

# Latest Geological Results from the Site Investigation in FY2015

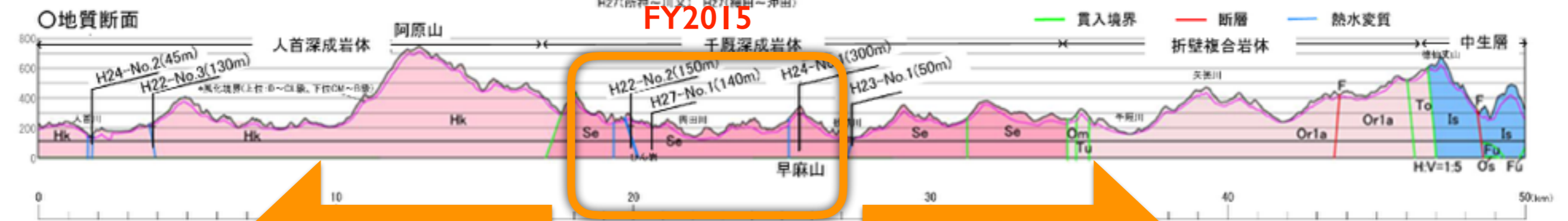
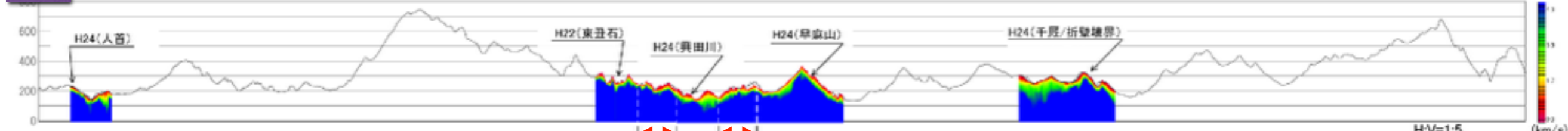
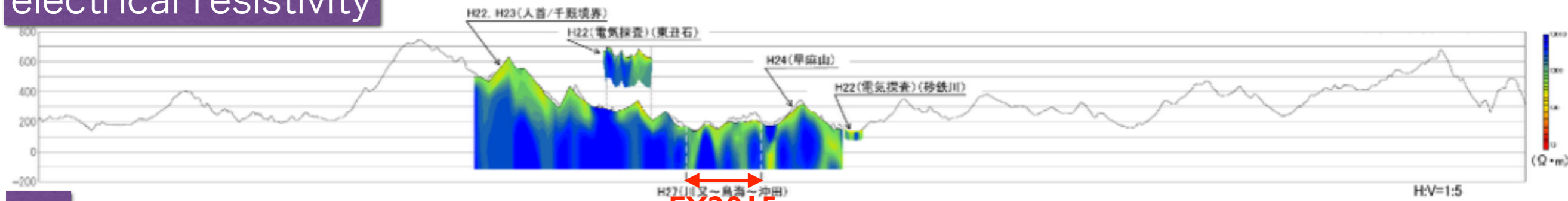
Tomoyuki Sanuki (Tohoku University)

