Additional Annexure-9

DECLARATION BY EXPERTS CONTRIBUTING TO THE MINING PLAN PREPARATION

I, hereby, certify that I was a part of the team in the following capacity that developed the above Mining Plan entitled as **"Mine Plan and Mine Closure Plan (1st Modification/Revision) for Sahapur East Coal Mine, Distt. Shahdol & Umaria, Madhya Pradesh (Project area: 659 Ha, Rated Capacity - 0.70 MTPA, Peak Capacity - 1.0500 MTPA) of Mineware Advisors Private Limited".**

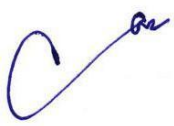
Project coordinator (Geo/ Mining): Mining

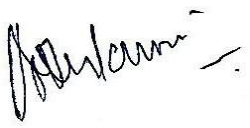
Name: **B. D. Sharma**

Signature and Date: **03-07-2025**
Period of involvement: **April, 2025 to till date**

Contact information: **Min Mec Consultancy Pvt. Ltd.**
A-121, Paryavaran Complex
IGNOU Road, New Delhi-30
Mob. no. 9811030881
Email: mining@minmec.com

S. No.	Area	Name of the expert/s	Involvement (period and task)	Signature and date
1.	PC-Mining	B. D. Sharma	**Period:** April**, 2025 to till date** (intermittently) **Task:** Prepared & finalised Mining Plan (including Mine Closure plan) involving production plans, checking adequacy of existing method of mining and equipment, communicate and collaborate with engineering experts; Review of Annexures; Preparation/ finalisation of plate 2B, 8, 12-25	
2.	TAE-ME	Rajesh Kumar Chopra	**Period:** April**, 2025 to till date** (intermittently) **Task:** Checked and corrected Mining Plan (including Mine Closure plan) involving production plans, checking adequacy of existing method of mining and equipment, annexures & plates.	
3.	TAE-ME	Ram Naresh Singh	**Period:** April, 2025 to till date (intermittently) **Task:** Compilation of text for Mining Plan (including Mine Closure plan) as per format of MOC guidelines	

S. No.	Area	Name of the expert/s	Involvement (period and task)	Signature and date
4.	TAE-EHS	Dr. Marisha Sharma	**Period:** April**, 2025 to till date to till date** (intermittently) **Task:** EHS related costs inputs (sections 8.1-8.10.1); inputs in Plate-22 & Annexure-5.	
5.	TAE-CEM (Civil)	Dr. Marisha Sharma	**Period:** April**, 2025 to till date** (intermittently) **Task:** Participated in layout preparation for determining required civil structures for mine operation; civil cost related inputs in Para 8.10.1 & Annexure-5.	
6.	TAE-RS	Pushpita Kundu	**Period:** April**, 2025 to till date** (intermittently) **Task:** Cross-checking the present land use (Provided by client). Cross checking section no. 6.1.1 & 6.1.3 and cross checking Plates 1, 2A, 2B, 3A, 3B, 3C, 4, 7 & 9.	
7.	TAE-EHS	Rashmi Gupta	**Period:** April**, 2025 to till date** (intermittently) **Task:** Checked as to whether all the EHS related facilities, required to be constructed at pit head, are available on surface layout plan like Rest shelter, First Aid Room, etc. Assisted in preparation of land restoration and biological restoration schedule, post closure air & water management, waste/ topsoil/ reject management, safety & security.	
8.	TAE-CEM (Electrical)	Partha Sarathi Roy	**Period**: May-June 2025 **Task:** Scrutinized the report w.r.t. Power mentioned for DG set, Pumps and general supply etc at Para 1.2.3 (Availability of Power supply), 3.1.2 (relevant section in Proposed method of mining); 3.1.13 (Type of Equipment Proposed); 5.2 (Power supply and illumination), Para 5.3 (Drainage & Pumping) and suggestions for any changes/ improvements.	
9.	TAE-M&F	Probal Das	**Period**: May-June 2025 **Task:** Scrutinize the report w.r.t. financial aspects under para 8.10 related to ESCROW amount calculations and Expenditure on implementation of Progressive and Final mine Closure Activities, Annexure V and suggestions for any changes/ improvements.	

