



## **MINE PROFILE / DATA DOSSIER OF AB INCLINE MINE**

### **1.0 GENERAL INFORMATION**

#### **1.1 LOCATION OF THE MINE**

AB Incline Mine is located in Silewara-Kamptee Coalfield under the administrative control of Nagpur Area of the WCL, in Nagpur District of Maharashtra State. The AB Incline Mine is situated immediately on the northern side of Pipla U/G, Walni U/G and Silewara U/G Mine property.

The present leasehold area of AB Incline Mine is 193.75 hectares and the area proposed for mining by MDO will be within the lease hold area itself. The AB Incline Mine falls in Silewara-Kamptee Coalfield. The proposed AB Incline Mine boundary is delineated in the plans appended with this profile as follows:

North : AB Incline Mine Northern Boundary Arbitrary Line north of Central Magazine and Walni Colony

South : Common Mine Boundary between AB Incline Mine with Walni U/G and Silewara U/G Mine corresponding to boreholes approximately KMT 133, KMT 25, KMT 85, KMT 32, KMT 51, KMT 81 & KMT 26

East : AB Incline Mine Eastern Boundary Arbitrary Line corresponding to boreholes approximately KMT 50 & KMT 77

West : AB Incline Mine Western Boundary Arbitrary Line corresponding to boreholes approximately KMT 134 & Walni Colony Buildings

The AB Inclines Mine is bounded by

Latitude : 21° 17' to 21° 20' N

Longitude : 79° 02' to 79° 08' E

#### **1.2 MINE ACCESSIBILITY**

Nearest Airport: Nagpur at a distance of about 30 km

Nearest Railway Station : Pipla Halt & Patansaongi at a distance of around 2 & 7 km respectively

Approach by Road : 3 km from Dahegaon and 8 km from Patansaongi on NH-47

Nearest Seaport : Vishakhapatnam and Mumbai at a distance of about 780 km and 825 km respectively.

### **1.3 HISTORY OF THE MINE / PROJECT**

#### **1.3.1 History of mining, mine operators and date of abandonment:-**

Silewara Project consists of three units namely Silewara U/G Mine, Walni U/G Mine and AB Incline Mine. Out of these, Silewara Mine was opened by erstwhile NCDC, whereas Walni U/G Mine came into existence as per provision of RPR for Silewara Expansion (Phase-I). AB Incline Mine was opened as per the provision of RPR for Silewara Expansion (Phase-II).

A Revised Project Report for Silewara Expansion was prepared in December 1978 wherein a production capacity of 0.48 Mty was to be achieved as per Phase-I RPR. The Phase-II of the same report envisaged a final production capacity of 0.85 Mty (0.55 Mty from Silewara and balance 0.30 Mty from Walni). The Govt. of India approved Phase-I of the project for a target production of 0.48 Mty.

As per the recommendation of Inter-Ministerial Group (IMG), the second phase of the development of the project was to be taken only after adequate hydrogeological investigations. The hydrogeological investigation of the block was undertaken by CGWB and a report was published in October 1981.

In view of favourable hydrogeological conditions, the project needed upgradation for higher production. Hence, a second RPR namely RPR for Silewara Expansion (Phase-II) was prepared in November 1982. As per this report, one more unit namely AB Incline Mine was added to the project. The production capacity was envisaged as 1.00 Mty (Silewara U/G Mine = 0.52 Mty, Walni U/G Mine = 0.33 Mty & AB Incline Mine = 0.15 Mty).

The above report was approved by Government of India in March 1985. Accordingly, AB Incline Mine was opened in February 1986 and production from this mine was started in 1991-92.

As the total expenditure upto 31-03-1988 was likely to exceed the sanctioned capital, a Revised Cost Estimates (RCE) for RPR for Silewara Expansion (Phase-II) was prepared in March 1989. The RCE was approved by WCL Board in June 1989 and CIL Board in January 1990.

Subsequent to the clearance by Inter Ministerial Group (IMG), the department of coal expressed doubt regarding the capability of the project to achieve the target capacity of 1.0 Mty on the basis of the stagnant production of the project in the last few years. It was finally decided to prepare a fresh RPR on the basis of realistic assessment of achievable capacity. This decision was communicated by Department of Coal to WCL. WCL Board gave its approval for preparation of another RPR with derating Silewara Project to 0.80 Mty (Silewara U/G Mine = 0.38 Mty, Walni U/G Mine = 0.24 Mty & AB Incline Mine = 0.18 Mty). This derated RPR of Silewara Project was prepared and got approved in which the target capacity of AB Incline Mine was fixed as 0.18 Mty.

AB Incline Mine was opened with 2 inclines and an airshaft. AB Incline Mine is having four workable seams namely Seam-V, Seam-IV (Top), Seam-IV (Bottom) and Seam-II having a thickness range of about 3.50m - 4.75m, 2.00m - 3.50m, 2.00m - 3.00m and 3.00m - 6.00m respectively.

Bord & Pillar method of mining in conjunction with hydraulic sand stowing has been adopted in AB Incline Mine till its discontinuance. Production from this mine was on declining trend with 178820 tonnes in 2012-13 to 87615 tonnes in 2017-18. Ultimately the mine was discontinued in 2018.

### **1.3.2 Reasons of discontinuity:**

Due to heavy losses and very less production, steep gradient, water bearing Kamptee series, poor RMR, geological disturbances such as faults, cleats, slips etc in AB Incline Mine, the workings of AB Incline Mine were discontinued and ultimately closed in February 2018 and March 2020 respectively.

#### **1.4 COMMUNICATION FACILITIES AVAILABLE:**

The block is well connected by both road and rail. The mine is approachable from Dahegaon (3 kms) and Patansaongi (8 kms) and is in turn connected to Nagpur via Dahegaon on Chhindwara Road. Pipla Halt & Patansaongi Railway Stations are at a distance of around 3 & 8 kms respectively from the mine under South-eastern Railway.

#### **1.5 CLIMATE**

The area is characterized by Tropical Climate. The day temperature during summer months (lasting from April to May) rises to as high as 47° C to 48° C but winters (November to February) are generally pleasant with minimum temperatures going down to 10° C. The annual rainfall in the area is about 1200 mm. The average relative humidity varies from 45% to 60%.

#### **1.6 TOPOGRAPHY AND DRAINAGE:**

The area is generally very flat with elevation ranging between 283m and 300m above MSL. The drainage of the area is controlled by two perennial rivers i.e., Kolar River in the south and Kanhan River in the north. A canal is flowing over the AB Incline Mine property on the northern side.

