

ओएनजीसी



ONGC

**making
tomorrow
brighter**

Courage to Explore, Knowledge to Exceed, Technology to Excel



ONGC's Experience in CBM

April, 2006
New Delhi

CBM Potential in India

- ❖ Total coal resource: 248 BT
- ❖ Estimated CBM resource - **35 to 105 TCF**
(Virgin Coalbed Methane)
- ❖ Coal Mine Methane (CMM)- Yet to start
- ❖ Abandoned Mine Methane (AMM)- Yet to start
- ❖ CMM & AMM also hold potential



ONGC's Initiatives



- **1995:** Drilled first R&D well in Durgapur depression, W. Bengal
- **1997:** First CBM flow in the country from a well drilled in Jharia Coal field, Jharkhand
- **1999:** Drilled 3 more Exploratory wells in Parabatpur area of Jharia Coal field
- **2000-2002:** Unique multizone completion resulting into test flow of **3.5 BCF of CBM from a single well**
- **2003:** Established sustained production rate- **225000 scfd per well**
- **2004-2005:** Formulation of pilot development plan, beside enhanced exploratory efforts in CBM acreages

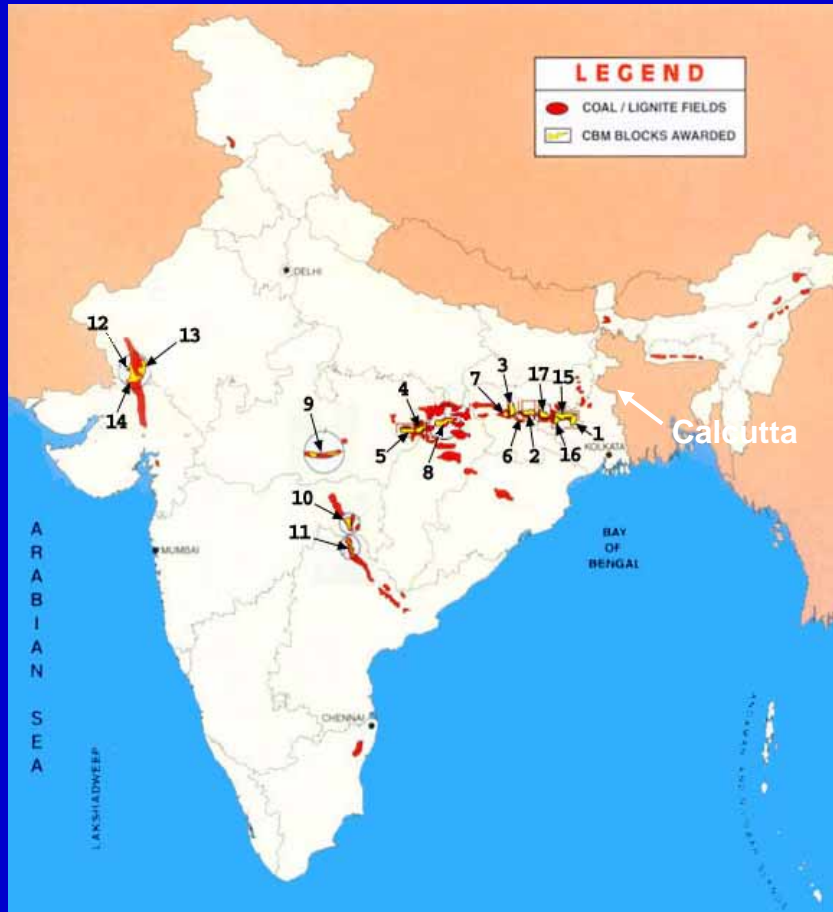


Highlights



- **ONGC operates 9 CBM blocks in the states of W. Bengal, Jharkhand, Maharashtra, M.P & Gujarat**
- **CBM blocks in Jharkhand in terms of resource concentration are comparable with the producing basins of USA and Australia**
- **41% CBM acreage holding in the country with 54% of CBM resources**
- **Planned to put CBM to market by 2007**

CBM Blocks Awarded



1st Round of Bidding (2001)

1	500 sq km	42 BCM	Raniganj	Essar
2	95	45	Bokaro	ONGC-IOC
3	340	62	N. Karanpura	ONGC-IOC
4	495	49	Sohagpur East	RIL
5	500	37	Sohagpur West	RIL
	1930	235		

