

Attuazione dell'articolo 11 della legge 24 giugno 2009, n. 77

# MICROZONAZIONE SISMICA

## Verifiche liquefazione

Regione Emilia-Romagna  
Comune di Monticelli d'Ongina



Regione REGIONE EMILIA-ROMAGNA	Soggetto realizzatore Dr.Geol. Gabriele Corbelli	Data Novembre 2025
		Allegato 2

**LIQUEFACTION ANALYSIS REPORT**

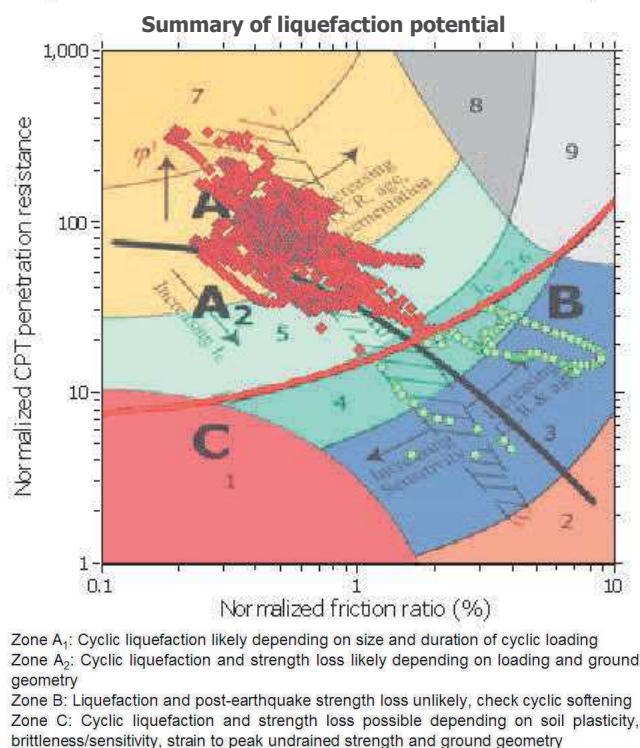
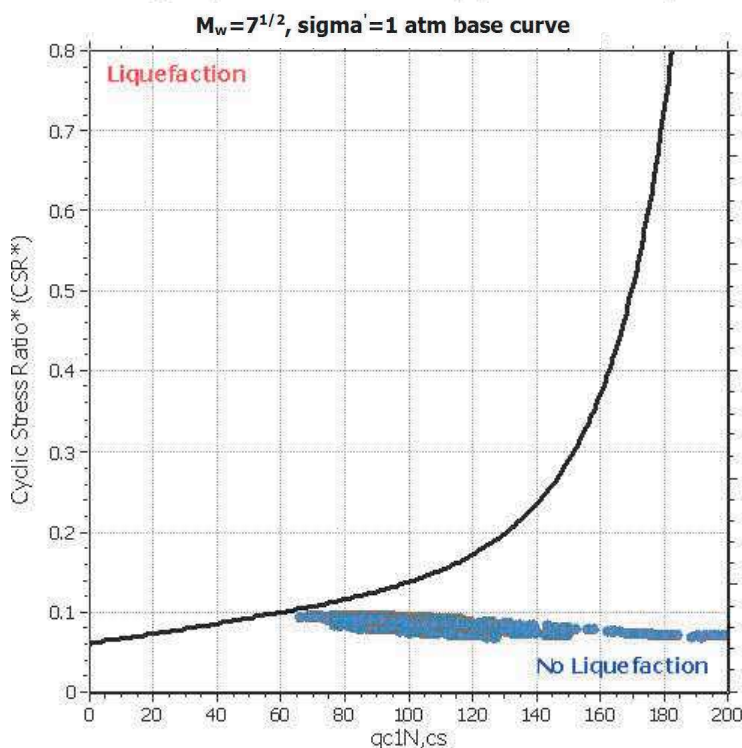
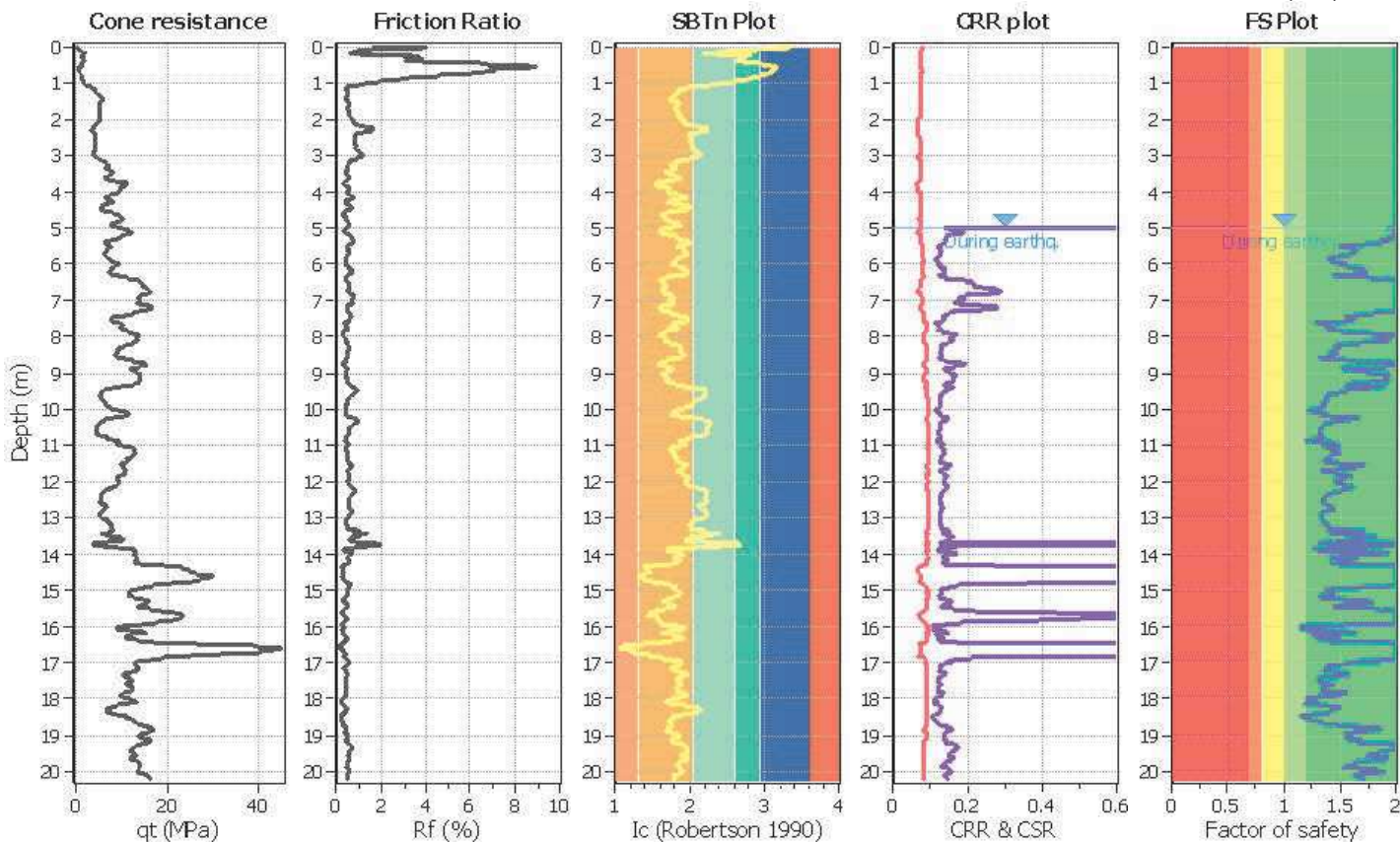
**Project title : Studio di Microzonazione Sismica 2° livello**

**Location : Monticelli d'Ongina (PC)**

**CPTU file : CPTU 033027P291 Fogarole**

**Input parameters and analysis data**

Analysis method:	B&I (2014)	G.W.T. (in-situ):	7.45 m	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	5.00 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude $M_w$ :	6.14	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method
Peak ground acceleration:	0.14	Unit weight calculation:	Based on SBT	$K_\sigma$ applied:	Yes		



