Vietnam Sedimentary Basins & Fields

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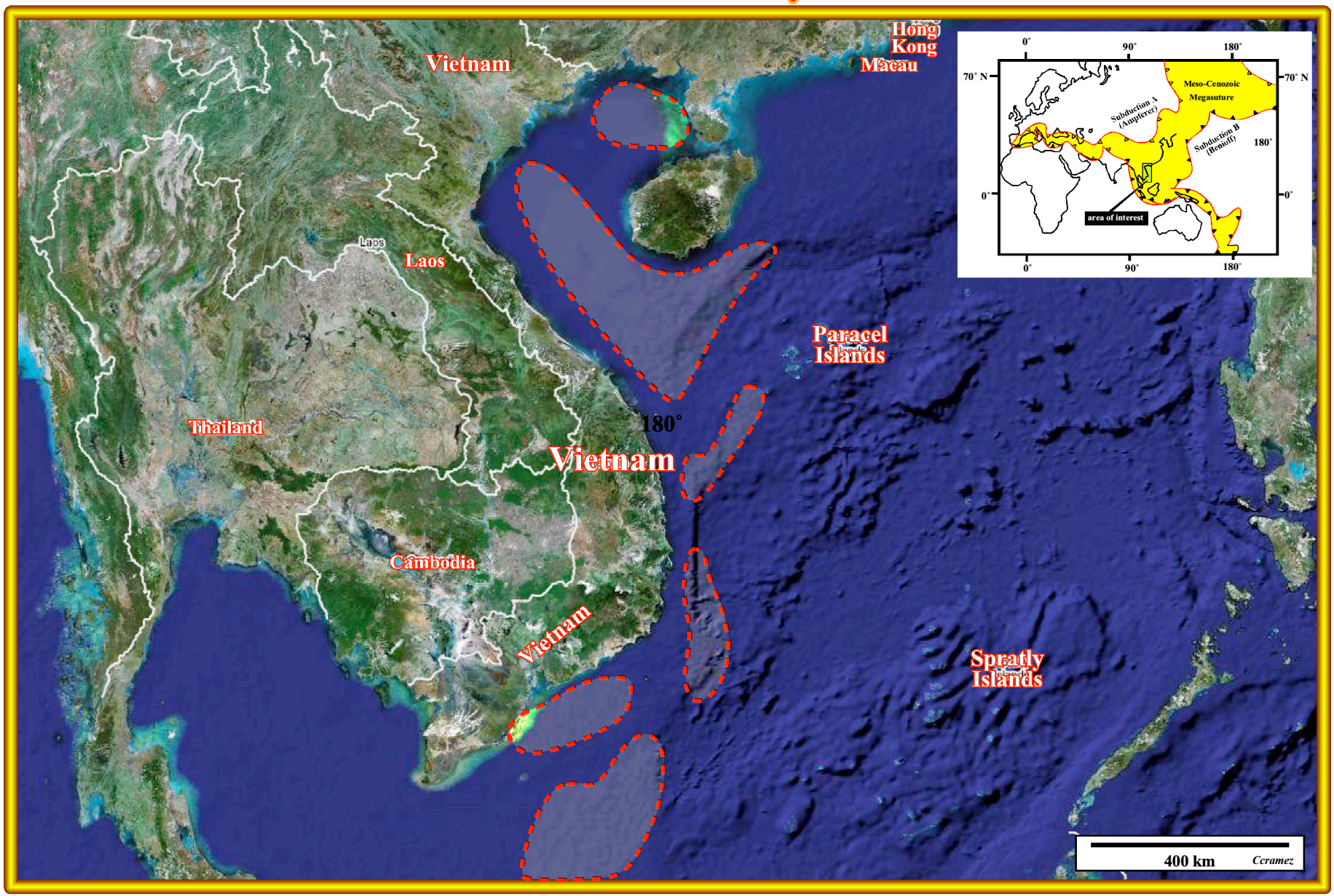
Switzerland

Vietnam Sedimentary Basins



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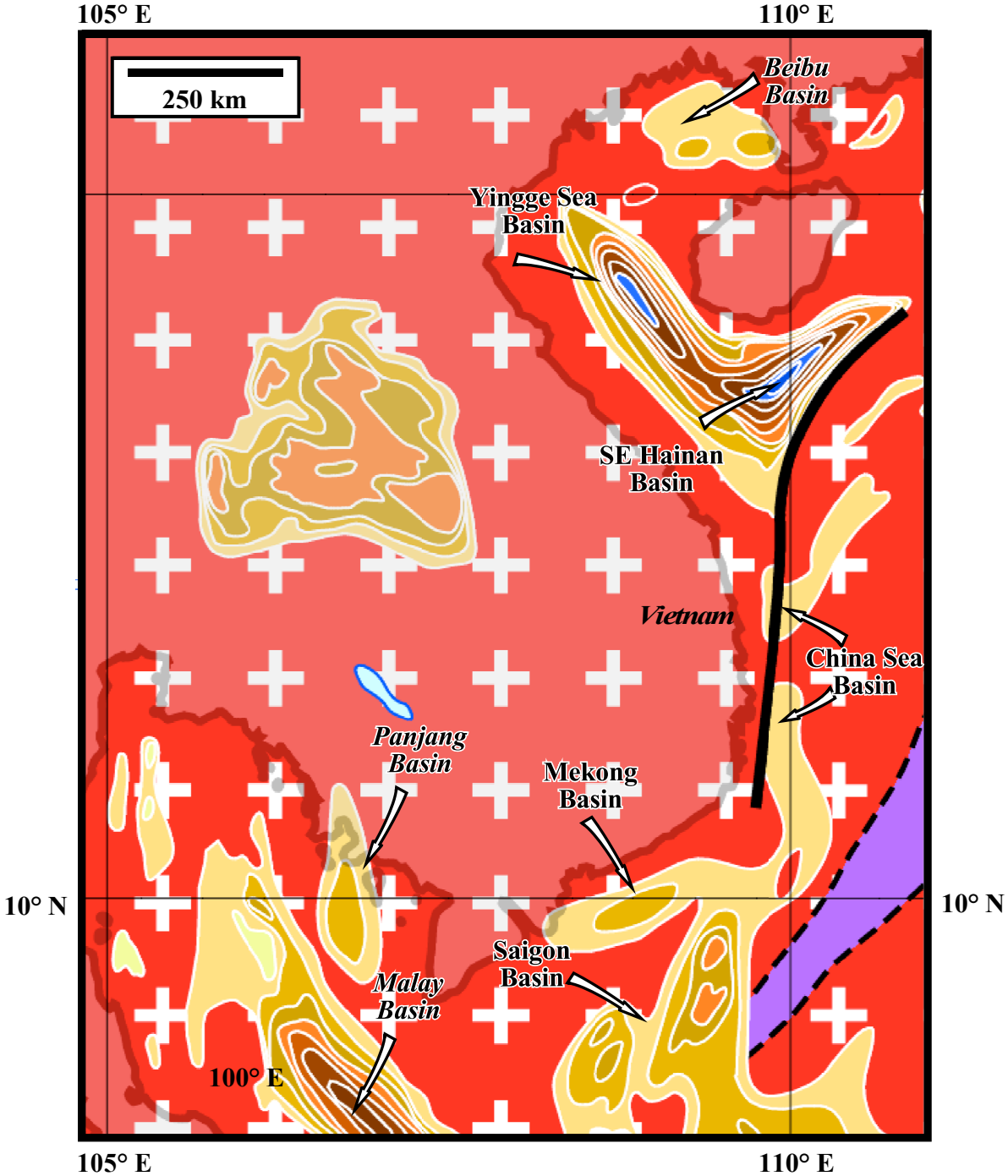

Vietnam Geographic Basins

Thickness of Sediments

2-3 km	3-4 km
4-5 km	5-6 km
6-7 km	7-8 km
8-9 km	9-10 km
10-11 km	>11 km

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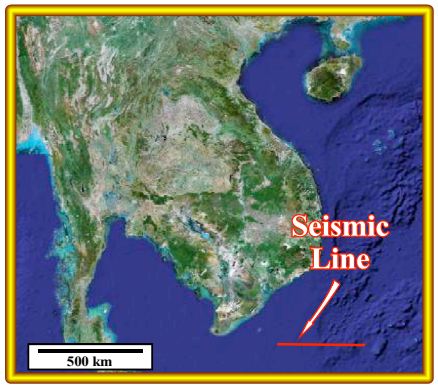
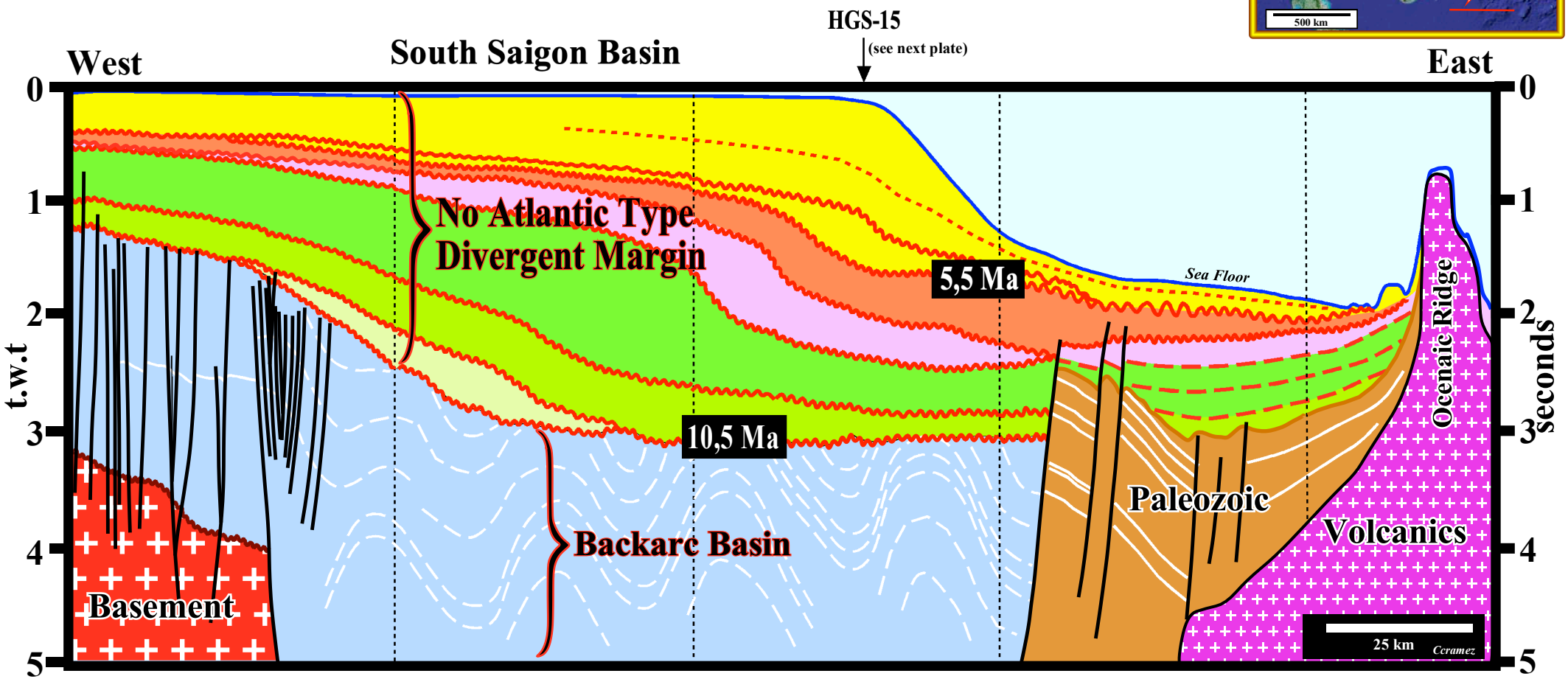
Geological Cross - Section

(based on seismic line HGS-9-9A)