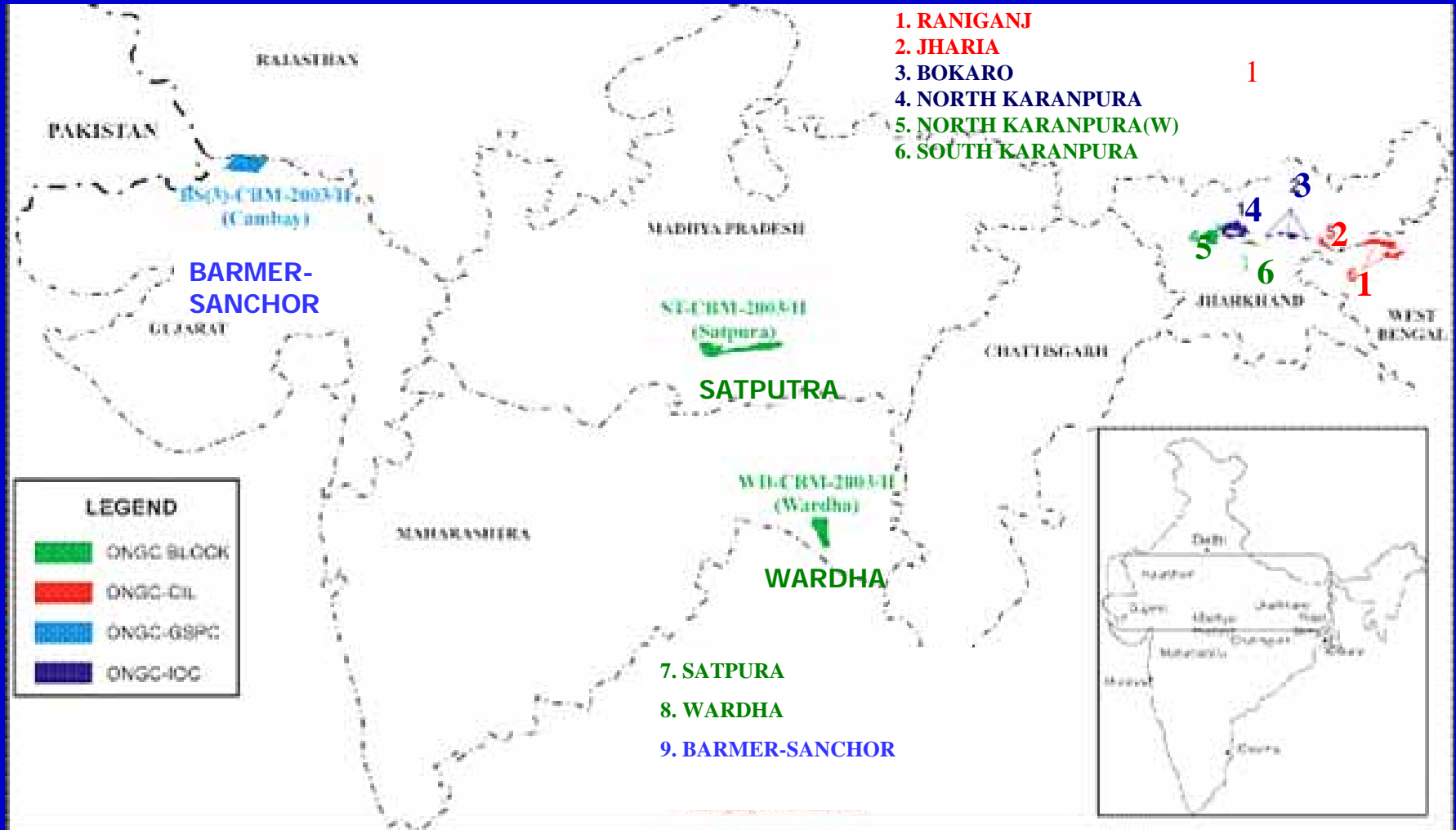
2nd Round of Bidding (2003)