**LIQUEFACTION ANALYSIS REPORT**

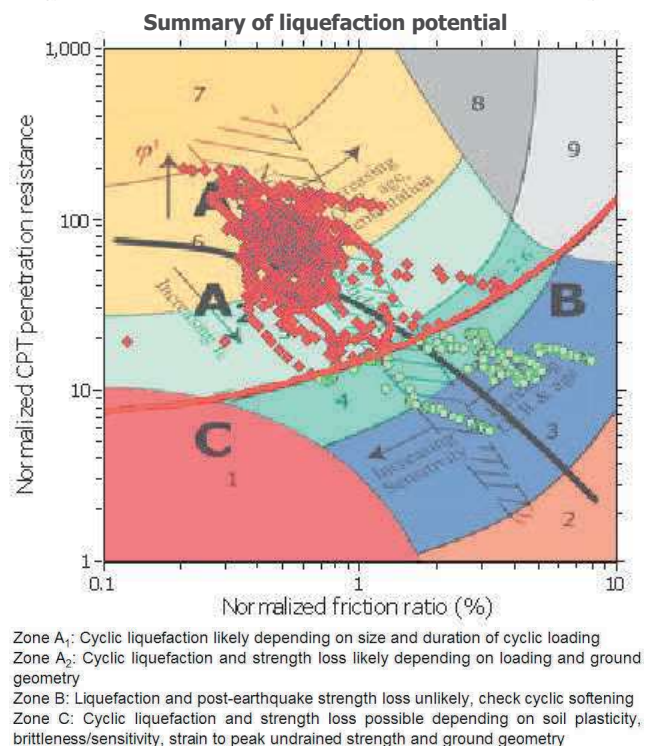
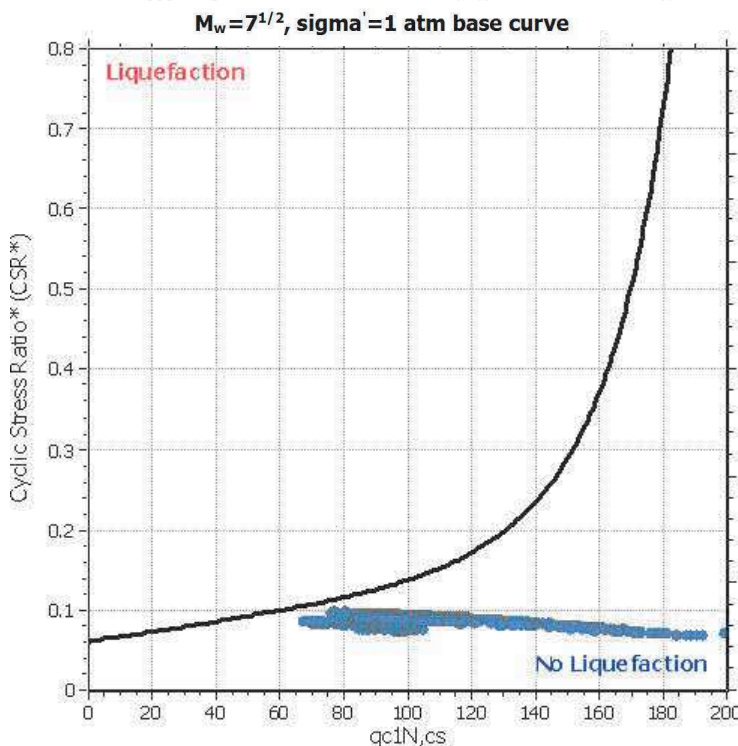
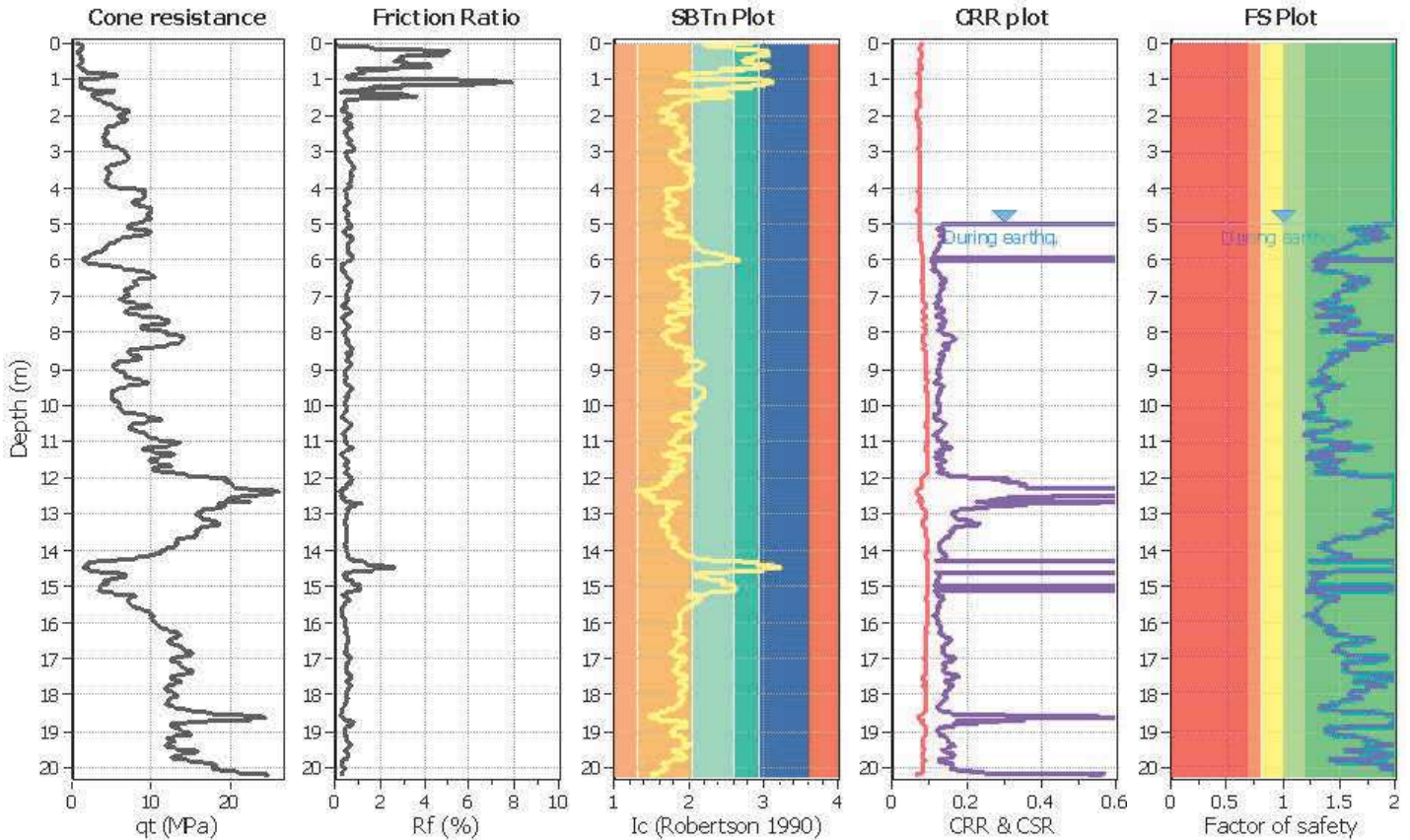
**Project title : Studio di Microzonazione Sismica 2° livello**

