

| Site | Run | Photograph | Mosaic | Depth (cm) | Depth (cm) to | | | Soil Type | Land Class |
|------|-----|------------|--------|---------------|---------------|-------------|--------|--------------|---------------|
| | | | | | Water | >10% Gypsum | Gravel | | |
| R1 | 2 | 3391 | 12SW | 353 | 350 | | | B | 6sd |
| R2 | 2 | 3391 | 11SE | 183 | 183 | | | Ts | 6sndt |
| R3 | 1 | 3955 | 11SE | 336 | 336 | | | B | 6sd |
| R4 | 2 | 3389 | 12SW | 425 | 415 | | | B | 6sd |
| R5 | 1 | 3955 | 12SW | 378 | 370 | | | B | 6sd |
| R6 | 2 | 3389 | 12SW | 500 | | | | A | 6snd |
| R7 | 1 | 3853 | 12SW | 370 | 370 | | | A | 6snd |
| R8 | 1 | 3953 | 12SW | 500 | 500 | | | A | 6snd |
| R9 | 2 | 3389 | 12SW | 200 | | | | (M)1 | 3n |
| R10 | 2 | 3393 | 11SE | 60 | | 28 | | Ad | 6g |
| R11 | 12 | 3667 | 6NW | 500 | | | | Ki | 1 |
| R12 | 12 | 3669 | 5NE | 500 | | 130 | | Di-Ad | 3g |
| R13 | 12 | 3667 | 6NW | 500 | | | | Ki | 1 |
| R14 | 11 | 3657 | 6SW | 135 | | 75 | | Di-Ad | 3g |
| R15 | 12 | 3669 | 5NE | 500 | | | | Ki | 1 |
| R16 | 12 | 3667 | 6NW | 340 | | | | (Ki) | 2nd |
| R17 | 10 | 3611 | 6SW | 500 | | | | Ki | 1 |
| R18 | 10 | 3611 | 6SW | 500 | | | | Ki | 1 |
| R19 | 11 | 3659 | 6SW | 360 | | | 330 | Ki | 1 |
| R20 | 12 | 3667 | 6NW | 500 | | | | (M) | 3nd |
| R21 | 11 | 3659 | 6NW | 500 | | | | Ki | 1 |
| R22 | 11 | 3613 | 5SE | 370 | | | 365 | Ki | 1 |
| R23 | 11 | 3655 | 5SE | 500 | | | | Ki9 | 1 |
| R24 | 11 | 3653 | 5SE | 500 | | | | (Ki) | 2nd |
| R25 | 10 | 3615 | 5SE | 140 | 128 | | | Ma-Ad | 3ndg |
| R26 | 10 | 3609 | 6SW | 500 | | | | Ma | 3nd |
| R27 | 10 | 3613 | 6SW | 500 | | | | Ma | 3nd |
| R28 | 9 | 3597 | 10NW | 430 | 190 | | | (Di) | 2ndg |
| R29 | 9 | 3595 | 5SE | 500 | | | | G | 6ndt |
| R30 | 9 | 3597 | 10NW | 500 | | | | (Ki) | 2nd |
| R31 | 8 | 3935 | 10NW | 500 | | | | S | 1 |
| R32 | 8 | 3935 | 10NW | 500 | | | | S | 1 |
| R33 | 9 | 3599 | 10NW | 510 | | | | (Ki) | 2nd |
| R34 | 8 | 3935 | 10NW | 500 | | | | S | 2nd |
| R35 | 9 | 3589 | 5SW | 500 | 470 | | | Ki | 1 |
| R36 | 9 | 3591 | 5SW | 500 | | | | G | 3ndt |
| R37 | 9 | 3593 | 5SW | 500 | | | | (Ki) | 2nd |
| R38 | 10 | 3619 | 5SW | 500 | | | | Ki | 1 |
| R39 | 10 | 3621 | 5SW | 530 | | | | Ki | 1 |
| R40 | 10 | 3621 | 4SE | 500 | 250 | | | Di | 2g |
| R41 | 11 | 3645 | 4NE | 500 | 135 | | | Di-Ad | 3g |
| R42 | 10 | 3623 | 4SE | 210 | 127 | | | Di-Ad | 3g |
| R43 | 10 | 3621 | 4SE | 500 | | | | Ki | 1 |
| R44 | 11 | 3643 | 4NW | 140 | 80 | | | Ma-Ad | 3ndg |
| R45 | 11 | 3643 | 4NW | 500 | | | | (Di) | 2ndg |
| R46 | 1 | 3647 | 4NE | 500 | 160 | | | Di | 2g |
| R47 | 10 | 3623 | 4SE | 500 | | | | (Di) | 2ndg |
| R48 | 10 | 3623 | 4SE | 168 | 45 | | | Ad | 6g |
| R49 | 10 | 3625 | 4SE | 500 | 275 | | | (Ki) | 2ndg |
| R50 | 9 | 3587 | 4SE | 500 | 140 | | | (Di)-Ad | 3g |
| R51 | 9 | 3587 | 4SE | 165 | 143 | | | Di-Ad | 3g |
| R52 | 9 | 3587 | 4SW | 500 | 220 | | | Di | 2g |
| R53 | 10 | 3627 | 4SW | 315 | | | 310 | Ki | 1 |
| R54 | 9 | 3583 | 4SW | 465 | 265 | | | (Ki) | 2nd |
| R55 | 9 | 3583 | 4SW | 160 | 143 | | | (Di)-Ad | 3g |
| R56 | 10 | 3627 | 4SW | 180 | 115 | | | Di-Ad | 3g |
| R57 | 10 | 3627 | 4SW | 180 | 82 | | | Di-Ad | 3g |
| R58 | 10 | 3625 | 4SW | 204 | 119 | | | Di-Ad | 3g |
| R59 | 10 | 3627 | 4SW | 145 | 87 | | | Di-Ad | 3g |
| R60 | 9 | 3599 | 10SW | 500 | | | | Ki | 1 |
| R61 | 10 | 3609 | | 300 | | | | Ki | 2t |
| R62 | 10 | 3607 | | 300 | | | | Ma | 3nd |
| R63 | 10 | 3607 | | 300 | | | | Ki | 1 |
| R64 | 6 | 3496 | 10SE | 300 | 110 | | | Di-Ad | 3g |
| R65 | 4 | 3439 | 13NE | 300 | | | | (M) | 3nd |

| Site | Run | Photograph | Mosaic | Depth (cm) | Depth (cm) to | | | Soil Type | Land Class |
|------|-----|------------|--------|------------|---------------|-------------|--------|-----------|------------|
| | | | | | Water | >10% Gypsum | Gravel | | |
| R66 | 4 | 3439 | 13NE | 300 | | | | (M) | 3nd |
| R67 | 3 | 3429 | 13SE | 245 | | | 245 | S | 2h |
| R68 | 3 | 3427 | 13SE | 30 | | | 30 | TB | 6h |
| R69 | 5 | 3491 | 13NE | 300 | | | | (M) | 3nd |
| R70 | 5 | 3489 | 13NE | 300 | | 270 | | Ki | 1 |
| R71 | 5 | 3489 | 12NE | 300 | | 240 | | Di | 2g |
| R72 | 5 | 3491 | 13NE | 110 | | 105 | | Di-Ad | 3g |
| R73 | 5 | 3489 | 13NW | 500 | | | | Ki | 1 |
| R74 | 7 | 3541 | 10SW | 500 | | | | S | 2s |
| R75 | 7 | 3539 | 10SW | 520 | | | | Ki | 1 |
| R76 | 8 | 3937 | 10NW | 500 | | | | S | 1 |
| R77 | 8 | 3937 | 10NW | 125 | | 35 | | Ad | 6g |
| R78 | 6 | 3502 | 10SW | 500 | | | | (Ki) | 2nd |
| R79 | 6 | 3502 | 10SW | 500 | | | | S | 1 |
| R80 | 5 | 3485 | 13NW | 450 | | 410 | | (M) | 3nd |
| R81 | 6 | 3504 | 10SW | 500 | | | | (Ki) | 2nd |
| R82 | 7 | 3537 | 10SW | 400 | | 260 | | S | 1 |
| R83 | 7 | 3539 | 10SW | 500 | | 435 | | S | 1 |
| R84 | 5 | 3487 | 10SW | 510 | | | | (Ki) | 2nd |
| R85 | 6 | 3502 | 10SW | 520 | | | | (Ki) | 2nd |
| R86 | 5 | 3487 | 10SW | 500 | | 360 | | (Ki) | 2nd |
| R87 | 5 | 3487 | 12NW | 500 | | | | (Ki) | 2nd |
| R88 | 4 | 3443 | 13NW | 500 | | | | S | 2nd |
| R89 | 4 | 3443 | 13NW | 500 | | | | S | 2nd |
| R90 | 4 | 3441 | 13NE | 500 | | | | (M) | 3nd |
| R91 | 4 | 3441 | 13NE | 450 | | | 450 | (M) | 3nd |
| R92 | 2 | 3379 | 13SE | 500 | | | | (M) | 3nd |
| R93 | 2 | 3379 | 13SE | 500 | | | | (M) | 3nd |
| R94 | 3 | 3425 | 13SW | 500 | | | | S | 2nd |
| R95 | 2 | 3381 | 13SW | 500 | | | | S | 2nd |
| R96 | 3 | 3427 | 13SE | 175 | | 108 | | (Di)-Ad | 3g |
| R97 | - | - | - | 290 | | | 290 | Ki | 1 |
| R98 | 4 | 3447 | 13NW | 190 | | | | Ma | 3snd |
| R99 | 4 | 3445 | 13NW | 500 | | | | Mi | 2s |
| R100 | 2 | 3383 | 13SW | 510 | | | | (M) | 3nd |
| R101 | 2 | 3383 | 13SW | 500 | | | | S | 2nd |
| R102 | 2 | 3383 | 13SW | 500 | | | | (A) | 3snd |
| R103 | 5 | 3485 | 13NW | 500 | | 400 | | Ma | 3nd |
| R104 | 3 | 3425 | 13NW | 510 | | | | T | 6ndt |
| R105 | 3 | 3423 | 13NW | 500 | | | | Ts | 6sndt |
| R106 | 2 | 3383 | 13SW | 185 | | 175 | | Ts | 6sndt |
| R107 | 2 | 3385 | 12SE | 500 | | | | Ts | 6sndt |
| R201 | 3 | 3417 | 12NW | 500 | | 415 | | (M)1 | 3n |
| R202 | 3 | 3415 | 12NW | 500 | 500 | 340 | | (B) | 6sd |
| R203 | 5 | 3477 | 12NW | 200 | | | | (B) | 3sd |
| R204 | 4 | 3451 | 12NW | 200 | | | | B | 6sd |
| R205 | 4 | 3451 | 12NW | 340 | 340 | | | Ts | 6sndt |
| R206 | 3 | 3415 | 12NW | 500 | 500 | 325 | | (A) | 3snd |
| R207 | 4 | 3452 | 12NW | 500 | | | | Ts | 6sndt |
| R208 | 4 | 3453 | 12NW | 510 | 510 | | | (A) | 3snd |
| R209 | 3 | 3413 | 11NE | 440 | | | | B | 6sd |
| R210 | 3 | 3413 | 11NE | 80 | | 40 | | Ad | 6g |
| R211 | 4 | 3455 | 12NW | 370 | | 210 | | (A) | 3snd |
| R212 | 3 | 3413 | 11NE | 103 | | 93 | | Di-Ad | 3g |
| R213 | 3 | 3413 | 11NE | 110 | | 93 | | B-Ad | 6sd |
| R214 | 3 | 3413 | 11NE | 150 | | 132 | | B-Ad | 6sd |
| R215 | 11 | 3651 | 5NE | 500 | | | | Ki | 1 |
| R216 | 12 | 3673 | 5NW | 500 | | | | G | 3ndt |
| R217 | 5 | 3479 | 12NW | 500 | | | | B | 6sd |
| R218 | 4 | 3451 | 12NW | 450 | 450 | | | (B) | 3sd |
| R219 | 12 | 3673 | 5NW | 500 | | 350 | (Ki) | (Ki) | 2nd |
| R220 | 12 | 3671 | 5NE | 360 | | 340 | | Ki | 1 |
| R221 | 12 | 3671 | 5NE | 500 | | 460 | | (Ki) | 2nd |
| R222 | 13 | 3701 | 5NE | 500 | | | | (Ki) | 2nd |
| R223 | 14 | 3711 | 2SE | 500 | | | | Ki | 1 |
| R224 | 12 | 3671 | 5NE | 500 | | | | Ki | 1 |
| R225 | 13 | 3701 | 2SE | 400 | | 380 | | Ki | 1 |
| R226 | 13 | 3701 | 2SE | 500 | | | | Ki | 1 |

| Site | Run | Photograph | Mosaic | Depth (cm) | Depth (cm) to | | | Soil Type | Land Class |
|------|-----|------------|--------|------------|---------------|-------------|--------|-----------|------------|
| | | | | | Water | >10% Gypsum | Gravel | | |
| R227 | 7 | 3529 | 9NW | 500 | | | | S | 2nd |
| R228 | 7 | 3529 | 9NW | 500 | | | | S | 2s |
| R229 | 9 | 3593 | 9NE | 300 | | 120 | | Di-Ad | 3g |
| R230 | 8 | 3931 | 9NE | 500 | | | | S | 2nd |
| R231 | 7 | 3533 | 9NE | 500 | | | | S | 1 |
| R232 | 8 | 3927 | 9NW | 500 | | | | Sl | 1 |
| R233 | 8 | 3927 | 9NW | 500 | | 400 | | G | 6ndt |
| R234 | 8 | 3927 | 9NW | 500 | | 200 | | (Di) | 2ndg |
| R235 | 8 | 3929 | 9NW | 500 | | | | T | 6ndt |
| R236 | 8 | 3929 | 9NW | 500 | | | | Sl | 1 |
| R237 | 8 | 3931 | 9NE | 500 | | | | Ki | 1 |
| R238 | 8 | 3933 | 9NE | 450 | | | | (Ki) | 2nd |
| R239 | 9 | 3595 | 9NE | 500 | | | | Ki | 1 |
| R240 | 13 | 3701 | 2SE | 500 | | | | (Ki) | 2nd |
| R241 | 13 | 3695 | 1SE | 200 | | 110 | | Di-Ad | 3g |
| R242 | 13 | 3695 | 1SE | 455 | | | 455 | (Ki) | 2nd |
| R243 | 7 | 3525 | 8NE | 500 | | | | (Ki) | 2nd |
| R244 | 7 | 3527 | 8NE | 500 | | | | (Ki) | 2nd |
| R245 | 8 | 2923 | 8NE | 400 | | 87 | | (Di)-Ad | 3g |
| R246 | 8 | 3923 | 8NE | 500 | | | | (Ki) | 2nd |
| R247 | 7 | 3525 | 8NE | 500 | | 95 | | Di-Ad | 3g |
| R248 | 8 | 3925 | 8NE | 180 | | 90 | | (Di)-Ad | 3g |
| R249 | 8 | 3921 | 8NE | 500 | | | | (Ki) | 2nd |
| R250 | 9 | 3589 | 4SE | 200 | | 99 | | Di-Ad | 3g |
| R251 | 8 | 3923 | 8NE | 400 | | | | Ki | 1 |
| R252 | 8 | 3925 | 8NE | 200 | | 140 | | Di-Ad | 3g |
| R253 | 8 | 3925 | 8NE | 500 | | | | Ki | 1 |
| R254 | 8 | 3927 | 9NW | 500 | | | | (Di) | 2ndg |
| R255 | 8 | 3919 | 8NW | 410 | | | | Di | 2g |
| R256 | 8 | 3919 | 8NW | 500 | | 147 | | Di-Ad | 3g |
| R257 | 8 | 3917 | 8NW | 350 | | | | Di | 2g |
| R258 | 8 | 3919 | 8NW | 300 | | 260 | | Ki | 1 |
| R259 | 7 | 3523 | 8NW | 200 | | 70 | | Di-Ad | 3g |
| R260 | 7 | 3523 | 8NW | 235 | | 225 | | (Di) | 2ndg |
| R261 | 8 | 3931 | 9NE | 500 | | | | Ki | 1 |
| R262 | 9 | 3593 | 9NW | 500 | | | | Ki | 1 |
| R263 | 7 | 3523 | 8NW | 500 | | 300 | | (Ki) | 2nd |
| R264 | 9 | 3583 | 8NW | 190 | | 175 | | (Di) | 2ndg |
| R265 | 9 | 3583 | 8NW | 270 | | | | (Ki) | 2nd |
| R266 | 7 | 3533 | 9NE | 500 | | | | S | 2s |
| R267 | 8 | 3933 | 9NE | 290 | | 270 | | Ki | 1 |
| R268 | 8 | 3933 | 9NE | 510 | | | | S | 1 |
| R269 | 7 | 3535 | 9SE | 500 | | | | S | 2nd |
| R270 | 7 | 3535 | 9SE | 500 | | | | S | 1 |
| R271 | 7 | 3533 | 9SE | 500 | | | | S | 1 |
| R272 | 6 | 3506 | 9SE | 500 | | | | S | 2snd |
| R273 | 6 | 3506 | 9SE | 500 | | | | T | 6ndt |
| R274 | 7 | 3535 | 9SE | 500 | | | | (M) | 3nd |
| R275 | 6 | 3506 | 9SE | 400 | | 360 | | S | 2s |
| R276 | 6 | 3504 | 9SE | 500 | | | | S | 1 |
| R277 | 7 | 3537 | 9SE | 500 | | 470 | | T | 6ndt |
| R278 | 5 | 3479 | 9SW | 500 | | | | (A) | 3snd |
| R279 | 5 | 3479 | 9SW | 500 | | | | T | 6ndt |
| R280 | 6 | 3508 | 9SW | 500 | | | | T | 6ndt |
| R281 | 6 | 3510 | 9SW | 500 | | | | S | 1 |
| R282 | 5 | 3477 | 9SW | 500 | | 470 | | Ts | 6sndt |
| R283 | 6 | 3510 | 9SW | 500 | | | | S | 2s |
| R284 | 6 | 3510 | 9SW | 500 | | | | S | 2snd |
| R285 | 6 | 3510 | 9SW | 500 | | | | S | 2nd |
| R286 | 6 | 3510 | 9SW | 510 | | 480 | | Ts | 6sndt |
| R287 | 6 | 3510 | 9SW | 500 | | | | (B) | 3sd |
| R288 | 6 | 3512 | 8SE | 500 | | | | Ts | 6sndt |
| R290 | 6 | 3514 | 8SE | 500 | | | | S | 2nd |
| R291 | 6 | 3514 | 8SE | 510 | | | | S | 1 |
| R292 | 6 | 3514 | 8SE | 500 | | | | S | 2nd |
| R293 | 6 | 3514 | 8SE | 500 | | | | S | 2s |
| R294 | 2 | 3387 | 12SE | 495 | 495 | 400 | | Ts | 6sndt |

| Site | Run | Photograph | Mosaic | Depth (cm) | Depth (Cm) to | | | Soil Type | Land Class |
|------|-----|------------|--------|------------|---------------|-------------|--------|-----------|------------|
| | | | | | Water | >10% Gypsum | Gravel | | |
| R295 | 3 | 3419 | 12SE | 510 | 510 | | | Ts | 6snt |
| R296 | 4 | 3447 | 12NE | 500 | | | | G | 6nd |
| R297 | 2 | 3387 | 12SE | 500 | | | | Ts | 6snt |
| R298 | 4 | 3449 | 12NE | 500 | | | | F | 6nd |
| R299 | 4 | 3449 | 12NE | 500 | | | | F | 6nd |
| R300 | 3 | 3421 | 12SE | 500 | | | | Ts | 6snt |
| R301 | 4 | 3449 | 12NE | 500 | | | | (B) | 3sd |
| R302 | 5 | 3483 | 12NE | 500 | | | | S | 2nd |
| R303 | 5 | 3481 | 12NE | 500 | | | | (M) | 3nd |
| R304 | 5 | 3483 | 12NE | 500 | | | | Sl | 1 |

Site No. R.201

Almost level land, tending to slope to the south east. 95% of the land is under cereal. The natural vegetation consists of some shok and Poa bulbosa. The surface exhibits moderately well developed fine polygonal cracking and is fairly well slaked.

- 0-15 cms. Yellowish brown (10YR 5/4) silty clay loam. Just moist, soft; weak angular platy to 5 cms. over weak fine subangular nutty with weak fine vertical cracks; fairly friable; no visible salts; many visible pores and roots.
- 15-100 cms. Yellowish brown (10YR5/4) silty clay loam to silty clay. Dry, fairly hard; moderately well developed medium subangular blocky and fine vertical cracking; fairly hard consistence, absorbing water slowly; carbonate concretions present to 70 cms.
- 100-145 cms. Yellowish brown (10YR5/4) silty clay loam to loamy sand. As 15-100 cms. but structureless, with shok roots present, no visible salts.
- 145-230 cms. Yellowish brown (10YR5/4) silty loam. As 100-145 cms. but denser. Brown mottling present.
- 230-375 cms. Brown (7.5YR 5/4) silty clay. Moist, soft; structureless; mellow; gypsum present; black staining present.
- 375-395 cms. Reddish brown (5YR 4/4) clay. As 230-375 cms. but much stiffer.
- 395-415 cms. Yellowish brown (7.5YR 5/4) silt loam. Wet, fairly soft; structureless; fairly friable; gypsum present.
- 415-425 cms. Reddish brown (5YR 4/4) silty clay. As 375-395 cms. but more gypsum.
- 425-440 cms. Yellowish brown (10YR 5/4) silt loam to fine sandy silt loam. As 395-415 cms.
- 440-455 cms. Brown (7.5YR 5/3) silty clay loam. As 415-425 cms.
- 455-500 cms. Brown (5YR 5/4) variable fine sandy clay with silty clay fragments. As 415-425 cms.

5 metre bore in 2 metre pit
Soil class: (M)1

Date: 30.12.57.
Land classification: 3n

See also laboratory analyses of samples 15363-15367.

Site No. R.202

Almost level land near wadi. Only one third of the land is under cereal, the rest having a patchy cover of Poa bulbosa. The surface appearance varies from a smooth completely slaked surface with fine cracks to slightly raised areas with well developed fine polygonal cracking and flaking.

0-30 cms. Yellowish brown (10YR 5/4) silty clay loam. Almost dry, fairly soft; marked fine vertical cracking and weaker fine angular blocky; fairly friable; few visible pores; some roots; no visible pores.

30-100 cms. Yellowish brown (10YR 5/4) silty clay. Just moist, fairly soft; weak fine subangular blocky structure; friable; small lenses and pockets of sand; carbonate concretions from 30-40 cms. and 90-100 cms.

100-340 cms. Yellowish brown (10YR 5/4) silty clay. Moist, soft; structureless; fairly friable; black and orange mottlings; gypsum common. Becomes wet below 300 cms.

340-420 cms. Yellowish brown (10YR 5/4) silty clay loam. As 200-340 cms.

420-500 cms. Reddish brown (5YR 4/4) silty clay to clay. As 200-340 cms. max.

5 metre bore in 2 metre pit.
Soil class: (B).

Date: 30.12.57.
Land class: C3d

See also laboratory analyses for samples 15368-15374

Site No. R.203

Level land largely uncultivated. The natural vegetation consists of Pea bulbosa, while the surface exhibits considerable minor surface cracking and flaking.

0-25 cms. Yellowish brown (10YR 5/3) silty clay loam. Dry, fairly soft, moderately well developed medium subangular blocky structure; friable; many visible pores and roots; no visible salts.

25-95 cms. Yellowish brown (10YR 5/4) silty clay. As 0-25 cms. but fewer roots and visible pores.

95-170 cms. Light yellowish brown (10YR 6/4) silt to silt loam. Moist, soft; structureless; floury; gypsum present; dark brown mottling.

170-185 cms. Light yellowish brown (10YR 6/4) fine sandy silt loam. As 95-170 cms.

185-200 cms. Light yellowish brown (10YR 6/4) silt loam. As max. 95-170 cms.

2 metre pit
Soil class: (B)

Date: 30.12.57.
Land class: 3rd

See also laboratory analyses for samples 15375-15379.

Site No. R.204

Level uncultivated land with a dense patchwork of Poa bulbosa in depressions with scattered round gilgai. The surface of the higher land shows moderately well developed surface cracking and flaking.

0-25 cms. Yellowish brown (10YR 5/4) silty clay loam. Moist, soft; weak fine angular blocky structure; friable; many visible pores and root channels; carbonate speckling present.

