| Agency Name:  | National Soil Fe<br>NSF<br>CSIRO Division  | Site ID: SW41  | Observation  | ID: 1   |
|---|--|--|--|---|
| Site Information  | า  |  |  |   |
| Desc. By:<br>Date Desc.:<br>Map Ref.:<br>Northing/Long.:<br>Easting/Lat.:                           |  | Locality:<br>Elevation:<br>1:100000 Rainfall:<br>Runoff:<br>Drainage:  | 0<br>No Data   |   |
| <u>Geology</u><br>ExposureType:<br>Geol. Ref.:  | No Data<br>No Data   | Conf. Sub<br>Substrate   |  | No Data<br>No Data  |
| <u>Land Form</u><br>Rel/Slope Class:<br>Morph. Type:<br>Elem. Type:<br>Slope:                       | No Data<br>No Data<br>%  | Pattern Ty<br>Relief:<br>Slope Cate<br>Aspect:   | No Data  |   |
| Surface Soil Co   | ndition (dry):   |  |  |   |
| <u>Erosion:</u><br>Soil Classificati  | 1 a .a   |  |  |   |
| Australian Soil Cl<br>N/A<br>ASC Confidence<br>Confidence level r<br>Site Disturbanc<br>Vegetation: | lassification:<br>:<br>not specified<br>:e:  |  | Mapping Unit:<br>Principal Profile F<br>Great Soil Group:  | N/A<br>form: Dr3.43<br>N/A  |
| Surface Coarse  | Fragments:   |  |  |   |
| Profile Morphol   |  |  |  |   |
| 0 - 0.1 m   |  | brown (5YR3/2-Moist); ; Cl<br>0-2%, Quartz, coarse fragn   |  | grade of structure; Very weak   |
| 0.1 - 0.2   | 0 (  | 7.5YR6/4-Moist); ; Clayey s<br>0-2%, Quartz, coarse fragr  |  | of structure; Very weak   |
|   |  |  | av. Strong grade of st   | ructure, 20-50 mm, Subangular   |
| 0.2 - 0.3   |  | oth-ped fabric; Very strong o  |  |   |
| 0.2 - 0.3   | blocky; Smoo<br>m Brown (7.5YF   | oth-ped fabric; Very strong o  | consistence; 0-2%, C<br>rong grade of structu  | Quartz, coarse fragments;<br>re, 20-50 mm, Subangular blocky;   |
|   | blocky; Smoo<br>m Brown (7.5YF<br>Smooth-ped f<br>m Brown (7.5YF   | oth-ped fabric; Very strong (<br>R5/4-Moist); ; Light clay; Sti<br>fabric; Very strong consiste  | consistence; 0-2%, C<br>rong grade of structu<br>ence; 0-2%, Quartz, c<br>rong grade of structu  | Quartz, coarse fragments;<br>re, 20-50 mm, Subangular blocky;<br>coarse fragments;<br>re, 20-50 mm, Subangular blocky;  |
| 0.3 - 0.4   | blocky; Smoo<br>m Brown (7.5YF<br>Smooth-ped f<br>m Brown (7.5YF<br>Smooth-ped f<br>m Very pale bro<br>Subangular b  | oth-ped fabric; Very strong (<br>R5/4-Moist); ; Light clay; Sti<br>fabric; Very strong consiste<br>R5/4-Moist); ; Light clay; Sti  | consistence; 0-2%, C<br>rong grade of structu<br>ence; 0-2%, Quartz, c<br>rong grade of structu<br>ence; 0-2%, Quartz, c<br>nt clay; Strong grade<br>Very strong consister   | Quartz, coarse fragments;<br>re, 20-50 mm, Subangular blocky;<br>coarse fragments;<br>re, 20-50 mm, Subangular blocky;<br>coarse fragments;<br>of structure, 10-20 mm,  |
