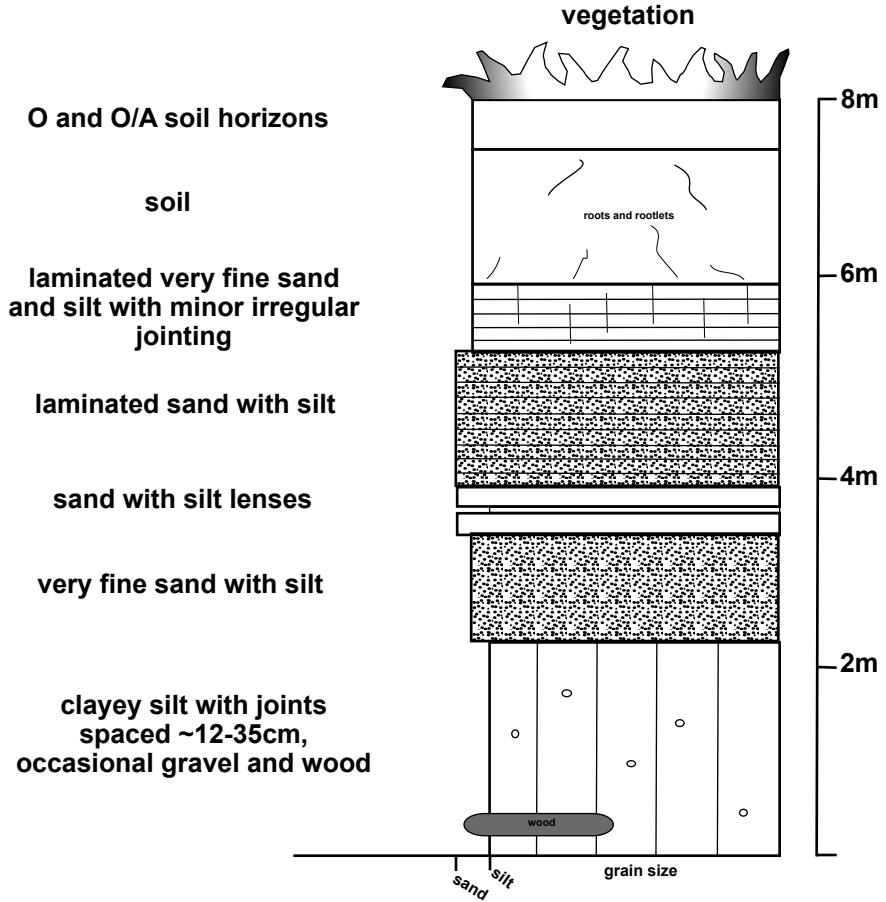
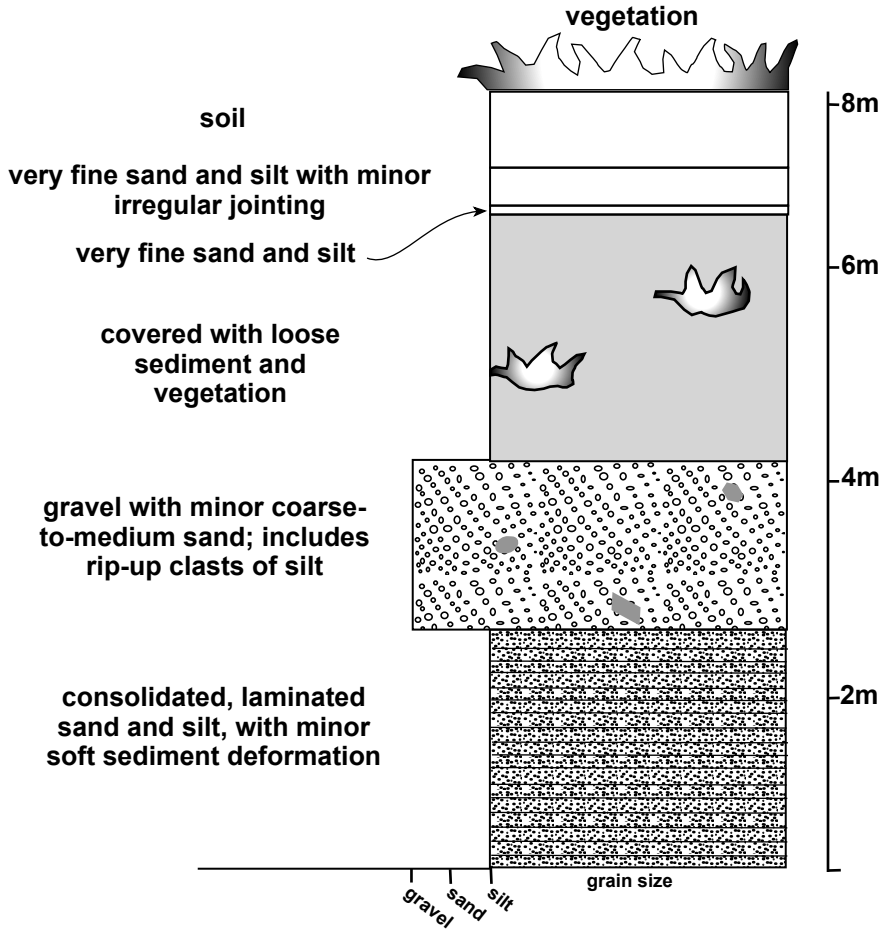