Most of the property of AB Incline Mine area lies well above the Highest Flood Level but a small portion on the eastern side is affected by the HFL of Kanhan River. The HFL of Kanhan River is 290.14m as recorded in the year 1942.

#### **1.7 STATUS OF MINING LEASE**

##### **1.7.1 Lease-hold area :-**

The present leasehold of AB Incline Mine is 193.75 hectares approximately.

##### **1.7.2 Land use pattern:-**

The total leasehold area of AB Inclines Mine is 193.75 hectares approximately. The land acquisition status under different heads in the Leasehold Area is given as follows:

SI. No.	Type of Land	Area (in ha)
1	Tenancy Land	133.32
2	Forest Land	0.00
3	Government Land	11.44
4	Acquired Land of WCL (Tenancy Land)	48.99
	<b>TOTAL</b>	<b>193.75</b>

## 2.0 GEOLOGY

### 2.1 GEOLOGY OF THE COALFIELD

The stratigraphic sequence established on the basis of borehole data from several agencies like IBM, NCDC and DGM Mining (Maharashtra) is given in the following table:

Age	Formations	Lithology	Range of Thickness (m)
Sub recent to recent	Detrital Mantle	To black cotton soil, clayey soil, sandy soil, medium to coarse grained sand, pebbles and boulders of metamorphics, Deccan Traps and sandstone	7.80 - 53.20
UNCONFORMITY			
Upper Permian	Kamthis	Very fine grained, medium to coarse grained sandstone, frequently, ferruginous and silicified, pink, red, purple and yellow in colour. The clays are generally red & greyish green	50 - 100
OVERLAP			
Middle Permian	Moturs	Green grey, chocolate brown, variegated clays, greenish chloritic and micaceous sandstones, carbonaceous shales and rarely thin bands of coal	250 - 300
Lower Permian	Barakars	Grey/White fine to coarse grained and gritty sandstone, intercalations of shale and grey shale, carbonaceous shale and coal seams	250 - 270
Upper Carboniferous	Talchirs	Greenish and Calcareous shales and sandstones	Not known
UNCONFORMITY			
Archean	Metamorphics	Pegmatite, Schists, Quartzites etc	Not encountered in any B.H.

2.2.1 The individual formations are described as below:

**a) DETRITAL MANTLE**

The detrital mantle consists of black cotton soil, layers of medium and coarse grained sand with pebbles and boulders of quartzite, metamorphics and deccan trap indicating that they are of transported origin. The thickness of detrital mantle varies from 7.80m to 53.20m.

**b) KAMTHIS**

Kamthis consist of dark brown coarse grained ferruginous sandstones, felspatic grits and red/yellow limonite shales. The Kamthi rocks are devoid of coal seams. Earlier it was considered that Silewara-I Mine area did not have Kamthis but assessment of Pipla-Walni area by the geologists had revealed presence of such rocks near the incrops of the coal seams below the detrital mantle. It was noticed that wherever the thickness of detrital mantle is less in a borehole, the Kamthis have been invariably found to exist underneath.

**c) MOTURS**

The Moturs are underlain conformably by the Barakars and overlain unconformably by the Kamthis. These comprise of dominantly highly plastic mottled clays and fine/coarse grained chloritic sandstone. Thin bands of coal and shale were noticed in the bottom section of the moturs. This plastic clays amount to about 64% of the motor formation, the sandstone constitute 30% while the rest are rock types such as carbonaceous shales and quarry shale. The clay horizons 2m to 6m in thickness are fairly consistent in top portion of moturs while impersistent clay bands/pockets also occur in the bottom section. The lowest fairly thick and marked clay horizon occurs about 50 to 70m above the top most coal seam (Seam-V) occurring in the barakars.

**d) BARAKARS**

The total thickness of Barakars was estimated at 250 to 270m. The Middle Barakars about 100m thick, contain the coal seams of economic importance. The lithological succession in the Barakars is as follows:

<b>Lithology</b>	<b>General Range in Thickness</b>
Sandstone	60m - 70m
Coal Seam - V	6.0m - 8.0m
Parting (generally sandstone)	25m - 40m
Coal Seam-IV (Top)	1.5m – 3.5m
Parting (generally sandstone and inferior coal bands)	6.0m - 10.0m
Coal Seam-IV (Bottom)	2.0m - 3.0m
Parting (generally sandstone)	30m - 40m
Coal Seam-III	0.5m - 2.5m
Parting (generally sandstone)	16m - 24m
Coal Seam-II	3.0m - 6.0m
Parting (generally alternating shale and sandstone)	1.5m – 4.0m
Coal Seam-I (Top)	0.3m - 1.1m
Parting (generally shale and alternating shale and sandstone)	0.6m - 3m
Coal Seam-I (Bottom)	0.5m - 2.0m
Sandstone, alternating shale and sandstone	About 70m

## **2.2 EXPLORATION STATUS**

Indian Bureau of Mines started prospecting work in the area in 1962. NCDC carried out further exploration from 1964 onwards. The total meterage drilled till September 1978 was about 33457m for proving. The proposed mine boundary falls in Silewara - Kamptee Coalfield. The details of boreholes drilled by different agencies are not available.

## **2.3 DIP AND STRIKE**

The geological structure as deciphered from the borehole data indicate the rocks including the coal bearing Barakars to have a southerly dip of 11° to 16°.

## **2.4 INCROP / OUTCROP OF COAL SEAM (S)**

As per the available plans and data, no coal seam incrop / subcrop in the proposed leasehold boundary.

## **2.5 COAL SEAMS**

The sequence of Coal Seams with their thicknesses is as follows:

Seam / Seam section	Seam Thickness (m)	UHV (k.Cal./kg)	Remarks
V	3.5 - 4.75	2690-3380	Workable Section
IV (Top)	2.0 - 3.5	2690-4898	Workable Seam section
IV (Bottom)	2.0 - 3.0	4208-5036	Workable Seam section
III	1.2 - 2.5	4070-5312	Unworkable Seam
II	3.0 - 6.0	4208-5588	Workable Seam
I (Bottom)	1.2 - 2.0	4760-5864	Unworkable Seam section

### 2.5.1 Description of Coal Seams in the Mining Area

The AB Incline Mine was opened with two inclines and an airshaft. The mining area in AB Incline Mine is having four workable seams/seam sections namely Seam-V, Seam-IV (Top), Seam-IV (Bottom) and Seam-II. Seam section-III, Seam section-I (Top) and Seam section-I (Bottom) are unworkable owing to less thickness and reserves.