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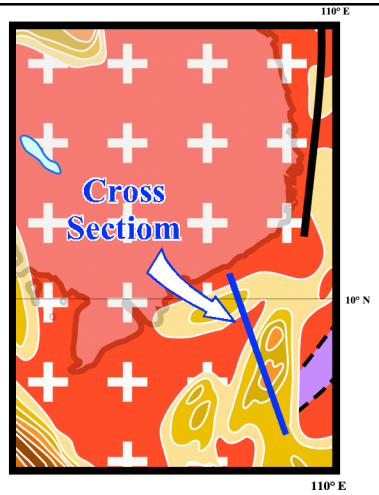
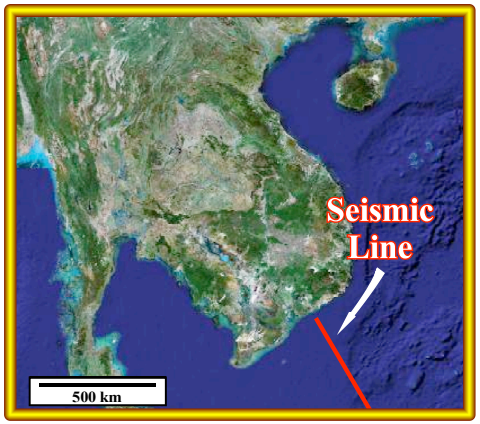


Geological Cross - Section

(based on seismic line HGS-15)



HGS-9-9A
(see previous plate)

NNW — SSE

Mekong Geographic Basin — *North Saigon Geographic Basin* — *South Saigon Geographic Basin*

no vertical scale

Khorat High

No Atlantic-Type Divergent Margin

Backarc Basin

Conson High

SagPhase

Rifting Phase

Dai Hung High

Paleozoic

Oceanic Ridge

Basement

appr. 50 km

Ceramez

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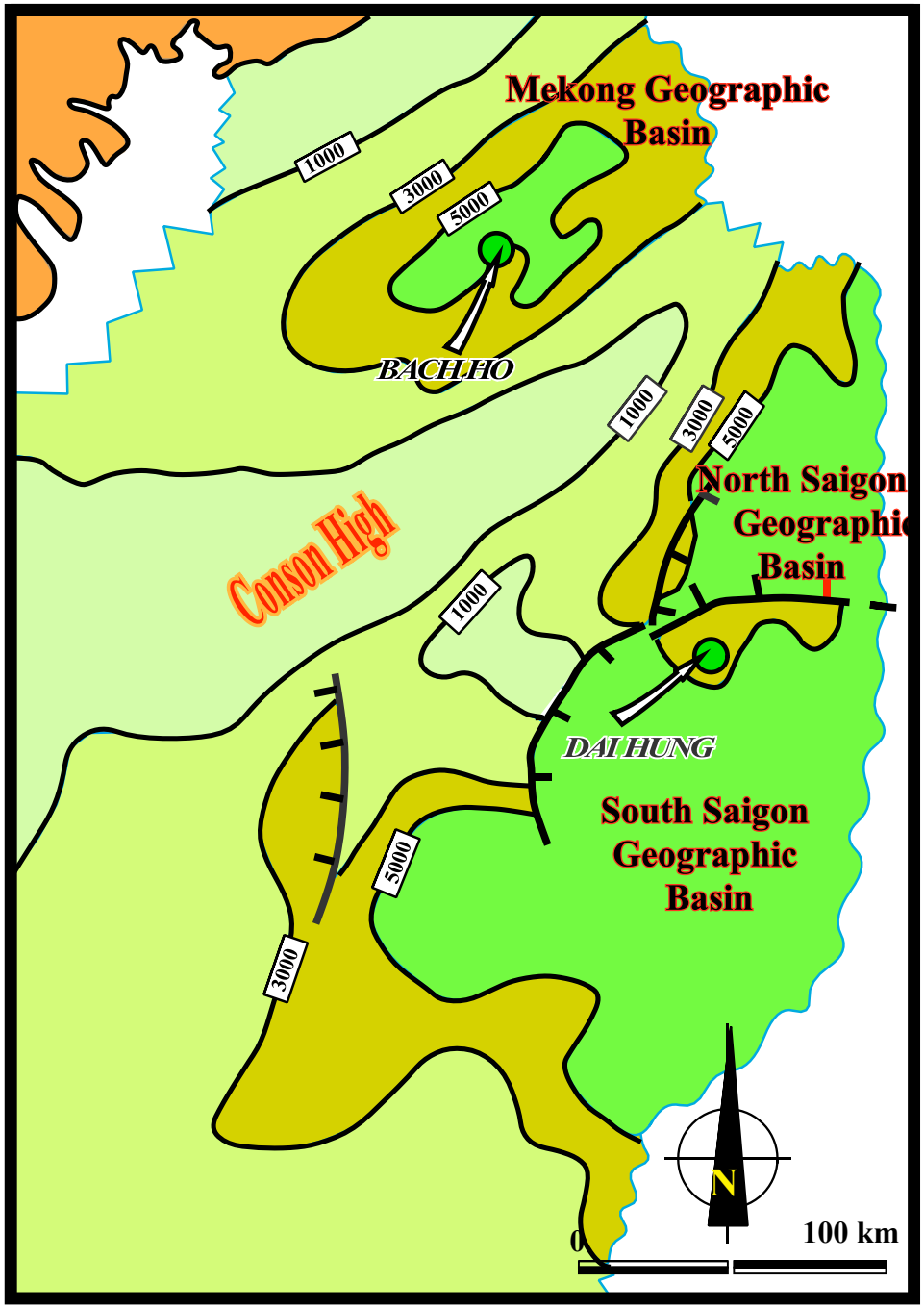
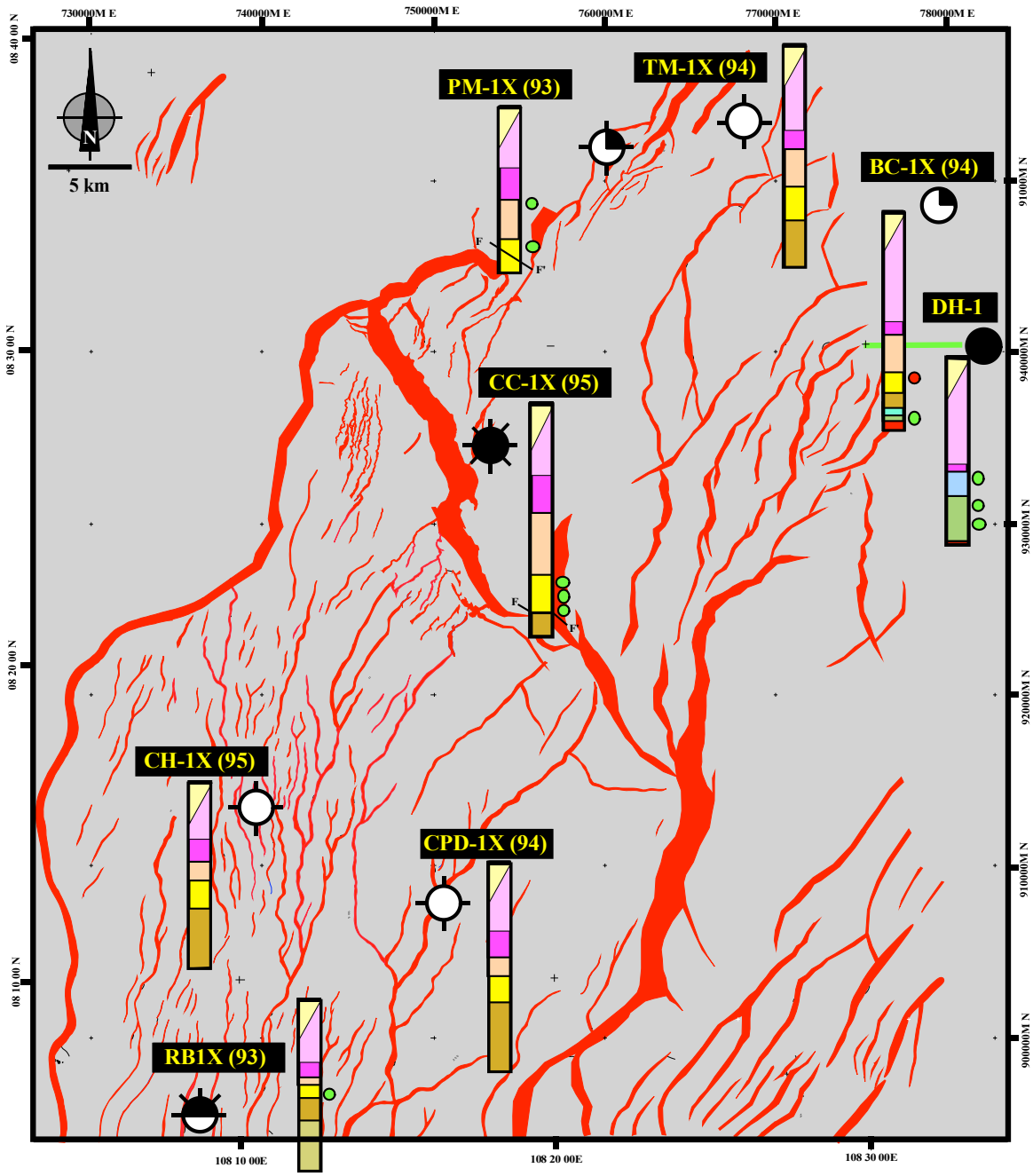
Mekong and N & South Saigon Geographic Basins

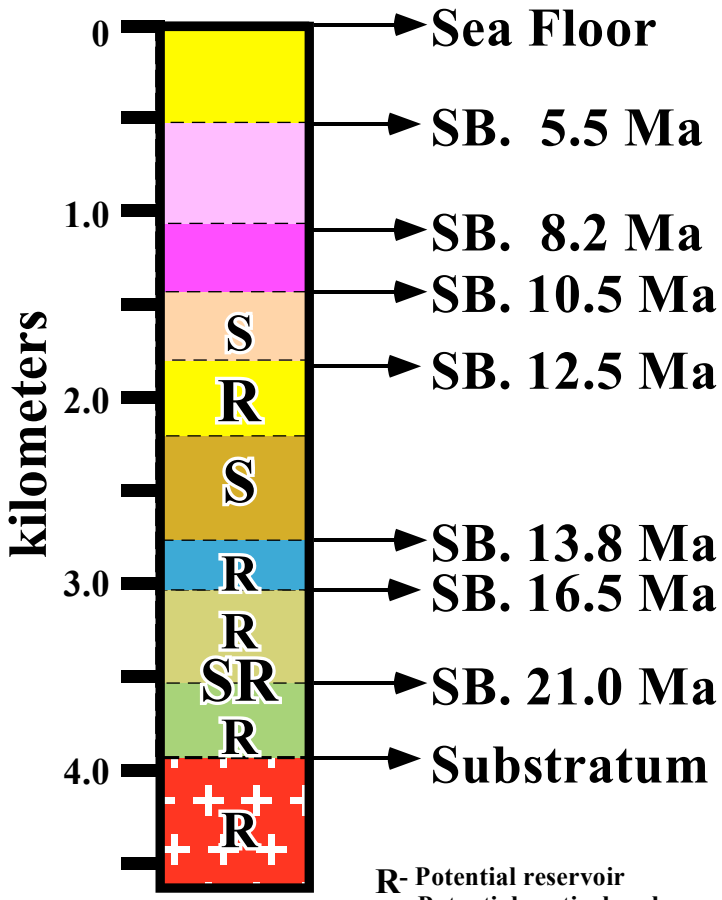
Basement's Isobaths
(in kilometers)



Stratigraphy of Saigon Geographic Basin

Exploration Wells





R- Potential reservoir
s - Potential vertical seal
S - Potential lateral seal
SR- Potential source rocks
R - Potential reservoirs (Dai Hung)

