APPENDIX K

APPENDIX K

PREVIOUSLY REPORTED
CPT LIQUEFACTION ANALYSIS

FOR

ZEPHYR – OCEANSIDE
OCEANSIDE, CALIFORNIA

PROJECT NO. G2322-32-01

Summary of Seismic Settlement		
CPT No.	Estimated vertical settlement	Estimated differential settlement
1	5.90 inches	3.93 inches
2	4.06 inches	2.14 inches
3	1.95 inches	1.3 inches
4	2.25 inches	1.5 inches
5	3.46 inches	2.31 inches
6	3.44 inches	2.29 inches
7	1.0 inches	0.7 inches
8	1.29 inches	0.67 inches
9	0.74 inches	0.5 inches
10	1.02 inches	0.68 inches
11	1.28 inches	0.85 inches
12	1.33 inches	0.89 inches

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LIQUEFACTION ANALYSIS REPORT

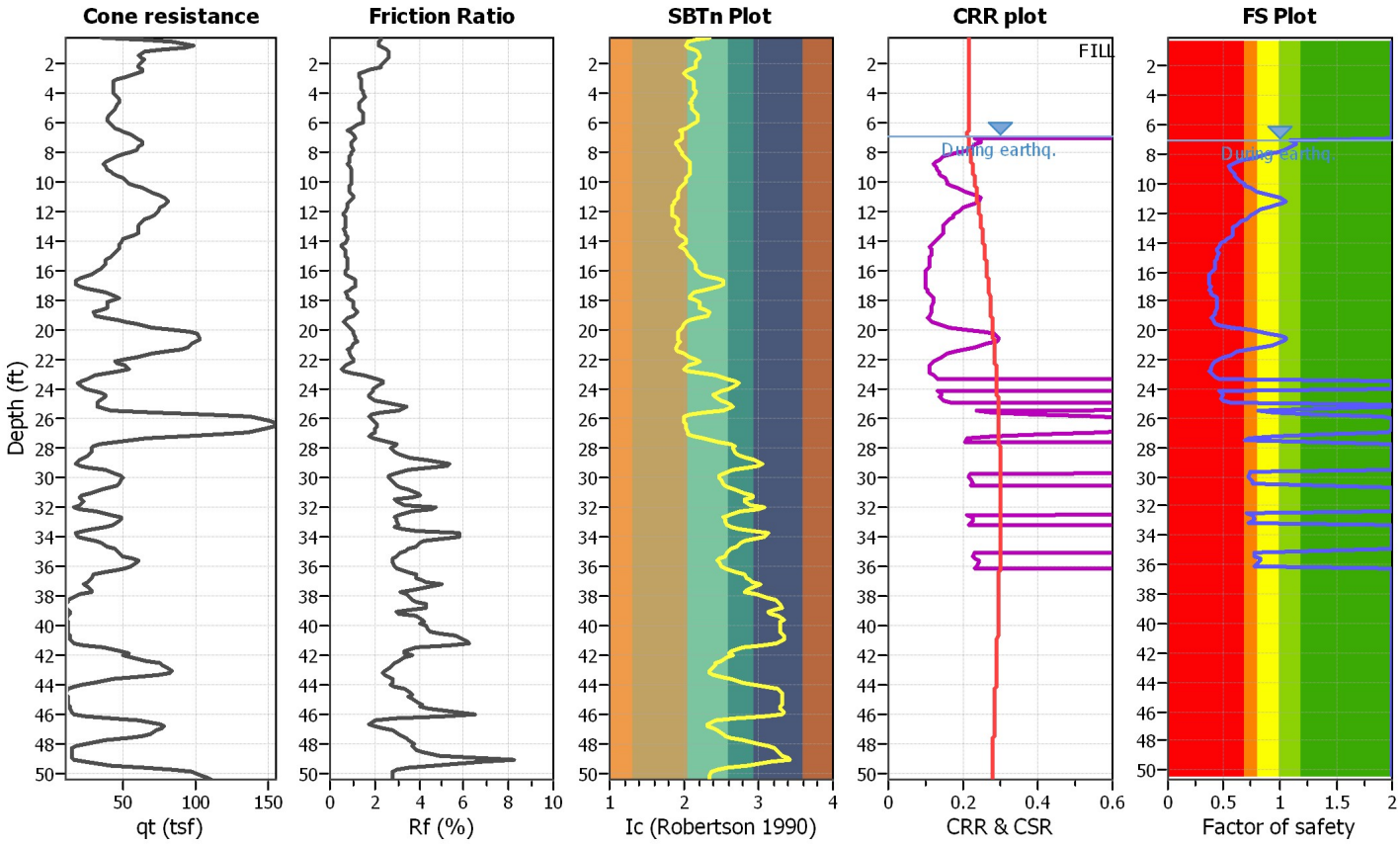
Project title : Zephyr Oceanside

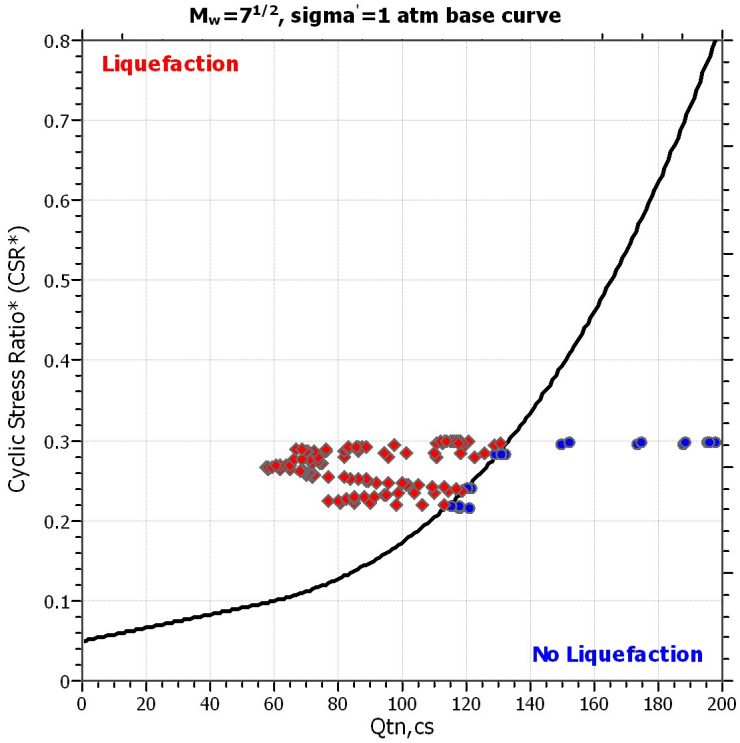
Location : Hwy 76 & Foussat Road, Oceanside

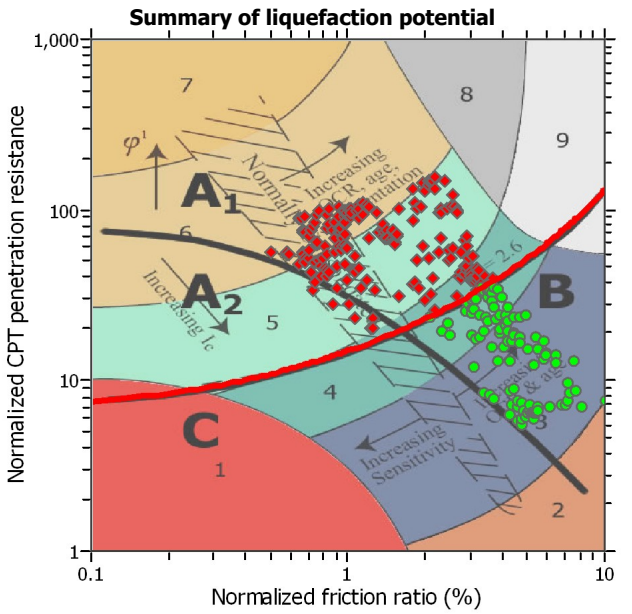
CPT file : CPT-01

Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	10.00 ft	Use fill:	Yes	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	17.00 ft	Fill height:	10.00 ft	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	120.00 lb/ft^3	Limit depth:	50.00 ft
Earthquake magnitude M_w:	6.72	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.45	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

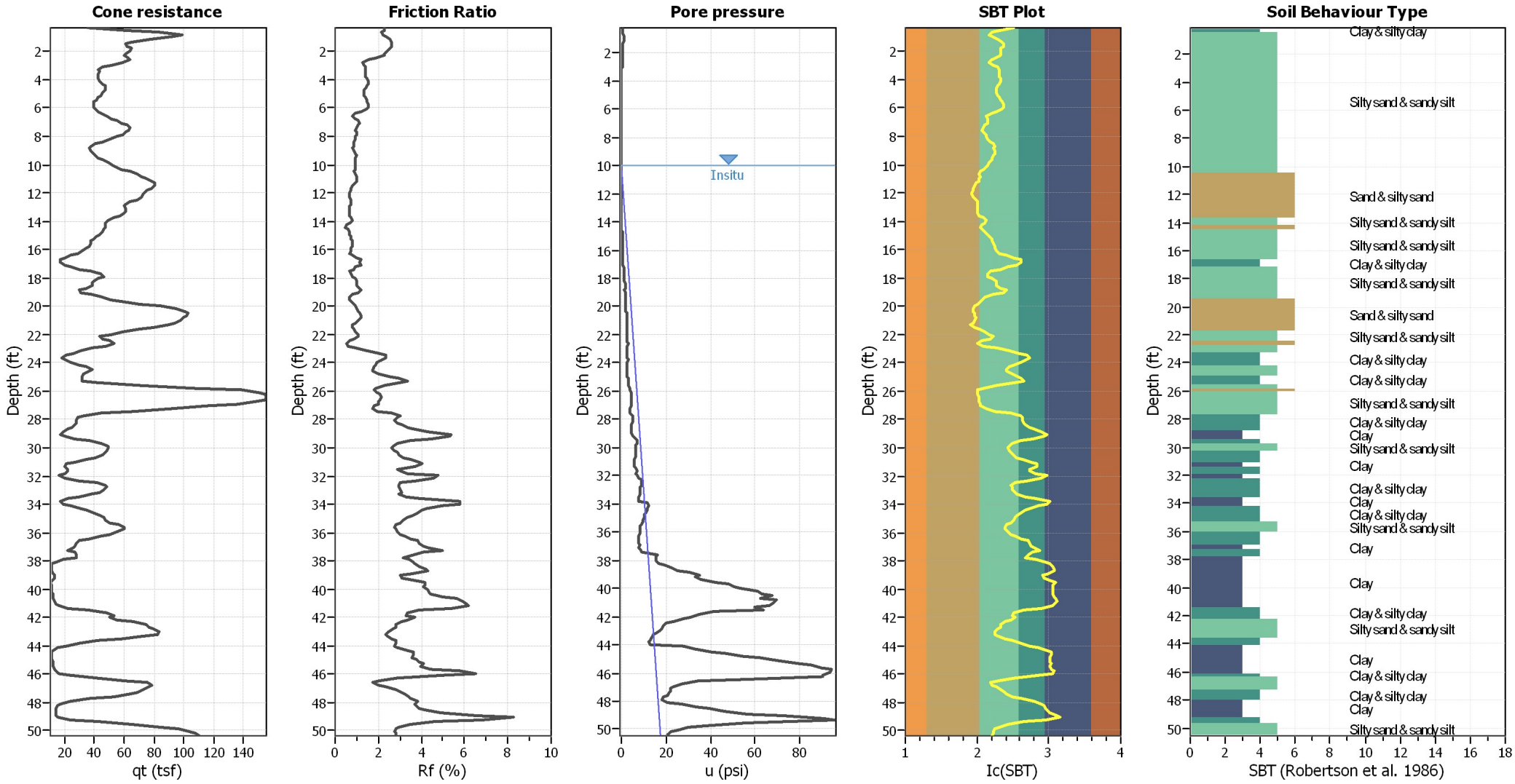






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



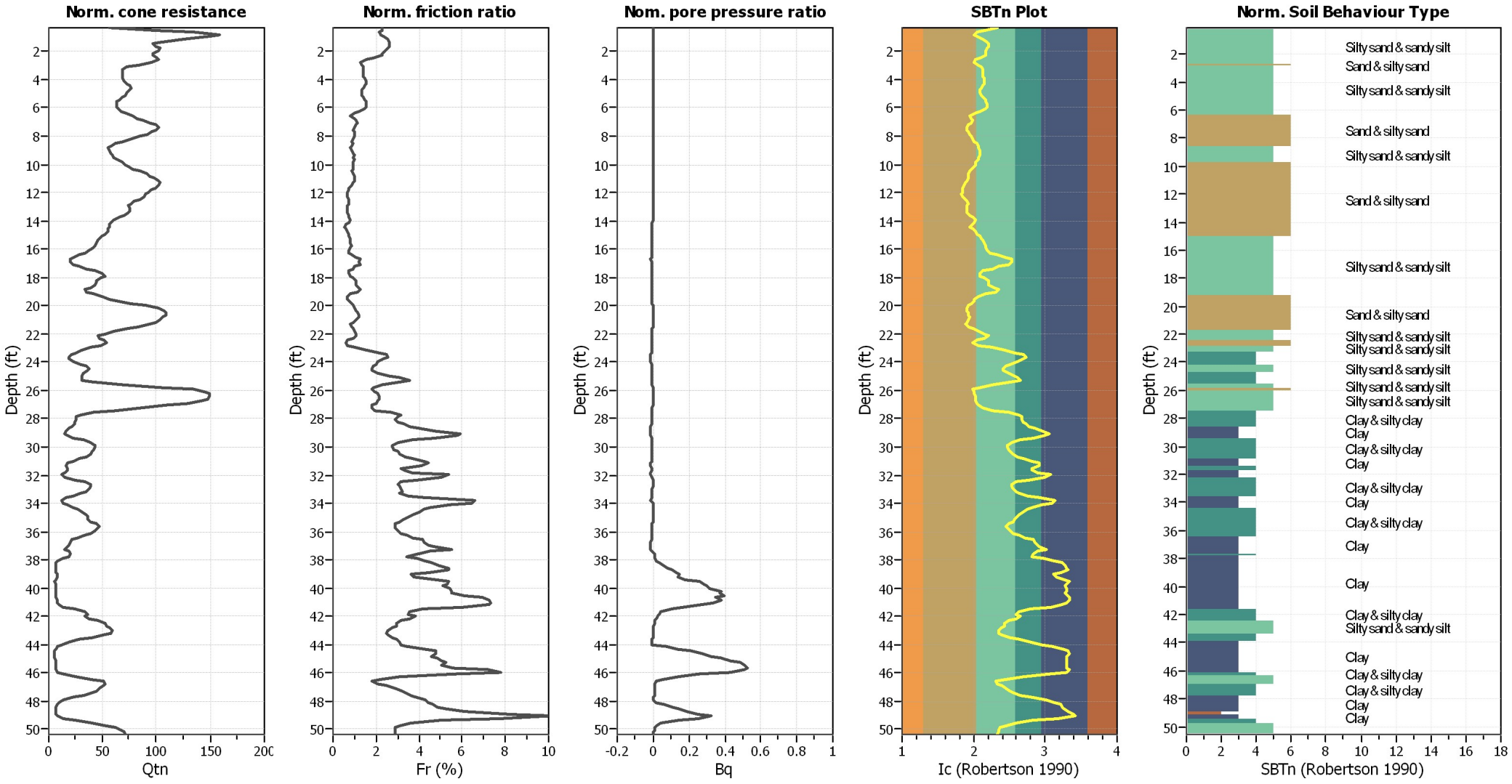
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Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.72	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.45	Use fill:	Yes	Limit depth applied:	Yes
Depth to water table (insitu):	10.00 ft	Fill height:	10.00 ft	Limit depth:	50.00 ft

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



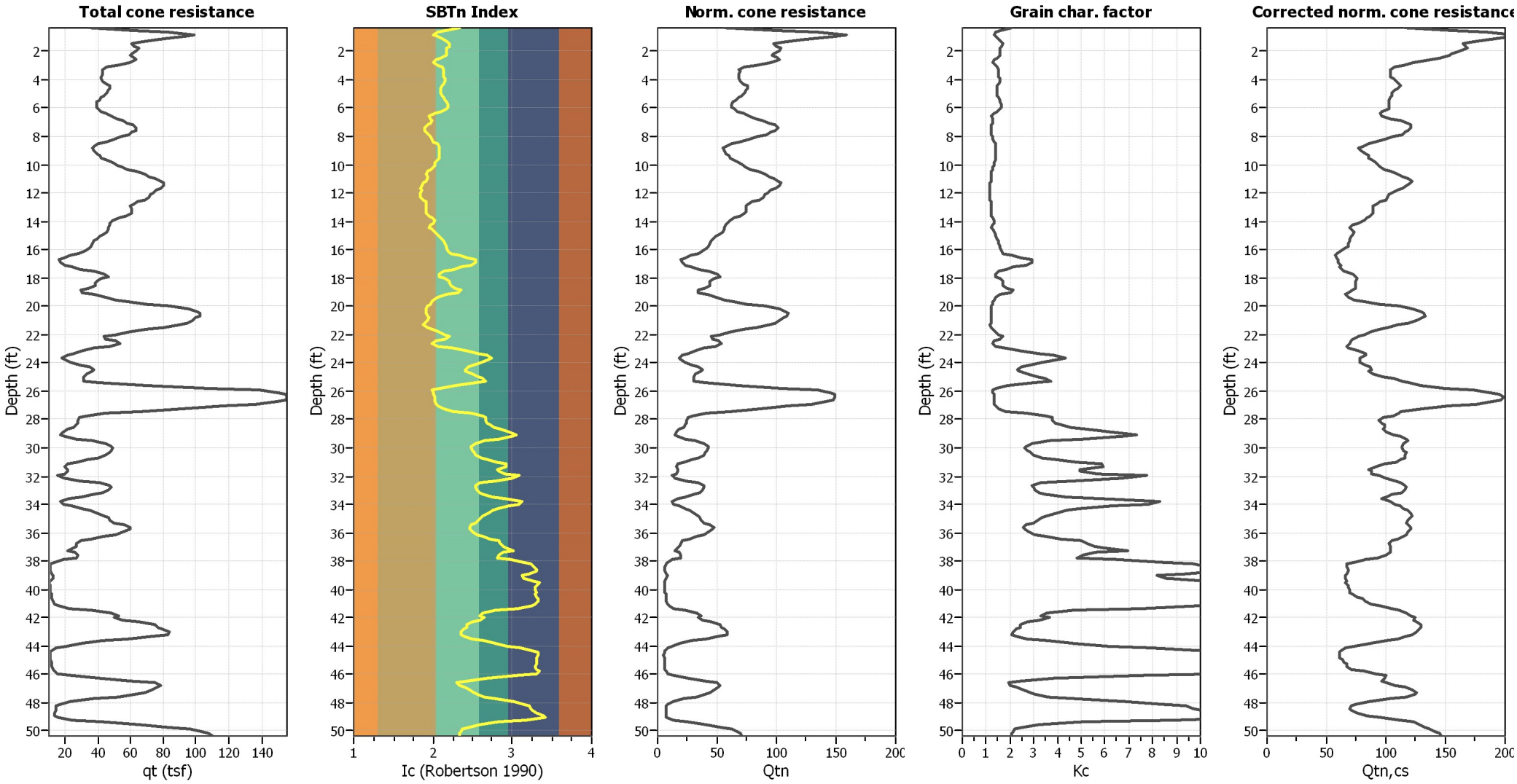
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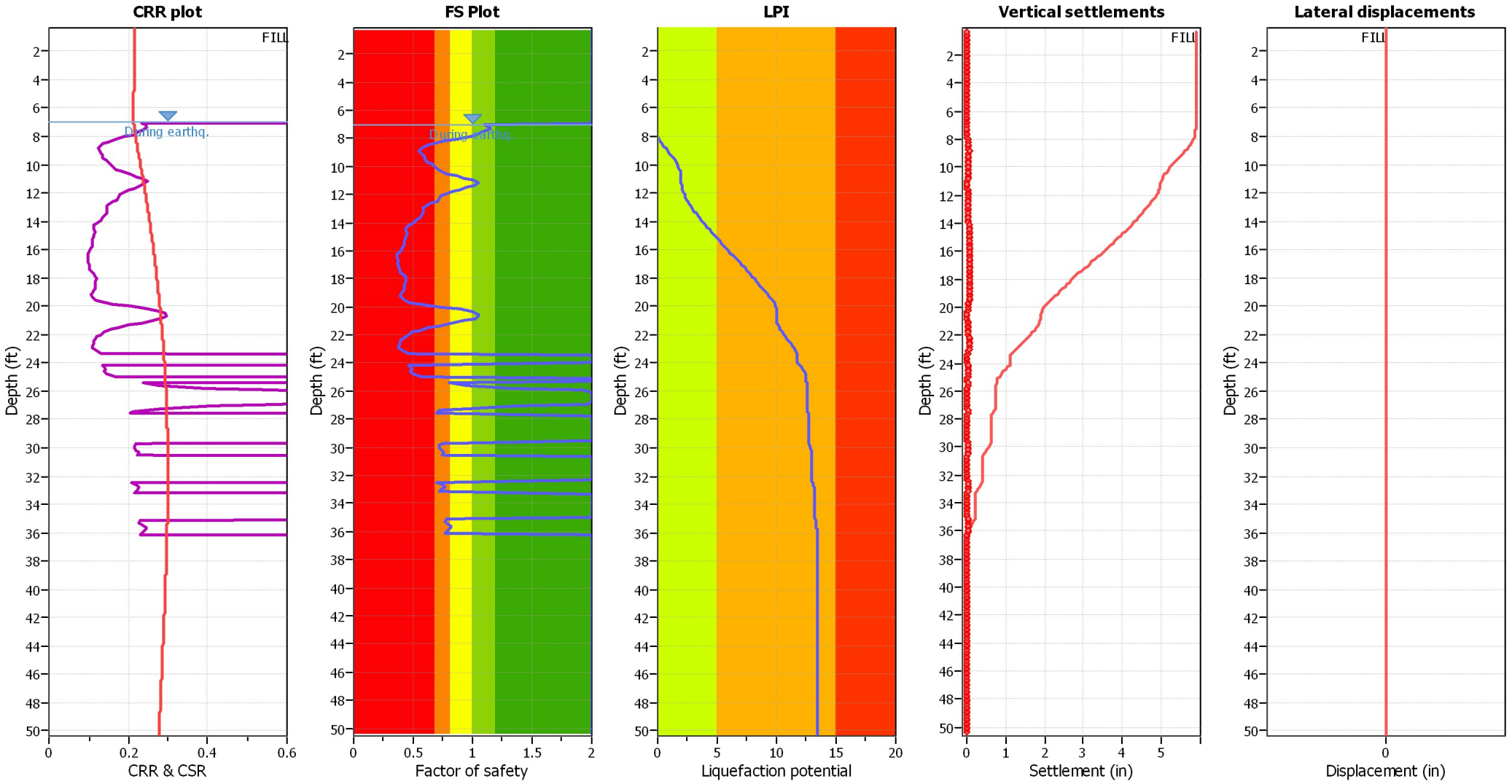
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	17.00 ft	Fill weight:	120.00 lb/ft^3
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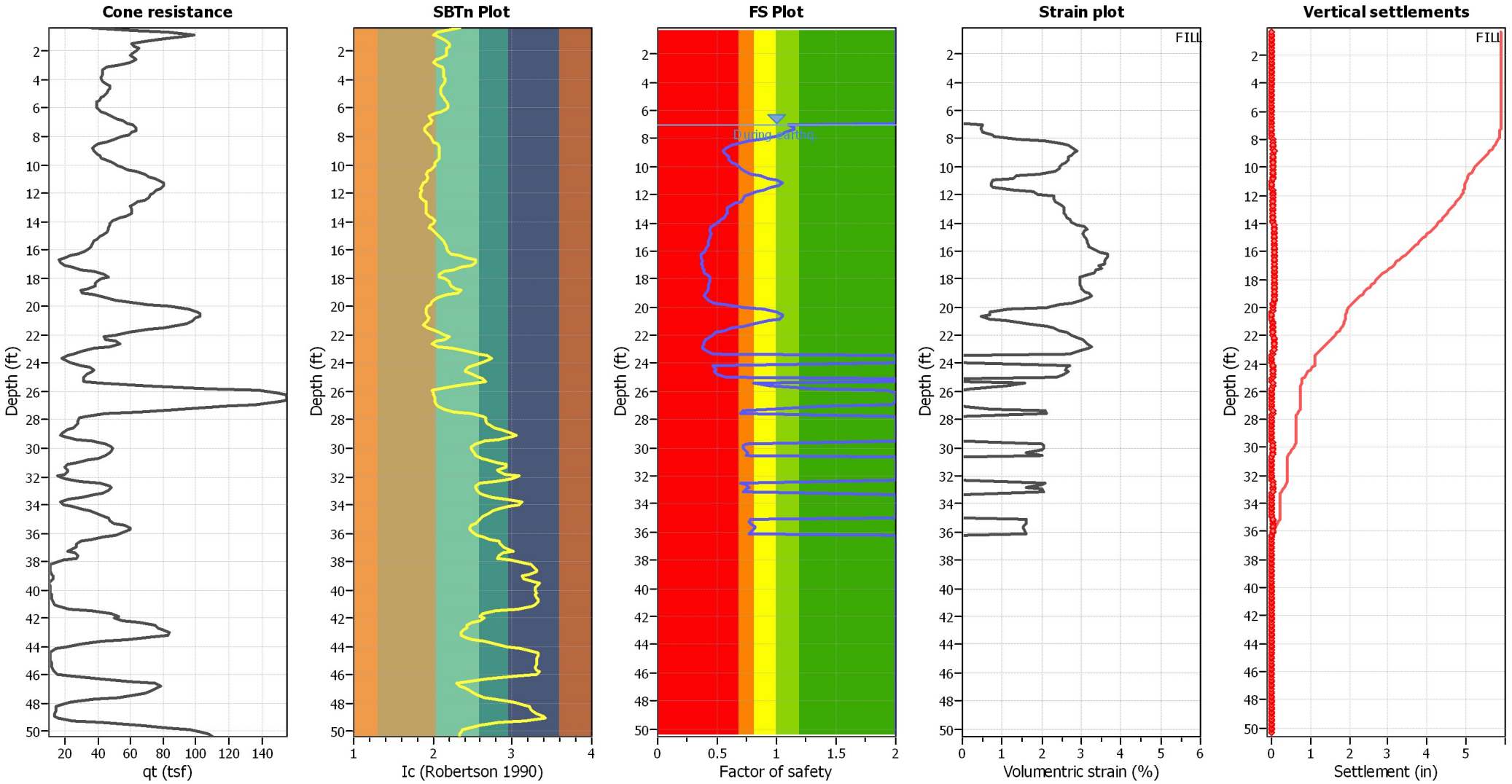
F.S. color scheme

- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

LPI color scheme

- Very high risk
- High risk
- Low risk

Estimation of post-earthquake settlements



Abbreviations

q_t:	Total cone resistance (cone resistance q_c corrected for pore water effects)
I_c:	Soil Behaviour Type Index
FS:	Calculated Factor of Safety against liquefaction
Volumentric strain:	Post-liquefaction volumentric strain

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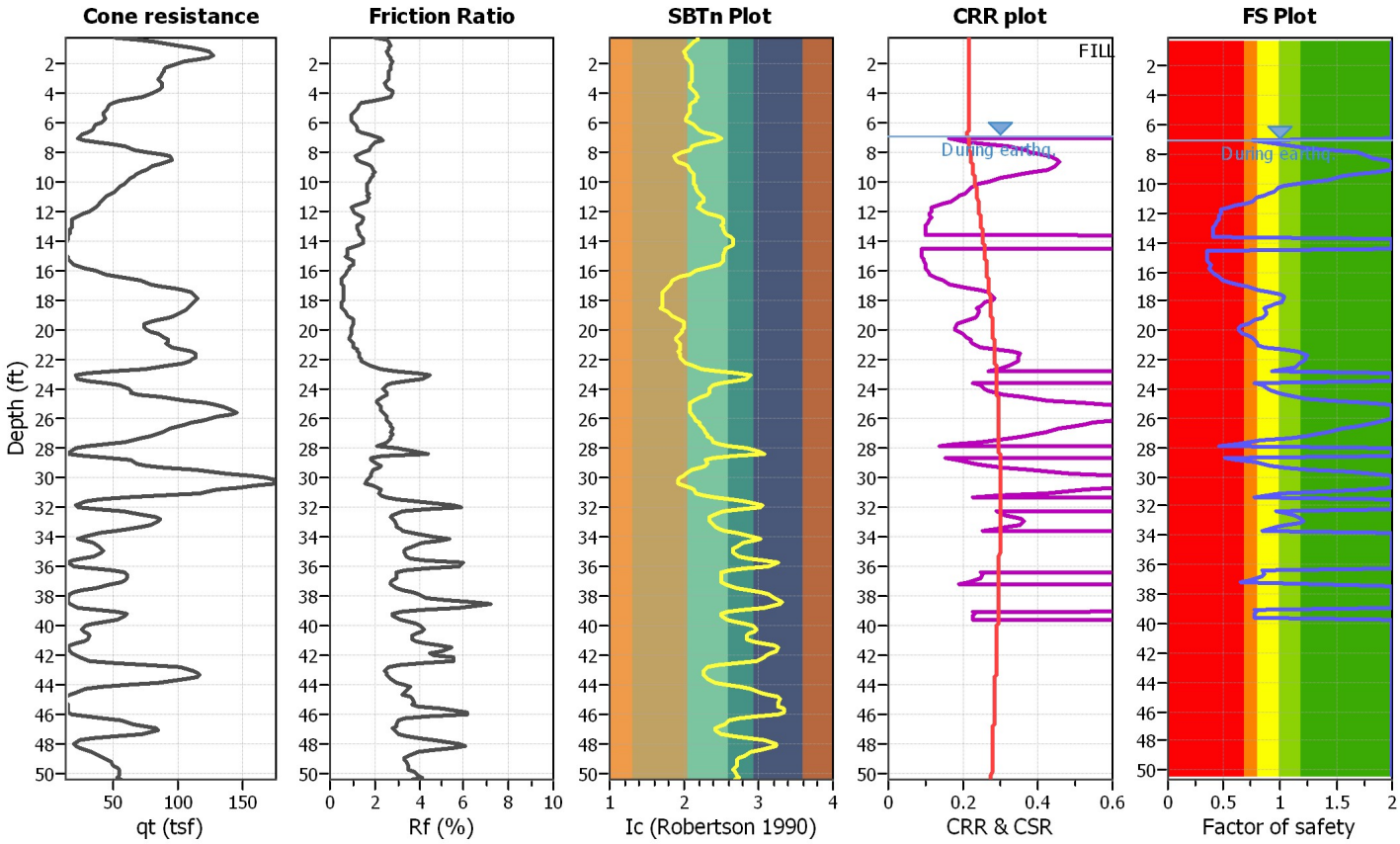
LIQUEFACTION ANALYSIS REPORT

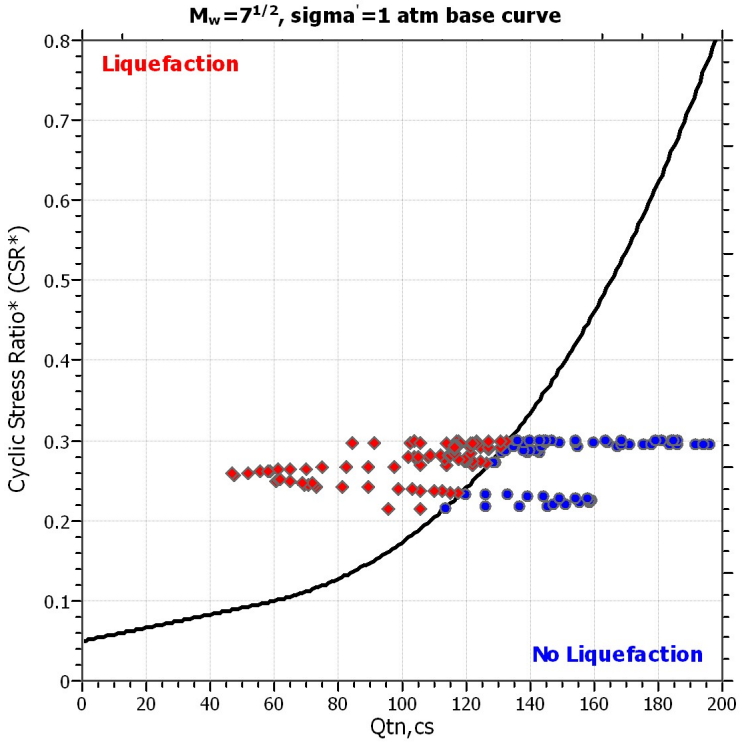
Project title : Zephyr Oceanside **Location : Hwy 76 & Foussat Road, Oceanside**

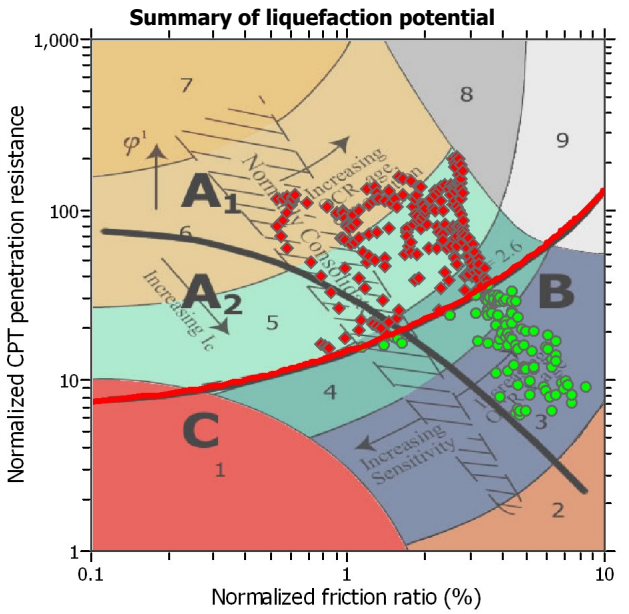
CPT file : CPT-02

Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	10.00 ft	Use fill:	Yes	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	17.00 ft	Fill height:	10.00 ft	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	120.00 lb/ft^3	Limit depth:	50.00 ft
Earthquake magnitude M_w:	6.72	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.45	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

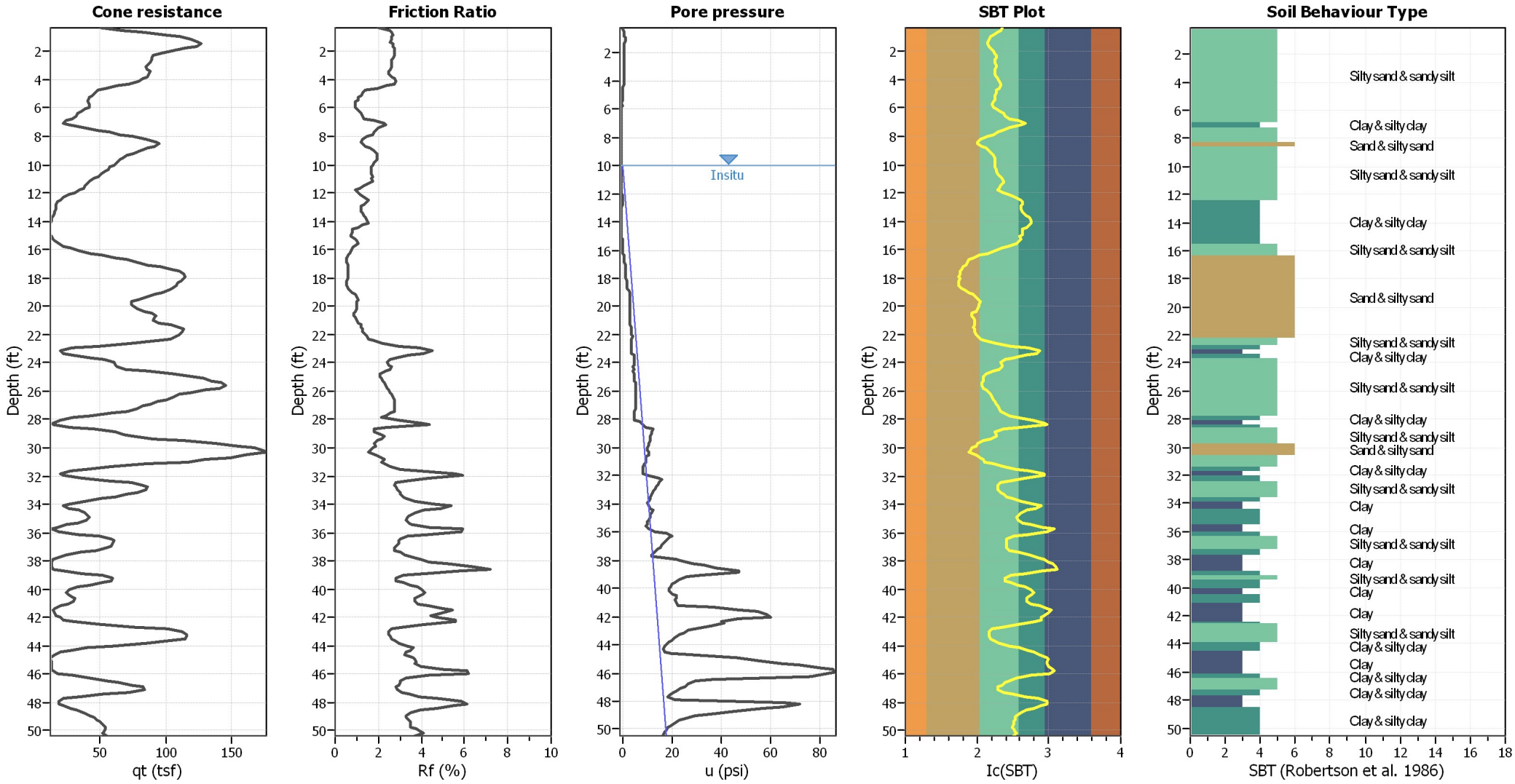






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CPT basic interpretation plots



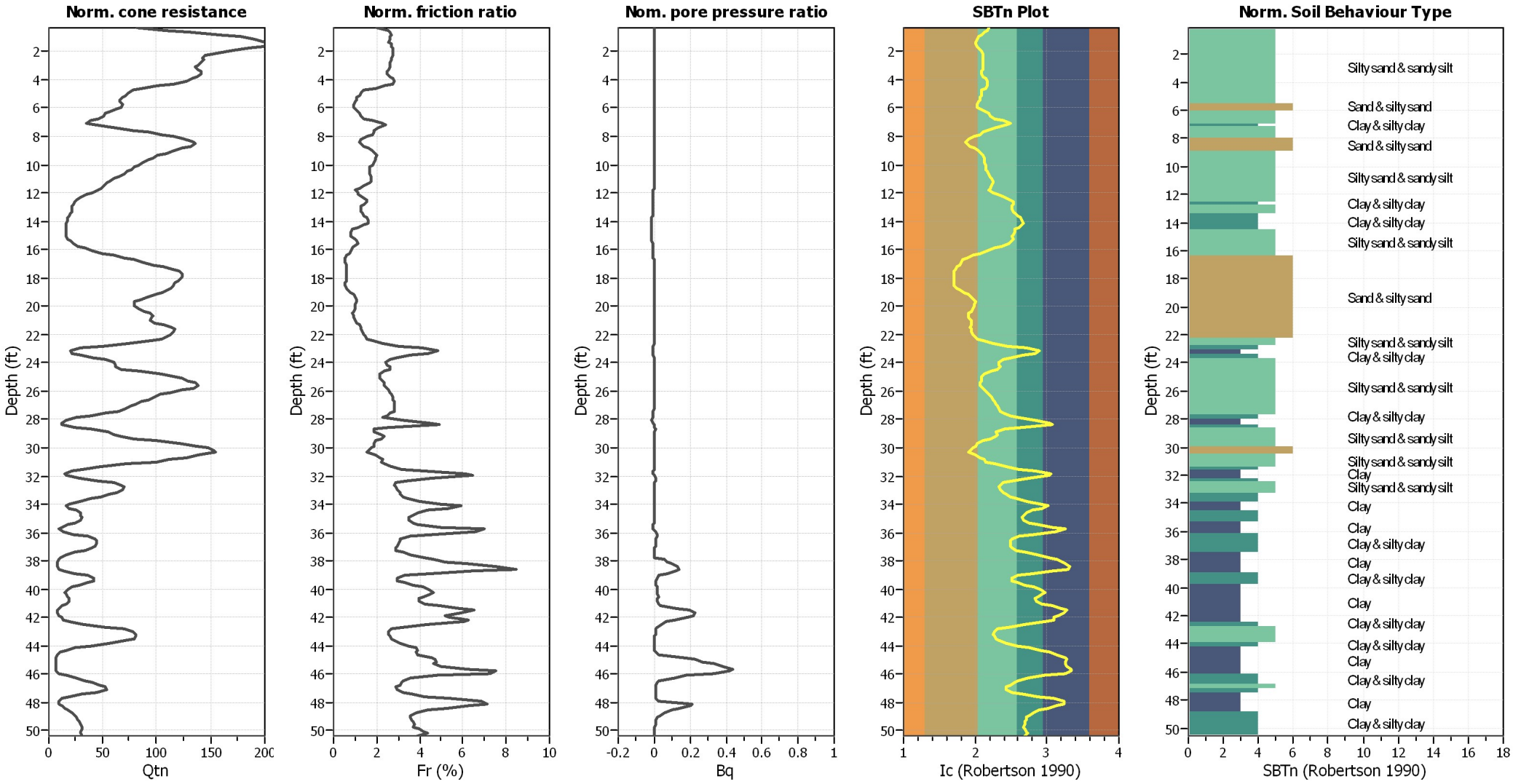
Input parameters and analysis data

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Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.72	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.45	Use fill:	Yes	Limit depth applied:	Yes
Depth to water table (insitu):	10.00 ft	Fill height:	10.00 ft	Limit depth:	50.00 ft

SBT legend

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6. Clean sand to silty sand
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9. Very stiff fine grained

CPT basic interpretation plots (normalized)



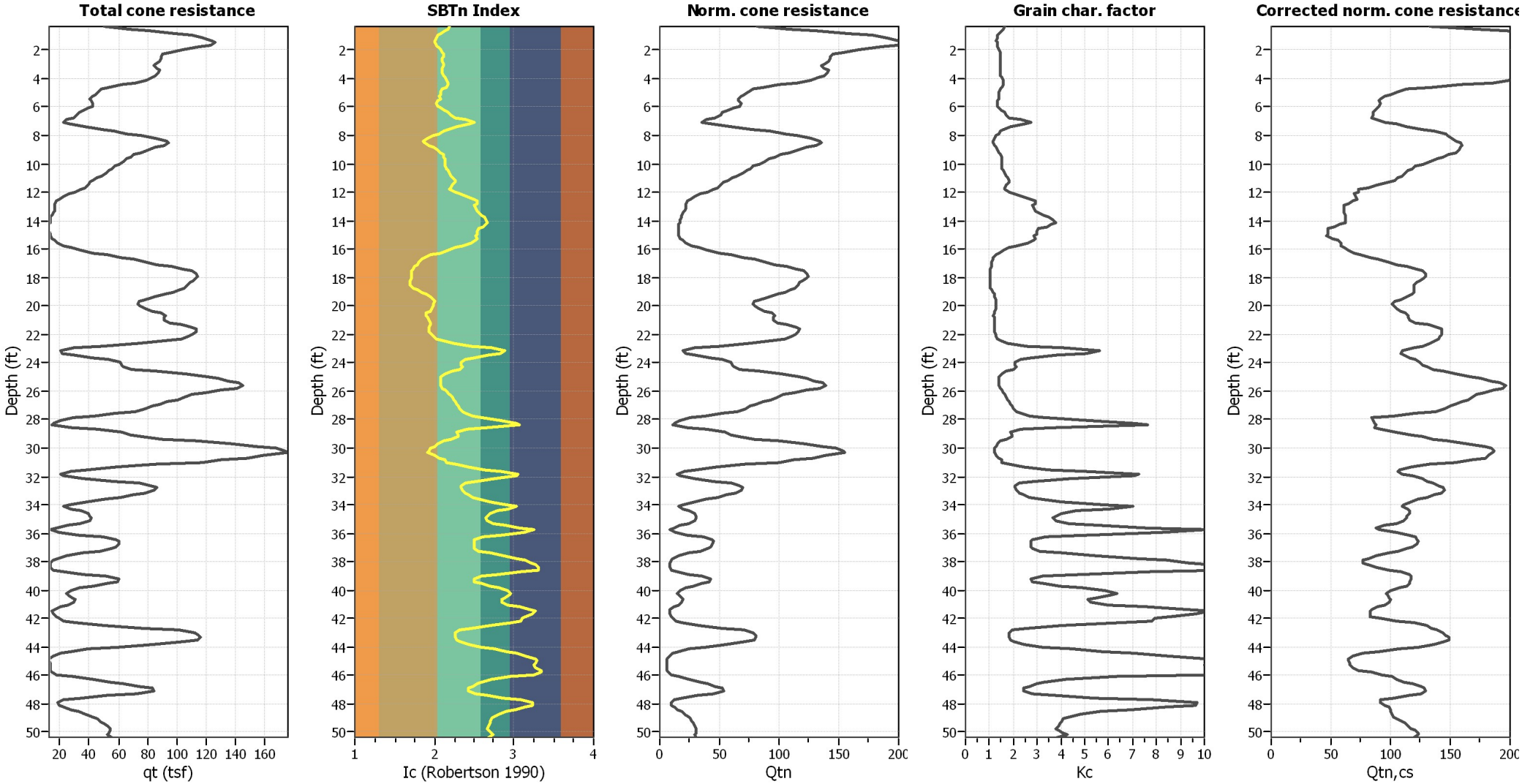
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Analysis method:	NCEER (1998)	Depth to water table (erthq.):	17.00 ft	Fill weight:	120.00 lb/ft^3
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.72	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.45	Use fill:	Yes	Limit depth applied:	Yes
Depth to water table (insitu):	10.00 ft	Fill height:	10.00 ft	Limit depth:	50.00 ft