25-90 cms. Yellowish brown (10YR 5/4) silty clay loam. As 0-25 cms. but gypsum present from 38-75 cms.; no carbonate; some black mottling present.

90-200 cms. max. Brown (7.5YR 5/4) silty clay. As 25-90 cms. with gypsum present and occasional hard clay fragments.

2 metre pit
Soil class: B.

Date: 31.12.57.
Land class: 6sd

See also laboratory analyses for samples 15380-15383.

Site No. R.205.

Almost level uncultivated gilgai area. The vegetation consists of thick Poa bulbosa in depressions and forming a thin cover over the higher parts. The amplitude of the gilgai is up to 3 feet. The raised parts exhibit marked minor surface cracking and flaking, while occasional round sink holes occur. The pit was dug across a gilgai channel.

0-40 cms. Dark grey brown (10YR 4/2) silty clay loam to silty clay. Moist, hard; medium vertical cracking; hard consistence, absorbing water slowly; no visible salts.

40-120 cms. Brown (7.5YR 5/4) silty clay to clay. As 0-40 cms. but vertical cracking dying out; gypsum appearing below 90 cms.

120-220 cms. Yellowish brown (10YR 5/6) silty clay loam. Moist, soft; very weak medium angular platy structure; friable consistence; salt efflorescence on pit sides, with gypsum present from 170 cms.; black mottling common.

220-325 cms. Brown to strong brown (7.5YR 5/5) silty clay. As 120-220 cms.

325-340 cms. Brown (7.5YR 5/4) silty clay. As 120-220 cms. but wet max. and much more gypsum and mottling. Water struck at 340 cms.

5 metre bore in 2 metre pit
Soil class: Ts_q

Date: 31.12.57.
Land class: 6s_{ndt}

See also laboratory analyses for samples 15384-15387

Site No. R.206.

Level area, partly under cereal. The natural vegetation consists mainly of Poa bulbosa with slightly raised patches of bare earth. The surface is smooth, completely slaked and covered by fine polygonal cracking.

- 0-27 cms. Brown (7.5YR 5/4) silty clay loam to silty clay. Dry, fairly soft; weak fine angular blocky structure; fairly friable consistence; many visible pores and roots; no visible salts.
- 27-110 cms. Brown (7.5YR 5/4) silty clay. Dry, hard; strong medium vertical cracking with moderately well developed coarse angular blocky structure; hard consistency absorbing water slowly; carbonate concretions present around 30 cms.
- 110-290 cms. Yellowish brown (10YR 5/6) silty clay. Moist, soft; weak medium angular platy structure; floury consistence; many visible pores; gypsum present becoming more common from 200-250 cms.; orange black and dark brown mottling at 110-135 cms. and below 170 cms.
- 290-325 cms. Yellowish brown (10YR 5/6) silty clay loam. As 110-290 cms.
- 325-500 cms. Yellowish brown (10YR 5/6) silty clay loam. Moist, max. fairly hard; massive; hard consistence absorbing water readily; gypsum abundant. Wet below 470 cms. At 500 cms. water was struck.

5 metre bore in 2 metre pit
Soil class: (A)

Date: 31.12.57.
Land class: 3rd

See also laboratory analyses for samples 15388-15390.

Site No. R.207

Almost level uncultivated area with occasional round gilgai. The natural vegetation consists of a thick Poa bulbosa sward with some shok in the depression, with a 50% cover of Poa bulbosa elsewhere. The surface showed smooth bare patches with well developed fine surface cracking and flaking, with some coarse polygonal cracking.

- 0-30 cms. Yellowish brown (10YR 5/4) silty clay loam. Moist, soft; weak medium angular platy with weak vertical cracking structure; floury consistence; no visible salts.
- 30-90 cms. Strong brown (10YR 5/6) silty clay loam. Dry, hard; marked vertical cracking with weak medium angular blocky structure; hard consistency, absorbing water fairly slowly; gypsum flecking from 30-45 cms.
- 90-200 cms. Yellowish brown (10YR 5.5/4) silt loam. Moist, soft; weak medium angular blocky structure; floury; many root channels; gypsum present.
- 200-260 cms. Yellowish brown (10YR 5/4) silt loam to sandy loam. As 90-200 cms. but structureless.
- 260-330 cms. Brown (7.5YR 5/4) silty clay loam. As 200-260 cms. but traces of orange mottling.
- 330-450 cms. Brown (7.5YR 5/4) silty clay. As 200-260 cms. but wetter.
- 450-500 cms. Strong brown (7.5YR 5/6) silty clay. Wet, stiff; max. structureless; fairly friable; black and orange mottlings; gypsum very common.

5 metre bore in 2 metre pit.
Soil class: Ts

Date: 1.1.58.
Land classification: 6sndt

See also laboratory analyses of samples 15391-15393.

Site No. R,208

Flat uncultivated land covered by patches of Poa bulbosa. The surface is smooth and completely slaked, while both coarse and fine surface cracking are common.

- 0-7 cms. Brown (7.5YR 5/4) silty clay loam. Moist, soft; moderately well developed medium angular blocky and platy structure; floury; apart from surface layer which absorbs water only slowly; no visible salts.
- 7-88 cms. Brown (7.5YR 5/4) silty clay. Just moist, hard; stony medium vertical cracking with moderately well developed medium subangular blocky structure; hard consistency absorbing water only slowly; gypsum present.
- 88-100 cms. Yellowish brown (10YR 5/6) silt loam. As 0-7 cms. but structureless.
- 100-190 cms. Brown (7.5YR 5/4) silty clay. Moist, soft; weak angular blocky structure; floury; gypsum flecking present; fragments of clay in root channels; orange and yellow mottling.
- 190-510 cms. max. Strong brown (7.5YR 5/6) silty clay. Moist, soft, structureless; mellow; gypsum appears below 280 cms; water is struck at 510 cms.

5 metre bore in 2 metre pit.
Soil class (A)

Date: 1.1.58.
Land class: 3rd

See also laboratory analyses for samples 15394-15397.

Site No. R.209

Smooth gentle uncultivated slope to the south west at between $\frac{1}{2}$ and 1° . The natural vegetation consists of a Pea bulbosa sward with bands of Carex sp. running south east - north west. The surfaces of the bare smooth patches show complete slaking, with fine polygonal cracking present. Beneath the vegetation on the slight rises slaking and cracking are considerably less.

- 0-8 cms. Brown (10YR 5/3) silty clay loam. Dry, fairly hard; well developed medium angular platy and blocky structure; fairly friable, wetting down fairly easily; no visible salts.
- 8-90 cms. Yellowish brown (10YR 5/4) silty clay loam. Just moist, fairly soft; weak fine subangular blocky structure; friable consistence; very many visible pores and roots; gypsum present from 12-20 cms.
- 90-145 cms. Reddish brown (5YR 4/3) silty clay. Moist, fairly soft; weak medium angular blocky structure; platy fracture; fairly friable absorbing water readily; with a 2-3 cms. band of black speckling at 97 cms.; gypsum common.
- 145-210 cms. Mixture of reddish brown (5YR 5/4) silty clay and yellowish brown silt loam. Moist, soft; marked fine laminations; floury; many visible pores and channels; some black staining of the silty clay fraction; gypsum present.
- 210-425 cms. Yellowish brown (10YR 5/6) silt loam. Moist, soft, structureless apart from sandy partings; floury; few visible pores; gypsum present, becoming abundant and "sugary" below 250 cms. Below 290 cms. fragments of silty clay to clay appear; also black staining.
- 425-440 cms. Brown (7.5YR 5/4) clay. Moist, very hard; structureless; hard consistence absorbing water only slowly; gypsum present. Bore stopped at 440 cms. as it became too hard to auger.

5 metre bore in 2 metre pit.
Soil class: B.

Date: 2.1.57.
Land class: 6sd

See also laboratory analyses of samples 15398-15402

Site No. R.210

Gently undulating uncultivated gypsum hills forming a thin Poa bulbosa covered steppe with white lichens. The surface was smooth and the bare patches completely slaked.

0-17 cms. Yellowish brown (10YR 5/6) sandy clay loam. Dry, soft; weak fine subangular blocky structure below top 1 cm.; of strong fine platy; angular blocky fracture; friable, absorbing water readily; many visible pores and roots; no visible salts.

17-40 cms. Brown (7.5YR 5/4) sandy clay. Moist, gypsum present otherwise as 1-17 cms.

40-80 cms. max. Brown (7.5YR 5/4) gypseous clay. Moist, hard; massive; hard consistence yet absorbs water readily; abundant gypsum.

2 metre pit.

Soil class: Ad

Date: 2.1.58.

Land class: 6g

See also laboratory analyses for samples 15403-15405.

Site No. R.211.

Cereal crop sloping slightly towards a large wadi. The few weeds consist of Pea bulbosa. The surface is fairly rough with occasional deep wide cracks; marked slaking is common with much fine surface cracking.

- 0-12 cms. Yellowish brown (10YR 5/4) silty clay loam. Moist, soft; weak fine laminations and medium subangular blocky structure; floury; many visible pores and roots; no visible salts.
- 12-27 cms. Yellowish brown (10YR 5/6) silty clay loam. Dry, hard; weak vertical cracking and medium angular blocky structure; hard consistency absorbing water fairly easily; some gypsum present.
- 27-86 cms. Brown (7.5YR 5/4) silty clay. As 12-27 cms. but harder with more strongly developed structure; absorbs water only slowly; no visible salts.
- 86-135 cms. Yellowish brown (10YR 5/4) silty clay loam. Moist, soft; weak fine angular blocky structure; floury consistence; many visible pores and root channels; gypsum common.
- 135-210 cms. Brown (7.5YR 5/4) silty clay. As 27-86 cms. with gypsum common but no vertical cracking.
- 210-310 cms. Yellowish brown (10YR 5/4) silty clay loam. Moist, soft; structureless; floury; some visible pores present; some gypsum present and black speckling.
- 310-335 cms. Yellowish brown (10YR 5/8) sandy clay loam. As 210-310 cms.
- 335-370 cms. Brown (7.5YR 5/4) clay. Moist, hard; massive; conchoidal and angular fractures; hard consistency absorbing water fairly readily; gypsum abundant.

5 metre bore in 2 metre pit.
Soil class: (A)

Date: 4.1.58.
Land class: 3rd

See also laboratory analyses for samples 17817-17821.

Site No. R.212.

Gently undulating uncultivated hills with a generally southerly slope. The surface is covered by a thin Poa bulbosa sward and scattered lichens. The ground is smooth with a slaked surface with a few minor surface cracks.

- 0-5 cms. Brown to dark brown (10YR 4/3) sandy clay loam. Moist, very soft; weak fine subangular blocky structure; very friable; many visible pores and roots; no visible salts.
- 5-22 cms. Yellowish brown (10YR 5/6) clay loam. As 0-5 cms.
- 22-93 cms. Strong brown (7.5YR 5/6) clay loam. As 0-5 cms. but weak medium vertical cracking on the pit sides; gypsum common from 27.78 cms.
- 93-103 cms. Strong brown (7.5YR 5/6) clay loam. Moist, hard; max. massive; hard consistence absorbing water readily; gypsum abundant.

2 metre pit.
Soil class: Di-Ad

Date: 4.1.58.
Land class: 3g

See also laboratory analyses for samples 17822-17824.

Site No. R.213.

Slight southerly slope to uncultivated land near a wadi. The vegetation is a patchy Poa bulbosa sward forming a banded pattern. The bare ground exhibits a smooth slaked surface with small fine polygonal cracks.

0-7 cms. Brown (10YR 5/3) sandy clay loam. Moist, soft; weak fine angular platy and finely laminated structure; very friable; many visible pores and roots; many small bulbs; no visible salts.

7-93 cms. Brown (7.5YR 5/4) clay loam. Moist, soft; weak fine subangular blocky structure; friable; many visible pores and roots; gypsum increasing with depth.

93-110 cms. max. Brown (7.5YR 5/4) gypseous clay. Moist, soft; massive; absorbs water readily; few visible pores or roots; abundant gypsum.

2 metre pit
Soil class: B-Ad

Date: 4.1.58.
Land class: 6sd

See also laboratory analyses of samples 17825-17827.

Site No. R.214.

Virtually level, uncultivated land near a wadi. The surface consists of a patchwork of thin Poa bulbosa sward and a smooth surface with considerable minor surface cracking and patches of flaking.

- 0-10 cms. Yellowish brown (10YR 5/4) fine sandy loam. Moist, soft; weak fine angular blocky and laminated structure; friable; many visible pores and roots; concretions of a white salt (probably gypsum) below 10 cms.
- 10-63 cms. Brown (7.5YR 5/4) sandy clay loam to clay loam. Moist, hard; weak medium angular blocky and medium vertical cracking; fairly friable, absorbing water readily; many visible pores but few roots; gypsum common.
- 63-132 cms. Strong brown (7.5YR 5/6) sandy clay. Moist, hard; massive apart from weak vertical cracking; absorbs water fairly readily; less gypsum apparently ceasing at 125 cms.
- 132-150 cms. Strong brown (7.5YR 5/6) gypseous clay. Moist, very hard; massive; absorbs water readily; abundant gypsum.

2 metre pit.
Soil class: B-Ad

Date: 4.1.58.
Land class: 6sd

See also laboratory analyses of samples 17828 -17830.

Site No. R.215.

Level recently ploughed cereal field with occasional shok plants.

- 0-25 cms. Yellowish brown (10YR 5/4) silty clay loam. Moist, soft; weak fine angular blocky structure; many visible pores and roots; floury consistency; no visible salts.
- 25-40 cms. Reddish brown (5YR 4/4) silty clay loam. Just moist fairly hard; weak medium angular blocky structure and medium vertical cracking; fairly hard consistency, absorbing water fairly readily; carbonate concretions present.
- 40-140 cms. Brown (7.5YR 5/4) silty clay loam to silty clay. Almost dry, hard; weak vertical cracking with weak coarse laminations and medium angular blocky structure; hard consistency absorbing water readily; carbonate concretions common to 80 cms. and present to 130 cms.
- 140-350 cms. Yellowish red (5YR 4/6) silty clay. Just moist, hard; weak fine angular blocky structure; fairly friable; many visible pores and roots; orange and yellow mottling; a few blank specks of organic matter; no visible salts.
- 350-500 cms. Yellowish brown (10YR 5/6) silt loam. As 140-350 cms. max. but floury consistence with some gypsum present.

5 metre bore in 2 metre pit.
Soil class: Ki.

Date: 9.1.58.
Land class: 2.

See also laboratory analyses of samples 17831-17834

Site No. R.216.

Almost level cereal crop near an old canal line (never used). The main weed is Prosopis farcta. The pit is in a shallow gilgai depression sited on the puff.

0-30 cms. Brown to dark brown (10YR 4/4) silty clay. Wet, soft; weak angular blocky structure; fairly friable; many visible pores and roots; some dark stains; no visible salts.

30-100 cms. Yellowish brown (10YR 5/4) silty clay. Almost dry, very hard; strong vertical cracking, with tendency to prismatic structure; dense; hard consistence, absorbing water only fairly slowly; many visible pores and some roots; some carbonate concretions.

100-280 cms. Brown (7.5YR 5/4) silty clay to silty clay loam. Almost dry, very hard; weak medium angular platy structure; otherwise massive; hard consistence absorbing water fairly readily; carbonate concretions common below 130 cms.

280-500 cms. Yellowish brown (10YR 5/4) silty clay loam. Dry max. with weak laminations, otherwise as 100-280 cms.

5 metre bore in 2 metre pit.
Soil class: G.

Date: 9.1.58.
Land class: 3ndt.

See also laboratory analyses for samples 17835-17838

Site No. R.217

Slight southerly slope on uncultivated land near an old tel. The natural vegetation consists of patches of Poa bulbosa with shok occurring in the depression. The surface has bare occasional scattered round gilgai on it, while the vegetation is mainly confined to the shelves and the slightly raised areas between the gilgai.

- 0-10 cms. Yellowish brown (10YR 5/4) silty loam. Moist, soft; weak fine laminations to 4 cms. over weak medium angular blocky structure; friable; many visible pores and roots; a few white powdery gypsum concretions.
- 10-80 cms. Yellowish brown (10YR 5/4) silty clay loam. As 4-10 cms. but gypsum decreasing with depth.
- 80-120 cms. Yellowish brown (10YR 5/5) silty clay loam. Moist, soft weak medium subangular blocky structure; mellow; gypsum present.
- 120-240 cms. Brown (7.5YR 5/4) mixed silty clay. Moist, hard; weak medium subangular blocky structure; with current bedding units showing on side of pit due to laminations of silt loam; hard consistence, absorbing water readily; black staining present; efflorescence of salt on pit side below 140 cms; traces of gypsum below 200 cms.
- 240-260 cms. Yellowish brown (10YR 5/6) silty clay loam. Moist, soft; structureless; mellow; no visible salts.
- 260-280 cms. Brown (10YR 5/3) rather mixed sandy loam. As 240-260 cms.
- 280-310 cms. Brown (7.5YR 5/4) mixed silty clay loam. As 240-260 cms.
- 310-340 cms. Yellowish brown (10YR 5/4) fine sandy silt loam. As 240-260 cms., but below 330 cms. silty clay fragments with gypsum occur.
- 340-370 cms. Yellowish brown (10YR 5/4) silty clay loam. As 240-260 cms. but gypsum present, and also some orange mottlings.
- 370-500 cms. Brown (7.5YR 5/4) silty clay. As 240-260 cms. but gypsum present, also black specks.

5 metre bore in 2 metre pit.
Soil class: B

Date: 10.1.58.
Land class: 6sd

See also laboratory analyses of samples 17839-17843.

Site No. R.218

Level area with a dense Poa bulbosa cover. Occasional large round gilgai (of tank form) occur, usually with shôk in the depression. Sometimes a few bare patches may be found with a surface exhibiting moderately well developed minor and coarse cracking and some flaking.

- 0-20 cms. Dark yellowish brown (10 YR 4/4) silty clay loam. Moist, soft; weak fine platy structure to 3 cms. over weak fine angular blocky structure; many visible pores and roots; no visible salts; bulbs present.
- 20-45 cms. Yellowish brown (10 YR 5/6) silty clay loam. Just moist, fairly soft; weak fine angular blocky structure; friable; carbonate concretions present from 30 cms.
- 45-115 cms. Yellowish brown (10 YR 5/4) silty clay loam. As 20-45 cms., but mellow to floury consistence.
- 115-165 cms. Yellowish brown (10 YR 5/4) silty clay. As 45-115 cms. with some black specks.
- 165-245 cms. Yellowish brown (10 YR 5/6) variable silty clay loam. As 45-115 cms. but more gypsum present; also some silty clay fragments with black staining.
- 245-450 cms. max. Brown (7.5 YR 5/4) silty clay to clay. As 45-115 cms. but stiffer and wetter. Water was struck at 450 cms.

5 metre bore in 2 metre pit.
Soil class: (B)

Date: 10.1.58.
Land class: 3rd

See also laboratory analyses for samples 17844 - 17849

Site No. 219

Sloping land under cereals at the foot of a Jebel, about 1½ kilometres away. The natural vegetation consists of Artemisia and shök. The ground surface is slightly slaked and has many carbonate concretions on the surface.

- 0-10 cms. Brown (10 YR 5/3) sandy loam. Moist, soft; weak, fine platy structure to 2 cms. over weak fine angular blocky structure; friable; few visible pores but many roots; no visible salts.
- 10-25 cms. Brown to strong brown (7.5 YR 4/4) silty clay loam. As 2-10 cms. but black staining in old root channels.
- 25-110 cms. Brown (7.5 YR 5/4) silty clay loam. Almost dry, fairly hard; weak fine subangular blocky structure; fairly hard consistence wetting down fairly easily; many visible pores and roots; numerous carbonate concretions.
- 110-350 cms. Strong brown (7.5 YR 5/6) fine sandy clay to silty clay loam. Dry, hard; structureless; hard consistency and not absorbing water at all readily; occasional carbonate concretions. Below 280 cms. more sand appears.
- 350-500 cms. max. Brown (7.5 YR 5/4) variable sandy clay loam. As 25-110 cms. but few carbonate concretions, and with gypsum and silty clay fragments present; some fine laminations present. Below 450 cms. gypsum becomes common.

5 metre bore in 2 metre pit.
Soil class: (Ki)

Date: 13.1.58
Land class: 2 nd

See also laboratory analyses for samples 17850-17853

Site No. R,220

Gently undulating low hills with occasional shallow gullies. The area is entirely under cereals with sparse shrub and Artemisia as weeds. The surface has slaked badly.

- 0-15 cms. Brown (7.5 YR 5/4) fine sandy clay loam. Wet, soft; weak fine platy in the top 3 cms. over weak fine subangular blocky structure; friable; few visible pores; no visible salts.
- 15-35 cms. Strong brown (7.5 YR 5/6) sandy clay. As 3-15 cms. but many roots.
- 35-115 cms. Strong brown (7.5 YR 5/6) silty clay. Dry and hard; weak fine subangular blocky structure and vertical cracking; hard consistency yet absorbs water readily; many visible pores and roots channels; numerous carbonate concretions.
- 115-220 cms. Strong brown (7.5 YR 5/6) silty clay. As 35-115 cms. but many more pores and root channels and fewer carbonate concretions; prismatic fracture.
- 220-340 cms. Strong brown (7.5 YR 5/8) sandy clay. Almost dry, hard; structureless; hard consistency, absorbing water readily; much gypsum present.
- 340-360 cms. Strong brown (7.5 YR 5/6) gypseous clay. As 220-340 cms. max. but abundant gypsum and black staining.

5 metre bore in 2 metre pit
Soil class: Ki

Date: 13.1.58
Land class: 1

See also laboratory analyses of samples 17854 - 17857

Site No. R.221

Almost level; cereal crop near a shallow gulley and a large tel. The natural vegetation consists of patchy Artemisia campestris, while the surface of the plough has slaked badly.

- 0-20 cms. Yellowish brown (10 YR 5/6) silty loam. Wet, soft; structureless below weak fine platy to 2 cms; friable; many live roots; no visible salts.
- 20-115 cms. Yellowish brown (10 YR 5/6) silty clay loam. Just moist, fairly hard; weak fine subangular blocky structure; absorbs water readily; many visible pores and root channels, many carbonate concretions.
- 115-360 cms. Brown (7.5 YR 5/4) variable silty clay loam. Just moist; hard; moderately well developed medium angular blocky structure, with weak vertical cracking; hard consistency that does not absorb water readily; occasional carbonate concretions. Many pores and root channels.
- 360-460 cms. Brown (7.5 YR 5/4) variable silty clay loam. Dry, otherwise as 20-115 cms. but no visible salts. Consistency is fairly friable, while black staining occurs.
- 460-500 cms. Strong brown (7.5 YR 5/6) silty clay. Slightly moist, very hard, massive; absorbs water readily; many visible pores and root channels; gypsum very common, becoming abundant below 490 cms.

5 metre bore in 2 metre pit
Soil class: (Ki)

Date: 13.1.58
Land class: 2 nd

See also laboratory analyses of samples 17858 - 17861

Site No. R.222

Level field of wheat with occasional shallow gullies. The only natural vegetation to be seen are a few spring annuals. The ploughed surface shows considerable slaking.

- 0-25 cms. Brown (10 YR 5/3) silt loam. Wet, soft; weak fine platy to 1 cm. otherwise structureless; friable; many live roots, no visible salts.
- 25-120 cms. Brown (7.5 YR 5/4) silty clay loam. Moist becoming just moist below 70 cms. Soft; weak fine subangular nutty structure; friable; many visible pores and root channels; carbonate concretions common.
- 120-185 cms. Strong brown (7.5 YR 5/6) variable silty clay loam. Just moist, hard, moderately well developed medium vertical cracking with weak medium angular blocky structure; hard consistence, wetting down only slowly; black stains and orange mottling present; no visible salts.
- 185-260 cms. Yellowish brown (10 YR 5/4) silty clay loam. Moist, soft; structureless; apart from fine laminations; floury; no visible salts, weak fine angular blocky fracture.
- 260-300 cms. Yellowish brown (10 YR 5/6) silt loam. Moist, soft, structureless; floury; no visible salts.
- 300-335 cms. Yellowish brown (10 YR 5/6) silty clay loam. As 185-260 cms.
- 335-345 cms. Yellowish brown (10 YR 5/6) silty loam. As 260-300 cms.
- 345-500 cms. Yellowish brown (10 YR 5/6) silty clay loam. As 185-260 cms. max.

