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Natural Resources

Reference No. AEL/GCM/2023/81

Date: 17.08.2023

To,
The Divisional Forest Officer,
Hazaribagh West Division,
Hazaribagh, Jharkhand-825301

Subject: गोन्दलपुरा कोल खनन परियोजना हेतु 219.80 हे0 वन भूमि अपयोजन का प्रस्ताव के संबंध में।

Ref 1: Query raised on 10.08.2023 vide letter No. 4419, dated 10.08.2023 against our forest diversion proposal
Ref 2: Proposal no. -FP/JH/MIN/139492/2021

Dear Sir,
With reference to the above, please find AEL response towards your query for further acceptance of forest diversion proposal of Gondulpara and forwarding the same to concerned authority for further process. Point-wise response are as mentioned below:

S.No	Query Raised	Response from User Agency
1	प्रस्ताव के साथ Justification for Locating अस्पष्ट है। इसे स्पष्ट किया जाय।	Complied. Justification attached herewith as **Annexure I**
2	प्रस्ताव के साथ Soil and Water Conservation Scheme, Integrated Wildlife Management Plan (Specific Plan based on NKCB) & CAT Plan जमा करने का वचनबद्धता प्रमाण पत्र समर्पित किया जाय।	Complied. Undertaking for Soil and Water Conservation Scheme/Catchment Area Treatment Plan (CAT Plan), Integrated Wildlife Management Plan (Specific Plan based on North Karanpura Coal Block) is attached herewith as **Annexure II**
3	प्रस्ताव में पड़ने वाले नदी–नाला को प्रस्तावित नक्शा पर दर्शाते हुए KML के साथ समर्पित किया जाय।	Complied. River/Nallah shown on Cadastral Plan/Land Use Plan and attached herewith as **Annexure III** Also, **KML** file attached herewith as **Annexure IV**

Submitted for your kind perusal and necessary action please.

Authorized Signatory

(Afroz)
Vice President
Adani Enterprises Limited

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Reference No. AEL/GCM/2023/82 Date: 17.08.2023

Justification for locating OB Dump area in forest land

Gondulpara Coal Mine project is covered by Survey of India Toposheet No. 73 E/5 on R.F 1:50,000. It is located in the northeastern part of North Karanpura Coalfields and falls under Hazaribagh district of Jharkhand state.