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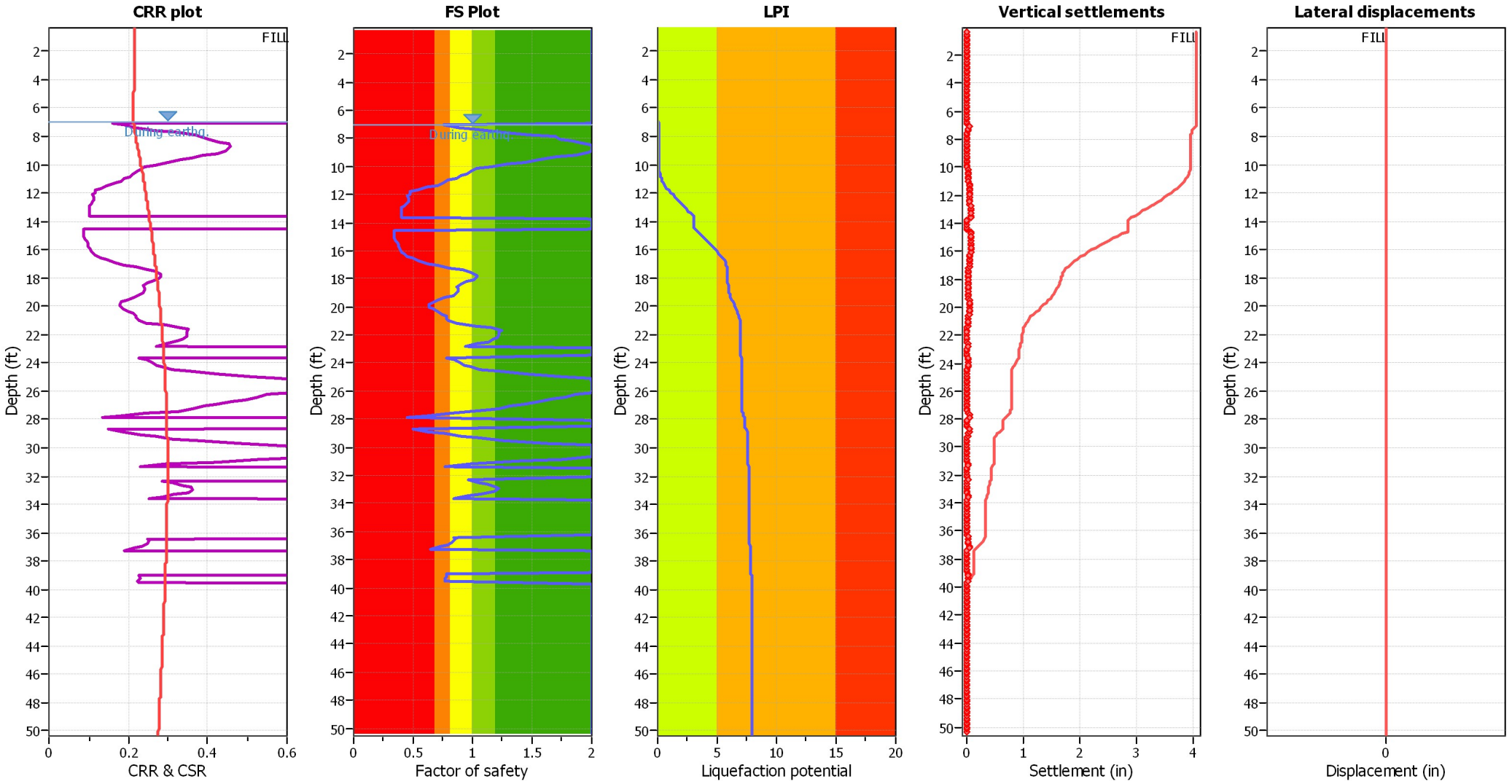
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	17.00 ft	Fill weight:	120.00 lb/ft^3
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.72	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.45	Use fill:	Yes	Limit depth applied:	Yes
Depth to water table (insitu):	10.00 ft	Fill height:	10.00 ft	Limit depth:	50.00 ft

Liquefaction analysis overall plots



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	17.00 ft	Fill weight:	120.00 lb/ft^3
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.72	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.45	Use fill:	Yes	Limit depth applied:	Yes
Depth to water table (insitu):	10.00 ft	Fill height:	10.00 ft	Limit depth:	50.00 ft

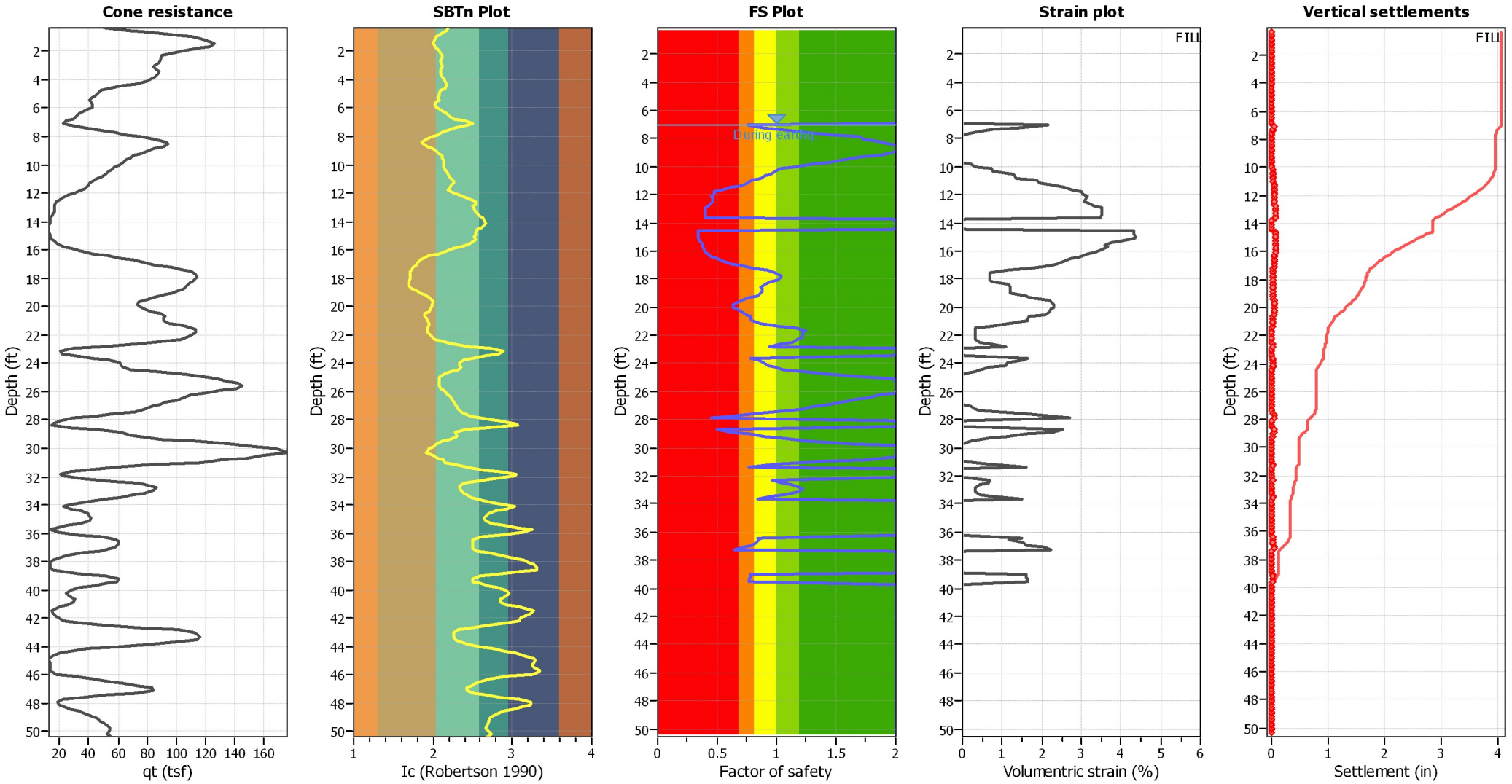
F.S. color scheme

- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

LPI color scheme

- Very high risk
- High risk
- Low risk

Estimation of post-earthquake settlements



Abbreviations

q_t:	Total cone resistance (cone resistance q_c corrected for pore water effects)
I_c:	Soil Behaviour Type Index
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Volumentric strain:	Post-liquefaction volumentric strain

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LIQUEFACTION ANALYSIS REPORT

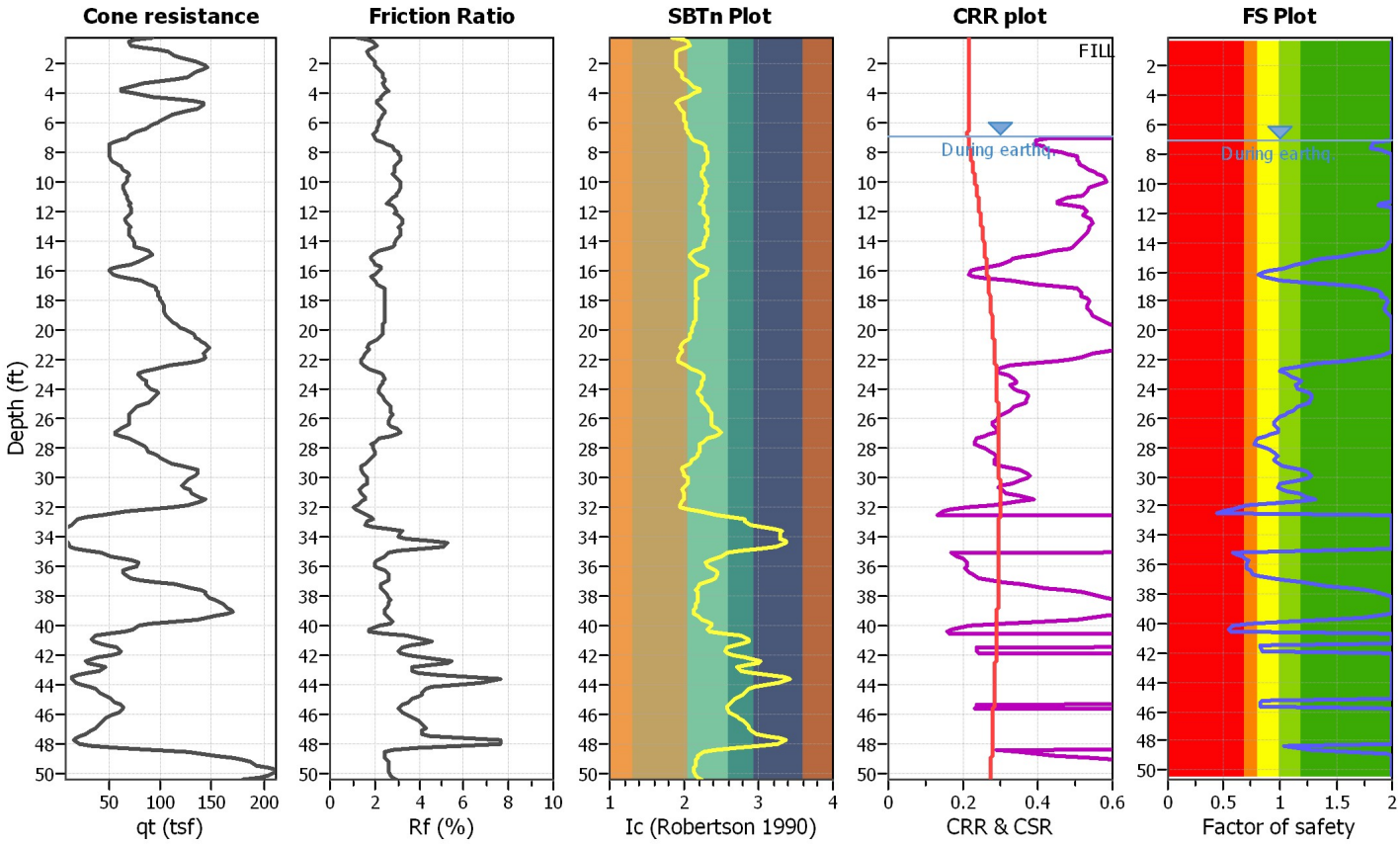
Project title : Zephyr Oceanside

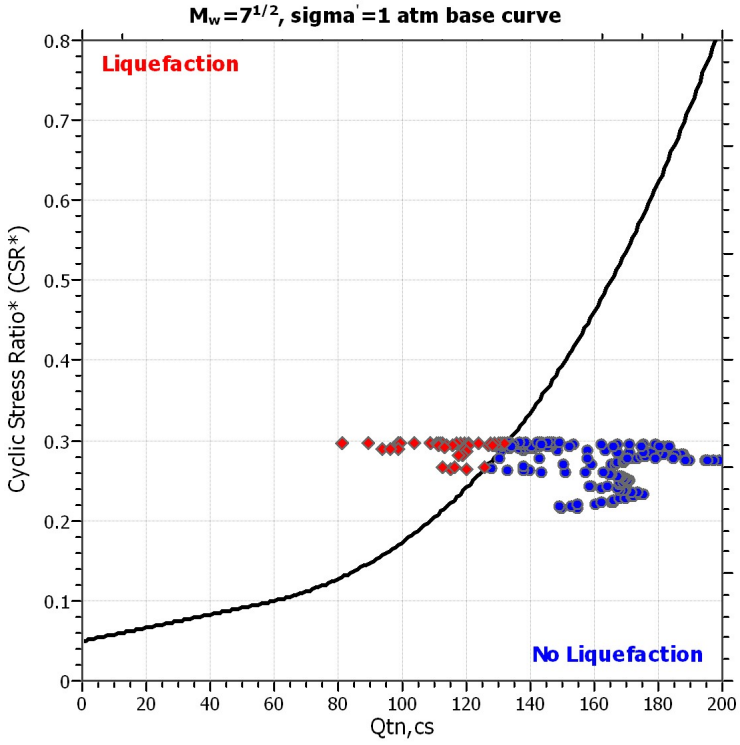
Location : Hwy 76 & Foussat Road, Oceanside

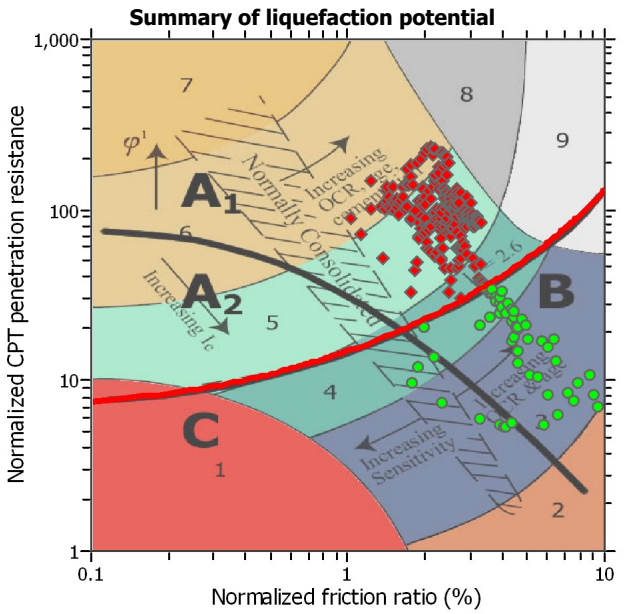
CPT file : CPT-03

Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	10.00 ft	Use fill:	Yes	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	17.00 ft	Fill height:	10.00 ft	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	120.00 lb/ft^3	Limit depth:	N/A
Earthquake magnitude M_w:	6.72	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.45	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

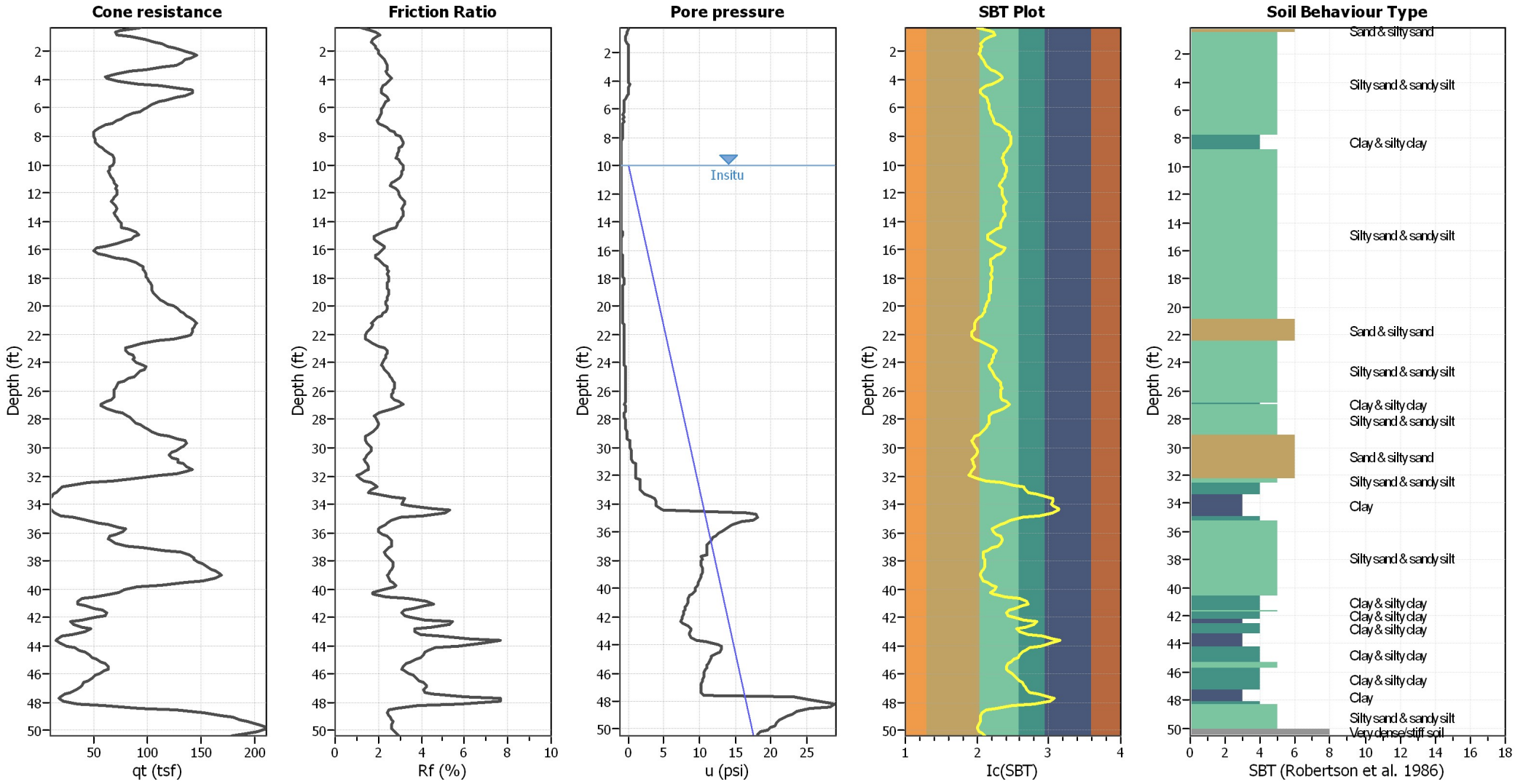






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CPT basic interpretation plots



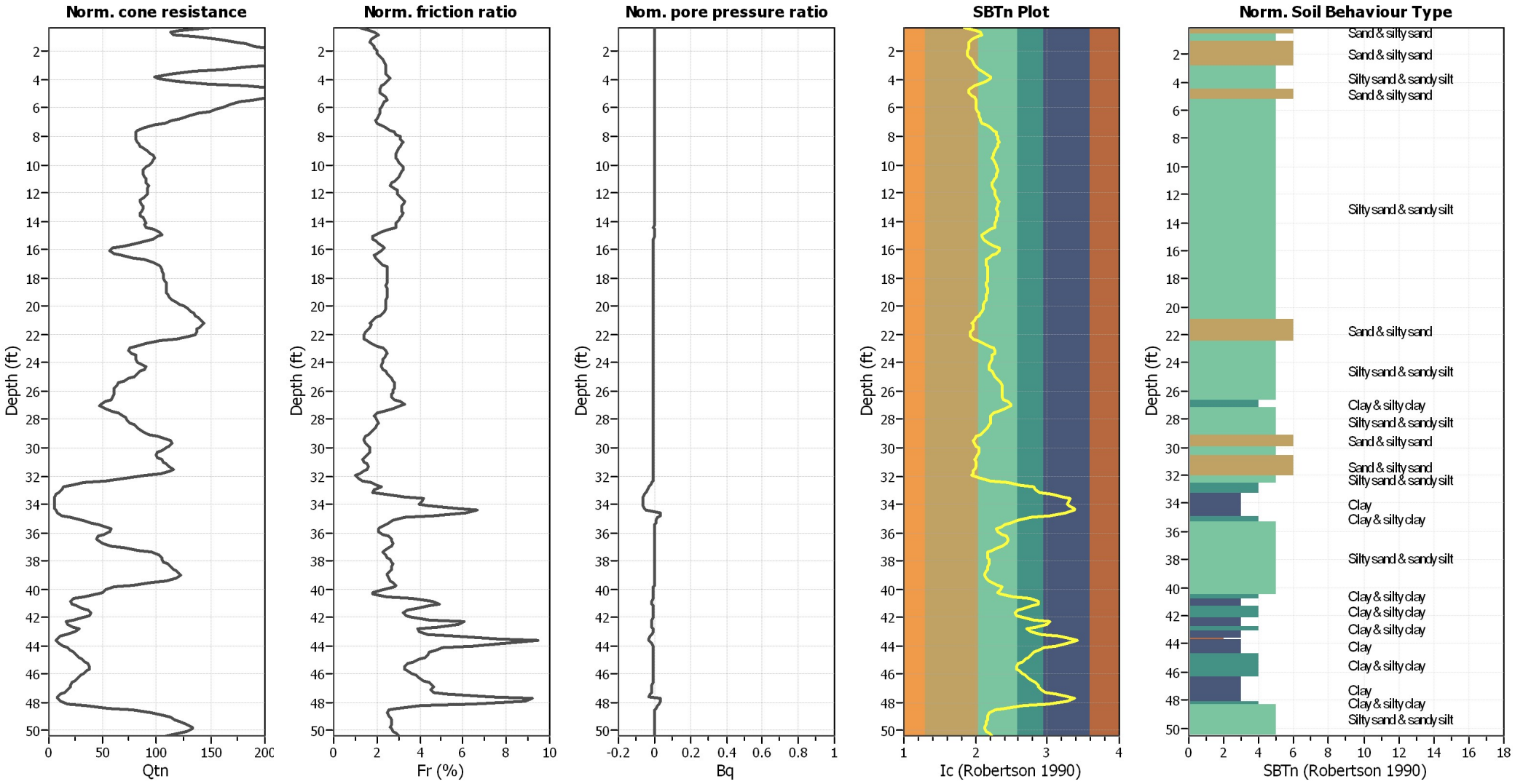
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SBT legend

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CPT basic interpretation plots (normalized)



