



Figure 5-2 Groundwater pressure hydrograph for Biblewindi 28 for the monitoring period of 1 May 2017 to 30 April 2018.

All other groundwater level monitoring results for bores presented in Table 5-1 without multi-level pressure monitoring recorded during GMEs are presented in Section B2 of the Annual Return.

5.3. Groundwater Chemistry Monitoring

5.3.1. Results

The results of laboratory analytical testing undertaken on samples obtained from the monitoring bores set out in Table 5-1, were published on the Santos Water Portal website. A summary of the results are presented in Section B2 of the Annual Return.

During the reporting period, Santos undertook two biannual grab sampling events and four quarterly in situ monitoring events. Samples were collected from monitoring bores with EPA IDs 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 21, 22 and 23 during each of the GMEs. No grab samples were collected from monitoring bore EPA ID 7 due to the monitoring bore being recorded as dry for each grab sample GME with insufficient water being available to obtain a representative sample. Samples were collected in accordance with the requirements of *AS/NZS 5667.11 (1998)*.

5.3.2. Analysis

Sample analysis was undertaken NATA accredited Australia Laboratory Services (ALS). All samples were collected by trained and experienced environmental officers using sample bottles provided by ALS as required to meet the volume and preservation requirements for the EPL analytical suite and delivered to the testing facility with appropriate COC documentation and within recommended holding times and refrigeration as per *AS/NZS 5667.11 (1998)*.

An assessment of the results for this annual return period was undertaken, comparing them with the previous baseline data for the site to identify seasonal and annual trends as well as any variations. The results indicated that analyte concentrations within the underlying groundwater system remain relatively stable. In cases where minor fluctuations in analyte concentrations were observed, further review was undertaken against historical results. The minor fluctuations noted during this annual return period were within the statistical range of historical results.