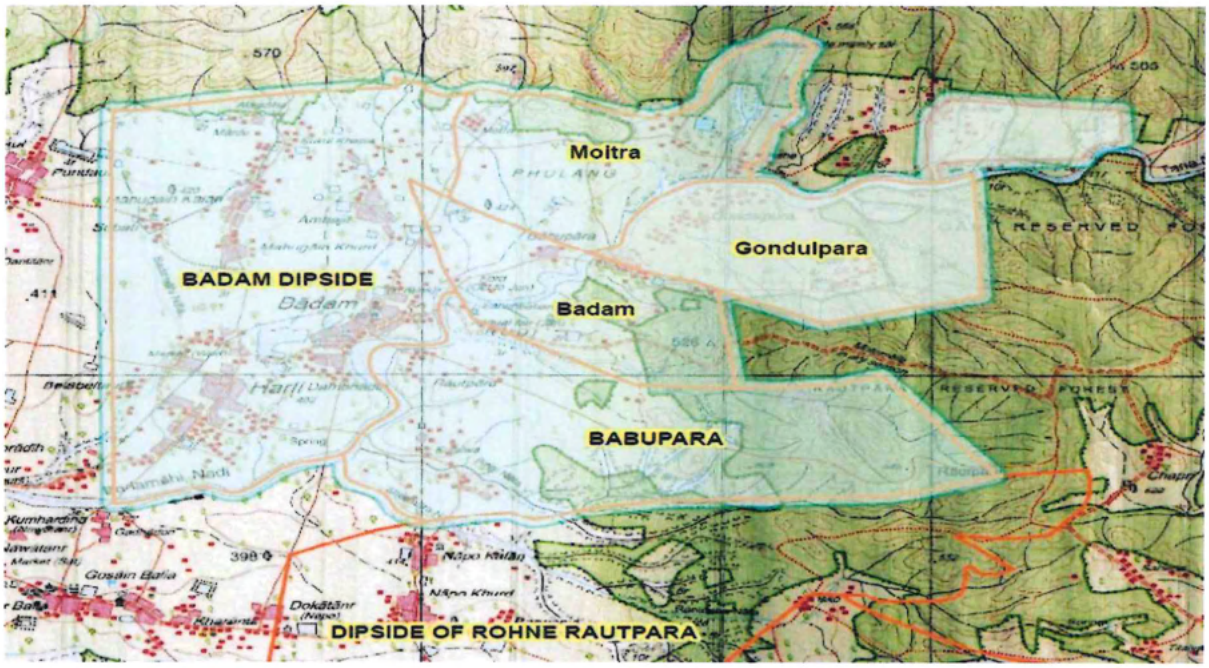

Fig 1: Map showing location of the coal block in respect of other coal blocks

The geographical location of Gondulpara Coal Block is as mentioned below,

- **Western Boundary-** The entire area on the western side is coal bearing area. Badam and Moitra Coal blocks are located on the western side of the blocks. These coal blocks are in an advanced stage of development.

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- **Eastern Boundary –** The entire Eastern Boundary of the coal block is covered by Forest land. As per the regional geological report prepared by CMPDIL, this area is a non-coal bearing area.
- **Southern Boundary –** The southern boundary of the coal block is covered by Badam Opencast Mine and forest land.
- **Northern Boundary** –On the western side of the northern boundary Moitra Coal block is located and on the extreme eastern side of the northern boundary, the land is under forest land. In the central zone, between forest land and Moitra coal block, part of the area is coal bearing.

OB Management Scenario

During the course of mining, 221.28 MBCM Overburden (OB) would be generated. Out of this, 176.18 MBCM OB can be accommodated within the coal block area. There is no room for further accommodating the balance 45.10 MBCM of the OB within the coal block area. To extract the entire extractable coal reserve of 116.69 MT, external OB dumping is inevitable. The external area required to accommodate balance of OB volume of 45.10 MBCM is 103.26 Ha. This estimation is also as per the approved Mining Plan.

Options for external OB dumping

As is evident from the location, OB dumping is not possible on three sides of the coal block, namely, East, South and West and as either other coal blocks are located, or it is entirely covered by forest area with highly rugged topography.

The only option available is on the Northern side. Even on the northern side, Moitra coal block is located on the western side and on the eastern side is forest land. On the central portion of the northern boundary, towards the east of the Moitra coal block, the area is partly coal bearing. It thus leaves us with a very narrow patch of land on the eastern side of the northern boundary covering part of the revenue land and part of forest land.

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The proposed external OB dump can't be located towards the western part from the currently proposed area as it is coal bearing. As per the CMPDIL report about 30% of the proposed OB dump area is coal bearing but mining is not viable/economical.

With external dumping, out of 166.18 MT of geological reserves, 116.69 MT can be extracted but in case no external dumping area is available, only 75 MT can be extracted reducing the overall extraction by 33%. Further, the coal left will be sterilized forever which will be a huge loss of natural resources for the country.