S. No.	Area	Name of the expert/s	Involvement (period and task)	Signature and date
10.	TAE-MG	Arvind Kumar Dixit	**Period:** May-June 2025 **Task:** Scrutinize the report w.r.t. Geology related portions covered under Chapter 2, related annexures & plates and suggestions for any changes/ improvements.	
11.	TAE-SE	Anuradha Yagya	**Period:** May-June 2025 **Task:** Review of the client inputs & draft mining plan and confirmation that there is no resettlement and rehabilitation in the project. (Sections 6.1.4, 6.1.5 & 6.1.6).	
12.	TM-MG	Kartik Naik	**Period:** June**, 2025** (intermittently) **Task:** Detailed calendar plan preparation	

I, **B. D. Sharma,** hereby, confirm that the above-mentioned experts prepared the **"Mine Plan and Mine Closure Plan (1st Modification/Revision) for Sahapur East Coal Mine, Distt. Shahdol & Umaria, Madhya Pradesh (Project area: 659 Ha, Rated Capacity – 0.70 MTPA, Peak Capacity - 1.0500 MTPA) of Mineware Advisors Private Limited".**

I also confirm that Project coordinator (Mining) has gone through the report, and the consultant organization shall be fully accountable for any misleading information.

It is certified that no unethical practices, plagiarism involved in carrying out the work and external data / text has not been used without proper acknowledgement while preparing this Mining Plan.

Signature:

Name: **B. D. Sharma**
Designation: **Managing Director**
Name of the consultant organization: **Min Mec Consultancy Pvt. Ltd.**
NABET Certificate No. **QCI/NABET/APA-MPPA/RA/004**
Issue Date: **May 03, 2024**
Valid Upto: **February 17, 2027**

Mining Plan Prepared by me
(B.D. SHARMA)
Project Coordinator (PC)

INDIAN MINE PLANNERS CONSULTANTS

Prepared By Min Mec Consultancy Pvt Ltd On 23/06/2025

ANNEXURE : 9

QUALITY COUNCIL® OF INDIA
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National Accreditation Board for Education and Training

ITPI Building, 6th Floor, 4 - A, Ring Road, I P Estate, New Delhi – 110002

CERTIFICATE OF ACCREDITATION

Under the QCI-NABET Scheme
For
Prospecting/Exploration & Mining Plan Preparing Agency

Min Mec Consultancy Private Limited

A 121, Paryavaran Complex, IGNOU Road, New Delhi- 110030

SCOPE COVERAGE	
MPPA	Preparation of Comprehensive Mining Plan/Mining Project Report (PR), Pre-feasibility Report (PFR) / Feasibility Report Preparation

Names of approved Project Coordinators and Technical Area Experts are mentioned in RA AC Minutes dated April 25, 2024 on QCI-NABET website.

The Accreditation shall remain in force subject to continued compliance to the terms and conditions mentioned in NABET's letter of accreditation bearing no. QCI/NABET/APA&MPPA/ACO/24/056 dated May 03, 2024.
The accreditation needs to be renewed before the expiry date by Min Mec Consultancy Private Limited following due process of assessment.

Issue Date
May 03, 2024

Valid Up to
February 17, 2027

Certificate No
NABET/APA-MPPA/RA/003

Mr. Ajay Kumar Jha
Senior Director
NABET

Prof. (Dr.) Varinder Singh Kanwar
Chief Executive Officer
NABET

Additional Annexure-10

DIFFERENCE IN PRODUCTION SCHEDULE
CMDPA, APPROVED MINING PLAN AND PROPOSED MINING PLAN

(In support of Clause 1.3.7 of Chapter-1)