**Location : Monticelli d'Ongina (PC)**

**CPT file : CPTU 033027P292 Olza**

**Input parameters and analysis data**

Analysis method:	B&I (2014)	G.W.T. (in-situ):	8.70 m	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	5.00 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude $M_w$ :	6.14	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method
Peak ground acceleration:	0.14	Unit weight calculation:	Based on SBT	$K_\sigma$ applied:	Yes		



**LIQUEFACTION ANALYSIS REPORT**

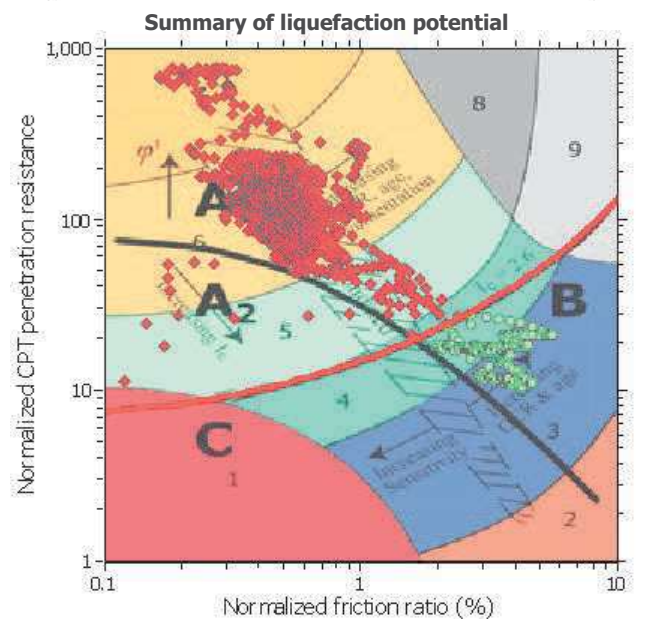
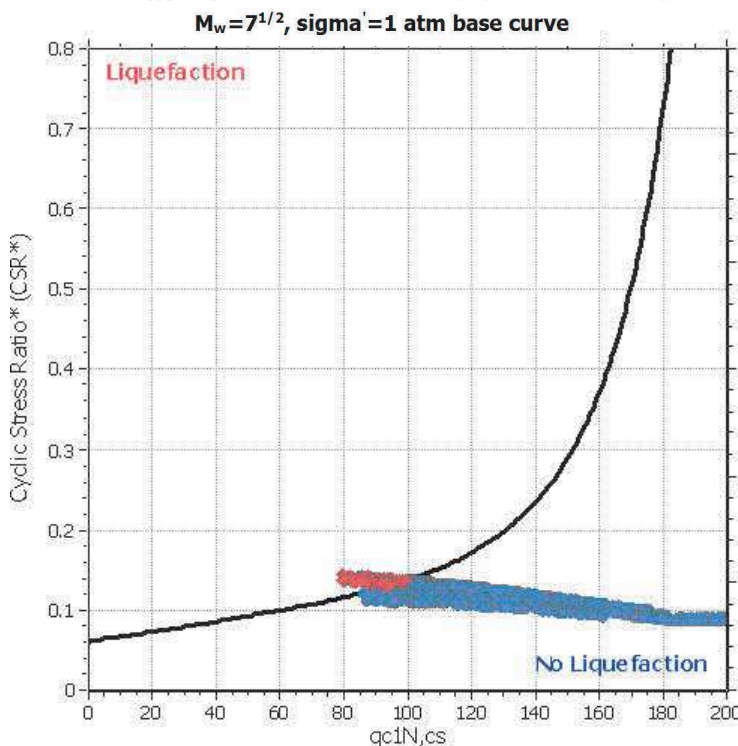
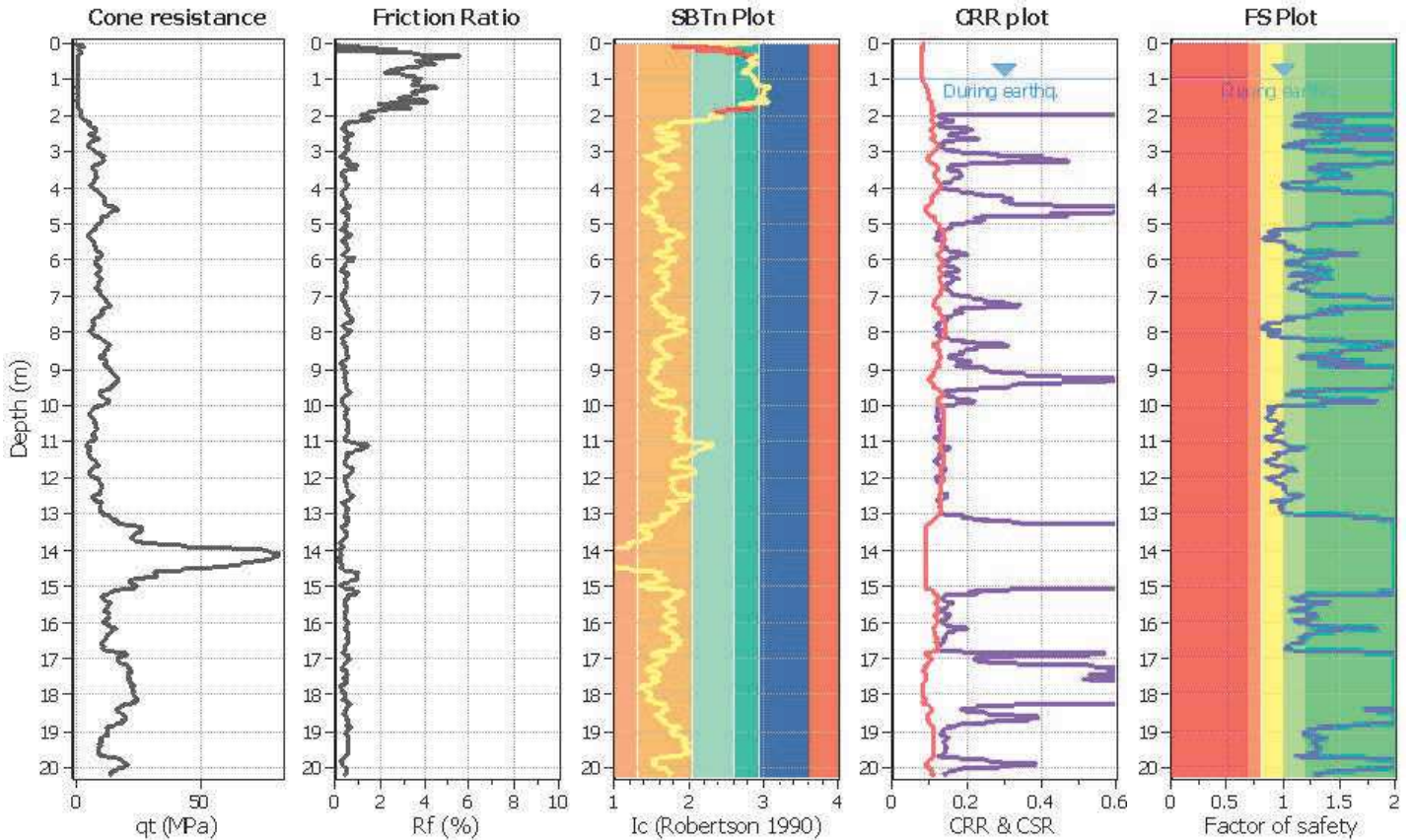
**Project title : Studio di Microzonazione Sismica 2° livello**

