

Point Reyes Dune Sheet, California

UTM Sector and Datum (xx/yr), Northing, Easting, Estimated Error (EPE +-m), DEM Altitude (Alt m MSL).

Exposure Type: Active (AC), Trench (TR), Auger (AU), Road Cut (RC), Creek Cut (CC), Sea Cliff (SC), Slope (SL).

Units: Age: Tertiary (T), Pleistocene (P), Holocene (H), Wave-cut Platform (W); Parent Material; Soil Horizon

Parent Material: Eolian Dune (D), Loess (L), Colluvium (U), Peat (P), Alluvial/Fluvial (V), Lagoonal/Estuary (N),

Beach Shoreface (S), Basal Conglomerate (M).

Note: Loess (L) is designated where it overlies bedrock, colluvium, or pre-existing Bw/Bt horizons.

Soil Horizon: Organic (A), Leached (E), Accumulation (B), Fe+3 Accumulation (Bw),

Incipient Clay Accumulation (Btj), Clay Accumulation (Bt), Humate Accumulation (Bs),

Humate Cementation (Bh), Calcrete (Bk), Silcrete (Bq), Reduced Glade Layer (Bg), Subsoil Calcrete (K),

Dune Parent (C), Oxidized Parent (Cox).

Subsurface depth (cm); Dominant Grain Size: Silt, Sand, Pebbles, Cobbles (default is sand)

Sand sizes (Coarse U/L, Medium U/L, Fine U/L, VeryFine U/L)

Bedding: Cross Beds (XB,dipxx), Planar Beds (PB), Fluidization (FL), Heavy Mineral Laminae (HM)

Munsel Maximum Color (field condition: moist)

Penetrometer: (P. kg/square cm) unconfined compressive strength.

Structure: loose, very weak blocky, weak blocky, strong blocky, columnar/prismatic.

Diagenesis: Fe-ortstein, Fe-humate, allophane, gibbsite, calcrete, silcrete

| Dune Sheet | Zone/NAD | UTM-N   | UTM-E  | EPE (m) | Alt (m) | Date    | Exposure |
|------------|----------|---------|--------|---------|---------|---------|----------|
| PTRE1      | 10S/83   | 4233700 | 502800 | 10      | 10      | 6/31/02 | SC       |

Site Notes: This site is at the northern end of the Dillon Beach dunes above a wavecut platform.

Late Pleistocene TL dates are reported for the shoreface deposits at this locality (K. Grove, pers. comm. 2002).

| Units | Depth cm | Grain Size | Bedding | Color | P.kg/cm <sup>2</sup> | Structure         | Diagenesis |
|-------|----------|------------|---------|-------|----------------------|-------------------|------------|
| HDC   | 0-300    |            |         |       |                      | 0 Loose           |            |
| PSBw  | 300-350  |            |         |       |                      | 4.5 Strong Blocky |            |
| PM    | 350-400  |            |         |       |                      | 4.5               |            |
| PW    | 400-401  |            |         |       |                      |                   |            |
| T     | 401-900  |            |         |       |                      |                   |            |

| Dune Sheet | Zone/NAD | UTM-N   | UTM-E  | EPE (m) | Alt (m) | Date    | Exposure |
|------------|----------|---------|--------|---------|---------|---------|----------|
| PTRE2      | 10S/83   | 4233520 | 503300 | 10      | 26      | 6/31/02 | RC       |

Site Notes: This site is located on the north eastern edge of the Holocene dunes at Dillon Beach.

| Units | Depth cm | Grain Size | Bedding | Color | P.kg/cm <sup>2</sup> | Structure | Diagenesis |
|-------|----------|------------|---------|-------|----------------------|-----------|------------|
| HDA   | 0-5      |            |         |       |                      | 0 Loose   |            |
| HDC   | May-50   |            |         |       |                      | 0 Loose   |            |
| PUBw  | 50-75    |            |         |       |                      |           |            |
| T     | 75-200   |            |         |       |                      |           |            |

| Dune Sheet | Zone/NAD | UTM-N   | UTM-E  | EPE (m) | Alt (m) | Date    | Exposure |
|------------|----------|---------|--------|---------|---------|---------|----------|
| PTRE3      | 10S/83   | 4233030 | 502970 | 20      | 11      | 6/31/02 | RC       |