Seam-V is having a thickness of 3.50m to 4.75m. 70% of area in Seam-V has been developed. Two panels (E-1 & E-2) have been depillared in this seam. Leaving aside the developed pillars, a few panels have been drawn in Seam-V where development and depillaring reserves have been estimated. Also the depillaring reserves have been estimated in the pillars which are standing in this seam.

Seam-IV (Top) is having a thickness of 2.00m to 3.50m. Nearly whole of the area has been developed in this seam. One panel (E-1) was depillared in Seam-IV (Top). No fresh panels could be drawn in the virgin area of Seam-IV (Top) as there is no place left out in this seam. Therefore, development and depillaring reserves have not been estimated in the virgin area. The depillaring reserves have been estimated in the pillars which are standing in this seam.

Seam-IV (Bottom) is having a thickness of 2.00m to 3.00m. Nearly whole of the area has been developed in this seam. One panel (E-1) was depillared in Seam-IV (Bottom). No fresh panels could be drawn in the virgin area of Seam-IV (Bottom) as there is no place left out in this seam. Therefore, development and depillaring reserves have not been estimated in the virgin area. The depillaring reserves have been estimated in the pillars which are standing in this seam.



Seam-II is having a thickness of 3.00m to 6.00m. Nearly whole of the area has been developed in this seam. No panel was depillared in Seam-II and the whole seam is standing on pillars. No fresh panels could be drawn in the virgin area of Seam-II as there is no place left out in this seam. Therefore, development and depillaring reserves have not been estimated in the virgin area. The depillaring reserves have been estimated in the pillars in all panels which are standing in this seam.

Note:- In AB Incline Mine area, the development has been done only upto Fault F<sub>1</sub>-F<sub>1</sub>. This fault is a down thrown fault with a maximum throw of about 135m. Beyond this fault, there is some virgin area which is in the lease hold of AB Incline Mine. This area is not proved and hence geological structure of this area is unknown. Only after proving this area with exploratory boreholes, the geological structure and existence of coal seams can be known. In this exercise, no reserves have been estimated in this area. If the same set of coal seams are proved to exist, then the reserves may be estimated by the MDO.

### **2.5.2 Faults**

The AB Incline Mine area is dissected by about 5 faults i.e., Faults F<sub>1</sub>-F<sub>1</sub>, F<sub>2</sub>-F<sub>2</sub>, F<sub>2A</sub>-F<sub>2A</sub>, F<sub>2B</sub>-F<sub>2B</sub> and F<sub>6</sub>-F<sub>6</sub>. Many faults which are minor in nature with a throw upto 5m which may not have been dissected during exploration might have been encountered during development period in the mine.

### **2.5.3 Intrusives**

The Kamptee-Silewara Coalfield in general and Silewara Expansion area in particulars is free from any igneous intrusives as evidenced from the mining activities as well as the drilling operations conducted.

### **2.5.4 Other geological disturbances**

Occurrence of minor faults and other geological disturbances cannot be ruled out.

### **2.5.5 Immediate roof and floor of coal seam(s)**

The status of Immediate Roof and Floor of Seam-V, Seam-IV (Top), Seam-IV (Bottom) and Seam-II in AB Incline mine area is as below:

**SEAM-V:**

- a) Roof : Sandstone
- b) Floor : Generally Sandstone

**SEAM-IV (Top):**

- a) Roof : Generally Sandstone
- b) Floor : Generally Sandstone and inferior coal bands

**SEAM-IV (Bottom):**

- a) Roof : Generally Sandstone and inferior coal bands
- b) Floor : Generally Sandstone

**SEAM-II:**

- a) Roof : Generally Sandstone
- b) Floor : Generally alternating Shale and Sandstone

**2.6 PHYSICO-MECHANICAL PROPERTIES**

The Physico-Mechanical properties are not available for this mine

**2.7 PROXIMATE & ULTIMATE ANALYSIS**

**2.7.1** The Proximate Analysis results on 60% R.H. and at 40° C in is given in the following table:

<b>Seam / Seam Section</b>	<b>Thickness (m)</b>	<b>Useful Ash + Moisture range (%)</b>	<b>U.H.V. (k. Cal./kg)</b>	<b>Grade</b>
V	3.50 - 4.75	40.0 - 45.0	2690 - 3380	'F'
IV (Top)	2.00 - 3.50	29.0 - 45.0	2690 - 4898	'F' / 'E'
IV (Bottom)	2.00 - 3.00	28.0 - 34.0	4208 - 5036	'D' / 'C'
II	3.00 - 6.00	24.0 - 28.0	4208 - 5588	'D' / 'C'

**2.8 OTHER TEST AND ANALYSIS**

No other tests and analysis are available for AB Incline Mine.

### **3.0 COAL RESERVES**

The minimum balance Extractable Reserves in Four Workable Seams i.e., Seam-V [Standing on Pillars + Virgin Area], Seam-IV (Top) [Standing on Pillars], Seam-IV (Bottom) [Standing on Pillars] and Seam-II [Standing on Pillars] works out to approximately 6.55 Mt.

### **4.0 GEO-MINING CHARACTERISTICS**

#### **4.1.1 Gassiness of coal seam(s)**

Degree of gassiness of all the workable seams is Degree - I.

#### **4.1.2 Water regime**

The hydrogeological investigation in Silewara Coalfield has since been carried out by the Central Ground Water Board (Central Region) and the report was published in October 1981. It has been assessed by the above authority that the ground water flow in the underground workings in the event of depillaring operations would be of the order of 4.5 litres per second (approximately 60 gpm) in an area of 0.125 km<sup>2</sup>.

#### **4.1.3 Incubation period of coal seam(s)**

The mine workings in AB Incline Mine are discontinued in February 2018 and therefore the incubation period of workable seams is not available.

#### **4.1.4 Cavability of coal seams**

Data of cavability characteristics of coal seams is not available.

#### **4.1.5 Important surface features**

- a. Incline No. A & B
- b. Airshaft
- c. Walni WCL Colony
- d. Service Buildings
- e. 11 kV MSEB Line
- f. Irrigation Canal
- g. State Highway Road / Public Road
- h. New Rohana Village
- i. Water Supply Pipe Line etc

## **5.0 MAJOR CONSTRAINTS**

### **a) Surface Constraints**

1. Incline No. A & B and Airshaft exists on the surface of the mine.
2. State Highway Road, Public Road, Colliery Roads, Service Buildings, Walni WCL Colony, 11 kV MSEB Power Line, Irrigation Canal, Water Supply Pipe Line and New Rohana Village etc are passing through the Mine area.

