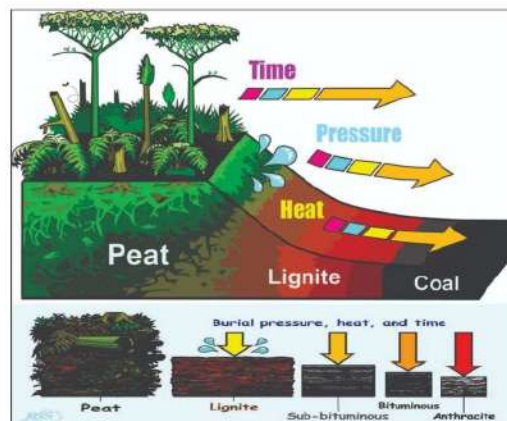


BATUBARA DAN PERHITUNGAN CADANGAN BATUBARA



BATUBARA

- Batubara adalah batuan organik yang terbentuk dari fosil tumbuh-tumbuhan, berwarna gelap dan sedikit terasosiasi oleh kandungan mineral.



<https://sudutenergi.com/proses-terbentuknya-batu-bara/>

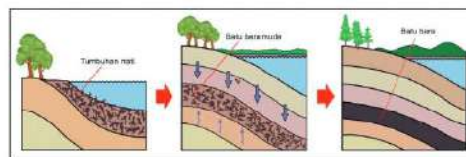
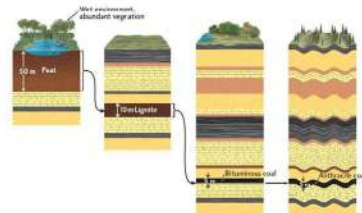


BATUBARA

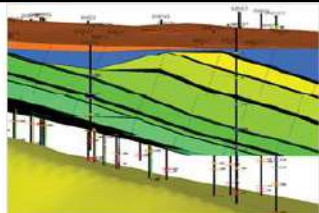
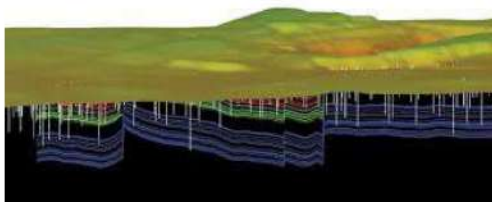
Teori Pembentukan Batubara

Teori Insitu

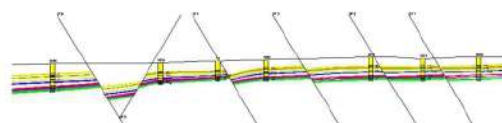
Teori Drift



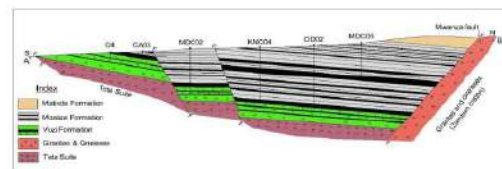
EKSPLORASI BATUBARA



3D Perspective : Dassault Sytemes



3D Perspective : Dassault Sytemes



Lakshminarayana (2015)



METODE PERHITUNGAN VOLUME

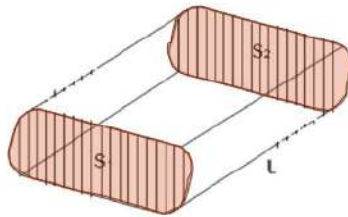
- Metode Penampang

- Average Area

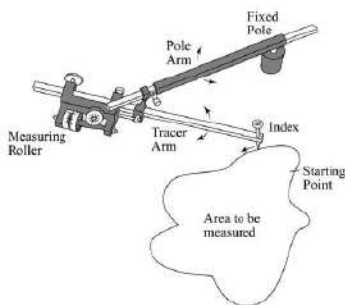
Untuk endapan yang memiliki penampang uniform