Site Notes: This site is located at the gaurd station booth/gate in the Dillon Beach Campground.

| Units | Depth cm | Grain Size | Bedding | Color | P.kg/cm <sup>2</sup> | Structure        | Diagenesis |
|-------|----------|------------|---------|-------|----------------------|------------------|------------|
| HDC   | 0-300    | ML         |         |       |                      | 0.5 Loose        |            |
| PSBW  | 300-420  | Pebbles    |         |       |                      | 4.5 Stong Blocky |            |

| Dune Sheet | Zone/NAD | UTM-N   | UTM-E  | EPE (m) | Alt (m) | Date    | Exposure |
|------------|----------|---------|--------|---------|---------|---------|----------|
| PTRE4      | 10S/83   | 4231750 | 504000 | 5       | 11      | 6/31/02 | RC       |

Site Notes: This site is located on a slope, cut by a small creek, and water pipe-access road.

| Units | Depth cm | Grain Size | Bedding | Color | P.kg/cm <sup>2</sup> | Structure      | Diagenesis |
|-------|----------|------------|---------|-------|----------------------|----------------|------------|
| HDA   | 0-2      |            |         |       |                      | 0 Loose        |            |
| HDC   | 2-300    | ML         |         |       |                      | 0 Loose        |            |
| HDBw  | 300-350  |            |         |       |                      | 1 Very Weak B. |            |
| HDCox | 350-500  | FU         |         |       |                      | 0.5 Loose      |            |

|      |         |         |  |  |  |               |
|------|---------|---------|--|--|--|---------------|
| HDBw | 500-560 |         |  |  |  | 2 Weak Blocky |
| HDBw | 560-600 |         |  |  |  |               |
| PU   | 600-670 | cobbles |  |  |  |               |

| Dune Sheet | Zone/NAD | UTM-N   | UTM-E  | EPE (m) | Alt (m) | Date      | Exposure |
|------------|----------|---------|--------|---------|---------|-----------|----------|
| PTRE5      | 10S/83   | 4231590 | 504010 |         | 10      | 5 6/31/02 | BC       |

Site Notes: This site is at the base of a bay cliff at the NE corner of Tomales Bay.

A thin loess occurs between the Holocene dunes and Pleistocene shoreface.

| Units | Depth cm | Grain Size | Bedding | Color | P.kg/cm^2 | Structure         | Diagenesis |
|-------|----------|------------|---------|-------|-----------|-------------------|------------|
| HD    | 0-50     |            |         |       |           | 0 Loose           |            |
| LBw   | 50-70    |            |         |       |           | 1.5 Very-Weak B.  |            |
| PSBw  | 70-110   |            |         |       |           | 4.5 Strong Blocky |            |
| PSCox | 110-200  |            |         |       |           | 4.5               |            |
| PW    | 200-201  |            |         |       |           |                   |            |
| T     | 201-230  | Sandstone  |         |       |           |                   |            |

| Dune Sheet | Zone/NAD | UTM-N   | UTM-E  | EPE (m) | Alt (m) | Date        | Exposure |
|------------|----------|---------|--------|---------|---------|-------------|----------|
| PTRE6      | 10S/1983 | 4214510 | 502200 |         | 8       | 11 12/28/00 | TR       |

Site Notes: Pleistocene beach deposits, overlain by thin Pleistocene dunes (reworked shoreface?).