### **b) Underground Constraints**

1. Gradient of coal seams is very steep (1 in 3.5 to 1 in 5).
2. All the workable seams are geologically disturbed with many number of faults, cleats, slips and a big dyke etc crisscrossing the area.
3. The pillars in all the workable seams are standing since long time and may be water logged.
4. In AB Incline Mine area, maximum area has been developed and the pillars which are standing since long time are water logged pillars due to which the standing pillars may be in very bad shape and condition.
5. Workings of Walni, Pipla and Silewara U/G Mines are adjoining to the workings of AB Incline Mine and therefore there would be a possibility of danger of underground inundation. A sufficient barrier has been kept in the workable coal seams to avoid the danger.
6. Seam-V is overlain by Kamptee series which is known to be water bearing strata.
7. Sufficient barrier has to be kept against surface constraints while depillaring in all the workable seams.

## **6.0 PRESENT STATUS**

### **6.1 MINE ENTRIES**

AB Incline Mine is having three mine entries i.e., two inclines and one airshaft which are shown in the following table:

Sl. No.	Entry	Length/Depth (m)	Cross-section (m x m)	Gradient	Purpose
1.	Incline No. A	490	4.5 x 2.2	1 in 4.0	Main intake and belt conveyor roadway
2.	Incline No. B	490	4.5 x 2.2	1 in 4.0	Main intake and haulage roadway.
3.	Airshaft	57	4.0 m dia.	Vertical	Main return airway.

## 6.2 MINING METHOD

In the four workable coal seams of AB Incline Mine, Semi-Mechanised Bord & Pillar method was adopted with development and depillaring in conjunction with hydraulic sand stowing.

## 6.3 STATUS OF MINING

Date of opening, discontinuance and closing of AB Incline Mine is 02.02.1986, 28.02.2018 and 31.03.2020 respectively. Reason for discontinuity is said to be heavy losses. The status (development & depillaring) of workable seams are mentioned in the below given table:

Sl. No.	Name of Seam	Status
1	Seam-V	70% of area has been developed in this seam. Two panels (E-1 & E-2) have been depillared.
2	Seam-IV (Top)	Nearly whole of the area has been developed in this seam. One panel (E-1) has been depillared.
3	Seam-IV (Bottom)	Nearly whole of the area has been developed in this seam. One panel (E-1) was depillared.
4	Seam-II	Nearly whole of the area has been developed in this seam. No panel was depillared and the whole seam is standing on pillars.

## 6.4 INFRASTRUCTURE AVAILABLE

### 6.4.1 Land

The leasehold area of AB Incline Mine is 193.75 hectares. The land acquisition status in the Leasehold Area is 48.99 ha acquired by WCL, 133.32 ha of Tenancy land, and 11.44 ha of Government Land.

#### **6.4.2 Roads and culverts**

The AB Incline Mine is located nearly 5 km from Nagpur - Chhindwara State Highway. The mine and mine entries are well connected by a pucca road of WCL connecting from Incline No. A & B to Nagpur - Chhindwara State Highway. The mine is having well connected internal roads.

#### **6.4.3 Plants and machinery**

No Plant & Machinery exists in the abandoned/discontinued AB Incline Mine.

No Belts and Haulages along with trackline and signaling system are available on the surface or underground in AB Incline Mine.

Pumps and pipe lines are not available in this mine.

Main Mechanical Ventilator is not available in this mine.

#### **6.4.4 Power supply and distribution**

The source of power supply to AB Incline Mine is 11 kV feeder of MSEB Rohana Sub-station. Presently there is no power supply and supply is disconnected to the mine. No surface and underground sub-station exists in AB Incline Mine.

#### **6.4.5 Coal Handling Plant**

Presently there is no CHP facility near AB Incline Mine.

#### **6.4.6 Water supply and sewerage**

No pumping system is available in this mine presently and therefore water supply and sewerage are totally dismantled.

#### **6.4.7 Service and Residential Buildings**

Presently, all the service buildings are dismantled except Workshop (32m x 12m) and Manager Office (27m x 19m) in AB Incline Mine. Both these service buildings i.e., Workshop and Manager Office are non-sparable, non-useable and non-serviceable. Residential buildings exist under the head of Silewara Mine but are occupied by the employees of neighboring operating mines.

#### **6.4.8 Railway siding**

Railway Siding doesn't exist in AB Incline Mine.

#### **6.4.9 Present Pumping System**

Pumping system is not there at present in AB Incline Mine.

#### **6.4.10 Present Magazine Details**

The portable magazine is presently dismantled as the mine is discontinued / abandoned. The main magazine / central magazine is in use under the leasehold area of AB Incline Mine with explosive capacity of 44000 kgs and detonator capacity of 44000 nos, cast booster capacity of 500 kgs and DF of 50000m.

This main magazine / central magazine is in use for the present operating mines and cannot be spared for MDO.

#### **6.4.11 Present Manpower Details**

Presently, there is no manpower in AB Incline Mine.

#### **6.4.12 Production from AB Incline Mine**

Presently, there is no production from AB Incline Mine as this mine is abandoned / discontinued in February 2018 and finally closed in March 2020. The production of 5 years before closing of AB Incline Mine is as follow:

Year 2013-14 = 179315 tonnes

Year 2014-15 = 175100 tonnes

Year 2015-16 = 154065 tonnes

Year 2016-17 = 120310 tonnes

Year 2017-18 = 87615 tonnes

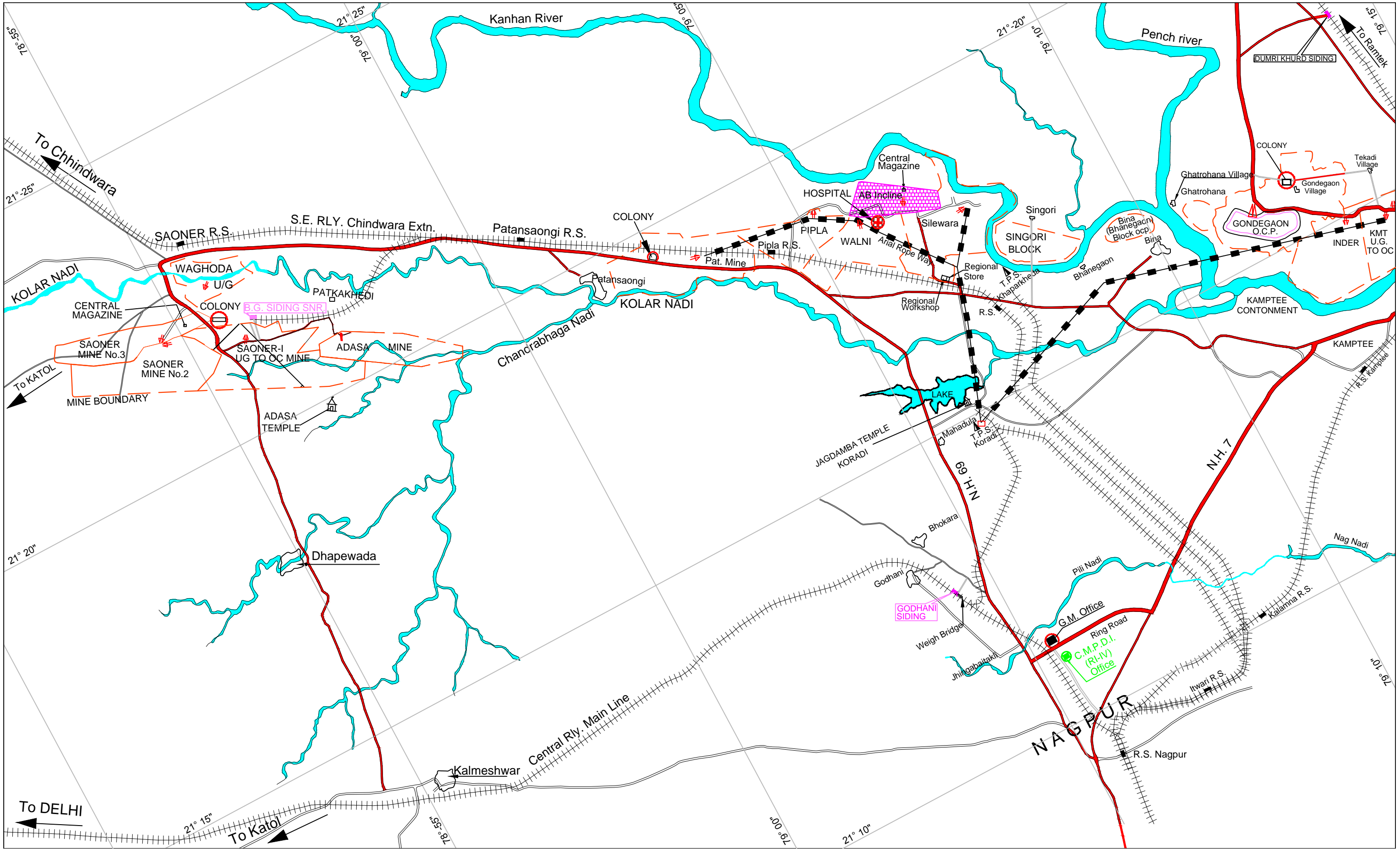
#### **6.4.13 Average Grade of Coal**

The average grade of coal seams of abandoned / discontinued AB Incline Mine before closing is 'Steam G-8, Slack G-9'.