6	70	30	S. Karanpura	ONGC
7	267	44	N. Karanpura (W)	ONGC
8	825	34	Sonhat	RIL
9	714	29	Satpura	ONGC
10	503	20	Wardha	ONGC
11	1045	95	Barmer	RIL
12	1020	88	Barmer	RIL
13	790	87	Barmer-Sanchor	ONGC-GSPC
	5234	427		

Blocks on Nomination Basis/FIPB (2001)

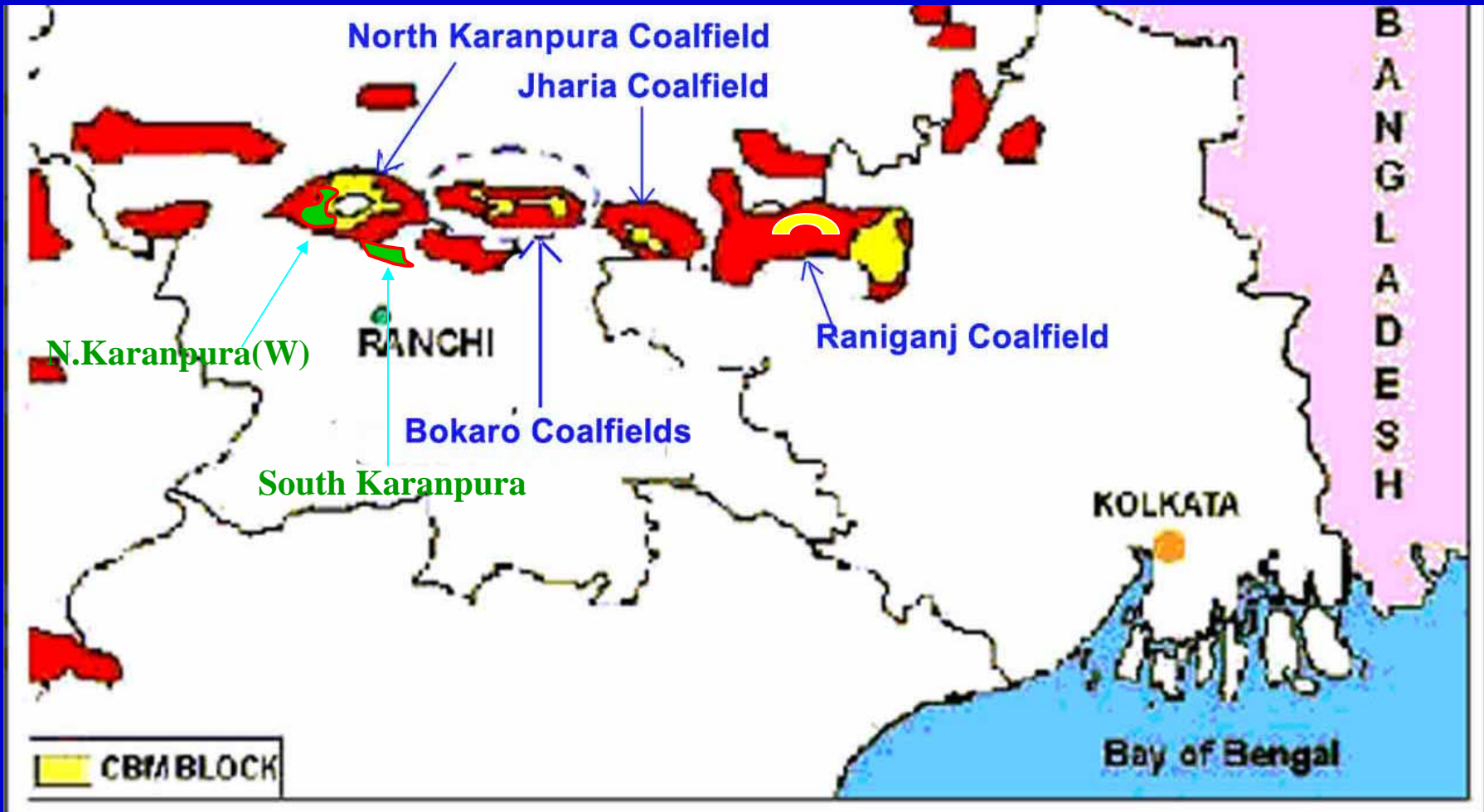
14	350	43	Raniganj	ONGC-CIL
15	210	30	Raniganj	GEECL
16	85	85	Jharia	ONGC-CIL
	645	158		
	Gross 7809	812		