Plate 1. Measured cross section, unit Qt1.



field site 20GW0707.1, near Goose Point, Willapa Bay, WA

Plate 2. Measured cross section, unit TQss.



field site 20GW0708.1, near Bruceport, Willapa Bay, WA

Plate 3. Topographic profile with stratigraphic observations at field stations, South Bend to near Bay Center.

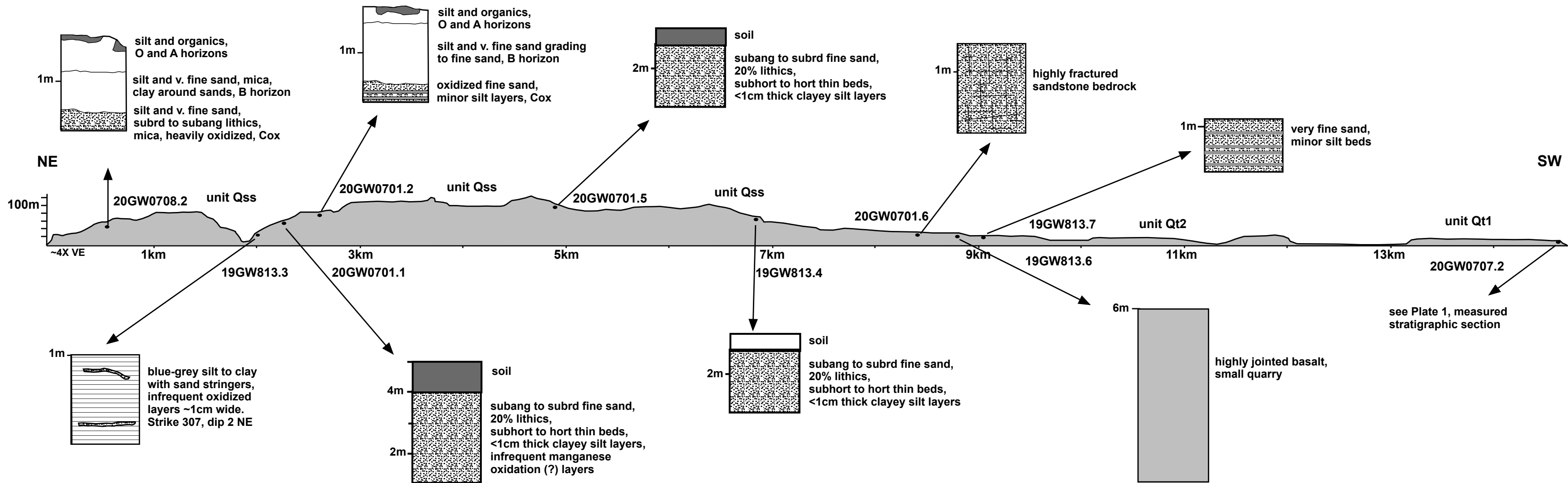


Plate 3. Topographic profile with stratigraphic observations at field stations, South Bend to near Bay Center.