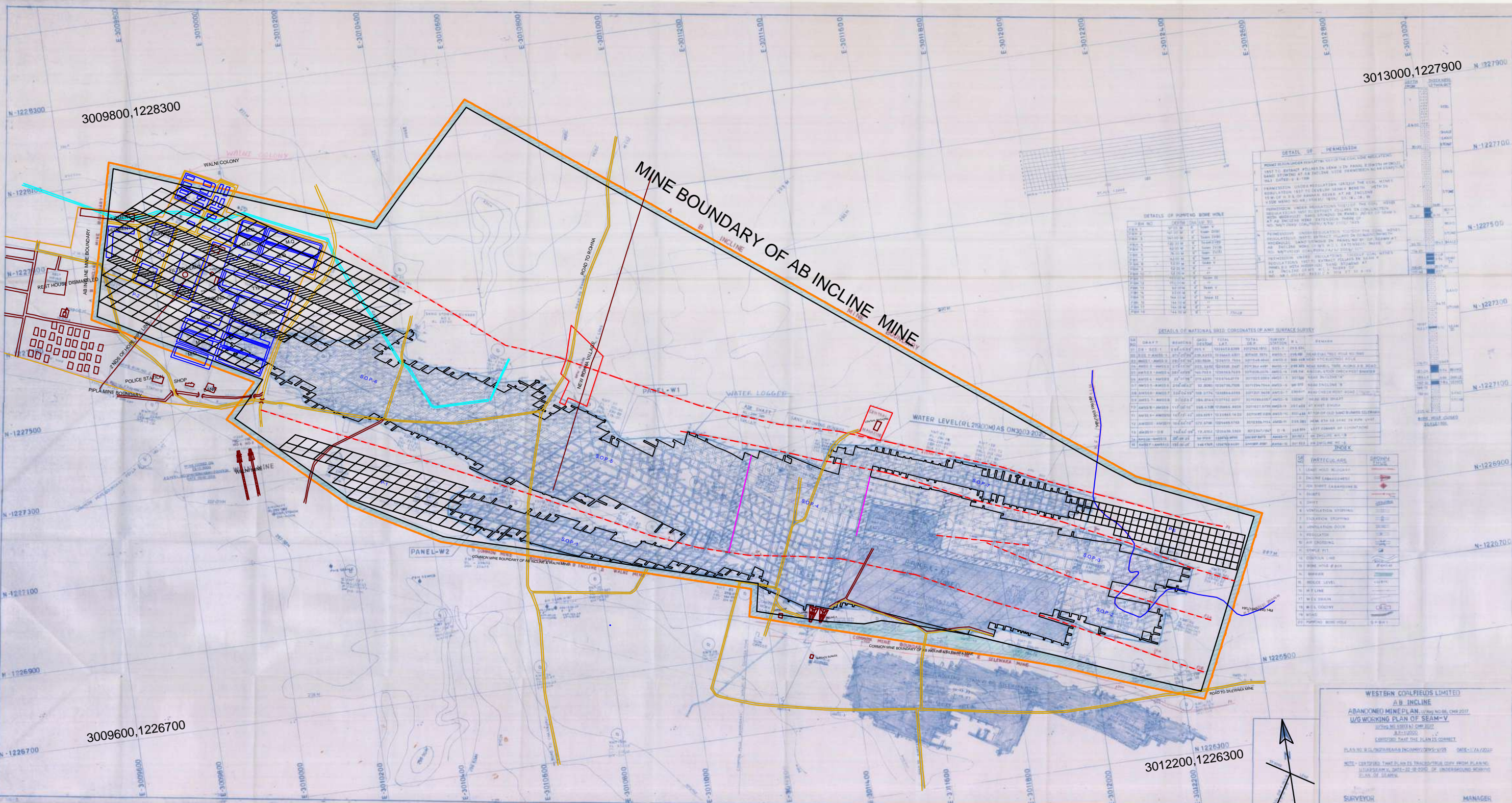
## 7.0 PLANS

<b>Sl. No.</b>	<b>Description</b>	<b>Scale/R.F.</b>
1	Location Plan	N.T.S.
2	Surface Plan	1 : 2000
3	Working Plan of Seam-V	1 : 2000
4	Working Plan of Seam-IV (Top)	1 : 2000
5	Working Plan of Seam-IV (Bottom)	1 : 2000
6	Working Plan of Seam-II	1 : 2000
7	Khasra Plan	16" = 1 Mile









3013000,1227900

3009800,1228300

MINE BOUNDARY OF AB INCLINE MINE

3009600,1226700

3012200,1226300

DETAILS OF PERMISSON

DETAILS OF PUMPING BORE HOLE

BORE NO.	DEPTH	DATE	STATUS	REMARKS
1	100.00	15/01/2017	Active	For water supply
2	120.00	20/02/2017	Active	For water supply
3	150.00	10/03/2017	Active	For water supply
4	180.00	05/04/2017	Active	For water supply
5	200.00	25/05/2017	Active	For water supply
6	220.00	15/06/2017	Active	For water supply
7	250.00	05/07/2017	Active	For water supply
8	280.00	25/08/2017	Active	For water supply
9	300.00	15/09/2017	Active	For water supply
10	320.00	05/10/2017	Active	For water supply
11	350.00	25/11/2017	Active	For water supply
12	380.00	15/12/2017	Active	For water supply
13	400.00	05/01/2018	Active	For water supply
14	420.00	25/02/2018	Active	For water supply
15	450.00	15/03/2018	Active	For water supply
16	480.00	05/04/2018	Active	For water supply
17	500.00	25/05/2018	Active	For water supply
18	520.00	15/06/2018	Active	For water supply
19	550.00	05/07/2018	Active	For water supply
20	580.00	25/08/2018	Active	For water supply
21	600.00	15/09/2018	Active	For water supply
22	620.00	05/10/2018	Active	For water supply
23	650.00	25/11/2018	Active	For water supply
24	680.00	15/12/2018	Active	For water supply
25	700.00	05/01/2019	Active	For water supply
26	720.00	25/02/2019	Active	For water supply
27	750.00	15/03/2019	Active	For water supply
28	780.00	05/04/2019	Active	For water supply
29	800.00	25/05/2019	Active	For water supply
30	820.00	15/06/2019	Active	For water supply
31	850.00	05/07/2019	Active	For water supply
32	880.00	25/08/2019	Active	For water supply
33	900.00	15/09/2019	Active	For water supply
34	920.00	05/10/2019	Active	For water supply
35	950.00	25/11/2019	Active	For water supply
36	980.00	15/12/2019	Active	For water supply
37	1000.00	05/01/2020	Active	For water supply
38	1020.00	25/02/2020	Active	For water supply
39	1050.00	15/03/2020	Active	For water supply
40	1080.00	05/04/2020	Active	For water supply
41	1100.00	25/05/2020	Active	For water supply
42	1120.00	15/06/2020	Active	For water supply
43	1150.00	05/07/2020	Active	For water supply
44	1180.00	25/08/2020	Active	For water supply
45	1200.00	15/09/2020	Active	For water supply
46	1220.00	05/10/2020	Active	For water supply
47	1250.00	25/11/2020	Active	For water supply
48	1280.00	15/12/2020	Active	For water supply
49	1300.00	05/01/2021	Active	For water supply
50	1320.00	25/02/2021	Active	For water supply
51	1350.00	15/03/2021	Active	For water supply
52	1380.00	05/04/2021	Active	For water supply
53	1400.00	25/05/2021	Active	For water supply
54	1420.00	15/06/2021	Active	For water supply
55	1450.00	05/07/2021	Active	For water supply
56	1480.00	25/08/2021	Active	For water supply
57	1500.00	15/09/2021	Active	For water supply
58	1520.00	05/10/2021	Active	For water supply
59	1550.00	25/11/2021	Active	For water supply
60	1580.00	15/12/2021	Active	For water supply
61	1600.00	05/01/2022	Active	For water supply
62	1620.00	25/02/2022	Active	For water supply
63	1650.00	15/03/2022	Active	For water supply
64	1680.00	05/04/2022	Active	For water supply
65	1700.00	25/05/2022	Active	For water supply
66	1720.00	15/06/2022	Active	For water supply
67	1750.00	05/07/2022	Active	For water supply
68	1780.00	25/08/2022	Active	For water supply
69	1800.00	15/09/2022	Active	For water supply
70	1820.00	05/10/2022	Active	For water supply
71	1850.00	25/11/2022	Active	For water supply
72	1880.00	15/12/2022	Active	For water supply
73	1900.00	05/01/2023	Active	For water supply
74	1920.00	25/02/2023	Active	For water supply
75	1950.00	15/03/2023	Active	For water supply
76	1980.00	05/04/2023	Active	For water supply
77	2000.00	25/05/2023	Active	For water supply
78	2020.00	15/06/2023	Active	For water supply
79	2050.00	05/07/2023	Active	For water supply
80	2080.00	25/08/2023	Active	For water supply
81	2100.00	15/09/2023	Active	For water supply
82	2120.00	05/10/2023	Active	For water supply
83	2150.00	25/11/2023	Active	For water supply
84	2180.00	15/12/2023	Active	For water supply
85	2200.00	05/01/2024	Active	For water supply
86	2220.00	25/02/2024	Active	For water supply
87	2250.00	15/03/2024	Active	For water supply
88	2280.00	05/04/2024	Active	For water supply
89	2300.00	25/05/2024	Active	For water supply
90	2320.00	15/06/2024	Active	For water supply
91	2350.00	05/07/2024	Active	For water supply
92	2380.00	25/08/2024	Active	For water supply
93	2400.00	15/09/2024	Active	For water supply
94	2420.00	05/10/2024	Active	For water supply
95	2450.00	25/11/2024	Active	For water supply
96	2480.00	15/12/2024	Active	For water supply
97	2500.00	05/01/2025	Active	For water supply
98	2520.00	25/02/2025	Active	For water supply
99	2550.00	15/03/2025	Active	For water supply
100	2580.00	05/04/2025	Active	For water supply