← North

South →

electrical resistivity

Vp 弾性波探査断面



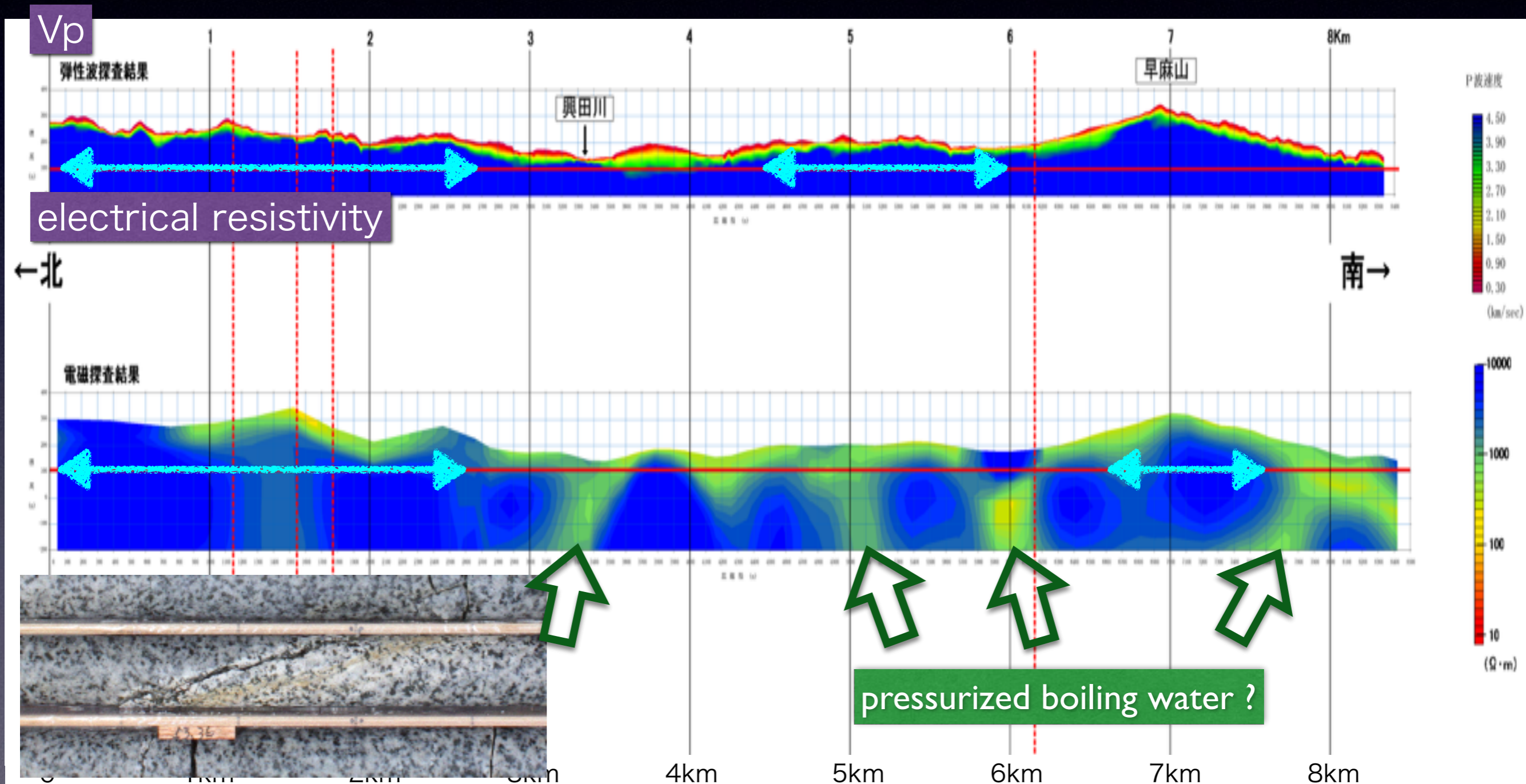
earth covering  
>> 100m

ML reaches  
the Pacific Ocean

地質縦断面図

土被り EL. (+m)	27.5	30.83	234.78	24.91	362.02	130.92	570.24	153.17
地質	人首深成岩体		千厩深成岩体		折壁複合深成岩体		中生層	
弾性波速度 (km/sec.)	(4.8km/sec.)		(4.5~5.5km/sec.)					
既往調査 結果	<ul style="list-style-type: none"> <li>H22-No.2 速度換層 Vp=4.8km/sec</li> <li>H22-No.2 岩石試験 <math>q_u=121\sim19\text{MN/m}^2</math></li> <li><math>E=68,700\sim77,600\text{MN/m}^2</math></li> <li>Vp=5.670~5.780m/sec</li> <li>H22-No.2 透水試験 <math>k=8.17E^{-4}\sim5.11E^{-3}\text{m/sec}</math> (割れ目を対象)</li> </ul>		<ul style="list-style-type: none"> <li>国折地帯調査 <math>4.5 &lt; Vp &lt; 5.5\text{km/sec}</math></li> <li>H22-No.2 速度換層 Vp=5.5km/sec</li> <li>H22-No.2 岩石試験 <math>q_u=129\sim253\text{MN/m}^2</math></li> <li><math>E=60,400\sim82,200\text{MN/m}^2</math></li> <li>Vp=5.310~5.770m/sec</li> <li>H22-No.2 透水試験 <math>k=3.57\sim4.09E^{-3}\text{m/sec}</math> (割れ目を対象)</li> <li>H27-No.1 速度換層 Vp=5.0~5.7km/sec</li> </ul>		<ul style="list-style-type: none"> <li>H24-No.1 速度換層 <math>5.2 &lt; Vp &lt; 5.5\text{km/sec}</math></li> <li>H22-No.2 岩石試験 <math>q_u=159\sim178\text{MN/m}^2</math></li> <li><math>E=60,600\sim84,700\text{MN/m}^2</math></li> <li>Vp=4.880~5.240m/sec</li> <li>H22-No.2 透水試験 <math>k=5.18E^{-1}\sim1.90E^{-1}\text{m/sec}</math> (割れ目を対象)</li> </ul>			