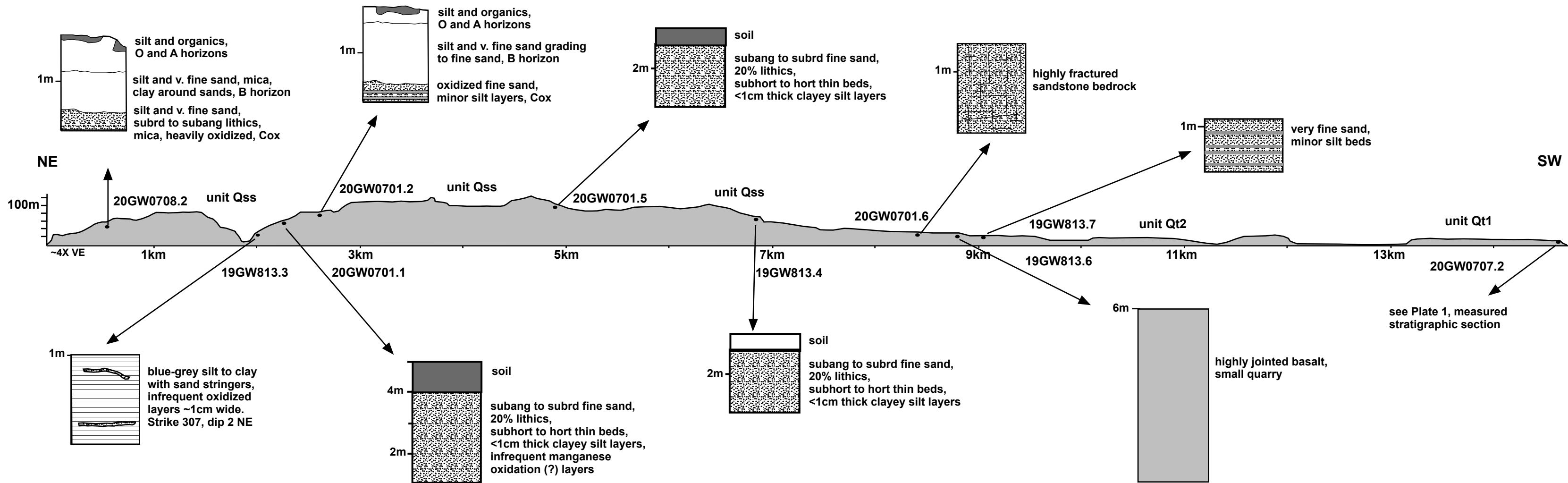


Plate 4. Topographic profile with stratigraphic observations at field stations, Westport area to North Cove.

