

**INDIAN BUREAU OF MINES  
MINERALS DEVELOPEMMENT AND REGULATION DIVISION**

**MCDR INSPECTION REPORT**

**Ajmer regional office**

**Mine file No :** RAJ/JSL-23/SE-09

**Mine code :** 97RAJ14002

- (i) Name of the Inspecting : **S012** ) **Sharma H.C.**  
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Shri Ashok Khatri, lessee & Sh. S. K. Soni, QP  
Official with  
Designation
- (iv) Date of Inspection : 25-NOV-18
- (v) Prev.inspection date : 16-MAR-17

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **SAJIT(217/13)**
- (b) **Registration NO.** : **IBM/16828/2013**
- (c) **Category** : A Other than Fully Mech.
- (d) **Type of Working** : Opencast
- (e) **Postal address**
- State : RAJASTHAN
- District : JAISALMER
- Village : SAJIT
- Taluka : FATEHGARH
- Post office :
- Pin Code :
- FAX No. :
- E-mail : [reactivesilica@gmail.com](mailto:reactivesilica@gmail.com)
- Phone : 9414762777
- (f) **Police Station** : Fatehgarh
- (g) **First opening date** : 01-DEC-14
- (h) **Weekly day of rest** : SUN
2. **Address for correspondance** : Sh. Ashok Khatri S/o Late Shri Tikam Chand Khatr  
Enko Ki Pol, Pokaran  
Dist Jaiselmer
3. (a) **Lease Number** : RAJ5170
- (b) **Lease area** : 4.74
- (c) **Period of lease** : 50
- (d) **Date of Expiry** : 09-OCT-64
4. **Mineral worked** : SILICEOUS EARTH Main

## 5. Name and Address of the

Lessee : ASHOK KUMAR KHATRI  
Inko ki Pol Pokaran  
JAISALMER RAJASTHAN  
Phone:  
FAX :

Owner : ASHOK KUMAR KHATRI  
Inko ki Pol Pokaran  
JAISALMER RAJASTHAN  
Phone:  
FAX :

## Mining Engineer

Name : Shri Rajesh Nawal, Part Time  
Qualification : BE(Mining)  
Appointment/ :  
Termination date

6. Date of approval of Mining : Fresh under rule 22 MCR1960 14-MAR-14  
Plan/Scheme of Mining

## PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Four prospecting were proposed to be made in the previous mining plan approved dated 12/03/2014.	The mineral found in all the four PTP & two had been developed in to working pits.	
1b	Exploration over lease area for geological axis 1 or 2	Proposed to explore by five trenches additionally covering 1.2 ha as given in processed review of MP in addition to this MCDR Inspection.	The time of implementation of plan period is yet to start.	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	lessee himself, expenditure not specified.	Lessee himself, cost not estimated so far.	
1d	Balance area to be explored to bring Geological axis in 1 or 2	1.2 ha	1.2 ha	
1e	Balance reserve as on 01/04/20	Proved 111 category-- 64098 T, Probable 121/122-- 23724T and total resources 64796 T as per draft review of MP submitted for approval.	Proved 111 category-- 64098 T, Probable 121/122-- 23724T and total resources 64796 T as per draft review of MP submitted for approval.	
1f	General remarks of inspecting officers on geology, exploration etc	Not applicable	The mine has been opened since 1/12/2014 & lessee's conduct towards exploration was satisfactory.	

## Development :

Sl.No.	Item	Proposals	Actual work	Remarks
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2a	Location of development w.r.t.lease area	Single pit in North Eastern part.	Two pits made one at proposed location & another in North Western side.	The deviation had been pointed out as V/L.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	There is no top soil worth useful, the separate bench in O/B & in mineral proposed.	The separate benches in O/B waste & in mineral provided as proposed.	
2c	Stripping ratio or ore to OB ratio	1.34	0.94	
2d	Quantity of topsoil generation in m3	Not Specified	Not applicable	
2e	Quantity of overburden generation in m3	36050 T during last plan period up to Sept 2018.	27100 T during last plan period up to Sept 2018.	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Not applicable	Conduct of lessee was poor towards development as two pits developed for extraction at increase level thereby shortening of life of mine.	

### Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Single pit.	Two working pits (sized 128m long X 72m wide and 36m long X 30m wide) had been developed developed & Worked for extraction of mineral.	
3b	Quantity of ROM mineral production proposed	14910 T of ROM during 20107-18.	8170 T of ROM produced during 2017-18.	
3c	Recovery of sailable/usable mineral from ROM production	90%	90% as stated but practcaly total ROM is salable & even the low grade reject is also salable.	
3d	Quantity of mineral reject generation	1492 T during 2017-18.	820 T during 2017-18.	

3e	Grade of mineral rejects generation and threshold value declared.	Not Specified	Not applicable
3f	Quantity of sub grade mineral generation.	Nil	Not applicable as there is no generation of Subgrade mineral.
3g	Grade of sub grade mineral generation	Not applicable	Not applicable
3h	Manual / Mechanised method adopted for segregating from ROM	Manual	Manual
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal	Not applicable
3j	Provision of drilling and blasting in mineral benches	No proposal	Not applicable as both of the O/B waste and mineral is excavable by HEMM/ JCB.
3k	Provision of mining machineries in mineral benches	No proposal	Not applicable as both of the O/B waste and mineral is excavable by HEMM/ JCB.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes	Yes
3m	Total area covered under excavation/pits	2.180 ha	1.04 ha
3n	Ore to OB ratio for the pit/mine during the year.	1.34	0.94
3o	Total area put in use under different heads at the end of year	Under O/C Working- 2.1810 ha, Waste Dumping 0.4550 ha, Infrastructure - 0.04 ha, Plantation- 0.1 ha, Backfilled- 0.62 ha.	Under O/C Working- 1.04 ha, Waste Dumping Nil ha, Infrastructure- 0.005 ha, Plantation- 0.02 ha, Backfilled- 0.49 ha.

3p	Production of ROM mineral during the last five year period as applicable	2014-15-- 8640T, 2015-16-- 10935T, 2016-17-- 11232 T, 2017-18-- 13419T, 2018-19-- 13743T (Till Sept 2018)	2014-15-- 2550T, 2015-16-- 11114T, 2016-17-- 6187 T, 2017-18-- 7350T, 2018-19-- 3100T (Till Sept 2018)	
3q	General remarks of inspecting officers on method of mining etc.	Not applicable	The lessee's conduct towards method of was satisfactory except during 2015-16 an excess production of 179 T had been made.	During 2015-16 the actual production raised was 11114 T against the targetted production of 10935 T as per last approved mining plan approved on 12/3/2014. The same had been proposed as VL.

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Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	The symultaneos backfilling was proposed in stead of Dumping O/B Waste.	Symultaneous backfilling practiced & an area of 0.49 ha backfilled & levelled so far.	
4b	Location of topsoil, OB and mineral reject dumps	Near pillar 'C'.	Along Boundary BC near pillar 'C' at initial stage, now backfilled & levelled.	
4c	Number of dumps within lease area and outside of lease area	Single Dump	None now.	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Out side UPL	Being done	
4e	Number of active and alive dumps.	One	None now as backfilled.	
4f	Number of dead dumps.	NIL	Not applicable	
4g	Number of dumps established.	No proposal	Not applicable	

4h	Whether Retaining wall or garland drain all along dumps are there.	No proposal	Not applicable
4i	Length of Retaining wall or garland drain all along dumps	No proposal	Not applicable
4j	Number of settling ponds	Not specified	Not applicable
4k	Specific comments of inspecting officer on waste dump management	Not applicable	No issue regarding waste dump management.

#### Solid Waste Management - Backfilling:

Sl.No.	Item	Propasals	Actual work	Remarks
5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	Full extraction after second year.	Being done	
5b	Area under backfilling of mined out area	Not specified	0.49 ha till date of submission of MPI	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Backfilling & Plantation.	Backfilling & Levelling done, such area fenced & Planted thorny trees as per consultation of CAZRI.	
5d	Total area fully reclaimed and rehabilitated	Not specified yearwise.	Total 0.49 ha.	
5e	General remarks of inspecting officers on backfilling and reclamation etc.	Not applicable	There is no issue regarding backfilling, Lessee's conduct was appreciable in comparision of other surrounding Silicious earth mine.	