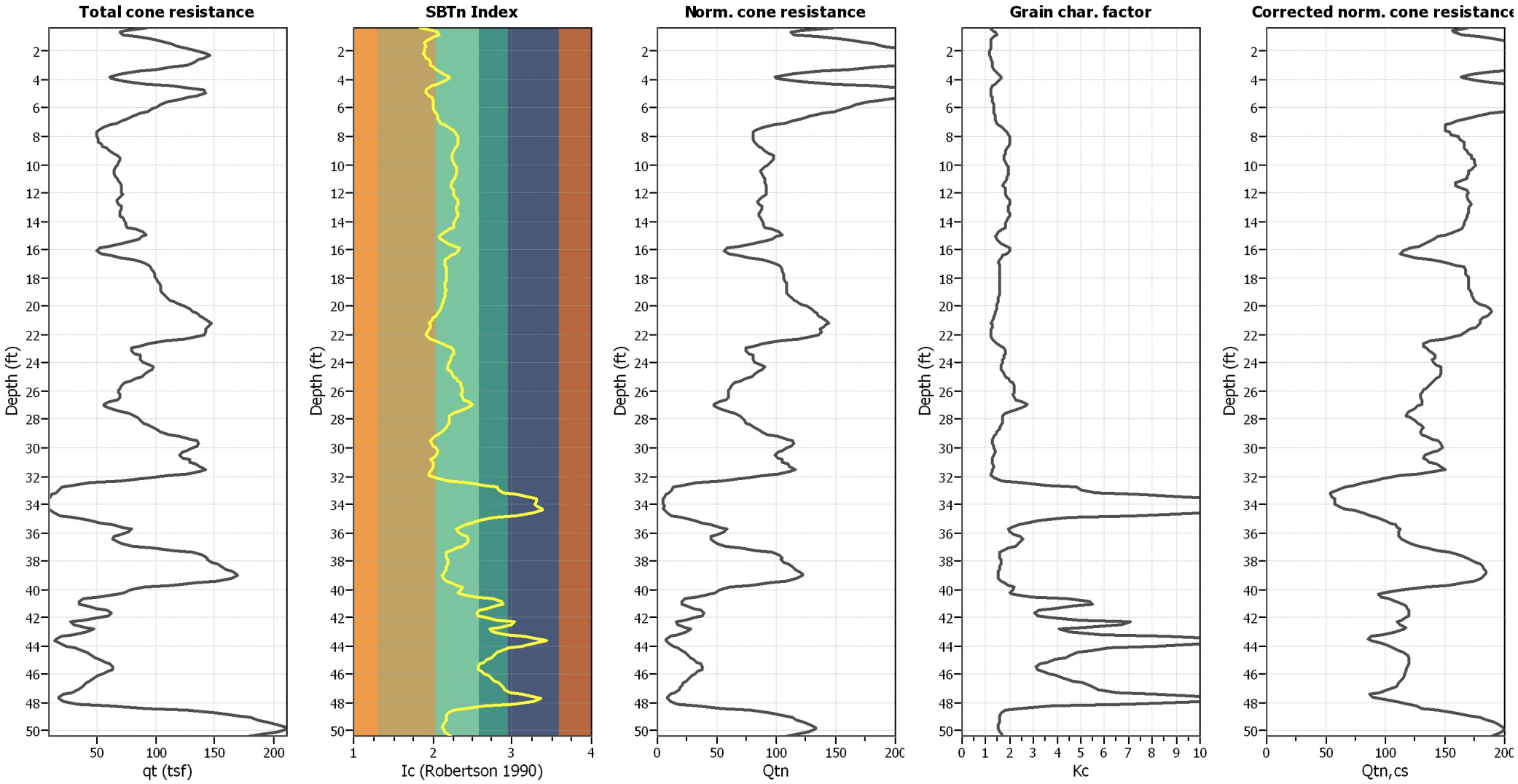
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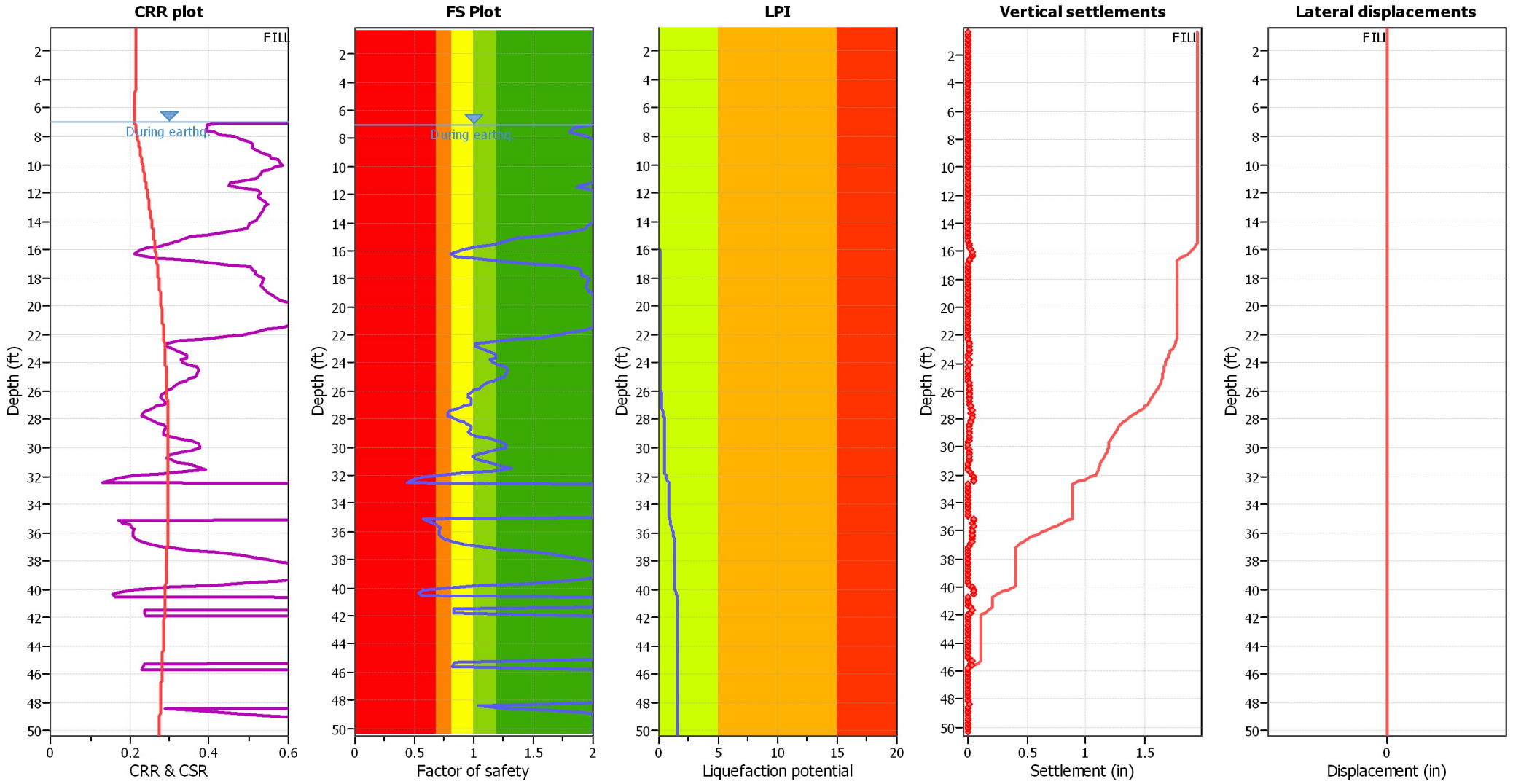
Liquefaction analysis overall plots (intermediate results)



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Liquefaction analysis overall plots



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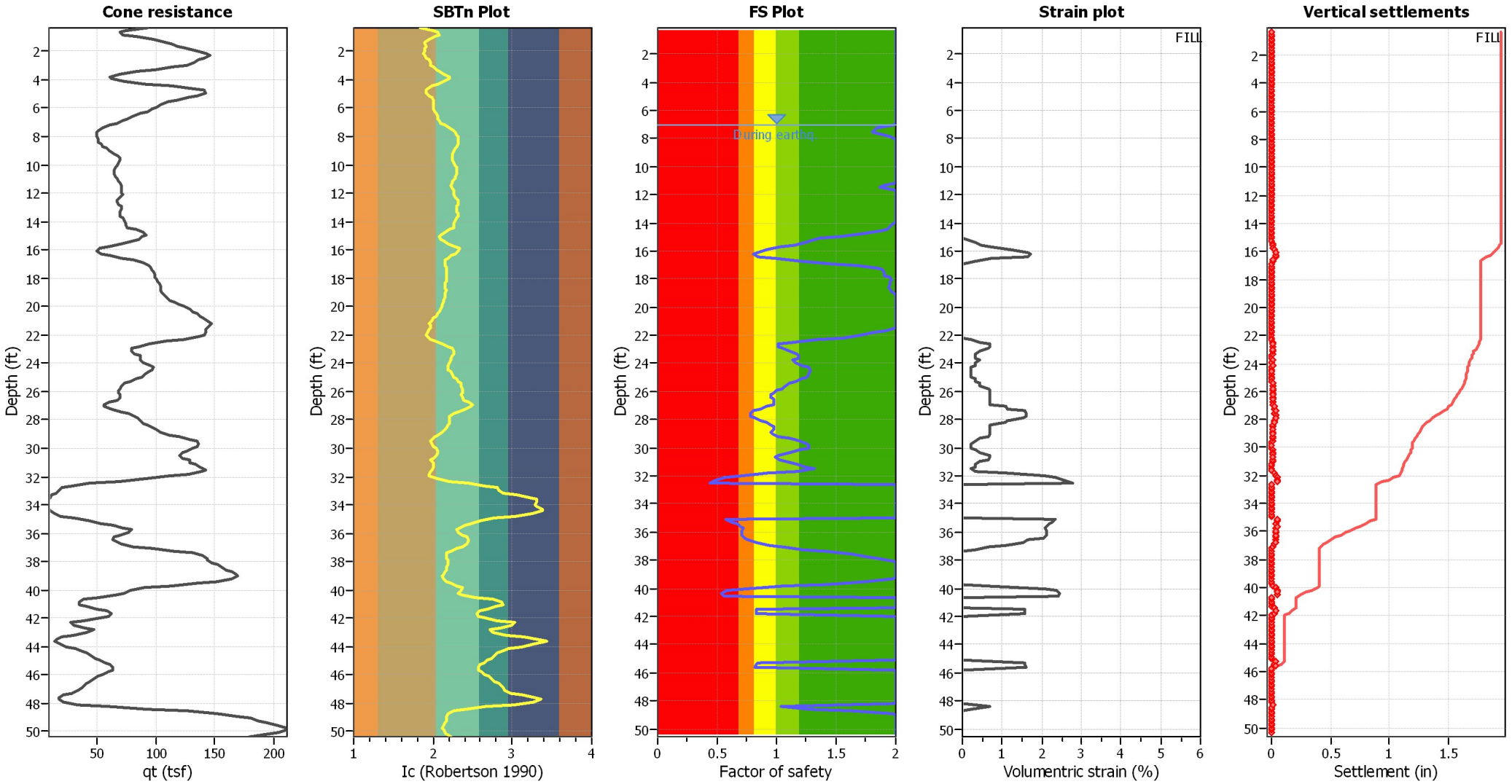
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Carlsbad, CA

LIQUEFACTION ANALYSIS REPORT

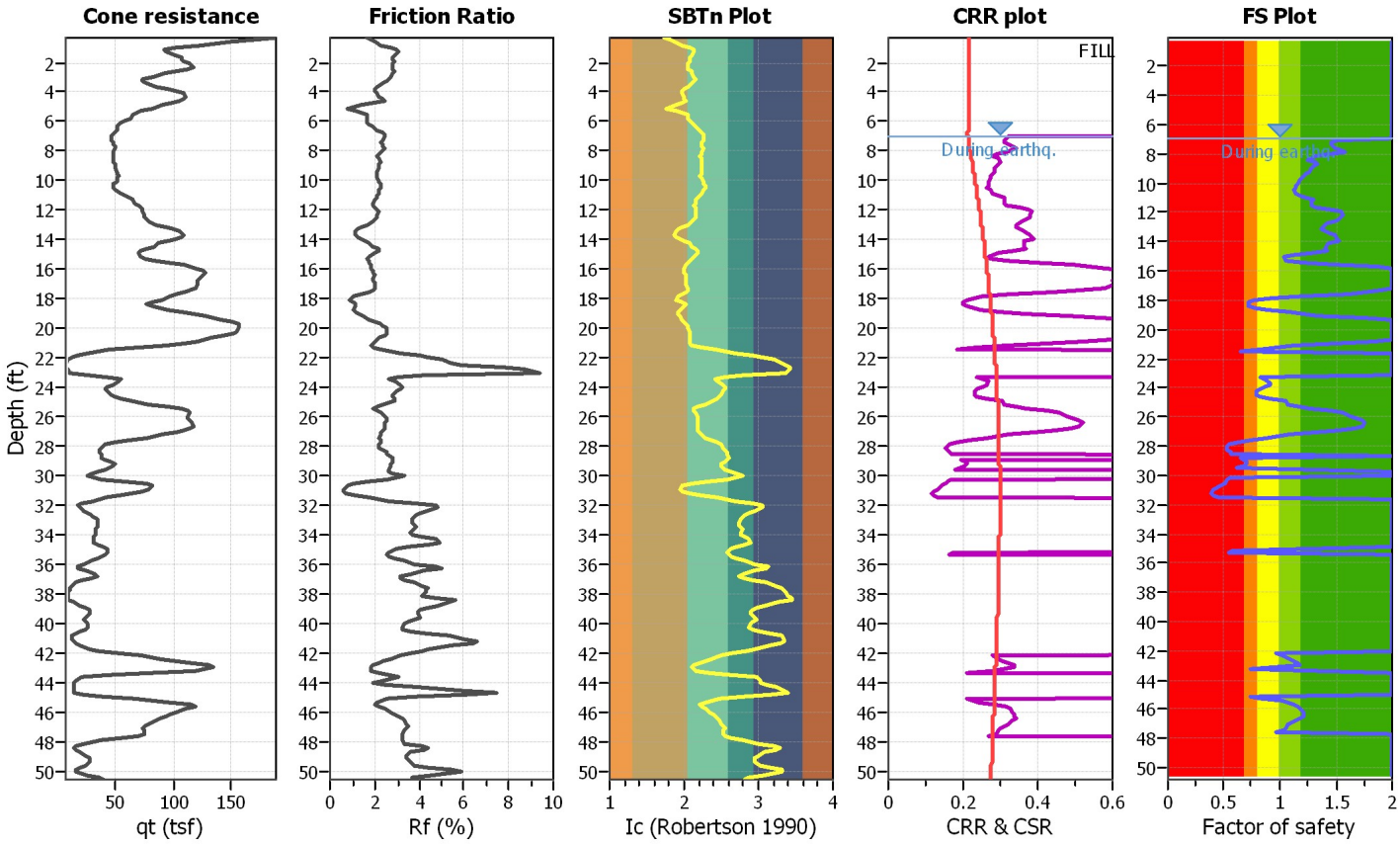
Project title : Zephyr Oceanside

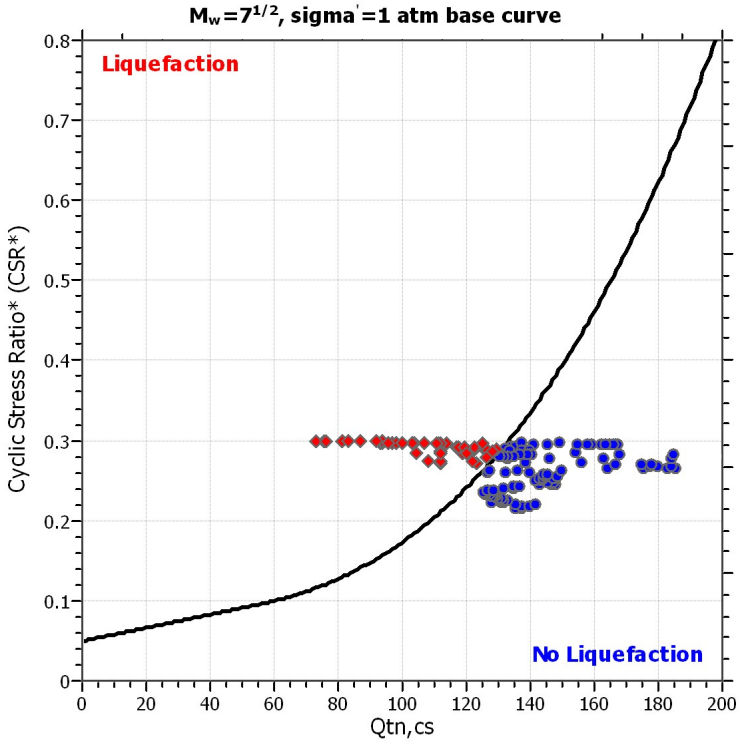
Location : Hwy 76 & N Foussat Oceanside

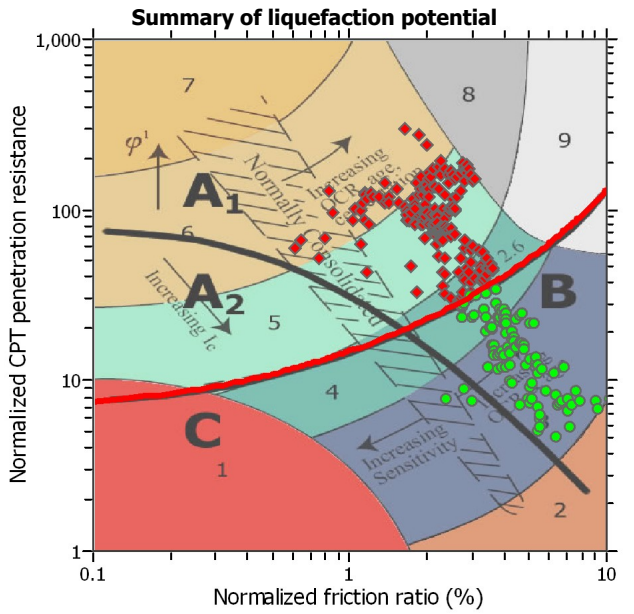
CPT file : CPT-04

Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	10.00 ft	Use fill:	Yes	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	17.00 ft	Fill height:	10.00 ft	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	120.00 lb/ft^3	Limit depth:	N/A
Earthquake magnitude M_w:	6.72	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.45	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

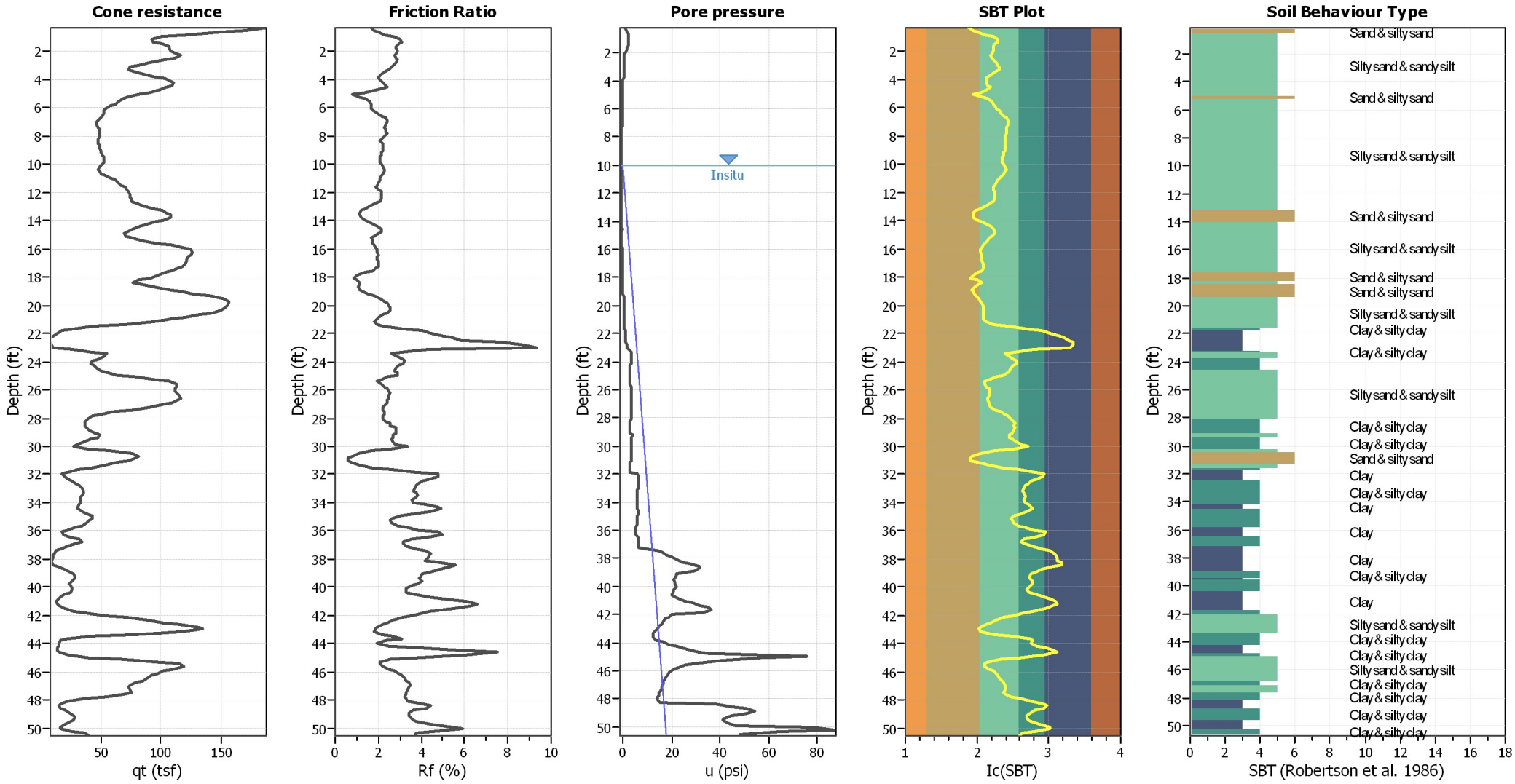






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



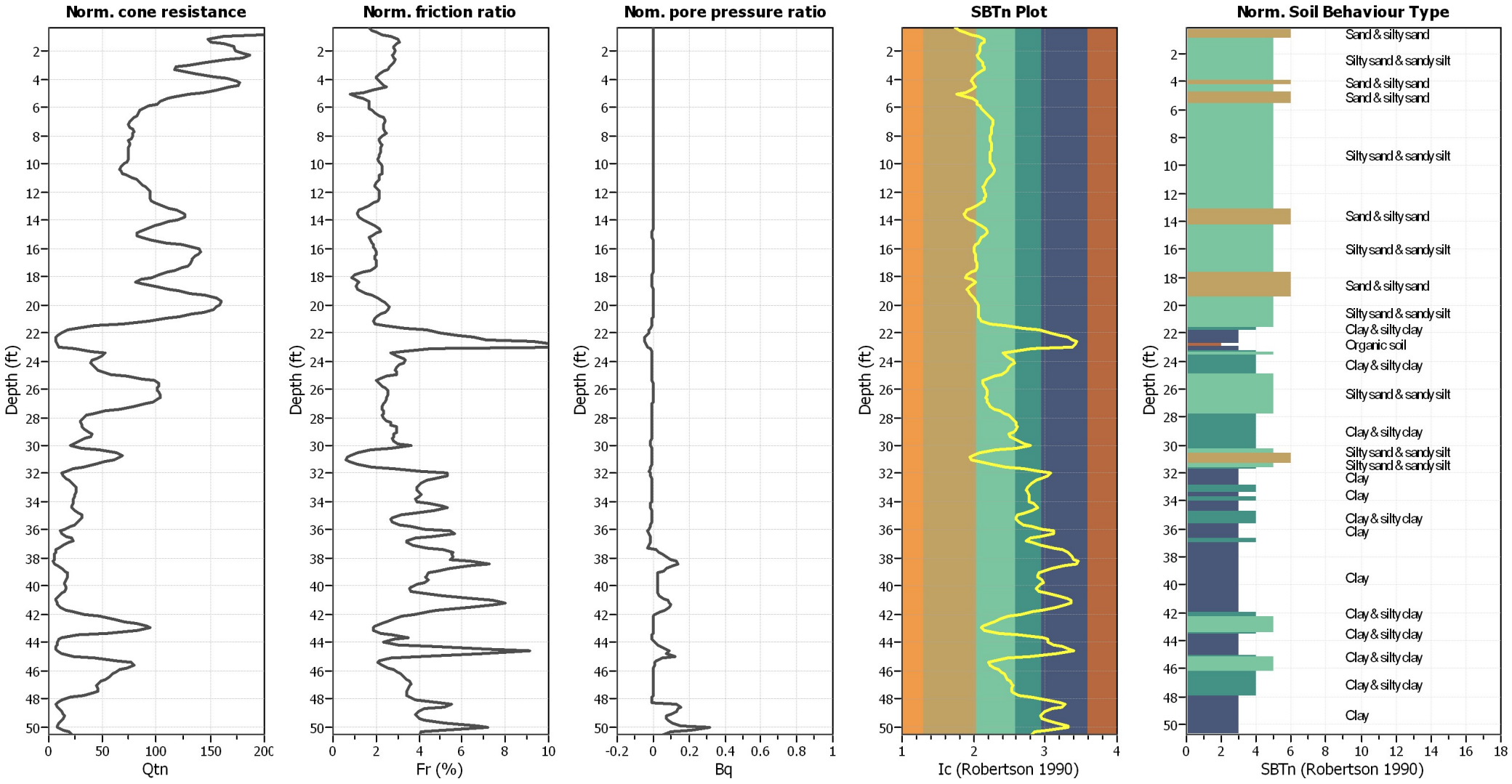
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	17.00 ft	Fill weight:	120.00 lb/ft^3
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.72	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.45	Use fill:	Yes	Limit depth applied:	No
Depth to water table (insitu):	10.00 ft	Fill height:	10.00 ft	Limit depth:	N/A