# seismic- & electrical resistivity-tomography



# Vp / electrical resistivity

sample @ Mt. Hayama

B



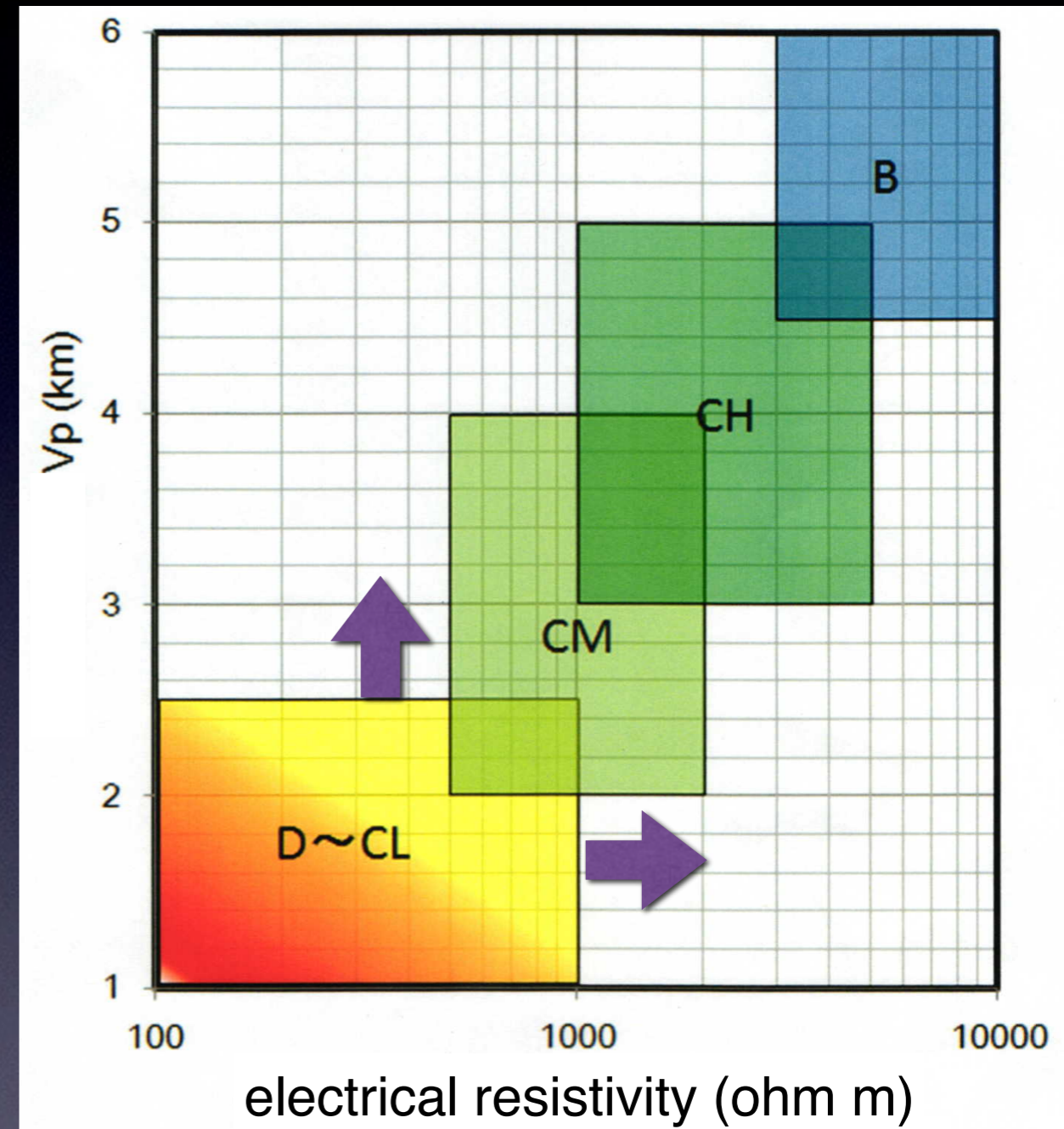