ONGC Operated Blocks



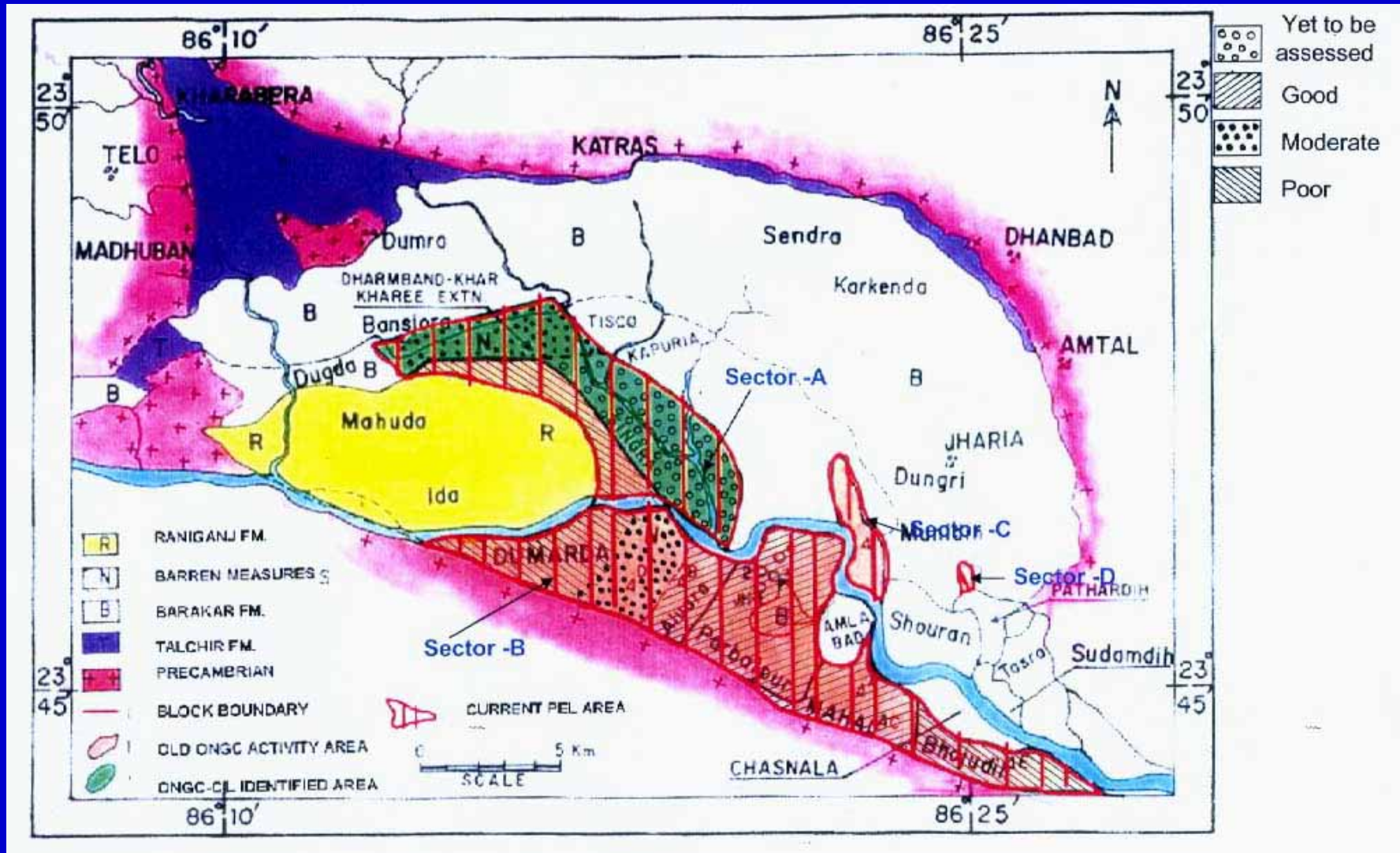


ONGC Operated