5 metre bore in 2 metre pit
Soil class: (Ki)

Date 13.1.58
Land class: 2 nd

See also laboratory analyses of samples 17862 - 17870

Site No. R.223

Slightly sloping wheat field with occasional shallow gullies. The natural vegetation consists of Artemisia campestris. Fallow surfaces show marked surface slaking.

- 0-16 cms. Brown (10 YR 5/3) fine sandy loam. Wet, soft; weak fine platy to 2 cms. over structureless; friable; few visible pores; no visible salts.
- 16-35 cms. Brown (10 YR 5/3) fine sandy loam. Moist, soft; weak medium angular blocky structure; friable; many visible pores and live roots. Some carbonate concretions.
- 35-100 cms. Brown (7.5 YR 5/4) fine sandy clay loam. Dry, hard; weak fine subangular blocky structure; absorbs water readily in spite of hard consistence; many visible pores and roots; carbonate concretions common.
- 100-250 cms. Brown (7.5 YR 5/4) fine sandy clay. As 35-100 cms. but weak medium subangular blocky structure, with sparse carbonate concretions.
- 250-290 cms. Strong brown (7.5 YR 5/6) fine sandy loam. As 100-250 cms. but weak fine laminations and no visible salts.
- 290-380 cms. Strong brown (7.5 YR 5/6) fine sandy clay loam. Just moist, hard; structureless apart from weak laminations of sandy clay; dense; hard consistence absorbing water fairly slowly; few visible pores; gypsum present from 300 cms.
- 380-400 cms. Brown (7.5 YR 5/4) silty clay loam. As 290-380 cms., but absorbing water fairly readily. Many visible pores.
- 400-410 cms. Brown (7.5 YR 5/4) gypseous clay. As 290-380 cms. but abundant gypsum.
- 410-500 cms. Strong brown (7.5 YR 5/6) silty clay loam. As 400-410 cms. max.

5 metre bore in 2 metre pit.
Soil class: Ki

Date: 13.1.58
Land class: 1

See also laboratory analyses for samples 17871 - 17874

Site No.R.224

Gently undulating cereal field with frequent shallow gullies. The natural vegetation consists of sparse Artemisia campestris, which is thicker in the wadies. The ploughed surface shows moderate slaking.

- 0-10 cms. Dark yellowish brown (10 YR 4/4) silt loam. Moist, soft; weak fine platy to 2 cms. over structureless; friable; many live roots; no visible salts.
- 10-100 cms. Brown (7.5 YR 5/4) silty clay loam to fine sandy clay loam. Just moist, fairly hard; weak medium subangular blocky structure, and fine vertical cracking; hard consistence yet absorbing water readily; numerous visible pores; carbonate concretions common.
- 100-210 cms. Brown (7.5 YR 5/4) silty clay loam. Just moist, very hard; weak medium angular blocky structure; hard consistence; absorbing water fairly readily; some carbonate concretions present.
- 210-350 cms. Reddish yellow (7.5 YR 6/8) silty loam. As 100-210 cms. but no visible salts.
- 350-450 cms. Strong brown (7.5 YR 5/6) silty clay loam. As 210-350 cms. but weak fine laminations; also hard silty clay fragments.
- 450-500 cms. Strong brown (7.5 YR 5/8) sandy clay loam. Moist, hard; well developed medium to fine laminations of silt loam to sandy loam; hard consistence absorbing water fairly slowly; few visible pores; gypsum present.

5 metre bore in 2 metre pit
Soil class: Ki

Date: 14.1.58
Land class: 1

See also laboratory analyses of samples 17875 - 17878

Site No. R.225

Slightly undulating cereal field with occasional shallow gullies. The vegetation consists of sparse Artemisia campestris, while the surface is freshly ploughed with negligible slaking.

- 0-12 cms. Yellowish brown (10 YR 5/6) fine sandy silt loam. Wet, soft; weak fine subangular blocky structure; friable; few visible pores but many live roots; no visible salts.
- 12-27 cms. Brown (7.5 YR 5/4) silty clay loam. Moist, black staining, otherwise as 0-12 cms.
- 27-110 cms. Strong brown (7.5 YR 5/6) silty clay loam. Dry, carbonate concretions and weak medium vertical cracking present; otherwise as 0-12 cms.
- 110-200 cms. Reddish yellow (7.5 YR 6/6) fine sandy clay. Dry, hard; weak medium angular blocky structure; hard consistency yet absorbing water readily; many visible pores and root channels; some carbonate concretions.
- 200-230 cms. Strong brown (7.5 YR 5/8) fine sandy clay loam. As 110-200 cms. but just moist.
- 230-380 cms. Brown (7.5 YR 5/4) silty clay loam. As 200-230 cms. but fine laminations present with black specklings and traces of gypsum.
- 380-400 cms. Brown (7.5 YR 5/4) silty clay to clay. Moist, hard; max. massive; hard consistence; absorbing water readily; gypsum abundant.

5 metre bore in 2 metre pit
Soil class: Ki

Date: 14.1.58
Land class: 1

See also laboratory analyses of samples 17879 - 17882

Site No. R.226

Cereal crop with a slight northerly slope and occasional shallow gullies. The natural vegetation consists of sparse Artemisia campestris. The surface is badly slaked and some round pebbles occur.

- 0-23 cms. Brown to dark brown (10 YR 4/3) fine sandy clay loam. Wet, soft; structureless; friable; many live roots and visible pores. No visible salts.
- 23-47 cms. Brown to dark brown (10 YR 4/3) silty clay loam. Dry, hard; weak medium angular blocky structure; hard consistency yet absorbing water readily; many visible pores and roots; occasional round stones; no visible salts.
- 47-117 cms. Brown to strong brown (7.5 YR 5/5) silty clay loam. Dry, hard; weak fine subangular nutty structure; hard consistence, wetting down easily; many visible pores and roots; carbonate concretions common; occasional round stones present.
- 117-120 cms. Yellowish brown (10 YR 5/4) loamy sand. As 0-23 cms., but pebbly.
- 120-225 cms. Brown (7.5 YR 5/4) rather mixed silty clay loam. As 47-117 cms. but structureless.
- 225-400 cms. Yellowish brown (10 YR 5/4) silty clay loam. Almost dry, soft; structureless; floury consistence; carbonate flecking present.
- 400-470 cms. Yellowish brown (10 YR 5/4) variable silty clay loam. As 225-400 cms. but finely laminated.
- 470-500 cms. Yellowish brown (10 YR 5/4) sandy clay. As 400-470 cms. max.

5 metre bore in 2 metre pit
Soil class: Ki

Date: 14.1.58
Land class: 1

See also laboratory analyses for samples 17883-17887

Site No. R.227

Almost level uncultivated land with a Poa bulbosa sward forming a light compact mat.

- 0-15 cms. Brown to dark brown (10 YR 4/3) fine sandy clay loam. Moist, soft; strong fine platy to 4 cms. over weak medium subangular blocky structure; very friable; many visible pores and live roots; no visible salts.
- 15-40 cms. Brown (7.5 YR 5/4) silty clay loam. As 4-15 cms. but carbonate concretions present.
- 40-50 cms. Brown (7.5 YR 5/4) silty clay loam. Dry, otherwise as 15-40 cms.
- 50-110 cms. Brown (7.5 YR 5/4) silty clay. Almost dry, hard; weak fine subangular blocky structure; hard consistency, but absorbs water fairly easily; many visible pores and root channels; some carbonate concretions.
- 110-130 cms. Brown (7.5 YR 5/4) silty clay. Almost dry, hard; moderately well developed medium angular blocky structure and weak fine laminations; hard consistency, absorbing water only slowly; few visible pores, no visible salts.
- 130-175 cms. Yellowish brown (10 YR 5/6) silty clay loam. As 50-110 cms. but no visible salts.
- 175-250 cms. Yellowish brown (10 YR 5/6) very mixed silty clay loam. Slightly moist becoming moist below 180 cms., soft; strong fine laminations; friable; no visible salts; traces of black mottling.
- 250-280 cms. Yellowish brown (10 YR 5/6) silty loam. Just moist, soft; structureless; floury; many visible pores; no visible salts.
- 280-320 cms. Yellowish brown (10 YR 5/6) mixed silty clay loam. As 175-250 cms., but gypsum present.
- 320-400 cms. Yellowish brown (10 YR 5/6) silt loam. As 250-280 cms. but weak fine laminations and traces of gypsum present.
- 400-500 cms. max. Strong brown (7.5 YR 5/6) variable silty clay loam. As 50-110 cms. but softer; orange and black mottlings present; also gypsum crystals.

5 metre bore in 2 metre pit
Soil class: S

Date: 15.1.58
Land class: 2 nd

See also laboratory analyses for samples 17888 - 17898

Site No. R.228

Level area, mainly under cereals, with occasional deep gulleys. The natural vegetation consists of a Poa bulbosa sward while the surface shows considerable slaking and some moderately well developed fine polygonal cracking.

- 0-15 cms. Brown to dark brown (10YR 4/3) fine sandy clay loam. Moist, soft; strong fine platy to 1.5 cms. over weak medium subangular blocky structure; many visible pores and roots; no visible salts.
- 15-70 cms. Strong brown (7.5YR 5/6) silty clay loam. Almost dry; fairly hard; weak fine subangular blocky structure; hard consistence absorbing water readily; many visible pores and roots; carbonate concretions common.
- 70-120 cms. Strong brown (7.5YR 5/6) silty clay. As 15-70 cms. but gypsum replacing carbonate, while fine laminations occur. It only absorbs water fairly readily.
- 120-135 cms. Strong brown (7.5YR 5/6) variable silty clay loam. As 70-120 cms. but very porous.
- 135-200 cms. Brown (7.5YR 5/4) silt loam. Just moist, soft; structureless; floury; gypsum present.
- 200-220 cms. Yellow brown (10YR 5/6) silt loam. As 135-200 cms.
- 220-310 cms. Brown (7.5YR 5/4) silty clay loam with bands of silty clay. As 135-200 cms. but marked fine laminations.
- 310-325 cms. Strong brown (7.5YR 5/6) silty clay. As 220-310 cms.
- 325-500 cms. Strong brown (7.5YR 5/6) silty clay loam. Moist, soft; max. weak medium angular blocky structure with weak fine laminations; mellow; no visible salts.

5 metre bore in 2 metre pit
Soil class: S

Date: 15.1.58
Land class: 2s

See also laboratory analyses of samples 17899-17904.

Site No. R.229

Slight slope to south east by east (2-3%) with patchy cereal and fallow fields. The natural vegetation consists of patchy Poa bulbosa and Prosopis farcta. The ground surface is completely slaked, smooth and exhibits weak fine minor surface cracking.

- 0-15 cms. Brown to dark brown (10YR 4/3) fine sandy clay loam. Moist, soft; fairly well developed fine platy structure to 1 cm. over weak fine subangular blocky structure; friable; many roots but few visible pores; no visible salts.
- 15-27 cms. Brown (7.5YR 5/4) fine sandy clay loam. Just moist, fairly hard; weak medium subangular blocky structure; fairly hard consistence absorbing water readily; many visible pores and some large cavities; no visible salts.
- 27-120 cms. Brown (7.5YR 5/4) silty clay loam. Almost dry, but absorbs water readily; carbonate concretions common at the top but ceasing by 70 cms. Otherwise as 1-15 cms.
- 120-300 cms. max. Brown (7.5YR 5/4) clay. Moist, very hard; massive; hard consistence yet absorbing water fairly readily; gypsum abundant.

2 metre pit
Soil class: Di-Ad

Date: 16.1.58.
Land class: 3g.

See also chemical analyses for samples 17905-17908.

Site No. R.230.

Level field of irrigated cereal, with dense Artemisia campestris along the canal banks; otherwise little natural vegetation. The surface of nearby fallow land shows marked surface slaking.

- 0-15 cms. Brown to dark brown (10YR 4/3) fine sandy clay loam. Moist, soft; platy to 2 cms. over structureless; friable; many live roots but few visible pores; some black staining; no visible salts.
- 15-25 cms. Yellowish brown (10YR 5/4) sandy clay loam. Just moist, fairly hard; weak medium angular blocky structure; hard consistence yet absorbs water readily; many visible pores; few roots; carbonate concretions present.
- 25-75 cms. Yellowish brown (10YR 5/4) sandy clay loam. Just moist, fairly hard; weak fine subangular blocky structure; hard consistence yet absorbs water readily; carbonate concretions abundant.
- 75-150 cms. Brown (7.5YR 5/4) silty clay loam. As 25-75 cms. but medium subangular blocky structure; fewer carbonate concretions and denser; wets down only fairly easily.
- 150-230 cms. Brown (7.5YR 5/4) silty clay loam. Moist, soft; structureless; floury; no visible salts.
- 230-300 cms. Brown (7.5YR 5/4) mixed silty clay loam to silt loam. As 150-230 cms. but well developed fine laminations; traces of gypsum; fragments of silty clay. Some black staining present.
- 300-350 cms. Yellowish brown (10YR 5/6) silty clay loam. As 150-230 cms. but gypsum present.
- 350-460 cms. Yellowish brown (10YR 5/6) silt loam to silty clay loam. As 230-300 cms.
- 460-500 cms. Light yellowish brown (10YR 6/4) loamy fine sand and max. fine sandy silt. As 230-300 cms. but orange mottlings.

5 metre bore in 2 metre pit.
Soil classification: S.

Date: 16.1.58.
Land classification: 2nd

See also laboratory analyses of samples 17909-17914.

Site No. R.231.

Level uncultivated Poa bulbosa steppe. The surface is completely slaked.

- 0-15 cms. Brown to dark brown (10YR 4/3) fine sandy clay loam. Moist, soft; strong fine plate to 1 cm., over weak medium subangular blocky structure; friable; many visible pores and roots; no visible salts.
- 15-25 cms. Yellowish brown (10YR 5/4) silty clay loam. Moist, fairly hard; weak medium angular blocky structure; hard consistence yet wets down easily; many cavities and visible pores; carbonate concretions present.
- 25-93 cms. Strong brown (7.5YR 5/6) silty clay loam. Almost dry, fairly soft; moderately well developed fine subangular blocky structure; fairly friable, with many visible pores, cavities and a few roots; abundant carbonate concretions.
- 93-97 cms. Yellowish brown (10YR 5/4) fine loamy sand. As 25-93 cms. but no visible salts.
- 97-140 cms. Yellowish brown (10YR 5/4) silty clay to silty clay loam. As 93-97 cms. but with well developed fine laminations.
- 140-197 cms. Light yellowish brown (10YR 6/4) silty fine sand. Almost dry, hard; structureless; hard consistence absorbing water fairly readily; few visible pores; no visible salts.
- 197-235 cms. Yellowish brown (10YR 5/4) silt loam. As 140-197 cms. but more compact and absorbs water only slowly.
- 235-270 cms. Yellowish brown (10YR 5/4) silty clay loam to silt loam. Moist, soft; structureless; mellow; no visible salts.
- 270-330 cms. Yellowish brown (10YR 5/5) silty clay loam. As 235-270 cms. but weak fine laminations.
- 330-345 cms. Yellowish brown (10YR 5/6) silty fine sand. As 235-270 cms.
- 345-360 cms. Yellowish brown (10YR 5/6) silt loam. As 235-270 cms.
- 360-380 cms. Yellowish brown (10YR 5/6) silty clay loam. As 235-270 cms.
- 380-390 cms. Yellowish brown (10YR 5/6) silt loam. As 235-270 cms.
- 390-500 cms. Yellowish brown (10YR 5/6) fine sandy silt to silt loam. As 270-330 cms.

5 metre bore in 2 metre pit.
Soil classification: S.

Date 16.1.58.
Land classification: 1.

See also chemical analyses for samples 17915-17920.

Site No. R.232.

Almost level cereal area with patches and strips of Artemisia campestris and occasional bushes of Prosopis farcta. The recently ploughed surface exhibits slight slaking and weak minor polygonal cracks.

- 0-16 cms. Dark grey brown (10YR 4/2) fine sandy clay loam. Moist, soft; weak medium angular blocky structure; friable; few visible pores but many live roots; no visible salts.
- 16-50 cms. Brown to strong brown (7.5YR 5/5) fine sandy clay loam. As 0-16 cms. but weak fine angular blocky structure with carbonate concretions abundant from 30 cms. More sand and clay than 0-16 cms.
- 50-70 cms. Brown to strong brown (7.5YR 5/5) fine sandy clay loam. As 16-50 cms. but fewer carbonate concretions; and weak medium subangular blocky structure.
- 70-170 cms. Strong brown (7.5YR 5/5) sandy clay. As 0-16 cms. but weak fine subangular blocky structure. Bands of clayey sand 2 to 3 cm. thick at 115 and 124 cms.
- 170-230 cms. Strong brown (7.5YR 5/6) silty clay loam to silt loam. As 16-50 cms. but hard to dig and of hard consistence; it absorbs water only fairly readily; black staining in root channels below 190 cms. while gypsum appears.
- 230-250 cms. Strong brown (7.5YR 5/6) silty clay loam. Moist, hard; weak fine subangular blocky structure; hard consistence absorbing water slowly; carbonate concretions and traces of gypsum present.
- 250-340 cms. Strong brown (7.5YR 5/6) silty clay. Just moist, hard; structureless but with medium angular blocky fracture; hard consistence absorbing water only fairly easily; gypsum present; also silty clay nodules (with conchoidal fracture).
- 340-425 cms. Strong brown (7.5YR 5/6) silty clay. Moist, very hard, absorbing water very slowly. As 230-250 cms. but no carbonate concretions.
- 425-480 cms. Brown (7.5YR 5/4) silty clay loam. As 230-250 cms.
- 480-500 cms. max. Brown (7.5YR 5/4) mixed silty clay loam. Moist; fairly soft; marked medium laminations of soft silt loam and harder silty clay; fairly friable; many pores and root channels; gypsum crystals present.

5 metre bore in 2 metre pit.
Soil classification: S1.

Date: 18.1.58.
Land classification: 1.

See also laboratory analyses for samples 17976-17982.

Site No. R.233.

Level cereal field with shallow gilgai depressions. The pit itself is sites in the marked coarse polygonal cracking in a very shallow channel of fallow fresh plough land. The natural vegetation consists of Poa bulbosa and many annuals including a member of the Umbelliferaceae.

- 0-20 cms. Dark yellow brown (10YR 4/4) silty clay loam. Moist, soft; strong fine platy structure to 1 cm. over weak medium angular blocky structure; friable; many roots and visible pores; no visible salts.
- 20-55 cms. Strong brown (7.5YR 5/6) silty clay loam. Moist, soft; weak fine angular blocky structure; friable, many visible pores and roots; carbonate concretions present being common from 30-50 cms.
- 55-75 cms. Brown (7.5YR 5/4) variable silty clay to silty clay loam. Almost dry; fairly hard; weak fine subangular nutty structure and fine vertical cracking; hard consistence yet absorbs water readily; carbonate concretions present.
- 75-117 cms. Brown (7.5YR 5/4) mixed sandy clay loam. Moist, fairly hard; weak fine vertical cracking and fine laminations; absorbs water fairly easily in spite of the hard consistence; many visible pores and roots; no visible salts.
- 117-180 cms. Brown to dark brown (7.5YR 4/4) silty clay to clay. Almost dry, very hard; marked fine vertical cracking; hard consistence absorbing water only slowly; occasional carbonate concretions.
- 180-290 cms. Brown (7.5YR 5/4) silty clay loam. Moist, hard; moderately well developed medium angular blocky structure; hard consistence absorbing water not very easily; many visible pores and roots. No visible salts until gypsum appears at 210 cms., together with silt loam in fine laminations.
- 290-400 cms. Brown (7.5YR 5/4) fine sandy clay loam. Moist, hard; structureless apart from faint fine laminations; rather dense; hard consistence absorbing water readily; many visible pores; sand increasing while gypsum is common.
- 400-500 cms. max. Brown (7.5YR 5/4) silty clay loam. As 20-55 cms. with gypsum replacing carbonate while fine laminations occur.

5 metre bore in 2 metre pit.
Soil classification: 6.

Date: 18.1.58.
Land classification: 6ndt

See also laboratory analyses for samples 17983-17988.

Site No. R.234.

Almost level fallow cereal field near deep wadi. The natural vegetation consists of sparse Artemisia campestris and occasional Prosopis farcta while the wet surface shows marked slaking.

- 0-16 cms. Brown (10YR 5/3) fine sandy clay loam. Moist, soft; marked fine platy structure to 2 cms. over weak fine angular blocky structure; friable; many visible pores and roots; no visible salts.
- 16-70 cms. Brown (7.5YR 5/4) silty clay loam. Dry to almost dry, fairly hard; weak fine subangular blocky structure and fine vertical cracking; fairly hard consistence absorbing water readily; many visible pores and roots; carbonate concretions very common.
- 70-130 cms. Brown (7.5YR 5/4) fine sandy clay loam. Dry and hard; absorbing water readily; otherwise as 2-16 cms. but numerous carbonate concretions to 80 cms., being much rarer below.
- 130-200 cms. Strong brown (7.5YR 5/6) fine sandy clay. Almost dry, hard; weak medium angular blocky structure with weak medium vertical cracking; hard consistence, absorbing water only slowly; many visible pores and roots; a few carbonate concretions.
- 200-310 cms. Strong brown (7.5YR 5/6) fine sandy clay. Moist, hard; weak medium subangular blocky structure; hard consistence absorbing water only fairly slowly; very dense; gypsum abundant.
- 310-500 cms. Yellow brown (10YR 5/4) silty clay loam. Moist, fairly hard; weak fine laminations; hard consistency yet absorbs water readily; gypsum common becoming abundant below 400 cms.

5 metre bore in 2 metre pit.
Soil classification: (Di).

Date: 18.1.58.
Land classification: 2ndg.

See also laboratory analyses of samples 17989-17995.

Site No. R.235.

Almost level, partly cultivated area with scattered round gilgai. The natural vegetation consists of Poa bulbosa which is thickest in the gilgai. The gilgai are about 20 feet across and have sink holes in the centre (in which the pit was sited). The pit was wet around the sink holes but dry away from them.

Section through a sink hole.

- 0-70 cms. Very dark grey brown (10YR 3/2) fine sandy clay loam. Moist, soft; weak fine angular blocky structure; very friable consistence; many visible pores and roots; no visible salts.
- 70-85 cms. Very dark grey brown (10YR 3/2) clay. Moist, very stiff; structureless; friable; no visible salts.
- 85-100 cms. Brown (7.5YR 5/4) clay. Almost dry, very hard; strong medium vertical cracking with weaker coarse horizontal cracking giving weak coarse angular blocky structure; hard consistency absorbing water only slowly; few visible pores and roots; no visible salts.
- 100-180 cms. Brown (7.5YR 5/4) mixed silty clay loam. Almost dry, otherwise as 85-100 cms. but less dense and absorbing water fairly readily.
- 180-200 cms. Brown (7.5YR 5/4) fine sandy clay. As 100-180 cms. but many visible pores and sandy partings.
- 200-245 cms. Strong brown (7.5YR 5/6) silty clay. Just moist, hard; structureless with an angular fracture; hard consistence, absorbing water only fairly easily; black staining present; also carbonate concretions; many visible pores.
- 245-290 cms. Brown (7.5YR 5/4) fine sandy clay. Just moist, soft; structureless; floury; gypsum present.
- 290-310 cms. Brown (7.5YR 5/4) silt loam. As 245-290 cms.
- 310-385 cms. Reddish brown (5YR 4/4) silty clay loam with bands of silt loam. As 245-290 cms. but moderately well developed fine laminations; and black staining. Becomes heavier with depth.
- 385-500 cms. Strong brown (7.5YR 5/6) silty clay to silty clay loam. Moist, otherwise as 310-385 cms. only mellow; no gypsum, but with soft carbonate concretions from 470-cms.

Section through shelf.

- 0-35 cms. Very dark grey brown (10YR 3/3) fine sandy clay to clay. Dry, hard; strong medium prismatic structure with well-developed coarse angular blocky structure; hard consistence absorbing water slowly; few visible pores and roots; no visible salts.

35-90 cms. Very dark grey brown (10YR 3/2) clay. Dry, hard;
strong coarse prismatic structure with prisms
30 x 10 cms.; hard consistency absorbing water only
very slowly; no visible salts.

Then as in sink hole section.

5 metre bore in 2 metre pit.
Soil classification: T.

Date: 19.1.58.
Land classification: 6ndt.

See also laboratory analyses of samples 17996-18002.

Site No. R.236.