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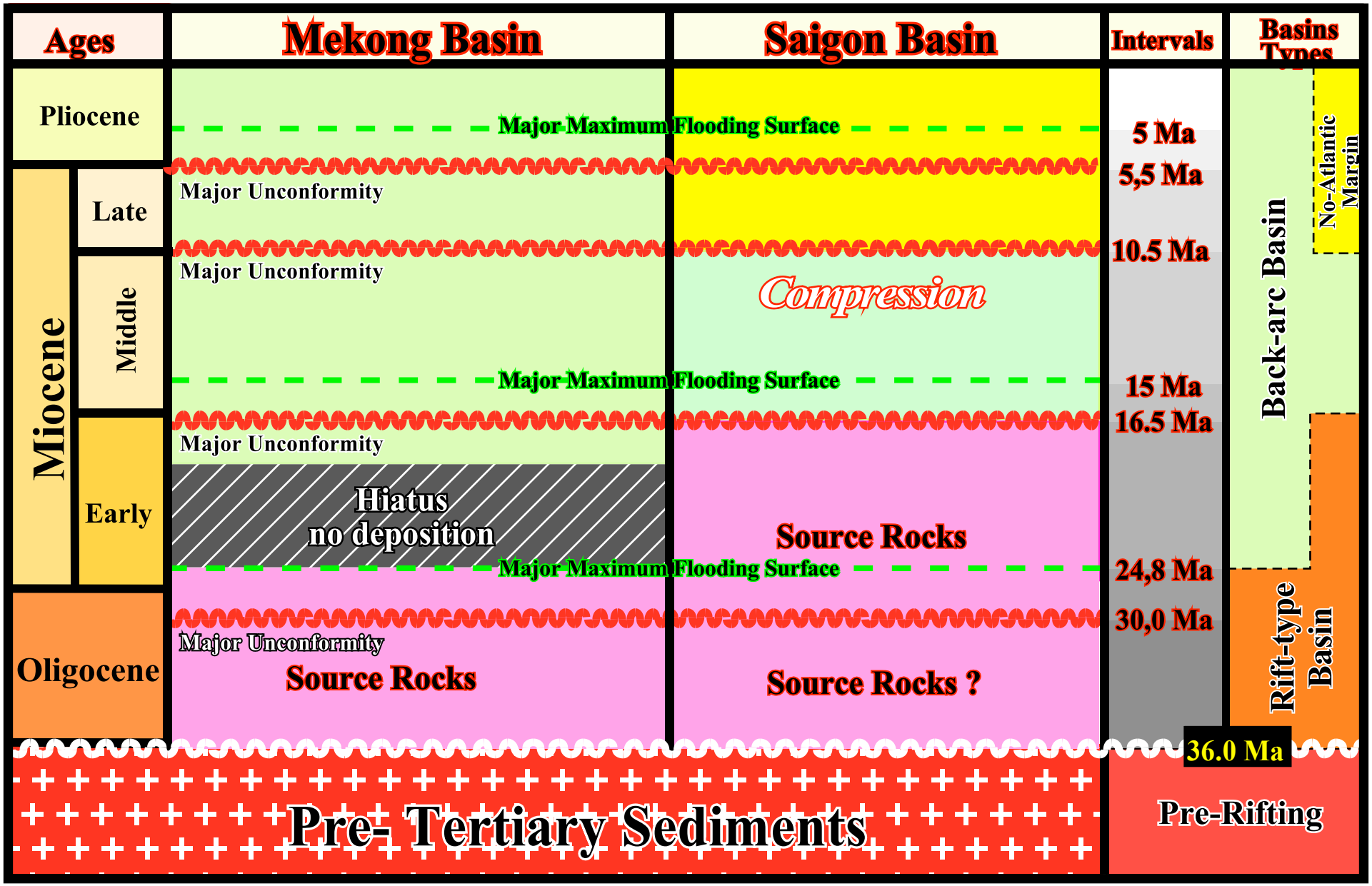
Stratigraphy of Mekong & Saigon Geographic Basins



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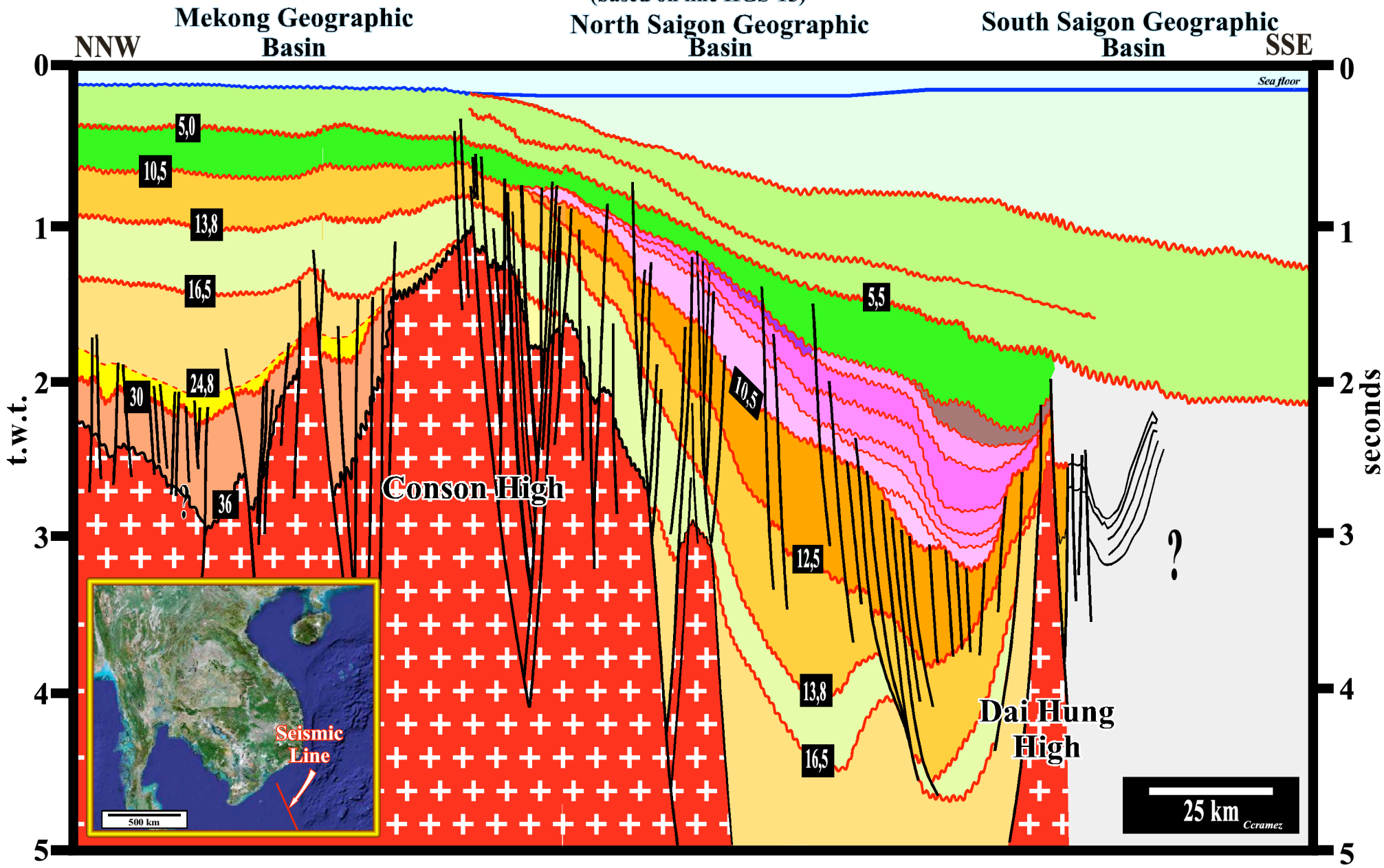
Geological Cross - Section

(based on line HGS-15)



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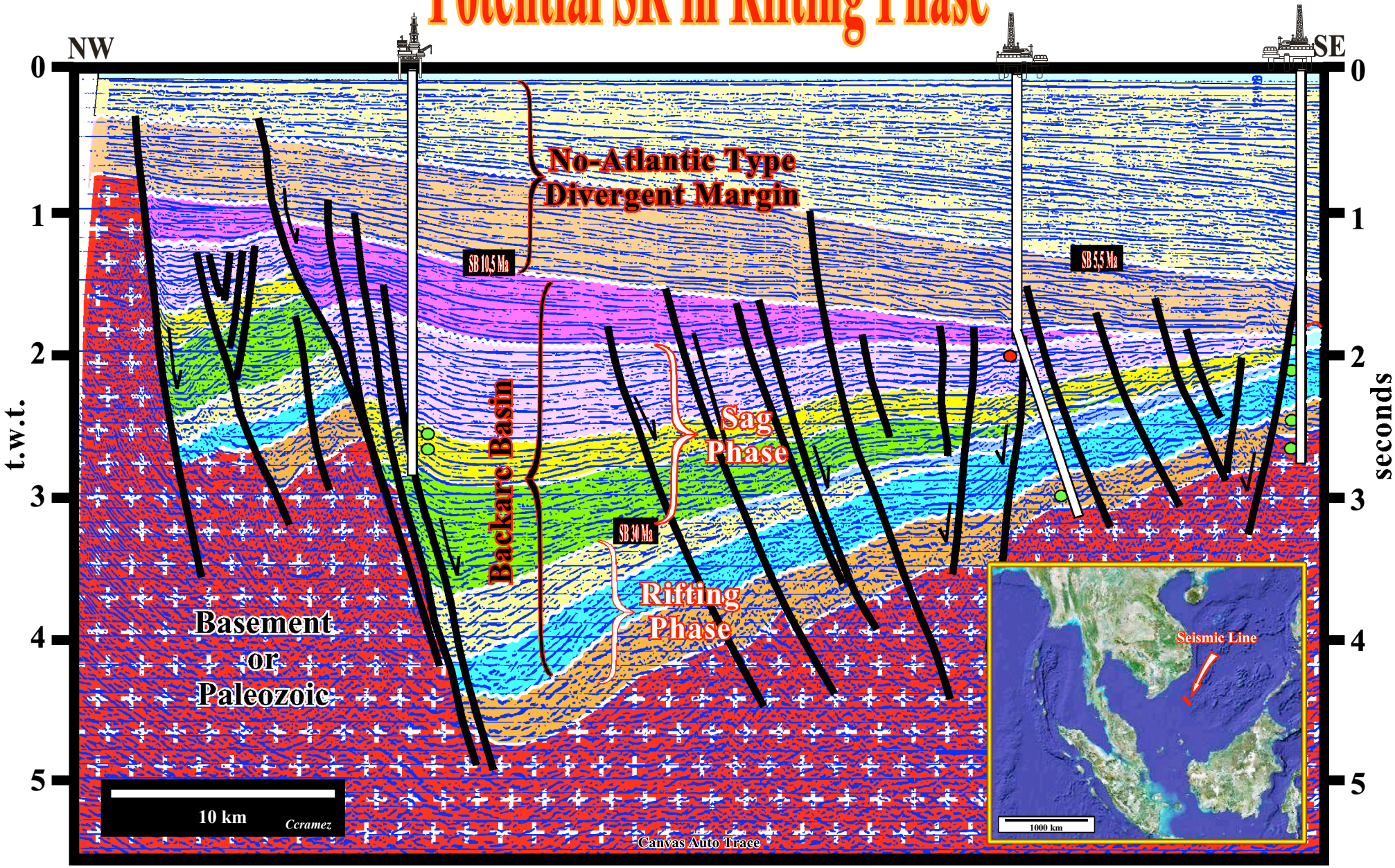
Back-arc Basin
(with oceanisation)
Subtle tectonic inversion