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



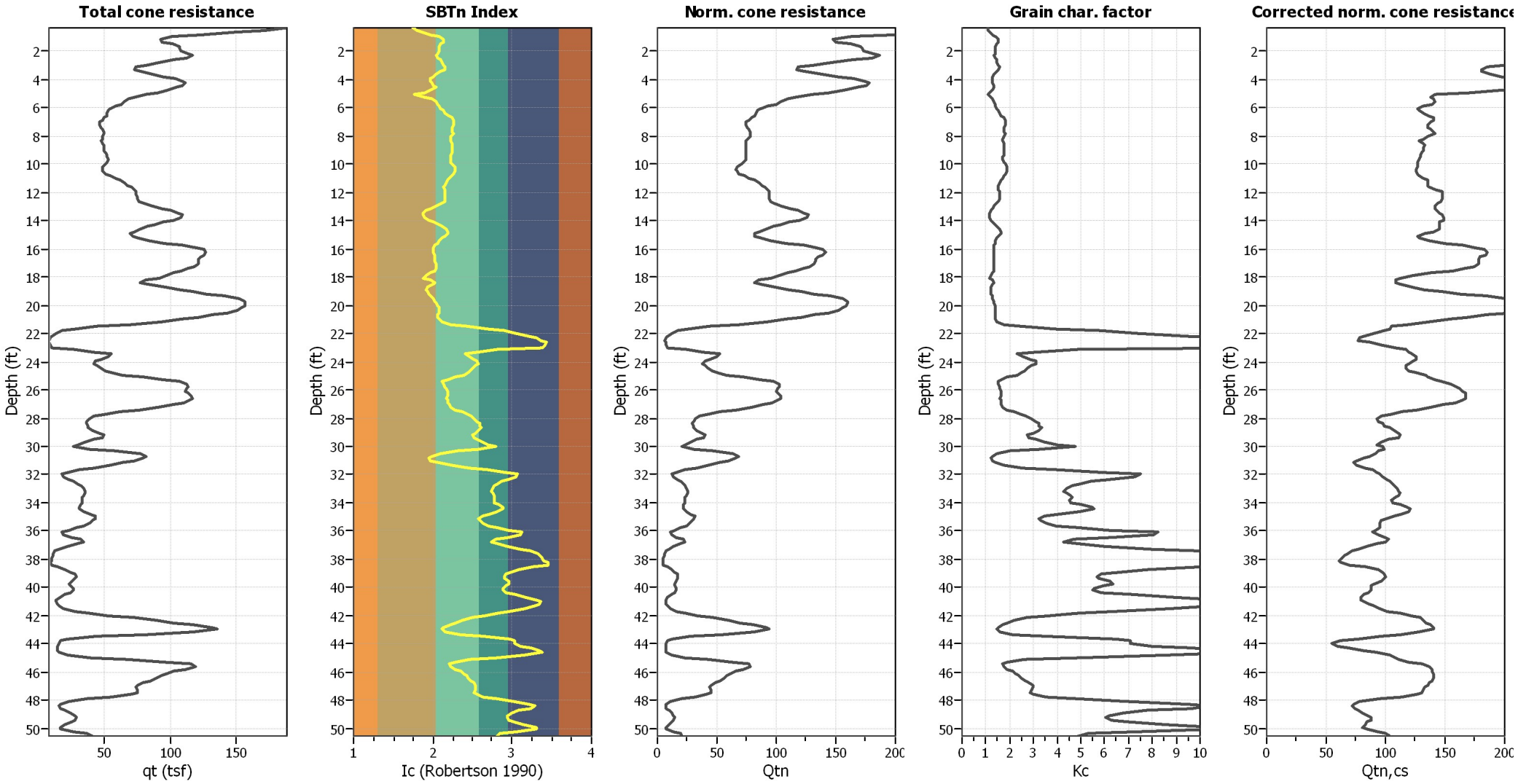
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Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.72	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.45	Use fill:	Yes	Limit depth applied:	No
Depth to water table (insitu):	10.00 ft	Fill height:	10.00 ft	Limit depth:	N/A

SBTn legend

1. Sensitive fine grained
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3. Clay to silty clay
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9. Very stiff fine grained

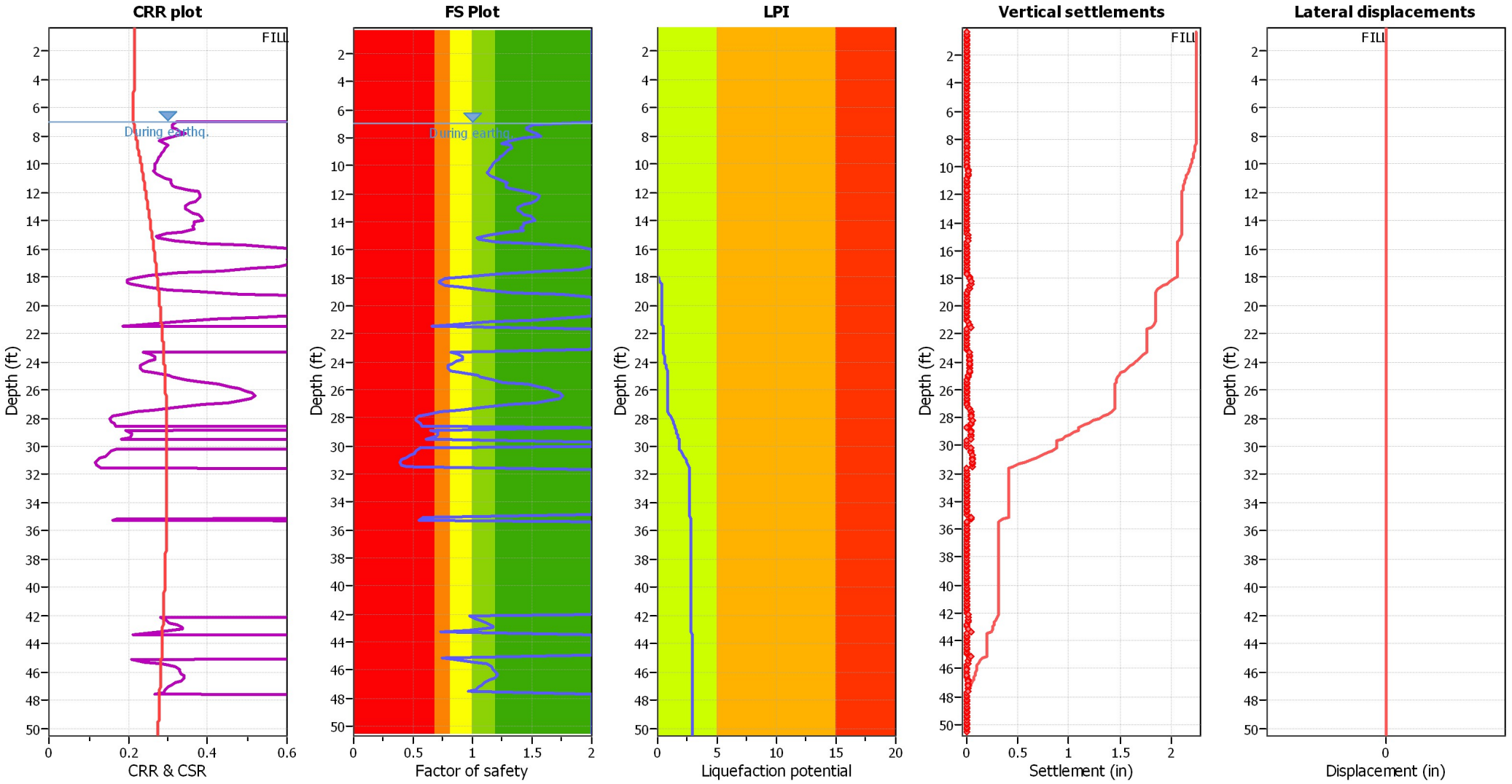
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	17.00 ft	Fill weight:	120.00 lb/ft^3
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.72	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.45	Use fill:	Yes	Limit depth applied:	No
Depth to water table (insitu):	10.00 ft	Fill height:	10.00 ft	Limit depth:	N/A

Liquefaction analysis overall plots



Input parameters and analysis data

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Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.72	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.45	Use fill:	Yes	Limit depth applied:	No
Depth to water table (insitu):	10.00 ft	Fill height:	10.00 ft	Limit depth:	N/A

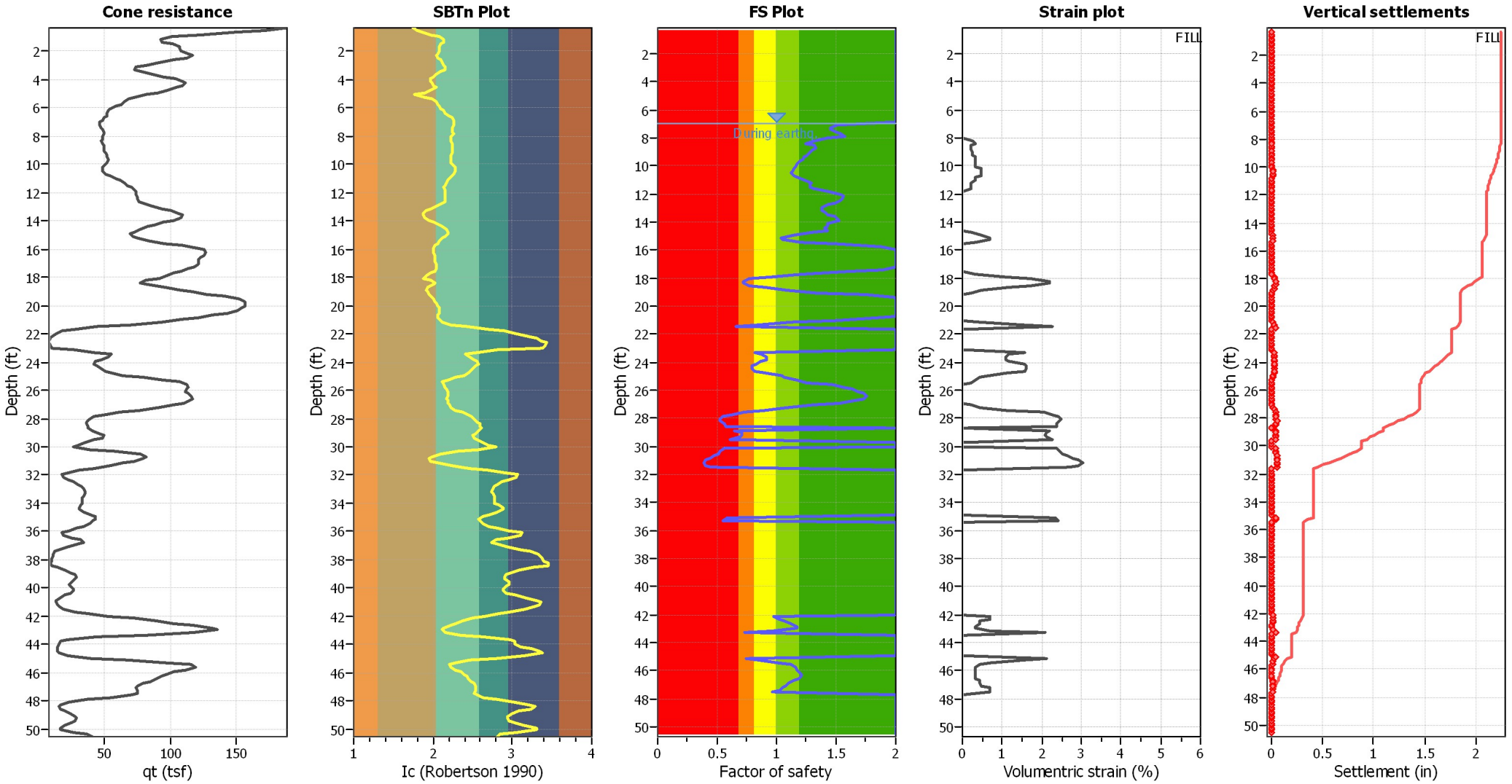
F.S. color scheme

- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

LPI color scheme

- Very high risk
- High risk
- Low risk

Estimation of post-earthquake settlements



Abbreviations

q_t:	Total cone resistance (cone resistance q_c corrected for pore water effects)
I_c:	Soil Behaviour Type Index
FS:	Calculated Factor of Safety against liquefaction
Volumentric strain:	Post-liquefaction volumentric strain

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LIQUEFACTION ANALYSIS REPORT

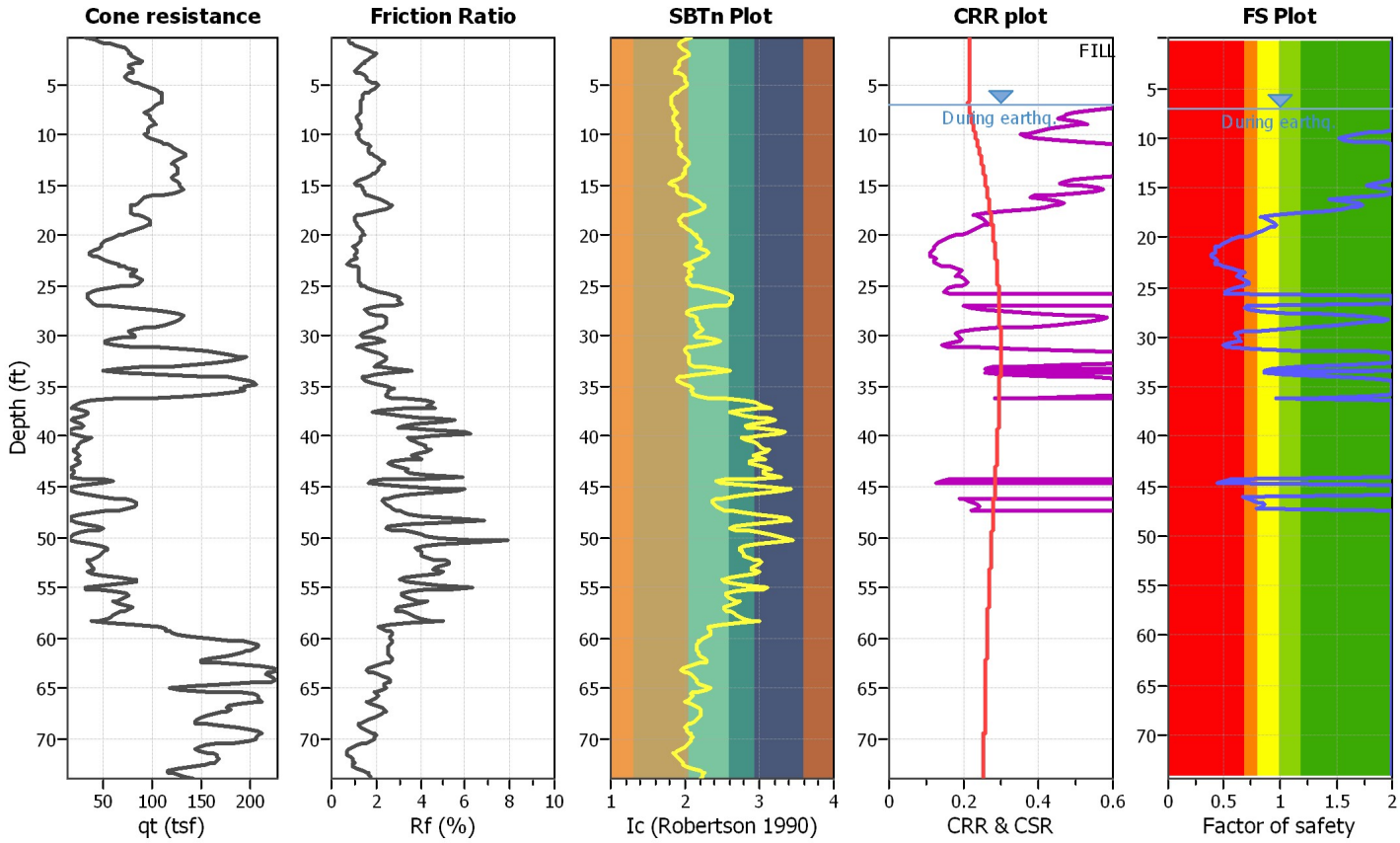
Project title : Zephyr Oceanside

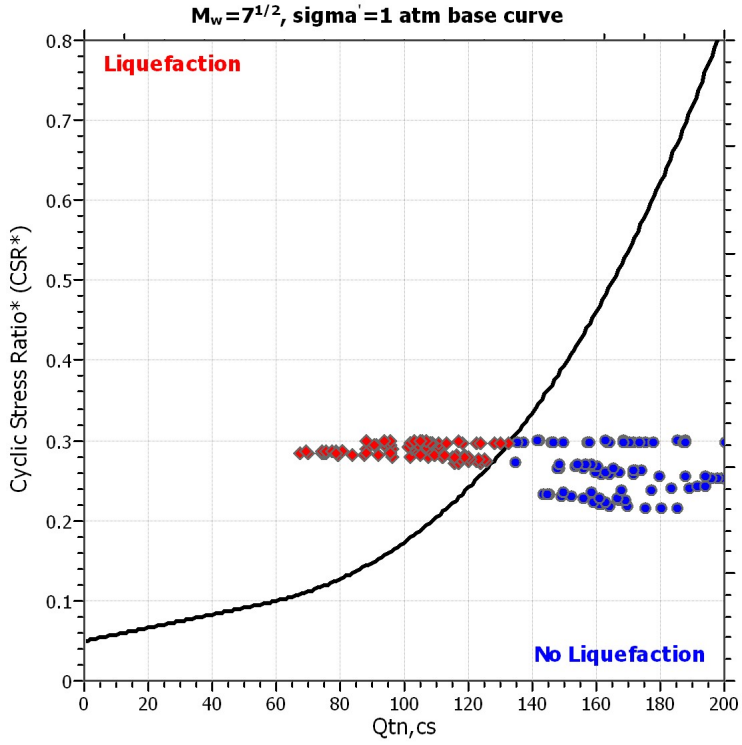
Location : Hwy 76 and Foussat Rd.,Oceanside, Ca.

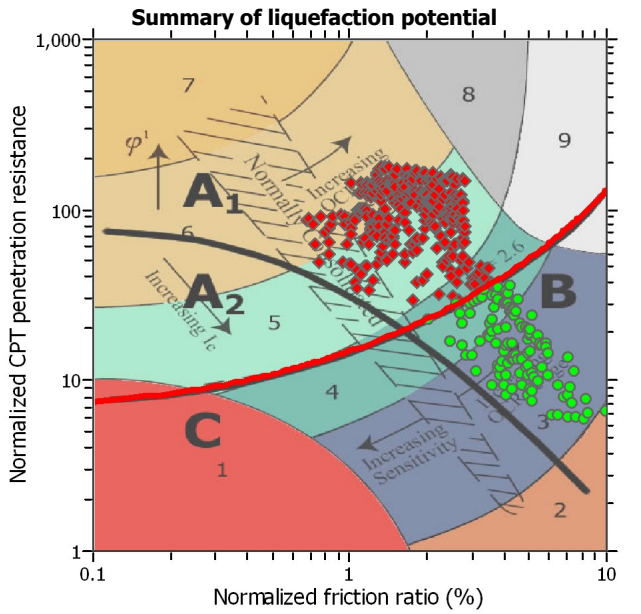
CPT file : CPT-05

Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	10.00 ft	Use fill:	Yes	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	17.00 ft	Fill height:	10.00 ft	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	120.00 lb/ft^3	Limit depth:	60.00 ft
Earthquake magnitude M_w:	6.72	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.45	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

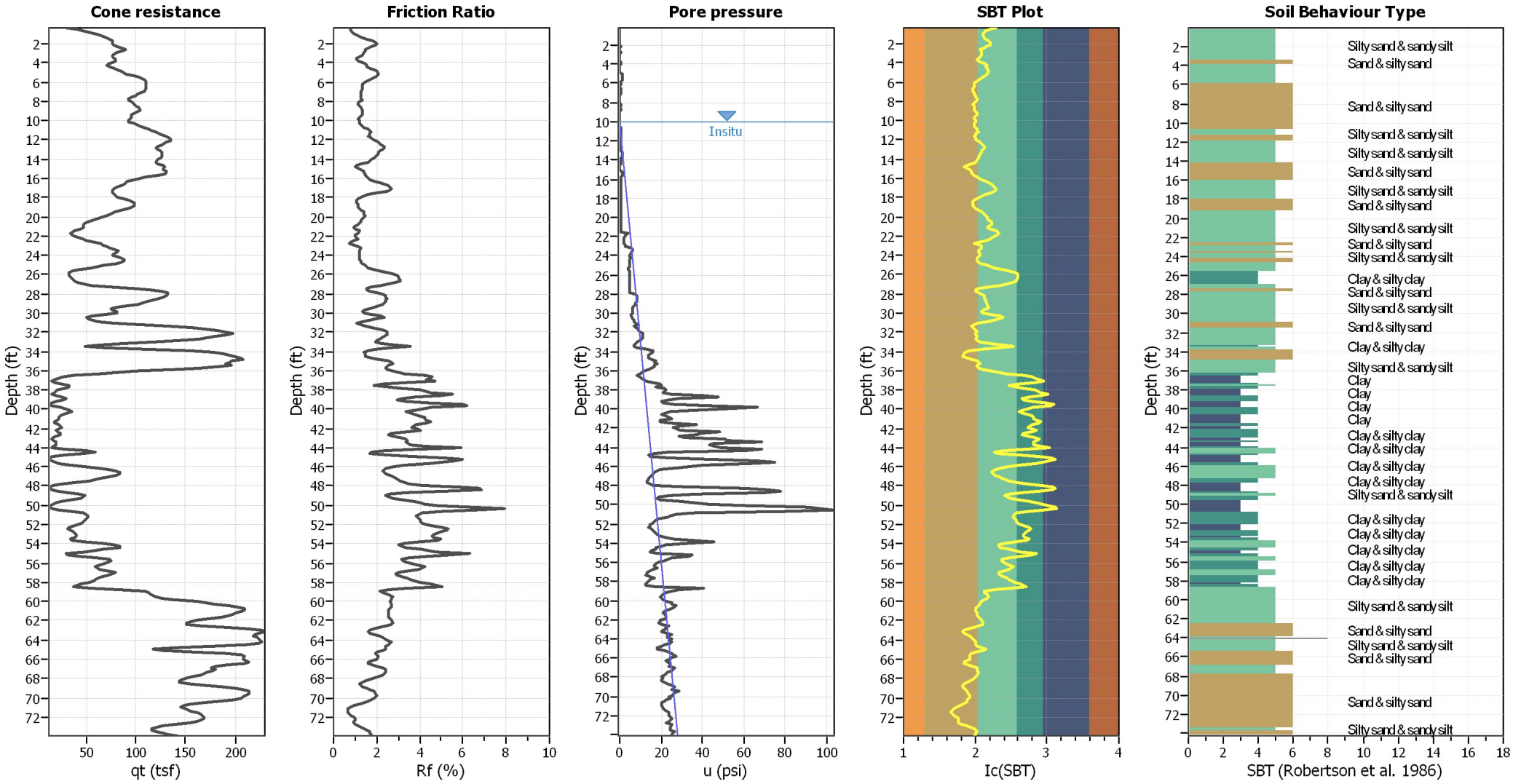






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Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