Undulating field with cereal crop and a natural vegetation consisting mainly of Poa bulbosa. The surface by the pit consisted of fallow land, recently ploughed, with considerable slaking and minor fine surface cracking.

- 0-15 cms. Brown to dark brown (10YR 4/3) silt loam. Moist, soft; weak fine platy structure to 2 cms. over weak fine angular blocky structure; friable; few visible pores; no visible salts.
- 15-40 cms. Brown (7.5YR 5/4) silty clay loam. Just moist, hard; weak fine angular blocky structure; hard consistence absorbing water readily; many visible pores and roots; carbonate concretions present. Dry below 30 cms.
- 40-110 cms. Brown (7.5YR 5/4) silty clay loam. Dry, fairly hard; weak fine vertical cracking, fine subangular blocky structure and fine laminations; absorbs water readily; many visible pores and roots; carbonate concretions common to 60 cms. but uncommon below.
- 110-200 cms. Brown (7.5YR 5/4) variable sandy clay. Dry, fairly soft; structureless; fairly friable; many visible pores and root channels; no visible salts.
- 200-225 cms. Yellowish brown (10YR 5/4) sand. Dry, soft; structureless; free running; no visible salts.
- 225-300 cms. Brown (7.5YR 5/4) fine sandy silt loam. Moist, fairly hard; moderately well developed fine laminations; rather dense; fairly hard consistency absorbing water readily; few visible pores; no visible salts.
- 300-330 cms. Strong brown (7.5YR 5/6) variable silt loam. As 225-300 cms. with occasional small stones, and sandy partings.
- 330-360 cms. Yellowish brown (10YR 5/4) sand. As 200-225 cms.
- 360-370 cms. Strong brown (7.5YR 5/6) variable silty clay loam. As 225-300 cms. but black and blue mottling present.
- 370-390 cms. Brown to strong brown (7.5YR 5/5) silty clay loam. As 225-300 cms.
- 390-450 cms. Strong brown (7.5YR 5/6) silty clay. Moist, soft; structureless; mellow; black and blue staining; traces of gypsum present.
- 450-500 cms. Brown (7.5YR 5/4) silty clay loam. As 225-300 cms. max.

5 metre bore in 2 metre pit.
Soil classification: Sl.

Date: 19.1.58.
Land classification: 1.

See also laboratory analyses of samples 18003-18006.

Site No. R.237

Almost level cultivated land with Poa bulbosa and sparse Artemisia campestris and Prosopis farcta as weeds. The fallow surface is completely slaked.

- 0-20 cms. Brown (10YR 5/3) silt loam. Moist, soft; weak fine platy structure to 1½ cms. over weak fine angular blocky structure; very friable; many visible roots and pores; no visible salts.
- 20-60 cms. Yellowish brown (10YR 5/6) fine sandy clay loam. As 1½-20 cms. with carbonate concretions common from 23-40 cms.
- 60-80 cms. Brown (7.5YR 5/4) fine sandy clay loam. As 20-60 cms. but slightly harder, with fine subangular blocky structure.
- 80-130 cms. Brown (7.5YR 5/4) fine sandy clay. Almost dry, hard; weak fine subangular nutty structure; hard consistence absorbing water fairly easily; occasional silty clay fragments. No visible salts.
- 130-175 cms. Brown (7.5YR 5/4) fine sandy loam. Almost dry, fairly hard; weak fine laminations; fairly hard consistency absorbing water easily; many visible pores; no visible salts.
- 175-500 cms. max. Brown to yellow brown (8.75YR 5/4) mixed silty clay loam to silt loam. Moist, soft; weak fine subangular blocky and fine laminated structure; mellow; black staining present below 350 cms. and traces of gypsum below 450 cms.

5 metre bore in 2 metre pit.
Soil classification: Ki.

Date: 20.1.58.
Land classification: 1.

See also laboratory analyses of samples 18007-18012.

Site No. R.238

Very slightly undulating cultivated land with occasional tals. The natural vegetation consists of Artemisia campestris in the low places with some sparse Prosopis farcta and Poa bulbosa. The freshly ploughed fallow surface is already strongly slaked.

- 0-25 cms. Brown to dark brown (10YR 4/3) fine sandy clay loam. Moist, soft; weak fine laminations to 2 cms. over structureless; very friable; many visible pores and roots; no visible salts.
- 25-80 cms. Brown (7.5YR 5/4) fine sandy clay. Moist, soft; weak medium angular blocky structure; friable consistence; few visible pores but many roots; carbonate concretions present.
- 80-125 cms. Strong brown (7.5YR 5/6) sandy clay loam to sandy loam. Almost dry, hard; weak fine subangular blocky structure with thin bands of sand from 107-115 cms.; hard consistency absorbing water readily; many visible pores and roots; no visible salts.
- 125-145 cms. Brown (7.5YR 5/4) silty clay loam. Dry and hard; marked fine vertical cracking and moderately well developed medium angular blocky structure; weak fine laminations; hard consistency absorbing water slowly; no visible salts.
- 145-270 cms. Brown (7.5YR 5/4) clay. As 125-145 cms. but sheards and broken brick present; also black staining from 180 cms.
- 270-420 cms. Brown (10YR 5/3) silty clay to silty clay loam. As 125-145 cms. but no vertical cracking or laminations. Moist; narrow band of carbon specks and fragments at 400 cms. with orange and yellow mottlings; also traces of gypsum.
- 420-450 cms. Brown (10YR 5/3) silty clay loam to silt loam. Moist, max. soft; weak fine laminations; floury; few visible pores; fragments of carbon at 230 cms.; no visible salts.

Bore stopped by fragments of brick and stone at 450 cms.

5 metre bore in 2 metre pit.
Soil classification: (Ki)

Date: 20.1.58.
Land classification: 2nd.

See also laboratory analyses of samples 18013-18020.

Site No. R.239

Almost level field, now fallow following irrigated water melons. The natural vegetation consists of thick Prosopis farcta and Artemisia campestris. The surface shows considerable slaking.

- 0-20 cms. Brown to strong brown (10YR 4/3) fine sandy clay loam; moist, very soft; weak fine platy structure to 1 cm. over weak fine angular blocky structure; very friable; many visible pores and roots; no visible salts.
- 20-65 cms. Brown (7.5YR 5/4) silty clay loam. As 1-20 cms. but carbonate concretions present from 35-60 cms.
- 65-150 cms. Brown (7.5YR 5/4) sandy clay loam. Moist, fairly hard; massive; fairly hard consistence absorbing water readily; some carbonate concretions and sandy partings.
- 150-250 cms. Brown (7.5YR 5/4) silty clay loam to fine sandy clay loam. Moist, soft, weak fine angular blocky structure; very mellow; no visible salts.
- 250-390 cms. Strong brown (7.5YR 5/6) silt loam. As 150-250 cms. but structureless.
- 390-415 cms. Brown (7.5YR 5/4) silty clay loam. As 250-390 cms.
- 415-500 cms. Strong brown (7.5YR 5/6) silty clay to clay. As max. 250-390 cms. but gypsum present below 450 cms.

5 metre bore in 2 metre pit.
Soil classification: Ki.

Date: 20.1.58.
Land classification: 1.

See also laboratory analyses for samples 18021-18027.

Site No. R.240

Cultivated land sloping very slightly towards the south, with occasional shallow gulleys. The natural vegetation consists of occasional bushes of Prosopis farcta and patches of Poa bulbosa. The surface of a fallow area shows marked slaking, with scattered round stones.

- 0-20 cms. Brown (7.5YR 5/4) sandy loam. Wet, soft; structureless; friable; roots present; carbonate concretions present.
- 20-50 cms. Brown (7.5YR 5/4) sandy clay loam. As 0-20 cms. but carbonate concretions very common.
- 50-100 cms. Brown (7.5YR 5/4) fine sandy clay. Moist, soft; structureless; friable; few visible pores; many live roots; carbonate concretions present.
- 100-160 cms. Brown (7.5YR 5/4) fine sandy clay. Moist, fairly hard; weak fine angular blocky structure with faint medium laminations; hard consistence absorbing water only slowly; many visible pores and root channels; occasional stones; a few carbonate concretions.
- 160-195 cms. Strong brown (7.5YR 5/6) silty clay loam. Moist, soft; structureless; floury; occasional small stones and silty clay fragments; few visible pores; stones increasing with depth. Lenses of clayey sand occur at about 180 cms.
- 195-410 cms. Brown (7.5YR 5/4) fine sandy clay loam with bands of silt loam. As 100-160 cms. but orange mottling present; no carbonate concretions. Grades down into a mellow silt loam.
- 410-470 cms. Brown (7.5YR 5/4) sandy clay. As 100-160 cms. but black staining present.
- 470-500 cms. Strong brown (7.5YR 5/6) fine sandy clay. Just moist, max. fairly hard; weak fine angular blocky structure and fine laminations; fairly hard consistence, absorbing water fairly easily; some carbonate concretions present.

5 metre bore in 2 metre pit.
Soil classification: (Ki)

Date: 24.1.58.
Land classification: 2nd.

See also laboratory analyses for samples 18332-18338.

Site No. R.241.

Gently undulating cultivated land with a general slope towards the west. The natural vegetation consists of Poa bulbosa with Prosopis farcta and Alhagi Maurorum. The bare completely slaked surface of fallow land supports tufts of Poa bulbosa and has a few rounded stones on it.

0-40 cms. Strong brown (7.5YR 5/6) fine sandy clay. Wet, soft; weak platy structure to 3 cms. over weak medium angular blocky structure; friable; many visible pores and a few roots; carbonate concretions present.

40-110 cms. Brown (7.5YR 5/4) fine sandy clay. Just moist, soft; weak fine subangular blocky structure; friable becoming mellow below 70 cms.; numerous carbonate concretions.

110-200 cms. Strong brown (7.5YR 5/6) clay to silty clay. Moist, max. hard; weak medium angular blocky structure; hard consistence absorbing water readily; no roots but a few visible pores; abundant gypsum.

2 metre pit.
Soil classification: Di-Ad

Date: 24.1.58.
Land classification: 3g

See also laboratory analyses of samples 18339-18341.

Site No. R.242.

Gently undulating cultivated land with an overall westerly slope. Occasional shallow gullies occur. The weeds include many annuals with occasional Prosopis farcta and Plantago sp. The wet surface is badly slaked.

- 0-25 cms. Brown (7.5YR 5/4) fine sandy clay loam. Wet, soft; structureless apart from weak fine platy to 3 cms.; few visible pores, many live roots; no visible salts.
- 25-80 cms. Strong brown (7.5YR 5/6) fine sandy clay. Wet, stiff; structureless; firm consistence; carbonate concretions present.
- 80-455 cms. Brown (7.5YR 5/4) silty clay loam. Just moist, fairly soft; weak medium subangular blocky structure and fine laminations; mellow; carbonate concretions present; many live roots and visible pores; small stones present at 340 cms.
- 455 cms. Bore stopped by small stones (with carbonate concretions max. present).

5 metre bore in 2 metre pit.
Soil classification: (Ki)

Date: 23.1.58.
Land classification: 2nd.

See also laboratory analyses for samples 18442-18347.

Site No. R.243

Almost level, partly cultivated land, near slight ridge (probably the remains of an old canal). The natural vegetation consists of a Poa bulbosa and Carex sp. sward, with occasional Prosopis farcta and Capparis spinosa. The surface is smooth, with moderately well developed fine surface cracking, with some flaking between plants. Both black and pink lichens occur.

- 0-12 cms. Dark grey brown (7.5 YR 4/2) fine sandy loam. Wet, soft; weak fine platy to 2 cms. over structureless; very friable consistence; no visible salts.
- 12-30 cms. Strong brown (7.5 YR 5/6) sandy loam. Wet, soft; structureless; friable; few visible pores but many live roots; carbonate concretions present.
- 30-170 cms. Brown (7.5 YR 5/4) very variable silty clay loam. Both silty clay and silt loam in the mixture. Moist, hard; fairly strong medium vertical cracking and marked stratification with weak fine angular blocky structure below 110 cms; hard consistence; heavier layers absorb water only fairly easily; few roots; a few carbonate concretions.
- 170-245 cms. Reddish brown (5 YR 4/4) silty clay to clay. Moist, hard; moderately well developed medium angular blocky; structure hard consistency, absorbing water only slowly; few visible pores; black staining present.
- 245-260 cms. Brown (7.5 YR 5/4) variable silty clay loam. Moist, soft; structureless, but with medium angular blocky fracture; friable consistence; few pores; gypsum present.
- 260-280 cms. Brown (7.5 YR 5/4) silt loam. As 245-260 cms. but floury consistence.
- 280-310 cms. Brown (7.5 YR 5/4) sandy loam. As 260-280 cms.
- 310-390 cms. Brown (7.5 YR 5/4) mixed silty clay loam to silt loam. As 245-260 cms. but mellow, with well developed fine laminations.
- 390-410 cms. Reddish brown (5 YR 4/4) silty clay to clay. As 170-245 cms. but with gypsum present.
- 410-470 cms. Brown (7.5 YR 5/4) silty clay loam. As 310-390 cms. but rather dense with few pores. Carbonate replaces gypsum.
- 470-500 cms. max. Brown (7.5 YR 5/4) silty clay. Moist, very hard; structureless; hard consistence absorbing water only with considerably difficulty; few pores; black stains present; also carbonate concretions.

5 metre bore in 2 metre pit
Soil class: (Ki)

Date: 24.1.58
Land class: 2 nd

See also laboratory analyses for samples 18348 to 18354

Site No. R.244

Almost level, mainly cultivated land. The vegetation consists of a Poa bulbosa sward with occasional Prosopis farcta, Artemisia campestris, lichens and Capparis spinosa. The wet surface is badly slaked and shows signs of minor surface cracking and flaking.

- 0-15 cms. Brown to dark brown (7.5 YR 4/4) fine sandy clay loam. Wet, soft; weak fine platy, to 2 cms. over weak medium angular blocky structure; friable; few visible pores and many roots, no visible salts.
- 15-42 cms. Strong brown (7.5 YR 5/6) fine sandy clay. Wet, soft, weak fine angular blocky and fine laminated structure; many visible pores and live roots; no visible salts.
- 42-51 cms. Red (5 YR 5/6) silty clay. As 15-42 cms. but carbonate concretions present.
- 51-80 cms. Strong brown (7.5 YR 5/6) very mixed silty clay to silt loam, giving silty clay loam. Just moist, fairly hard; weak medium vertical cracking and faint line laminations; fairly hard consistence absorbing water readily; many visible pores and roots; carbonate concretions present.
- 80-90 cms. Brown (7.5 YR 5/4) sand. Moist, soft; marked fine laminations; friable; fragments of silty clay loam present; no visible salts.
- 90-115 cms. Strong brown (7.5 YR 5/6) very mixed silty clay loam. As 51-80 cms. but harder, and absorbs water only fairly easily. Medium angular blocky structure is dominant.
- 115-150 cms. Brown (7.5 YR 5/4) silty clay to clay. Just moist, very hard; strong coarse vertical cracks with weak medium angular blocky structure; hard consistence absorbing water only slowly; few visible pores; much black staining; gypsum present.
- 150-180 cms. Brown (7.5 YR 5/4) silty clay. As 115-150 cms. but not quite so hard.
- 180-225 cms. Brown (7.5 YR 5/4) fine sandy clay. Moist, soft; structureless; mellow; no visible salts.
- 225-245 cms. Brown (7.5 YR 5/4) fine sandy clay. Just moist, fairly hard; weak medium subangular blocky structure; fairly hard consistence absorbing water only fairly easily; few visible pores; no visible salts.
- 245-280 cms. Brown (7.5 YR 5/4) loamy fine sand and sandy loam. As 180-225 cms. but floury consistence.
- 280-310 cms. Brown (7.5 YR 5/4) fine sandy clay. As 225-245 cms. but gypsum present from 300 cms.
- 310-325 cms. Brown to yellow brown (8.75 YR 5/4). As 180-225 cms. but gypsum present.

325-400 cms. Brown (7.5 YR 5/4) silty clay loam. As 225-245 cms. but gypsum present; also carbonate concretions below 350 cms; black staining common; absorbs water only slowly.

400-450 cms. Brown (7.5 YR 5/4) silty clay. As 90-115 cms. but very hard and dense; weak fine laminations present; gypsum present instead of carbonate concretions.

450-500 cms. Brown (7.5 YR 5/4) silty clay loam. As 90-115 cms. max. but gypsum present as well.

5 metre bore in 2 metre pit.
Soil class: (Ki)

Date: 25. 1.58
Land class: 2 nd

See also laboratory analyses for samples 18355-18361

Site No. R.245

Cultivated land with a slight southerly slope. The natural vegetation consists of a Poa bulbosa sward with sparse Prosopis farcta covering half the land. The remaining half shows complete slaking, with some minor surface cracking, curling and flaking.

- 0-15 cms. Brown (10 YR 5/3) silt loam. Moist, soft; weak fine platy to 3 cms. over weak medium angular blocky structure; very friable; few visible pores but many live roots; no visible salts.
- 15-60 cms. Brown (7.5 YR 5/4) fine sandy clay loam. Moist, fairly hard; weak fine vertical cracking and fine subangular blocky structure; fairly hard consistence absorbing water readily; carbonate concretions to 60 cms. while gypsum appears at 50 cms.
- 60-87 cms. Brown (7.5 YR 5/4) fine sandy clay. Almost dry, hard; strong medium vertical cracking and fine angular blocky structure; hard consistency absorbing water only slowly; both carbonate concretions and gypsum present.
- 87-230 cms. Strong brown (7.5 YR 5/6) sandy clay. Just moist, hard; weak medium vertical cracking, otherwise massive; hard consistence yet absorbing water easily; abundant gypsum and occasional carbonate concretions.
- 230-400 cms. max. Strong brown (7.5 YR 5/6) clay. Moist, hard; structureless; hard consistence yet absorbing water readily; black staining present; many visible pores, gypsum common becoming more abundant (and the whole becoming harder) below 370 cms.

5 metre bore in 2 metre pit
Soil class: (Di) - Ad

Date: 26.1.58.
Land class: 3 g

See also laboratory analyses of samples 18362 - 18367.

Site No. R:246

Partly cultivated slightly sloping land near an old canal bank. The natural vegetation consists of sparse Prosopis farcta with occasional small patches of Poa bulbosa. The fallow surface though slaked still shows the old furrows, while fine polygonal cracks are well developed.

- 0-20 cms. Dark grey brown (10 YR 4/2) fine sandy clay loam. Wet, soft; weak fine platy structure to 5 cms. over weak medium angular blocky structure; friable; many live roots and visible pores; no visible salts.
- 20-35 cms. Yellowish brown (10 YR 5/4) fine sandy clay loam. Almost dry, hard; weak medium angular blocky structure; hard consistence absorbing water only fairly easily; many visible pores and roots; no visible salts.
- 35-98 cms. Strong brown (7.5 YR 5/6) fine sandy clay. As 20-35 cms, but fine angular blocky structure with weak fine vertical cracks.
- 98-160 cms. Strong brown (7.5 YR 5/6) clay. Just moist; very hard; faint fine vertical cracking; hard consistence yet absorbing water readily; many visible pores and root channels; carbonate flecking present.
- 160-340 cms. Strong brown (7.5 YR 5/6) clay. As 98-160 cms. but gypsum common and whole is slightly softer.
- 340-450 cms. Strong brown (7.5 YR 5/6) sandy clay. Moist, hard; structureless; hard consistence yet absorbing water readily; gypsum abundant.
- 450-500 cms. Brown (7.5 YR 5/4) silty clay loam. Moist, hard; max. structureless; mellow; much gypsum.

5 metre bore in 2 metre pit
Soil class: (Ki)

Date: 26.1.58.
Land class: 2 nd

See also laboratory analyses of samples 18368-18374

Site No. R.247

Partly cultivated, gently undulating land, with a natural vegetation consisting of a Poa bulbosa sward and occasional Prosopis farcta. The surface shows complete slaking.

- 0-20 cms. Brown (7.5 YR 5/4) fine sandy clay loam. Moist, soft; weak medium angular blocky structure; very friable; many visible pores and live roots; no visible salts.
- 20-95 cms. Strong brown (7.5 YR 5/6) silty clay loam. Almost dry, hard; weak fine subangular blocky structure and fine vertical cracks; floury consistence; many cavities and visible pore spaces; carbonate concretions common.
- 95-250 cms. Brown to strong brown (7.5 YR 5/5) silty clay loam. Just moist, hard; massive apart from weak fine vertical cracks; hard consistence yet absorbing water readily; many visible pores; gypsum very common.
- 250-500 cms. Strong brown (7.5 YR 5/6) silty clay loam. As 95-250 cms. but angular blocky fracture; with black and orange mottling.

5 metre bore in 2 metre pit
Soil class: Di-Ad

Date: 26.1.58.
Land class: 3 g

See also laboratory analyses of samples 18375-18380

Site No. R.248

Partly cultivated top of very slight ridge. The natural vegetation consists of a Poa bulbosa sward, with occasional Prosopis farcta and numerous lichens. The surface exhibits much fine minor surface cracking and flaking.

- 0-10 cms. Brown (10 YR 5/3) fine sandy clay loam. Moist, soft; weak fine platy to 3 cms. over weak medium angular blocky structure; very friable; many visible pores and live roots; no visible salts.
- 10-20 cms. Brown (7.5 YR 5/4) fine sandy clay loam. Moist, soft; weak fine angular blocky structure; friable; many visible pores and roots; no visible salts.
- 20-90 cms. Brown (7.5 YR 5/4) fine sandy clay loam. Almost dry, fairly hard; weak fine subangular blocky structure to 55 cms. becoming angular, with weak fine vertical cracking throughout; fairly hard consistence absorbing water fairly easily; carbonate concretions common.
- 90-180 cms. max. Strong brown (7.5 YR 5/6) sandy clay. Just moist, very hard; massive; absorbs water readily in spite of its hard consistence; few visible pores or root samples; gypsum abundant.

2 metre pit
Soil class: (Di) - Ad

Date: 27.1.58
Land class: 3 g

See also laboratory analyses for samples 18381-18384

Site No. R.249

Almost level cultivated land with sparse annuals as weeds. The fallow ploughed surface exhibits considerable slaking and also fine minor polygonal cracking.

- 0-15 cms. Dark brown (7.5 YR 3/2) fine sandy clay loam. Moist, soft; weak fine platy structure to 2 cms. over fine angular blocky structure; friable; many visible pores and live roots; no visible salts.
- 15-40 cms. Strong brown (7.5 YR 5/6) silty clay loam to fine sandy clay loam. Almost dry, fairly hard; weak fine angular blocky structure; fairly hard consistency absorbing water readily; many visible pores and roots; carbonate concretions common.
- 40-100 cms. Brown (7.5 YR 5/4) silty clay to fine sandy clay. As 15-40 cms. but rather massive, breaking into long prisms; absorbs water only slowly.
- 100-270 cms. Strong brown (7.5 YR 5/8) fine sandy clay. As 15-40 cms. but very hard consistency absorbing water only slowly.
- 270-290 cms. Strong brown (7.5 YR 5/6) fine sandy clay. As 15-40 cms.
- 290-315 cms. Brown (7.5 YR 5/4) fine sandy clay. As 100-270 cms. but no visible salts.
- 315-425 cms. Strong brown (7.5 YR 5/6) sandy clay. As 15-40 cms. but no visible salts.
- 425-500 cms. Strong brown (7.5 YR 5/6) sandy clay. As 15-40 cms. but gypsum present as well as carbonate; also black mottling present.

5 metre bore in 2 metre pit.
Soil class: (Ki)

Date: 27.1.58.
Land class: 2 nd

See also laboratory analyses for samples 18385-18391

Site No. R.250

Almost level fallow cultivated land with occasional gullies.
The bare surface is only partly slaked and fine polygonal cracks.

- 0-18 cms. Brown to dark brown (7.5 YR 4/4) fine sandy clay loam. Moist, soft; weak fine platy structure to 1 cms. over weak medium angular blocky structure; very friable; many visible pores and live roots.
- 18-29 cms. Brown (7.5 YR 5/4) fine sandy clay loam. Almost dry, fairly hard; weak fine vertical cracking and fine subangular blocky structure; fairly hard consistency, absorbing water readily; many visible pores and roots; carbonate concretions from 22 cms.
- 29-45 cms. Brown (7.5 YR 5/4) fine sandy clay loam. Just moist, hard; weak medium angular blocky structure; hard consistence absorbing water readily; many visible pores and root channels; carbonate concretions present.
- 45-99 cms. Brown to dark brown (7.5 YR 5/5) fine sandy clay. As 29-45 cms. but fine vertical cracks present.
- 99-200 cms. max. Brown to dark brown (7.5 YR 5/5) silty clay. Moist, hard; structureless; hard consistence absorbing water readily; few visible pores; gypsum abundant.