Potential SR in Rifting Phase



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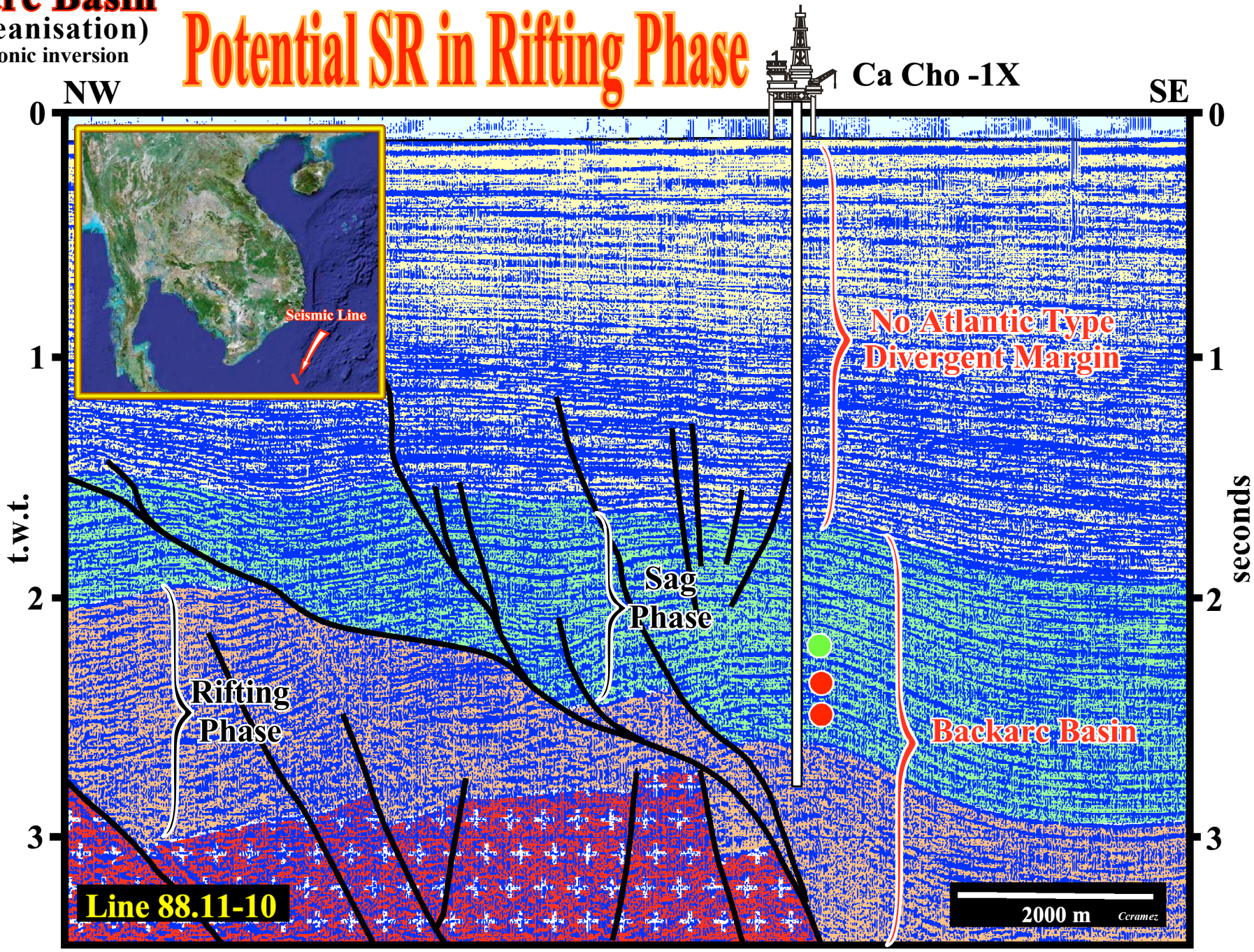
Back-arc Basin
(with oceanisation)
Subtle tectonic inversion

Potential SR in Rifting Phase



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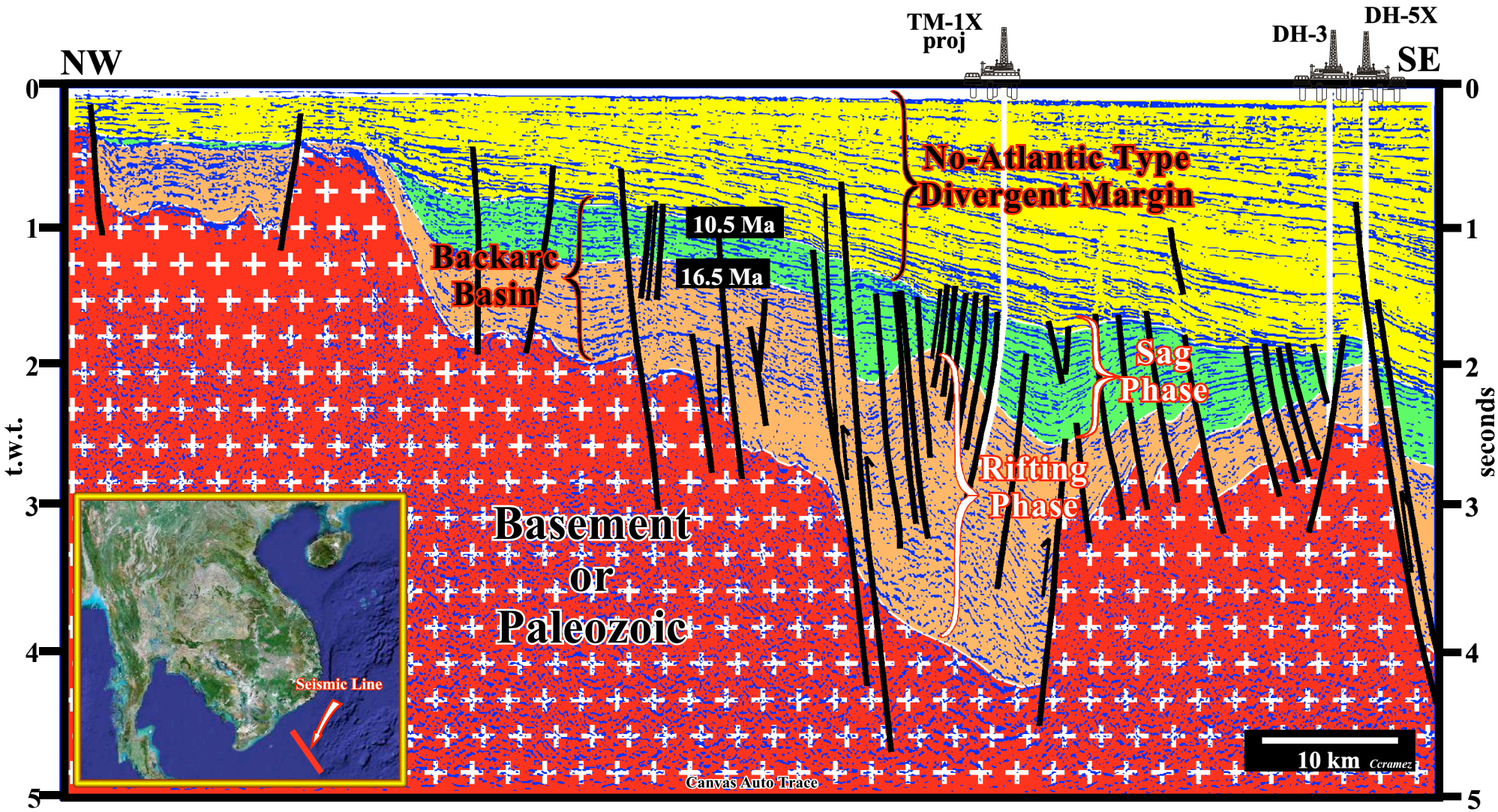
Back-arc Basins
(with oceanisation)
Subtle tectonic inversion

Potential SR in Rifting Phase



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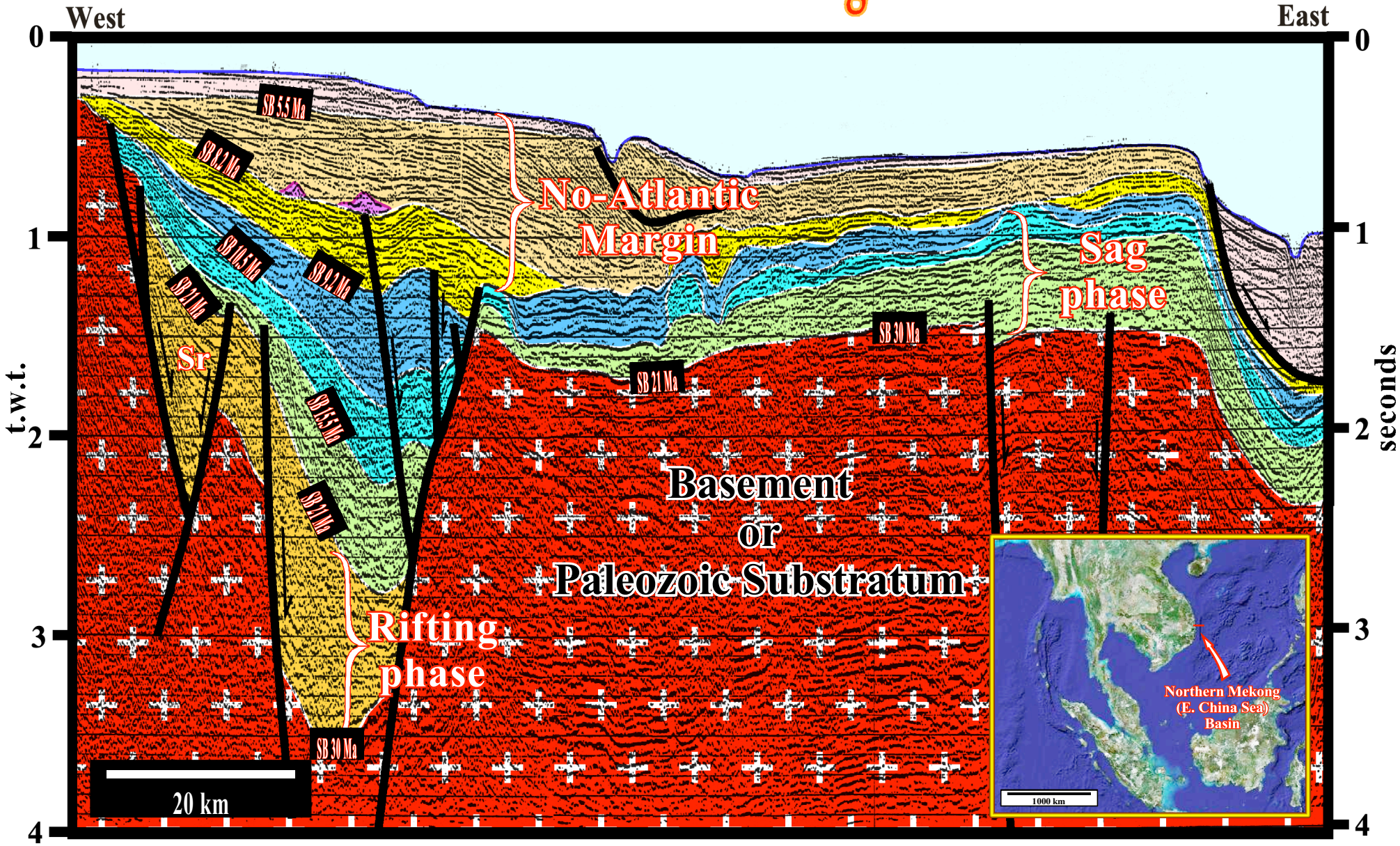
B) Back-arc Basins
(with oceanisation)
Subtle tectonic inversion