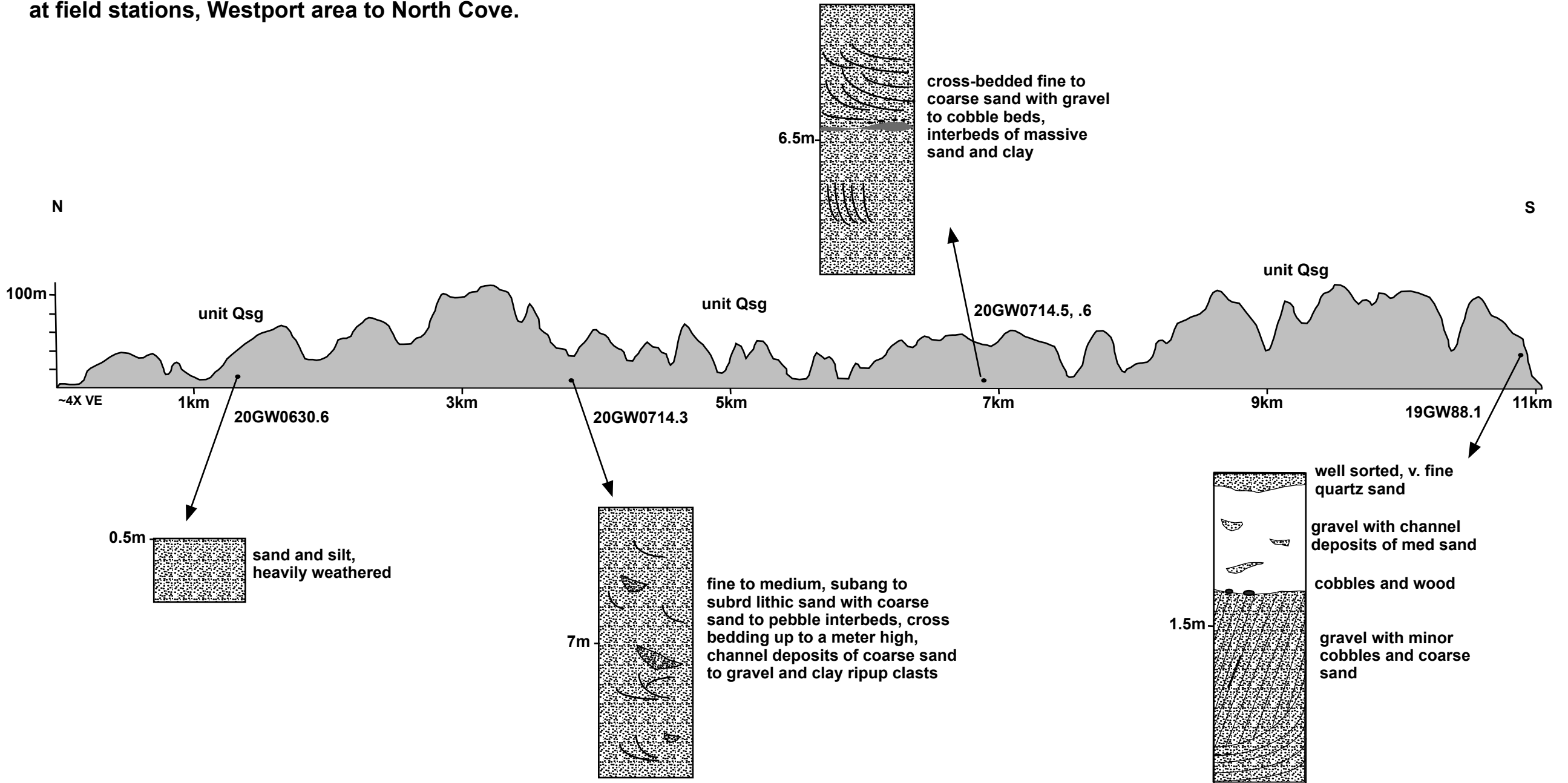
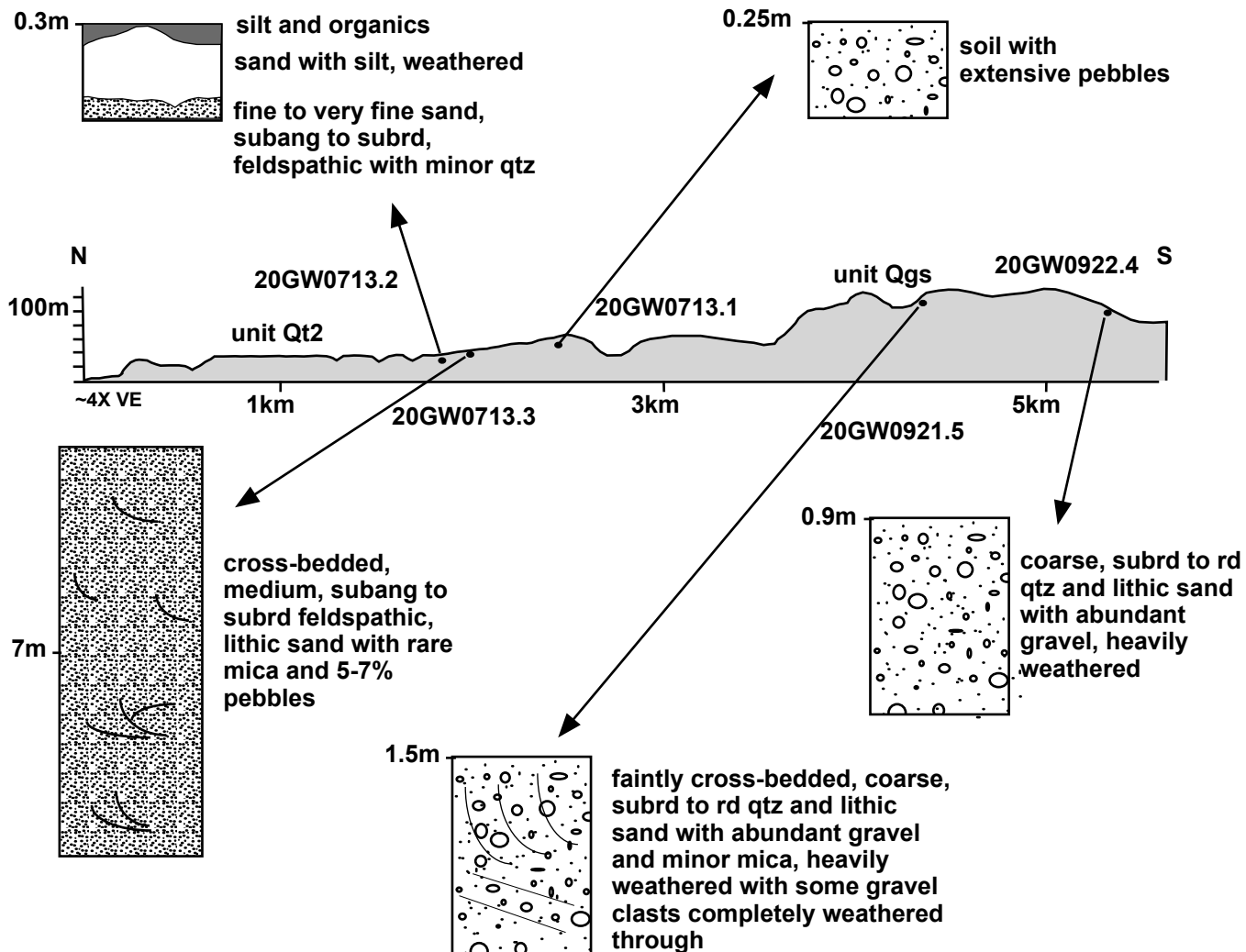