**Location : Monticelli d'Ongina (PC)**

**CPT file : CPTU 033027P293 SanNazzaro**

**Input parameters and analysis data**

Analysis method:	B&I (2014)	G.W.T. (in-situ):	1.45 m	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	1.00 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude $M_w$ :	6.14	Ic cut-off value:	2.60	Trans. detect. applied:	Yes	MSF method:	Method
Peak ground acceleration:	0.15	Unit weight calculation:	Based on SBT	$K_\sigma$ applied:	Yes		



Zone A: Cyclic liquefaction likely depending on size and duration of cyclic loading  
 Zone A<sub>2</sub>: Cyclic liquefaction and strength loss likely depending on loading and ground geometry  
 Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening  
 Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

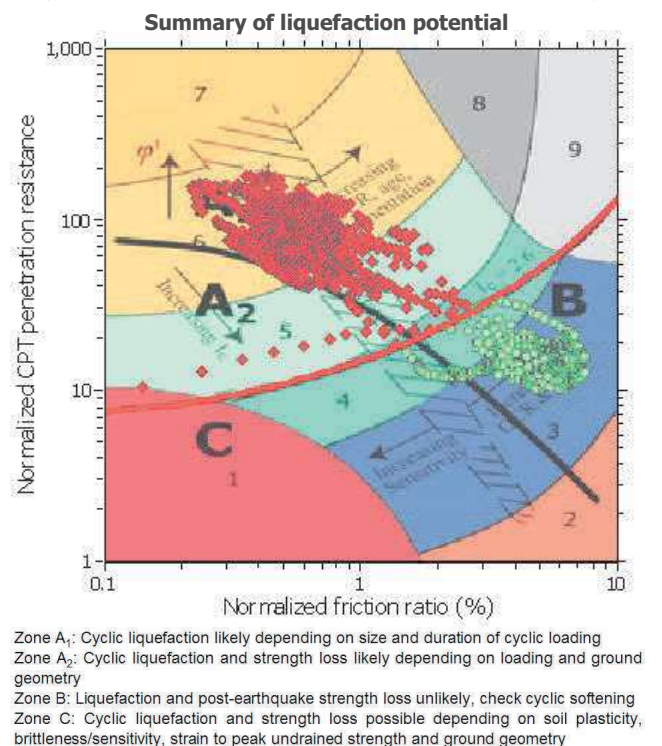
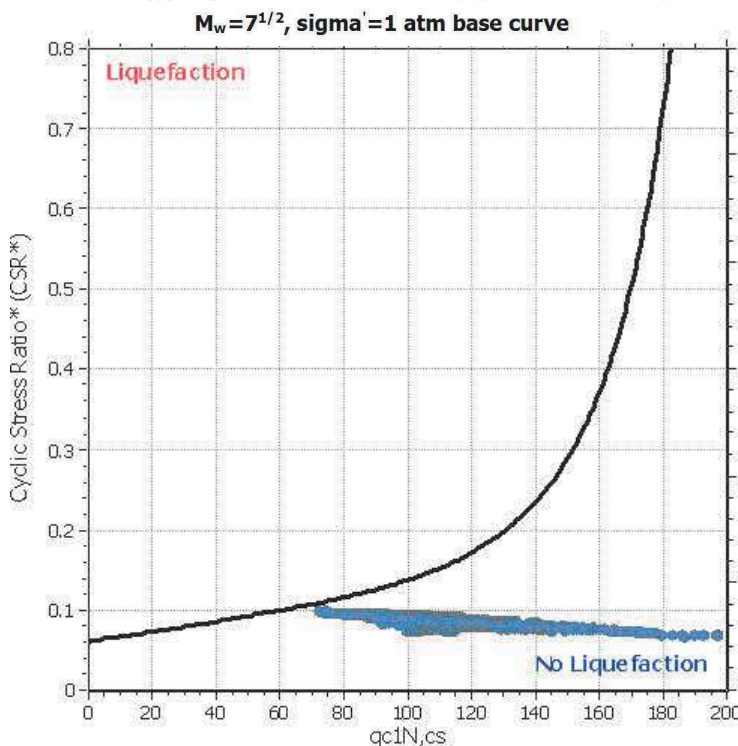
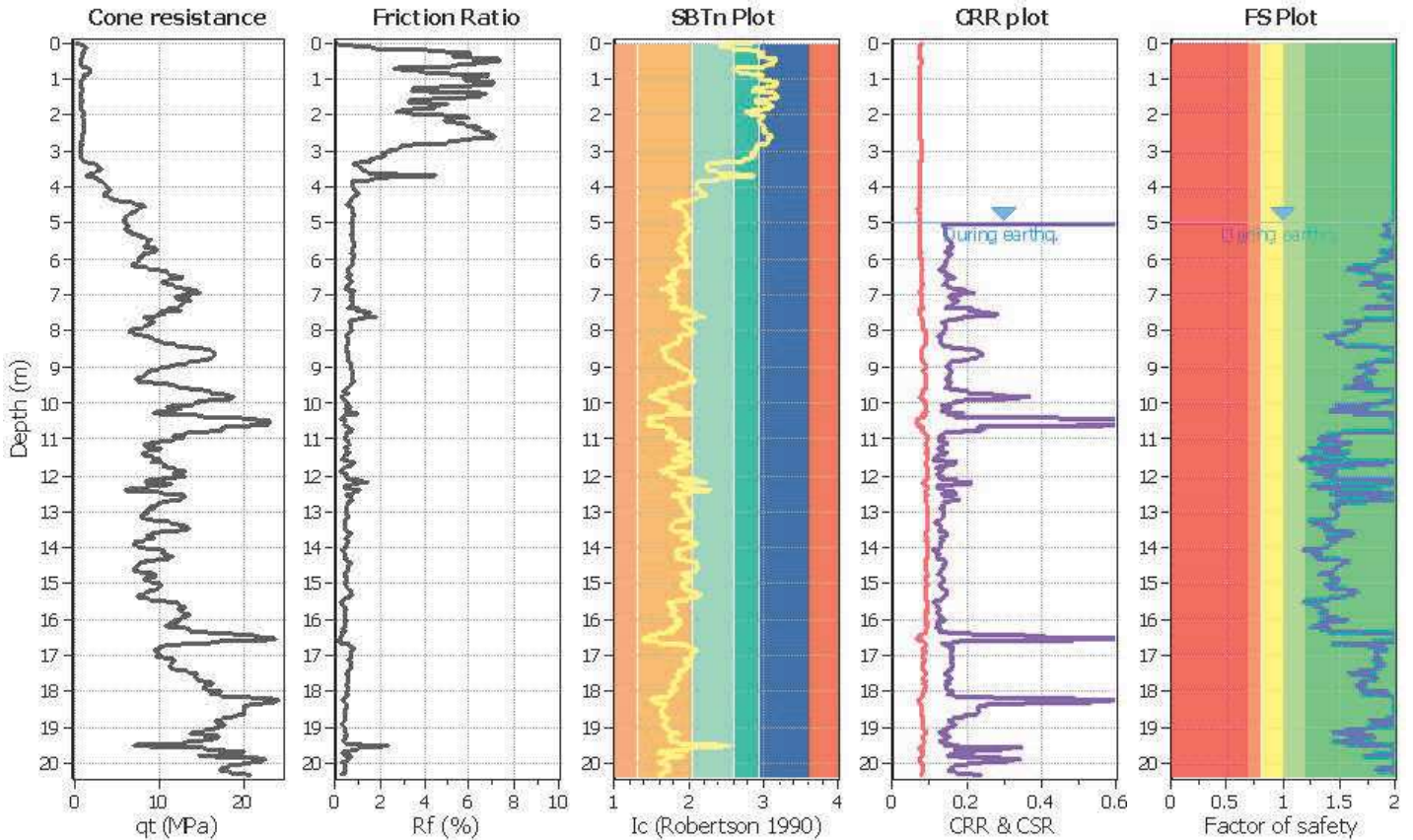
**LIQUEFACTION ANALYSIS REPORT**

