

# **Bore Baseline Assessment Database Data Dictionary**

**Version 0.6.7**

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Coal Seam Gas Water  
Queensland Water Commission  
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# Introduction

## 1.1 Scope

The scope of this document is restricted to the data that is required to be collected in the Department of Environment and Resource Management's (DERM) Baseline Assessment Guideline and Outcome of Baseline Assessment Form, including Appendix One – Bore Baseline Assessment Information.

This document is intended to support petroleum tenure holders submission of electronic information to the Queensland Water Commission (QWC) in accordance with DERM's baseline assessment process.

It is noted that additional data tables or attributes may be described in this document for a number of reasons, including to keep consistency with the separate DERM Groundwater Database (GWDB).

Terminology used in this document relates to the QWC database specifications and does not take precedence over any Queensland legislation or Queensland Government policy, particularly regarding the baseline assessment framework.

# 2 Bore Assessments

## 2.1 Introduction

This table stores information relating to the assessment conducted on the bore by the tenure holder.

Oracle Table Name: PAG BORE ASSESSMENT

Baseline Assessment Form Reference:

Part A Document Identification and Bore Site Information

Part G Assessment Field Officer Details

Part H Declaration

Part I Bore Owner Representative

There is no GWDB reference for this table.

Attribute Name	Database Column Name	Baseline Assessment Form Name	Form Part
Assessment ID	PAG_Assess_Id	(assigned by QWC)	
Tenure Holder Assessment ID	Tenure_Hold_Assess_Id	(assigned by Tenure Holder)	
Assessment Type	Assess_Type	(assigned by QWC)	
Assessment Date	Assess_Start_Date	Date of Site Assessment	A
Tenure Holder Principal Contact Surname	Tenure_Hold_Cont_Surname	Principal Contact - Surname	A
Tenure Holder Principal Contact Given Names	Tenure_Hold_Cont_Given_Names	Principal Contact – Given Names	A
Tenure Holder Principal Contact Phone Number	Tenure_Hold_Cont_Phone	Principal Contact - Phone	A
Bore ID Reference	Bore_ID_Reference	Tenure Holder Bore ID	A

Assessment Officer Surname	Assess_Officer_Surname	Assessment Field Officer Details -Surname	G
Assessment Officer Given Names	Assess_Officer_Given_Names	Assessment Field Officer Details -Given Names	G
Assessment Officer Company Name	Assess_Officer_Comp_Name	Assessment Field Officer Details – Company	G
Assessment Officer Phone Number	Assess_Officer_Phone	Assessment Field Officer Details -Phone	G
Assessment Officer Alternative Phone Number	Assess_Officer_Alt_Phone	Assessment Field Officer Details -Alternate Phone	G
Assessment Officer Fax Number	Assess_Officer_Fax	Assessment Field Officer Details -Facsimile	G
Assessment Officer Email Address	Assess_Officer_Email	Assessment Field Officer Details – Email Address	G

Third Party Certifier Surname	Cert_Sign_Surname	Third Party Certification – Surname	H
Third Party Certifier Given Names	Cert_Sign_Given_Names	Third Party Certification – Given Names	H
Third Party Certifier Company Name	Cert_Sign_Comp_Name	Third Party Certification - - Company	H
Third Party Certifier Phone Number	Cert_Sign_Phone	Third Party Certification - Phone	H
Third Party Certifier Alternative Phone Number	Cert_Sign_Alt_Phone	Third Party Certification – Alternate Phone	H
Third Party Certifier Email	Cert_Sign_Email	Third Party Certification -	H

Address		Email	
Third Party Certification Date	Cert_Signed_Date	Third Party Certification - - Date Certified	H
Tenure Holder Declaration Signatory Surname	Tenure_Hold_Sign_Surname	Tenure Holder Declaration - Surname	H
Tenure Holder Declaration Signatory Given Names	Tenure_Hold_Sign_Given_Names	Tenure Holder Declaration - Given Names	H
Tenure Holder Declaration Signatory Position Title	Tenure_Hold_Sign_Title	Tenure Holder Declaration - Position Title	H
Tenure Holder Declaration Signatory Date	Tenure_Hold_Signed_Date	Tenure Holder Declaration - Date	H

Bore Owner Representative Given Names	Owner_Rep_Given_Names	Bore Owner Representative - Given Names	I
Bore Owner Representative Surname	Owner_Rep_Surname	Bore Owner Representative - Surname	I
Bore Owner Representative Phone Number	Owner_Rep_Phone	Bore Owner Representative - Phone	I
Bore Owner Representative Alternative Phone Number	Owner_Rep_Alt_Phone	Bore Owner Representative - Alternative Phone	I
Bore Owner Representative UHF Channel Number	Owner_Rep_UHF_Channel_No	Bore Owner Representative - UHF	I
Bore Owner Representative Fax Number	Owner_Rep_Fax	Bore Owner Representative - Fax	I
Bore Owner Representative Email Address	Owner_Rep_Email	Bore Owner Representative - Email	I
Original Retained by Bore Owner Representative	Orig_Retained_Owner_Rep_Flag	Has a copy of the information collected for the baseline assessment been retained by the Bore Owner Representative?	I

## 2.2 Description of Attributes

### 2.2.1 Assessment ID

The unique assessment identification number assigned to the assessment by the QWC.

### 2.2.2 Tenure Holder Assessment ID

The unique assessment identification assigned to the assessment by the Tenure Holder. This ID will assist with communication between QWC and the tenure holder regarding the assessment.

### 2.2.3 Assessment Type

The type of assessment. The following assessment type codes are available.

Code	Assessment Type
BASE	Baseline Assessment
MON	Monitoring Bore
INVES	Investigation of Bore

### 2.2.4 Assessment Date

The date the assessment was conducted or commenced.

## 2.2.5 Tenure Holder Principal Contact Surname

The surname of the tenure holder principal contact.

## 2.2.6 Tenure Holder Principal Contact Given Names

The given names of the tenure holder principal contact.

## 2.2.7 Tenure Holder Principal Contact Phone Number

The Phone number of the tenure holder principal contact. Please include the area code when necessary.

## 2.2.8 Bore ID Reference

The ID given to the bore by the tenure holder in the first baseline assessment. Any subsequent assessments on the bore irrespective of the tenure holder must use this bore ID. This value in this field must be the same as the Bore ID in the Bore Details table (PAG Bore) and is used to assist with loading data into the QWC database.

## 2.2.9 Assessment Officer Surname

The surname of the assessment officer responsible for conducting the baseline assessment.

### 2.2.10 Assessment Officer Given Names

The given names of the assessment officer responsible for conducting the baseline assessment.

### 2.2.11 Assessment Officer Company Name

The company name of the assessment officer responsible for conducting the baseline assessment. Note that this may be different from the tenure holder company name if the tenure holder has contracted another company to perform the baseline assessment.

### 2.2.12 Assessment Officer Phone Number

The phone number of the assessment officer responsible for conducting the baseline assessment. Please include the area code when necessary.

### 2.2.13 Assessment Officer Alternative Phone Number

The alternative phone number of the assessment officer responsible for conducting the baseline assessment. Please include the area code when necessary.

### 2.2.14 Assessment Officer Fax Number

The facsimile number of the assessment officer responsible for conducting the baseline assessment. Please include the area code when necessary.

### 2.2.15 Assessment Officer Email Address

The email address of the assessment officer responsible for conducting the baseline assessment.

### 2.2.16 Third Party Certifier Surname

The surname of the person providing third party certification that the baseline assessment has been undertaken in line with appropriate quality control procedures, in compliance with DERM's Baseline Assessment Guideline and that persons undertaking the baseline assessment were appropriately qualified.

### 2.2.17 Third Party Certifier Given Names

The given names of the person providing third party certification that the baseline assessment has been undertaken in line with appropriate quality control procedures, in compliance with DERM's Baseline Assessment Guideline and that persons undertaking the baseline assessment were appropriately qualified.

### 2.2.18 Third Party Certifier Company Name

The name of the company providing the third party certification.

### **2.2.19 Third Party Certifier Phone Number**

The phone number of the certifier providing the third party certification. Please include the area code when necessary.

### **2.2.20 Third Party Certifier Alternative Phone Number**

The alternative phone number of the certifier providing the third party certification. Please include the area code when necessary.

### **2.2.21 Third Party Certifier Email Address**

The email address of the certifier providing the third party certification.

### **2.2.22 Third Party Certification Date**

The date the baseline assessment approved form was signed by the person providing third party certification.

### **2.2.23 Tenure Holder Declaration Signatory Surname**

The surname of the person making the tenure holder declaration.

### **2.2.24 Tenure Holder Declaration Signatory Given Names**

The given names of the person making the tenure holder declaration.

### **2.2.25 Tenure Holder Declaration Signatory Position Title**

The position title of the person making the tenure holder declaration.