Potential SR in Rifting Phase



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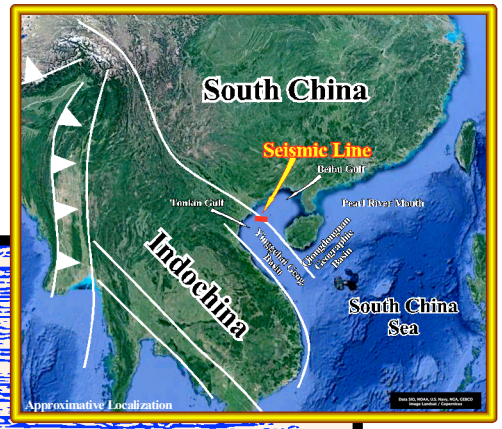
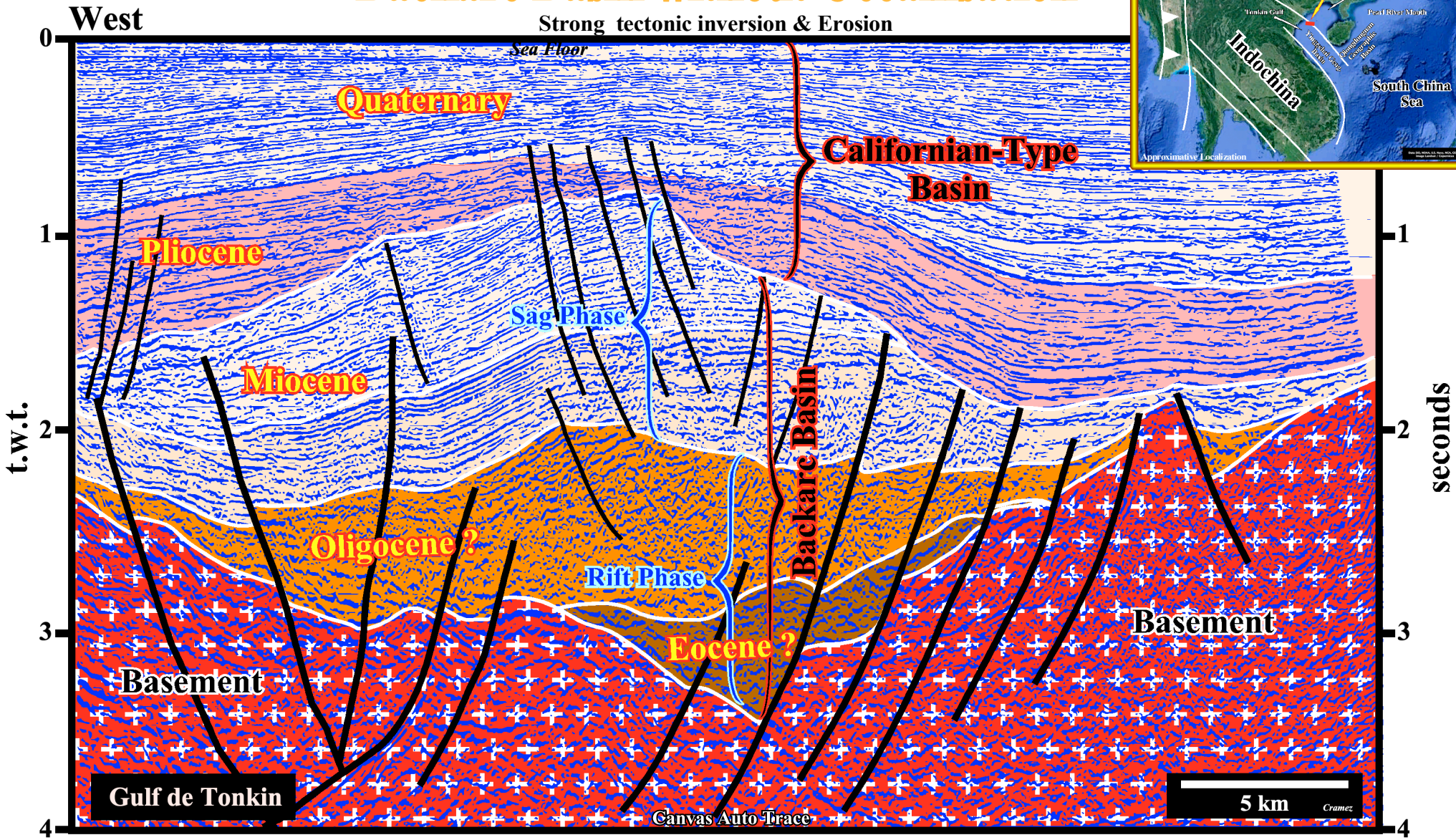
Gulf of Tonkin

Yingge Sea Geographic Basin

Backarc Basin without Oceanisation





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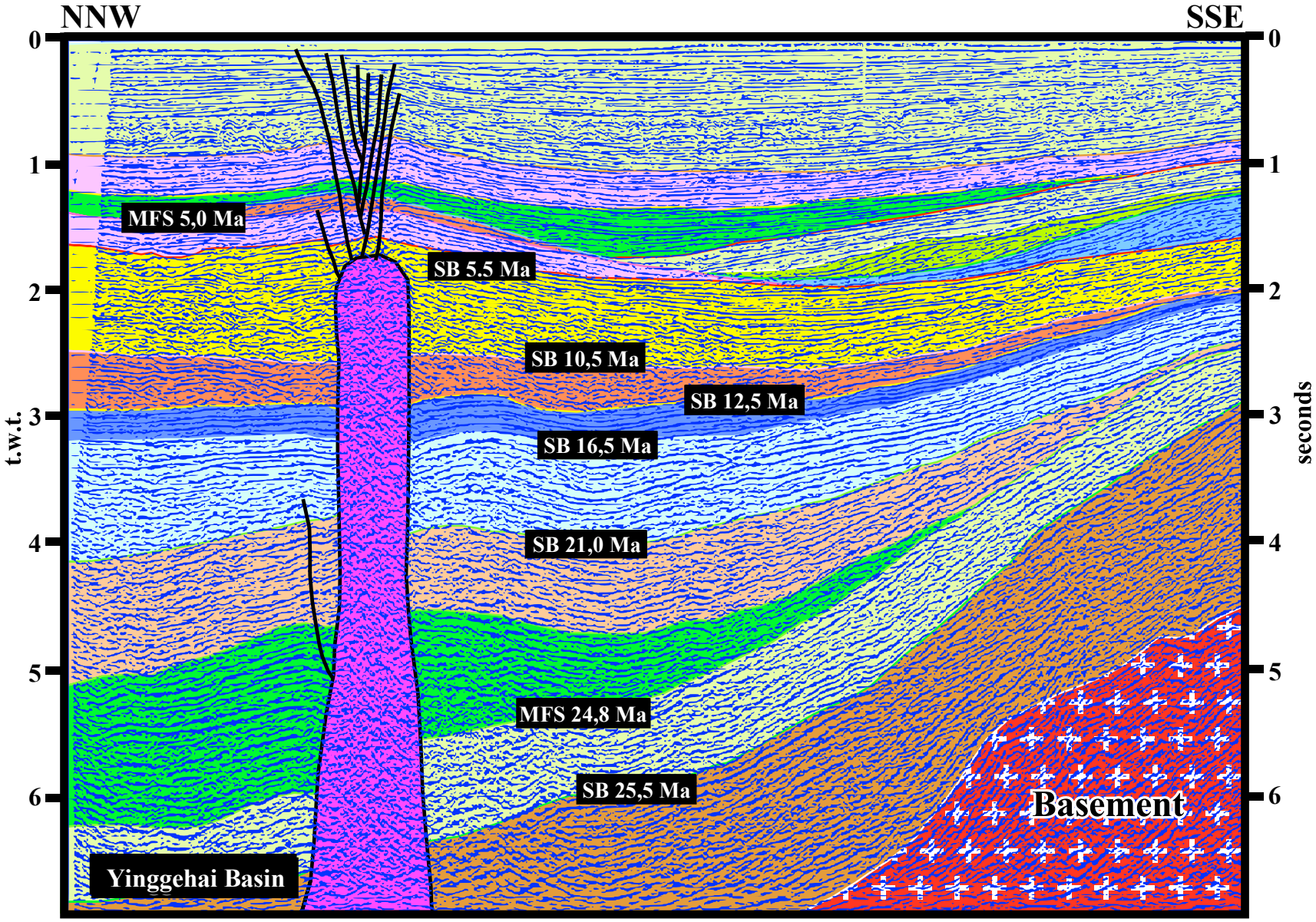
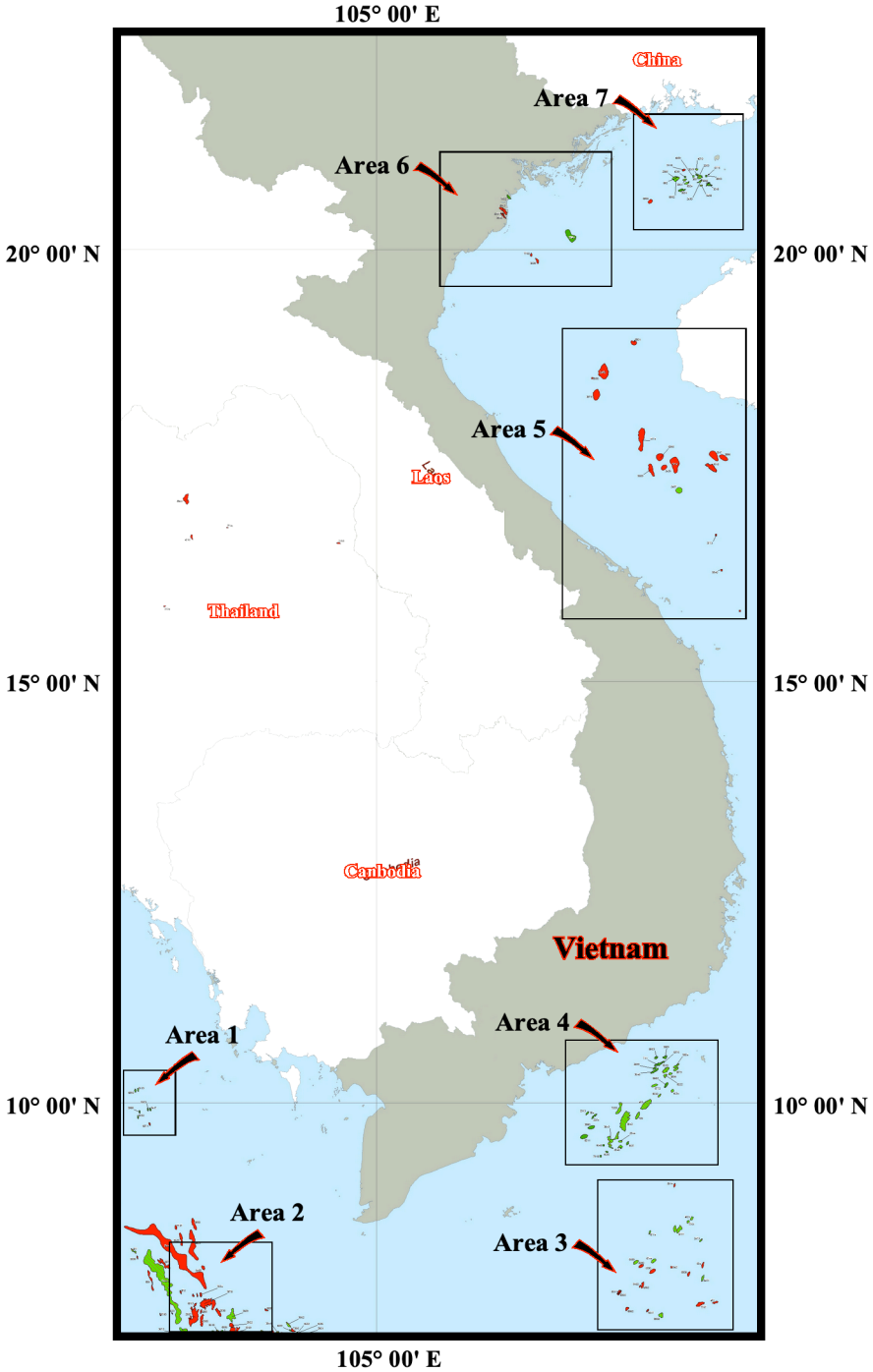
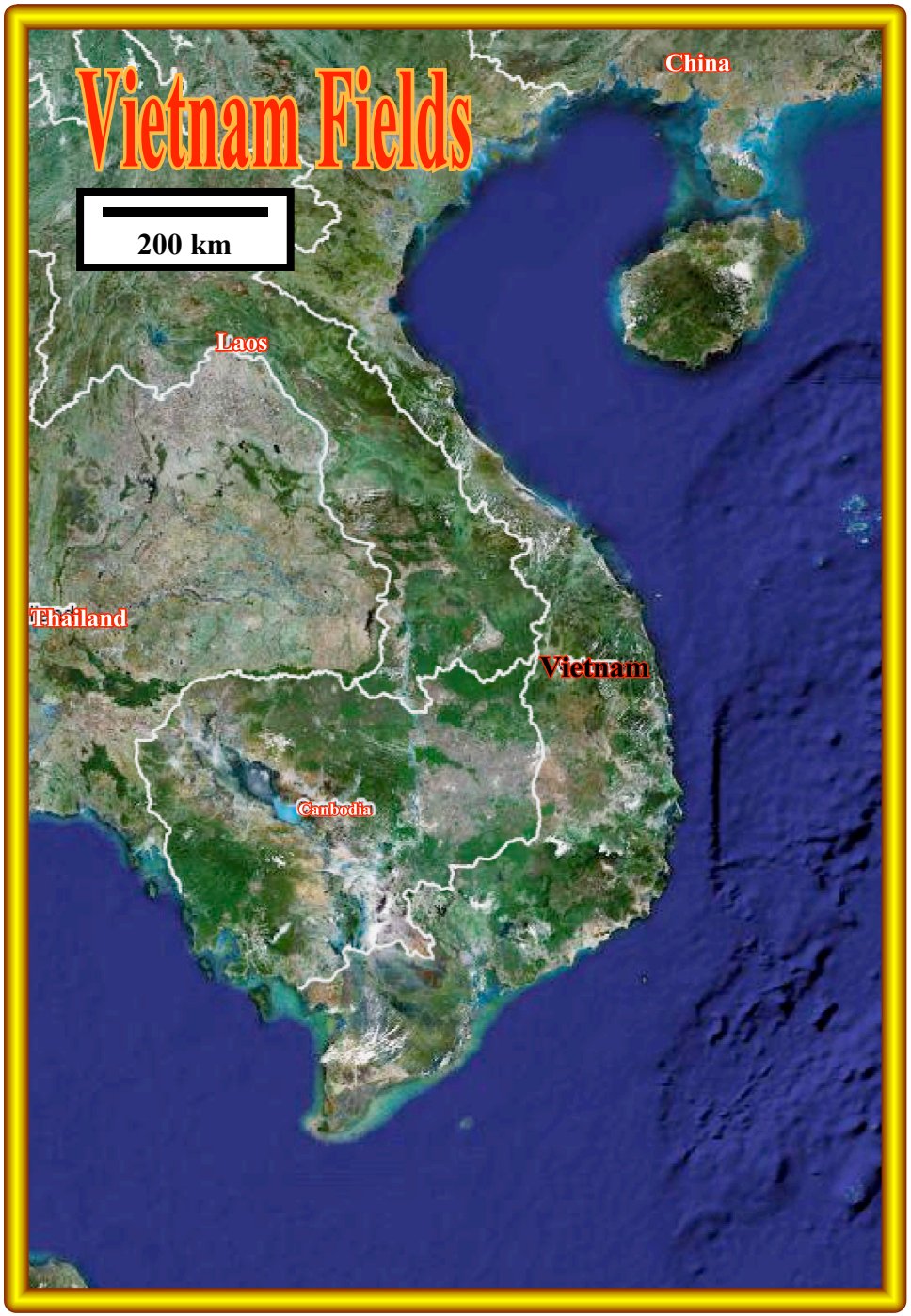