Year	Calendar	Production Schedule as per Approved Mining Plan (Dated 27/12/2012)	Production Schedule as per CMDPA (Dated 27/05/2025)	Production Schedule as per Proposed Mining Plan (0.70 MTPA as per CMDPA) (June, 2025)
Y-1	2029-30	0.045	0.000	0.045
Y-2	2030-31	0.491	0.050	0.491
Y-3	2031-32	0.700	0.490	0.700
Y-4	2032-33	0.696	0.700	0.700
Y-5	2033-34	0.700	0.700	0.700
Y-6	2034-35	0.700	0.700	0.700
Y-7	2035-36	0.700	0.700	0.700
Y-8	2036-37	0.700	0.700	0.700
Y-9	2037-38	0.700	0.700	0.700
Y-10	2038-39	0.700	0.700	0.700
Y-11	2039-40	0.700	0.700	0.700
Y-12	2040-41	0.700	0.700	0.700
Y-13	2041-42	0.700	0.700	0.700
Y-14	2042-43	0.700	0.700	0.700
Y-15	2043-44	0.700	0.700	0.700
Y-16	2044-45	0.700	0.700	0.700
Y-17	2045-46	0.700	0.700	0.700
Y-18	2046-47	0.700	0.700	0.700
Y-19	2047-48	0.700	0.700	0.700
Y-20	2048-49	0.700	0.700	0.700
Y-21	2049-50	0.700	0.700	0.700
Y-22	2050-51	0.700	0.700	0.700
Y-23	2051-52	0.694	0.690	0.700
Y-24	2052-53	0.700	0.700	0.700
Y-25	2053-54	0.700	0.700	0.700
Y-26	2054-55	0.681		0.700
Y-27	2055-56	0.700		0.700
Y-28	2056-57	0.700		0.700
Y-29	2057-58	0.700		0.700
Y-30	2058-59	0.700		0.700
Y-31	2059-60	0.700		0.700
Y-32	2060-61	0.700		0.700
Y-33	2061-62	0.679		0.700
Y-34	2062-63			0.700
Y-35	2063-64			0.700
Y-36	2064-65			0.700
Y-37	2065-66			0.700
Y-38	2066-67			0.700
Y-39	2067-68			0.450
Y-40	2068-69			0.129
TOTAL		22.186	15.930	26.315

Mining Plan Prepared by me
(D.D. SHARMA)
Project Coordinator (PC)

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Additional Annexure-11

SEAMS CONSIDERED / NOT CONSIDERED FOR MINING WITH REASON

(In support of Clause 1.5.10 of Chapter-1)

S.N	SEAM	AS PER APPROVED MINING PLAN	AS PER PROPOSED MINING PLAN
1	Seam-IV	Considered	Considered
2	Seam-L2	Considered	Considered
3	Seam-IIIA	Considered	Considered
4	Seam-IIIB	Considered	Not Considered. Maximum area <1.2 m and also Contiguous with above Seam-IIIA
5	Seam-IIIL	Not Considered. Thickness <1.2 m	Not Considered. Thickness <1.2 m
6	Seam-II	Considered	Considered
7	Seam-I	Not Considered. Thickness <1.2 m	Not Considered. Thickness <1.2 m
8	Seam-L1	Not Considered. Thickness <1.2 m	Not Considered. Thickness <1.2 m

Mining Plan Prepared by me
(B.D. SHARMA)
Project Coordinator (PC)

INDIAN MINE PLANNERS CONSULTANTS

Additional Annexure-12

SEAM WISE THICKNESS, DEPTH AND RESERVE
(In support of Clause 2.2.14 of Chapter-1)