DETAILS OF NATIONAL GRID COORDINATES OF AMP SURFACE SURVEY

NO.	POINT	EASTING	NORTHING	REMARKS
1	1	3009800	1228300	Corner of Walni Colony
2	2	3009900	1228300	Corner of Walni Colony
3	3	3010000	1228300	Corner of Walni Colony
4	4	3010100	1228300	Corner of Walni Colony
5	5	3010200	1228300	Corner of Walni Colony
6	6	3010300	1228300	Corner of Walni Colony
7	7	3010400	1228300	Corner of Walni Colony
8	8	3010500	1228300	Corner of Walni Colony
9	9	3010600	1228300	Corner of Walni Colony
10	10	3010700	1228300	Corner of Walni Colony
11	11	3010800	1228300	Corner of Walni Colony
12	12	3010900	1228300	Corner of Walni Colony
13	13	3011000	1228300	Corner of Walni Colony
14	14	3011100	1228300	Corner of Walni Colony
15	15	3011200	1228300	Corner of Walni Colony
16	16	3011300	1228300	Corner of Walni Colony
17	17	3011400	1228300	Corner of Walni Colony
18	18	3011500	1228300	Corner of Walni Colony
19	19	3011600	1228300	Corner of Walni Colony
20	20	3011700	1228300	Corner of Walni Colony
21	21	3011800	1228300	Corner of Walni Colony
22	22	3011900	1228300	Corner of Walni Colony
23	23	3012000	1228300	Corner of Walni Colony
24	24	3012100	1228300	Corner of Walni Colony
25	25	3012200	1228300	Corner of Walni Colony
26	26	3012300	1228300	Corner of Walni Colony
27	27	3012400	1228300	Corner of Walni Colony
28	28	3012500	1228300	Corner of Walni Colony
29	29	3012600	1228300	Corner of Walni Colony
30	30	3012700	1228300	Corner of Walni Colony
31	31	3012800	1228300	Corner of Walni Colony
32	32	3012900	1228300	Corner of Walni Colony
33	33	3013000	1228300	Corner of Walni Colony
34	34	3013100	1228300	Corner of Walni Colony
35	35	3013200	1228300	Corner of Walni Colony
36	36	3013300	1228300	Corner of Walni Colony
37	37	3013400	1228300	Corner of Walni Colony
38	38	3013500	1228300	Corner of Walni Colony
39	39	3013600	1228300	Corner of Walni Colony
40	40	3013700	1228300	Corner of Walni Colony
41	41	3013800	1228300	Corner of Walni Colony
42	42	3013900	1228300	Corner of Walni Colony
43	43	3014000	1228300	Corner of Walni Colony
44	44	3014100	1228300	Corner of Walni Colony
45	45	3014200	1228300	Corner of Walni Colony
46	46	3014300	1228300	Corner of Walni Colony
47	47	3014400	1228300	Corner of Walni Colony
48	48	3014500	1228300	Corner of Walni Colony
49	49	3014600	1228300	Corner of Walni Colony
50	50	3014700	1228300	Corner of Walni Colony
51	51	3014800	1228300	Corner of Walni Colony
52	52	3014900	1228300	Corner of Walni Colony
53	53	3015000	1228300	Corner of Walni Colony
54	54	3015100	1228300	Corner of Walni Colony
55	55	3015200	1228300	Corner of Walni Colony
56	56	3015300	1228300	Corner of Walni Colony
57	57	3015400	1228300	Corner of Walni Colony
58	58	3015500	1228300	Corner of Walni Colony
59	59	3015600	1228300	Corner of Walni Colony
60	60	3015700	1228300	Corner of Walni Colony
61	61	3015800	1228300	Corner of Walni Colony
62	62	3015900	1228300	Corner of Walni Colony
63	63	3016000	1228300	Corner of Walni Colony
64	64	3016100	1228300	Corner of Walni Colony
65	65	3016200	1228300	Corner of Walni Colony
66	66	3016300	1228300	Corner of Walni Colony
67	67	3016400	1228300	Corner of Walni Colony
68	68	3016500	1228300	Corner of Walni Colony
69	69	3016600	1228300	Corner of Walni Colony
70	70	3016700	1228300	Corner of Walni Colony
71	71	3016800	1228300	Corner of Walni Colony
72	72	3016900	1228300	Corner of Walni Colony
73	73	3017000	1228300	Corner of Walni Colony
74	74	3017100	1228300	Corner of Walni Colony
75	75	3017200	1228300	Corner of Walni Colony
76	76	3017300	1228300	Corner of Walni Colony
77	77	3017400	1228300	Corner of Walni Colony
78	78	3017500	1228300	Corner of Walni Colony
79	79	3017600	1228300	Corner of Walni Colony
80	80	3017700	1228300	Corner of Walni Colony
81	81	3017800	1228300	Corner of Walni Colony
82	82	3017900	1228300	Corner of Walni Colony
83	83	3018000	1228300	Corner of Walni Colony
84	84	3018100	1228300	Corner of Walni Colony
85	85	3018200	1228300	Corner of Walni Colony
86	86	3018300	1228300	Corner of Walni Colony
87	87	3018400	1228300	Corner of Walni Colony
88	88	3018500	1228300	Corner of Walni Colony
89	89	3018600	1228300	Corner of Walni Colony
90	90	3018700	1228300	Corner of Walni Colony
91	91	3018800	1228300	Corner of Walni Colony
92	92	3018900	1228300	Corner of Walni Colony
93	93	3019000	1228300	Corner of Walni Colony
94	94	3019100	1228300	Corner of Walni Colony
95	95	3019200	1228300	Corner of Walni Colony
96	96	3019300	1228300	Corner of Walni Colony
97	97	3019400	1228300	Corner of Walni Colony
98	98	3019500	1228300	Corner of Walni Colony
99	99	3019600	1228300	Corner of Walni Colony
100	100	3019700	1228300	Corner of Walni Colony