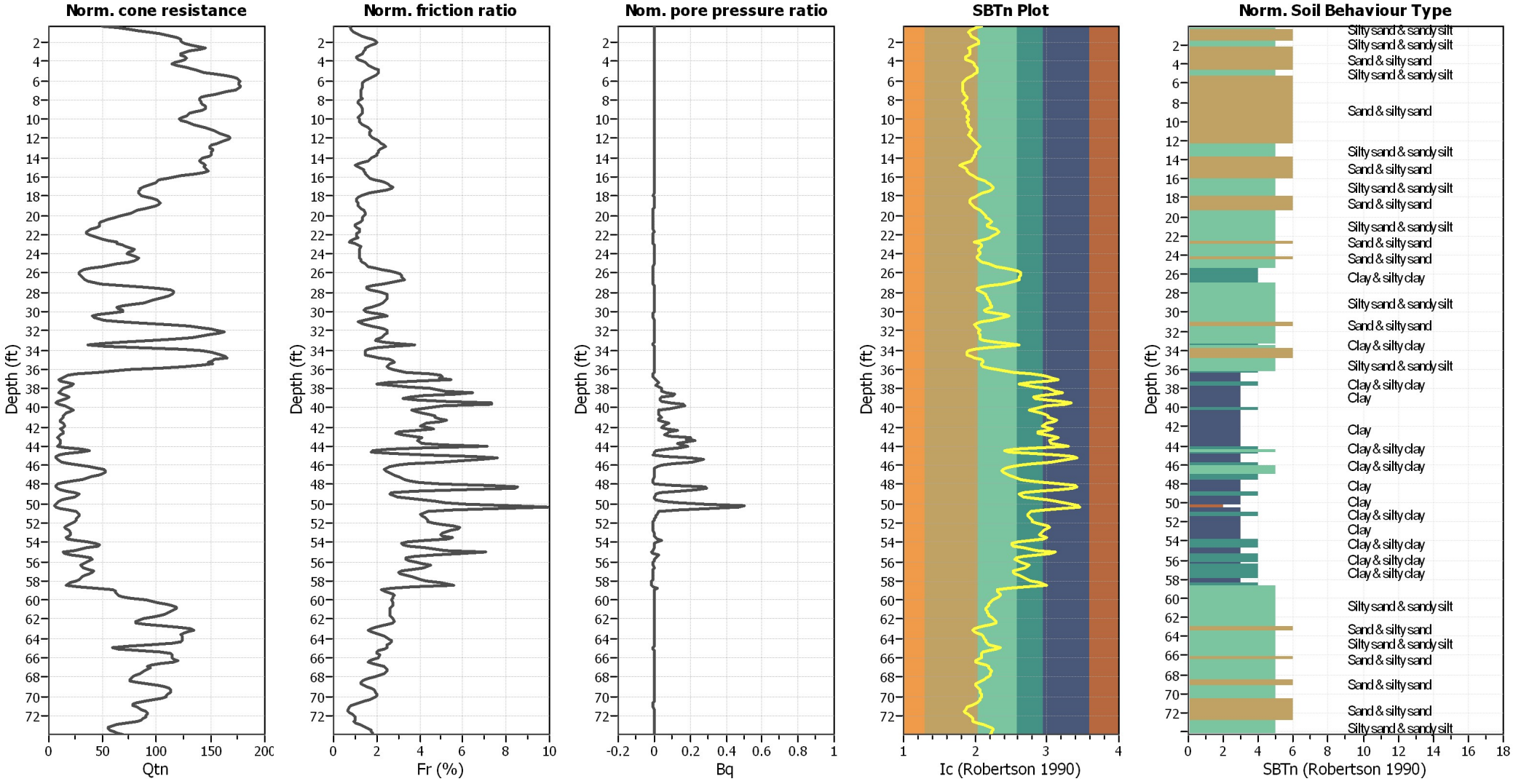
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	17.00 ft	Fill weight:	120.00 lb/ft^3
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.72	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.45	Use fill:	Yes	Limit depth applied:	Yes
Depth to water table (insitu):	10.00 ft	Fill height:	10.00 ft	Limit depth:	60.00 ft

SBT legend

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2. Organic material
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5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



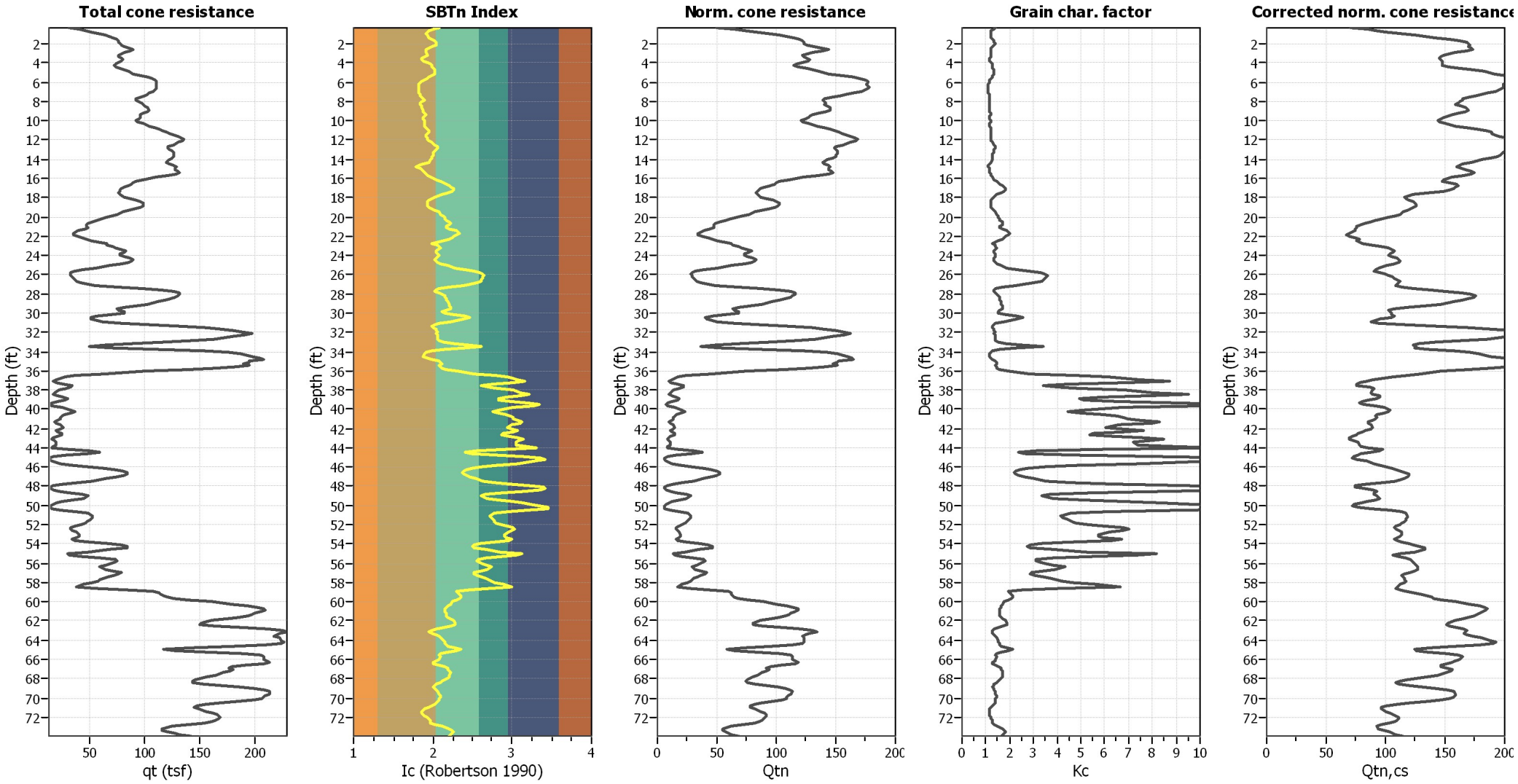
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	17.00 ft	Fill weight:	120.00 lb/ft^3
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.72	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.45	Use fill:	Yes	Limit depth applied:	Yes
Depth to water table (insitu):	10.00 ft	Fill height:	10.00 ft	Limit depth:	60.00 ft

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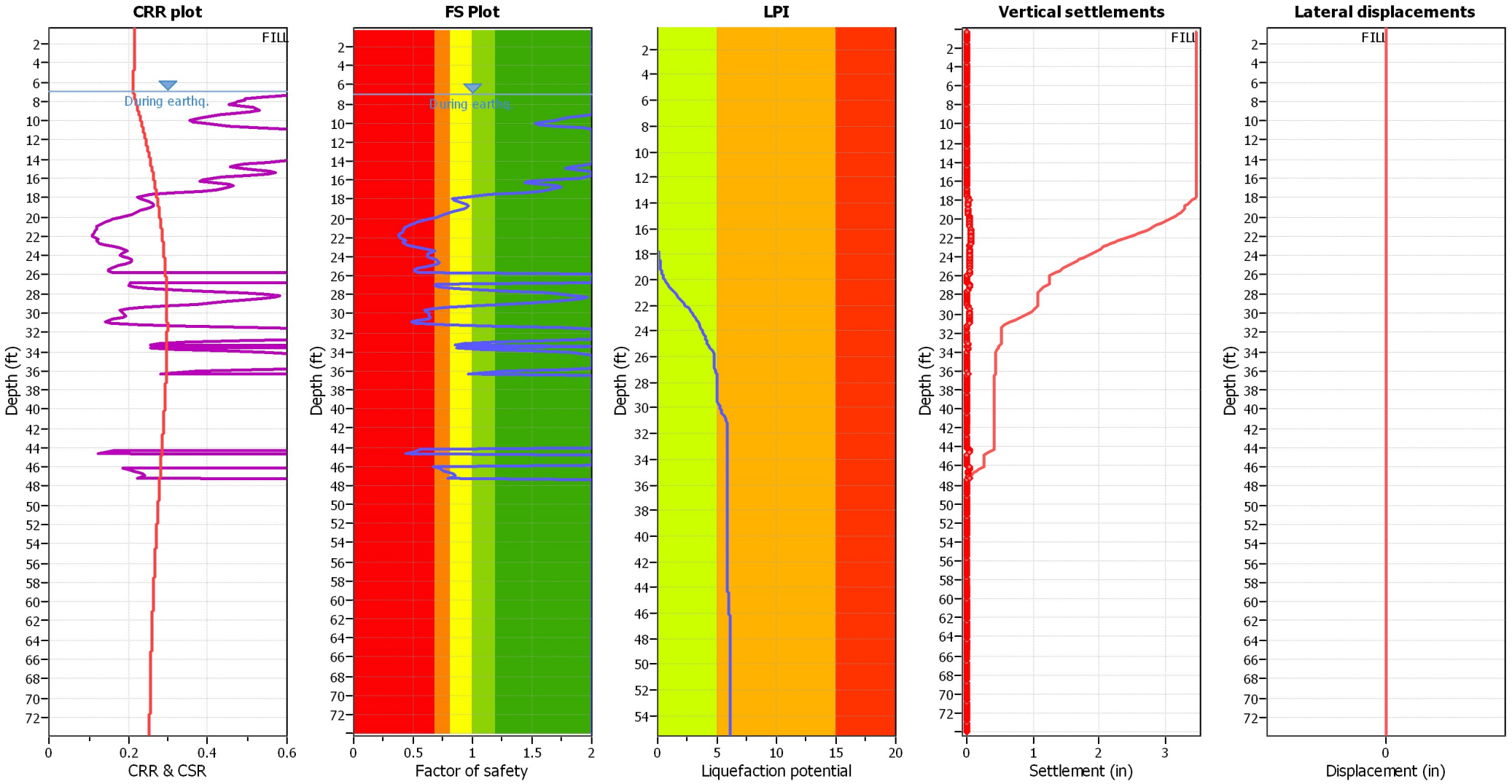
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	17.00 ft	Fill weight:	120.00 lb/ft^3
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.72	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.45	Use fill:	Yes	Limit depth applied:	Yes
Depth to water table (insitu):	10.00 ft	Fill height:	10.00 ft	Limit depth:	60.00 ft

Liquefaction analysis overall plots



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	17.00 ft	Fill weight:	120.00 lb/ft^3
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.72	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.45	Use fill:	Yes	Limit depth applied:	Yes
Depth to water table (insitu):	10.00 ft	Fill height:	10.00 ft	Limit depth:	60.00 ft

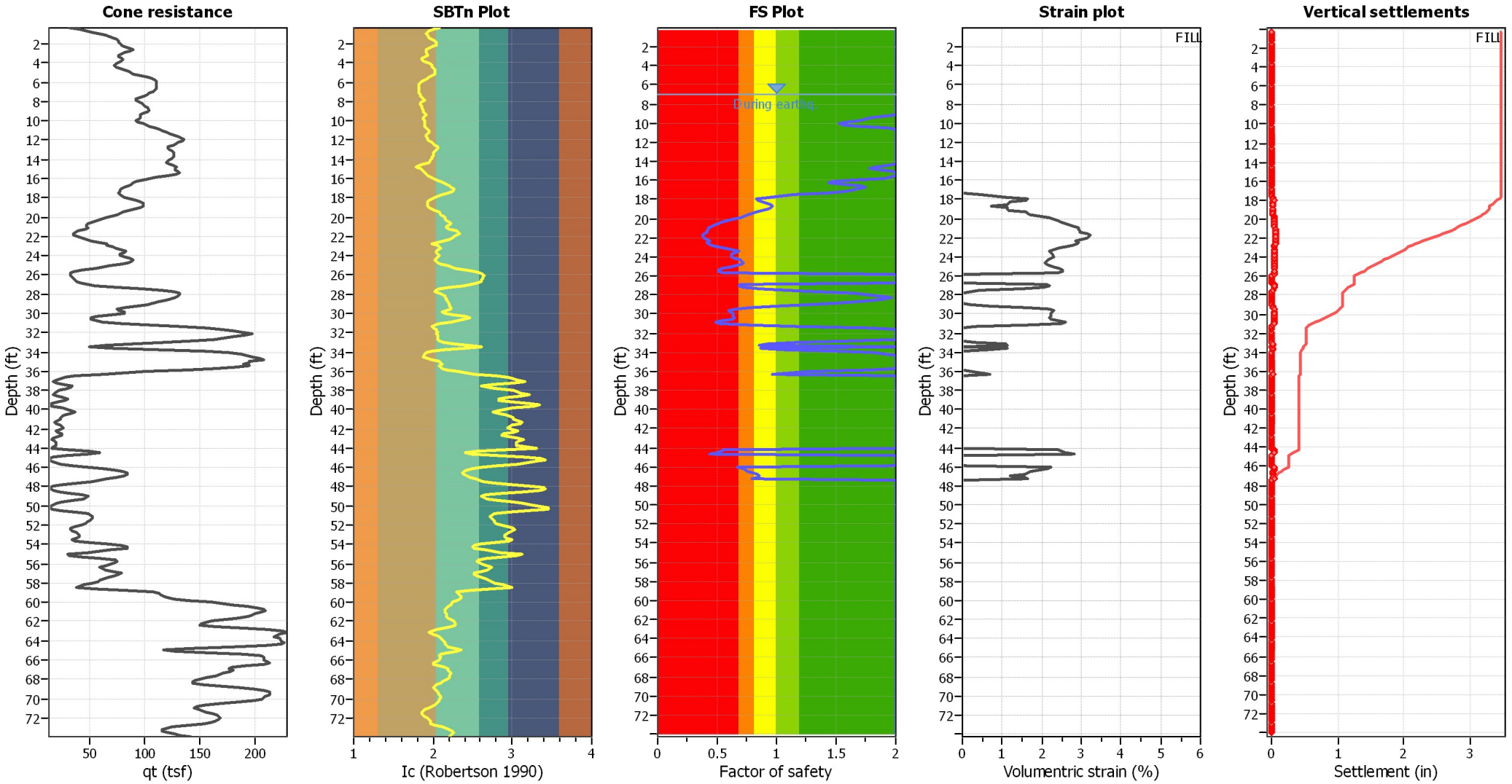
F.S. color scheme

- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

LPI color scheme

- Very high risk
- High risk
- Low risk

Estimation of post-earthquake settlements



Abbreviations

q_t:	Total cone resistance (cone resistance q_c corrected for pore water effects)
I_c:	Soil Behaviour Type Index
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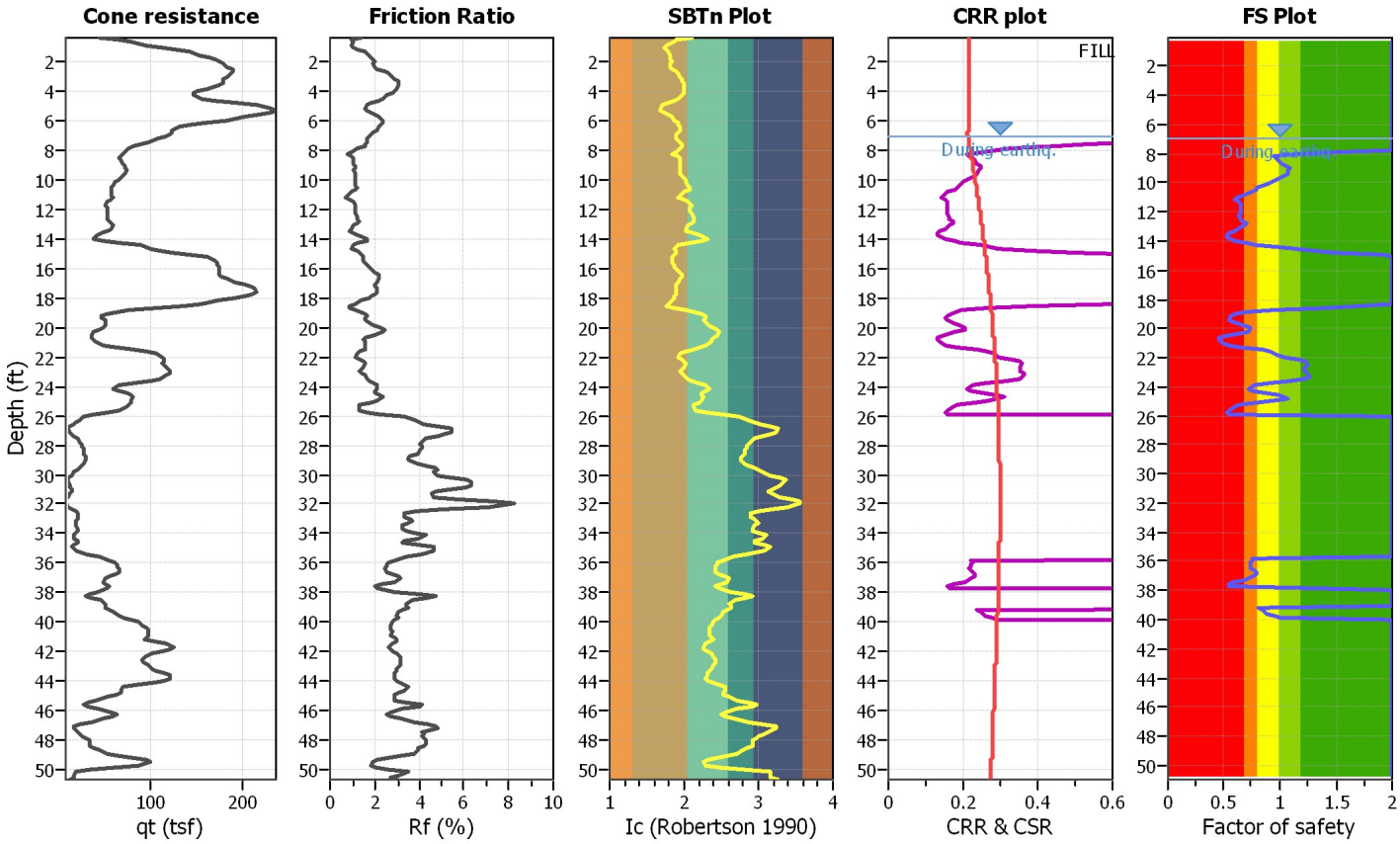
Project title : Zephyr Oceanside

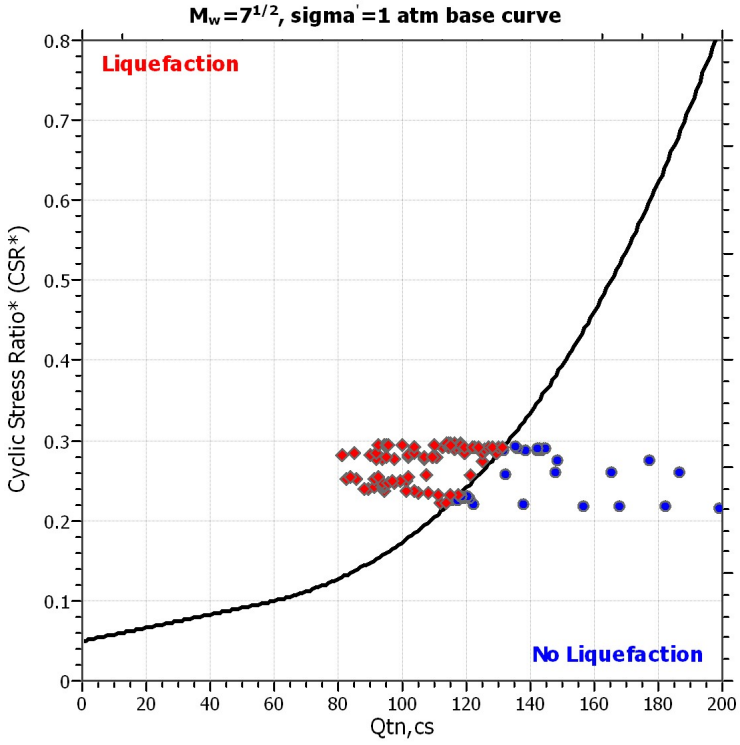
Location : Hwy 76 & N Foussat Oceanside

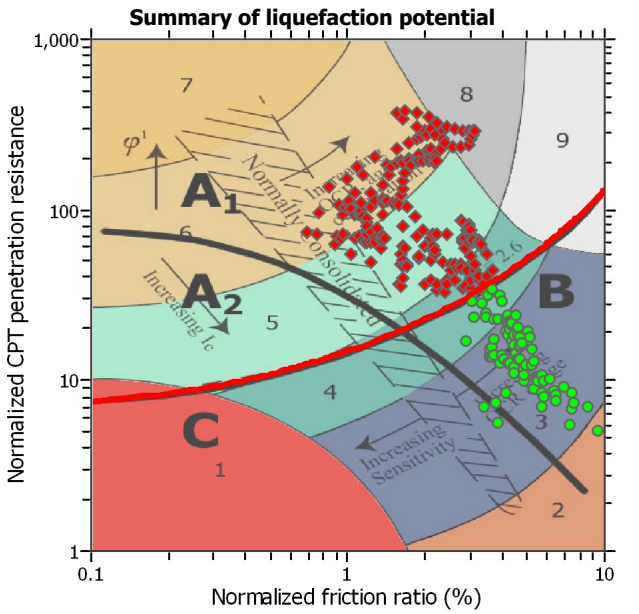
CPT file : CPT-06

Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	10.00 ft	Use fill:	Yes	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	17.00 ft	Fill height:	10.00 ft	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	120.00 lb/ft^3	Limit depth:	50.00 ft
Earthquake magnitude M_w:	6.72	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.45	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