NNW
SSE
0
1
2
3
4
5
6
t.w.t.
seconds
MFS 5,0 Ma
SB 5.5 Ma
SB 10,5 Ma
SB 12,5 Ma
SB 16,5 Ma
SB 21,0 Ma
MFS 24,8 Ma
SB 25,5 Ma
Basement
Yinggehai Basin

Vietnam Fields





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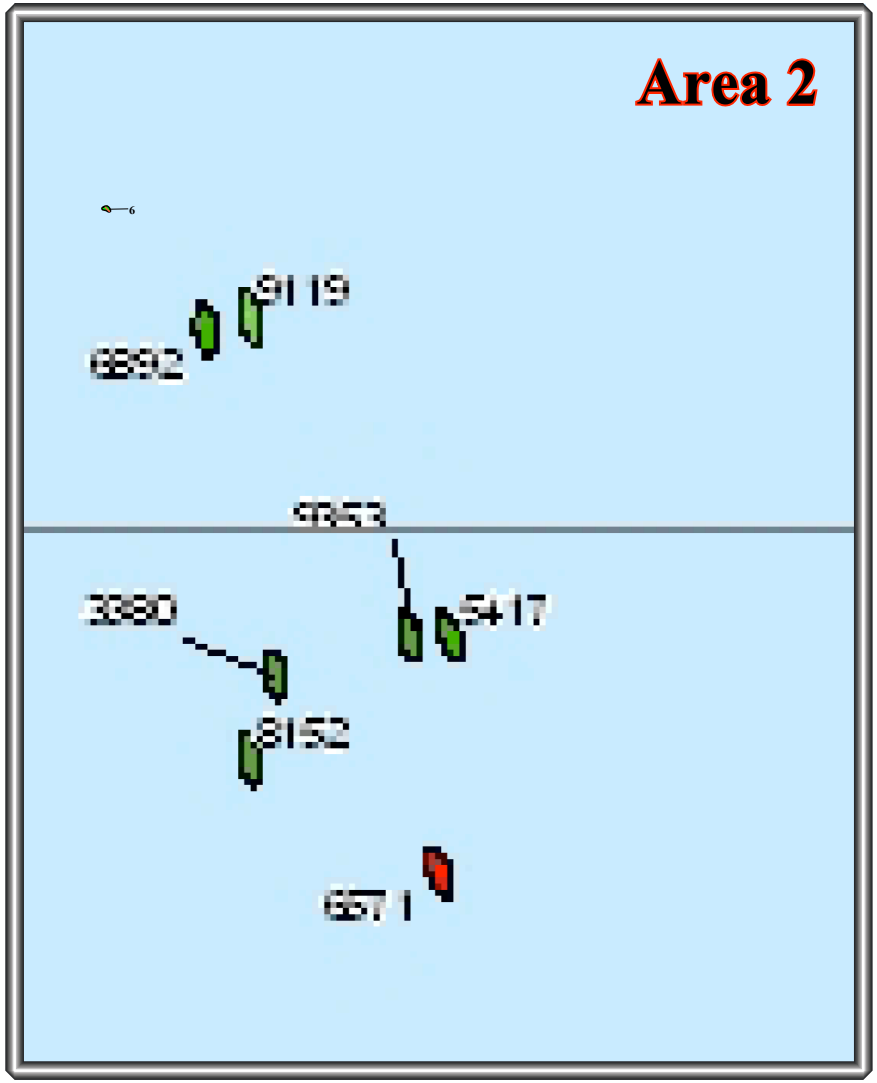
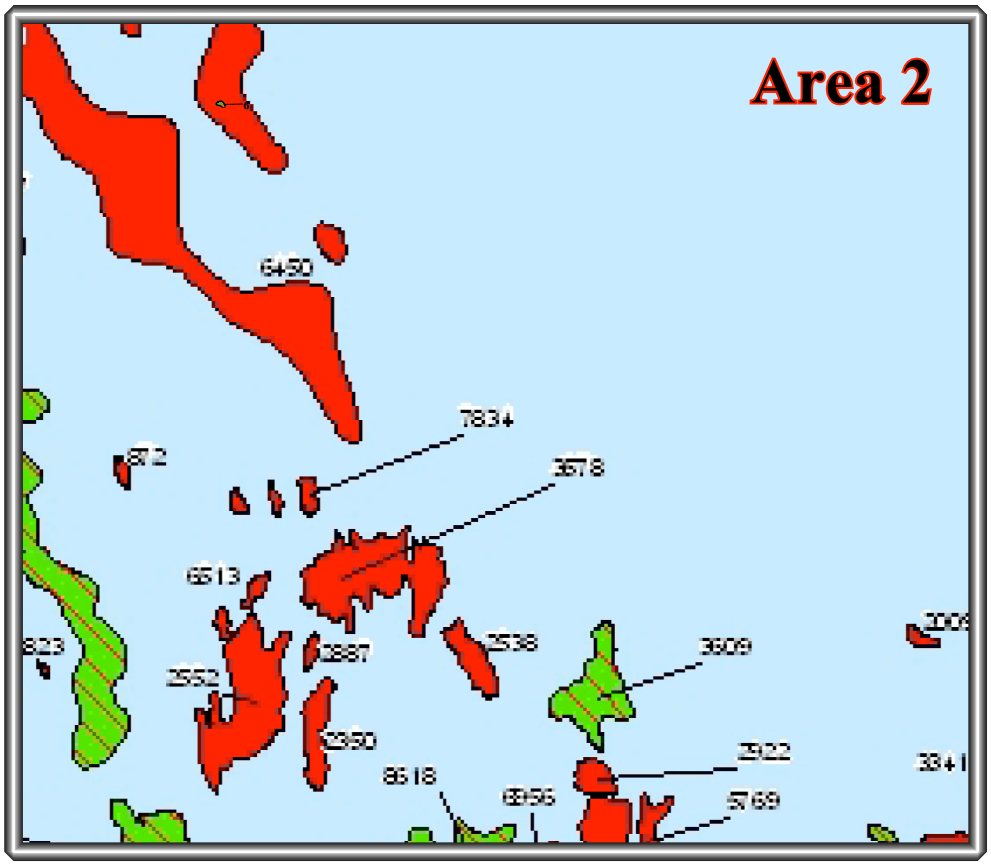
Vietnam Fields