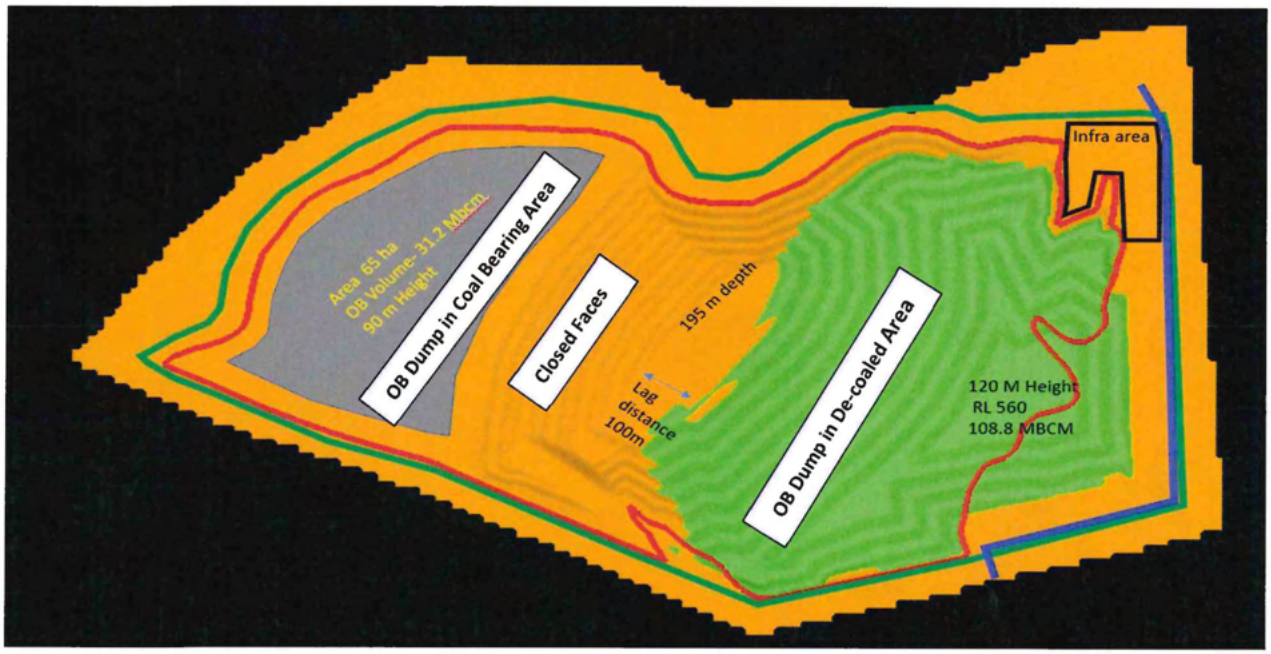

Fig 2: Map showing limitation of OB dumping for entire OB

A comparative statement with and without external OB dumping

Particulars	With External Dump	Without External Dump
Geological Reserve (Million T)	166.18	166.18
Extractable reserve (Million T)	116.69	75
Life of Mine (years)	32	20

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1. Cost Benefit Analysis for Forest Land involved in OB Dump

Basic parameters used for the assessment.

Without external OB dumping: 41.69 MT coal shall be sterilized which otherwise could have been extracted.

Total Coal Loss: 41.69 million tons

Grade of the coal: G10

NCI price the G10 grade coal: Rs 3099/Ton

Cost of mining: Rs 1985/Ton

Estimation of deemed Natural resource of forest.

SN	Item	Description	Value (in Rs Cr)
C1	Project Costs	Ecosystem services losses due to forest land involved in OB dumping	8.01
C2		Loss of animal Husbandry	0.80
C3		Cost of human settlement	0.00
C4		Loss of public facilities and administrative infrastructure on forest land which would be required to be diverted because of OB dumping on forest land	0.00
C5		Possession of value on forest land diverted	4.336
C6		Cost of suffering to outsees	0.00
C7		Habitation fragmentation cost	4.01

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C8		Compensatory afforestation and Soil & Moisture conservation cost	8.21
		Total Cost	25.366
B1	Project Benefits	Increased productivity because of additional coal been able to mine [tonnage*(Revenue -Cost)]	4644.266
B2		Revenue sharing with Govt (20.75%* Sale Value *Tonnage)	2680.84
B3		Royalty payment (14% * Sale Value *Tonnage)	1808.76
B4		Forest Transit Fee (Rs 57 * Tonnage)	237.63
B5		Jharkhand Covid Cess (Rs 10/T)	41.69
B6		District Mineral Fund (10% of Royalty)	180.88
B7		NMET (2% of Royalty)	36.18
B8		Compensatory Cess (Rs 400/T)	1667.60
B9		GST @5%	893.20
		Total Benefits	12191.05

Cost benefit Ratio: (Total Benefits/Total Cost)

= 12191.05/25.366

= 480.61

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Reference No. AEL/GCM/2023/ 83

Date: 17.08.2023

UNDERTAKING

This is to certify that M/s. Adani Enterprises Limited (AEL), Ahmedabad, has applied for diversion of 219.80 ha forest area for development of Gondulpara Coal mines lying in the Hazaribagh district of Jharkhand.

AEL undertakes to submit the Catchment Area Treatment Plan (CAT Plan)/Soil & Water Conservation Scheme for the purpose of forest diversion of Gondulpara Coal Mine in due course. AEL also undertakes to bear the cost, if any, regarding Catchment Area Treatment Plan (CAT Plan)/Soil and Water Conservation Scheme.

