Trees	Area (Ha.)	Trees	Area (Ha.)	Trees	Area (Ha.)	Trees
Existing plantation	0.050	50	--	--	-		--	--	--	--	--	--	0.050	50
I	0.98	980	--	--	--	--	--	--	1.46	1460	6.61	6610	9.05	9050
II	0.98	980	--	--	--	--	--	--	1.46	1460	6.61	6610	9.05	9050
III	0.99	990	--	--	--	--	--	--	1.48	1480	6.63	6630	9.10	9100
2 nd Plan Period	3.405	3405	--	--	--	--	--	--	--	--			3.405	3405
End of life of mine	Nil	Nil	3.9	Re-Grassing	0.235	235	1.16	1160	--	--			1.395	1395
Total	6.405	6,405	3.9	3.9	0.235	235	1.16	1160	4.4	4400	19.85	19,850	32.05	32,050

राजस्थान सरकार
खनि अभियन्ता, खान एवं भूविज्ञान विभाग
खनिज भवन / Khanij Bhawan उदयपुर / Udaipur
दूरभाष / Phones: 0294-2485788 Email: me.udaipur@rajasthan.gov.in



क्रमांक: खअ/उदय/सीसी/सराडा/24/1978/147
प्रेषिति :-

दिनांक : 12/01/2023

मैसर्स नलवाया मिनरल्स एण्ड इण्डस्ट्रीज प्रा.लि.,
सी-164, मेवाड़ इण्डस्ट्रीयल ऐरिया, मादड़ी,
रोड नं.-3, उदयपुर (राज0)।-313003

विषय :- आपके पक्ष में स्वीकृत खनन पट्टा संख्या 24/1978 वास्ते खनिज सौपस्टोन,
निकटग्राम-नठारा की पाल, तहसील-सराडा, जिला-उदयपुर में स्वीकृत के सम्बन्ध
में।

प्रसंग:- आपका पत्र क्रमांक 93 दिनांक 09-01-2023

उपरोक्त विषयान्तर्गत आपके प्रांसगिक पत्र के सम्बन्ध में लेख इस प्रकार है कि विषयांकित खनन पट्टा शासन आदेश दिनांक 27-01-1959 के द्वारा संविदा पंजीयन की तिथि से 20 वर्ष के लिए स्वीकृत किया गया, जिसकी संविदा का पंजीयन दिनांक 01-09-1959 को हुआ। तत्पश्चात् उक्त खनन पट्टे का प्रथम नवीनीकरण शासन आदेश क्रमांक प5(38)खान/गुप3/79 दिनांक 08-08-1979 के द्वारा अवधि दिनांक 01-09-1979 से 31-08-1999 तक के लिए स्वीकृत किया गया। खनन पट्टे का द्वितीय नवीनीकरण आवेदन पत्र दिनांक 23-04-1998 को प्रस्तुत किया गया, वह लम्बित होकर तत्समय प्रभावी खनिज रियायत नियम-1960 के नियम 24(ए)(6) के निहित प्रावधानों के तहत खनन पट्टा deemed to have been extended में प्रभावशील था। एम.एम.डी.आर. (संशोधन) अध्यादेश-2015 की धारा 8(5) के तहत उक्त खनन पट्टा की अवधि 31-03-2030 तक हो गई तथा मूल संविदा भी तदनुसार संशोधित मानी गई।