Fields' Names

Vietnam Fields



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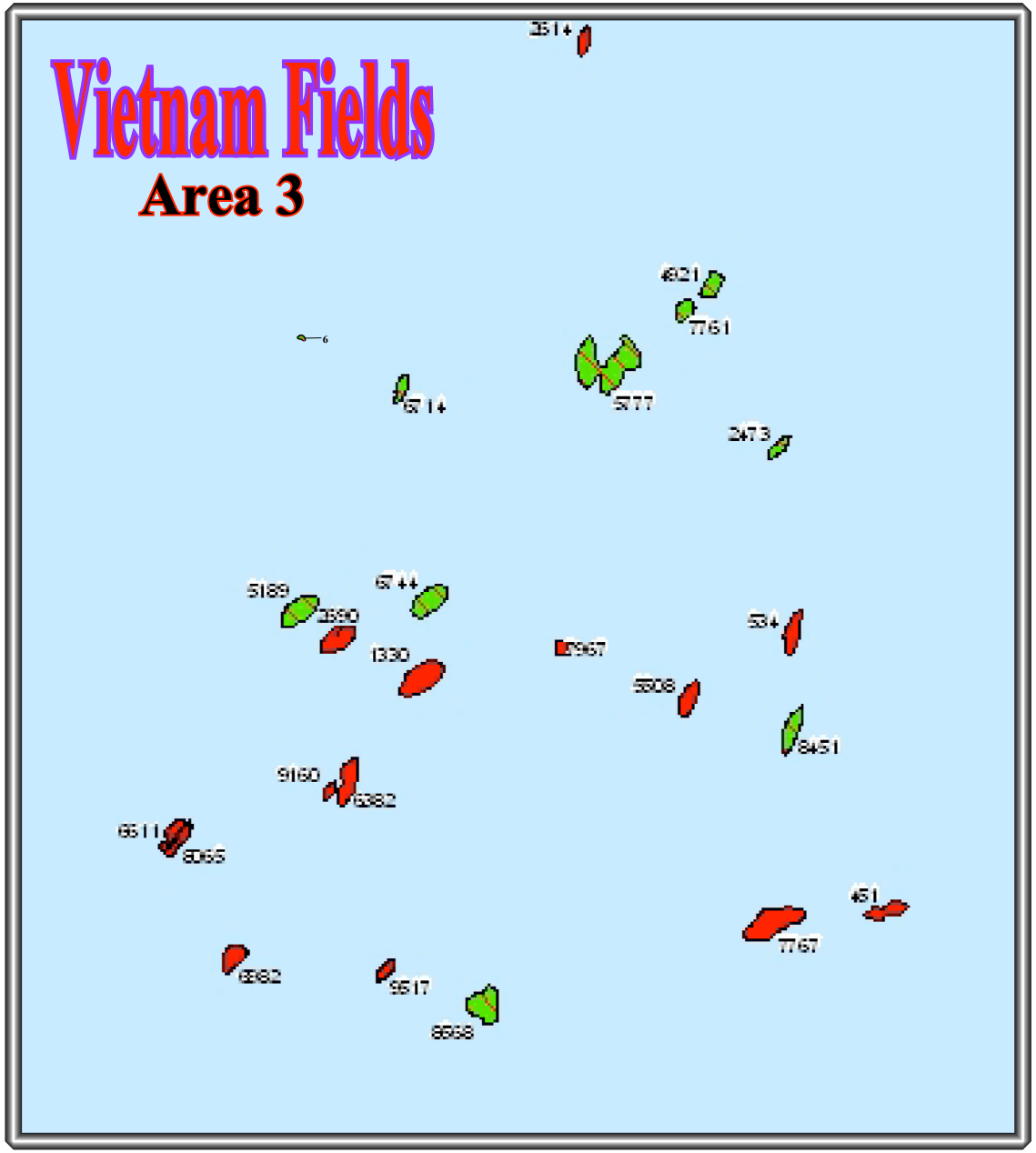
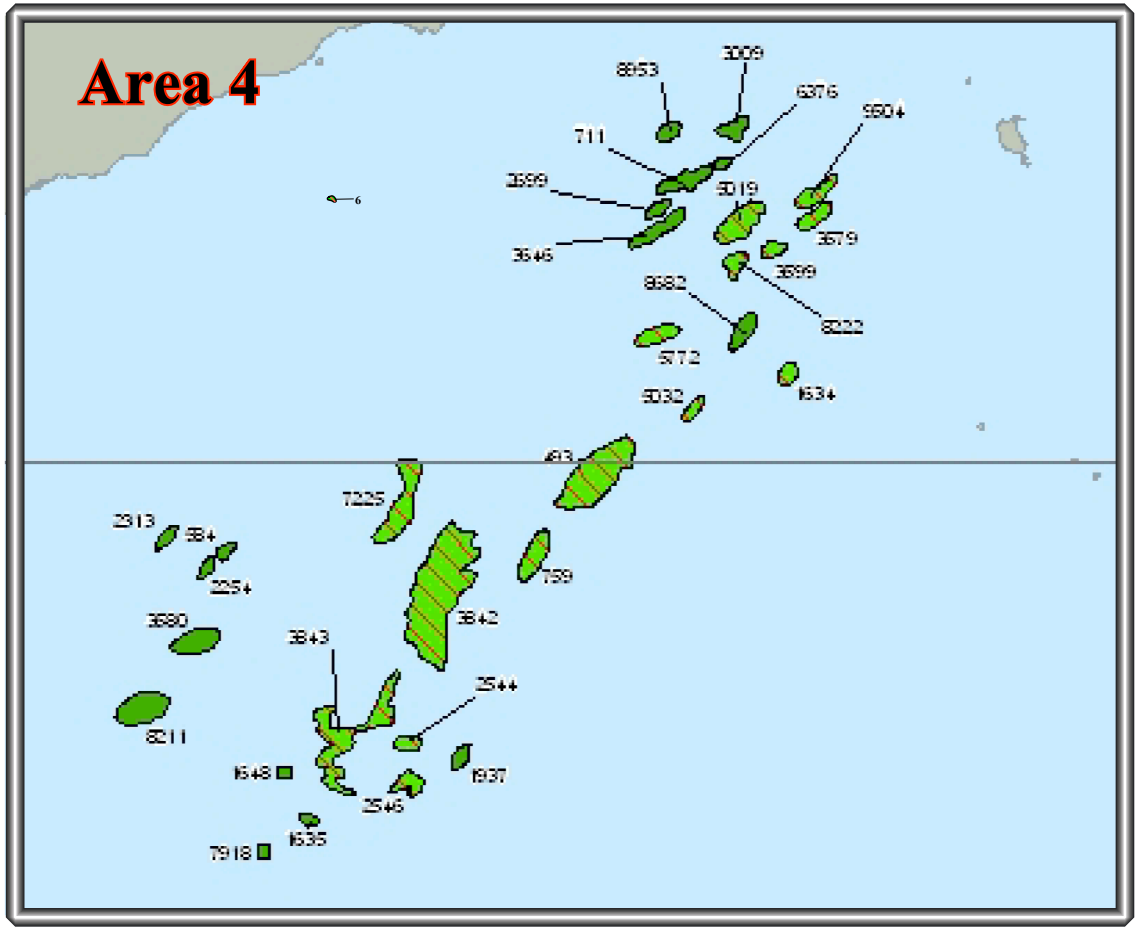
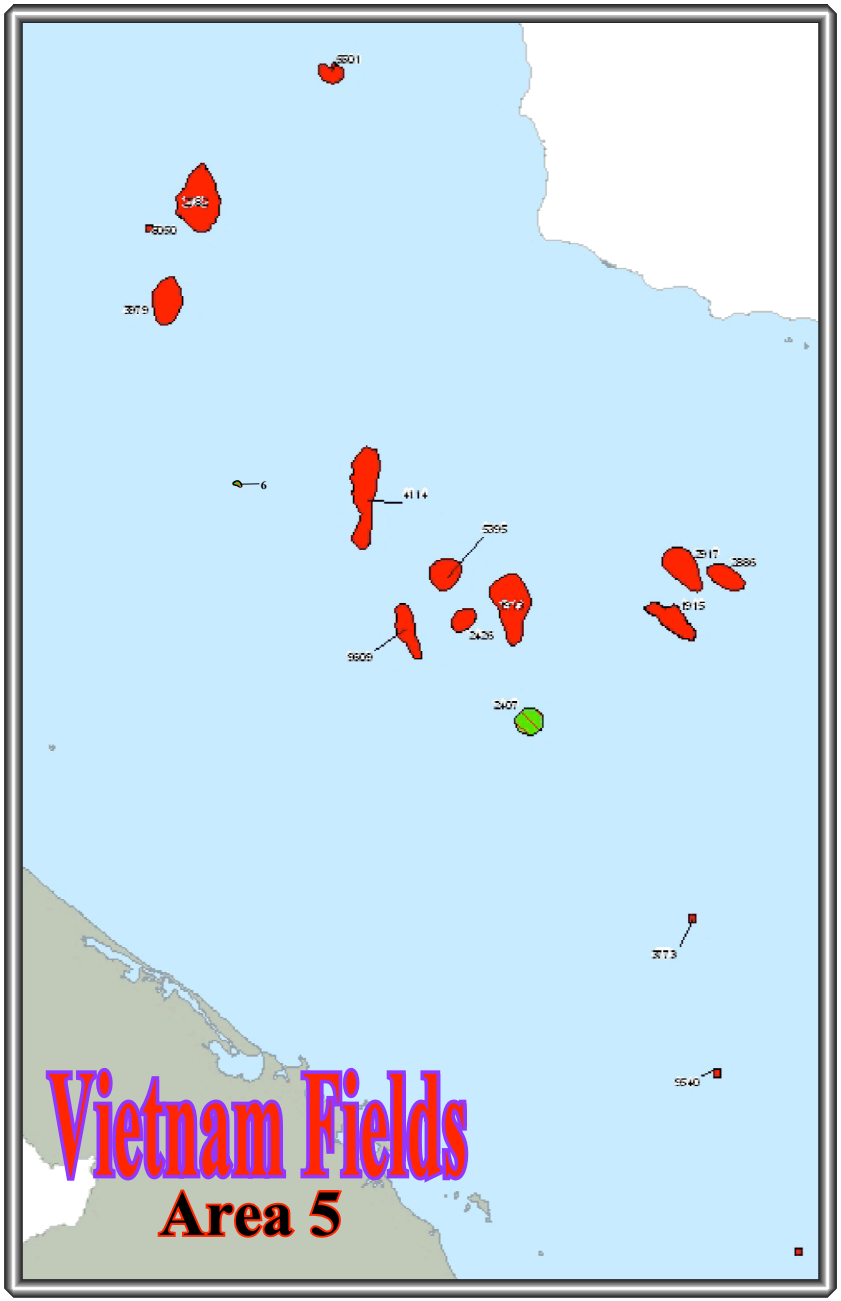


Fields' Names

Vietnam Fields



Fields' Names



Fields' Names

Reserves (Vietnam)