2 metre pit.
Soil class: Di-Ad

Date: 27.1.58.
Land class: 3 g

See also laboratory analyses of samples 18392-18395

Site No. R.251

Fair, dry cereal crop on almost level top of a slight ridge. The vegetation consists of a Poa bulbosa sward with sparse "shòk". The surface of the soil is entirely slaked with negligible surface cracking.

- 0-25 cms. Dark yellowish brown (10 YR 4/4) fine sandy clay loam. Moist, soft; platy in the top 2-3 cms. with weak, medium angular blocky structure underneath; very friable, few visible pores, many live roots.
- 25-70 cms. Brown (7.5 YR 5/4) fine sandy clay loam. Moist, fairly hard, well developed medium angular blocky structure; fairly hard consistence but absorbs water readily; carbonate concretions very common below 40 cms. Many visible pores.
- 70-110 cms. Brown (7.5 YR 5/4) loam. Just moist, otherwise as 25-70 cms. but fewer carbonate concretions.
- 110-170 cms. Brown (7.5 YR 5/4) loam. As 70-110 cms. but many very hard, dense non-porous nodules.
- 170-220 cms. Brown (7.5 YR 5/4) fine sandy clay. Almost dry, hard, weak medium angular blocky, a few pores and roots present, no visible salts.
- 220-300 cms. Brown (7.5 YR 5/4) fine, sandy clay. As 170-220 cms. but gypsum present as tiny crystals.
- 300-330 cms. Strong brown (7.5 YR 5/8) silt loam. Moist, fairly soft, structureless, mellow, gypsum common.
- 330-400 cms. Strong brown (7.5 YR 5/6) fine sandy clay. Moist, max. fairly hard, structureless, fairly hard consistence but absorbs water readily. Many fine pores.

5 metre bore in 2 metre pit
Soil class: Ki

Date: 27.1.58
Land Class: 1

See also laboratory analyses for samples 18396-18402

Site No. R.252

A good, dry cereal crop on a 1° slope to the south. The natural vegetation nearby consisted of a Poa bulbosa sward with occasional "shök" bushes. In patches among the vegetation, slight rises with sealed scabby bare patches of earth are found.

- 0-15 cms. Dark brown (10 YR 4/3) fine sandy clay loam. Moist, fairly soft, weak fine platy structure in the top 1 cm. overlies weak, medium, angular blocky structure; very friable consistence; many live roots, few visible pores, many insect channels. No visible salts.
- 15-25 cms. Brown (7.5 YR 5/4) fine sandy clay loam. Slightly heavier texture than above. Moist, fairly soft, weak fine angular blocky structure, friable, few pores, many insect and worm tracks. No visible salts.
- 25-32 cms. Brown (7.5 YR 5/4) fine sandy clay loam. Dry, fairly soft, well developed coarse angular blocky structure; fairly friable, many visible pores and live roots. Carbonate concretions present, increasing with depth.
- 32-140 cms. Strong brown (7.5 YR 5/6) fine sandy clay. Dry, fairly soft, moderately well developed medium subangular blocky structure; fairly friable consistence becoming harder with depth; becoming fairly hard consistence below 60 cms.; carbonate concretion abundant decreasing considerably below 80 cms. Many insect pores and root channels. Whole absorbs water readily in spite of high density below 60 cms.
- 140-200 cms. Brown (7.5 YR 5/4) sandy clay. Just moist, very hard, massive, hard consistence but absorbs water readily, few visible pores.

2 metre pit.
Soil class: Di-Ad

Date: 28.1.58.
Land class 3 g

See also laboratory analyses for sample numbers 18403-18406

Site No. R.253

Good cereal crop on slightly undulating land near a deep gully. The local natural vegetation consisted of a Poa bulbosa sward with sealed scabby bare patches.

- 0-20 cms. Brown (7.5 YR 5/4) fine sandy clay loam. Moist, soft; weak platy in top 2 cms. overlying well developed coarse angular blocky structure; very friable, many live roots and visible pores, no visible salts.
- 20-32 cms. Strong brown (7.5 YR 5/6) fine sandy clay. Moist, soft; weak, fine angular blocky structure; friable consistence, no visible salts, many live roots.
- 32-55 cms. Strong brown (7.5 YR 5/8) fine sandy clay. Almost dry, fairly hard, moderately well developed fine sub-angular blocky structure, with much weak fine vertical cracking; fairly hard consistence but absorbs water readily; many visible pores, abundant carbonate concretions.
- 55-75 cms. Strong brown (7.5 YR 5/8) fine sandy clay. As 32-55 cms. but no vertical cracking, while laminated fragments and nodules are present. Carbonate concretions less common.
- 75-120 cms. Brown (10-7.5 YR 5/4) mixture of fine sandy silt and silt loam. Almost dry, fairly soft, marked fine laminations, many sandy partings and lenses; fairly friable consistence but nodules of hard, dense, fine sandy clay (which do not absorb water readily) occur below 100 cms. No visible salts.
- 120-240 cms. Strong brown (7.5 YR 5/6) loam. Just moist, fairly hard, well developed coarse angular blocky structure; a few dense infillings of cavities, otherwise fairly friable consistence. No visible salts.
- 240-290 cms. Brown (7.5 YR 5/4) silty clay loam. Just moist, fairly hard, moderately well developed medium angular blocky structure; many fine pores, absorbs water moderately quickly in spite of its fairly hard consistence; a few very hard, dense nodules and infillings occur. No visible salts.
- 290-345 cms. Strong brown (7.5 YR 5/6) fine sandy clay. Moist, fairly soft, moderately well developed medium angular blocky structure; some sandy partings, very friable, many visible pores. No visible salts.
- 345-425 cms. Strong brown (7.5 YR 5/6) fine sandy clay. As 290-345 cms. but gypsum very common.
- 425-460 cms. Brown (10-7.5 YR 5/4) mixture of silt loam and silty clay loam. Moist, fairly soft, marked fine laminations, friable, many visible pores and root channels; gypsum very common.

460-500 cms. max. Brown (7.5 YR 5/4) silty clay loam. Moist, soft; weak medium angular blocky structure, also weakly laminated; mellow, and absorbs water very readily; many visible pores and root channels; gypsum common.

5 metre bore in 2 metre pit
Soil class: Ki

Date: 28.1.58.
Land class: 1

See also laboratory analyses for samples 18407-18413

Site No. R.254

Excellent germination in a cereal crop on a very slight slope towards a gully. In slight depressions, there is thick Artemisia campestris. The surface of the field shows moderate slaking of the clods, and fine polygonal cracks occur.

- 0-15 cms. Dark yellowish brown (10 YR 4/4) fine sandy clay loam. Moist, soft; platy in the top 2 cms. overlying well developed medium angular blocky structure; friable with many visible pores and live roots, no visible salts.
- 15-50 cms. Brown (7.5 YR 5/4) fine sandy clay loam. Just moist, fairly hard; well developed fine angular blocky structure and weak fine vertical cracking; fairly hard consistence but absorbs water readily. Carbonate concretions are common from 20 cms.
- 50-104 cms. Strong brown (7.5 YR 5/6) fine sandy clay. Almost dry, hard, moderately well developed medium, angular, blocky structure and fine vertical cracking; sandy partings and some hard, dense nodules and infilling present; hard consistency yet absorbs water readily, some carbonate concretions.
- 104-225 cms. Strong brown (7.5 YR 5/8) sandy clay. Almost dry, hard, becoming moist below 150 cms.; structureless apart from occasional fine vertical cracking; absorbs water fairly slowly; occasional sandy partings; carbonate concretion present.
- 225-270 cms. Strong brown (7.5 YR 5/6) silty clay loam; moist, soft, weak fine laminations; mellow; gypsum crystals present.
- 270-380 cms. Strong brown (7.5 YR 5/6) fine sandy clay loam. Moist, soft; structureless, mellow, gypsum very common.
- 380-410 cms. Strong brown (7.5 YR 5/6) fine sandy silt loam. As 270-380 cms.
- 410-500 cms. Strong brown (7.5 YR 5/6) fine sandy clay loam. As max. 270-380 cms., but bands of red-brown silty clay loam. Somewhat less gypsum.

5 metre bore in 2 metre pit
Soil class: Di

Date: 28.1.58.
Land class: 2ndg

See also laboratory analyses for samples 18414-18420

Site No. R.255

Fallow sloping land with sparse annuals and Poa bulbosa.
The wet surface showed considerable slaking and sealing.

- 0-10 cms. Dark yellowish brown (10 YR 4/4) fine sandy clay loam. Moist, soft; platy in top 3 cms. overlying moderately well developed fine, angular blocky structure; friable with many visible pores and live roots.
- 10-20 cms. Brown (10 YR 5/3) fine sandy clay loam. As 0-10 cms. but fewer pores.
- 20-78 cms. Brown (7.5 YR 5/4) fine sandy clay loam. As 0-10 cms. but abundant carbonate concretions; at 35 cms. structure becomes subangular blocky, while hard, dense, infillings of worm holes occur.
- 78-120 cms. Strong brown (7.5 YR 5/6) fine sandy clay loam. Dry, hard; well developed fine angular blocky structure; absorbs water readily in spite of hard consistence; many pores and root channels are present - also harder infillings. Carbonate concretions are common but decrease with depth.
- 120-225 cms. Strong brown (7.5 YR 5/6) fine sandy clay. Just moist, hard; fairly massive, hard consistence but absorbs water readily; gypsum common; decreasing below 200 cms., few pores and no roots.
- 225-280 cms. Strong brown (7.5 YR 5/8) fine sandy clay. Moist, hard; weak medium angular blocky structure; absorbs water readily though of hard consistence; boty gypsum crystals and carbonate concretions present.
- 280-370 cms. Brown (7.5 YR 5/4) silty clay loam. As 225-280 cms. but no gypsum; some visible pores and root channels present; black staining along old root channels and silt loam laminations (10 YR 5/4) appearing.
- 370-410 cms. max. Strong brown (7.5 YR 5/6) silty clay loam. Just moist, hard; structureless; hard consistence becoming too hard to auger; does not absorb water readily; many visible pores and root channels; gypsum present.

5 metre bore in 2 metre pit
Soil class: Di

Date: 29.1.58.
Land class: 2g

See also laboratory analyses for samples 18421-18426

Site No. R.256

Fallow field on long gently slope with a Poa bulbosa sward but no perennials. The ground surface was wet and showed moderate signs of slaking.

- 0-11 cms. Dark yellowish brown (10 YR 4/4) fine sandy clay loam. Moist, soft; well developed platy structure in the top 3 cms. overlying weak, coarse, angular blocky; friable consistence, many roots, no visible salts.
- 11-28 cms. Brown (7.5 YR 5/4) loam. Moist, soft; weak fine sub-angular blocky structure; friable consistence, few pores, many live roots, with material from above washed down into worm and root holes and cracks. No visible salts.
- 28-70 cms. Strong brown (7.5 YR 5/6) fine sandy clay loam. As 11-28 cms. but some weak fine vertical cracking, with carbonate concretions very common.
- 70-147 cms. Brown (7.5 YR 5/4) fine sandy clay. Just moist, fairly hard; moderately well developed medium angular blocky structure; absorbs water fairly readily in spite of hard consistence; carbonate concretions present, many pores and root channels, and many large infillings.
- 147-260 cms. Strong brown (7.5 YR 5/6) fine sandy clay. Moist, very hard, massive; absorbs water readily in spite of hard consistence; few visible pores. Abundant gypsum as crystals and as cement producing a "Sugary" appearance.
- 260-450 cms. Strong brown (7.5 YR 5/6) fine sandy clay. As 147-260cms. but less gypsum, a few carbonate concretions present, orange mottling, and weak coarse subangular blocky structure. The carbonate concretions become common below 315 cms.
- 450-470 cms. Strong brown (7.5 YR 5/6) fine sandy clay. As 70-147 cms. but fine angular blocky structure; no carbonate concretions and gypsum very common.
- 470-500 cms. max. Strong brown (7.5 YR 5/6) silty clay. Moist, hard; moderately well developed medium angular blocky structure; hard consistence but absorbs water readily, few pores, gypsum crystals abundant and also gypsum cementation; black staining along root channels.

5 metre bore in 2 metre pit
Soil class: Di-Ad

Date: 29.1.58
Land class: 3g.

See also laboratory analyses for samples 18427-18433

Site No. R.257

In a slightly sloping area of fair cereal crop with Poa bulbosa as sole weed. The surface showed weak minor surface cracking and moderate slaking.

- 0-15 cms. Dark yellowish brown (10 YR 4/4) fine sandy clay loam. Moist, soft; platy structure in the top 2-3 cms. over weak fine angular blocky; very friable consistency, many live roots and a few pores. No visible salts.
- 15-30 cms. Brown (7.5 YR 5/4) fine sandy clay loam. As 0-15 cms. but only just moist, and carbonate concretions present.
- 30-80 cms. Strong brown (7.5 YR 5/6) fine sandy clay. Just moist, soft, moderately well developed fine subangular blocky structure; faint vertical cracking; friable consistence; many pores and root channels. Carbonate common becoming less common below 40 cms.
- 80-300 cms. Strong brown (7.5 YR 5/6) clay. Moist, very hard; strong fine vertical cracks; absorbs water fairly readily; dense; abundant gypsum crystals and cement giving "sugary" appearance; carbonate concretions present - also black staining and fragments and nodules of laminated soil.
- 300-350 cms. Strong brown (7.5 YR 5/8) clay. As 80-300 cms.

5 metre bore in 2 metre pit
Soil class: Di

Date: 1.2.58.
Land class: 2g

See also laboratory analyses for samples 18434-18438

Site No. R.258

Almost level area with occasional small very shallow gilgai. The area around the site bears a cereal crop with excellent germination, while Shök and Poa bulbosa are weeds. The ground surface showed negligible signs of slaking.

- 0-20 cms. Dark yellowish brown (10 YR 4/4) fine sandy clay loam. Moist, soft; weak fine angular blocky structure; friable consistence; few visible pores but many roots and bulbs.
- 20-54 cms. Strong brown (7.5 YR 5/6) fine sandy clay loam to fine sandy clay. As 0-20 cms. but more plastic, and carbonate concretions abundant.
- 54-260 cms. Strong brown (7.5 YR 5/6) fine sandy clay. Just moist, fairly hard; moderately well developed, fine subangular blocky structure; absorbs water readily in spite of hard consistency (which increases with depth); carbonate concretions abundant; many visible pores and insect holes. Below 180 cms. black staining appears.
- 260-300 cms. max. Strong brown (7.5 YR 5/6) clay. Moist, hard; massive; absorbs water readily; abundant "sugary" gypsum; black staining.

5 metre bore in 2 metre pit
Soil class: Ki

Date: 1.2.58
Land class: 1

See also laboratory analyses of samples 18439-18443

Site No. R.259

Gently undulating, uncultivated surface with a 2° maximum slope. The surface bears a Poa bulbosa sward and is generally smooth and completely slaked apart from a few scabby patches and some sheet erosion.

- 0-20 cms. Brown (7.5 YR 5/4) fine sandy clay loam. Moist, very soft and plastic; markedly platy structure in top 1 cm. over moderately well developed, medium angular blocky structure; friable consistence; few visible pores, many roots. Some black staining.
- 20-70 cms. Strong brown (7.5 YR 5/6) fine sandy clay loam though heavier than 0-20 cms. As 0-20 cms. but a few carbonate concretions at about 30 cms.
- 70-200 cms. max. Strong brown (7.5 YR 5/8) clay. Moist, very hard; massive; absorbs water readily; abundant "sugary" gypsum.

2 metre pit
Soil class: Di-Ad

Date: 1.2.58.
Land class: 3g

See also laboratory analyses for samples 18444-18446

Site No. R.260

Slight south westerly uncultivated slope of between 1 and 2°. The surface consists of a *Poa bulbosa* sward with only a few bare patches.

- 0-20 cms. Dark yellowish brown (10 YR 4/4) fine sandy clay loam. Moist, soft, markedly platy for the top 1 cm. over moderately well developed medium, angular blocky structure; very friable; many live roots and visible pores. No visible salts.
- 20-45 cms. Brown (7.5 YR 5/4) fine sandy clay loam. Moist soft; weak, medium angular blocky structure; friable consistence; many visible pores and roots, some carbonate concretions.
- 45-115 cms. Brown (7.5 YR 5/4) fine sandy clay. As 20-45 cms.
- 115-225 cms. Strong brown (7.5 YR 5/6) clay. Just moist, very hard; moderately well developed fine angular blocky structure; hard consistence and absorbs water only slowly; few visible pores or root channels. No visible salts.
- 225-235 cms. Strong brown (7.5 YR 5/6) clay. Moist, very hard, massive; absorbs water fairly readily in spite of very hard consistence; "sugary" gypsum abundant.

5 metre bore in 2 metre pit
Soil class: (Di)

Date: 1.2.58.
Land class: 2ndg.

See also laboratory analyses for samples 18447-18450

Site No. R.261

Slight ridge, possibly an old canal bank, with good germination in the cereal crop. Weeds consist of patches of Poa bulbosa and occasional Prosopis farcta. The ground surface shows considerable slaking and is wet.

- 0-17 cms. Dark yellowish brown (10 YR 4/4) loam to fine sandy clay loam. Moist, soft; marked fine platy structure in top 2 cms. over weak medium angular blocky structure; very friable; many live roots and visible pores; no visible salts.
- 17-60 cms. Yellow brown (10 YR 5/4) silt loam. Moist, soft; weak fine angular blocky structure; friable, rather incoherent; many live roots and visible pores; carbonate concretions present below 25 cms.
- 60-96 cms. Yellow brown (10 YR 5/4) fine sandy silt. Moist, soft, massive; friable; many visible pores; no visible salts.
- 96-100 cms. Yellow brown (10 YR 5/4) fine sand. As 60-96 cms.
- 100-144 cms. Brown (7.5 YR 5/4) mixture of silt loam and fine sandy clay loam. Moist, soft; weak medium subangular blocky and fine laminated structure; friable consistence; many roots and root channels; no visible salts.
- 144-210 cms. Strong brown (7.5 YR 5/6) fine sandy clay. As 100-144 cms. but carbonate concretions present, being very common between 150 and 180 cms.; also traces of black staining in root channels.
- 210-250 cms. Highly stratified layers of silt loam and silty clay loam with occasional narrow bands of silty clay to silty clay loam. Moist, fairly soft; friable apart from the dense silty clay layers; many visible pores and roots; some carbonate concretions present.
- 250-500 cms. max. Reddish brown (5 YR 4/4) silty clay to silty clay loam. Moist, hard; structureless, hard consistence getting harder with depth; absorbs water fairly readily through-out; many visible pores and roots; black mottling present; also gypsum crystals below 300 cms.; occasional carbonate concretions present becoming abundant below 450 cms.

5 metre bore in 2 metre pit
Soil class: Ki

Date 2.2.58
Land class 1

See also laboratory analyses for samples 18582-18589

Site No. B.262

Fallow land with a very slight slope to the north. The vegetation consists of a few annual bulbs and a sparse cover of Poa bulbosa. The wet ground surface exhibits almost complete slaking.

- 0-18 cms. Brown (7.5 YR 5/4) fine sandy clay loam. Moist, soft; well developed platy structure in top 3 cms. over weak medium angular blocky structure; friable; many live roots and visible pores; no visible salts.
- 18-45 cms. Brown (7.5 YR 5/4) fine sandy clay loam. As 0-18 cms. but weak fine angular blocky structure with weak vertical cracking; slightly finer texture, and carbonate concretions common below 20 cms.
- 45-120 cms. Strong brown (7.5 YR 5/6) fine sandy clay. As 18-45 cms. but with vertical cracking; density and carbonate concretions increasing with depth. Absorbs water readily.
- 120-250 cms. Strong brown (7.5 YR 5/6) fine sandy clay loam. As 0-18 cms. but fine angular blocky structure and black mottling. Texture becomes finer with depth.
- 250-290 cms. Brown (7.5 YR 5/4) mixture of fine sandy clay and silt loam. As 120-250 cms.
- 290-400 cms. Yellowish brown (10 YR 5/6) silty clay loam. Rather mixed and is soft and mellow; otherwise as 120-250 cms. Becomes more sandy below 300 cms.
- 400-500 cms. Brown (7.5 YR 5/4) silty clay loam. As 290-400 cms. max.

5 metre bore in 2 metre pit
Soil class: Ki

Date: 2.2.58
Land class: 1

See also laboratory analyses for samples 18590-18596

Site No. R.263

Slight southerly slope, irrigated from the Hawija Canal. Fallow, with Poa bulbosa and shôk cover. The surface shows almost complete slaking.

- 0-10 cms. Dark yellowish brown (10 YR 4/4) loam. Moist, soft; platy in top 2 cms. over moderately well developed medium angular blocky structure; very friable; many live roots and visible pores; no visible salts.
- 10-30 cms. Brown (7.5 YR 5/4) fine sandy clay loam. As 0-10 cms. but fine angular blocky structure present; also carbonate concretions.
- 30-120 cms. Strong brown (7.5 YR 5/6) fine sandy clay loam. As 10-30 cms. but carbonate concretions abundant from 30-50 cms., very incoherent with large cavities; sub-angular blocky structure.
- 120-240 cms. Strong brown (7.5 YR 5/6) fine sandy clay. Just moist, fairly hard; moderately well developed fine angular blocky structure; fairly hard consistence; absorbs water fairly readily; carbonate concretions present; many visible pores and root channels. Below 200 cms., traces of gypsum appear.
- 240-500 cms. max. Strong brown (7.5 YR 5/6) fine sandy clay. Moist, soft; structureless; friable; black mottling present. Below 300 cms. much fine gypsum appears, together with occasional carbonate concretions. Below 435 cms., gypsum is very common.

5 metre bore in 2 metre pit
Soil class: (Ki)

Date: 3.2.58
Land class: 2nd

See also laboratory analyses for samples 18597-18602

Site No. R.264

Slight easterly slope near the top of a low ridge. The clean cereal crop had germinated excellently, while the ground surface showed negligible cracking and slaking.

- 0-15 cms. Dark yellowish brown (10 YR 4/4) fine sandy clay loam. Moist, soft; markedly platy structure for top 1 cm. over moderately well developed medium angular blocky; very friable; few visible pores but many live roots; no visible salts.
- 15-110 cms. Strong brown (7.5 YR 5/6) fine sandy clay loam. Moist, soft; weak, medium subangular blocky structure; friable; many visible pores and roots; also carbonate concretions very common from 25 cms. Whole very "open" and "loose".
- 110-175 cms. Strong brown (7.5 YR 5/6) fine sandy clay. Almost dry, fairly hard; weak, medium angular blocky structure; absorbs water fairly readily; many carbonate concretions; many visible pores and root channels. Below 165 cms. sandy partings occur.
- 175-190 cms. Strong brown (7.5 YR 5/6) sandy clay. Moist, very max. hard; massive; absorbs water fairly readily though of hard consistence; abundant gypsum; few visible pores and no root channels.

2 metre pit
Soil class: (Di)

Date: 3.2.58
Land class: 2ndg

See also laboratory analyses for samples 18603-18606

Site No. R.265

• Almost level surface in a good cereal crop near an old canal bank. The weeds consisted of Capparis spinosa, and some small annuals (too young to identify). The wet ground surface showed moderately well developed surface slaking.

- 0-15 cms. Dark yellowish brown (10 YR 4/4) fine sandy clay loam. Moist, soft; well developed platy structure in the top 2 cms. over moderately well developed medium angular blocky structure and finely laminated; very friable; many live roots and visible pores; no visible salts.
- 15-23 cms. Brown (7.5 YR 5/4) fine sandy clay loam. As 0-15 cms. but somewhat finer texture, with carbonate concretions present.
- 23-120 cms. Strong brown (7.5 YR 5/6) fine sandy clay loam. Almost dry, fairly hard; weak, fine angular blocky structure with moderately well developed medium vertical cracking; absorbs water readily; some carbonate concretions present; many visible pores and root channels.
- 120-240 cms. Brown (7.5 YR 5/5) fine sandy clay. As 23-120 cms. but much harder to dig; also hard consistence, absorbing water only fairly readily; much denser and many more carbonate concretions; many pores and hard infillings of former cavities.
- 240-270 cms. max. Dark brown (7.5 YR 4/4) clay to silty clay. Moist, very hard, structureless; very dense, absorbs water only slowly; few root channels; black mottling; soft carbonate fragments and lumps present.