$$V = L \times \left(\frac{S_1 + S_2}{2} \right)$$

V = Volume
L = Jarak antar penampang
S₁, S₂ = Luas Penampang



ALAT PENGUKUR LUAS



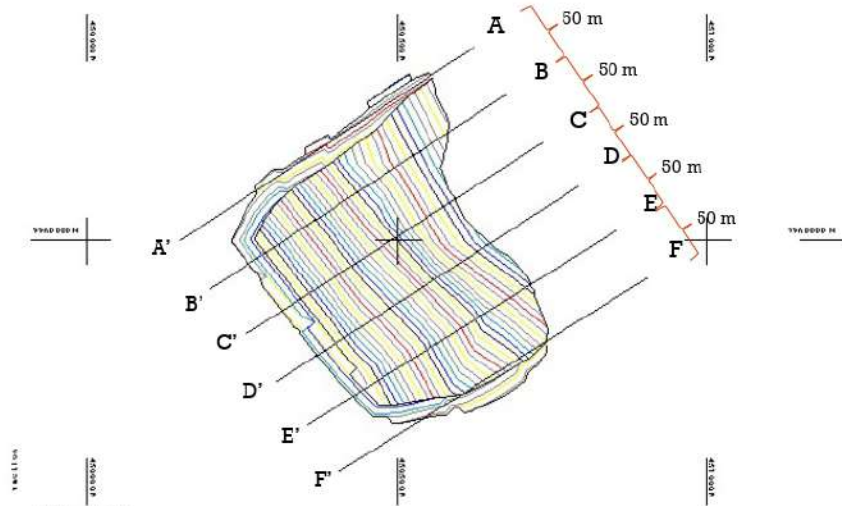
Planimeter Manual



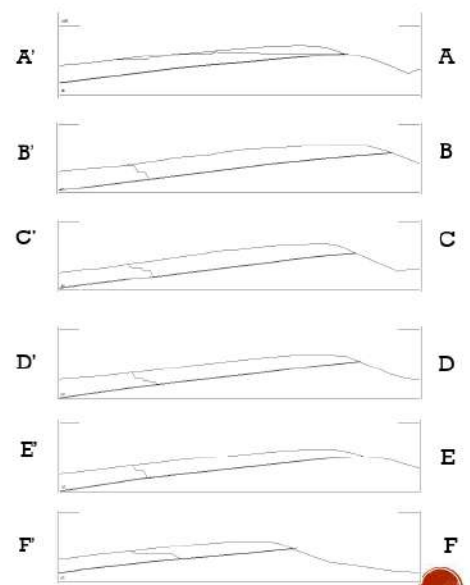
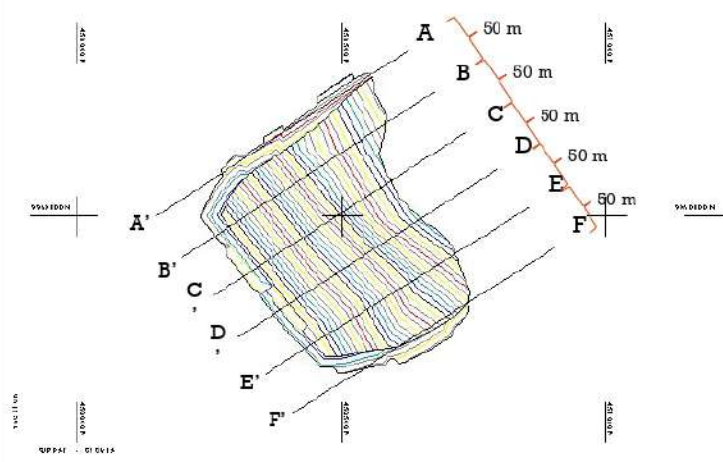
Planimeter Digital