Plate 5: Topographic profile with stratigraphic observations at field stations, south of Grays Harbor.



| Field Station | Unit | Comments |
|---------------|---|--|
| 19GW715.1 | mica rich sand with silt ripups and ocs silt beds | |
| 19GW715.2 | basalt, jointed, weathered | |
| 19GW715.3 | basalt, jointed, weathered | |
| 19GW715.4 | silty soil with qtzt and granitic cobbles | |
| 19GW715.5 | silts with quartzite cobbles | |
| 19GW715.6 | deeply weathered soils | |
| 19GW715.8 | Crescent Basalt, jointed, weathered | |
| 19GW715.9 | McIntosh Formation, silts | |
| 19GW716.1 | McIntosh Formation, silts | |
| 19GW716.2 | McIntosh Formation, silts | |
| 19GW716.3 | contact McIntosh Fm & CRB, Saddle Mountain (?) | |
| 19GW716.4 | silty clay with thick weathering | |
| 19GW716.5 | McIntosh Formation, silts | |
| 19GW716.6 | Columbia River Basalt, Saddle Mountain (?) | |
| 19GW716.8 | contact McIntosh Fm & Crescent Basalt | |
| 19GW87.1 | Chehalis river terrace, younger, near estuarine | |
| 19GW87.1 | sands, gravels, soils | |
| 19GW88.1 | soil | |
| 19GW88.1c | modern beach | |
| 19GW88.1d | cross bedded sands with massive sands on top | |
| 19GW88.2 | crescent basalt | |
| 19GW89.1 | sands and silts | |
| 19GW89.2 | soil | |
| 19GW813.1 | sands and silts | |
| 19GW813.2 | Crescent basalt | |
| 19GW813.3 | silt & clay | |
| 19GW813.4 | sand & silt, | |
| 19GW813.5 | sand & silt, | |
| 19GW813.6 | Crescent basalt | |
| 19GW813.7 | sand & silt, | |
| 19GW813.8 | siltstone, McIntosh ? | |
| 19GW813.9 | Crescent basalt | |
| 19GW813.10 | Crecent basalt | |
| 19GW814.1 | thinly bedded silts and sands | |
| 19GW814.2 | sands with shells | |
| 19GW814.3 | sands with shells | |
| 19GW814.4 | siltstone, Lincoln Creek | |
| 19GW814.5 | sands and gravels | |
| 19GW814.6 | sands and gravels | |
| 19GW814.7 | cross bedded sands | |
| 19GW814.8 | thinly bedded silts | |
| 19GW814.9 | thinly bedded silts | |
| 19GW814.10 | cross bedded sands and gravels, oxidized | |
| 19GW814.11 | thinly bedded silts | |
| 19GW814.12 | siltstone, Lincoln Creek | |
| 19GW827.2 | siltstone, Astoria | incorrect GPS reading, this is approx spot |
| 19GW827.3 | sandstone, Astoria | |
| 19GW827.4 | weathered gravels | more notes for site with 20GW0921.2 |
| 19GW827.5 | location of 2018 cosmo pit, soil w/thick Bt | |
| 19GW827.6 | weathered gravels | more notes for site with 20GW0921.3 |
| 20GW0629.1 | Quinault Fm (?), outwash (Qapo?) | |
| 20GW0629.2 | sand, unknown unit | |
| 20GW0629.3 | silt and sand with some gravels, possibly fluvial | |
| 20GW0630.1 | silt with clay | |
| 20GW0630.2 | gravels, well dev soil, older deposits now in ls | |
| 20GW0630.3 | gravels, fluvial, older deposits now in ls | |
| 20GW0630.4 | gravels, sandy silts, fluvial, older depos? | |
| 20GW0630.5 | v.f. sand and silt, capped by weathered gravels | |