Country	Basin Name	Field Name	Prod Status	Location	Terrain	Disc Date	Oil Rec PP Mmb	Gas Rec PP Mmscf	Cond Rec PP Mmb	Total Rec Mmboe (PP)	Oil in Place PP Mmb	Gas in Place PP Mmscf	Cond in Place PP Mmb	Total Place Mmboe (PP)	Oil Remain PP Mmb	Gas Remain PP Mmscf	Cond Remain PP Mmb	Total Remain PP Mmboe	Cum Oil Prod Year	Cum Oil Prod MMb	Cum Gas Prod Year	Cum Gas Prod MMscf	Cum Cond Prod Year	Cum Cond Prod MMb	Cum Total Prod Year	Cum Total Prod Mmb
Vietnam	Cuu Long Ba	Azurite 1X	Discovery	Offshore	Shelf	2004	20			20	80			80	20			20								0
Vietnam	Cuu Long Ba	Bach Ho	Prod, improv	Offshore	Shelf	1975	1594,95	1750000		1886,62	5000			5000	511,17	1056707		687,29	2005	1083,78	2005	693293,03				1199,33
Vietnam	Cuu Long Ba	Baden 1	Discovery	Offshore	Shelf	1989	0,5			0,5	2			2	0,5			0,5								0
Vietnam	Cuu Long Ba	Bavi 1	Discovery	Offshore	Shelf	1989	6,5			6,5	26			26	6,5			6,5								0
Vietnam	Cuu Long Ba	Ca Ngu Vang	Developing	Offshore	Shelf	2002	155	350000		213,33	517	448000		591,67	155	350000		213,33								0
Vietnam	Cuu Long Ba	Cam 1	Discovery	Offshore	Shelf	1990	1			1				0	1			1								0
Vietnam	Cuu Long Ba	Diamond 1	Discovery	Offshore	Shelf	1996	5			5				0	5			5								0
Vietnam	Cuu Long Ba	Doi Moi 1X	Discovery	Offshore	Shelf	2004	132			132	530			530	132			132								0
Vietnam	Cuu Long Ba	Emerald	Developing	Offshore	Shelf	1995	25	1100000	5	213,33				0	25	1100000	5	213,33								0
Vietnam	Cuu Long Ba	Jade 1	Discovery	Offshore	Shelf	1993	25			25				0	25			25								0
Vietnam	Cuu Long Ba	Ngua O (Blac	Discovery	Offshore	Shelf	2002	8			8	40			40	8			8								0
Vietnam	Cuu Long Ba	Pearl 1	Discovery	Offshore	Shelf	1996	5	25000		9,17	16,7			16,7	5	25000		9,17								0
Vietnam	Cuu Long Ba	Phuong Dong	Discovery	Offshore	Shelf	1995	15	100000	5	36,67	43	135000		65,5	15	100000	5	36,67								0
Vietnam	Cuu Long Ba	Rang Dong	Prod, improv	Offshore	Shelf	1994	160	150000		185	600			600	46,66	56379		56,06	2005	113,34	2005	93621				128,94
Vietnam	Cuu Long Ba	Rong	Producing	Offshore	Shelf	1985	51,5	70550	0,9	64,16	206	114590		225,1	14,21	57207,49	0,9	24,64	2005	37,29	2005	13342,51				39,51
Vietnam	Cuu Long Ba	Rong East	Developing	Offshore	Shelf	1993	28	30000		33	107	65000		117,83	28	30000		33								0
Vietnam	Cuu Long Ba	Rong Southe	Prod, improv	Offshore	Shelf	1995	50	30000		55	220	62000		230,33	48,03	29658		52,97	1998	1,97	1997	342				2,03
Vietnam	Cuu Long Ba	Ruby	Producing	Offshore	Shelf	1994	100	250000		141,67	250			250	52,45	240358		92,51	2005	47,55	2005	9642				49,16
Vietnam	Cuu Long Ba	Soi 1	Discovery	Offshore	Shelf	1990	12,5			12,5	50			50	12,5			12,5								0
Vietnam	Cuu Long Ba	Su Tu Chua	Discovery	Offshore	Shelf	2002	20			20	70			70	20			20								0
Vietnam	Cuu Long Ba	Su Tu Den	Prod, improv	Offshore	Shelf	2000	400			400	889			889	341,26			341,26	2005	58,74						58,74
Vietnam	Cuu Long Ba	Su Tu Nau 1	Discovery	Offshore	Shelf	2005	120			120				0	120			120								0
Vietnam	Cuu Long Ba	Su Tu Trang	Discovery	Offshore	Shelf	2003	300	3500000		883,33				0	300	3500000		883,33								0
Vietnam	Cuu Long Ba	Su Tu Vang	Appraising	Offshore	Shelf	2001	200			200	600			600	200			200								0
Vietnam	Cuu Long Ba	Tamdao 1	Discovery	Offshore	Shelf	1986	0,8			0,8	3,2			3,2	0,8			0,8								0
Vietnam	Cuu Long Ba	Te Giac Tran	Discovery	Offshore	Shelf	2005	225	17000		227,83				0	225	17000		227,83								0
Vietnam	Cuu Long Ba	Thang Long	Discovery	Offshore	Shelf	2004	35	30000		40				0	35	30000		40								0
Vietnam	Cuu Long Ba	Topaz	Developing	Offshore	Shelf	1996	0,5	20000		3,83				0	0,5	20000		3,83								0
Vietnam	Cuu Long Ba	Topaz North	Discovery	Offshore	Shelf	2001	50			50	150			150	50			50								0
Vietnam	Cuu Long Ba	Vai Thieu 1R	Discovery	Offshore	Shelf	1996	0,75			0,75	7,5			7,5	0,75			0,75								0
Vietnam	Cuu Long Ba	Voi Trang (W	Discovery	Offshore	Shelf	2002	10			10	50			50	10			10								0
Vietnam	Malay Basin	B-AQ 1	Await devel a	Offshore	Shelf	2000		1875000		312,5		2730000		455		1875000		312,5								0
Vietnam	Malay Basin	Ca Voi 1	Await devel ag	Offshore	Shelf	2000		425000		70,83		657000		109,5		425000		70,83								0
Vietnam	Malay Basin	Dam Doi 1	Discovery	Offshore	Shelf	1996	20	150000		45	50			50	20	150000		45								0
Vietnam	Malay Basin	Hoa Mai 1	Discovery	Offshore	Shelf	2003		85000		14,17		121000		20,17		85000		14,17								0
Vietnam	Malay Basin	Khanh My 1	Discovery	Offshore	Shelf	1998		300000	2	52		375000		62,5		300000	2	52								0
Vietnam	Malay Basin	Kim Long 1	Await devel a	Offshore	Shelf	1997		1238000		206,33		1668000		278		1238000		206,33								0
Vietnam	Malay Basin	Nam Can 1	Discovery	Offshore	Shelf	1996	10	60000		20	29			29	10	60000		20								0
Vietnam	Malay Basin	Ngoc Hien 1	Discovery	Offshore	Shelf	1997	30	10000		31,67	90			90	30	10000		31,67								0
Vietnam	Malay Basin	Phu Tan 1	Discovery	Offshore	Shelf	1997	15	150000	2	42	60	200000		93,33	15	150000	2	42								0
Vietnam	Malay Basin	Rach Tau 1X	Discovery	Offshore	Shelf	2004	22,5	14000		24,83	90	21000		93,5	22,5	14000		24,83								0
Vietnam	Malay Basin	Song Doc	Developing	Offshore	Shelf	2003	38			38	127			127	38			38								0
Vietnam	Malay Basin	Tam Giang 1X	Discovery	Offshore	Shelf	2004	30	25000		34,17	100			100	30	25000		34,17								0
Vietnam	Malay Basin	Thoi Binh 1X	Discovery	Offshore	Shelf	2005	30	15000		32,5	100			100	30	15000		32,5								0
Vietnam	Malay Basin	Tien Hai 2X	Discovery	Offshore	Shelf	2004		125000		20,83		180000		30		125000		20,83								0
Vietnam	Malay Basin	U Minh 1	Discovery	Offshore	Shelf	1997		300000	4	54		375000		62,5		300000	4	54								0
Vietnam	Malay Basin	Vang Den 1X	Discovery	Offshore	Shelf	2004		90000		15		130000		21,67		90000		15								0

Reserves (Vietnam), cont.

Country	Basin Name	Field Name	Prod Status	Location	Terrain	Disc Date	Oil Rec PP Mmb	Gas Rec PP Mmscf	Cond Rec PP Mmb	Total Rec Mmboe (PP)	Oil in Place PP Mmb	Gas in Place PP Mmscf	Cond in Place PP Mmb	Total Place Mmboe (PP)	Oil Remain PP Mmb	Gas Remain PP Mmscf	Cond Remain PP Mmb	Total Remain PP Mmboe	Cum Oil Prod Year	Cum Oil Prod MMb	Cum Gas Prod Year	Cum Gas Prod MMscf	Cum Cond Prod Year	Cum Cond Prod MMb	Cum Total Prod Year	Cum Total Prod Mmb
Malaysia~Vie	Malay Basin	Bunga Raya	Prod, improv	Offshore	Shelf	2001	4,5	8000		5,83	13,6	12000		15,6	4,5	8000		5,83								0
Malaysia~Vie	Malay Basin	Bunga Raya	Discovery	Offshore	Shelf	2002	5	4000		5,67	16	6000		17	5	4000		5,67								0
Malaysia~Vie	Malay Basin	Bunga Seroj	Prod, improv	Offshore	Shelf	1997		86000	1,5	15,83		107500		17,92		86000	1,5	15,83								0
Malaysia~Vie	Malay Basin	Bunga Tulip	Discovery	Offshore	Shelf	2003	30			30	99			99	30			30								0
Vietnam	Nam Con Sor	12-B-1X	Discovery	Offshore	Shelf	1980		15000		2,5				0		15000		2,5								0
Vietnam	Nam Con Sor	12-C-1X	Discovery	Offshore	Shelf	1980		15000		2,5				0		15000		2,5								0
Vietnam	Nam Con Sor	12W-TN 1X	Discovery	Offshore	Shelf	2001		80000	0,7	14,03				0		80000	0,7	14,03								0
Vietnam	Nam Con Sor	4-A 1	Discovery	Offshore	Shelf	1979	1,5	65000	1,5	13,83	8,3	130000		29,97	1,5	65000	1,5	13,83								0
Vietnam	Nam Con Sor	Ca Cho 1	Discovery	Offshore	Shelf	1995	50	500000	35	168,33	125	625000		229,17	50	500000	35	168,33								0
Vietnam	Nam Con Sor	Dai Hung	Producing	Offshore	Shelf	1988	110,6	420000	1,2	181,8	489			489	82,54	419080	1,2	153,59	2005	28,06	2003	920				28,21
Vietnam	Nam Con Sor	Dua 1	Discovery	Offshore	Shelf	1974	35	40000	2	43,67	100			100	35	40000	2	43,67								0
Vietnam	Nam Con Sor	Hai Au 1X	Discovery	Offshore	Shelf	1996		17000	0,6	3,43		25000		4,17		17000	0,6	3,43								0
Vietnam	Nam Con Sor	Hai Thach 1	Appraising	Offshore	Shelf	1995		2400000	150	550		3000000		500		2400000	150	550								0
Vietnam	Nam Con Sor	Kim Cuong T	Discovery	Offshore	Shelf	1995	35	120000		55	175			175	35	120000		55								0
Vietnam	Nam Con Sor	Lan Do	Developing	Offshore	Deep Water	1993		425000		70,83		670000		111,67		425000		70,83								0
Vietnam	Nam Con Sor	Lan Tay	Producing	Offshore	Shelf	1993		1575000	12	274,5		2220000		370		1310297	10,18	228,56			2005	264703	2005	1,82		45,94
Vietnam	Nam Con Sor	Moc Tinh 1	Discovery	Offshore	Shelf	1994		465000	5,39	82,89		620000	7,19	110,52		465000	5,39	82,89								0
Vietnam	Nam Con Sor	Ngua Bay 1	Discovery	Offshore	Shelf	1994		25000	0,5	4,67		40000		6,67		25000	0,5	4,67								0
Vietnam	Nam Con Sor	Rong Bay 1	Appraising	Offshore	Shelf	1994	15	50000	0,5	23,83				0	15	50000	0,5	23,83								0
Vietnam	Nam Con Sor	Rong Doi	Developing	Offshore	Shelf	1995		700000	21	137,67		935000		155,83		700000	21	137,67								0
Vietnam	Nam Con Sor	Rong Doi Tay	Developing	Offshore	Shelf	1996		500000	13,75	97,08		670000		111,67		500000	13,75	97,08								0
Vietnam	Nam Con Sor	Rong Nhay 1	Discovery	Offshore	Shelf	1996		25000	0,5	4,67		38000		6,33		25000	0,5	4,67								0
Vietnam	Nam Con Sor	Rong Tre 1X	Discovery	Offshore	Shelf	2005	40			40				0	40			40								0
Vietnam	Nam Con Sor	Rong Vi Dai 1	Discovery	Offshore	Shelf	1995		200000	5	38,33				0		200000	5	38,33								0
Vietnam	Nam Con Sor	Thanh Long	Discovery	Offshore	Shelf	1996	5	200000	5	43,33	15	270000		60	5	200000	5	43,33								0
Vietnam	Nam Con Sor	Thien Ung 1	Discovery	Offshore	Shelf	2005	22	93000		37,5				0	22	93000		37,5								0
Vietnam	Nam Con Sor	Tho Tinh 1A	Discovery	Offshore	Shelf	1994		75000		12,5				0		75000		12,5								0
Vietnam	Hanoi Trough	103-HOL 1	Discovery	Offshore	Shelf	2000		25000		4,17		45000		7,5		25000		4,17								0
Vietnam	Hanoi Trough	103-TH 1X	Discovery	Offshore	Shelf	1990				0				0												0
Vietnam	Hanoi Trough	D 24-1	Discovery	Onshore	Farmland	1999		0		0		100000		16,67		0										0
Vietnam	Hanoi Trough	Song Thai Bi	Discovery	Onshore	Farmland	1996	19			19	92			92	19			19								0
Vietnam	Hanoi Trough	Song Tra Ly	Discovery	Onshore	Farmland	1996		54000		9		133400		22,23		54000		9								0
Vietnam	Hanoi Trough	Tien Hai	Producing	Onshore	Farmland	1975		46000	0,3	7,97		79000		13,17		26621,71	0,3	4,74			2005	19378,29				3,23
Vietnam	Hanoi Trough	Yen Tu 1X	Discovery	Offshore	Shelf	2004	80			80	250			250	80			80								0
Vietnam	Song Hong E	115-A 1	Discovery	Offshore	Shelf	1991		1000000		166,67		1250000		208,33		1000000		166,67								0
Vietnam	Song Hong E	117-STB-1X	Discovery	Offshore	Shelf	1995		550000		91,67		750000		125		550000		91,67								0
Vietnam	Song Hong E	Ca Voi Xanh	Discovery	Offshore	Deep Water	1991		1500000		250		2000000		333,33		1500000		250								0