**Project title : Studio di Microzonazione Sismica 2° livello**  
**CPT file : CPTU 033027P294 Monticelli Campo Sportivo**

**Location : Monticelli d'Ongina (PC)**

**Input parameters and analysis data**

Analysis method:	B&I (2014)	G.W.T. (in-situ):	7.50 m	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	5.00 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude $M_w$ :	6.14	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method
Peak ground acceleration:	0.14	Unit weight calculation:	Based on SBT	$K_\sigma$ applied:	Yes		



**LIQUEFACTION ANALYSIS REPORT**

**Project title : Studio di Microzonazione Sismica 2° livello**  
**CPT file : CPTU 033027P295 Monticelli Municipio**

**Location : Monticelli d'Ongina (PC)**

**Input parameters and analysis data**

Analysis method:	B&I (2014)	G.W.T. (in-situ):	6.65 m	Use fill:	No	Clay like behavior	
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	5.00 m	Fill height:	N/A	applied:	Sands only
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth applied:	No
Earthquake magnitude $M_w$ :	6.14	Ic cut-off value:	2.60	Trans. detect. applied:	No	Limit depth:	N/A
Peak ground acceleration:	0.14	Unit weight calculation:	Based on SBT	$K_\sigma$ applied:	Yes	MSF method:	Method