Authorized Signatory

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Reference No. AEL/GCM/2023/84

Date: 17.08.2023

UNDERTAKING

This is to certify that M/s. Adani Enterprises Limited (AEL), Ahmedabad, has applied for diversion of 219.80 ha forest area for development of Gondulpara Coal mines lying in the Hazaribagh district of Jharkhand.

AEL undertakes to submit the Site-Specific Wildlife Management Plan based on North Karanpura Coal Block for the purpose of forest diversion of Gondulpara Coal Mine in due course. AEL also undertakes to bear the cost, if any, regarding Site-Specific Wildlife Management Plan.

Authorized Signatory

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Vice President
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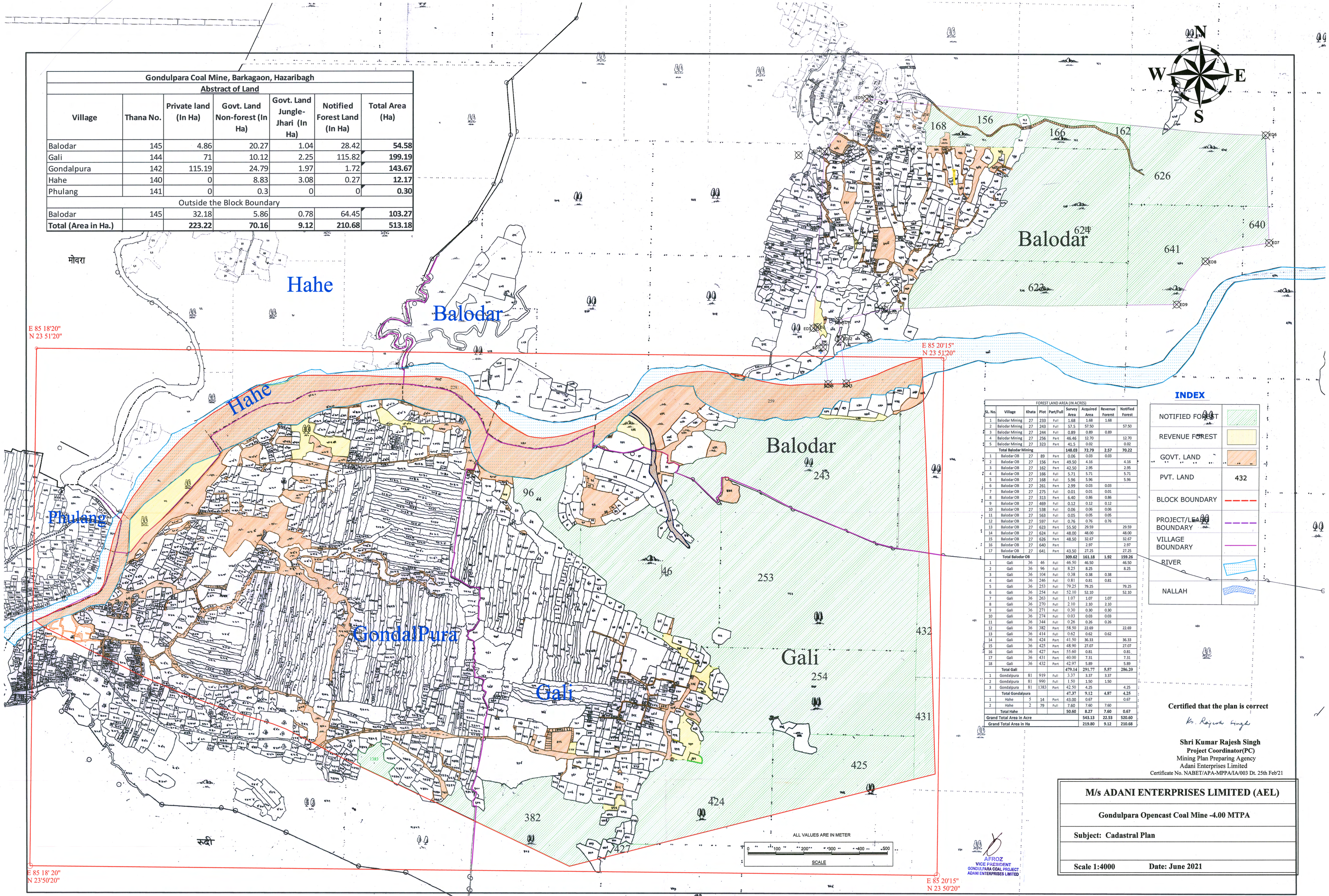
Gondulpara Coal Mine, Barkagaon, Hazaribagh