P. Rao
12/01/23
(पिक राव सिंह)
खनि अभियन्ता,
उदयपुर

राजस्थान सरकार

Government of Rajasthan

कार्यालय खनि अभियन्ता, खण्ड उदयपुर ।

Office of Mining Engineer

खनिज भवन / Khanij Bhawan, उदयपुर Udaipur-313001

Phone: 0294-2583356 Email ID: meudaipur@dmg-raj.org

क्रमांक: खअ/उदय/सीसी/सराड़ा/24/1978/116

दिनांक: 13/01/2023

-:: प्रमाण-पत्र ::-

यह प्रमाणित किया जाता है कि मेसर्स नलवाया मिनरल इण्डस्ट्रीज प्रा.लि., 7-ए, बापू बाजार, उदयपुर (राज0) के पक्ष खनन पट्टा संख्या 24/1978 वास्ते खनिज सोपस्टोन क्षेत्रफल 97.13 हैक्टेयर निकट ग्राम नठारा की पाल तहसील सराड़ा जिला उदयपुर में स्वीकृत है। उक्त क्षेत्र राजस्व ग्राम नठारा की पाल में आता है तथा निम्न अक्षांश एवं देशान्तर के अन्तर्गत आता है। उक्त खनन पट्टा संबंधित जी.टी. शीट एवं कार्यालय रेकार्ड के अनुसार अरावली हिल्स में आता है एवं माननीय सर्वोच्च न्यायालय की रिट याचिका संख्या 202/1995 (गोन्डावर्मन बनाम युनियन ऑफ इण्डिया) में अरावली हिल्स के सन्दर्भ में पारित आदेश दिनांक 08-4-2005 कन्टेम्पट पिटिशन(सी) 412/2004 एवं सर्वोच्च न्यायालय के आदेशों की अवहेलना में नहीं आता है।

S No.	FRP Description	GT Sheet No.	Longitude	Latitude	Village
1	563,45H16	45H16	377050.5	2679906.5	Maukat Phala

Description Of Pillar/Area

S No.	Area From	Area To	Bearing	Distance	Longitude	Latitude
1	GTS 563	A	2-0-0	643.90	73-47-21.41	24-13-58.59
2	A	B	22-30-0	804.87	73-47-32.1	24-14-22.85
3	B	C	292-30-0	1207.31	73-46-52.41	24-14-37.56
4	C	D	202-30-0	804.87	73-46-41.72	24-14-13.3
5	D	A	112-30-0	1207.31	73-47-21.41	24-13-58.59

P. S. Singh
13/1/23

(पिकंराव सिंह)
खनि अभियन्ता,
उदयपुर

Format for Mines

Project (with production and location address):-

Nathara Ki Pal-I-A, Soapstone Mining Project (M.L No. – 24/1978 Renewal-06/1998), Lease Area- 97.13 ha, near Village – Nathara Ki Pal, Tehsil –Sarada & District – Udaipur (Rajasthan).

Name of the Project Proponent (with address, e-mail):- Nalwaya Mineral Industries Pvt. Ltd, R/o. C-164, Mewar Industrial Area, Madri Road No.3, Udaipur, Raj.

Name of the Consultant (with address, e-mail):- Enkay Enviro Services Pvt. Ltd. situated at # 92, Heera Nagar A, Near Shalimar Bagh, Ajmer Road, Jaipur, Rajasthan.

E-mail:- info@enkayenviro.com

1.	Category / Item no. (in Schedule):	1(a)/ B-1 Category
2.	Location of Project	Near Village – Nathara Ki Pal, Tehsil –Sarada & District – Udaipur (Rajasthan)
3.	Project Details M.L. No. / Production capacity	M.L No. – 24/1978,(Renewal-06/1998) Production Capacity: 27,139 TPA (Total Excavation), Minerals: 10,855 TPA & Waste: 16,284 TPA
4.	Project Cost	Rs. 2.50 Crore
5.	Water Requirement & Source	4.0 KLD (Domestic- 1.0 KLD, Dust Suppression- 2.0 KLD, Plantation-1.0 KLD)
6.	Fuel & Energy:-	Fuel – 500 lts/ day (Nearby oil Pumps)
7.	Application No. & Date & documents submitted :-	Application No. – SIA/RJ/MIN/29754/2015
8.	Information about Aravalli Certificate.	Aravalli Certificate has been issued vide letter No. ME/ Udai/ CC/ Sarada/ 24/ 1978/ 2564 date 24.08.2022 Aravalli Certificate has been issued vide letter No. ME/ Udai/ CC/ Sarada/ 24/ 1978/ 116, date 13.01.2023
9.	Date of Air/ Water/ Noise Monitoring	Baseline monitoring has been conducted March-April-May-2016(Summer Season) & One month Additional Monitoring- May 2022.
10.	Information about 500 mts composite map	Cluster Certificate has been obtained from the office of ME, Udaipur vide letter no. M.E/Udai/CC/Sarada/24/1978/1677, date- 07.06.2022 Cluster Map obtained from the office of ME, Udaipur vide letter no. ME/UDR/DRG NO/163 date- 07.06.2022.
11.	Environment Management Plan	The details of activity to be taken under EMP has been submitted along with proposed budget provision in Chapter-X of EIA/EMP Report-