### **2.2.26 Tenure Holder Declaration Signatory Date**

The date the baseline assessment approved form was signed by the person making the tenure holder declaration.

### **2.2.27 Bore Owner Representative Surname**

The surname of the person responsible for providing information to the tenure holder for the baseline assessment.

### **2.2.28 Bore Owner Representative Given Names**

The given names of the person responsible for providing information to the tenure holder for the baseline assessment.

### **2.2.29 Bore Owner Representative Phone Number**

The phone number of the person responsible for providing information to the tenure holder for the baseline assessment. Please include the area code when necessary.

### **2.2.30 Bore Owner Representative Alternative Phone Number**

The alternative phone number of the person responsible for providing information to the tenure holder for the baseline assessment. Please include the area code when necessary.

### **2.2.31 Bore Owner Representative UHF Channel Number**

The UHF channel number of the person responsible for providing information to the tenure holder for the baseline assessment.

### **2.2.32 Bore Owner Representative Fax Number**

The facsimile number of the person responsible for providing information to the tenure holder for the baseline assessment. Please include the area code when necessary.

### 2.2.33 Bore Owner Representative Email Address

The email address of the person responsible for providing information to the tenure holder for the baseline assessment.

### 2.2.34 Original Retained by Bore Owner Representative

A flag to indicate if a copy of the information collected for the baseline assessment has been retained by the bore owner representative. The following codes are available.

Code	Original Retained by Bore Owner Representative
Y	Yes
N	No

## 3 Bore Assessment Documents (Attachments)

### 3.1 Introduction

This table stores any supplementary documentation or attachments submitted to the Commission such as scanned documents or images for each baseline assessment.

Oracle Table Name: PAG\_BORE ASSESS\_DOC  
Baseline Assessment Form Reference: Attachments to Appendix 1

Note there is no GWDB reference for this table.

Attribute Name	Database Column Name	Baseline Assessment Form Name
Document Number	Assess_Doc_No	
Document Type	Doc_Type	Attachments - Document Type
Description	Description	Attachments - Description
Digital Image	Digital_Image	
Small Digital Image	Digital_Image_Small	
File Name	File_Name	
File Type	File_Type	
Comments	Comments	

### 3.2 Description of Attributes

#### 3.2.1 Document Number

The unique number assigned to the document or attachment by the Commission, from the next available number for the bore assessment.

#### 3.2.2 Document Type

This is a code that indicated the type of document stored. The document may have a reference to a part of the baseline assessment form. The following document type codes are available.

<b>Code</b>	<b>Document Type</b>
BLAPPDC	Baseline Assessment Outcome Approved Form
BLBORDC	Bore Baseline Assessment Information Document (Appendix 1)
DRILLGDC	Driller's log document (Part B)
WLLNDAGDC	Landholder Agreement Water Level (Part E)
WLDS	Water Level Data Set
WLMEASPHOT	Water Level Measurement Point Photo (Part E)
WLLGDS	Water Level Log Data Set
PUMPPHOT	Pump Photo (Part C)
WLLGDC	Water Level Log document (Part E)
BORASSDS	Bore Assessment Data Set
BORASSDCDS	Bore Assessment Documents Dataset
WQLABRSDC	Water Quality Lab Results Document from Baseline Assessment (Part F)
WQLABRSDS	Water Quality Lab Results Data Set
WQFLDRESDS	Water Quality Field Results Data Set
WQGASRSDS	Water Quality Gas Result Data Set
WQSAMPDS	Water Quality Sample Data Set
WQMEASPHOT	Water Quality Measurement Point Photo (Part F)
WQSETPHOT	Water Quality Sample Setup Photo (Part F)
BOREDS	Bore Data Set
ELEVDS	Elevation Data Set
HOLECONSDS	Hole Construction Data Set
BORECONSDS	Bore construction Data Set
EQUIPDS	Equipment Data Set
AQUIFERDS	Aquifers Data Set
FORMSDS	Formations Data Set
STRATALOGDS	Strata Log Data Set
STRATIGDS	Stratigraphy Data Set
WUDS	Water use Data Set
WULGDS	Water use log Data Set
WULGDC	Water Use Log Document (Part D)
WQHSTLABRSDC	Water Quality Historical Laboratory Results Document (Part F)
WQHSTFLDRSDC	Water Quality Historical Field Results Document (Part F)
FACPURDS	Facility Purpose Data Set
OTHPHOT	Other Photos
OTHDC	Other Documents

### 3.2.3 Description

A description of the document or image.

### 3.2.4 Digital Image

The physical digital image or document.

### 3.2.5 Small Digital Image

The physical digital image that is of small size for use in reports etc. This will be generated by the QWC from the digital images supplied by the tenure holder.

### 3.2.6 File Name

The name of the file storing the digital image or document.

### 3.2.7 File Type

The type of the file storing the digital image or document. The following file type codes are available.

Code	File Type
TXT	Pipe Delimited Text File
JPG	JPG file
PDF	Adobe PDF

### 3.2.8 Comments

Any comments relating to the digital image or document.

## 4 Bore Details

### 4.1 Introduction

This table records general information about the bore including how it is identified, its location, and who drilled it. It also contains a number of flags to indicate whether additional information on the bore has been collected.

Oracle Table Name: PAG BORE

Baseline Assessment Form References: Part A, Part B, Part C, Part E, Part F

Attribute Name	Database Column Name	Baseline Assessment Form Name	Form Part	GWDB reference	GWDB Table & Column Name
Tenure Holder Bore ID	Bore_ID	Tenure Holder Bore ID	A		
GWDB RN	GWDB_RN	DERM Bore Registered Number	A	Registered Number	Gw_regdets RN
GWDB RN Comments	GWDB_RN_Comments	DERM Registered Number Comments	A		
Lot	Lot	Lot	A	Lot	Gw_regdets Lot
Plan	Plan	Plan	A	Plan	Gw_regdets Plan
Datum	Lat_Lng_Datum	Geographic Location (GDA94)	A	Datum always GDA94	
Latitude	Latitude_Dec	Latitude	A	Latitude	Gw_regdets Lat
Longitude	Longitude_Dec	Longitude	A	Longitude	Gw_regdets Lng
Location Method	Location_Method	Location Method	A	Accuracy	Gw_regdets Accuracy
Facility_Type	Facility_Type	Facility_Type	A	Facility Type	Gw_regdets Faciltiy_Type
Works Status	Works_Status	Status of Works	A	Facility Status	Gw_regdets Facility_Statu s
Local Bore Name	Local_Bore_Name	Local Bore Name	A	Original Facility Number or Name	Gw_regdets Orig_name_n o
Property Name	Property_Name	Property Name	A	Property Name	Gw_regdets Property_Na me
Tenure Type	Tenure_Type	Tenure Type	A		
Tenure Number	Tenure_Number	Tenure Number	A		

Tenure Holder Block Name	Tenure_Holder_Block_Name				
Comments	Comments	Additional Comments	A	General Notes	Gw_gnotes Notes
Drilled Date	Drilled_Date	Date the bore was drilled	B	Date Drilled	Gw_regdets Drilled_date
Depth of Bore (Maximum depth drilled)	Max_Drilled_Depth	Depth of water bore	B		Derived from Gw_strlogs Max(bottom)
Driller Licence Number	Driller_Licence_No			Driller Licence Number	Gw_regdets Driller_Licence_Number
Drilling Company Name	Driller_Company_Name	Drilling Company Name	B	Drilling Company	Gw_regdets Drilling_Company
Driller Name	Driller_Person_Name	Driller Name	B	Driller Name	Gw_regdets Driller_Name
Bore Construction Details Available Flag	Bore_Cons_Avail_Flag	Are construction Details Available	B		
Bore Equipped with a Pump Flag	Bore_Pump_Equip_Flag	Is the Bore Equipped with a pump	C		
Water Level Measurement Taken Flag	WL_Meas_Flag	Was a water level or pressure measurement taken	E		
Reason Water Level Not Measured	WL_Not_Meas_Reason	Reason not measured.	E		
Water Level Records Available Flag	WL_Recs_Avail_Flag	Are Water Level and/or pressure records available for this bore?	E		
Water Samples Taken for Submission to Laboratory Flag	WQ_Lab_Meas_Flag	Were water quality samples taken for submission to a laboratory?	F		
Reason Water Samples Not Taken	WQ_Lab_Not_Meas_Reason	Reason not measured	F		
Dissolved Gas Samples Taken for Submission to Laboratory Flag	WQ_Diss_Gas_Meas_Flag	Were dissolved gas samples taken for submission to a laboratory?	F		
Reason Dissolved Gas Samples Not Taken	WQ_Diss_Gas_Not_Meas_Reason	Reason not measured	F		
Laboratory Results Supplied Flag	WQ_Lab_Res_Supp_Flag	Are the laboratory results for the samples indicated above supplied with this baseline assessment?	F		