Seam Name	Seam Thickness Range (m)	Depth Range (m)	Net Geological Resource (MT)	Blocked Reserves (MT)					Min Res (MT)		Mining Losses (MT)	Ext Res (MT)			As on base date MT							Reason not considered for mining
				Highwall/ Batter	Nala/River/ Road	Safety Barrier	Uneconomic	Total Blocked	UG	OC		UG	OC	Highwall	Depletion of Reserve			Balance Reserve				
															UG	OC	Highwall	UG	OC	Highwall	Total	
IV	0.03-2.85	39.93-108.52	10.8640			2.6218	2.3000	4.9218	5.9422		1.4957	4.4465						4.4465			**4.4465**	Considered
Parting	33.95-57.00																					
L2	0.02-2.28	86.59-149.07	8.7810		0.8520	0.3227	2.0000	3.1747	5.6063		1.8048	3.8016						3.8016			**3.8016**	Considered
Parting	5.42-26.53																					
IIIA	0.3-5.49	108.10-171.50	11.3160			1.3019	4.0000	5.3019	6.0141		1.8284	4.1857						4.1857			**4.1857**	Considered
Parting	0.34-3.6																					
IIIB	0.42-4.76	133.75-173.77	5.6190			1.0900	3.5150	4.6050	1.0140		1.0140	-						-			-	Contiguous with above Seam-IIIA
Parting	0.77-4.17																					
IIIL	0.5-1.05	135.48-172.68	0.3560				0.3560	0.3560	-		-	-						-			-	Thickness <1.2 m
Parting	14.07-22.12																					
II	0.15-4.55	125.78-194.15	24.9880		1.4250	1.0474	2.5450	5.0174	19.9706		6.0895	13.8811						13.8811			**13.8811**	Considered
Parting	16.30-45.10																					
I	0.05-0.60	159.33-223.35	-			-	-	-	-		-	-						-			-	Thickness <1.2 m
Parting	16.88-38.70																					
L1	0.50-0.90	161.50-246.78	1.4390				1.4390	1.4390	-		-	-						-			-	Thickness <1.2 m
Total			**63.3630**		**2.2770**	**6.3837**	**16.1550**	**24.8157**	**38.5473**		**12.2324**	**26.3150**						**26.3150**			**26.3150**	

Mining Plan Prepared by me
(B.D. SHARMA)
Project Coordinator (PC)

Prepared By Min Mec Consultancy Pvt Ltd On 23/06/2025

Additional Annexure-13

PROPOSED MANPOWER

Nos. of Skilled / Semi Skilled / Unskilled persons

S.N	DESIGNATION	RELAY-1	RELAY-2	RELAY-3	TOTAL
A	**Statutory Manpower**				
1	Agent	1	0	0	1
2	Manager	1	0	0	1
3	Asst. Colliery Manager (1st Class)	1	0	0	1
4	Under Manager (2nd Class)	2	2	1	5
5	Safety Officer (1st Class)	1	0	0	1
6	Strata Control Engineer	1	0	0	1
7	Ventilation Officer	1	0	0	1
8	Colliery Engineer	1	0	0	1
9	Electrical Engineer	2	2	2	6
10	Mechanical Engineer	2	2	2	6
11	Overman	1	1	1	3
12	Mining Sirdar	1	1	1	3
13	Electrical Supervisor	2	0	0	2
14	Foreman in Charge (Mech.)	2	0	0	2
15	Surveyor	1	0	0	1
16	Welfare Officer	1	0	0	1
17	Medical Officer	1	0	0	1
18	Vocational Training Officer	1	0	0	1
19	Magazine Incharge	0	0	0	0
20	Store Incharge	1	0	0	1
21	Attendance Clerk / Lamp Room Incharge	1	1	1	3
22	Canteen Manager	1	0	0	1
23	Electrician	2	2	2	6
24	Dusting / Sampling Incharge	1	1	1	3
25	Security Incharge	1	0	0	1
	Sub Total – A	**30**	**12**	**11**	**53**
B	**Face Manpower for 1 CM Panel**				
26	LHCM/SHCM Operator	2	2	2	6
27	SC Operator	4	4	4	12
28	Twin Bolter Operator	12	12	12	36
29	FB Operator	2	2	2	6
30	LHD Operator	2	2	2	6
31	MMV Operator	1	1	1	3
32	FSV Operator	2	2	1	5
33	Artisan	4	4	4	12
34	CM Cableman	4	4	4	12
35	Face Pump Operator	4	4	4	12
36	Roof Dresser	2	2	2	6
37	Aux. Fan Operator	2	2	2	6
38	Cable / Ducting Extension / Timber Mistry	3	3	3	9
	Sub Total - B	**44**	**44**	**43**	**131**
C	**Common Services**				
38	Belt Operator	8	8	8	24
39	Pump Operator	5	5	5	15
38	Tyndle	8	2	2	12
39	Multi Skilled Worker	4	4	4	12
40	Belt Cleaner	5	5	5	15
41	Artisan	2	2	2	6
42	Mason	4	0	0	4
	Sub Total - C	**36**	**26**	**26**	**88**