Blocks in Damodar Valley

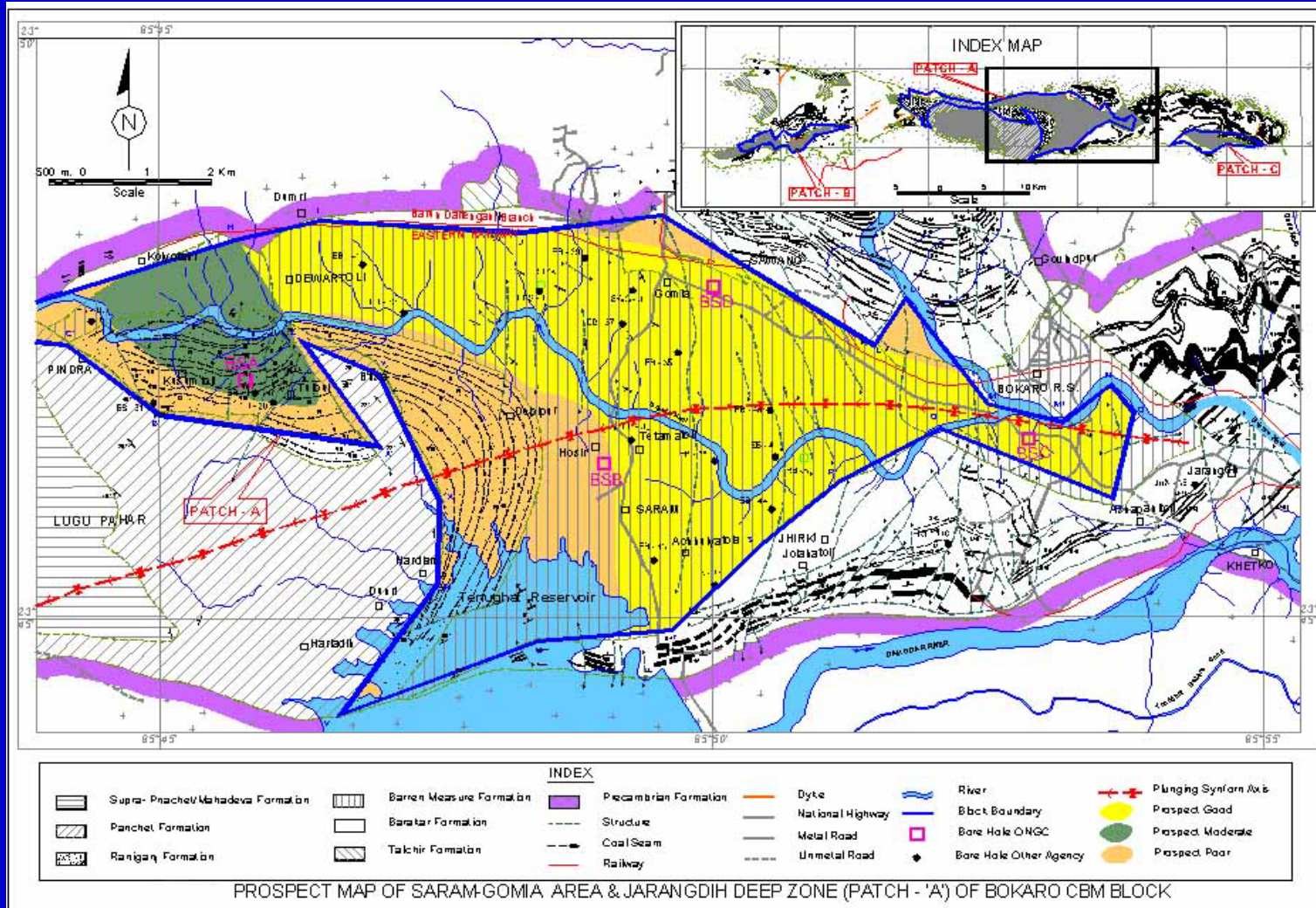


After DGH