Reason Laboratory Results Were Not Supplied	WQ_Lab_Res_Not_Supp_Reason	Reason not supplied	F		
Historical Water Quality Laboratory Records Available Flag	WQ_Hist_Lab_Recs_Avail_Flag	Are historical water quality laboratory records available for this bore?	F		
Water Quality Field Measurements Taken Flag	WQ_Field_Meas_Flag	Were water quality field measurements taken?	F		
Reason Water Quality Field Measurements not taken	WQ_Field_Not_Meas_Reason	Reason not measured	F		
Historical Water Quality Field Records Available Flag	WQ_Hist_Field_Recs_Avail_Flag	Are historical water quality field records available for this bore?	F		
Sample & Measurement Point at Bore Head Flag	WQ_Meas_Point_Bore_Head_Flag	Was the sampling point and field measurement point at the bore head?	F		
Sample & Measurement Point Description	WQ_Meas_Point_Desc	Measurement Point Description	F		
Bore Purged According to Guidelines Flag	WQ_Purge_per_Guidelines_Flag	Was bore purged according to guidelines?	F		
Purging Method Description	WQ_Purge_Meth_Desc	Purge Method Description	F		
Samples Taken Using Existing Pump on Bore Flag	WQ_Samp_Exist_Pump_Flag	Were samples taken using existing pump on bore?	F		
Sampling Setup Description	WQ_Samp_Setup_Desc	Sampling Setup Description.	F		

## 4.2 Description of Attributes

### 4.2.1 Tenure Holder Bore ID

The ID given to the bore by the tenure holder in the first baseline assessment. Any subsequent assessments on the bore irrespective of tenure holder must use this bore ID.

### 4.2.2 GWDB RN

The unique registered number (RN) of the bore allocated by DERM and stored in the DERM Groundwater Database (GWDB)

### 4.2.3 GWDB RN Comments

Any comments relating to the unique registered number (RN) of the bore that has been allocated by DERM in the Groundwater Database (GWDB). For example, the comments may relate to any uncertainty about the registered number.

#### 4.2.4 Lot

The number of the lot on a plan on which the facility is located.

#### 4.2.5 Plan

The number of the plan that contains the lot on which the facility is located.

#### 4.2.6 Datum

The datum relating to the geographic co-ordinates. The following codes are available.

Code	Datum
GDA94	GDA94

All data must be provided and stores as GDA94.

#### 4.2.7 Latitude

The latitude and longitude are used to describe the position of the facility on the earth's surface. Latitude must be in decimal degrees, negative, and have a minimum of 6 decimal places.

#### 4.2.8 Longitude

The latitude and longitude are used to describe the position of the facility on the earth's surface. Longitude must be in decimal degrees and have a minimum of 6 decimal places.

#### 4.2.9 Location Method

The method used to locate the bore. The following location method codes are available.

Code	Location Method
GPS	GPS – Non Differential
DGP	GPS - Differential
SVY	Surveyed

#### 4.2.10 Facility Type

The type of groundwater facility to indicate if the bore is sub-artesian or various types of artesian bore. The following facility type codes are available.

Code	Facility Type
SF	Sub-Artesian
AF	Artesian Bore – controlled flow
AU	Artesian Bore – Uncontrolled flow
AC	Artesian Bore –Ceased to flow

#### 4.2.11 Works Status

The status of the works when the assessment was undertaken. The following status codes are available.

Code	Works Status
EX	Existing
AU	Abandoned but still useable

#### 4.2.12 Local Bore Name

The local name of the bore.

#### 4.2.13 Property Name

The name of the property that the bore is located on.

#### 4.2.14 Tenure Type

The type of tenure. The following tenure type codes are available.

Code	Works Status
PL	Petroleum Lease
ATP	Authority to Prospect

#### 4.2.15 Tenure Number

The number of the tenure that the bore is located on.

#### 4.2.16 Tenure Holder Block Name

The tenure holder block name.

#### 4.2.17 Comments

Comments that may assist with identifying and locating the bore.

#### 4.2.18 Drilled Date

The date the original bore was drilled. (Not the date of any subsequent deepening). If only the year the bore was drilled is known then a day and month of one should be used to complete the date. Eg 1/1/1976.

#### 4.2.19 Depth of Bore

The maximum depth the bore was drilled in meters.

#### 4.2.20 Driller Licence Number

The licence number of the driller who drilled the initial bore at the site.

#### 4.2.21 Drilling Company Name

The name of the drilling company who drilled the initial bore at the site.

#### 4.2.22 Driller Name

The name of the driller (person) who drilled the initial bore at the site.

#### 4.2.23 Bore Construction Details Available Flag

Indicates if bore construction details are available for the bore. The following codes are available.

Code	Bore Construction Details Available
Y	Yes
N	No

#### 4.2.24 Bore Equipped with a Pump Flag

Indicates if the bore was equipped with a pump during the assessment. The following codes are available.

Code	Bore Equipped with a Pump
Y	Yes
N	No

#### 4.2.25 Water Level Measurement Taken Flag

Indicates if a water level or pressure measurement was taken at the bore during the assessment. The following codes are available.

Code	Water Level Measurement Taken
Y	Yes
N	No

#### 4.2.26 Reason Water Level Measurement Not Taken

Records the reason why a water level or pressure measurement was not taken from the bore during the assessment.

#### 4.2.27 Water Level Records Available Flag

Indicates if water level and/or pressure records are available for the bore. The following codes are available.

Code	Water Level Records Available
Y	Yes
N	No

#### 4.2.28 Water Samples Taken for Submission to Laboratory Flag

Indicates if water quality samples were taken for submission to a laboratory. The following codes are available.

Code	Water Samples Taken for Submission to Laboratory
Y	Yes
N	No

#### 4.2.29 Reason Water Samples Not Taken

The reason water quality samples were not taken for submission to a laboratory.

#### 4.2.30 Dissolved Gas Samples Taken for Submission to Laboratory Flag

Indicates if dissolved gas samples were taken for submission to a laboratory. The following codes are available.

Code	Dissolved Gas Samples Taken for Submission to Laboratory
Y	Yes
N	No

#### 4.2.31 Reason Dissolved Gas Samples Not Taken

The reason dissolved gas samples were not taken for submission to a laboratory

#### 4.2.32 Laboratory Results Supplied Flag

Indicates if water quality laboratory results for the samples taken during the baseline assessment are supplied. The following codes are available.

Code	Water Quality Laboratory Results Supplied
Y	Yes
N	No

### 4.2.33 Reason Laboratory Results were not supplied

The reason why water quality laboratory results for the samples taken during the baseline assessment have not been supplied.

### 4.2.34 Historical Water Quality Laboratory Records Available Flag

Indicates if historical water quality laboratory records are available for the bore. The following codes are available.

Code	Historical Water Quality Laboratory Records Available
Y	Yes
N	No

### 4.2.35 Water Quality Field Measurements Taken Flag

Indicates if water quality field measurements were taken at the bore during the assessment. The following codes are available.

Code	Water Quality Field Measurements Taken
Y	Yes
N	No

### 4.2.36 Reason Water Quality Field Measurements Not Taken

Records the reason why water quality field measurements were not taken from the bore during the assessment.

### 4.2.37 Historical Water Quality Field Records Available Flag

Indicates if historical water quality field records are available for the bore. The following codes are available.

Code	Historical Water Quality Field Records Available
Y	Yes
N	No

### 4.2.38 Sample and Measurement Point at Bore Head Flag

Indicates if the sampling point for laboratory water quality samples and measurement point for field water quality measurements was at the bore head. The following codes are available.

Code	Sample and Measurement Point at Bore Head
Y	Yes
N	No

### 4.2.39 Sample and Measurement Point Description

A description of the location of the sampling point for laboratory water quality samples and measurement point for field water quality measurements, if they were not taken at the bore head. The description must include a GPS reading at the location in the format described in the latitude and longitude sections above. The datum should also be documented (locations must currently be provided in GDA94).

### 4.2.40 Bore Purged According to Guidelines Flag

Indicates if the bore was purged according to the Baseline Assessment Guideline. The following codes are available.

Code	Bore Purged According to Guidelines Flag
Y	Yes
N	No

#### 4.2.41 Purging Method Description

A description of the method used to purge the bore, if it was not purged according to the Baseline Assessment Guideline.

#### 4.2.42 Samples Taken Using Existing Pump on Bore Flag

Indicates if water quality samples were taken using the existing pump on the bore. The following codes are available.

Code	Samples Taken Using Existing Pump on Bore
Y	Yes
N	No

#### 4.2.43 Sampling Setup Description

A description of the sampling setup if the water quality samples were not taken using the existing pump on the bore.

## 5 Facility Purpose

### 5.1 Introduction

This table stores the purpose of the bore. The bore may have one or a number of purposes.