Mining Plan Prepared by me
(B.D. SHARMA)
Project Coordinator (PC)

INDIAN MINE PLANNERS CONSULTANTS

PROPOSED MANPOWER

Nos. of Skilled / Semi Skilled / Unskilled persons

S.N	DESIGNATION	RELAY-1	RELAY-2	RELAY-3	TOTAL
D	**Surface Manpower**				
43	Main Fan Operator (MMV)	1	1	1	3
44	Surface Belt Operator	1	1	1	3
45	Body Checker	1	1	1	3
46	Sub-station Attendant / DG Operator	2	2	2	6
47	CHP Maintenance	4	4	4	12
48	Weigh Bridge	3	3	3	9
49	Pay Loader Operator	2	2	0	4
50	Dumper Driver / Helper	2	2	2	6
51	Pumping & Water Supply	2	2	2	6
52	Store	2	0	0	2
53	Workshop Manpower (Welder / Gas Cutter / Lathe / Turner / Fitter etc.)	6	0	0	6
54	Ambulance Driver	1	1	1	3
55	Dispensary	2	2	2	6
56	Survey	4	0	0	4
57	Telephone Operator	1	1	1	3
58	Line Man	1	1	1	3
59	Dusting / Sampling Mazdoor	1	1	1	3
60	Misc.	5	5	2	12
	Sub Total-D	**41**	**29**	**24**	**94**
	Total A+B+C+D	**151**	**111**	**104**	**366**
	25% for absenteeism				**92**
	Grand Total				**458**

Mining Plan Prepared by me
(B.D. SHARMA)
Project Coordinator (PC)

INDIAN MINE PLANNERS CONSULTANTS

Additional Annexure-14

VENTILATION

1. **Estimation of Air Quantity:**
Parameters for calculating the quantity of air to be flown in the LVC of Panel/District are:-

a) Daily production (TPD) from the Panel as per Reg.153 (2) (a) of CMR, 2017

b) Number of persons employed in the largest shift in the Panel as per Reg.153 (2)(a) of CMR, 2017

c) As per Reg.153 of CMR, 2017, the quantity of requirement of air will be as follows:-

i. Not less than 6 m^3/ min/ person employed in the district on the largest shift shall flow along the last ventilation connection (LVC) in the district.

ii. Not less than 2.5 m^3 / min/ tonne of daily production shall flow along the last ventilation connection in the district.

iii. Whichever is larger of the above two shall pass along the LVC in the district.

iv. Concentration of inflammable gases shall not exceed 0.75% in the **general body** of the Return air of any ventilating district and 1.25% in any place in the mine.

v. The Wet Bulk Temperature (WBT) in any working place shall not exceed 33.5°C.

d) Requirement of **minimum air velocity** as per as per Reg. 160 of CMR, 2017 is as follows:-

Degree of gassiness	Place where velocity of air is to be measured	Minimum velocity of air (m/min)
[1st, 2nd or 3rd degree]	**Immediate out bye ventilation connection from the face.**	**30**
[1st or 2nd degree]	**i. 4.5 m from any Face whether working or discontinued on the intake side of the brattice or partition.**	**30**
	ii. 7.5 m out bye of the discharge end of an air pipe	**15**
	iii. At the maximum span of a Longwall face	60

e) Requirement of **maximum air velocity** as per as per Circular no. 42/1974 is as follows:-