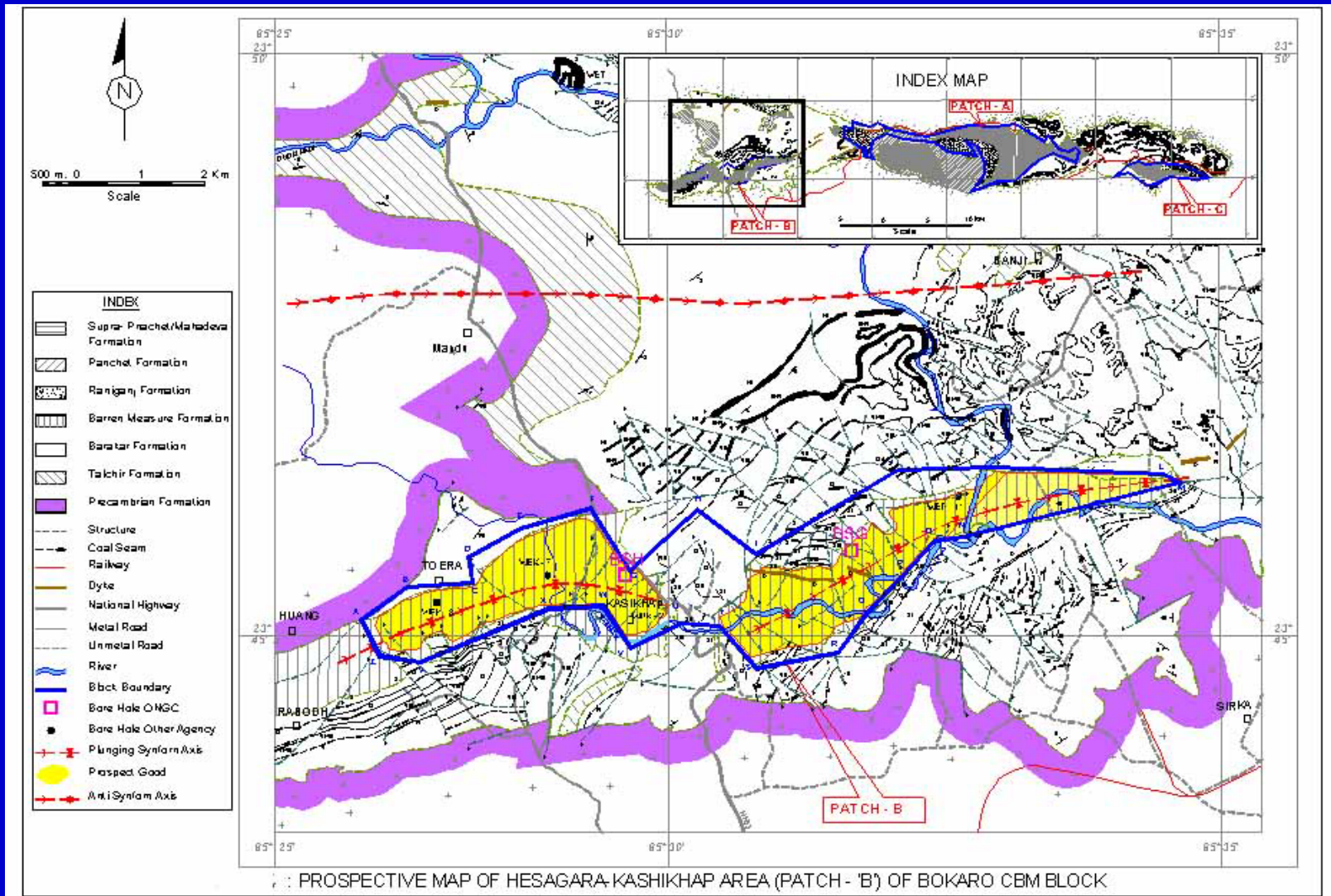
Jharia Block- Prospect Map