Oracle Table Name: PAG FACILITY PURPOSE

Baseline Assessment Form Reference: Part D Purpose of Bore

Note there is no GWDB reference for this table.

Attribute Name	Database Column Name	Baseline Assessment Form Name	Form Part
Facility Purpose	Facility_Purpose	Purpose of Bore	D
Other Facility Purpose	Other_Purpose_Desc	Purpose of Bore –Other - Description	D

### 5.2 Description of Attributes

#### 5.2.1 Facility Purpose

This is the purpose that the bore is used for. The bore may have one or a number of purposes. The following codes are available.

Code	Facility Purpose
AGRICULTURE	Agriculture
AM	Amenities

ANY	Any
AQ	Aquaculture
CAR	Containment of Contaminated Agricultural Runoff
CO	Commercial
CON	Construction
DA	Dairying
DCF	Divert the Course of Flow
DO	Domestic Supply
DVG	Destroy Vegetation
DW	Dewatering
ECO	Eco-tourism
EF	Educational Facility
EXC	Excavate
FF	Fire fighting
FLUSH	Environmental Flush Dilution
GD	Group Domestic
GR	Groundwater Recharge
IN	Industrial
IR	Irrigation
IS	Standby Irrigation
IW	Impound Water
LOSS	Distribution Loss
MI	Mining
PFL	Place Fill
RDL	Rehabilitating Degraded Land
REA	Requirement of an Environmental Authority
RL	Relift Water
RURAL	Rural
SD	Stock and/or Domestic
SI	Stock Intensive
ST	Stock
SWM	Site Water Management
TP	Test Purposes
TW	Town Water Supply
URBAN	Urban
WH	Water harvesting
OTH	Other

Other facility purposes can be added to this list as the need arises.

### 5.2.2 Other Facility Purpose

Records the purpose for the bore if its purpose is other than those listed above (The code of 'OTH' should also be placed in the 'facility purpose' above in these instances).

## 6 Water Level

### 6.1 Introduction

This table stores details relating to the water level or pressure measurement collected during the baseline assessment.

Oracle Table Name: PAG WATER LEVEL  
 Baseline Assessment Form Reference: Part E

Note there is no GWDB reference for this table.

Attribute Name	Database Column Name	Baseline Assessment Form Name	Form Part
Date and Time	Meas_Date_Time		
Measurement Type	Measurement_Type		
Water Level	Water_Level_Depth	Water Level (depth from ground in metres)	E
Method of Measuring Water Level	Water_Level_Method_Desc	Method of measuring water level	E
Pressure	Art_Pressure	Artesian Pressure	E
Method of Measuring Pressure	Art_Pres_Method_Desc	Method of Measuring Pressure	E
Datum (Reference) Point Description	Reference_Point_Desc	Datum Point Description	E
Distance from Datum (Reference) point to Ground Level	Dist_Ref_Point_To_Ground	Height of datum above ground level	E
Antecedent or Current Conditions	Antecedent_Cond_Desc	Antecedent or current conditions relevant to the water level or pressure measurement.	E
Comments	Comments		

## 6.2 Description of Attributes

### 6.2.1 Date and Time

The date and time the water level or pressure was measured.

### 6.2.2 Measurement Type

The type of measurement that was taken. The following codes are available.

Code	Measurement Type
WL	Water Level
PRES	Pressure

### 6.2.3 Water Level

The water level refers to the distance **from the ground level** to the water surface in a sub-artesian bore when it is in a fully recovered state.

Measurements must have a minus sign entered in the field with the value for the Measurements. Eg. -4.32

Values are stored in metres to two decimal places.

### 6.2.4 Method of Measuring Water Level

Describes the method of measuring the water level.

### 6.2.5 Pressure

The pressure measured on an artesian bore in KPa.

### 6.2.6 Method of Measuring Pressure

The method of measuring the pressure on the artesian bore.

### 6.2.7 Datum (Reference Point) Description

Describes the reference point (also called measurement point or datum) used to measure the water level or pressure from the bore.

## 6.2.8 Distance from Datum (Reference Point) to Ground Level

Distance measured from the Reference point to Ground Level. Values are always positive and stored in metres to two decimal places.

Values are stored in metres to two decimal places.

## 6.2.9 Antecedent or Current Conditions

Describes any conditions at the time and / or antecedent conditions that may have influenced the water level or pressure reading that was recorded.

### 6.2.10 Comments

Any further comments on the way in which the water level and pressure was measured and the conditions under which the measurement was taken.

# 7 Water Level Log

## 7.1 Introduction

This table records water level measurements taken from a bore over time. The entries will usually come from a bore that is part of a water level monitoring network.

Oracle Table Name: PAG WATER LEVEL LOG

Baseline Assessment Form Reference:

Attribute Name	Database Column Name	Baseline Assessment Form Name	GWDB reference	GWDB Table & Column Name (gw_wlvdets)
Date and Time	Meas_Date_Time	Date	Date	Rdate
Measurement Point	Meas_Point	Ref point	Measurement point	Meas_Point
Water Level Depth	Water_Level_Depth	Water level	Measurement	Measurement
Source	Source		Logger	Logger
Remark	Remark	Remark	Remark	Remark

## 7.2 Description of Attributes

### 7.2.1 Date and Time

This is the date and time the water level depth was measured.

### 7.2.2 Measurement Point

Water level Measurements can be taken from natural surface or a reference point. The latter is the most usual in relation to the DERM water level monitoring network. Water level Measurements are generally only taken from natural surface when a bore is under construction. This field allows the point from where the Measurement was taken to be defined. It is essential for the correct reduction of a water level to an elevation. The following codes are available.

Code	Measurement Point
N	Natural Surface
R	Reference Point

## 7.2.3 Water Level Depth

The water level Depth refers to the distance from the natural surface or reference point to the water surface in a sub-artesian bore when it is in a fully recovered state.

Standing water level measurements can be measured either up or down from a reference point. Measurements up from a reference point are recorded as a positive value with the sign understood. Measurements down must have a minus sign entered in the field with the value for the Measurements.

Values are stored in metres to two decimal places.

## 7.2.4 Source

This field indicates if the water level record has been taken from a bore logger or manually. If the record has been taken from a bore logger device this field must be populated with an 'L' which stands for Logger. If the water level record has been taken manually it must be populated with an 'M'. The following codes are available.

Code	Source
L	Logger
M	Manual

## 7.2.5 Remark

This field qualifies the water level depth. It should be completed if a water level has been affected by a bore pumping nearby or if a water level has been taken after a bore has been purged.

If a bore is dry the depth from the reference point to the screen seat must be entered in the Water Level Depth field and the code for dry entered in this field. Bores that are "dry" because they are blocked must not have a record entered for that visit. The following codes are available:

Code	Remark
D	Dry
B	Bore Purged
P	Pumping Nearby

# 8 Elevation

## 8.1 Introduction

This table records the Elevation of the ground immediately surrounding the borehole before it is drilled, and the elevation history of reference points on bores used for regular water level measurements.

Oracle Table Name: PAG Elevation

Baseline Assessment Form Reference:

Attribute Name	Database Column Name	Baseline Assessment Form Name	GWDB reference	GWDB Table & Column Name (gw_elvdets)
Reference Point Establishment Date	Ref_Establishment_Date		Date	Rdate
Measurement Point	Meas_Point		Measurement Point	Meas_point
Method	Elev_Method		Precision	Precision
Datum	Elev_Datum		Datum	Datum

Elevation	Elevation		Elevation	Elevation
Measurement Date	Meas_Date			
Comments	Comments		Source of detailed survey	Survey_Source

## 8.2 Description of Attributes

### 8.2.1 Reference Point Establishment Date

For reference point elevations it is most important that the Reference Point Establishment Date is recorded correctly so that all the water level measurements taken can be correctly reduced to water level elevations.

It must be ensured that the date is the **day the reference point was established** and used for measurement and **not** the date on which it was surveyed.

When a subsequent reference point is established at a different elevation from the original (e.g. when repaired after damage) a new record must be created. This date again, must be the date the point was established and not the date it was surveyed.

This "history" of reference points enables plotting programs to plot the correct elevation based on the reference point establishment dates and the measurement dates in the Water Level Log Table.

### 8.2.2 Measurement Point

The Measurement Point field is used to denote whether the Elevation recorded is for the natural surface or the reference point. The following codes are available:

Code	Measurement Point
N	Natural Surface
R	Reference Point

### 8.2.3 Method

Indicates the method used to record the Elevation. The following codes are available:

Code	Method
SVY	Surveyed
BAR	Aneroid Barometer
EST	An Estimate using Contours
GPS	Global Positioning System (Non-Differential)
DGP	Differential Global Positioning system

### 8.2.4 Datum

Defines the Datum that the Elevation is related to. The following codes are available:

Code	Datum
AHD	Australian Height Datum
STD	State Datum

## 8.2.5 Elevation

The elevation of natural surface or the elevation of the reference point (as defined by the measurement point), in relation to the datum. A positive value indicates the point is above the datum and a minus value shows it is below the datum. A positive sign is understood. A negative sign must be entered in the field with the value for Elevation.