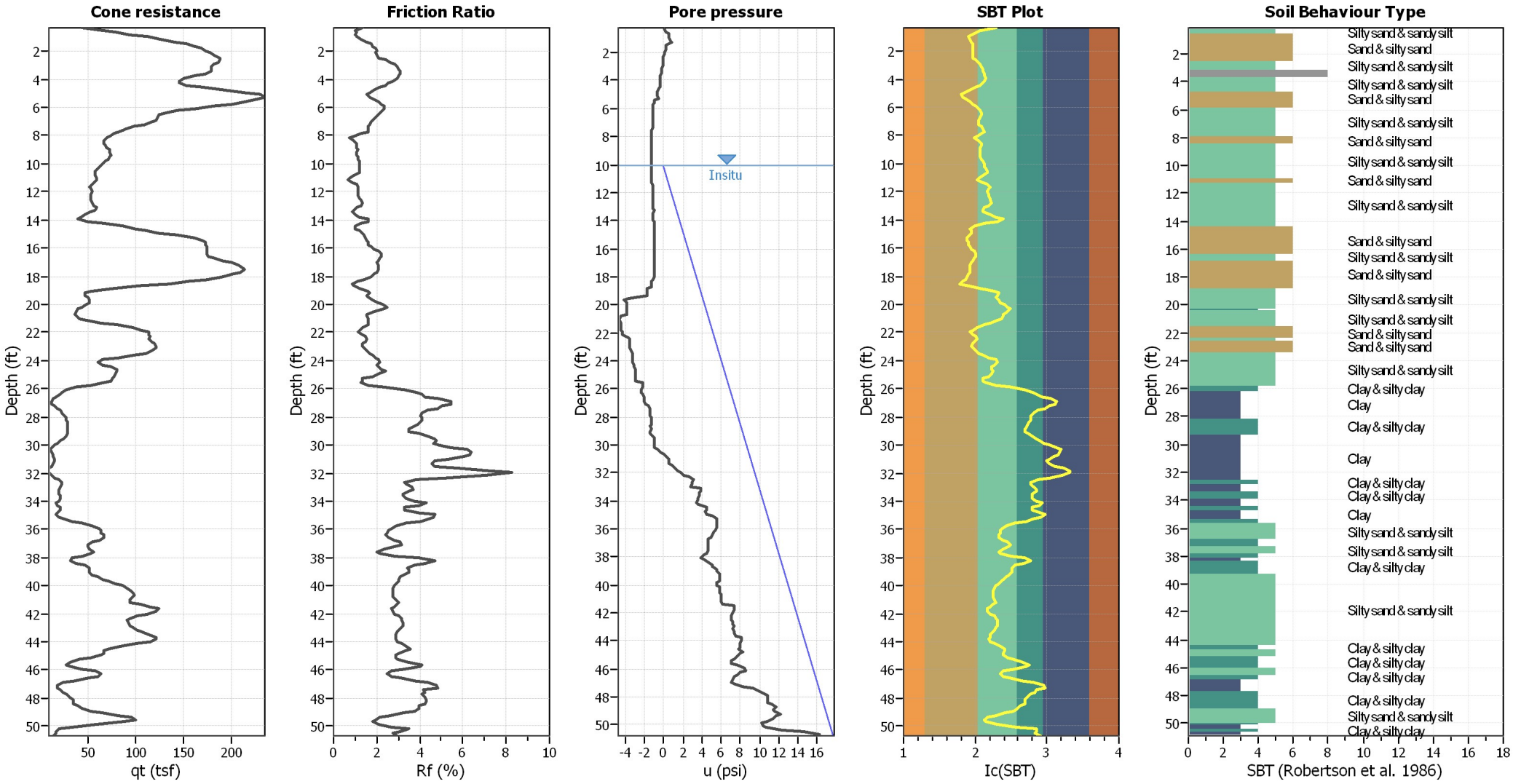






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CPT basic interpretation plots



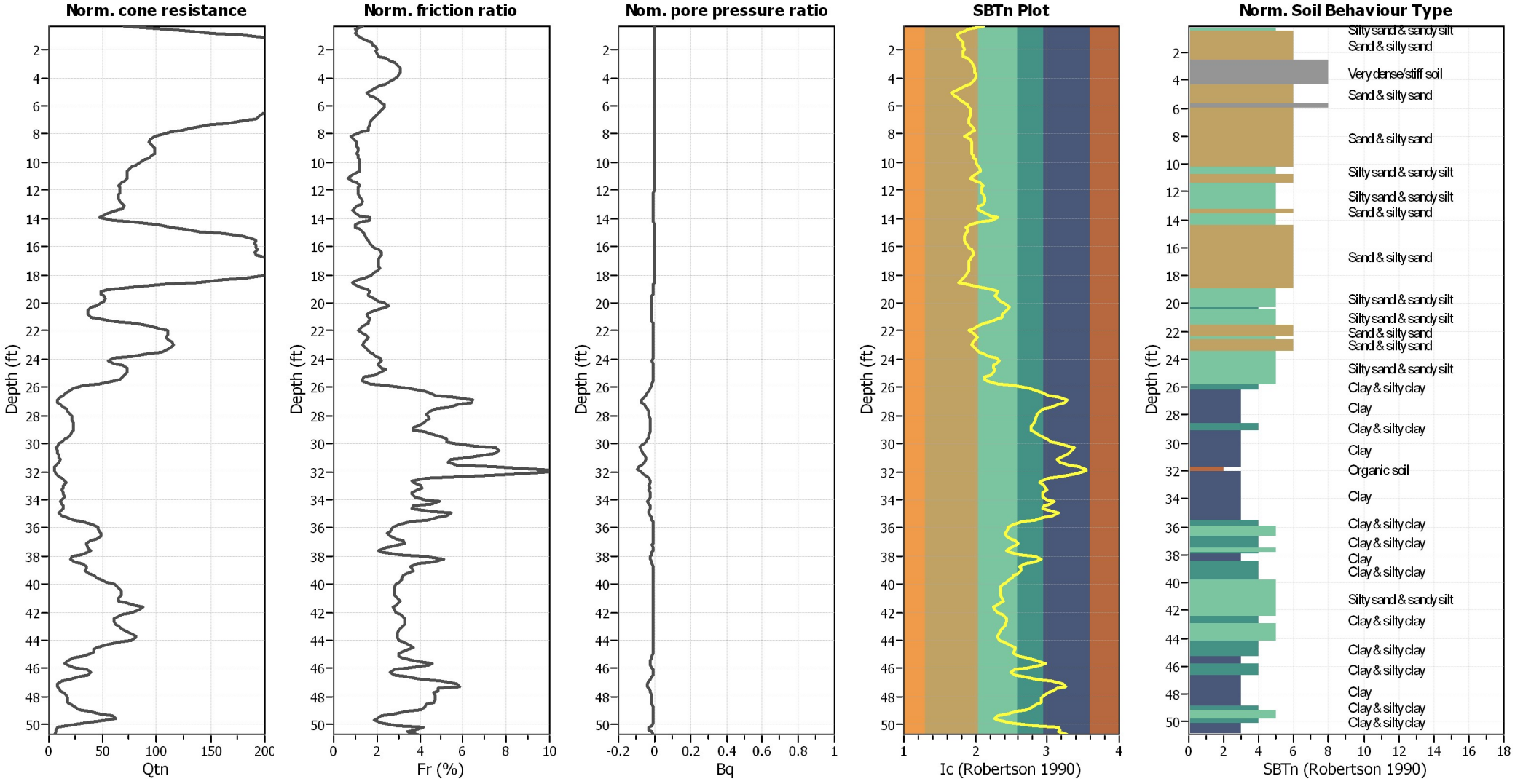
Input parameters and analysis data

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Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.72	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.45	Use fill:	Yes	Limit depth applied:	Yes
Depth to water table (insitu):	10.00 ft	Fill height:	10.00 ft	Limit depth:	50.00 ft

SBT legend

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CPT basic interpretation plots (normalized)



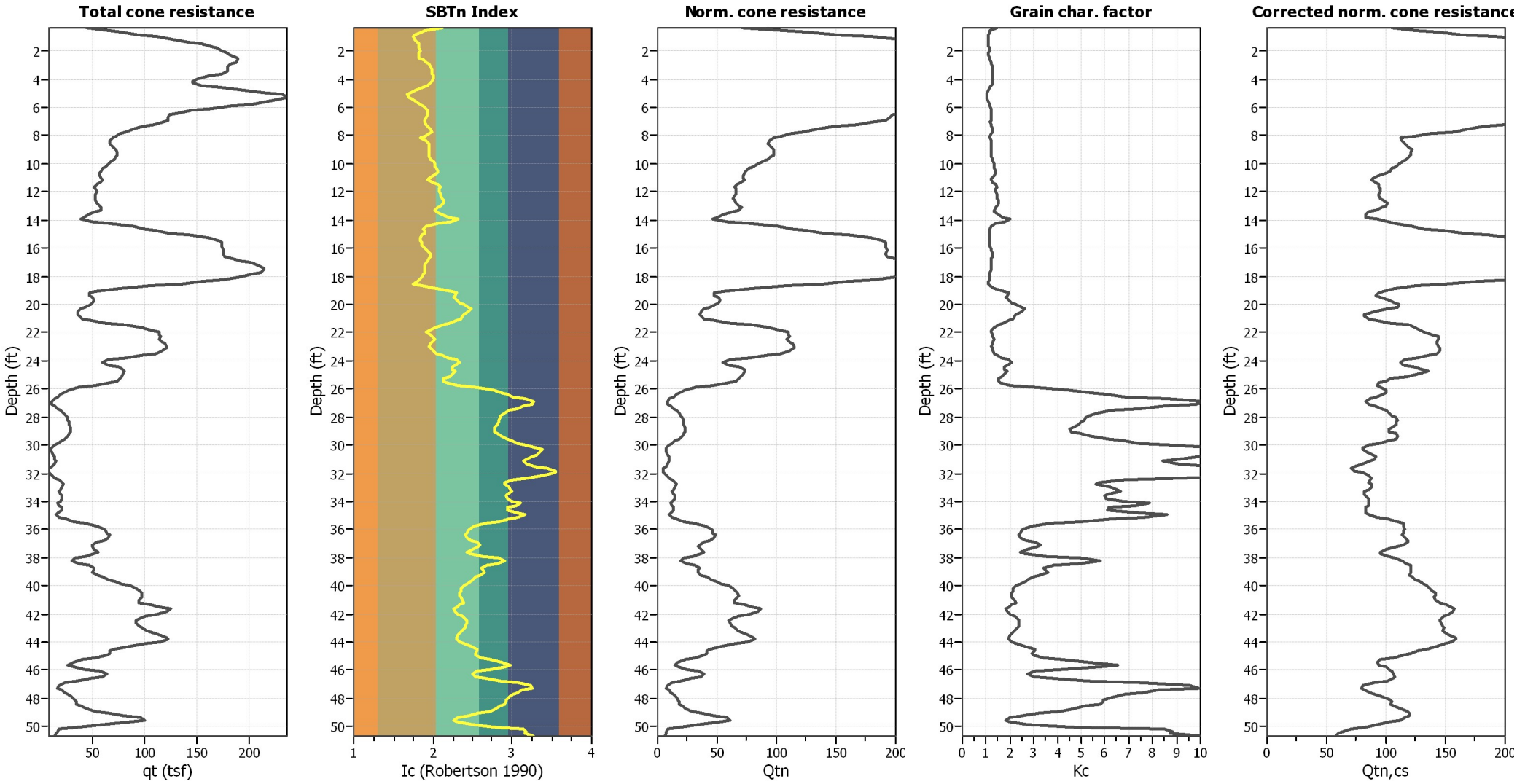
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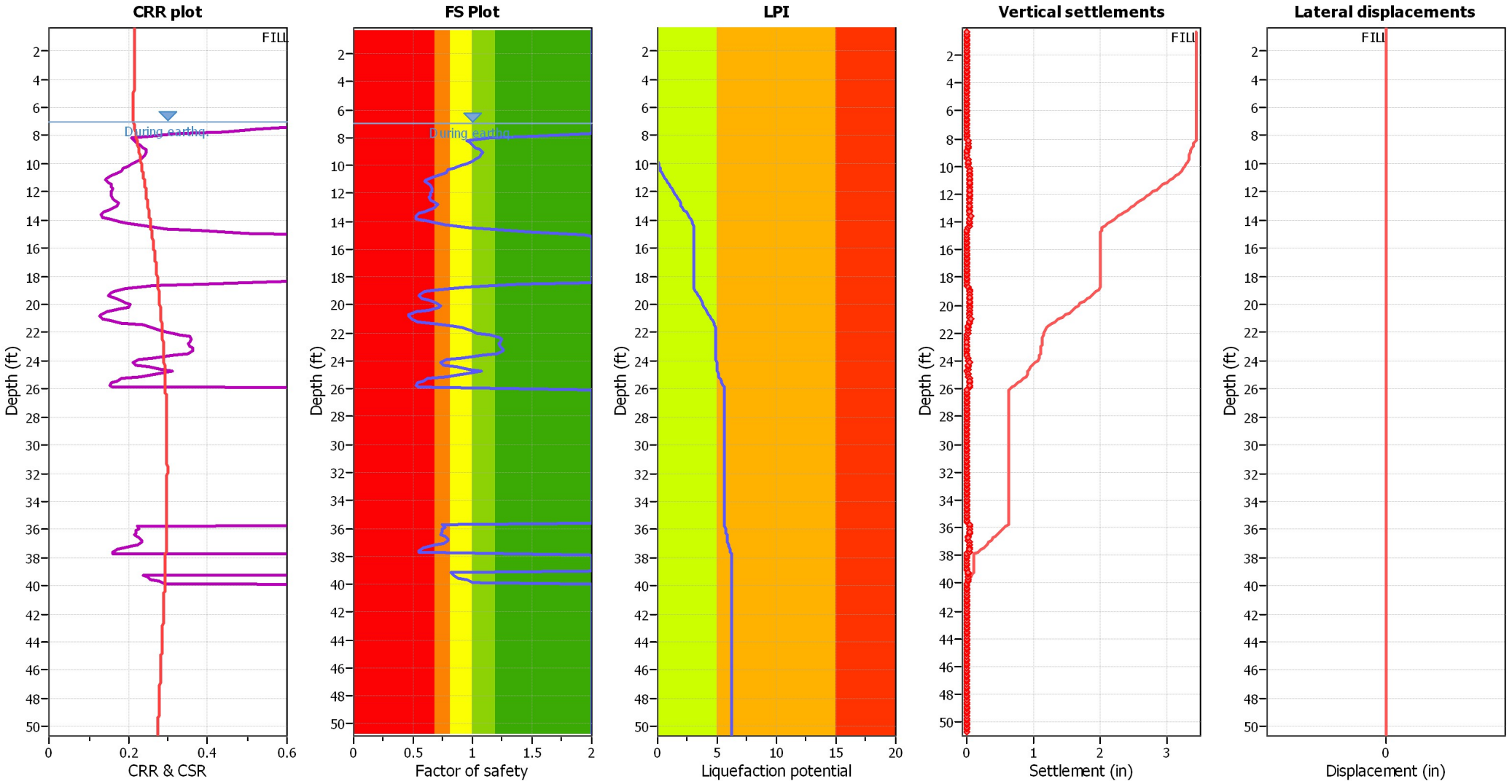
Liquefaction analysis overall plots (intermediate results)



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Liquefaction analysis overall plots



Input parameters and analysis data

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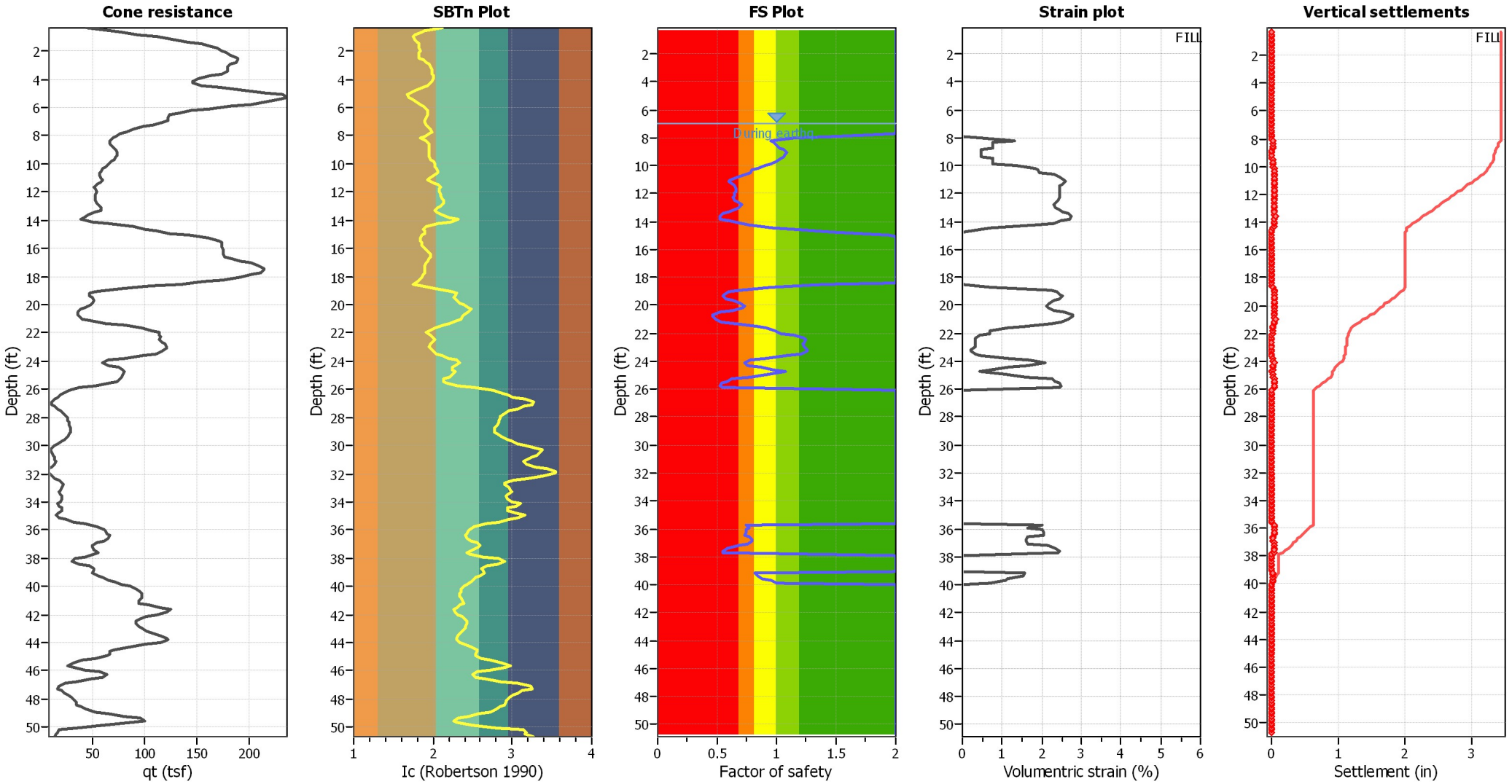
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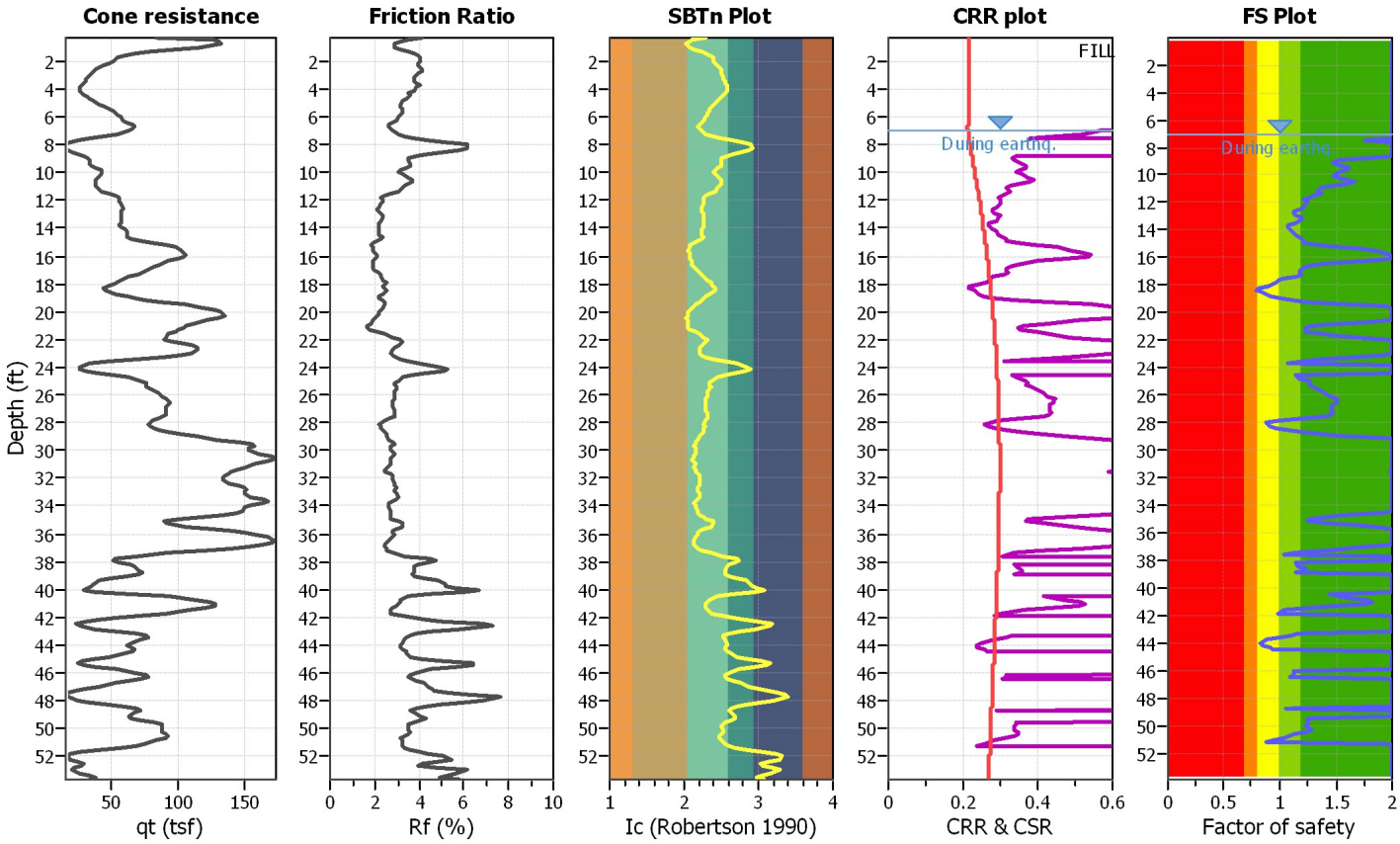
Project title : Zephyr Oceanside

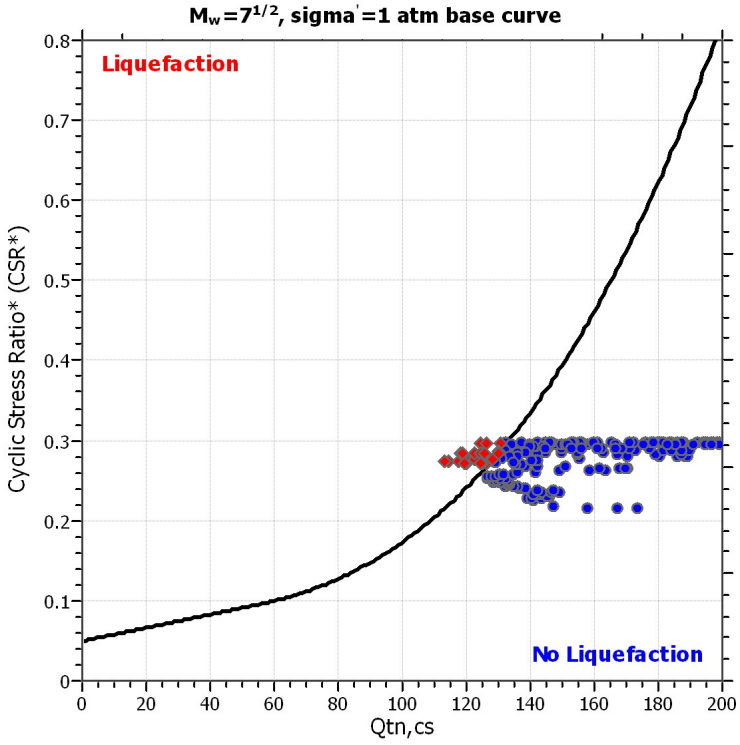
Location : Hwy 76 and Foussat Rd.,Oceanside, Ca.