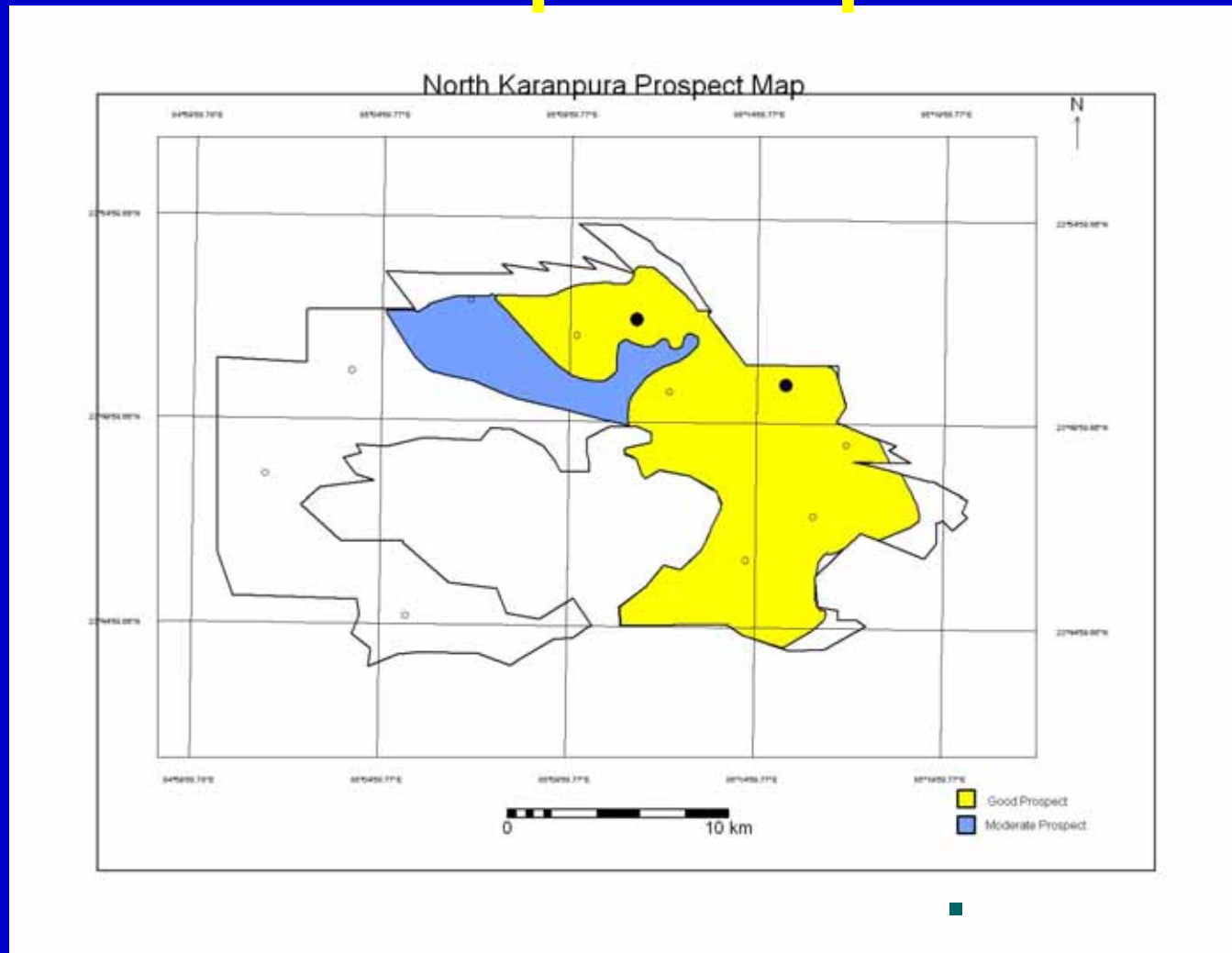
Bokaro Block - Prospect Map (East Bokaro C.F)