#### Progressive Mine Clousre Plan:

Sl.No.	Item	Propasals	Actual work	Remarks
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6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	Annual report of 2017-18 has become due.	Not submitted yet.	Pointed out as VL.
6b	Area available for rehabilitation (ha) .	Not specified	0.49 rehabilitated.	
6c	afforestation done (ha).	50 plants per year proposed over 0.15 ha.	Survived 20 planted annually over 0.1 ha with survival rate of 40%.	
6d	No. of saplings planted during the year	50 during 2017-18	Survived 20 during the year.	
6e	Cumulative no .of plants	250 trees during plan period over 0.75 ha.	100 survived over 0.49ha.	
6f	Any other method of rehabilitation	No proposal	Not applicable	
6g	Cost incurred on watch and care during the year	Not specified	Not applicable	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	Not specified	Not applicable	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Not specified	Not applicable	
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	Not specified	Entire survived plantation is on backfilled area.	



6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal	Not applicable
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No proposal	Not applicable
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	No proposal	Not applicable
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No proposal	Not applicable
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No proposal	Not applicable
6p	Compliance of environmental monitoring (core zone and buffer zone)	AS per consent condition from SPCB.	Being done
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	Not applicable	The annual return under rule 26(2) had become due for the year 2017-18 which has not been submitted yet. Same is pointed out as VL.

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Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	No Proposal	Mineral is spread in stack yard for Sun Drying & the Dispatched to consumers.	

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7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual	Manual
7c	Different grade of mineral sorted out at mines.	Single	Single
7d	Any beneficiation process at mines .	No proposal	Not applicable
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Not applicable	There is no issue to mineral conservation, there is no subgrade. The Mineral reject finds market at demand period.

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Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	There is no usable Top Soil as vegetation cover is almost absent except thorny bushes developed by CAZRI for stablising sand dunes.	What ever Soil recovered had been spread over backfilled area for plantation.	
8b	Concurrent use or storage of topsoil	Backfilling & plantation of thorny trees.	Being done	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	No proposal as symultaneous backfilling proposed fro second year on wards.	Not applicable	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Backfilling of O/B of non usable soil cover.	Being done	

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Same as above	Same as above
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	50 trees to be planted each year over 0.1 ha area, thereby amounting to 250 trees.	20 thorny trees per year survived as per advice of CAZRI over 0.02 ha, there by 100 trees over 0.1 ha with survival rate of 40%.
8g	Survival rate	40%	40%
8h	Water sprinkling on roads to control airborne dust	No proposal	Not applicable
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Not applicable	The general aesthetic beauty of mine & its surrounding was satisfactory.

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Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Not applicable	M/R recieved up to November 2018, A/R Recieved for the year 2017-18.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	No Entry of Mining Engineer & Geologist made in the A/R.	No Technical person employed.	The VL has been pointed out of rule 55 of MCDR 2017.

- 9c Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc. The total lease area of 4.744 ha falls outside forest, out of which already exploited & Abandoned by O/C working is 0.54 ha, covered working 0.245 ha, reclaimed 0.098 ha, occupied by office building 0.10 ha, Mineral stack for sun drying 1 ha. Found in order.
- 9d Scrutiny of Annual return on afforestation 50 No of trees planted during the year 50 within ML & 20 Outside ML with survival rate of 40%. Found in Order.
- 9e Scrutiny of Annual return on mineral reject generation (Grade and quantity) Reject generated during the year 1000 t stated. Found in order.
- 9f Scrutiny of Annual return on ROM stock and/or graded ore Production of 7350 T stated, with no subgrade. Found in order.

9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	The Ex- Mine Price stated as 270.00 excluding royalty & other over head cost. The direct cost Rs 390.00 for mining, over head cost Rs 38.00, Depreciation RS. 40.00, interest Rs. 42.25, Royalty 196.00 & including other taxes & Rent, The Cost of Production stated as Rs. 770.00 per tonne.	Found in order.
9h	Scrutiny of Annual return on fixed assets	The value of Fixed assets not given.	The Interst & Depriciation has been included in Cost of Production which was explained to the lessee during field visit.
9k	Scrutiny of Annual return on mining machineries	The HEMM stated as Backhoe of 0.30 Cu M capacity stated without given its cost.	It was explained to the Party during field visit.

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**Details of violations observed during current inspection and compliance position of violation pointed out**

Violation observed		Show cause position	
Rule NO.	Issued on Compliance on	Rule NO.	Issued on Compliance on

**Date :**

**(Sharma H.C.)**

Indian Bureau of Mines