| 0.3 - 0.4<br>0.4 - 0.5 i  | blocky; Smoo<br>m Brown (7.5YF<br>Smooth-ped f<br>m Brown (7.5YF<br>Smooth-ped f<br>m Very pale bro<br>Subangular b<br>fragments; So<br>m Very pale bro<br>Subangular b  | oth-ped fabric; Very strong (<br>R5/4-Moist); ; Light clay; Str<br>fabric; Very strong consister<br>R5/4-Moist); ; Light clay; Str<br>fabric; Very strong consister<br>pwn (10YR7/3-Moist); ; Ligh<br>plocky; Smooth-ped fabric; '   | consistence; 0-2%, C<br>rong grade of structu<br>ence; 0-2%, Quartz, c<br>rong grade of structu<br>ence; 0-2%, Quartz, c<br>nt clay; Strong grade<br>Very strong consister<br>careous;<br>nt clay; Strong grade  | Quartz, coarse fragments;<br>re, 20-50 mm, Subangular blocky;<br>coarse fragments;<br>re, 20-50 mm, Subangular blocky;<br>coarse fragments;<br>of structure, 10-20 mm,<br>nce; 0-2%, Quartz, coarse   |
| 0.3 - 0.4<br>0.4 - 0.5<br>0.5 - 0.6   | blocky; Smoo<br>m Brown (7.5YF<br>Smooth-ped f<br>m Brown (7.5YF<br>Smooth-ped f<br>m Very pale bro<br>Subangular b<br>fragments; So<br>m Very pale bro<br>Subangular b<br>fragments; So<br>m Yellow (10YR   | oth-ped fabric; Very strong of<br>R5/4-Moist); ; Light clay; Sti<br>fabric; Very strong consiste<br>R5/4-Moist); ; Light clay; Sti<br>fabric; Very strong consiste<br>own (10YR7/3-Moist); ; Ligh<br>blocky; Smooth-ped fabric; '<br>oil matrix is Moderately calo<br>own (10YR7/3-Moist); ; Ligh<br>blocky; Smooth-ped fabric; '<br>oil matrix is Moderately calo<br>R7/6-Moist); ; Light clay; Ma  | consistence; 0-2%, C<br>rong grade of structu<br>ence; 0-2%, Quartz, c<br>rong grade of structu<br>ence; 0-2%, Quartz, c<br>nt clay; Strong grade<br>Very strong consister<br>careous;<br>nt clay; Strong grade<br>Very strong consister<br>careous;<br>assive grade of struct                           | Quartz, coarse fragments;<br>re, 20-50 mm, Subangular blocky;<br>coarse fragments;<br>re, 20-50 mm, Subangular blocky;<br>coarse fragments;<br>of structure, 10-20 mm,<br>nce; 0-2%, Quartz, coarse   |