The only unit allowed is metres to two decimal places.

## 8.2.6 Measurement Date

The date the elevation measurement was taken (date the measurement point was surveyed).

## 8.2.7 Comments

This field is to provide comments and further information on how the elevation was measured.

# 9 Water Quality Field Results

## 9.1 Introduction

This table records water quality measurements that have been taken in the field (including dissolved gas measurements). Note that this information must be provided and stored in the units indicated.

Oracle Table Name: PAG WQ Field Result

Baseline Assessment Form Reference:

Part F: Water Quality – Field Measurements & Field Dissolved Gas Measurements

Attribute Name	Database Column Name	Baseline Assessment Form Name	Form Part	GWDB reference	GWDB Table & Column Name (gw_fieldqs)
Date and Time	Result_Date_Time			Date	Rdate
Result Number	Result_No				
pH	PH	pH	F	pH	pH
Temperature	Temp	Temp	F	Temperature	Temp
Conductivity	Elec_Cond	Electrical Conductivity	F	Conductivity	Conduct
HCO3 Alkalinity as CaCO3	HCO3_ALK_CACO3	HCO3 Alkalinity as CaCO3	F		
CO3 Alkalinity as CaCO3	CO3_ALK_CACO3	CO3 Alkalinity as CaCO3	F		
OH- Alkalinity as CaCO3	OH_ALK_CACO3	OH- Alkalinity as CaCO3	F		
Total Alkalinity as CaCO3	TOT_ALK_CACO3	Total Alkalinity as CaCO3	F		
Dissolved CO2	Diss_CO2	Dissolved CO2	F		
Dissolved H2S	Diss_H2S	Dissolved H2S	F		
Dissolved CH4	Diss_CH4	Dissolved CH4			
Dissolved Gas Measurement Method	Diss_Gas_Meas_Method	Method	F		
Dissolved Gas measurement Method Reason	Diss_Gas_Meas_Method_Reason	Reason Method Chosen	F		
Water Sample	Water_Samp_Source			Source	Source

Source					
Water Sample Method	Water_Samp_Method			Remark	Samp_Method
Purged Pumped Time	Purge_Pump_time				
Purged Pumping Rate	Purge_Pump_rate				
Purged Volume	Purge_Volume				
Purged Pump Intake Depth	Purge_Pump_Intake_Depth				
Comments	Comments				

## 9.2 Description of Attributes

### 9.2.1 Date and Time

The date and time the readings were taken in the field.

### 9.2.2 Result Number

A unique record number for the sets of readings taken at a bore on any given day. The first set of readings would have result number 1, the second set of readings result number 2 etc. This number differentiates the sets of readings taken at the bore on the same day, particularly if the time of day has not been recorded.

### 9.2.3 pH

The field pH (to two decimal places).

### 9.2.4 Temperature

The maximum temperature of the discharging water to one decimal place. The data must be supplied as, and is stored as, degrees Celsius.

### 9.2.5 Conductivity

The Conductivity measurement is entered here. It must always be converted to the correct units. The only allowable unit is **microSiemens per centimetre at 25 degrees Celsius**.

### 9.2.6 HCO<sub>3</sub><sup>-</sup> Alkalinity as CaCO<sub>3</sub>

Bicarbonate Alkalinity as CaCO<sub>3</sub> in mg/L.

### 9.2.7 CO<sub>3</sub><sup>2-</sup> Alkalinity as CaCO<sub>3</sub>

Carbonate Alkalinity as CaCO<sub>3</sub> in mg/L.

### 9.2.8 OH<sup>-</sup> Alkalinity as CaCO<sub>3</sub>

Hydroxide Alkalinity as CaCO<sub>3</sub> in mg/L.

### 9.2.9 Total Alkalinity as CaCO<sub>3</sub>

Total Alkalinity as CaCO<sub>3</sub> in mg/L.

### 9.2.10 Dissolved CO<sub>2</sub>

Dissolved Carbon Dioxide in mg/L.

### 9.2.11 Dissolved H<sub>2</sub>S

Dissolved Hydrogen Sulphide in mg/L.

## 9.2.12 Dissolved CH<sub>4</sub>

Dissolved Methane in mg/L.

## 9.2.13 Dissolved Gas Measurement Method

The method used to obtain the dissolved gas measurements. The following codes are available:

Code	Dissolved Gas Measurement Method
GSM	Geoscience Australia Method
FLTHR	Flow Through Method

## 9.2.14 Dissolved Gas Measurement Method Reason

The reason the method used to measure dissolved gas was chosen.

## 9.2.15 Water Sample Source

This field describes the source of the sample. The available codes are:

Code	Water Sample Source
GB	Groundwater - Sample from Bore
GR	Groundwater - Sample from Remote Source eg. tank, bore drain
GS	Groundwater - Sample from Stream or spring

If a bore water sample is not collected directly from the bore, but from some other point distant from the bore, it is classed as a 'remote' sample to indicate it has passed through a distribution system for some distance and thereby resided for an unspecified time in an environment other than the bore's own environment.

Bore water in bore drains, swamps, channels of all types, table drains, turkey nests and dams are to be classed as remote samples from the bore.

## 9.2.16 Water Sample Method

This field describes the method used to collect the sample.

The valid codes are given below.

Code	Water Sample Method
BT	Bailer – Teflon
BA	Bailer – Other
PG	Pump - Grundfos MP1
PW	Pump - WaTerra
PA	Pump - Amazons
PB	Pump - Bladder
PP	Pump – Peristaltic
PU	Pump - Other or Flowing Bore
PH	Pump – Hurricane
AI	Air Lifting
MA	Manual eg. from stream, trough, tank (by hand)
XX	Unknown
DH	Downhole Probe
AS	Sigma Sampler (Auto)
MX	Composite
NR	Not Recorded
PF	Pump – Air Forced
SD	Van Dorn Bottle
SV	Van Veen Sampler

### 9.2.17 Purged Pumped Time

The time the pump was run for purging prior to taking the measurements (in minutes)

### 9.2.18 Purged Pumping Rate

The rate the pump was operated during purging (in Litres/second to two decimal places)

### 9.2.19 Purged Volume

The volume of water pumped from the bore during purging (in Litres to two decimal places)

### 9.2.20 Purged Pump Intake Depth

The depth below natural surface of the pump intake during purging (in metres to two decimal places)

### 9.2.21 Comments

Any comments relating to the field water quality measurements taken.

## 10 Water Quality Laboratory Samples

### 10.1 Introduction

This table stores details relating to water quality samples and is used in conjunction with the water quality results table.

Oracle Table Name: PAG WQ SAMPLE

Baseline Assessment Form Reference: -

Attribute Name	Database Column Name	Baseline Assessment Form Name	GWDB reference	GWDB Table & Column Name (gw_samples)
PAG Database Sample ID	PAG_Sample_ID			
Tenure Holder Sample ID	Tenure_Hold_Sample_ID		WR Analysis Number	Sampnum
Sample Date and Time	Sample_Date_Time		Date	Sdate
Sample Source	Samp_Source		Source	Srcsamp
Sample Method	Samp_Method		Method	Collmeth
Dissolved Gas measurement Method	Diss_Gas_Meas_Method	Method ( Flow Through or Geosciences Australia Method) – Part F		
Dissolved Gas measurement Method Reason	Diss_Gas_Meas_Method_Reason	Reason Method Chosen – Part F		
Sample Depth	Samp_Depth		Depth	Depth
Project Name	Project_Name		Project	Project1

Collection Authority	Collection_Authority		Collection Authority	Collsamp
Purged Total Pumped Time	Purge_Pump_Time			
Purged Pumping Rate	Purge_Pump_Rate			
Purged Volume	Purge_Volume			
Purged Pump Intake Depth	Purge_Pump_Intake_Depth			
Comments	Comments			

## 10.2 Description of Attributes - Laboratory Samples

### 10.2.1 PAG Database Sample ID

The unique sample ID allocated to the sample by the Queensland Water Commission.

### 10.2.2 Tenure Holder Sample ID

The unique sample ID allocated to the sample by the tenure holder or organisation that took the sample. This unique identifier is used to track the sample in the organisation and provides a clear chain of custody for the sample. It can be used in correspondence between organisations as the reference for the correct sample. It provides a critical linkage between the sample details and the results associated with the sample stored in the Water Quality Laboratory Results table.

### 10.2.3 Sample Date and Time

The date and time the sample was taken. This information is essential for maintaining the chain of custody for the sample, relating the data to other events and other data at the time of sampling, and assessing temporal trends and changes to a baseline.