S.N	Place	Max. Velocity of Air (m/sec)
1	Ventilation shafts not providing with winding equipment, fan drifts	15
2	Ventilation shafts where man-winding is not carried out, or hoisting shafts only	12
3	Shafts used for man-winding or man-hoisting shafts and haulage, roads(other than Conveyor roads)	8
4	**Other roadways**	**6**
5	Conveyor roads, loading points and transfer points	4
6	Working faces in developing or depillaring/stopping areas including Longwall faces	4

f) As per the Geological Report, the seam has been classified as **Degree-I** gassiness. The surrounding mines, such as Khairaha, Bangwar, Damni, Baherabandh, Kapildhara, Sheetaldhara etc. are also categorised as Degree-I gassy mines. However, after opening of the seam, a detailed study will be conducted to determine the actual degree of gassiness and appropriate precautions will be taken accordingly.

2. **Targeted Production:**
Peak Rated Production = 0.70 MTY = 7,00,000 Tonne/ year

Working Days = 350

Average Production per Day = 700000 / 350 =2,000 Tonne

Mining Plan Prepared by me
(D.D. SHARMA)
Project Coordinator (PC)

INDIAN MINE PLANNERS CONSULTANTS

3. **Manpower:**
Requirement of Manpower in each CM Panel = 24 (Face) + 34 (Panel) + 20 (Statutory) = 78 ~100 (say) in the largest Shift i.e. the General Shift (please refer Annexure-12, for Manpower).

4. **Requirement of Air at each CM Panel:**
Each CM Panel consists of generally 5 Headings – 3 District Intakes on one side & 2 District Returns on other side, separated by Ventilation Stoppings.

   a. Requirement of air in the LVC of CM Panel on the basis of manpower = 6 x 100 = 600 m^3/min.

   b. Requirement of air in the LVC of CM Panel on the basis of production = 2.5 x 2000 = 5,000 m^3/min.

   c. The larger of the above two (i.e. a & b) shall pass along the LVC in CM Panel i.e. 5,000 m^3/min

   d. Therefore, requirement at the last split of each CM Panel = **5,000 m^3/min = 83.33 m^3/sec.**

   e. The X-section of the Gallery / last split = 6.0 m x 2.5 m (avg.) = 15 m^2

   f. Therefore, the velocity of Air at last spilt will be = 5000 / 15 = 333 m/min = **5.56 m/sec**. It satisfies the Circular no. 42/1974.

   g. The above quantity of 5,000 m^3/min in LVC is a huge quantity & may not be required and may cause discomfort to workmen, especially during winter & rainy season. It may not be feasible to achieve this quantity also from practical point of view. In this case, a special permission may be sought from DGMS under Reg. 153 (2) of CMR, 2017 to flow quantity of air in variance of the above quantity w.r.t. WBT.

      Minimum air speed = 1.0 m/sec = 60.0 m/min from temperature point of view

      The X-section of the Gallery at LVC = 6.0 m x 2.5 m (avg.) = 15 m^2

      Therefore, quantity of air required to flow along LVC = 15 x 60 = **900 m^3/min**.

   h. **This quantity of air must flow along the LVC in CM Panel**.

5. **Requirement of Air of each CM Face:**
   a. As per general DGMS permission granted in CM Panels in India at least **0.5 m/sec** of air should flow on the CM.

   b. The X-section of the Gallery / Face = 6.0 m x 2.5 m (avg.) = 15 m^2

   c. Velocity required at a distance of 7.5 m out-bye of the discharge end of ducting at any Face = 15 m/ min

   d. Qty. required at CM Face = 15 x 15 = **225 m^3/min**. The Face ventilation shall be effected by Aux. Fan with Flexible ventilation ducting (610 mm Φ).