Abstract of Land

Village	Thana No.	Private land (In Ha)	Govt. Land Non-forest (In Ha)	Govt. Land Jungle-Jhari (In Ha)	Notified Forest Land (In Ha)	Total Area (Ha)
Balodar	145	4.86	20.27	1.04	28.42	**54.58**
Gali	144	71	10.12	2.25	115.82	**199.19**
Gondalpura	142	115.19	24.79	1.97	1.72	**143.67**
Hahe	140	0	8.83	3.08	0.27	**12.17**
Phulang	141	0	0.3	0	0	**0.30**
Outside the Block Boundary						
Balodar	145	32.18	5.86	0.78	64.45	**103.27**
Total (Area in Ha.)		**223.22**	**70.16**	**9.12**	**210.68**	**513.18**



FOREST LAND AREA (IN ACRES)

SL. No.	Village	Khata	Plot	Part/Full	Survey Area	Acquired Area	Revenue Forest	Notified Forest
1	Balodar Mining	27	233	Full	1.68	1.68	1.68	
2	Balodar Mining	27	243	Full	57.5	57.50		57.50
3	Balodar Mining	27	244	Full	0.89	0.89	0.89	
4	Balodar Mining	27	256	Part	46.46	12.70		12.70
5	Balodar Mining	27	323	Part	41.5	0.02		0.02
	Total Balodar Mining				**148.03**	**72.79**	**2.57**	**70.22**
1	Balodar OB	27	89	Part	0.06	0.03	0.03	
2	Balodar OB	27	156	Part	49.50	4.16		4.16
3	Balodar OB	27	162	Part	42.50	2.95		2.95
4	Balodar OB	27	166	Full	5.71	5.71		5.71
5	Balodar OB	27	168	Full	5.96	5.96		5.96
6	Balodar OB	27	261	Part	2.99	0.03	0.03	
7	Balodar OB	27	275	Full	0.01	0.01	0.01	
8	Balodar OB	27	313	Part	6.00	0.86	0.86	
9	Balodar OB	27	469	Full	0.12	0.12	0.12	
10	Balodar OB	27	538	Full	0.06	0.06	0.06	
11	Balodar OB	27	563	Full	0.05	0.05	0.05	
12	Balodar OB	27	597	Full	0.76	0.76	0.76	
13	Balodar OB	27	623	Part	55.50	29.59		29.59
14	Balodar OB	27	624	Full	48.00	48.00		48.00
15	Balodar OB	27	626	Part	48.50	32.67		32.67
16	Balodar OB	27	640	Part		2.97		2.97
17	Balodar OB	27	641	Part	43.50	27.25		27.25
	Total Balodar OB				**309.62**	**161.18**	**1.92**	**159.26**
1	Gali	36	46	Full	46.50	46.50		46.50
2	Gali	36	96	Full	8.25	8.25		8.25
3	Gali	36	104	Full	0.38	0.38	0.38	
4	Gali	36	246	Full	0.81	0.81	0.81	
5	Gali	36	253	Full	79.25	79.25		79.25
6	Gali	36	254	Full	52.10	52.10		52.10
7	Gali	36	263	Full	1.07	1.07	1.07	
8	Gali	36	270	Full	2.10	2.10	2.10	
9	Gali	36	271	Full	0.30	0.30	0.30	
10	Gali	36	274	Full	0.03	0.03	0.03	
11	Gali	36	344	Full	0.26	0.26	0.26	
12	Gali	36	382	Part	58.50	22.69		22.69
13	Gali	36	414	Full	0.62	0.62	0.62	
14	Gali	36	424	Part	41.50	36.33		36.33
15	Gali	36	425	Part	48.90	27.07		27.07
16	Gali	36	427	Part	55.60	0.81		0.81
17	Gali	36	431	Part	40.00	7.31		7.31
18	Gali	36	432	Part	42.97	5.89		5.89
	Total Gali				**479.14**	**291.77**	**5.57**	**286.20**
1	Gondalpura	81	919	Full	3.37	3.37	3.37	
2	Gondalpura	81	990	Full	1.50	1.50	1.50	
3	Gondalpura	81	1383	Part	42.50	4.25		4.25
	Total Gondalpura				**47.37**	**9.12**	**4.87**	**4.25**
1	Hahe	5	14	Part	43.00	0.67		0.67
2	Hahe	2	79	Full	7.60	7.60	7.60	
	Total Hahe				**50.60**	**8.27**	**7.60**	**0.67**
Grand Total Area in Acre						**543.13**	**22.53**	**520.60**
Grand Total Area in Ha						**219.80**	**9.12**	**210.68**