5 metre bore in 2 metre pit.
Soil class: (Ki)

Date : 3.2.58
Land class: 2nd

See also laboratory analyses for samples 18607-18610

Site No. R.266

Level margin of wheat field with a Poa bulbosa sward with Carex sp. and occasional shök on the nearby fallow land. Scabby patches also occur with considerable slaking.

- 0-15 cms. Dark brown (10 YR 4/3) fine sandy clay loam. Moist, soft; markedly platy structure in top 1-2 cms. then moderately well developed fine angular blocky structure; very friable; many roots and visible pores; no visible salts.
- 15-98 cms. Brown (7.5 YR 5/4) fine sandy clay loam. As 0-15 cms. but with carbonate concretions present.
- 98-145 cms. Brown (7.5 YR 5/4) fine sandy clay loam. A very mixed deposit. Moist, soft; weak fine laminations; friable consistence; many visible pores and root channels; occasional black staining; traces of gypsum.
- 145-200 cms. Reddish brown (5 YR 4/4) silty clay. Moist, fairly hard; weakly laminated in part; hard consistence absorbing water only slowly; gypsum fairly common, also black staining.
- 200-230 cms. Brown (7.5 YR 5/4) mixture of silt loam and silty clay loam. Just moist, fairly hard; weak fine subangular blocky structure; fairly hard consistence, but absorbs water readily; gypsum present; many visible pores and root channels.
- 230-300 cms. Light yellowish brown (10 YR 6/4) silt loam and sand with fragments and nodules of silty clay. As 0-15 cms. but silty clay fragments are hard and dense with black mottling, and gypsum is present.
- 300-350 cms. Brown (7.5 YR 5/4) patchy silty clay loam consisting of a mixture of silty clay and silt loam. As 98-145 cms.
- 350-440 cms. Light yellowish brown (10 YR 6/4) silt loam. Moist, soft; structureless; mellow; traces of gypsum.
- 440-500 cms. Light yellowish brown (10 YR 6/4) fine sandy silt loam.
max. As 350-440 cms.

5 metre bore in 2 metre pit
Soil class: S

Date: 7.2.58.
Land class: 2s

See also laboratory analyses for samples 18611-18618

Site No. R.267

Ploughed up, fallow field of slightly sloping land with occasional gullies. The vegetation prior to ploughing up consisted of a Poa bulbosa sward with Artemisia campestris in the wetter places.

- 0-12 cms. Yellowish brown (10 YR 5/6) fine sandy clay loam. Moist, soft; moderately well developed medium platy structure to 3 cms. over moderately well developed fine angular blocky structure; very friable, many roots; no visible salts.
- 12-90 cms. Brown (7.5 YR 5/4) fine sandy clay loam. Moist, fairly hard to 20 cms. becoming soft; moderately well developed fine angular blocky structure; fairly hard consistence to 20 cms. becoming friable; whole absorbs water readily; many visible pores and cavities; carbonate concretions abundant.
- 90-160 cms. Strong brown (7.5 YR 5/6) fine sandy clay. Just moist, fairly hard; weak subangular blocky structure; fairly hard consistence but absorbs water readily; many visible pores; few carbonate concretions.
- 160-270 cms. Strong brown (7.5 YR 5/6) fine sandy clay. Moist, very hard; weak fine angular blocky structure and coarse vertical cracks; absorbs water readily; many visible pores and root channels; gypsum abundant.
- 270-290 cms. Strong brown (7.5 YR 5/6) fine sandy clay. As 160-
max. 270 cms. but harder, more massive and more gypsum present.

5 metre bore in 2 metre pit
Soil class: Ki

Date: 7.2.58
Land class: 1

See also laboratory analyses for samples 18619-18623

Site No. R.268

Almost level fallow field with the stubble of a good barley crop. On a nearby uncultivated area is a Poa bulbosa sward with some Artemisia campestris and Carex sp. in wetter places. A few scabby patches also occur.

- 0-10 cms. Yellowish brown (10 YR 5/4) silt loam. Moist, soft; well developed platy structure to 2 cms. over weak medium angular blocky structure; friable; many roots but few visible pores; absorbs water readily; no visible salts.
- 10-40 cms. Brown (7.5 YR 5/4) silty clay loam. As 0-10 cms. but mellow consistence, many visible pores, weak fine laminations and a few carbonate concretions.
- 40-110 cms. Brown-strong brown (7.5 YR 5/5) fine sandy clay. Just moist, fairly hard; moderately well-developed fine angular blocky structure; while weak vertical cracking occurs below 60 cms.; fairly hard consistence but absorbs water readily; many visible and live roots. Some carbonate concretions.
- 110-160 cms. Strong brown (7.5 YR 5/6) fine sandy clay. As 40-110 cms. but moist, no vertical cracking but prismatic fracture.
- 160-230 cms. Brown-dark brown (7.5 YR 4/3) clay. As 40-110 cms. but very hard, and absorbs water only slowly. Below 185 cms. there are few root channels. Below 205 cms. the horizon becomes more moist, and black staining appears in the root channels.
- 230-250 cms. Mixture of brown (7.5 YR 5/4) silty clay loam, strong brown (7.5 YR 5/6) fine sandy clay and brown-dark brown (7.5 YR 4/3) clay. Moist, fairly hard; structureless; fairly hard consistence, absorbing water fairly slowly; some grit and small water worn stones present; no visible salts.
- 250-300 cms. Yellowish brown - light yellowish brown (10 YR 5/4 - 6/4) silt loam. Moist and soft; structureless; mellow, traces of gypsum below 270 cms.
- 300-370 cms. Brown (7.5 YR 5/4) silty clay loam. As 250-300 cms.
- 370-410 cms. Yellowish brown - light yellowish brown (10 YR 5/4 - 6/4) silt loam. As 250-300 cms. but very mellow, and some orange mottling present.
- 410-470 cms. Yellowish brown (10 YR 5/4) fine sandy silt to fine sand. Moist, soft; a few finely laminated fragments; floury consistency; brown and black staining present, no visible salts.
- 470-510 cms. Yellowish brown (10 YR 5/4) sand. Moist, soft; free running; occasional silty clay nodules; black staining present; also some gypsum.

5 metre bore in 2 metre pit
Soil class: S

Date: 7.2.58
Land class: 1

See also laboratory analyses for samples 18624-18630

Site No. R.269

Almost level uncultivated land near very large wadi. The vegetation consists of a Poa bulbosa sward with scabby patches.

- 0-15 cms. Brown (10 YR 4/3) loam. Moist, soft; well developed fine platy structure to 3 cms. over medium angular blocky structure; very friable. Many visible pores and roots; no visible salts.
- 15-30 cms. Brown to strong brown (7.5 YR 5/5) loam. Moist, soft; weak medium subangular blocky structure; friable; many visible pores and live roots; some carbonate concretions.
- 30-65 cms. Brown to strong brown (7.5 YR 5/5) loam. As 15-30 cms. but weak fine subangular blocky structure and carbonate concretions very common.
- 65-170 cms. Strong brown (7.5 YR 5/6) fine sandy clay. Almost dry, very hard; strongly developed medium vertical cracking with weak variably sized angular blocky structure; dense; absorbs water only fairly slowly; carbonate concretions very common; few visible pores.
- 170-320 cms. Mixture of strong brown (7.5 YR 5/6) fine sandy clay and light yellowish brown (10 YR 6/4) silt loam. Moist, fairly hard; moderately well developed medium angular blocky structure with few vertical cracks; fairly hard consistence but absorbs water readily; many visible pores. Gypsum appears below 310 cms. while consistency becomes more mellow with depth.
- 320-330 cms. Light yellowish brown (10 YR 6/4) fine sandy silt loam. Moist, soft; structureless; mellow; some gypsum present.
- 330-390 cms. Strong brown (7.5 YR 5/6) silty clay loam. As 320-330 cms. but fragments of hard dense silty clay with black staining.
- 390-400 cms. Yellowish brown (10 YR 5/4) silt loam. As 320-330 cms.
- 400-500 cms. Strong brown (7.5 YR 5/6) silty clay loam. As 320-330 cms. max.

5 metre bore in 2 metre pit
Soil class: S

Date: 8.2.58
Land class: 2nd

See also laboratory analyses for samples 19093-19099

Site No. R.270

Virtually level land with ploughed up fallow. The surface shows moderate slaking while remains of a Poa bulbosa sward are also to be found.

- 0-12 cms. Brown to dark brown (10 YR 4/3) fine sandy clay. Moist, soft; weak platy structure for top 1 cms. over moderately well developed medium angular blocky structure; very friable consistence; many visible pores and roots; no visible salts.
- 12-35 cms. Strong brown (7.5 YR 5/6) fine sandy clay loam. Moist, soft; moderately well developed fine angular blocky structure; very friable; many visible pores and roots; carbonate concretions present increasing with depth.
- 35-100 cms. Strong brown (7.5 YR 5/6) fine sandy clay loam. Almost dry, while the numerous carbonate concretions decrease with depth; otherwise as 12-35 cms.
- 100-120 cms. Brown (7.5 YR 5/4) coarse sand. Dry, fairly hard; well developed fine laminations and only weak medium angular blocky structure; friable; many visible pores; no visible salts.
- 120-160 cms. Brown (10 YR 5/3) rather mixed silt loam. As 100-120 cms., apart from hard consistence, absorbing water readily.
- 160-180 cms. Brown (10 YR 5/3) silty fine sand. As 100-120 cms.
- 180-230 cms. Brown (7.5 YR 5/4) fine sandy clay to silty clay loam with some light yellowish brown (10 YR 6/4) silt loam. Moist, fairly soft, no laminations, otherwise as 100-120 cms.
- 230-270 cms. Brown (10 YR 5/3) fine sandy silt loam. As 100-120 cms. but soft and mellow.
- 270-320 cms. Brown (7.5 YR 5/4) silty clay loam mixed with brown (10 YR 5/4) silt loam. As 230-270 cms. Below 290 cms., the silt loam fraction becomes dominant, while hard silty clay nodules appear.
- 320-370 cms. Mixture of brown (7.5 YR 5/4) silty clay and some brown (10 YR 5/4) silt loam. Whole of silty clay loam texture as 270-320 cms. but black mottling present in silty clay fraction.
- 370-400 cms. Brown (10 YR 5/3) fine sand to fine sandy silt loam. As 230-270 cms.
- 400-435 cms. Brown (7.5 YR 5/4) silty clay loam with silty clay fragments present. As 230-270 cms.
- 435-450 cms. Brown (10 YR 5/4) mixture of silt loam, fine sand, and silty fine sand. As 100-120 cms.

450-470 cms. Brown (7.5 YR 5/4) silty clay loam with silty clay fragments present. As 230-270 cms.

470-500 cms. Strong brown (7.5 YR 5/6) silty clay with a little brown max. (10 YR 5/4) silty loam; moist, hard, structureless; hard consistency, absorbing water only slowly; black mottling present, also some gypsum.

5 metre bore in 2 metre pit
Soil class: S

Date: 8.2.58
Land Class: 1

See also laboratory analyses for samples 19100-19106

Site No. R.271

Slight slope to the north-east, near an old tel. Remains of good stubble while Poa bulbosa forms a grassland nearby. The scabby turf exhibits moderate surface cracking whiel many lichens and occasional shök may also be found. A few sheards lie on the surface near the tel.

- 0-12 cms. Dark yellowish brown (10 YR 4/4) fine sandy clay loam. Moist, soft; well developed medium platy in top 3cms., over moderately well developed fine angular blocky structure; friable and absorbs water readily; many live roots and visible pores; no visible salts.
- 12-30 cms. Brown (7.5 YR 5/4) fine sandy clay laom. Just moist, soft; moderately well developed fine angular blocky structure; very friable; many visisble pores and roots. Carbonate concretions common.
- 30-80 cms. Brown (7.5 YR 5/4) fine sandy clay loam. As 12-30 cms., but almost dry and becoming more compact.
- 80-102 cms. Brown (7.5 YR 5/4) fine sandy clay. Just moist, hard; marked medium vertical cracking with weak coarse angular blocky structure; tendency to break into prisms; hard consistency yet absrobs water readily; numerous carbonate concretions; many visible pores and roots.
- 102-147 cms. Brown (7.5 YR 5/4) rather mixed silty clay loam. As 80-102 cms. but no vertical cracking.
- 147-195 cms. Brown (10 YR 5/3) silt loam mixed with silty fine sand. As 80-102 cms. but well developed fine laminations present.
- 195-250 cms. Strong brown (7.5 YR 5/6) silty clay loam. As 80-102 cms. but silty clay fragments with black staining present; whole absorbs water only slowly. Below 230 cms., however, the whole becomes moister and softer and gypsum appears as carbonate ceases.
- 250-400 cms. Strong brown (7.5 YR 5/6) silty clay loam mixed with increasing amounts of brown (10 YR 5/3) silt loam. As 12-300 cms. but gypsum present instead of carbonate. The silt loam fraction increases downwards becoming dominant below 310 cms.
- 400-500 cms. max. Brown (10 YR 5/3) fine sandy silt loam. As 12-30 cms. but structurally with no visible salts but some hard lumps.

5 metre bore in 2 metre pit
Soil class: S

Date: 8.2.58
Land class: 1

See also laboratory analyses for samples 19107-19114

Site No. R.272

Almost level fallow area near old canal line. The ground surface exhibits considerable slaking while a Poa bulbosa and Carex sp. sward is growing up.

- 0-12 cms. Brown to dark brown (7.5 YR 5/4) silty clay loam. Moist, soft; marked platy structure in the top 2-3 cms. over weak fine angular blocky structure; many live roots and a few visible pores; no visible salts.
- 12-30 cms. Brown to strong brown (7.5 YR 5/5) silty clay loam. As 0-12 cms. but carbonate concretions present.
- 30-95 cms. Brown to strong brown (7.5 YR 5/5) fine sandy clay. As 12-30 cms. but carbonate very common.
- 95-176 cms. Brown to strong brown (7.5 YR 5/5) mixed silty clay loam, with increasing silt loam fraction with depth. Just moist and hard; weak fine angular blocky structure and weak fine laminations of silt loam; fairly hard consistence, absorbing water fairly slowly; many visible pores and root channels; no visible salts.
- 176-200 cms. Light yellowish brown (10 YR 5/4) fine sandy silt loam. As 95-176 cms. but lumps of hard silty clay loam present, the whole being laminated.
- 200-410 cms. Brown to strong brown (7.5 YR 5/5) silty clay loam with occasional bands of silt loam. Moist, soft; structureless; mellow; occasional harder lumps with black staining; while gypsum is present for 240 cms.
- 410-500 cms. max. Yellowish brown (10 YR 5/4) silty clay loam. Rather wet, fairly stiff, moderately well developed medium laminations; firm; fragments of silty clay with black mottling present; gypsum present.

5 metre bore in 2 metre pit
Soil class: S

Date: 9.2.58.
Land class: 2snd.

See also laboratory analyses for samples 19115-19121

Site No. R.273

Almost level land, mainly abandoned on fallow, near village and old tel. Scattered round gilgai occur. The ground supports a fair Poa bulbosa sward with smooth bare patches in between. The surface cracking especially around the gilgai depressions. The pit lies in a vegetation covered area, not in a depression.

- 0-15 cms. Dark yellowish brown (10 YR 4/4) fine sandy silt loam. Moist, fairly hard to fairly soft; weak platy to 1 cm. over weak fine angular blocky structure; fairly friable to fairly hard consistency; absorbs water fairly easily; few visible pores but many live roots.
- 15-80 cms. Brown to strong brown (7.5 YR 5/5) silty clay loam. Moist, soft; weak fine angular blocky and weak fine laminated structure; friable and absorbs water readily; carbonate concretions present, being abundant below 40 cms. Becomes denser and drier with depth.
- 80-180 cms. Brown (7.5 YR 5/4) fine sandy loam. Just moist, fairly hard; weak fine vertical cracking; fairly hard consistency but absorbing water very readily; many visible pores and root channels. No visible salts.
- 180-210 cms. Strong brown (7.5 YR 5/5) loam. As 15-80 cms. but no visible salts.
- 210-245 cms. Brown (7.5 YR 5/4) fine sandy loam. Moist, hard; weak medium subangular blocky structure; dense, hard consistence yet absorbing water readily; a few pores; no visible salts.
- 245-310 cms. Brown (7.5 YR 5/4) fine sandy clay loam. Just moist, soft; structureless apart from traces of laminations; mellow; no visible salts; some coarse sand present.
- 310-320 cms. Brown (7.5 YR 5/4) fine sandy silt. As 245-310 cms.
- 320-390 cms. Brown (7.5 YR 5/4) silt loam. As 245-310 cms.
- 390-400 cms. Brown (7.5 YR 5/4) silty fine sand. As 345-310 cms.
- 400-500 cms. Yellowish brown (10 YR 5/4) silt loam. As 245-310 cms. max.

5 metre bore in 2 metre pit
Soil class: T

Date: 9.2.58.
Land class: 6ndt

See also laboratory analyses for samples 19122-19128

Site No. R.274

Almost level, ploughed up fallow near a large wadi. Numerous round gilgai occur. The vegetation consists of Poa bulbosa and Carex sp.

- 0-20 cms. Brown (7.5 YR 5/4) silty clay loam. Moist, fairly hard; moderately well developed fine subangular blocky structure and fine vertical cracking; friable; many roots and some pores, no visible salts.
- 20-32 cms. Brown to strong brown (7.5 YR 5/5) silty clay loam. Moist, fairly hard; well developed coarse angular blocky structure and wide medium vertical cracking; fractures as columns; fairly hard consistency but absorbs water readily; no visible salts; many visible pores and roots.
- 32-90 cms. Brown to strong brown (7.5 YR 5/5) silty clay. Just moist, very hard; strong, medium to coarse vertical cracking; very dense; hard consistency and absorbs water slowly; very few visible pores and dead roots; carbonate flecking present to 80 cms.
- 90-160 cms. Strong brown (7.5 YR 5/6) silty clay. As 32-90 cms. but harder and denser. No carbonate flecking present.
- 160-270 cms. Strong brown (7.5 YR 5/6) silty clay. As 32-90 cms. but cracking dies away and the whole becomes somewhat softer; gypsum is fairly common to 200 cms. decreasing below this depth and water absorption is considerably greater; black staining appears.
- 270-410 cms. Strong brown to yellowish brown (8.7 YR 5/6) rather mixed silty clay loam. Moist, soft; structureless; mellow; many visible pores; few gypsum crystals.
- 410-500 cms. Brown (7.5 YR 5/4) silt loam with fragments of silty clay loam. As 270-410 cms.
max.

5 metre bore in 2 metre pit
Soil class: (M)

Date: 9.2.58.
Land class: 3rd

See also laboratory analyses for samples 19129-19136

Site No. R.275

A virtually level area between two deep wadis, with remains of a good cereal stubble. The vegetation consists of sparse Poa bulbosa and Carex sp., while the surface of the bare patches shows marked slaking, some curling and flaking and many fine cracks. The pit was dug across a rain collecting furrow and was wet to depth on the side the water collects, but only wet to one inch on the other.

- 0-12 cms. Brown to dark brown (7.5 YR 4/4) fine sandy clay loam. Moist and soft; marked fine platy structure in top 2 cms., over moderately well developed fine angular blocky structure; friable; many visible pores and root channels; no visible salts.
- 12-60 cms. Brown (7.5 YR 5/4) fine sandy clay loam. As 0-12 cms. but no platy structure, and traces of carbonate flecking present.
- 60-130 cms. Brown (7.5 YR 5/4) fine sandy clay loam. As 0-12 cms. but no platy structure, while consistency is mellow.
- 130-250 cms. Brown (7.5 YR 5/4) silty clay loam. As 60-130 cms. but with bands of laminated silt loam; also gypsum crystals present below 170 cms.
- 250-360 cms. Strong brown (7.5 YR 5/6) silty clay loam to silty clay. As 60-130 cms., but with carbonate concretions and traces of gypsum.
- 360-400 cms.
max.

5 metre bore in 2 metre pit
Soil class: S

Date: 10.2.58
Land class: 2s

See also laboratory analyses for samples 19137-19142

Site No. R.276

Almost level newly ploughed fallow land near some low tels.
The weeds consist of Poa bulbosa and occasional Prosopis farcta.

- 0-15 cms. Brown to dark brown (7.5 YR 4/3) clay loam. Moist, fairly soft; plough layer showing traces of a platy structure for 2 cms. over marked medium angular blocky structure; fairly friable; many live roots and pores; hard fragments and infillings of termite and worm holes, which do not absorb water readily; no visible salts; some black fragments (probably charcoal).
- 15-43 cms. Yellowish red (5 YR 5/7) fine sandy clay. Moist, fairly soft, strong fine angular blocky structure; friable; many visible pores and root channels; absorbs water readily; some black fragments present - being especially common between 20-27 cms; also some old bricks; some powdery carbonate.
- 43-260 cms. Very mixed (10 YR, 7.5 YR and 5 YR) silt loams, silts, sands and silty clay loam. Moist, rather hard; marked fine laminations; large pore spaces and old root channels; absorbs water readily apart from a band between 130-160 cms. of silt loams and silty clay loams where water is absorbed fairly readily; no visible salts.
- 260-290 cms. Yellowish brown (10 YR 5/4) fine sandy silt. Moist, soft, fairly friable, no visible salts.
- 290-310 cms. Brown (7.5 YR 5/3) silty clay loam. Moist, rather hard; structureless; rather hard consistency absorbing water only moderately readily; no visible salts.
- 310-340 cms. Brown to strong brown (7.5 YR 5/5) fine sandy clay loam. As 15-43 cms. but no bricks or black fragments, but some hard carbonate concretions.
- 340-500 cms. Strong brown (7.5 YR 5/6) silty clay loam to silty clay. max. As 290-310 cms.

5 metre bore in 2 metre pit
Soil class: S

Date: 10.2.58.
Land class: 1

See also laboratory analyses for samples 19143-19149

Site No. R.277

Almost level area with many long, shallow gilgai channels. Barley and wheat crops in the vicinity were growing poorly. Vegetation included occasional "shok", Iris sisyrinchium, Poa bulbosa, and several annual species.

The pit is partly in a long gilgai channel, about 25 cms. in depth.

- 0-17 cms. Brown to dark brown (7.5 YR 4/3) fine sandy clay loam. Moist, soft; marked fine platy structure to 3 cms. over moderately well developed medium angular blocky structure; very friable; many roots and bulbs; no visible salts.
- 17-90 cms. Strong brown to brown (7.5 YR 5/5) silty clay loam. Moist, soft; fractures in prisms; friable; a few carbonate concretions present.
- 90-110 cms. Strong brown to brown (7.5 YR 5/5) silty clay. Just moist, very hard; massive; very hard consistence absorbing water only slowly; no visible salts.
- 110-150 cms. Brown to strong brown (7.5 YR 5/5) silty clay loam, mixed up with light yellowish brown (10 YR 6/4) silt loam and fine sandy silt. Moist, fairly hard; marked fine laminations; fairly hard consistence; absorbs water only slowly; some "shok" roots; few pores; no visible salts.
- 150-177 cms. Brown (7.5 YR 5/4) variable fine sandy loam. Moist, rather hard; strong coarse laminations, absorbs water readily; many visible pores; no visible salts.
- 177-190 cms. Brown (7.5 YR 5/4) sand. Moist, soft; structureless; very friable; small gravel present; but no visible salts.
- 190-310 cms. Brown to strong brown (7.5 YR 5/5) silty clay to silty clay loam. Moist, hard, structureless, dense; hard consistence yet absorbing water fairly easily; black staining in old root channels; traces of gypsum and occasional carbonate concretions.
- 310-360 cms. Brown (7.5 YR 5/4) silty clay loam. Moist and soft; structureless; floury; a few dense hard infillings; some black staining in old root channels. Occasional gypsum crystals and carbonate concretions.
- 360-500 cms. max. Brown (7.5 YR 5/4) silty clay loam. As 190-310 cms., but gypsum very common.

5 metre bore in 2 metre pit
Soil class: T

Date: 10.2.58.
Land class: 6ndt

See also laboratory analyses for samples 19150-19157

Site No. R.278

Almost level area with occasional shallow round gilgai. The ground is covered by a Poa bulbosa sward, and a few bare slightly raised patches occur.