CH



CM



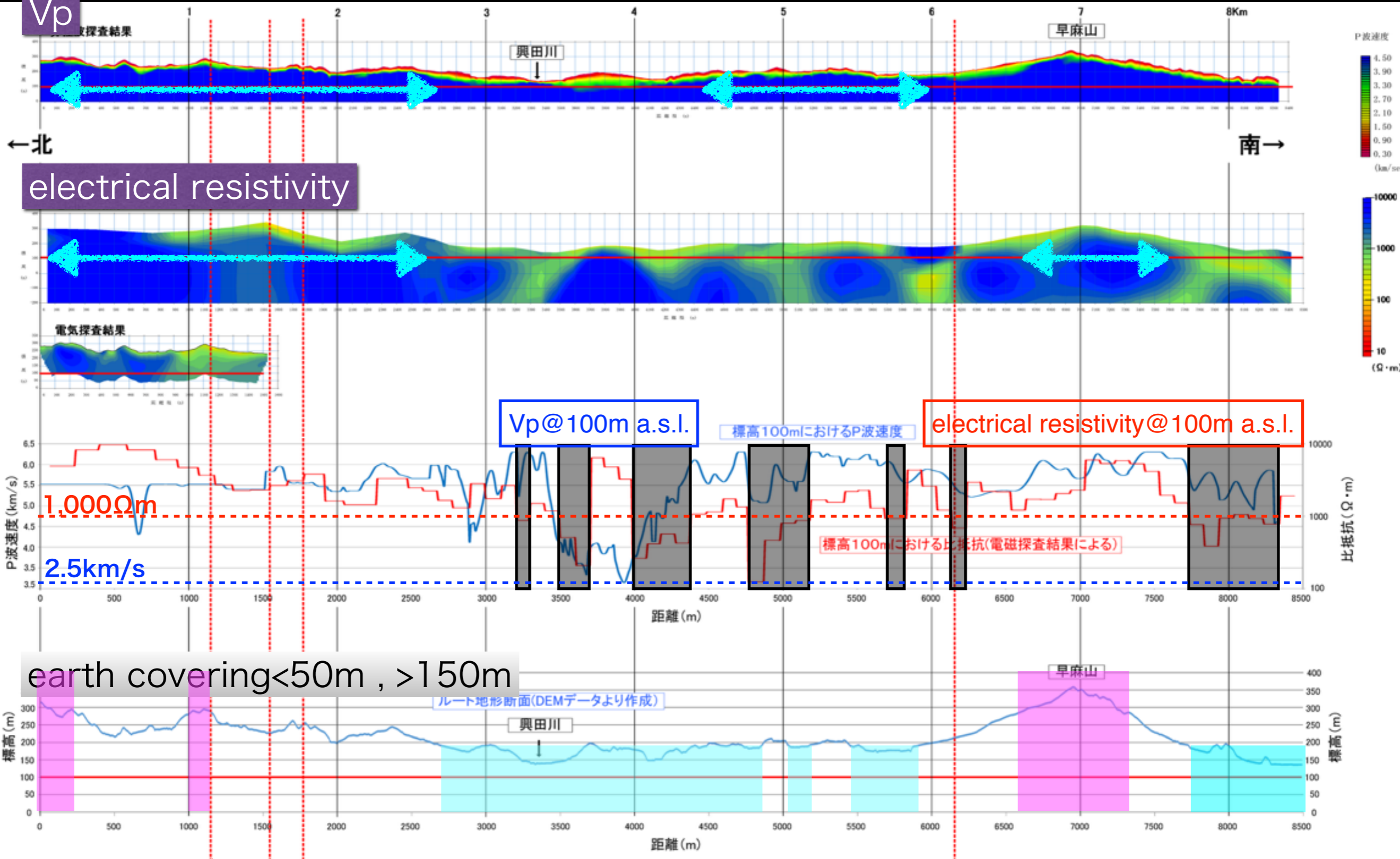
CL



“better than CL” ==>>>

“electrical resistivity > 1,000Ωm” & “Vp>~2,500m/s”

