

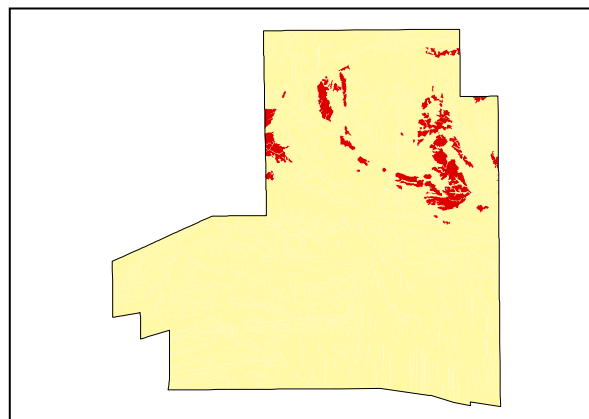
Mountains, Hills and Ranges

**LAND UNIT 1.03**

**Sadadeen Range Gneiss Hills**

**DESCRIPTION:** Sadadeen Range Gneiss Hills with Mulga and Witchetty Bush over annual grasses and forbs.  
**SITES:** 012, 026, **036**, 037, 054

**Distribution of land unit**



Area = 13.21 km<sup>2</sup>, 4.02% of mapped area.

**LAND CAPABILITY:**

| ATTRIBUTES             |                      |
|------------------------|----------------------|
| SLOPE (%)              | 45                   |
| RELIEF (m)             | 90                   |
| SOIL DEPTH (m)         | 0.10                 |
| SURFACE CONDITION      | Loose                |
| DEPTH to SUBSTRATE (m) | 0.10                 |
| REACTION TREND (pH)    | 6.5                  |
| OUTCROP (%)            | 85                   |
| RUNOFF                 | Very rapid           |
| PERMEABILITY           | Moderately permeable |
| DRAINAGE               | Rapidly drained      |
| SALINITY (µs/cm)       | 65.5                 |

| DEVELOPMENT RISKS |        |
|-------------------|--------|
| EROSION           | None   |
| ROCK FALL         | Slight |
| SHEET FLOODING    | None   |
| INUNDATION        | None   |
| SALINITY          | None   |
| ALKALINITY        | None   |
| ACIDITY           | None   |

| CAPABILITY CLASS |                     |                 |              |                      |             |
|------------------|---------------------|-----------------|--------------|----------------------|-------------|
| Formed Roads     | Shallow excavations | Septic Disposal | Horticulture | Building Foundations | Landscaping |
| Poor             | Very Poor           | Very Poor       | Very Poor    | Poor                 | Very Poor   |

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**TECHNICAL DETAILS****LAND UNIT 1.03****DESCRIPTION:** Round topped Sadadeen Range Gneiss hills.**GEOLOGY:** Part of the Early Proterozoic, Hayes Metamorphic Complex. Sadadeen Range gneiss, forms flat, schistose, boulders at the surface generally dipping west / northwest.**LANDFORM:** The eroded steep hills of gneiss are generally up to about 90m in relief with slopes varying from 40 to 45%. Due to the rocky nature of the land unit drainage features are not well formed with the very rapid runoff dispersed by large platy rock fragments on the slopes. An interrupted drainage network results due to the high proportion of outcropping substrate. Permeability would be moderate and drainage would be rapid due to the highly fractured and laminated nature of the rock.**SOIL:** Example from **Site 036**  
MGA. Coords: 7381086mN, 387561mE**CLASSIFICATION:** Lithosol, Rudosol - RU, CY, DU, AR, I, K, T**SURFACE:** Loose with 70% >2m subangular, tabular gneiss fragments and 20% 600mm-2m subangular, tabular gneiss fragments. Soil formation on the slopes is negligible and restricted to small crevices between boulder size rocks whilst the undulating plateau surface has a broader but shallow soil distribution.

| DEPTH (m)   | HORIZON | TEXTURE          | pH  | SALINITY ( $\mu\text{s/cm}$ ) | OTHER DETAILS   |
|-------------|---------|------------------|-----|-------------------------------|---|
| 0.00 - 0.10 | A1      | Clayey sand (CS) | 6.5 | 65.5                          | Brown (7.5YR 5/4) 2% 20-60mm angular tabular gneiss fragments, 10% 6-20mm angular tabular quartz fragments, 20% 2-6mm angular tabular quartz fragments, apedal, single grain, loose structure with a sandy fabric. Soil formation is restricted to spaces between <i>insitu</i> and loose rock fragments. |

**VEGETATION:** **Site 118** (Albrecht, D. and Pitts, B. 1999).

|   |   |
|---|---|
| <b>UPPER STRATUM</b> - Usually absent   |   |
| Dominant species                        | Mulga.  |
| Other species                           |   |
| <b>MID STRATUM</b> - Sparse shrubland   |   |
| Dominant species                        | Rock Fuchsia Bush.  |
| Other species                           | Witchetty Bush, Whitewood, Bloodwood, Wild Orange, Native Fuchsia, Long Leaved Corkwood, <i>Senna artemisioides subsp. alicia</i> , Blunt-leaf cassia.  |
| <b>LOWER STRATUM</b> - Sparse grassland |   |
| Dominant species                        | Buffel grass, Wild Hops, Woolly Cloak Fern, Mulga Fern, Woollyoat Grass, Mountain Wanderrie, Tropical Speedwell, <i>Tephrosia supina</i> , Cattle Bush.   |
| Other species                           | Boggabri, Pale-leaf Mistletoe, Flat-awned Threeawn, Tar Vine, Mulga Fern, <i>Chrysocephalum pterochaetum</i> , Desert lantern Flower, Colocynth, Tickweed, <i>Cuscuta victoriana</i> , Lemon-scented Grass, Sticky Hopbush, Ruby Saltbush, Eight Day Grass, Prostrate Heliotrope, Orange Spade Flower, Sticky Indigo, Green Peppergrass, Veined Peppergrass, Low Bluebush, Slender Pigweed, Large Green Pussytail, Silver Tails, Yellow Tails, <i>Rhagodia eremaea</i> , Plumbush, Silver Sida, Wild Tomato, Stinking Thread-petal, Velvet Hibiscus, Plumbush, <i>Tephrosia brachyodon s.lat.</i> , Kangaroo Grass, Five Minute Grass, Hogweed. |

(See Appendix 3 for botanical names)