| 0.3 - 0.4<br>0.4 - 0.5<br>0.5 - 0.6<br>0.6 - 0.7  | blocky; Smoo<br>m Brown (7.5YF<br>Smooth-ped f<br>m Brown (7.5YF<br>Smooth-ped f<br>m Very pale bro<br>Subangular b<br>fragments; Sc<br>m Very pale bro<br>Subangular b<br>fragments; Sc<br>m Yellow (10YR<br>2%, Quartz, c<br>calcareou;                    | oth-ped fabric; Very strong o<br>R5/4-Moist); ; Light clay; Sti<br>fabric; Very strong consiste<br>R5/4-Moist); ; Light clay; Sti<br>fabric; Very strong consiste<br>pwn (10YR7/3-Moist); ; Ligh<br>plocky; Smooth-ped fabric;<br>oil matrix is Moderately calo<br>pwn (10YR7/3-Moist); ; Ligh<br>plocky; Smooth-ped fabric;<br>oil matrix is Moderately calo<br>pwn (10YR7/3-Moist); ; Ligh<br>plocky; Smooth-ped fabric;<br>oil matrix is Moderately calo<br>R7/6-Moist); ; Light clay; Ma<br>coarse fragments; Very few | consistence; 0-2%, C<br>rong grade of structu<br>ence; 0-2%, Quartz, c<br>rong grade of structu<br>ence; 0-2%, Quartz, c<br>nt clay; Strong grade<br>Very strong consister<br>careous;<br>nt clay; Strong grade<br>Very strong consister<br>careous;<br>assive grade of struct<br>( (0 - 2 %), Calcareou | Auartz, coarse fragments;<br>re, 20-50 mm, Subangular blocky;<br>coarse fragments;<br>re, 20-50 mm, Subangular blocky;<br>coarse fragments;<br>of structure, 10-20 mm,<br>nce; 0-2%, Quartz, coarse<br>of structure, 10-20 mm,<br>nce; 0-2%, Quartz, coarse   |
| 0.3 - 0.4  <br>0.4 - 0.5  <br>0.5 - 0.6  <br>0.6 - 0.7  <br>0.7 - 0.8                               | blocky; Smoo<br>m Brown (7.5YF<br>Smooth-ped f<br>m Brown (7.5YF<br>Smooth-ped f<br>m Very pale bro<br>Subangular b<br>fragments; So<br>m Very pale bro<br>Subangular b<br>fragments; So<br>m Yellow (10YR<br>2%, Quartz, c<br>calcareous;<br>m Yellow (10YR | oth-ped fabric; Very strong o<br>R5/4-Moist); ; Light clay; Sti<br>fabric; Very strong consiste<br>R5/4-Moist); ; Light clay; Sti<br>fabric; Very strong consiste<br>pwn (10YR7/3-Moist); ; Ligh<br>plocky; Smooth-ped fabric;<br>oil matrix is Moderately calo<br>pwn (10YR7/3-Moist); ; Ligh<br>plocky; Smooth-ped fabric;<br>oil matrix is Moderately calo<br>pwn (10YR7/3-Moist); ; Ligh<br>plocky; Smooth-ped fabric;<br>oil matrix is Moderately calo<br>R7/6-Moist); ; Light clay; Ma<br>coarse fragments; Very few | consistence; 0-2%, C<br>rong grade of structu<br>ence; 0-2%, Quartz, c<br>rong grade of structu<br>ence; 0-2%, Quartz, c<br>nt clay; Strong grade<br>Very strong consister<br>careous;<br>nt clay; Strong grade<br>Very strong consister<br>careous;<br>assive grade of struct<br>( (0 - 2 %), Calcareou | Auartz, coarse fragments;<br>re, 20-50 mm, Subangular blocky;<br>coarse fragments;<br>re, 20-50 mm, Subangular blocky;<br>coarse fragments;<br>of structure, 10-20 mm,<br>nce; 0-2%, Quartz, coarse<br>of structure, 10-20 mm,<br>nce; 0-2%, Quartz, coarse<br>ure; Very strong consistence; 0-<br>is, , Nodules; Soil matrix is Highly<br>ure; Very strong consistence; 0- |