### 10.2.4 Sample Source

This field describes the source of the sample. The available codes are:

Code	Water Sample Source
GB	Groundwater - Sample from Bore
GR	Groundwater - Sample from remote source eg. tank, bore drain
GS	Groundwater - Sample from Stream or spring

If a bore water sample is not collected directly from the bore, but from some other point distant from the bore, it is classed as a 'remote' sample to indicate it has passed through a distribution system for some distance and thereby resided for an unspecified time in an environment other than the bore's own environment.

Bore water in bore drains, swamps, channels of all types, table drains, turkey nests and dams are to be classed as remote samples from the bore.

### 10.2.5 Sample Method

This field describes the method used to collect the sample. The valid codes are given below.

Code	Water Sample Method
BT	Bailer – Teflon
BA	Bailer – Other
PG	Pump - Grundfos MP1
PW	Pump - WaTerra
PA	Pump - Amazons

PB	Pump - Bladder
PP	Pump – Peristaltic
PU	Pump - Other or Flowing Bore
PH	Pump – Hurricane
AI	Air Lifting
MA	Manual eg. from stream,trough,tank (by hand)
XX	Unknown
DH	Downhole Probe
AS	Sigma Sampler (Auto)
MX	Composite
NR	Not Recorded
PF	Pump – Air Forced
SD	Van Dorn Bottle
SV	Van Veen Sampler

## 10.2.6 Dissolved Gas Measurement Method

The method used to obtain the dissolved gas measurements. The following codes are available:

Code	Dissolved Gas Measurement Method
GSM	Geoscience Australia Method
FLTHR	Flow Through Method

## 10.2.7 Dissolved Gas Measurement Method Reason

The reason the method used to measure dissolved gas was chosen.

## 10.2.8 Sample Depth

The depth sampled in metres, to two decimal places..

Bores completed

a. No packer used

Insert the depth from natural surface to the bottom of deepest water entry point i.e. the bottom of the screen, deepest slot, or bottom of deepest bed in any uncased section of the hole.

b. Packer Used

Insert the depth from the natural surface to the bottom of deepest water entry point in the interval sampled.

## 10.2.9 Project Name

The name of the DERM project under which the sample was collected that is currently stored in the DERM Groundwater Database. A list of DERM projects that water samples have been collected for and used in the DERM Groundwater Database are listed below.

Code	Project Name
GWAN	Groundwater Ambient Network
CYPLUS	Cape York Peninsula Land Use Study
XX	Project Unknown
PR	Private
ABP	Atherton Basalt Project
ABRP	Atherton Bore Replacement Program
BGAR	Blue Green Algae Research
BRSI	Burdekin River Special Investigation
FWMI	Feedlot Waste Management Investigation
KHWP	Kingston Hazardous Waste Project
NAP	National Action Plan
PGBS	Pilot Groundwater Biota Study
STIAS	St. George Irrigation Survey

If this information has not been derived from the DERM Groundwater Database then the Project Name should have no entry ie it is to be left blank.

### 10.2.10 Collection Authority

The name of the DERM authority that collected the sample and is currently stored in the DERM Groundwater Database. A list of DERM collection authorities currently used for the DERM Groundwater Database are listed below.

Code	Collection Authority
DA	DERM – Agricultural
DC	DERM - Community Landcare Group
DG	DERM – Groundwater
DH	DERM – Hydrographic
DI	DERM - Integrated Catchment Management
DL	DERM – LAS
DO	DERM – Operations
DW	DERM - Water Watch Group
DS	DERM – Scientist
PR	Private
QH	Qld Health Department
QM	Qld Department of Minerals and Energy
AG	Australian Geological Survey Organisation
QE	Qld Department of Environment and Heritage
UT	Qld University of Technology
XX	Unknown
NR	Not Recorded

If this information has not been derived from the DERM Groundwater Database then the Collection Authority should have no entry ie it is to be left blank.

### 10.2.11 Purged Total Pumped Time

The time the pump was run for purging prior to taking the measurements (in minutes)

### 10.2.12 Purged Pumping Rate

The rate the pump was operated during purging (in Litres/second to two decimal places)

### 10.2.13 Purged Volume

The volume of water pumped from the bore during purging (in Litres to two decimal places)

### 10.2.14 Purged Pump Intake Depth

The depth below natural surface of the pump intake during purging (in metres to two decimal places)

### 10.2.15 Comments

Any comments relating to the water quality sample.

## 11 Water Quality Laboratory Results

## 11.1 Introduction

This table stores results relating to the water samples that have been analysed in the laboratory.

Oracle Table Name: PAG\_WQ\_LAB\_RESULT

Attribute Name	Database Column Name	Baseline Assessment Form Name	GWDB reference	GWDB Table & Column Name (gw_results)
Result Number	Result_No			
Tenure Holder Sample Id	Tenure_Holder_Sample_Id		WR Analysis Number	Sampnum
Result Date and Time	Result_Date_Time			
Value	Value		Measurement	Value
Qualifier	Qualifier		Result Flag	Flag
Parameter Name	Parameter		Name	Gw_Wqvar Name
Units	Units		Units	Gw_Wqvar Units
Preservation Method	Pres_Method1		Preservative	Gw_Samples Presmeth1
Preservation Method	Pres_Mehod2		Preservative	Gw_Samples Presmeth2
Preservation Method	Pres_Method3		Preservative	Gw_Samples Presmeth3
Laboratory	Lab_Name		Analyst	Gw_Samples Labref
Laboratory Sample Reference	Lab_Sample_Ref		Laboratory Sample Reference	Gw_samples Labsampref
Technical Reference	Technical_Reference			
PQL Max	PQL_Max			
PQL Min	PQL_Min			
Uncertainty	Uncertainty			
Comments	Comments		Variable Comment	Commnt

## 11.2 Description of Attributes - Laboratory Results

### 11.2.1 Result Number

Unique result number for each result assigned by the Queensland Water Commission.

### 11.2.2 Tenure Holder Sample Id

The unique sample ID allocated to the sample by the tenure holder or organisation that took the sample. This unique identifier is used to track the sample in the organisation and provides a clear chain of custody for the sample. It can be used in correspondence between organisations as the reference for the correct sample. It provides a critical linkage between the sample details and the results associated with the sample stored in the Water Quality Laboratory Results table.

### 11.2.3 Result Date and Time

The date and time that the parameter was measured in the laboratory.

## 11.2.4 Value

The result recorded by the laboratory for the parameter indicated.

## 11.2.5 Qualifier

This field is used when the result of the analysis is greater or less than a value, not detected, too numerous or trace. The following codes are available:

Code	Qualifier
<	Less Than
>	Greater Than
ND	Not Detected
TN	Too Numerous
TR	Trace

## 11.2.6 Parameter Name

The name of the parameter being measured by the laboratory. The parameters below that have an assigned unit are the parameters specified in the minimum water quality analytes for baseline assessments. For these parameters the results must be reported in the specified units as listed in the table below.

Code	Parameter Name	Units
PH	pH	PH
EC	Electrical Conductivity	USCM
TDS	Total Dissolved Solids	MGL
CA	Calcium	MGL
Cl	Chloride	MGL
F	Fluoride	MGL
MG	Magnesium	MGL
K	Potassium	MGL
NA	Sodium	MGL
SO4	Sulphate	MGL
AL_DIS	Aluminium - Dissolved	MGL
AL_TOT	Aluminium - Total	MGL
AS_DIS	Arsenic - Dissolved	MGL
AS_TOT	Arsenic - Total	MGL
BA_DIS	Barium - Dissolved	MGL
BA_TOT	Barium - Total	MGL
BE_DIS	Beryllium - Dissolved	MGL
BE_TOT	Beryllium - Total	MGL
B_DIS	Boron - Dissolved	MGL
B_TOT	Boron - Total	MGL
CD_DIS	Cadmium - Dissolved	MGL
CD_TOT	Cadmium - Total	MGL
CR_DIS	Chromium - Dissolved	MGL
CR_TOT	Chromium - Total	MGL
CO_DIS	Cobalt - Dissolved	MGL
CO_TOT	Cobalt - Total	MGL
CU_DIS	Copper - Dissolved	MGL
CU_TOT	Copper - Total	MGL
FE_DIS	Iron - Dissolved	MGL
FE_TOT	Iron - Total	MGL
PB_DIS	Lead - Dissolved	MGL
PB_TOT	Lead - Total	MGL
MN_DIS	Manganese - Dissolved	MGL
MN_TOT	Manganese - Total	MGL
HG_DIS	Mercury - Dissolved	MGL
HG_TOT	Mercury - Total	MGL
MO_DIS	Molybdenum - Dissolved	MGL