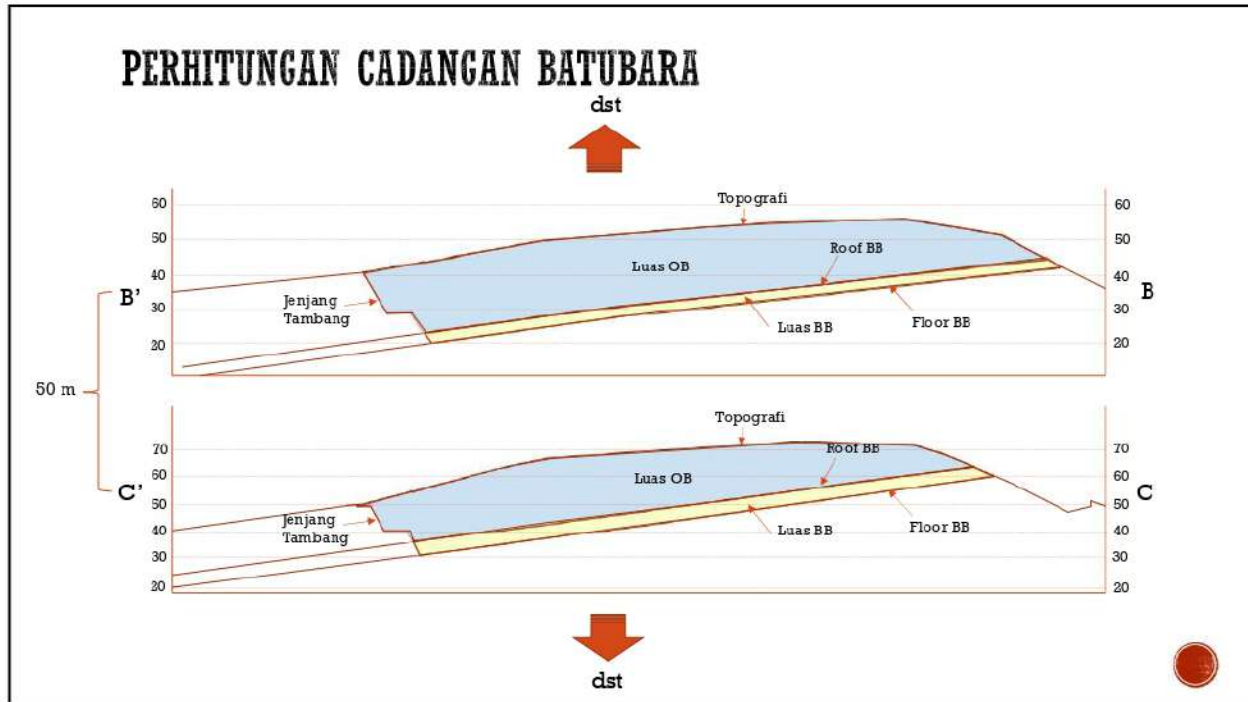


PERHITUNGAN CADANGAN BATUBARA



PERHITUNGAN CADANGAN BATUBARA





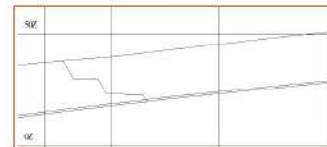
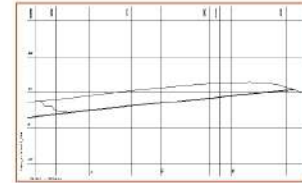
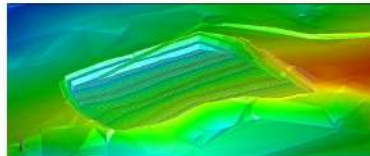
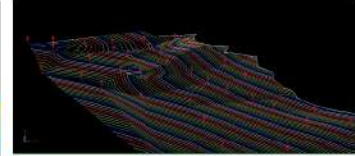
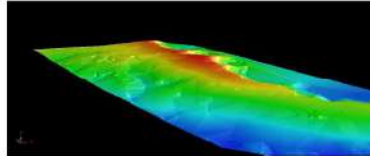
PERHITUNGAN CADANGAN BATUBARA

Sayatan	Jarak Antar Sayatan (m)	Densitas Batubara (ton/m ³)	Luas Overburden (m ²)	Luas Batubara (m ²)	Volume Overburden (m ³)	Volume Batubara (m ³)	Tonase Batubara (Ton)
A-A'			525	0			
B-B'	50	1.3	3900	138	110625	3450	4485
C-C'	50	1.3	3760	150	189000	7200	9360
D-D'	50	1.3	3800	126	181875	6800	8840
E-E'	50	1.3	3475	146	178625	6675	8677.5
F-F'	50	1.3	3670	121			
Total					851625		40332.5
Stripping Ratio					21 : 1		

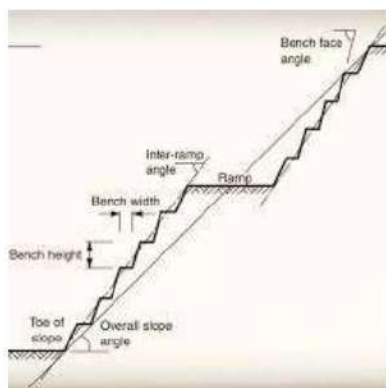
DESAIN PENAMBANGAN

▪ Data yang diperlukan dalam evaluasi cadangan batubara :

1. Topografi
2. Kontur Stuktur
3. Desain Pit
4. Densitas Batubara
5. Sayatan Penampang



GEOMETRI JENJANG



<https://www.abc.net.au/radionational/programs/archived/australiatalks/the-super-pit/3708772>





TERIMA KASIH