Budget for Environment Management Plan

S. No.	Activities	Capital Cost(Lakhs)	Recurring (Lakhs/annum)
A.	Air Pollution Control and Management		
	One Atomized nozzle mounted on tanker for water sprinkling on haul roads.	15.0	2.0
	SUB-TOTAL	15.0	2.0
B.	Water Pollution Control, Management & Conservation		
	Construction of garland drain and retaining wall and sedimentation pits to channelized the surface runoff.	5.0	1.0
	SUB-TOTAL	5.0	1.0
C.	Ecology & Biodiversity		

		<i>Plantation Programme</i>	96.15	64.13
		Wildlife Conservation Plan (for 1 Schedule-I species i.e. Peacock) for 10 Year	-	1.5
	SUB-TOTAL		96.15	65.63
D	Public Hearing Action Plan (Community Development Activities)			
	<i>Public Hearing Action Plan (CSR Activities) for 3 Years</i>		15.0	1.0
	SUB-TOTAL		15.0	1.0
	GRAND TOTAL		131.15	69.63

12. CER/ESR Activates Budget of 15.0 Lac is proposed under CER Activities in three years

13. Green Belt/ Plantation About 32.05 ha. area will be under green belt which is 33% of the lease area.

Green Belt Development Plan

Year	Plantation on M.L. Boundary & barren land along Road		Plantation on backfilled area		Dump area		Plantation on mine out benches		Avenue Plantation		outside the Lease Area (Community Area & Schools)		Total	
	Area (Ha.)	Trees	Area (Ha.)	Trees	Area (Ha.)	Trees	Area (Ha.)	Trees	Area (Ha.)	Trees	Area (Ha.)	Trees	Area (Ha.)	Trees
Existing plantation	0.050	50	--	--	-		--	--	--	--	--	--	0.050	50
I	0.98	980	--	--	--	--	--	--	1.46	1460	6.61	6610	9.05	9050
II	0.98	980	--	--	--	--	--	--	1.46	1460	6.61	6610	9.05	9050
III	0.99	990	--	--	--	--	--	--	1.48	1480	6.63	6630	9.10	9100
2 nd Plan Period	3.405	3405	--	--	--	--	--	--	--	--			3.405	3405
End of life of mine	Nil	Nil	3.9	Re-Grassing	0.235	235	1.16	1160	--	--			1.395	1395
Total	6.405	6,405	3.9	3.9	0.235	235	1.16	1160	4.4	4400	19.85	19,850	32.05	32,050

14. Budgetary Breakup for Labour The facilities provided for the labours like shelter, health facility, safe drinking water, sanitation facility, and education has been given below:-

Budgetary Breakup for Labor

S. No.	Activities	Recurring Cost (In Thousand)
1.	Shelter	22.0
2.	Health Facility	8.0
3.	Drinking Water	5.0
4.	Sanitation Facilities	10.0
Total		45.0

15. Present Status :- Presentation Awaited

For Nalwaya Mineral Industries Pvt. Ltd.

R. K Nalwaya

(Director)