Vp

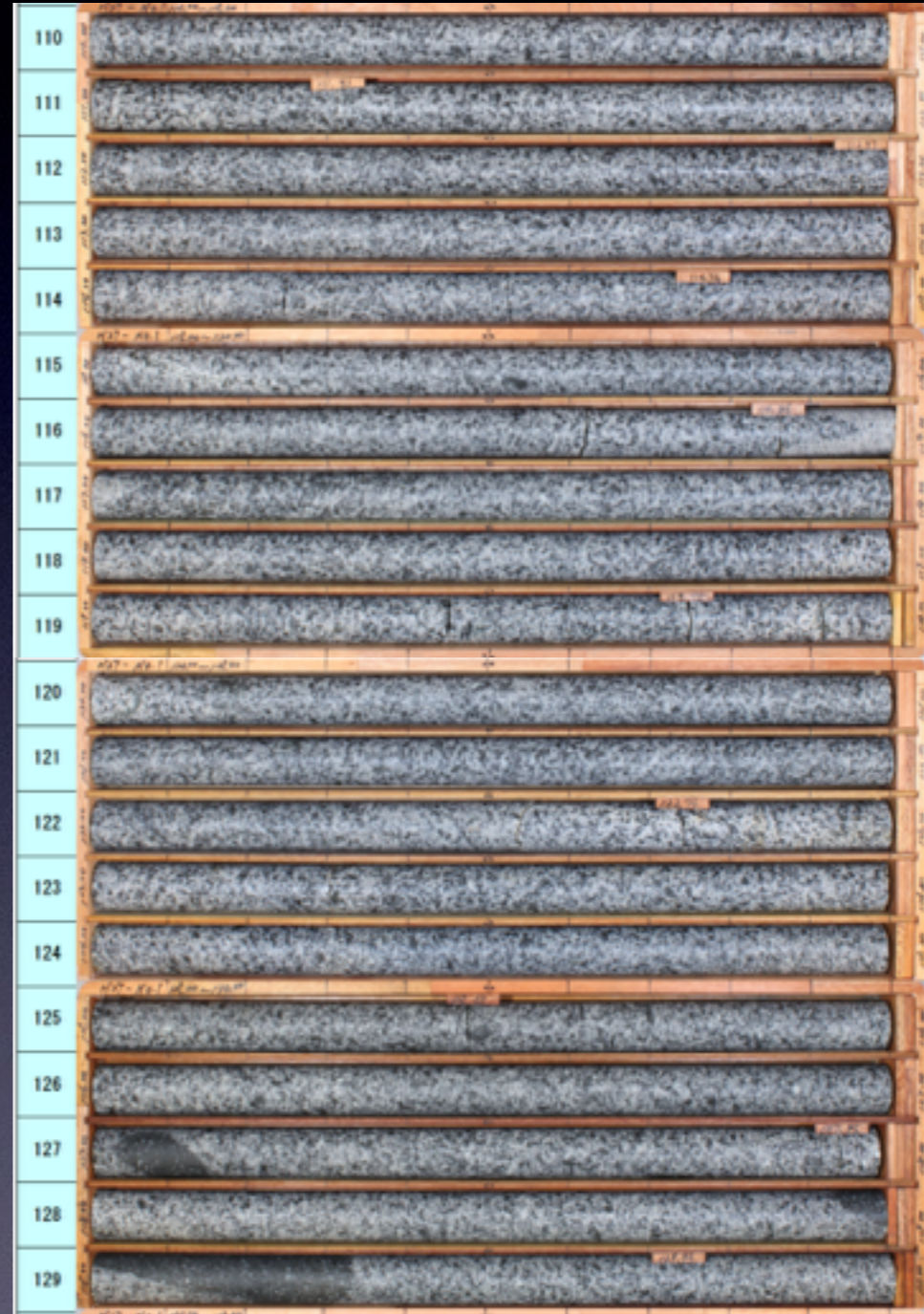
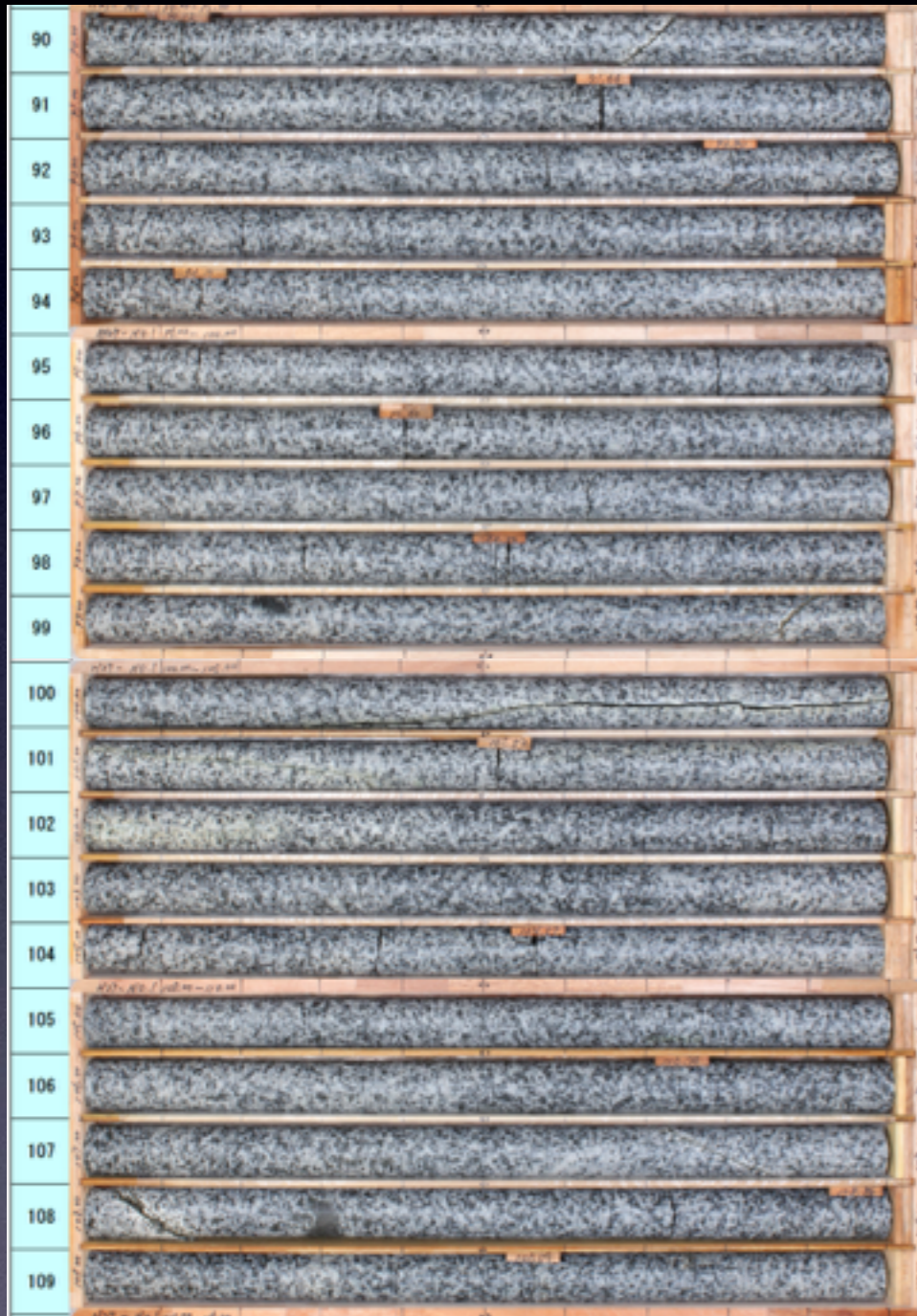


candidate IPs, from the point of view of surface condition (topography, nearby roads, existing houses, land use, ...)

# boring survey

1m

← GL-90m  
~ roof



← GL-130m  
~ floor

H27-No.1

EL+230.39m  
dep = 140.00m

# H27-No.1孔 総合柱状図