MO_TOT	Molybdenum - Total	MGL
NI_DIS	Nickel - Dissolved	MGL
NI_TOT	Nickel - Total	MGL
SE_DIS	Selenium - Dissolved	MGL
SE_TOT	Selenium - Total	MGL
U_DIS	Uranium - Dissolved	MGL
U_TOT	Uranium - Total	MGL
V_DIS	Vanadium - Dissolved	MGL
V_TOT	Vanadium - Total	MGL
ZN_DIS	Zinc - Dissolved	MGL
ZN_TOT	Zinc - Total	MGL
CO3_ALK_CACO3	Carbonate Alkalinity as CaCO3	MGL
HCO3_ALK_CACO3	Bicarbonate Alkalinity as CaCO3	MGL
OH_ALK_CACO3	Hydroxide Alkalinity as CaCO3	MGL
TOT_ALK_CACO3	Total Alkalinity as CaCO3	MGL
TOT_HDN_CACO3	Total Hardness as CaCO3	MGL
CO2	Dissolved Carbon Dioxide	UGL
H2S	Dissolved Hydrogen Sulphide	UGL
CH4	Dissolved Methane	UGL
CO	Dissolved Carbon Monoxide	
O2	Dissolved Oxygen	
BZN	Benzene	
TLN	Toluene	
EBZN	Ethyl-Benzene	
XNT_TOT	Xylene -Total	
NPHLN	Naphthalene	
PHTHN	Phenanthrene	
BNZPRN	Benzo (a) Pyrene	
NAOH	Sodium Hydroxide	
NACLO2	Sodium Hypochlorate	
CH2O	Formaldehyde	
ETHNL	Ethanol	
GAR	Gross Alpha Radiation	
NH3	Ammonia	
NO3	Nitrate as N	
NO2	Nitrite as N	
NO3+NO2	Nitrate + Nitrite as N	
TN	Total Nitrogen as N	
TP	Total Phosphorus	
THPC	Total heterotrophic plate count	
SRB	Sulphate-reducing bacteria	
IONBAL	Ionic Balance	
SAR	Sodium Absorption Ratio (calculated)	

### 11.2.7 Units

The units of measure for the parameter. The following codes are available:

Code	Unit
DEGC	Degrees Celsius
MGL	Milligrams/Litre
UGL	Micrograms/Litre
PH	pH Unit
USCM	Microseimens/centimetre
PERC	Percentage

### 11.2.8 Preservation Method

Enter here the codes for the types of preservative that were used. Up to three codes may be entered. The following codes are available:

<b>Code</b>	<b>Preservation Method</b>
CH	Chilled - 4 degrees C
FR	Frozen
LU	Lugol
MC	Magnesium Carbonate
AN	Acid – Nitric
NL	None Required
NR	Not Recorded
NH	Sodium Hydroxide
AS	Acid – Sulphuric
DA	Kept in Darkness
PD	Potassium Dichromate
ME	Methanol
AH	Acid – Hydrochloric
AO	Acid – Orthophosphoric
ZA	Zinc Acetate
AA	Acid - Ascorbic
CN	Cadmium Nitrate
MI	Mercuric Iodide
XX	Unknown
EA	Exclude Air
NU	None Used, but required

## 11.2.9 Laboratory

The laboratory that performed the analysis. The following codes are available:

<b>Code</b>	<b>Laboratory</b>
DPI	Qld Department of Primary Industries Agricultural Chemist
GCL	Government Chemical Laboratory (now Queensland Health Forensic and Scientific Services)
BCC	Brisbane City Council
S&B	Simmonds and Bristow
TCC	Toowoomba City Council
CCC	Cairns City Council
UNS	University of New South Wales
BSA	BSES – Burdekin
BSI	BSES – Indooroopilly
ACI	Aust. Coal Industry Research Laboratories
AEL	Australian Environmental Laboratories
AIS	AIS McCracken P/L
ALS	Australian Laboratory Services
AMD	AMDEL Townsville
BAS	Bundaberg Analytical Services
BSM	BSES – Mackay
CAS	Cargo Superintendent Company
CSL	Cambooya Shire Council
CTL	Crop Tech Laboratories
DME	Department of Mines & Energy
DNR	Department of Natural Resources (now DERM)
EGX	Energex
SGS	Societe Generale de Surveillance
UCQ	University of Central Queensland
UOQ	University of Queensland
XXX	Unknown

### 11.2.10 Laboratory Sample Reference

The unique sample reference assigned by the laboratory.

### 11.2.11 Technical Reference

Standard technical reference that is the published and accepted methodology used for the measurement of the water quality parameter. The technical reference should include the source of the method or the authors, the year of publication, and the method or section reference. Some examples of technical references are given below:

- APHA(2005)2130B
- AS1006(1995)
- ASTM(2010)D3977-97
- Hunter, H. M., Standley, J. & Cowie, B. A. (1984)

### 11.2.12 PQL Max

Practical Quantification Limit – the highest numerical value (detection limit) that a laboratory can report reliably for a test result.

### 11.2.13 PQL Min

Practical Quantification Limit – the lowest numerical value (detection limit) that a laboratory can report reliably for a test result.

### 11.2.14 Uncertainty

A measure of confidence in a test value as performed by a particular laboratory as a percentage.

### 11.2.15 Comments

Comments relating to the sample result.

## 12 Hole Construction

### 12.1 Introduction

This table stores details related to the construction of the bore hole.

Oracle Table Name: PAG HOLE CONSTRUCTION

Baseline Assessment Form Reference:

Note there is no GWDB reference for this table.

Attribute Name	Database Column Name
From Depth	From_Depth
To Depth	To_Depth
Hole Diameter	Hole_Diameter
Comments	Comments

## 12.2 Description of Attributes

### 12.2.1 From Depth

The depth from **natural surface** at which drilling commenced with the diameter in the related 'Hole Diameter' field.

Values are stored in **metres** to two decimal places.

### 12.2.2 To Depth

The depth from **natural surface** at which drilling finished with the diameter in the related 'Hole Diameter' field.

Values are stored in **metres** to two decimal places.

### 12.2.3 Hole Diameter

The diameter of the hole.

Values are stored in **millimetres**.

### 12.2.4 Comments

Any additional comments related to the construction of the hole.

## 13 Bore Construction

### 13.1 Introduction

This table records the facility's casing and other construction details.

Oracle Table Name: PAG BORE CONSTRUCTION

Baseline Assessment Form Reference: Appendix 1 - Part B -Bore Construction Details

Attribute Name	Database Column Name	Baseline Assessment Form Name	Form Part	GWDB reference	GWDB Table & Column Name (gw_casings)
Record Number	Bore_Cons_Rec_No			Record	Rec
Date	Cons_Date			Date	Rdate
From Depth	From_Depth			Top of Material	Top
To Depth	To_Depth			Bottom of Material	Bottom
Material Type	Material_Type	Casing material and diameter	B	Material Description	Material_Desc
Material Size	Material_Size			Material Size	Material_Size
Material Size Description	Material_Size_Desc_Code			Material Size Description	Size_Desc
Outside Diameter	Outer_Diameter	Casing material and Diameter	B	Outside Diameter	Out_Diameter
Comments	Comments	Additional Comments	B		

## 13.2 Description of Attributes

### 13.2.1 Record Number

The record number keeps the records in the table in a logical sequence for each bore and together with the bore ID uniquely identifies the record. The record number usually starts from one for each bore eg. 1,2,3,4...10 etc

### 13.2.2 Date

The date the casing or other material was inserted in the bore hole.

### 13.2.3 From Depth

This field defines the depth from the natural surface to the top of the material being Described in the record. The 'From Depth' must not be greater than the 'To Depth'.

For a string of casing with slots/perforations the total length of the string is entered as one record (perforated section included). A further record/s is then entered identifying where the slots/perforations occur.

Values are stored in metres to two decimal places.

### 13.2.4 To Depth

This field defines the depth from the natural surface to the bottom of the material being described in the record.

For a string of casing with slots/perforations the total length of the string is entered as one record (perforated section included). A further record/s is then entered identifying where the slots/perforations occur.

Values are stored in metres to two decimal places.

### 13.2.5 Material Type

Material Type defines the type of material described in the record. It could be steel casing, plastic casing, etc. Refer to the coded values for Material Type for all possibilities.

Code	Material Type
PLAS	Plastic Casing (unspecified)
STEL	Steel Casing (unspecified)
CONC	Concrete Liner for Wells
TIMB	Timber Lining for Wells
MASO	Masonry
PERF	Perforated or Slotted Casing Section
SCRN	Screen
GRAV	Gravel Pack
OPEN	Open Hole (Section of bore uncased)
ENDD	* Open End Pipe Considered as an Entry Point
GROU	Cement Grout
PLUG	Concrete Plug
PVC	Polyvinyl Chloride
BNSL	Bentonite Seal
SSL	Stainless Steel
MDPP	Medium Density Polythene Pipe
FRP	Fibreglass Reinforced Plastic
ABS	Acrylonite Butadiene Styrene
OIL	Oil Well Screwed Steel

WES	Welded Steel Casing or Tubing
SSSB	Standard Screwed Swelled Black
SSSG	Standard Screwed Swelled Galvanised
SBS	Slimline Black Steel
SGS	Slimline Galvanised Steel
CENT	Centraliser
FILL	Cuttings or other fill between casing

\* If the open end of the pipe terminates in a waterbed it is considered as a water entry point. If the casing terminates anywhere other than in the waterbed it is not considered as a water entry point, irrespective of whether the bore continues as an open.