Observation Notes SW70/W20; DATA IS FROM BULK OF 8 CORES; Site Notes

Project Name:National Soil FertilityProject Code:NSFSite ID:Agency Name:CSIRO Division of Soils (SA)

CUMMINS

Observation ID: 1

| Project Name: | National Soil | Fertility       |      |                 |   |
|---------------|---------------|-----------------|------|-----------------|---|
| Project Code: | NSF           | Site ID:        | SW41 | Observation ID: | 1 |
| Agency Name:  | CSIRO Divis   | ion of Soils (S | 5A)  |                 |   |

## Laboratory Test Results:

| Depth                  | рН           | 1:5 EC         |          | hangeable   |            |                 | kchangeable   | CEC   | E         | CEC    | E       | SP   |
|------------------------|--------------|----------------|----------|-------------|------------|-----------------|---------------|-------|-----------|--------|---------|------|
| m                      |              | dS/m           | Ca       | Mg          | К          | Na<br>Cmol (+)/ | Acidity<br>kg |       |           |        | 9       | 6    |
| 0 - 0.1                | 7.21         | 0.33D          |          |             |            |                 |               |       |           |        |         |      |
| 0.1 - 0.2              | 7.21         | 0.29D          |          |             |            |                 |               |       |           |        |         |      |
| 0.2 - 0.3              | 71           | 0.44D          |          |             |            |                 |               |       |           |        |         |      |
| 0.3 - 0.4              | 7.61         | 0.53D          |          |             |            |                 |               |       |           |        |         |      |
| 0.4 - 0.5              | 8.71         | 0.77D          |          |             |            |                 |               |       |           |        |         |      |
| 0.5 - 0.6              | 91           | 0.77D          |          |             |            |                 |               |       |           |        |         |      |
| 0.6 - 0.7              | 9.11         | 0.83D          |          |             |            |                 |               |       |           |        |         |      |
| 0.7 - 0.8              | 9.11         | 0.82D          |          |             |            |                 |               |       |           |        |         |      |
| 0.8 - 0.9<br>0.9 - 1   | 9.11<br>9.21 | 0.86D<br>0.87D |          |             |            |                 |               |       |           |        |         |      |
| 0.9 - 1                | 9.21         | 0.07D          |          |             |            |                 |               |       |           |        |         |      |
| Depth                  | CaCO3        | Organic        | Avail.   | Total       | Total      | Total           | Bulk          | Pa    | article S | ize Ar | nalysis |      |
|                        |              | C              | Р        | Р           | Ν          | к               | Density       | GV    | CS        | FS     | Silt (  | Clay |
| m                      | %            | %              | mg/kg    | %           | %          | %               | Mg/m3         |       |           | %      |         |      |
| 0 - 0.1                | 0C           |                |          |             | 0.08       | 5A              |               |       | 44C       | 36     | 5       | 13   |
| 0.1 - 0.2              | 0C           |                |          |             | 0.03       | 5A              |               |       | -         |        | -       | -    |
| 0.2 - 0.3              | 0C           |                |          |             | 0.03       | BA              |               |       | 25C       | 23     | 6       | 43   |
| 0.3 - 0.4              | 0C           |                |          |             |            |                 |               |       |           |        |         |      |
| 0.4 - 0.5              | 2.3C         |                |          |             |            |                 |               |       |           |        |         |      |
| 0.5 - 0.6              | 5.5C         |                |          |             | 0.01       | 7A              |               |       |           |        |         |      |
| 0.6 - 0.7<br>0.7 - 0.8 | 7C<br>3.8C   |                |          |             |            |                 |               |       |           |        |         |      |
| 0.8 - 0.9              | 5.2C         |                |          |             |            |                 |               |       |           |        |         |      |
| 0.9 - 1                | 5.7C         |                |          |             | 0.00       | 5A              |               |       | 26C       | 15     | 7       | 44   |
|                        |              |                |          |             |            |                 |               |       |           |        |         |      |
| Depth                  | COLE         |                | Grav     | /imetric/Vo | lumetric W | ater Conte      | ents          |       | K sat     | к      | unsat   |      |
|                        |              | Sat.           | 0.05 Bar |             | 0.5 Bar    | 1 Bar           | 5 Bar 1       | 5 Bar |           |        |         |      |
| m                      |              |                |          | g/g         | g - m3/m3  | 5               |               |       | mm/h      |        | mm/h    |      |
| 0 - 0.1                |              |                |          |             |            |                 |               |       |           |        |         |      |
| 0.1 - 0.2              |              |                |          |             |            |                 |               |       |           |        |         |      |
| 02-03                  |              |                |          |             |            |                 |               |       |           |        |         |      |

0.1 - 0.2 0.2 - 0.3 0.3 - 0.4 0.4 - 0.5 0.5 - 0.6 0.6 - 0.7 0.7 - 0.8 0.8 - 0.9 0.9 - 1

Project Name:National Soil FertilityProject Code:NSFSite ID:SW41Agency Name:CSIRO Division of Soils (SA)

## Laboratory Analyses Completed for this profile

| 19B_NR    | Calcium Carbonate (CaCO3) - Not recorded                         |
|-----------|--|
| 2A1       | Air-dry moisture content   |
| 3_C_B     | Electrical conductivity or soluble salts - Total soluble salts % |
| 4A_C_2.5  | pH of soil - pH of 1:2.5 soil/water suspension                   |
| 5_C_B     | Water soluble Chloride - Method recorded as B                    |
| 7A2       | Total nitrogen - semimicro Kjeldahl, automated colour            |
| MIN_EC    | Exchange Capacity - Minerology                                   |
| P10_NR_C  | Clay (%) - Not recorded  |
| P10_NR_CS | Coarse sand (%) - Not recorded                                   |
| P10_NR_FS | Fine sand (%) - Not recorded                                     |
| P10_NR_Z  | Silt (%) - Not recorded  |
| XRD_C_ls  | Interstratified clay minerals - X-Ray Diffraction                |
| XRD_C_Ka  | Kaolin - X-Ray Diffraction                                       |
| XRD_C_Qz  | Quartz - X-Ray Diffraction                                       |

## Observation ID: 1