INDEX

NOTIFIED FOREST	
REVENUE FOREST	
GOVT. LAND	
PVT. LAND	432
BLOCK BOUNDARY	
PROJECT/LEASE BOUNDARY	
VILLAGE BOUNDARY	
RIVER	
NALLAH	

Certified that the plan is correct

Shri Kumar Rajesh Singh
Project Coordinator(PC)
Mining Plan Preparing Agency
Adani Enterprises Limited
Certificate No. NABET/APA-MPPA/IA/003 Dt. 25th Feb'21

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GONDULPARA COAL PROJECT
ADANI ENTERPRISES LIMITED

M/s ADANI ENTERPRISES LIMITED (AEL)

Gondulpara Opencast Coal Mine -4.00 MTPA

Subject: Cadastral Plan

Scale 1:4000 **Date: June 2021**

Gondulpara Coal Mine, Barkagaon, Hazaribagh						
Abstract of Land						
Village	Thana No.	Private land (In Ha)	Govt. Land Non-forest (In Ha)	Govt. Land Jungle-Jhari (In Ha)	Notified Forest Land (In Ha)	Total Area (Ha)
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Total (Area in Ha.)		**223.22**	**70.16**	**9.12**	**210.68**	**513.18**

External Dump

Balodar

Hahe

Balodar

GondalPura

Balodar

Phulang

Gali

Gali

GondalPura

Truck Loading Station

Block Boundary

Safety Zone
(Width 7.50 M)

Settling Pond

1st year boundary

2nd year boundary

3rd year boundary

External Dump

Safety Zone
(Width 7.50 M)

मोवरा

नदी

पैमाना (Scale)

ALL VALUES ARE IN METER

SCALE

INDEX

NOTIFIED FOREST	
REVENUE FOREST	
GOVT. LAND	
PVT. LAND	432
SAFETY ZONE	
BLOCK BOUNDARY	
PROJECT/LEASE BOUNDARY	
VILLAGE BOUNDARY	
RIVER	
NALLAH	

LAND USE DETAILS

S. No.	Component	Forest Land (Ha)	Non- Forest Land (Ha)	Total Area(Ha)
1	External OB Dump area outside of block	65.23	38.03	103.26
2	External OB Dump area within block	24.59	1.50	26.09
3	Excavation Area	100.54	225.47	326.01
4	Safety Zone	2.60	3.90	6.50
5	Settling Pond	2.20	0.00	2.20
6	Road and Infrastructure	10.12	2.68	12.80
7	Embankment	2.30	16.24	18.54
8	Green belt	10.69	0.00	10.69
9	Water Reservoir /River	0.00	5.56	5.56
10	Garland drain	1.53	0.00	1.53
	Total	**219.80**	**293.38**	**513.18**

Certified that the plan is correct

Shri Kumar Rajesh Singh
Project Coordinator(PC)
Mining Plan Preparing Agency
Adani Enterprises Limited
Certificate No. NABET/APA-MPPA/IA/003 Dt. 25th Feb'21

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VICE PRESIDENT
GONDULPARA COAL PROJECT
ADANI ENTERPRISES LIMITED

M/s ADANI ENTERPRISES LIMITED (AEL)

Mining Plan Including Mine closure Plan for Gondulpara Opencast Coal Mine - 4.00 MTPA

Subject: Tentative Land Use Plan

Prepared by: Shri Kumar Rajesh Singh, Project Coordinator (PC)

Scale 1:4000 **Date: April 2021** **Plate:IX**