6. **Leakage:**
Ultimate length of the mine = 3,715 m at the farthest face (as measured from AutoCAD drawing) in the bottom most Seam, i.e. Seam-II
Length of Incline = 850 m
Length along Seams = 2,865 m
Average Pillar size = 34.5 m
Let No. of Air crossings = 5 (only one CM Panel)
Therefore No. of Ventilation Stoppings = 2865/34.5 - 5 = 78
Assuming Leakage at V/S @ 2.0 m^3/min total Leakage = 78 x 2 = 156 m^3/min
Assuming leakage at Air-Xing @ 60 m^3/min, total leakage = 5 x 60 = 300 m^3/min
Assuming leakage at surface Air Lock = 300 m^3/min
Therefore, total Leakage = 756 m^3/min

7. **Total Air Quantity required = 900 + 756 = 1,656 m^3/min = 27.60 m^3/sec**

Mining Plan Prepared by me
(B.D. SHARMA)
Project Coordinator (PC)

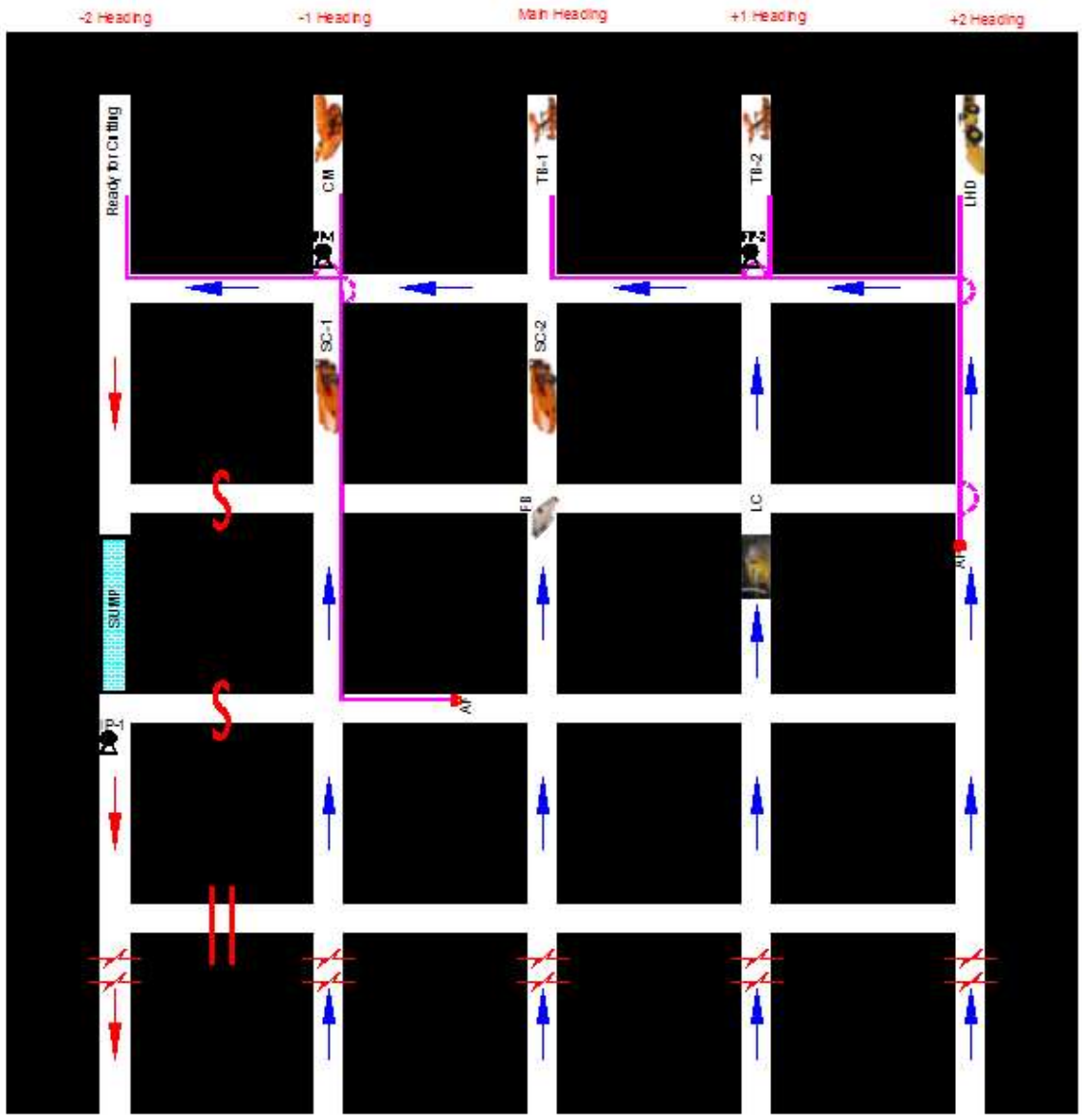
INDIAN MINE PLANNERS CONSULTANTS

8. Resistance of Mine:

S.N	No. of Entries	Description	Length	Width	Height	Area	Perimeter	RubbingSurface	K	Resistance	Equivalent Resistance
			m	m	m	m^2	m	S = P x L m^2	k. merg	R = KS/A^3	
1	Twin	Incline	850	6.0	3.5	21.0	19.0	16,150.0	0.001	0.001744	0.000436
2	Triple	Seam-II (Bottom most seam)	2,865	6.0	3.5	21.0	19.0	54,435.0	0.001	0.005878	0.001469
Total			**3,715**								**0.001905**

9. Quantity required at the furthest working in the mine (Q) = 1,656 m3/min = 27.60 m3/sec
Total length of the mine roadway = 3,715 m
Resistance of mine (R) = 0.001905 kilo merg.