- 0-10 cms. Brown (7.5 YR 5/3) fine sandy clay loam. Moist, soft; marked fine platy structure in the top 1 cms. over moderately well developed fine angular blocky structure; friable; many live roots but few visible pores; no visible salts.
- 10-35 cms. Brown to strong brown (7.5 YR 5/5) fine sandy clay loam. As 0-10 cms. but carbonate flecking present.
- 35-105 cms. Brown (7.5 YR 5/4) fine sandy clay. Quite moist, fairly hard; moderately well developed medium subangular blocky structure and weak fine vertical cracking; absorbs water fairly easily but becomes denser and more compact with depth; carbonate concretions present to 80 cms; many visible pores and cavities.
- 105-140 cms. Strong brown (7.5 YR 5/6) silty clay loam with some silt loam mixed in with it. Moist, fairly soft; weak fine subangular blocky structure, laminated in places; absorbs water fairly easily; fragments of silty clay with black staining; gypsum present.
- 140-185 cms. Light yellowish brown (10 YR 6/4) silt loam. Moist, soft; structureless; mellow; a few gypsum crystals present.
- 185-205 cms. Brown (7.5 YR 5/4) silty clay loam - a variable mixture of silt loam and silty clay. As 140-185 cms.
- 205-245 cms. Light yellowish brown (10 YR 6/4) silt loam. As 140-185 cms. but silty clay loam fragments increasing with depth.
- 245-325 cms. Strong brown (7.5 YR 5/6) silty clay loam. A variable mixture as 185-205 cms.
- 325-335 cms. Light yellowish brown (10 YR 6/4) silt loam. As 140-185 cms. but rather patchy.
- 335-500 cms. Strong brown (7.5 YR 6/6) silty clay loam to silty clay. As 140-185 cms.
max.

5 metre bore in 2 metre pit
Soil class: (A)

Date: 11.2.58.
Land class: 3sd

See also laboratory analyses for samples 19158-19165

Site No. R.279

Almost level uncultivated crest of a very low ridge near a small tel. Occasional shallow depressions containing round gilgai occur which may correspond to old canals. The vegetation consists of a Poa bulbosa sward with some Carex sp. while occasional shok bushes are to be found in the depressions. A few raised bare patches occur. Pit in path between gilgai.

- 0-17 cms. Brown to dark brown (7.5YR 4/3) clay loam. Moist, soft; moderately well developed fine platy structure in the top 1 cm., over moderately well developed medium angular blocky structure with medium laminations; very friable; few visible pores but many live roots; no visible salts.
- 17-26 cms. Brown (7.5YR 5/3) fine sandy clay loam. As 0-17 cms. but moderately well developed crumb structure; also traces of carbonate.
- 26-100 cms. Strong brown (7.5YR 5/6) fine sandy clay loam to fine sandy clay. Just moist, fairly hard; weak medium subangular blocky structure; fairly hard consistence yet absorbing water readily; many visible pores and cavities and some roots; carbonate concretions common.
- 100-170 cms. Brown to strong brown (7.5YR 5/5) sandy clay loam. Rather a mixed deposit with silty clay to silt loam, sand and fragments of silty clay present. Moist, fairly soft; structureless apart from laminations of differing textures; friable; absorb water readily; black staining of silty clay fragments; gypsum very common.
- 170-350 cms. Yellowish brown (10YR 5/4) loamy sand. Moist, soft; massive; very friable; fragments of silty clay and silty clay loam present; no visible salts. Frequently thin bands of nearly pure coarse sand occur below 220 cms. Rounded and armoured silty clay balls occur between 295 and 305 cms.
- 350-450 cms. Brown (7.5YR 5/4) silty clay loam. As 100-170 cms., silty clay fragments being present, increasing with depth.
- 450-500 cms. Strong brown (7.5YR 5/6) silty clay. As 100-170 cms. max.

5 metre bore in 2 metre pit.
Soil classification: T

Date: 11.2.58
Land classification: 6ndt

See also laboratory analyses for samples 19166-19172

Site No. R.280

Almost level uncultivated land with frequent small rounded sinkholes and round gilgai scattered over its surface. The vegetation consists of a Pea bulbosa and Carex sp. sward.

- 0-17 cms. Brown to dark brown (7.5YR 4/4) silty clay loam. Moist fairly soft; well developed medium platy structure for 2 cms., over weak medium angular blocky structure; very friable; few visible pores yet abundant roots; no visible salts.
- 17-32 cms. Brown (7.5YR 5/4) silty clay loam. As 0-17 cms. but strong vertical cracking from 20 cms., the cracks being up to 2 cm. wide.
- 32-120 cms. Brown (7.5YR 5/4) silty clay to silty clay loam. Dry, very hard; strong vertical cracking with weak to moderately well developed coarse horizontal cracking and medium angular blocky structure; very hard consistency absorbing water only slowly; very dense; some very fine pores; no visible salts.
- 120-235 cms. Brown to strong brown (7.5YR 5/5) silty clay. Just moist, very hard; weak coarse angular blocky structure; very hard consistency; absorbs water fairly slowly; gypsum common.
- 235-260 cms. Yellow brown (10YR 5/4) silt loam. Moist, soft; structureless; mellow; only traces of gypsum.
- 260-330 cms. Brown (7.5YR 5/4) silty clay loam. As 120-235 cms.
- 330-470 cms. Yellow brown (10YR 5/4) very fine sandy silt loam. As 235-260 cms.
- 470-500 cms. Patchy mixture of brown (7.5YR 5/4) silty clay loam and max. yellow brown (10YR 5/4) silt loam. As 235-260 cms.

5 metre bore in 2 metre pit.
Soil classification: T

Date: 12.2.58.
Land classification: 6ndt

See also laboratory analyses for samples 19175-19181

Site No. R.281

Almost level, freshly ploughed up area with very occasional shallow round gilgai.

- 0-15 cms. Brown to dark brown (7.5YR 4/3) rather mixed silt loam. Moist, soft; remains of moderately well developed platy (1 cm) over weak fine angular blocky structure; very friable but few visible pores; many live roots; absorbs water readily (moist) but only fairly readily when dry.
- 15-35 cms. Brown (7.5YR 5/4) silty clay loam. As 0-15 cms., but some carbonate concretions present below 30 cms.
- 35-87 cms. Brown (7.5YR 5/4) silty clay loam. Moist, fairly hard; weak fine angular blocky structure; fairly hard consistence, absorbing water readily; many visible pores, worm borings and cavities; carbonate concretions common.
- 87-220 cms. Brown (7.5YR 5/4) variable fine sandy clay loam. As 35-87 cms., but softer, with a few sandy partings. Below 110 cms., fragments of silty clay appear and often contain gypsum. Below 155 cms., some silt loam occurs in patches.
- 220-250 cms. Yellowish brown (10YR 5/4) fine sandy silt loam. Moist, soft; structureless; floury; no visible salts, but a few silty clay fragments.
- 250-290 cms. Brown (7.5YR 5/4) silty clay. As 220-250 cms., but some gypsum present; also some black staining. Occasional patches of silt loam present.
- 290-340 cms. Light yellowish brown (10YR 6/4) silt loam, with some silty clay. As 250-290 cms.
- 340-370 cms. Brown (7.5YR 5/4) silty clay. As 250-290 cms.
- 370-500 cms. Strong brown (7.5YR 5/6) silty clay loam. As 250-290 cms., max. but no black staining.

5 metre bore in 2 metre pit.
Soil classification: S

Date: 13.2.58.
Land classification: 1.

See also laboratory analyses for samples 19182-19188.

Site No. R.282

Very slightly sloping, uncultivated land with occasional large shallow round gilgai present. The natural vegetation consists of a patchy Poa bulbosa turf with "shok" in the gilgai channels. The bare surface shows fairly well developed fine minor surface cracking.

- 0-10 cms. Brown (7.5YR 5/3) fine sandy clay loam. Moist, fairly soft; well developed platy structure for top centimetre over moderately well developed fine angular blocky structure; fairly friable consistence yet absorbs water fairly readily; a few pores but many live roots; traces of gypsum.
- 10-65 cms. Brown (7.5YR 5/4) fine sandy clay loam. Moist, soft; weak fine subangular blocky structure; friable; many live roots; abundant carbonate concretions and traces of gypsum.
- 65-80 cms. Brown to strong brown (7.5YR 5/5) sandy clay loam. Just moist, otherwise as 10-65 cms. but gypsum replaces carbonate. Mellow.
- 80-220 cms. Strong brown (7.5YR 5/6) silty clay loam. Moist, fairly hard; weak medium angular blocky structure; hard consistence yet absorbs water readily; gypsum abundant to 140 cms. but none below; few live roots present.
- 220-380 cms. Brown to dark brown (7.5YR 4/4) silty clay. Moist, soft; structureless; mellow; gypsum content increasing.
- 380-500 cms. Strong brown (7.5YR 5/7) silty clay. As 80-220 cms. but structureless with gypsum increasing with depth.

5 metre bore in 2 metre pit.
Soil classification: Ts

Date: 13.2.58.
Land classification: 6sndt

See also laboratory analyses for samples 19189-19196

Site No. R.283

Almost level, uncultivated area near wadi bed. The natural vegetation consisted of a Poa bulbosa sward.

- 0-10 cms. Brown to strong brown (7.5YR 4/3) fine sandy clay loam. Moist, soft; well developed fine platy structure to 2 cms. over moderately well developed fine angular blocky structure; friable; many live roots; no visible salts.
- 10-30 cms. Brown to strong brown (7.5YR 5/5) fine sandy clay loam. Moist, soft; weak fine angular blocky structure; friable; many live roots; some carbonate concretions.
- 30-40 cms. Brown to strong brown (7.5YR 5/5) fine sandy clay loam. As 10-30 cms. but more carbonate concretions present and harder consistency; absorbs water readily.
- 40-105 cms. Brown (7.5YR 5/4) sandy loam. Almost dry, absorbs water fairly readily; otherwise as 30-40 cms.
- 105-155 cms. Brown (7.5YR 5/4) silty clay loam. As 40-105 cms. but just moist.
- 155-180 cms. Yellow brown (10YR 5/4) sand. Almost dry, hard; structureless; fairly hard consistence; absorbs water readily; no visible salts.
- 180-230 cms. Strong brown (7.5YR 5/6) rather mixed silty clay loam. As 30-40 cms.
- 230-270 cms. Brown (7.5YR 5/4) sandy silt. As 155-180 cms.
- 270-300 cms. Strong brown (7.5YR 5/6) silty clay loam. Moist, soft; structureless; mellow; black staining present; also gypsum crystals.
- 300-335 cms. Yellow brown (10YR 5/4) silty fine sand. As 270-300 cms.
- 335-380 cms. Strong brown (7.5YR 5/6) silty clay loam to silty clay. As 30-40 cms. but carbonate replaced by gypsum.
- 380-400 cms. Strong brown (7.5YR 5/6) silty clay loam with some silt loam present. As 270-300 cms.
- 400-450 cms. Yellow brown (10YR 5/4) silt loam. As 270-300 cms.
- 450-480 cms. Strong brown (7.5YR 5/6) rather mixed silty clay loam. As 270-300 cms.
- 480-500 cms. Yellow brown (10YR 5/4) silt loam. As 270-300 cms.
max.

5 metre bore in 2 metre pit.
Soil classification: S

Date: 13.2.58.
Land classification: 2s

See also laboratory analyses for samples 19197-19204

Site No. R.284

Almost level, uncultivated land on the edge of an area of shallow round gilgai. The natural vegetation consists of a Poa bulbosa sward with lichens.

- 0-10 cms. Brown (7.5YR 5/3) fine sandy clay loam. Moist, soft; well developed fine platy structure in the top 2 cms., over weak fine angular blocky structure; very friable; few visible pores but many live roots; no visible salts.
- 10-30 cms. Brown-strong brown (7.5YR 5/5) fine sandy clay loam to silty clay loam. As 0-10 cms. but some carbonate concretions present.
- 30-110 cms. Strong brown (7.5YR 5/6) silty clay. Almost dry, hard; strong medium vertical cracking with moderately well developed medium angular blocky structure; hard consistence, absorbing water fairly slowly; black staining; some roots present; occasional carbonate concretions.
- 110-160 cms. Brown (7.5YR 5/4) rather patchy silty clay loam. Moist, fairly hard to fairly soft; weak medium angular blocky structure; fairly friable to mellow; many roots and visible pores; much visible gypsum but no carbonate.
- 160-200 cms. Brown (7.5YR 5/4) very variable loam. Moist, fairly hard, massive, fairly consistency yet absorbing water readily; abundant gypsum.
- 200-220 cms. Strong brown (7.5YR 5/6) silty clay. Moist, soft; structureless; mellow; gypsum present.
- 220-300 cms. Strong brown (7.5YR 5/6) silty clay loam. As 200-220 cms.
- 300-350 cms. Strong brown (7.5YR 5/6) silty clay. As 200-220 cms., but black staining present.
- 350-460 cms. Brown (7.5YR 5/4) silt loam. As 200-220 cms., but no visible salts.
- 460-500 cms. Strong brown (7.5YR 5/6) silty clay loam to silty clay.
max. As 300-350 cms.

5 metre bore in 2 metre pit.
Soil classification: S

Date: 14.2.58
Land classification: 2snd

See also laboratory analyses of samples 19205-19212

Site No. R.285

Almost level, freshly ploughed fallow land near a wadi. The surface shows the remains of Centaurea sp. and occasional Pea bulbosa.

- 0-20 cms. Brown to dark brown (7.5YR 4/3) fine sandy clay loam. Moist, soft; remains of weak fine angular blocky structure and laminated; friable; many visible pores; no visible salts. Plough layer.
- 20-80 cms. Brown (7.5YR 5/4) silty clay loam. Moist, soft; weak fine angular blocky structure; friable, many visible pores and live roots; some carbonate concretions.
- 80-126 cms. Strong brown (7.5YR 5/6) silty clay. Moist, fairly hard; structureless; apart from faint vertical cracks, compact fairly hard consistence; absorbs water fairly readily; no visible salts.
- 126-165 cms. Brown to strong brown (7.5YR 5/6) silty clay. As 80-126 cms. but much gypsum present.
- 165-190 cms. Brown to strong brown (7.5YR 5/5) silty clay loam (but very mixed). As 126-165 cms., but only traces of gypsum.
- 190-460 cms. Strong brown (7.5YR 5/6) silty clay. As 126-165 cms., but hard to anger; absorbs water only slowly; black staining present.
- 460-500 cms. max. Brown to strong brown (7.5YR 5/5) silty clay to silty clay loam. As 190-460 cms.

5 metre bore in 2 metre pit.
Soil classification: S

Date: 14.2.58
Land classification: 2nd

See also laboratory results for samples 19213-19220

Site No. R.286

Negligible slope on uncultivated land near a shallow wadi.
The surface is covered in a *Poa bulbosa* sward and shows complete slaking.

- 0-15 cms. Brown to dark brown (7.5YR 4/2) fine sandy clay loam. Moist, soft; well developed platy structure to 1 cm. over weak fine angular blocky structure; many visible pores and roots; no visible salts.
- 15-35 cms. Brown (7.5YR 5/4) clay loam. Moist, soft; structureless; friable; few pores, but many live roots; no visible salts.
- 35-125 cms. Brown to strong brown (7.5YR 5/5) silty clay. Just moist, hard; weak medium angular blocky structure; hard consistency and absorbs water only slowly; few pores or root channels; no visible salts until gypsum appears at 90 cms., becoming fairly common.
- 125-160 cms. Brown to strong brown (7.5YR 5/5) variable silty clay loam. Moist, fairly hard; massive; fairly hard consistency absorbing water only fairly readily; gypsum present; also black staining.
- 160-190 cms. Brown to strong brown (7.5YR 5/5) silty clay. As 125-160 cms.
- 190-240 cms. Brown to strong brown (7.5YR 5/5) silty clay. As 35-125 cms., but very heavy black staining.
- 240-340 cms. Brown to strong brown (7.5YR 5/5) silty clay loam. As 15-35 cms. but mellow, with gypsum present.
- 340-480 cms. Brown (7.5YR 5/4) fine sandy clay loam. As 240-340 cms. but a little black staining and occasional silty clay nodules present. Below 450 cms., the texture becomes slightly coarser.
- 480-510 cms. max. Brown (7.5YR 5/4) fine sandy clay loam. Moist, hard; massive; hard consistence yet absorbing water readily; gypsum abundant.

5 metre bore in 2 metre pit.
Soil classification: Ts

Date: 15.2.58.
Land classification: 6snd1

See also laboratory analyses for samples 19221-19228

Site No. R.287

Slight partly cultivated slope away from a deep, wide wadi. A few sheards and brick fragments lie scattered over the surface while the natural vegetation consists of a Poa bulbosa and Carex sp. turf.

- 0-12 cms. Brown (7.5YR 5/4) fine sandy clay loam. Moist, soft; strong fine platy structure to 3 cms. over weak fine angular blocky structure; very friable; no visible salts.
- 12-34 cms. Brown (7.5YR 5/4) fine sandy clay loam. As 3-12 cms., but carbonate concretions abundant.
- 34-83 cms. Brown (7.5YR 5/4) rather variable fine sandy clay - fine sandy clay loam. Almost dry, fairly soft; weak fine laminations; friable; many visible pores and cavities; carbonate concretions present.
- 83-130 cms. Brown to dark brown (7.5YR 5/5) silty clay loam. Just moist, fairly hard; marked fine vertical cracks, and moderately well developed medium angular blocky structure; hard consistency but absorbs water fairly readily; many visible pores; carbonate concretions common.
- 130-220 cms. Brown (7.5YR 5/4) very variable silty clay loam. As 34-83 cms., but some gypsum present and no carbonate concretions.
- 220-290 cms. Light yellowish brown (10YR 6/4) silt loam. As 130-220 cms., but fragments of black stained silty clay present.
- 290-320 cms. Strong brown (7.5YR 5/5) silty clay. Moist, soft; weak medium angular blocky structure; mellow; gypsum common; black staining present.
- 320-390 cms. Brown (7.5YR 5/4) variable silty clay loam. As 290-320 cms., but floury consistence.
- 390-425 cms. Brown to strong brown (7.5YR 5/5) silty clay loam. As 290-320 cms.
- 425-460 cms. Light yellowish brown (10YR 6/4) variable silt loam to loam. As 130-220 cms.
- 460-500 cms. Light yellowish brown (10YR 6/4) variable fine sandy silt loam. As 130-320 cms.
max.

5 metre bore in 2 metre pit.
Soil classification (B)

Date: 15.2.58.
Land classification: 3sd

See also laboratory results for samples 19229-19235

Site No. R.289

Uncultivated, almost level, gilgai area near a low tel. The natural vegetation consists of patches of Poa bulbosa and Carex sp. on the puffs. The ground surface exhibits slight minor surface cracking with a few sheard fragments.

- 0-20 cms. Brown (7.5YR 5/4) silty clay loam. Moist, soft; strong fine platy structure to 2 cms. over weak medium angular blocky structure; very friable, many visible pores and live roots; no visible salts.
- 20-35 cms. Brown (7.5YR 5/4) fine sandy clay loam. As 2-20 cms. but carbonate flecking present from 25 cms.
- 35-80 cms. Brown (7.5YR 5/4) silty clay loam. Just moist, fairly hard; weak fine angular blocky structure; fairly hard consistence yet absorbs water readily; no visible salts.
- 80-156 cms. Strong brown (7.5YR 5/6) variable silty clay loam. Moist, soft; structureless; mellow; gypsum common.
- 156-194 cms. Light yellowish brown (10YR 6/4) silt loam. As 80-156 cms., but less gypsum present.
- 194-230 cms. Light yellowish brown (10YR 6/4) variable loam. As 156-194 cms.
- 230-270 cms. Strong brown (7.5YR 5/6) silty clay loam. As 156-194 cms., with only traces of gypsum.
- 270-500 cms. Strong brown (7.5YR 5/8) silty clay loam to silty clay. As 230-270 cms., but black stained silty clay fragments common.

5 metre bore in 2 metre pit.
Soil classification: Ts

Date: 17.2.58.
Land classification: 6sndt

See also laboratory analyses for samples 19785-19793.

Site No. R.290

Almost level wheat field. The nearby natural vegetation consists of a Poa bulbosa sward with "shok" common in places.

- 0-12 cms. Brown (7.5YR 5/3) fine sandy clay loam. Moist, soft; strong fine platy structure for 2 cms., over weak fine angular blocky structure; friable; many visible pores and roots; no visible salts.
- 12-25 cms. Brown to strong brown (7.5YR 5/5) silty clay loam. As 2-12 cms.
- 25-60 cms. Brown to strong brown (7.5YR 5/5) silty clay loam. Just moist, fairly hard; weak fine angular blocky structure; fairly hard consistency but absorbs water readily. Numerous carbonate concretions.
- 60-100 cms. Brown to strong brown (7.5YR 5/5) silty clay loam. As 25-60 cms., but harder and absorbs water only slowly; strong vertical cracks.
- 100-149 cms. Reddish brown (5YR 4/4) silty clay. Moist, hard; strong vertical cracking; hard consistency, but absorbs water only slowly; black staining but no visible salts; laminations appear below 132 cms.
- 149-159 cms. Yellow brown (10YR 5/4) sand. Moist, soft; structureless; friable; no visible salts.
- 159-179 cms. Brown (7.5YR 5/4) loam - very variable. As 149-159 cms. but finely laminated.
- 179-230 cms. Reddish brown (5YR 4/4) variable silty clay. As 100-149 cms., but some laminations; gypsum present from 190 cms.
- 230-275 cms. Light yellowish brown silt loam. Moist, soft; marked fine laminations; very mellow; gypsum present.
- 275-300 cms. Brown (7.5YR 5/4) very variable loam. As 230-275 cms.
- 300-340 cms. Light yellowish brown fine sandy silt. As 230-275 cms.
- 340-380 cms. Strong brown (7.5YR 5/6) silty clay loam. As 230-275 cms.
- 380-400 cms. Strong brown (7.5YR 5/6) silty clay. As 230-275 cms.
- 400-440 cms. Brown (7.5YR 5/4) fine sandy silt. As 230-275 cms.
- 440-500 cms. Strong brown (7.5YR 5/6) silty clay loam. Very moist, max. firm; structureless; fairly firm consistence; gypsum present.

5 metre bore in 2 metre pit.
Soil classification: S

Date: 17.2.58.
Land classification: 2nd

See also laboratory results for samples 19794-19802

Site No. R.291

Virtually level area with natural vegetation consisting of a thin Poa bulbosa sward and sparse "shok". The surface shows many fine cracks with lichens. Most of the land is under wheat.

- 0-10 cms. Brown to strong brown (7.5YR 5/5) fine sandy clay loam. Moist, soft; moderately well developed fine platy structure to 3 cms., over weak fine angular blocky structure; friable; many live roots and bulbs; many visible pores; but no visible salts.
- 10-25 cms. Brown (7.5YR 5/4) fine sandy clay loam. As 3-10 cms., but specks of lime present.
- 25-45 cms. Brown (7.5YR 5/4) fine sandy clay loam. As 3-10 cms., but fine subangular blocky structure with carbonate concretions common.
- 45-65 cms. Brown (7.5YR 5/4) variable loam to sandy loam. Almost dry; otherwise as 10-25 cms.
- 65-75 cms. Brown to dark brown (7.5YR 5/5) fine sandy clay loam. Just moist, soft; weak fine laminations and lenses; friable; carbonate concretions and gypsum present.
- 75-90 cms. Brown (7.5YR 5/4) sandy loam to loam. As 65-75 cms.
- 90-148 cms. Brown (7.5YR 5/4) variable silty clay loam. As 65-75 cms., but no carbonate and moderately well developed laminations.
- 148-158 cms. Brown (7.5YR 5/4) sandy loam to loam. As 65-75 cms.
- 158-193 cms. Brown (7.5YR 5/4) mixed silty clay loam. Moist, soft, structureless; mellow; gypsum present.
- 193-290 cms. Brown (7.5YR 5/4) silt loam. As 158-193 cms.
- 290-310 cms. Brown (7.5YR 5/4) silty fine sand. As 158-193 cms.
- 310-350 cms. Strong brown (7.5YR 5/6) silt loam. As 158-193 cms.
- 350-370 cms. Brown to strong brown (7.5YR 5/5) mixed silty clay loam to fine sandy clay loam. As 158-193 cms. but marked fine-medium laminations.
- 370-430 cms. Brown (7.5YR 5/4) sand. As 158-193 cms. but silty clay nodules present.
- 430-460 cms. Brown (7.5YR 5/4) sand. As 158-193 cms.
- 460-510 cms. Brown (7.5YR 5/4) sand. As 370-430 cms.
max.