| Field Station | Unit | Comments |
|---------------|--|----------|
| 20GW0630.6 | silt and sand | |
| 20GW0701.1 | sand | |
| 20GW0701.2 | sand | |
| 20GW0701.3 | sand and silt | |
| 20GW0701.4 | landslide | |
| 20GW0701.5 | sand | |
| 20GW0701.6 | bedrock, sandstone, highly fractured | |
| 20GW0701.7 | bedrock, siltstone | |
| 20GW0701.8 | none, landscape photos | |
| 20GW0701.9 | fluvial sed with quartzite, Columbia River | |
| 20GW0701.10 | fluvial seds, mica rich sand, Col River | |
| 20GW0702.1 | Montesano Fm in alluvial terrace (strath) | |
| 20GW0706.2 | v.f. mica-rich sand and silt | |
| 20GW0706.3 | clayey silt, possible mica | |
| 20GW0704.4 | clayey silt | |
| 20GW0707.1 | silt, sand - lowest terrace | |
| 20GW0707.2 | silt, sand - lowest terrace | |
| 20GW0707.3 | Hologcene beach sand | |
| 20GW0707.4 | Holocene beach sand | |
| 20GW0707.5 | bedrock, Lnc Ck or Astoria | |
| 20GW0707.6 | alluvium, Naselle | |
| 20GW0707.7 | bedrock, Lnc Ck or Astoria | |
| 20GW0707.8 | bedrock, Lnc Ck or Astoria | |
| 20GW0707.9 | silts, fine sands, marine terrace or Nemah unknown | |
| 20GW0708.1 | silts, sands, weathered gravels - higher terrace | |
| 20GW0708.2 | silty sand | |
| 20GW0708.3 | silt | |
| 20GW0708.4 | sandy silt | |
| 20GW0708.5 | weathered gravels | |
| 20GW0713.1 | outcrop poor but with rounded pebbles | |
| 20GW0713.2 | fine to v. fine sand | |
| 20GW0713.3 | fluvial sands and gravel | |
| 20GW0713.4 | silt | |
| 20GW0713.5 | beach sand - lower terrace | |
| 20GW0714.1 | cobbles, fine mica sand, bdrck, fluv? see 0706.2 | |
| 20GW0714.2 | upper soil for previous | |
| 20GW0714.3 | sands and gravels, bedrock? fluvial? | |
| 20GW0714.5 | cross bedded sands, fluvial or tidal channel | |
| 20GW0714.6 | cross bedded sands, fluvial or tidal channel? | |
| 20GW0715.1 | Montesano FM | |
| 20GW0715.2 | Lincoln Ck | |
| 20GW0715.3 | silts and fine sands in a ls | |
| 20GW0715.4 | silt with minor clay and fine sand | |
| 20GW0715.5 | weathered gravels, silts to sand, bdrck? | |
| 20GW0715.6 | silt to v. fine sand, estuarine | |
| 20GW0715.7 | clayey silt, dark grey | |
| 20GW0715.8 | clayey silt, dark grey | |
| 20GW0715.9 | fluvial sands and gravels, Lincoln Ck | |
| 18GW0718.1 | silt, sands, weathered gravels | |
| 18GW0718.2 | weathered silts, clays, gravels over basalt | |
| 18GW0719.1 | sand with gravel over v.f. sand and silt, Astoria | |
| 18GW0719.2 | silt and sand, Astoria Fm | |
| 18GW0719.3 | sand, possibly Astoria Fm | |
| 18GW0904.1 | sand | |
| 18GW0905.1 | basalt underlying gravels and sands | |
| 18GW0905.2 | sands, gravels, silts, Chehalis River deposits | |
| 18GW0905.3 | cross bedded sands and gravels | |
| 18GW0905.4 | soil | |

| Field Station | Unit | Comments |
|----------------------|--|-----------------|
| 20GW0921.4 | view photos | |
| 20GW0921.5 | gravels | |
| 20GW0921.6 | gravels | |
| 20GW0922.1 | gravels | |
| 20GW0922.2 | gravels cutting into Lincoln Ck | |
| 20GW0922.3 | Lincoln Creek silstone, highly fractures | |
| 20GW0922.4 | gravels | |
| 20GW0922.5 | gravels | |
| 20GW0922.6 | oxidized gravels | |
| 20GW0922.7 | oxidized gravels | |
| 20GW0922.8 | silts in soil | |
| 20GW0922.9 | gravels | |