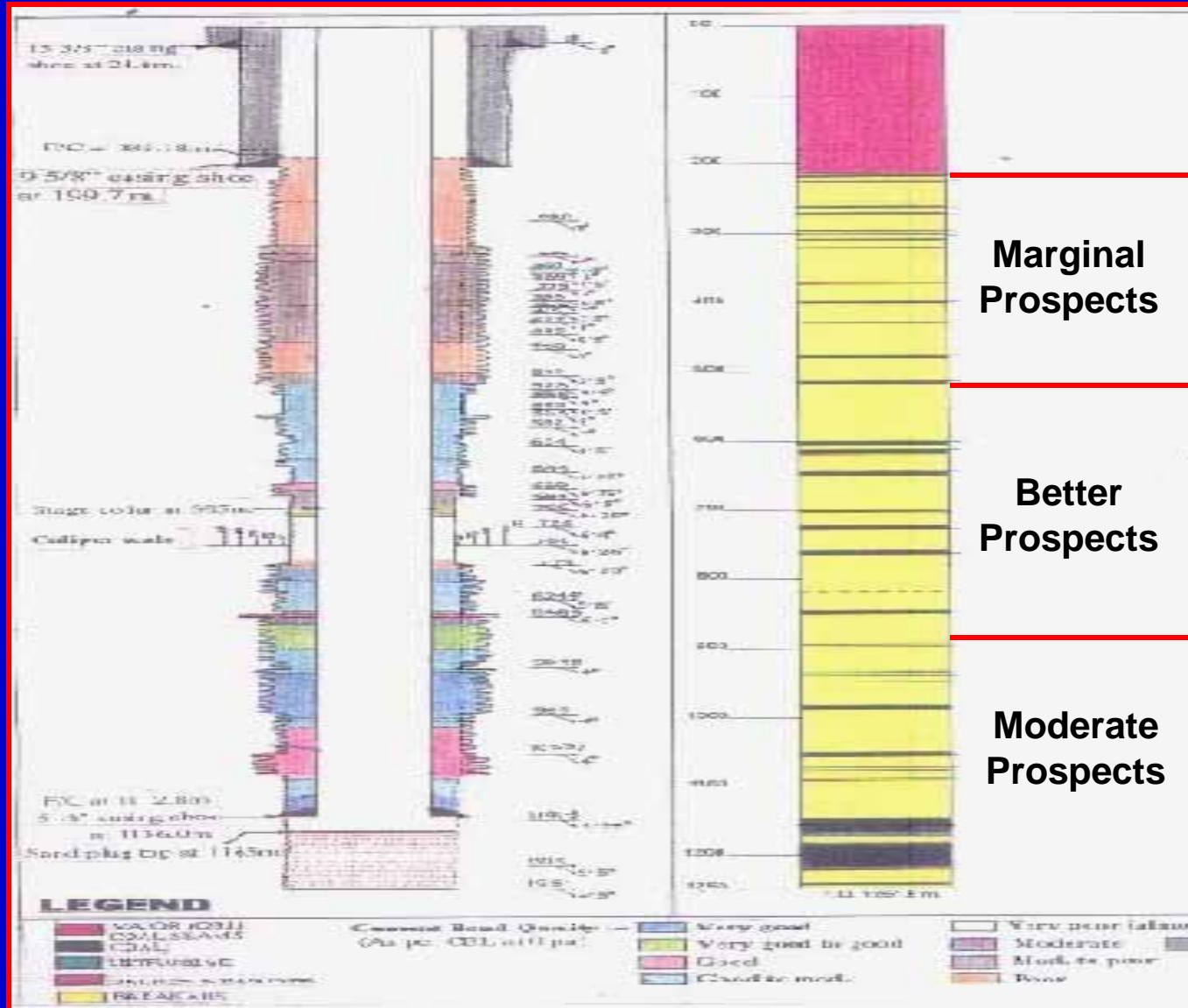
Bokaro Block - Prospect Map (West Bokaro C.F)



N. Karanpura Block- Prospect Map



Schematic Well Construction





CBM to Market from Parabatpur Area in Jharia



To Begin With....



**Development of 6 sq. km. Central
Part of Parbatpur area of Jharia CBM
Block with 14 Horizontal Multilateral
Wells**



Market Scenario



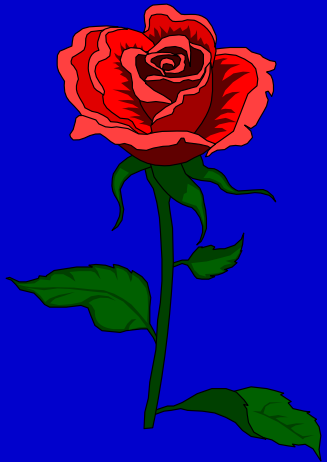
- ❖ Ready market in the vicinity of production
- ❖ Prospective consumers- Steel, Power & Refractory industries
- ❖ Positive returns at gas selling price of US\$5/MMBTU



Conclusion



- ❖ Exploration work in the Blocks of CBM –I yielded encouraging results.
- ❖ Basin specific adoption of technology - a key factor
- ❖ Emergence of India as Commercial CBM producer in near future.
- ❖ Ready market in the vicinity of production



Thank You