5 metre bore in 2 metre pit.
Soil classification: S

Date: 18.2.58.
Land classification: 1

See also laboratory results for samples 19803-19810.

Site No. R.292

Fallow land with a slight slope to east near a shallow wadi. The natural vegetation consists of Poa bulbosa and scattered "shok". The surface, though recently ploughed, shows moderate slaking.

- 0-15 cms. Brown (7.5YR 5/4) fine sandy clay loam. Moist, soft; marked platy structure in the top 1 cm., over weak fine angular blocky structure; friable; many live roots; no visible salts.
- 15-33 cms. Brown to strong brown (7.5YR 5/5) silty clay loam. As 1-15 cms. but carbonate concretions common; also some black staining.
- 33-42 cms. Brown (7.5YR 5/4) silty clay loam. As 15-35 cms.
- 42-110 cms. Brown (7.5YR 5/4) loam. Moist, fairly hard; massive; with weak fine laminations; hard consistency absorbing water fairly easily; few live roots; no visible salts.
- 110-165 cms. Strong brown (7.5YR 5/6) mixed silty clay loam. Moist hard; moderately well developed medium to coarse angular blocky structure; absorbs water only slowly; hard consistence; no visible salts.
- 165-180 cms. Brown (7.5YR 5/4) silty fine sand. Almost dry, otherwise as 42-110 cms., absorbing water very easily.
- 180-220 cms. Strong brown (7.5YR 5/6) mixed silty clay loam. As 110-165 cms. but harder, denser and with black staining present.
- 220-240 cms. Strong brown (7.5YR 5/6) clayey fine sand. As 165-180 cms.
- 240-270 cms. Strong brown (7.5YR 5/7) silty clay. Almost dry; otherwise as 180-220 cms. Only traces of gypsum.
- 270-340 cms. Reddish brown (5YR 4/4) silty clay. As 240-270 cms. but carbonate concretions present and no gypsum.
- 340-380 cms. Brown (7.5YR 5/4) silty clay loam. As 110-165 cms.
- 380-470 cms. Reddish brown (5YR 4/4) silty clay. As 240-270 cms. but much harder below 400 cms. and absorbs water only very slowly; gypsum common.
- 470-500 cms. Strong brown (7.5YR 5/6) silty clay. As 270-340 cms. max.

5 metre bore in 2 metre pit.
Soil classification: S

Date: 18.2.58.
Land classification 2nd.

See also laboratory results for samples 19811-19818

Site No. R.293

Slightly sloping fallow land, sloping towards the Hawija Canal. Occasional large round shallow gilgai occur, while the natural vegetation consists of patchy Poa bulbosa and occasional "shok" bush. The surface shows incomplete slaking so that the old furrows are discernible together with weak fine surface cracking.

- 0-17 cms. Brown to strong brown (7.5YR 5/5) silty clay loam. Just moist, fairly hard; weak fine angular blocky structure and fine laminations; fairly hard consistency absorbing water fairly readily; many visible pores and live roots; no visible salts.
- 17-28 cms. Brown to strong brown (7.5YR 5/5) silty clay loam. Moist, soft; weak fine angular blocky structure; friable; carbonate flecking.
- 28-46 cms. Brown to strong brown (7.5YR 5/5) silty clay loam. Just moist, fairly soft; weak fine subangular blocky structure and medium vertical cracking; fairly friable consistency; many visible pores and cavities; carbonate concretions very common.
- 46-92 cms. Brown to strong brown (7.5YR 5/5) variable silty clay loam. As 28-46 cms., but fine laminations present and less carbonate.
- 92-147 cms. Brown (7.5YR 5/4) sandy loam to loam. Moist, soft; structureless; very friable; no visible salts.
- 147-184 cms. Brown (7.5YR 5/4) silt loam. As 92-147 cms., but gypsum very common.
- 184-200 cms. Brown (7.5YR 5/4) sand. As 92-147 cms.
- 200-210 cms. Brown (7.5YR 5/4) fine sandy clay loam. Moist, hard; structureless; hard consistence absorbing water only slowly; dense, no visible salts.
- 210-240 cms. Light brown to reddish yellow (7.5YR 6/5) silt loam. As 42-49 cms. but structureless and no visible salts.
- 240-250 cms. Strong brown (7.5YR 5/6) silty clay loam. As 210-240 cms.
- 250-290 cms. Light brown to reddish yellow (7.5YR 6/5) silt loam. As 210-240 cms. but floury consistence.
- 290-380 cms. Strong brown (7.5YR 5/6) silty clay loam. As 210-240 cms. but mellow and with carbonate concretions below 340-350 cms. Light yellowish brown (10YR 6/4) silty loam appears below this.
- 380-450 cms. Strong brown (7.5YR 5/6) silty clay loam. As 210-240 cms. but gypsum present; mellow consistence, with a few hard silty clay nodules.

450-500 cms. Strong brown (7.5YR 5/6) silty clay loam. As 380-450
max. cms., but with black staining in the root channels and
hard consistency (absorbs water fairly slowly). Below
470 cms. gypsum is replaced by carbonate concretions.

5 metre bore in 2 metre pit.
Soil classification: S

Date: 18.2.58.
Land classification: 2s

See also laboratory results for samples 19819-19826

Site No. R.294

Uncultivated land with a slight slope to the south west. Gilgai are present. patches of Poa bulbosa occur but much of the surface is bare and shows signs of deliquescent salts. The surface is hard on the higher parts while the depressions are softer, both showing marked coarse surface cracking.

- 0-25 cms. Brown (7.5YR 5/4) silty clay loam. Moist, soft; marked platy structure to 5 cms. over weak fine angular blocky structure; mellow; no visible salts.
- 25-45 cms. Brown (7.5YR 5/4) silty clay loam. As 0-25 cms., but some carbonate concretions present.
- 45-70 cms. Strong brown (7.5YR 5/6) silty clay loam. Almost dry, hard; weak fine subangular blocky structure; hard consistence and absorbs water only fairly readily; many pores and cavities; carbonate concretions present.
- 70-120 cms. Reddish brown to yellowish red (5YR 4/5) clay loam. As 45-70 cms., but gypsum instead of carbonate; also some black staining.
- 120-160 cms. Brown to dark brown (7.5YR 4/3) silty clay loam. As 70-120 cms., but carbonate concretions also present.
- 160-250 cms. Strong brown (7.5YR 5/6) silty clay loam. As 70-120 cms., but much softer and moister.
- 250-270 cms. Brown to strong brown (7.5YR 5/5) clayey sand. As 25-45 cms., but gypsum in place of carbonate.
- 270-400 cms. Strong brown (7.5YR 5/6) silty clay. As 250-270 cms., but still stiff. Absorbs water fairly readily.
- 400-495 cms. Strong brown (7.5YR 5/6) clay. Wet, stiff; structure-less; firm consistency; gypsum present; below 470 cms. some sand appears. Water struck at 495 cms.

5 metre bore in 2 metre pit.
Soil classification: Ts

Date: 19.2.58
Land classification: 6sndt

See also laboratory analyses for samples 19827-19834.

Site No. R.295

Uncultivated level area of round gilgai. The vegetation consists of a Poa bulbosa turf with chenopods around the puff.

- 0-30 cms. Yellowish brown (10YR 5/6) fine sandy clay loam. Moist, soft; strong medium angular blocky structure; friable; many visible pores and live roots.
- 30-60 cms. Strong brown (7.5YR 5/6) silty clay loam. Just moist, fairly hard; weak fine angular blocky structure; fairly hard consistency yet absorbs water readily; many visible pores; many carbonate specks.
- 60-110 cms. Strong brown (7.5YR 5/6) silty clay. Just moist, very hard; weak medium angular blocky structure; very hard consistence and absorbs water only very slowly; gypsum present becoming common below 90 cms.
- 110-160 cms. Brown (10YR 5/4) silty clay loam. As 60-110 cms.
- 160-210 cms. Light yellowish brown (10YR 6/4) fine sandy silt loam. Moist, soft; structureless; mellow; gypsum present.
- 210-240 cms. Light yellowish brown (10YR 6/4) silt loam. As 160-210 cms.
- 240-510 cms. Brown to strong brown (7.5YR 5/5) silty clay loam. max. As 160-210 cms., but gypsum abundant below 270 cms. Below 410 cms. it is wet, with less gypsum.

5 metre bore in 2 metre pit.
Soil classification: Ts

Date: 27.2.58.
Land classification: 6sndt

See also laboratory analyses for samples 19835-19842

Site No. R.296

Level uncultivated land near some tels, with shallow gilgai present. The surface is covered by a Poa bulbosa sward.

- 0-18 cms. Brown (7.5YR 5/4) fine sandy clay loam. Dry, fairly hard; strong fine platy structure to 1 cm. over strong fine angular blocky structure; friable; many visible pores and roots; no visible salts.
- 18-40 cms. Brown to strong brown (7.5YR 5/5) silty clay loam. As 1-18 cms., but much strong vertical cracking. Absorbs water readily.
- 40-~~84~~ cms. Brown to strong brown (7.5YR 5/5) silty clay loam. Dry, hard; strong medium to fine vertical cracking; hard consistency absorbing water only slowly; no visible salts.
- 84-115 cms. Brown to strong brown (7.5YR 5/5) fine sandy clay. As ~~40-84~~ cms., but more massive with a few dead roots present.
- 115-132 cms. Yellowish brown (10YR 5/4) rather mixed fine sandy silt loam. Moist, soft; structureless; mellow; gypsum present.
- 132-225 cms. Brown (7.5YR 5/4) variable silty clay loam. As 115-132 cms., but black stainings present.
- 225-270 cms. Brown to strong brown (7.5YR 5/5) silty clay loam. As 115-132 cms.
- 270-340 cms. Strong brown (7.5YR 5/6) silty clay loam. More moist, otherwise as 123-225 cms.
- 340-380 cms. Brown (7.5YR 5/4) fine sandy clay to fine sandy clay loam. As 270-340 cms.
- 380-500 cms. Strong brown (7.5YR 5/6) fine sandy clay. As 270-340 max. cms., but still more gypsum and more moist.

5 metre bore in 2 metre pit.
Soil classification: G.

Date: 28.2.58.
Land classification 6ndt

See also laboratory analyses for samples 19843-19850.

Site No. R.287⁹

Very slight slope from old canal bank. The land is uncultivated and covered by a Poa bulbosa turf apart from the saline puff. Gilgai are common nearby. The surface of the puffs shows marked cracking, curling and flaking.

- 0-20 cms. Brown (7.5YR 5/3) silty clay loam. Dry, fairly hard; well developed medium angular blocky structure; hard consistency, absorbing water fairly easily; no visible salts.
- 20-75 cms. Brown to strong brown (7.5YR 5/5) silty clay loam. Dry, fairly soft; weak fine angular blocky structure; friable; many visible pores and cavities; some carbonate concretions.
- 75-127 cms. Brown (7.5YR 5/4) fine sandy loam. Dry, fairly hard; rather massive; absorbs water readily; many fine pores; gypsum present.
- 127-157 cms. Light yellowish brown (10YR 6/4) silt loam to silty clay loam. Dry, soft; marked medium to fine laminations; mellow; gypsum present.
- 157-225 cms. Reddish yellow (5YR 4/4) silty clay loam. As 75-127 cms., but absorbs water only fairly readily.
- 225-440 cms. Strong brown (7.5YR 5/6) silty clay loam. Moist, structureless, and with black staining throughout with orange mottling below 300 cms; otherwise as 127-157 cms.
- 440-500 cms. Strong brown (7.5YR 5/6) silty clay loam. As 225-440 max. cms., but much stiffer and wetter; gypsum abundant.

5 metre bore in 2 metre pit
Soil classification: Ts

Date: 28.2.58.
Land classification: 6sndt

See also laboratory results for samples 19851-19858

Site No. R.298

Occasional patches of fallow land in a level uncultivated tract. Some round gilgai occur. The vegetation consists of Poa bulbosa and branched chenopods. The surface is only poorly covered by turf and cracking occurs.

- 0-10 cms. Brown (7.5YR 5/4) silty clay loam. Almost dry, fairly hard; strong platy structure to 2 cms. grading down into strong medium angular blocky structure with strong vertical cracks; fairly hard consistency, absorbing water easily; no visible salts.
- 10-97 cms. Brown (7.5YR 5/4) silty clay loam. As 2-10 cms., but hard and heavier and absorbing water only fairly readily; carbonate concretions present to 70 cms. - absent below.
- 97-124 cms. Brown to strong brown (7.5YR 5/5) silty clay loam. As 2-10 cms.
- 124-140 cms. Light yellowish brown to brownish yellow (10YR 6/5) silt loam. Moist, soft; structureless; mellow; salt efflorescence on pit sides; gypsum present; fragments of silty clay present.
- 140-290 cms. Brown (7.5YR 5/4) silty clay loam. As 124-140 cms.
- 290-350 cms. Light yellowish brown (10YR 6/4) silt loam to silty clay loam. As 124-140 cms., but little gypsum.
- 350-500 cms. Strong brown (7.5YR 5/6) variable silty clay loam. max. As 124-140 cms., but more gypsum, while the silty clay fragments have black staining.

5 metre bore in 2 metre pit.
Soil classification: T.

Date: 1.3.58
Land classification: 6ndt

See also laboratory analyses for samples 19859-19866

Site No. R.299.

Sloping land from an old canal (1-2° slope), mainly under cereal crops. The natural vegetation of the uncultivated land consists of Poa bulbosa, Atriplex sp. and chenopods. The surface at the pit site was freshly ploughed fallow, while gilgai occurred nearby on flatter land.

- 0-8 cms. Brown to strong brown (7.5YR 5/5) silty clay loam. Almost dry, soft; strong fine angular blocky structure; friable; many live roots, some black staining; no visible salts.
- 8-27 cms. Strong brown (7.5YR 5/6) silty clay loam. Moist, soft; weak fine angular blocky structure; friable; black stains; no visible salts.
- 27-80 cms. Strong brown (7.5YR 5/6) silty clay. Just moist, hard; strong medium vertical crackings and weak coarse laminations; hard consistency absorbing water only slowly; carbonate concretions common; few visible pores.
- 80-120 cms. Brown (7.5YR 5/4) silty clay loam. Moist, hard; weak fine angular blocky structure and vertical cracking; hard consistency absorbing water slowly; carbonate concretions present.
- 120-250 cms. Brown (7.5YR 5/4) silty clay loam. Moist, soft; massive; mellow; occasional carbonate concretions; few pores; traces of gypsum at bottom of horizon.
- 250-270 cms. Strong brown (7.5YR 5/6) silty clay loam. Moist, stiff, massive; fairly firm consistence yet absorbing water fairly readily; gypsum present.
- 270-310 cms. Brown (7.5YR 5/4) fine sandy clay loam. As 250-270 cms.
- 310-330 cms. Strong brown (7.5YR 5/6) silty clay loam. As 250-270 cms.
- 330-400 cms. Brown (7.5YR 5/4) silty clay loam to silt loam. As 250-270 cms.
- 400-450 cms. Strong brown (7.5YR 5/6) silty clay loam. As 250-270 cms., but sandy partings.
- 450-500 cms. Olive brown (2.5YR 4/4) sand. Moist, soft, structureless max. fairly free running; no visible salts.

5 metre bore in 2 metre pit.
Soil classification: T

Date: 2.3.58
Land classification 6ndt

See also laboratory results for samples 19867-19873

Site No. R,300

Level uncultivated area with occasional shallow gilgai. The vegetation consists of a Poa bulbosa sward and the surface shows moderately well developed fine cracks.

- 0-10 cms. Brown to strong brown (7.5YR 5/5) silty clay loam. Dry, fairly hard; strong fine angular blocky structure; hard consistency yet absorbs water fairly readily; some visible pores and many live roots, no visible salts.
- 10-27 cms. Brown to strong brown (7.5YR 5/5) silty clay loam. Just moist; absorbs water only slowly; hard consistence; some carbonate concretions present, otherwise as 0-10 cms.
- 27-80 cms. Strong brown (7.5YR 5/6) silty clay. Almost dry, hard; strong medium vertical cracking, moderately well developed coarse horizontal cracking; absorbs water very slowly indeed; few roots; no visible salts. Black staining present.
- 80-130 cms. Strong brown (7.5YR 5/6) silty clay. As 10-27 cms. but gypsum replacing carbonate; weak vertical cracking.
- 130-230 cms. Brown to strong brown (7.5YR 5/5) mixed silty clay to silty clay loam. As 27-80 cms., but gypsum common.
- 230-310 cms. Strong brown (7.5YR 5/6) silty clay loam. Moist, fairly soft; structureless; fairly friable many visible pores; gypsum common.
- 310-450 cms. Brown to strong brown (7.5YR 5/5) silty clay loam with traces of fine sandy silt. As 230-310 cms., but fragments of silty clay present with black staining. Below 340 cms., gypsum content increases.
- 450-470 cms. Strong brown (7.5YR 5/6) silty clay. Moist, fairly hard; structureless; fairly hard consistence, absorbing water fairly slowly; orange and black mottling present; while gypsum is present.
- 470-520 cms. Strong brown (7.5YR 5/6) silty clay. As 450-470 cms., max. but some sandy partings present; also grey mottling; wet below 500 cms.

5 metre bore in 2 metre pit.
Soil classification: Ts

Date: 2.3.58
Land classification: 6sndt

See also laboratory results for samples 19874-19880

Site No. R.301

Partly cultivated slightly sloping land with a natural vegetation of Poa bulbosa turf.

- 0-10 cms. Brown to strong brown (7.5YR 5/5) silty clay loam. Dry and fairly hard becoming moist and soft; well developed fine angular blocky structure; fairly hard consistence becoming friable; absorbs water readily; many visible pores and roots; no visible salts.
- 10-30 cms. Strong brown (7.5YR 5/6) silty clay loam. Just moist, soft; weak fine angular blocky structure; friable; many visible pores and roots; carbonate concretions present, being common below 27 cms.
- 30-48 cms. Brown to strong brown (7.5YR 5/5) silty clay to silty clay loam. Just moist, fairly hard; weak fine vertical cracking and medium angular blocky structure; fairly hard consistence absorbing water readily; many visible pores; carbonate concretions common.
- 48-70 cms. Brown (7.5YR 5/4) mixed silt loam, silty clay loam and fine sandy silt. Moist, soft; structureless; friable; many visible pores and old root channels; no visible salts.
- 70-90 cms. Reddish brown (5YR 4/4.5) silty clay loam. As 10-30 cms., but no carbonate concretions; but black stainings and silty clay fragments present.
- 90-138 cms. Brown (7.5YR 5/4) variable silty clay loam. As 10-30 cms., but mellow, with gypsum present instead of carbonate concretions.
- 138-140 cms. Light yellowish brown (10YR 6/4) fine sandy silt. Moist, soft; massive; friable; numerous visible pores and cavities; no visible salts.
- 140-220 cms. Light yellowish brown (10YR 6/4) silt loam. As 138-140 cms., but weak fine laminations.
- 220-250 cms. Strong brown (7.5YR 5/6) silty clay loam. As 10-30 cms. but mellow; no carbonate concretions.
- 250-270 cms. Light yellowish brown (10YR 6/4) silt loam. As 140-220 cms.
- 270-500 cms. Strong brown (7.5YR 5/6) silty clay loam. As 90-138 max. cms.

5 metre bore in 2 metre pit.
Soil classification: (B)

Date: 3.3.58
Land classification: 3sd

See also laboratory analyses for samples 19881-19889

Site No. R.302

Barley field on a slight southerly slope. The sole visible weeds consist of occasional bushes of Prosopis farcta.

- 0-22 cms. Brown to strong brown (7.5YR 5/5) silty clay loam. Moist, soft; weak fine platy, to 2 cms., over weak fine angular blocky structure; friable; many visible pores and roots; no visible salts.
- 22-80 cms. Strong brown (7.5YR 5/6) silty clay loam. Almost dry, hard; weak medium angular blocky structure and fine vertical cracking; hard consistence absorbing water fairly easily; many visible pores and krotovinas; carbonate concretions present.
- 80-220 cms. Light yellowish brown (10YR 6/4) fine sandy silt loam. Just moist, fairly soft; massive apart from weak fine laminations; fairly friable; fragments of silty clay present; no visible salts.
- 220-270 cms. Brown (7.5YR 5/4) silty clay loam. Moist, soft; structureless; mellow; gypsum present.
- 270-310 cms. Light yellowish brown (10YR 6/4) silt loam. As 220-270 cms., but floury consistency.
- 310-340 cms. Light yellowish brown (10YR 6/4) fine sandy silt. As 220-270 cms.
- 340-410 cms. Brown to strong brown (7.5YR 5/5) silty clay loam. As 220-270 cms.
- 410-500 cms. Yellowish brown (10YR 5/6) mixed silt loam to silty clay loam. As 220-270 cms.

5 metre bore in 2 metre pit.
Soil classification: S

Date: 4.4.58
Land classification: 2nd

See also laboratory analyses of samples 19890-19895

Site No. R.303

Almost level land near a wadi, which is partly under barley. The natural vegetation consists of Poa bulbosa turf while completely slaked bare patches occur.

- 0-10 cms. Brown to dark brown (7.5YR 4/4) silty clay loam. Moist, soft; weak fine platy structure to 2 cms. over weak medium angular blocky structure; fairly friable; many visible pores and roots; no visible salts.
- 10-38 cms. Brown to strong brown (7.5YR 5/5) silty clay loam. Moist, soft; weak fine angular blocky structure; friable; many visible pores and live roots; some black stainings; carbonate concretions common from 20 cms.
- 38-100 cms. Strong brown (7.5YR 5/6) silty clay loam. Almost dry, hard; moderately well developed medium vertical cracking and weak medium angular blocky structure; prismatic fracture; hard consistence absorbing water fairly easily; many visible pores and krotovinas; carbonate concretions common to 60 cms.
- 100-200 cms. Brown (7.5YR 5/4) mixed silty clay loam. Moist, fairly hard; structureless; fairly hard consistency absorbing water readily; gypsum common below 115 cms.
- 200-270 cms. Brown to strong brown (7.5YR 5/5) silty clay loam. Moist, stiff to auger; weak fine angular blocky structure; mellow; gypsum present.
- 270-500 cms. max. Strong brown (7.5YR 5/6) silty clay loam. As 200-270 cms. but weak fine laminations of silt loam present.

5 metre bore in 2 metre pit.
Soil classification: (M)

Date: 3.3.58
Land classification: 3nds

See also laboratory analyses of samples 19896-19902

Site No. R.304

Barley field on a slight slope near an old canal and some
tels. The natural vegetation consists of Poa bulbosa.

- 0-15 cms. Light yellowish brown (10YR 5/3) silt loam. Almost dry, soft; weak fine platy structure to 3 cms. over weak fine angular blocky structure; friable; many live roots and visible pores; no visible salts.
- 15-40 cms. Brown (7.5YR 5/4) silt loam. As 3-15 cms., but carbonate concretions present.
- 40-90 cms. Brown (7.5YR 5/4) silt loam to silty clay loam. As 15-40 cms., but just moist, with weak medium laminations of silty clay.
- 90-165 cms. Brown (7.5YR 5/4) silty fine sand. Just moist, fairly soft; weak fine laminations, otherwise massive; fairly friable; many visible pores; silty clay loam laminations present; no visible salts.
- 165-173 cms. Brown (7.5YR 5/4) sand. Moist, soft; structureless; free running; no visible salts.
- 173-225 cms. Brown (7.5YR 5/4) silty fine sand. As 90-165 cms., but medium laminations.
- 225-255 cms. Brown to strong brown (7.5YR 5/5) silty clay loam. Moist, soft; structureless; mellow; no visible salts.
- 255-270 cms. Yellowish brown (10YR 5/4) silt loam to fine sandy silt loam. As 225-255 cms.
- 270-310 cms. Strong brown (7.5YR 5/6) silty clay loam. As 225-255 cms.
- 310-420 cms. Yellowish brown (10YR 6/4) silt loam to silty clay loam. As 225-255 cms., but traces of gypsum present; also sandy partings below 375 cms.
- 420-440 cms. Yellowish brown (10YR 5/4) silty clay loam. As 310-420 cms.
- 440-460 cms. Yellowish brown (10YR 5/4) silty fine sand. As 225-255 cms., but gypsum present.
- 460-500 cms. Yellowish brown (10YR 5/4) silt loam to silty clay loam. max. As 310-420 cms.

5 metre bore in 2 metre pit.
Soil classification: S1

Date: 7.3.58.
Land classification: 1.

See also laboratory analyses for samples 21658-21665.