| Units | Depth cm | Grain Size | Bedding   | Color    | P.kg/cm^2 | Structure        | Diagenesis  |
|-------|----------|------------|-----------|----------|-----------|------------------|-------------|
| HD    | 0-300    | MU         |           |          |           | 0 Loose          |             |
| PDBh  | 300-330  | ML         | Truncated | 5yr5/4   |           | 4 Very Weak B.   |             |
| PDBw  | 330-360  |            |           | 7.5yr5/6 |           | 2.5 Very Weak B. |             |
| PSBtj | 360-400  | ML         | Truncated | 5yr5/6   |           | 4.5 Weak Blocky  | Fe-ortstein |
| PSCox | 400-550  | CL         |           |          |           | 3.25             |             |

| Dune Sheet | Zone/NAD | UTM-N   | UTM-E  | EPE (m) | Alt (m) | Date        | Exposure |
|------------|----------|---------|--------|---------|---------|-------------|----------|
| PTRE7      | 10S/1983 | 4214320 | 502630 |         | 5       | 28 12/28/00 | Ac       |

| Units | Depth cm | Grain Size | Bedding | Color   | P.kg/cm^2 | Structure | Diagenesis |
|-------|----------|------------|---------|---------|-----------|-----------|------------|
| HD    | 0-50     | MU         |         | 2.5y6/4 |           | 0         |            |

| Dune Sheet | Zone/NAD | UTM-N   | UTM-E  | EPE (m) | Alt (m) | Date        | Exposure |
|------------|----------|---------|--------|---------|---------|-------------|----------|
| PTRE8      | 10S/1983 | 4214070 | 503170 |         | 7       | 26 12/28/00 | SL/TR    |

Site Notes: Isolated dune limb located on Pleistocene deflation surface, i.e., PW.

| Units | Depth cm | Grain Size | Bedding   | Color    | P.kg/cm^2 | Structure        | Diagenesis |
|-------|----------|------------|-----------|----------|-----------|------------------|------------|
| LA    | 0-10     |            |           |          |           | 1                |            |
| LBw   | 10-50.   | Silt       |           | 5yr4/4   |           | 3.5 Very Weak B. |            |
| DBw   | 50-75    | ML         |           | 7.5yr4/6 |           | 2.5 Weak Blocky  |            |
| DCox  | 75-200   |            |           |          |           | 2.5              |            |
| PW    | 200-201  |            |           |          |           |                  |            |
| TE    | 201-215  |            | Truncated |          |           |                  |            |
| TBtj  | 215-255  |            |           | 2.5y7/6  |           | 4.5 Columnar     |            |
| TC    | 255-260  |            |           |          |           |                  |            |

| Dune Sheet | Zone/NAD | UTM-N   | UTM-E  | EPE (m) | Alt (m) | Date       | Exposure |
|------------|----------|---------|--------|---------|---------|------------|----------|
| PTRE9      | 10S/1983 | 4214620 | 503810 |         | 10      | 7 12/28/00 | SL/TR    |

Site Notes: Southernmost extent of Holocene parabolic dune over Pleistocene dune deflation surface.

| Units | Depth cm | Grain Size | Bedding | Color | P.kg/cm^2 | Structure | Diagenesis |
|-------|----------|------------|---------|-------|-----------|-----------|------------|
| HD    | 0-200    |            |         |       |           |           |            |
| HDA   | 200-205  |            |         |       |           |           |            |
| HDBw  | 205-215  |            |         |       |           |           |            |
| HDCox | 215-300  |            |         |       |           |           |            |
| PDBh  | 300-330  |            |         |       |           |           |            |

| Dune Sheet | Zone/NAD | UTM-N | UTM-E | EPE (m) | Alt (m) | Date | Exposure |
|------------|----------|-------|-------|---------|---------|------|----------|
|------------|----------|-------|-------|---------|---------|------|----------|

PTRE10      10S/1983      4208010      511950      7      11      12/27/00 SC

Site Notes: Seacliff exposure 0.5 km south of Drakes Bay Estero Parking lot.

Holocene washover and dunes (<200 m wide on Estero spit) pinch out to the south on uplifted marine terrace.

| Units | Depth cm | Grain Size | Bedding | Color | P.kg/cm <sup>2</sup> | Structure          | Diagenesis |
|-------|----------|------------|---------|-------|----------------------|--------------------|------------|
| HD    | 0-30     | MU         |         |       |                      |                    |            |
| PVBtj | 30-100   |            |         |       |                      | 3.75 Strong Blocky |            |
| PVC   | 100-500  |            | 400     |       |                      |                    |            |