Pressure to be developed by the ventilating Fan (P) = RQ^2
= 0.001905 x 27.60^2 = 1.45 mm ~2 mm of w.g
Considering Splits, shock loss, Restriction along roadway, regulating obstruction along belt, bend, junction, support etc., the actual pressure to be developed by the Fan = 2 x 2 = 4 mm of w.g

10. Typical face Ventilation Layout:



Mining Plan Prepared by me
(B.D. SHARMA)
Project Coordinator (PC)

Prepared By Min Mec Consultancy Pvt Ltd On 23/06/2025

Additional Annexure-15

MINE & SEAM ENTRIES

INCLINE / DRIVAGE	HEIGHT	WIDTH	GRADIENT	PURPOSE	RL	UPTO SEAM-IV			UPTO SEAM-L2			UPTO SEAM-IIIA			UPTO SEAM-II		
						FRL	LENGTH	FROM	FRL	LENGTH	FROM	FRL	LENGTH	FROM	FRL	LENGTH	FROM
Incline-1	3.5	5.5	1 IN 5	Track, Lowering of MUV & FSV	478.0	390.0	430.0	Surface				335.0	720.0	Seam-IV	309.0	850.0	Seam-IIIA
Incline-2	3.5	6.0	1 IN 5	Chairlift & Belt	478.0	390.0	430.0	Surface				335.0	720.0	Seam-IV	309.0	850.0	Seam-IIIA
3 x Drifts	3.5	6.0	1 IN 6	D-1: Track, MUV & FSV D-2: Chairlift & Belt D-3: Return Airway					350.0	270.0	Seam-IV						
SHAFT	**DIA**		**GRADIENT**	**PURPOSE**	**RL**	**UPTO SEAM-IV**			**UPTO SEAM-L2**			**UPTO SEAM-IIIA**			**UPTO SEAM-IV**		
						FRL	LENGTH	FROM	FRL	LENGTH	FROM	FRL	LENGTH	FROM	FRL	LENGTH	FROM
Air-Shaft	5.5		Vertical	Return Airway	480.0	400.0	80.0	Surface	353.0	127.0	Seam-IV	335.0	145.0	Seam-L2	305.0	175.0	Seam-IIIA

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