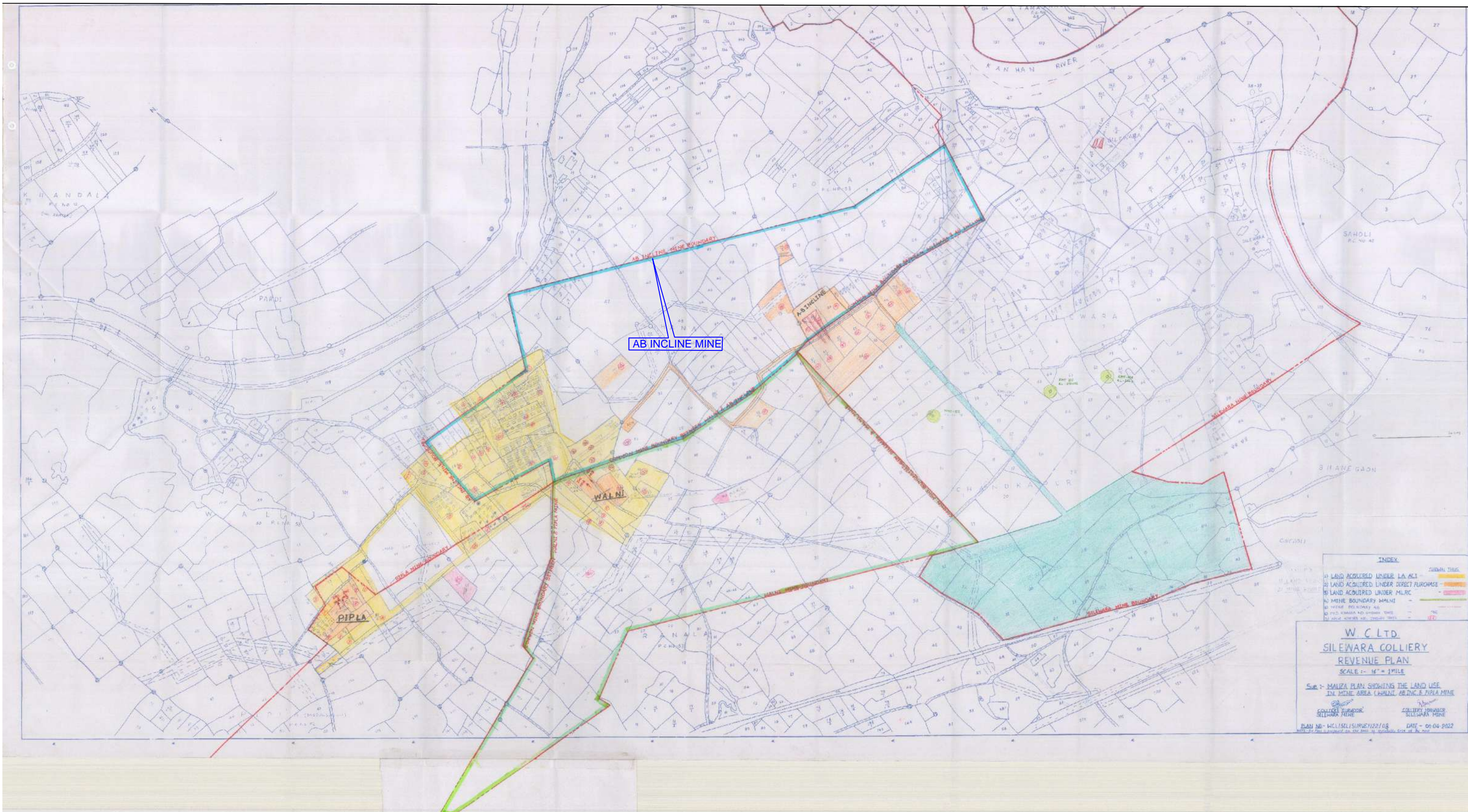
INDEX

NO.	DESCRIPTION	SYMBOL
1	ABANDONED MINE BOUNDARY	Orange line
2	PIPLA MINE BOUNDARY	Red dashed line
3	WALNI MINE	Black line
4	WATER LOGGERS	Blue lines
5	WATER LEVEL	Blue lines
6	ROAD TO ROYAL VILLAGE	Yellow line
7	ROAD TO BELAWA MINE	Yellow line
8	WALNI COLONY	Blue hatched area
9	NEW ROYAL VILLAGE	Red hatched area
10	PANEL W1	Black grid
11	PANEL W2	Black grid
12	SOP-1	Red square
13	SOP-2	Red square
14	SOP-3	Red square
15	SOP-4	Red square
16	SOP-5	Red square
17	SOP-6	Red square
18	SOP-7	Red square
19	SOP-8	Red square
20	REST HOUSE	Red rectangle
21	SHOP	Red rectangle
22	POLICE STATION	Red rectangle
23	WATER LOGGER	Blue rectangle
24	WATER LEVEL	Blue rectangle
25	ROAD TO ROYAL VILLAGE	Yellow rectangle
26	ROAD TO BELAWA MINE	Yellow rectangle
27	WALNI COLONY	Blue hatched area
28	NEW ROYAL VILLAGE	Red hatched area
29	PANEL W1	Black grid
30	PANEL W2	Black grid
31	SOP-1	Red square
32	SOP-2	Red square
33	SOP-3	Red square
34	SOP-4	Red square
35	SOP-5	Red square
36	SOP-6	Red square
37	SOP-7	Red square
38	SOP-8	Red square
39		









AB INCLINE MINE

PIPLA

WALNI

SILEWARA RIVER

INDEX

1) LAND ACQUIRED UNDER LA ACT	YELLOW
2) LAND ACQUIRED UNDER DIRECT PURCHASE	ORANGE
3) LAND ACQUIRED UNDER MLRC	GREEN
4) MINE BOUNDARY WALNI	RED
5) MINE BOUNDARY AB	PINK
6) P.I.C. CANALS AND CHANNELS	BLUE
7) P.I.C. CANALS AND CHANNELS	RED

**W. C. LTD.**  
**SILEWARA COLLIERY**  
**REVENUE PLAN**  
 SCALE :- 1" = 1 MILE

See 2- MALZA PLAN SHOWING THE LAND USE IN MINE AREA (WALNI, AB INCLINE & PIPLA MINE)

COLLIERY SUPERVISOR SILEWARA MINE      COLLIERY MANAGER SILEWARA MINE

PLAN NO - WCL/SIL/SUP/REV/1/03      DATE - 01-04-2022