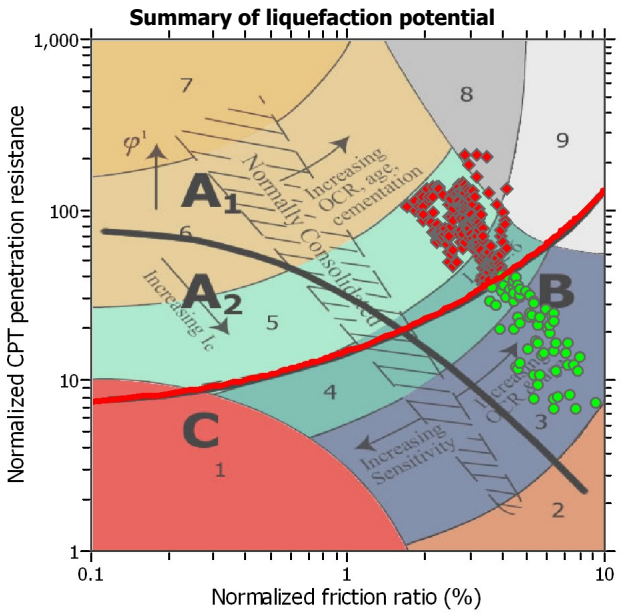
CPT file : CPT-07

Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	10.00 ft	Use fill:	Yes	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	17.00 ft	Fill height:	10.00 ft	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	120.00 lb/ft^3	Limit depth:	N/A
Earthquake magnitude M_w:	6.72	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.45	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

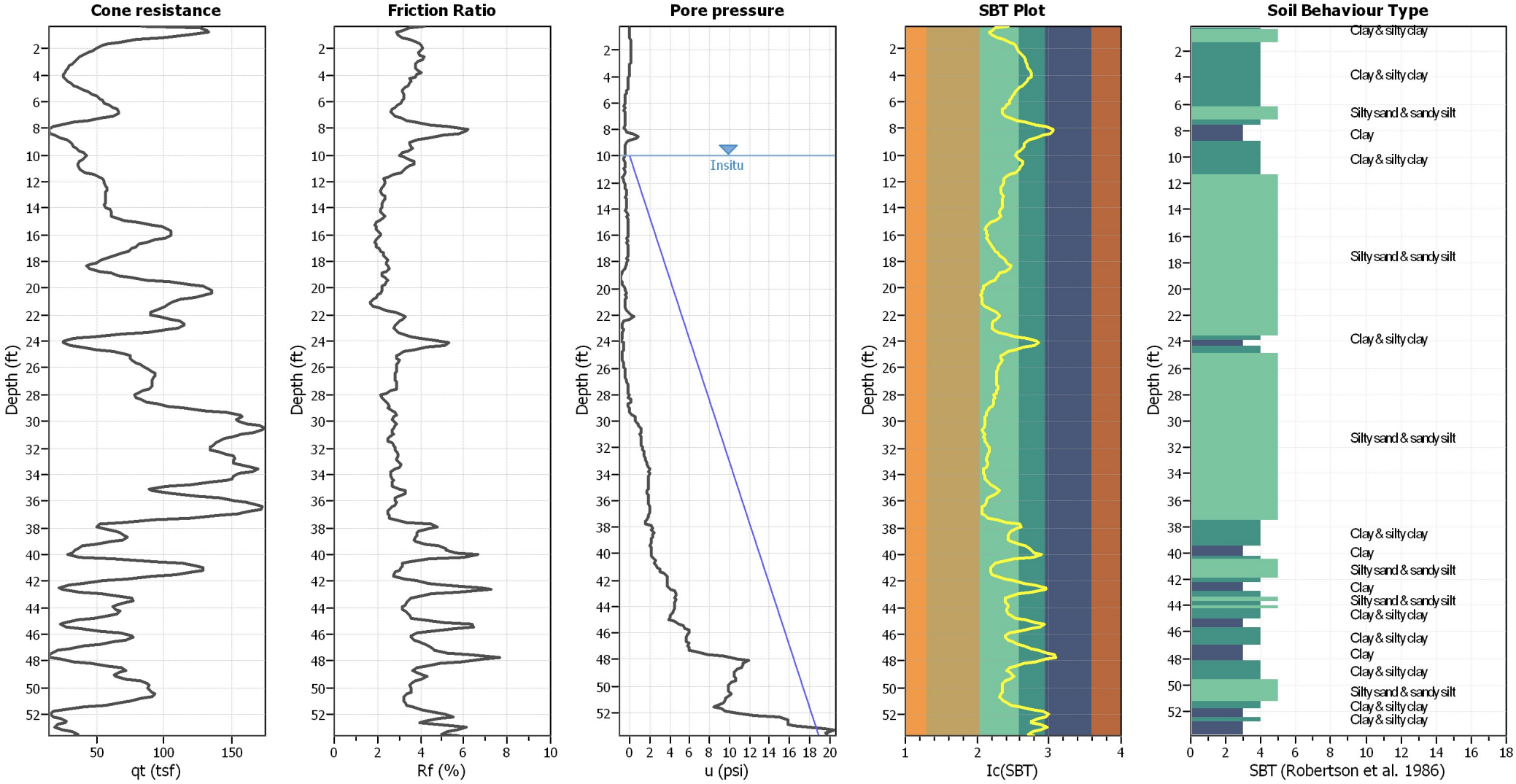






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



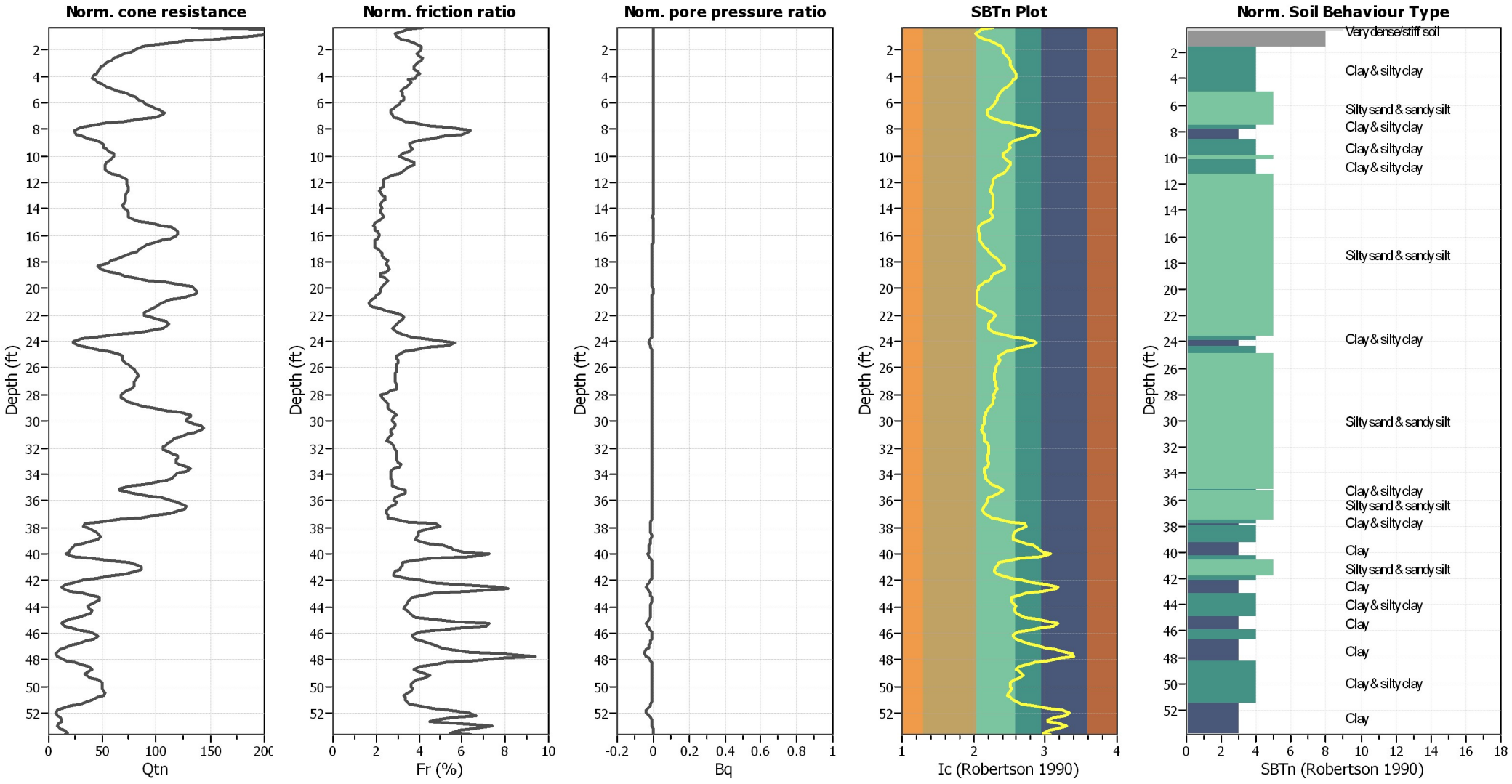
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	17.00 ft	Fill weight:	120.00 lb/ft^3
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.72	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.45	Use fill:	Yes	Limit depth applied:	No
Depth to water table (insitu):	10.00 ft	Fill height:	10.00 ft	Limit depth:	N/A

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



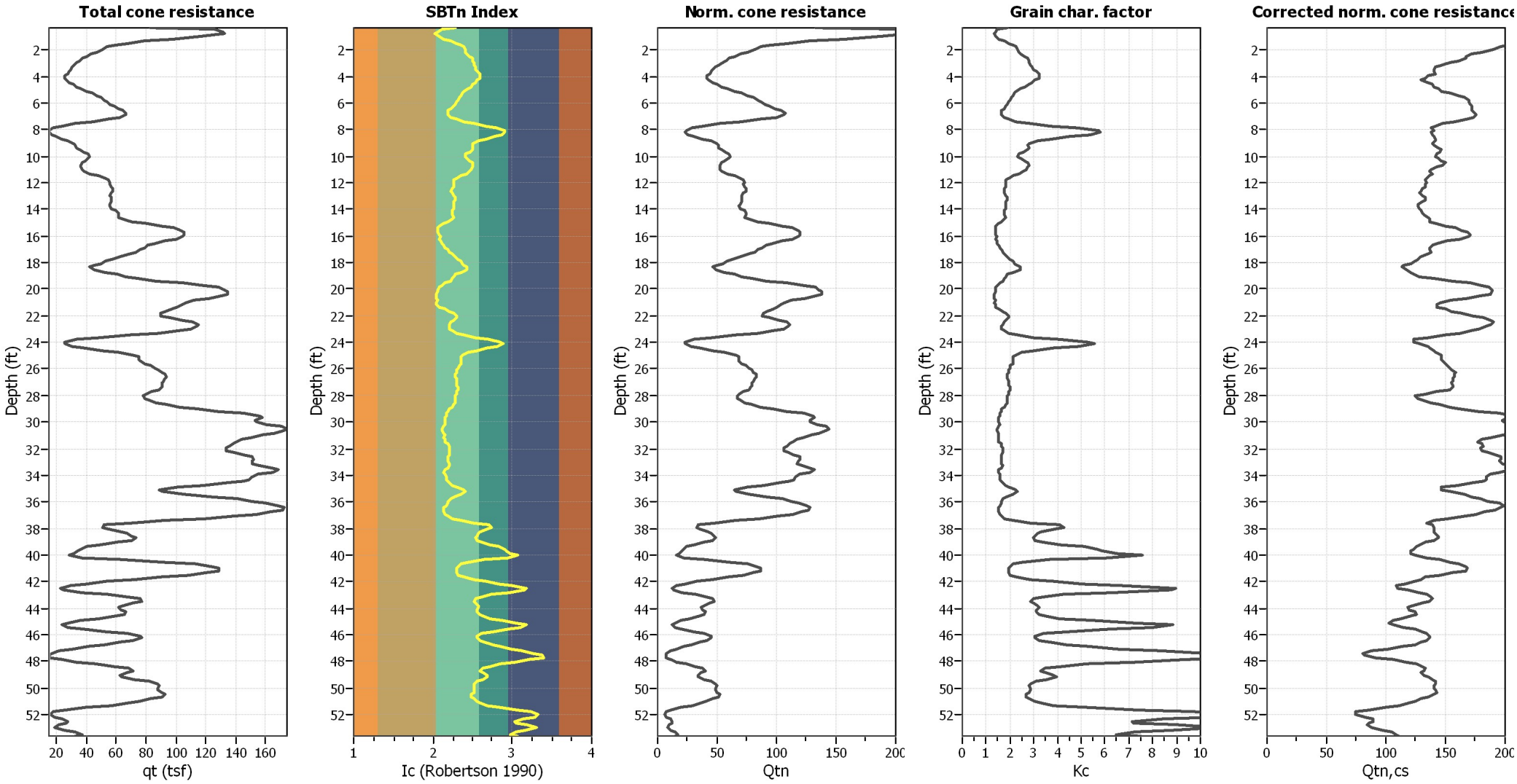
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	17.00 ft	Fill weight:	120.00 lb/ft^3
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.72	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.45	Use fill:	Yes	Limit depth applied:	No
Depth to water table (insitu):	10.00 ft	Fill height:	10.00 ft	Limit depth:	N/A

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

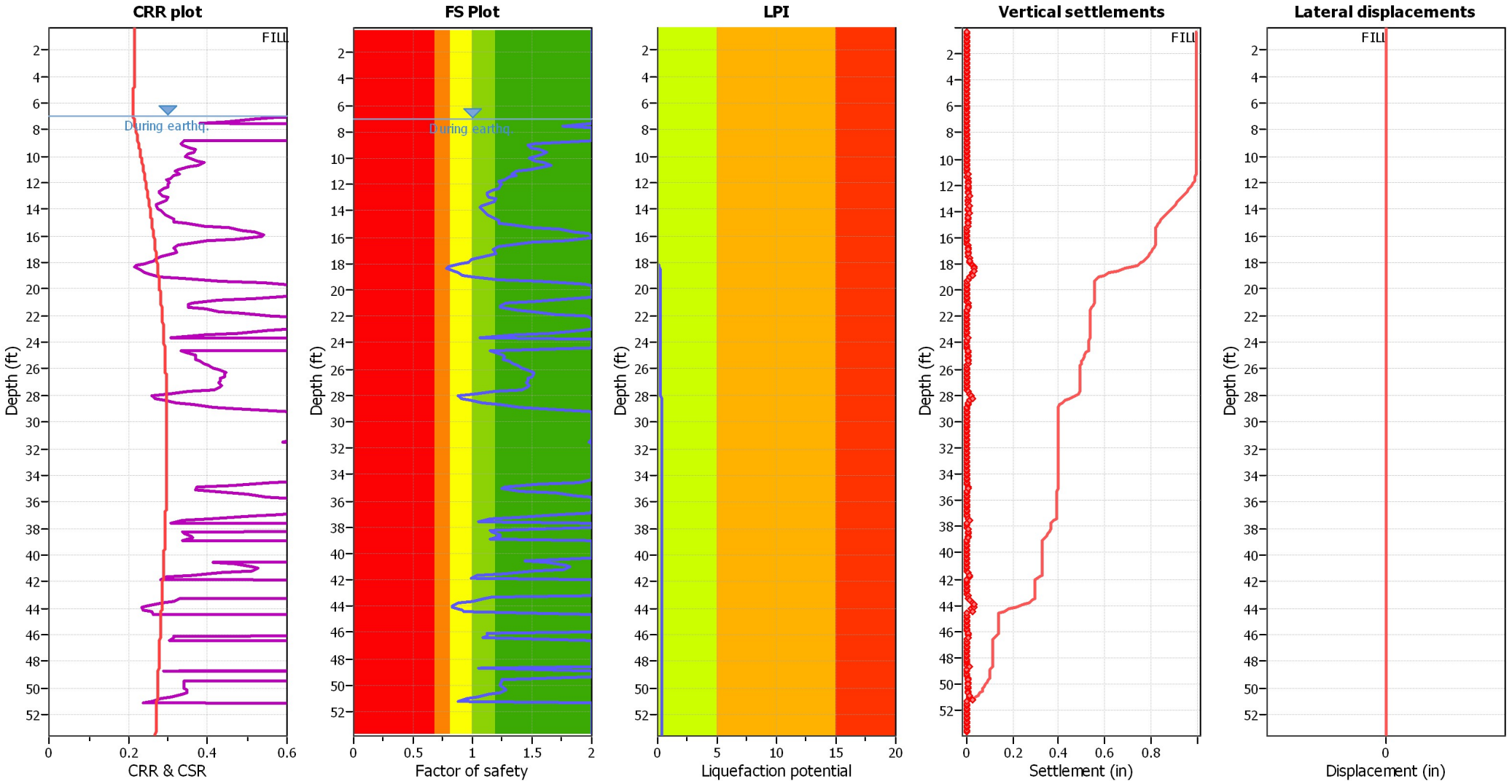
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	17.00 ft	Fill weight:	120.00 lb/ft^3
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.72	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.45	Use fill:	Yes	Limit depth applied:	No
Depth to water table (insitu):	10.00 ft	Fill height:	10.00 ft	Limit depth:	N/A

Liquefaction analysis overall plots



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	17.00 ft	Fill weight:	120.00 lb/ft^3
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.72	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.45	Use fill:	Yes	Limit depth applied:	No
Depth to water table (insitu):	10.00 ft	Fill height:	10.00 ft	Limit depth:	N/A

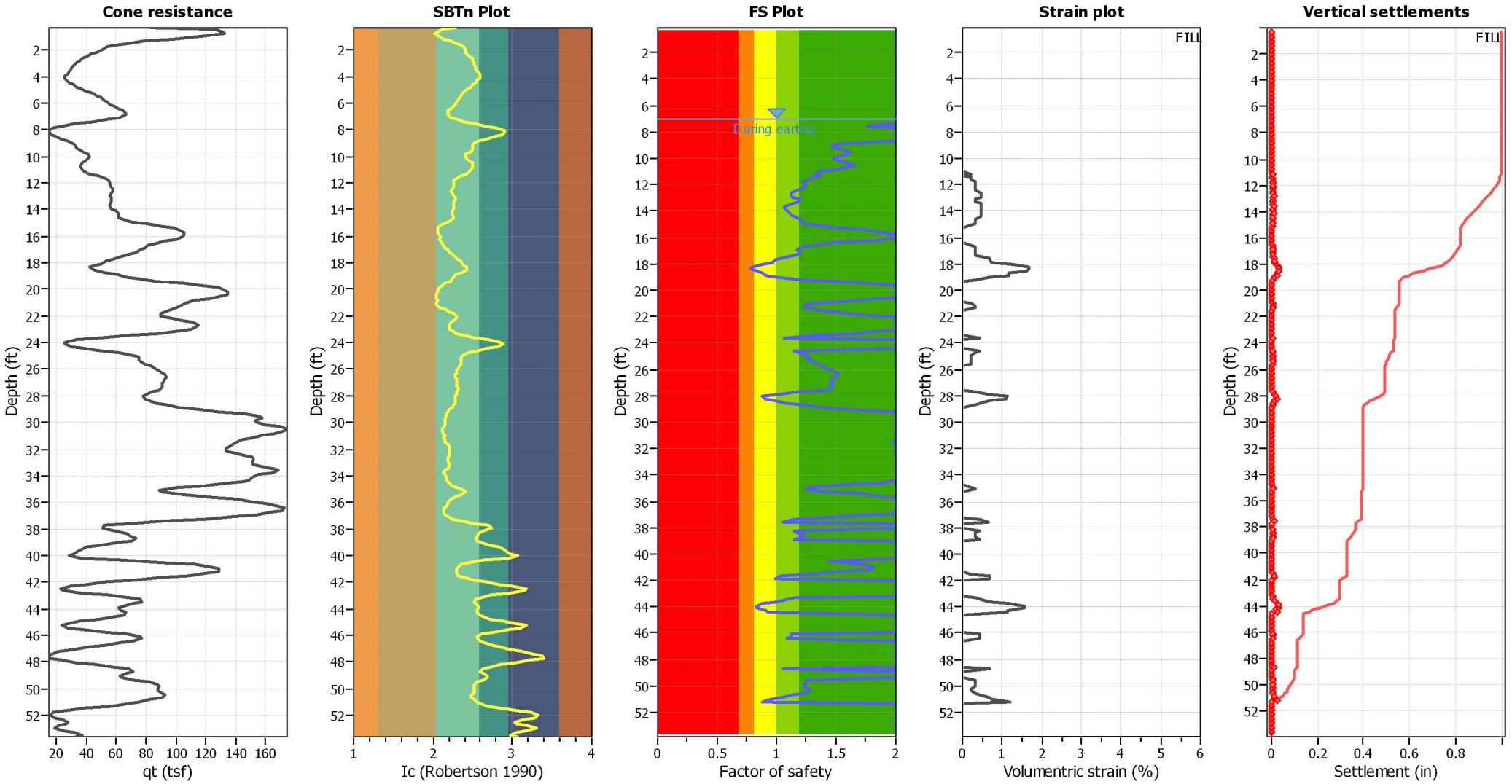
F.S. color scheme

- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

LPI color scheme

- Very high risk
- High risk
- Low risk

Estimation of post-earthquake settlements



Abbreviations

q_t:	Total cone resistance (cone resistance q_c corrected for pore water effects)
I_c:	Soil Behaviour Type Index
FS:	Calculated Factor of Safety against liquefaction
Volumentric strain:	Post-liquefaction volumentric strain