### 13.2.6 Material Size

The Material Size describes the wall thickness of a length of casing or aperture of a screen, etc. (For plastic casing the wall thickness can be derived from the Table of Mean Wall Thickness given at the end of this section, if the class of pipe and its diameter are known.) For a gravel pack, the nominal gravel size (i.e. sieve size that all gravel passes) is entered.

Values are stored in millimetres to three decimal places.

### 13.2.7 Material Size Description

The Material Size Description identifies what attribute the Material Size field is measuring. It must have one of the following three codes. The following codes are available:

Code	Material Size Description
WT	Wall Thickness of casing
AP	Aperture Size for Screens, Slots, Perforations
GR	Gravel Packs; Nominal gravel size

Note: If you have a material description of GRAV (gravel) you can not have a size description of AP or WT. Also if you have a material description of PERF or SCRNL you can not have a size description of GR or WT.

### 13.2.8 Outside Diameter

The Outside Diameter of the material is entered in this field.

The term diameter has been chosen because the majority of our facilities are circular in shape. However there will be the occasion when a square or rectangular facility such as a well, trench or excavated pond needs to be entered into the system. In these cases the dimension of the longest side is to be recorded.

Values are stored in millimetres

### 13.2.9 Comments

Any comments or additional information relating to the bore construction.

## 14 Strata Log

### 14.1 Introduction

The records in this table are a transcription of the strata encountered in a bore as described on the strata log sheet completed by the driller, geologist, etc.

Oracle Table Name: PAG\_STRATALOG  
Baseline Assessment Form Reference:

Attribute Name	Database Column Name	GWDB reference	GWDB Table & Column Name (gw-strlog)
Strata Log Record Number	Stratalog_No	Record	Record
From Depth	From_Depth	Top of Strata	Frm
To Depth	To_Depth	Bottom of Strata	Too
Description of strata	Strata_Desc	Strata Description	Desc

## 14.2 Description of Attributes

### 14.2.1 Strata Log Record Number

The record number keeps the records in the table in a logical sequence for each bore and together with the bore ID uniquely identifies the record. The record number usually starts from one for each bore eg. 1,2,3,4...10 etc

### 14.2.2 From Depth

The depth from the **natural surface** to the **top of the strata** described is recorded in this column. The From Depth value must not be greater than To Depth value.

Values are stored in **metres** to two decimal places.

### 14.2.3 To Depth

The depth from the **natural surface** to the **bottom of the strata** described is recorded in this column. The bottom of the strata log value must **not** be marked with a minus sign.

Values are stored in **metres** to two decimal places.

### 14.2.4 Description of Strata

The description of strata in the interval defined by the From Depth and the To Depth is entered here. If the description requires more than one record, the required records can be added without Top of Strata and Bottom of Strata fields being repeated.

When entering strata log details into the database, make sure the whole log, as recorded by the driller, or hydrologist is entered. Do not abbreviate the logs, i.e. do not leave out colour, granularity, or any descriptive terms.

# 15 Stratigraphy

## 15.1 Introduction

The data in this table stores the interpreted stratigraphy of the water bore. The stratigraphic interpretation may have been made by the Queensland Department of Minerals and Energy or the Queensland Department of Environment and Resource Management or some other government body or company.

Oracle Table Name: PAG\_Stratigraphy

Baseline Assessment Form Reference: No Reference

Attribute Name	Database Column Name	Baseline Assessment Form Name	GWDB reference	GWDB Table & Column Name (gw_strtig)
Stratigraphy Number	Stratigraphy_No		Record	Rec
Company Name	Interpreted_Company_name		Source	Data_Owner
Person Name	Interpreted_person_name			
From Depth	From_depth		Top of Unit	Top
To Depth	To_depth		Bottom of Unit	Bottom
Formation Name	Formation_name		Description	Form_Desc

## 15.2 Description of Attributes

### 15.2.1 Stratigraphy Number

Every record for a stratigraphic interpretation done by a different organisation must have a unique line number, to keep the records in logical order, and together with the Bore ID and Company Name uniquely identify the record. . Record Numbers will normally start at one ie. 1,2,3,4...10 etc

### 15.2.2 Company Name

The Company Name field describes the organisation that analysed the available data and made the stratigraphic interpretation. The following company names are currently acceptable.

Company Name	Code
Department of Environment and Resource Management	DNR
Department of Mines and Energy	DME
Australian Geological Survey Organisation	AGS
BHP Pty Ltd	BHP
Lockyer Catchment Centre	LCC
Sunwater	SUN
Qld Murray Darling Dryland Salinity	MDS
National Action Plan	NAP
Prawn Farm Investments	PFI

Additional companies can be added to this list and allocated a code as required

### 15.2.3 Person Name

The Person Name field describes the person in the organisation that analysed the available data and made the stratigraphy interpretation eg John Smith

### 15.2.4 From Depth

This is the depth below ground level to the top of the stratigraphy unit (in metres).

Values are stored in **metres** to two decimal places.

### 15.2.5 To Depth

This is the depth below ground level to the bottom of the stratigraphy unit (in metres).

Values are stored in **metres** to two decimal places.

### 15.2.6 Formation Name

The Formation Name field stores the name of the stratigraphy unit occupying the zone specified by the From Depth and To Depth.

## 16 Aquifer

### 16.1 Introduction

The purpose of this table is to record information about the permeable water bearing beds encountered by a bore penetrating a single geological unit or a number of geological units.

Oracle Table Name: PAG\_AQUIFER

Baseline Assessment Form Reference:

Attribute Name	Database Column Name	Baseline Assessment Form Name	GWDB reference	GWDB Table & Column Name (gw_aquifrs)
Aquifer Number	Aquifer_No		Record	Rec
From Depth	From_Depth		Top of Aquifer	Top
To Depth	To_Depth		Bottom of Aquifer	Bottom
Condition	Condition_Type		Condition	Condition
Contributing Aquifer	Contributing_Flag		Contributing aquifer	Contr
Flow indicator	Flow_Above_Ground_Flag		Flow Indicator	Flow
Quality of water in Aquifer	Quality_Desc		Quality of water in aquifer	Quality
Yield from aquifer	Yield		Yield from aquifer	Yield
Standing water level of aquifer when drilled	SWL		Standing Water Level of Aquifer when drilled	SWL
Date of standing water level	SWL_Meas_Date		Date of Standing Water Level	RDate
Formation Name	Formation_Name	Part B – Geological Formation from which water is accessed.	Formation Name	Form_Desc

## 16.2 Description of Attributes

### 16.2.1 Aquifer Number

This is a number indicating the order in which the aquifers were encountered. . Eg. 1,2,3,4 etc. Together with the Tenure Holder Bore ID it uniquely identifies the record.

### 16.2.2 From Depth

The depth from natural surface to the top of the aquifer described is recorded in this field.

Values are stored in metres to two decimal places.

### 16.2.3 To Depth

The depth from natural surface to the bottom of the aquifer described is recorded in this field.

Values are stored in metres to two decimal places.

### 16.2.4 Condition

Condition refers to the hydrological and physical condition of the material in the bed. However the hydrological aspect is dominant. Basically the condition is determined by the mechanism by which water is transmitted in the rock mass i.e. is the water transmitted via pores, between grains or via fractures in the rock mass. The following codes are available.

#### Porous Rocks

Code	Condition
UC	Unconsolidated
PS	Consolidated
SC	Semi-Consolidated

#### Fractured Rocks

Code	Condition
FR	Fractured
VS	Vesicular
CV	Cavernous
WZ	Weathered Zone

### 16.2.5 Contributing Aquifer

The Contributing Aquifer field is completed with Y (Yes) if the Aquifer contributes to the supply in the completed bore.

If the aquifer is not contributing to the supply of the completed bore the field is completed with N (No).

The following codes are available:

Code	Contributing Aquifer
Y	Yes
N	No

### 16.2.6 Flow indicator

In many cases it is known that an aquifer has yielded a flowing water supply, however there are no details of the static head. This field indicates whether or not the water level of the aquifer rose above ground level. ie. Whether or not a flow was encountered.

If a flow is encountered in the aquifer specified, Y is entered.

If the water level is below ground level N is entered.

The following codes are available:

Code	Flow Indicator
Y	Yes
N	No

## 16.2.7 Quality description of water in Aquifer

This field is used to indicate the quality of water in an aquifer. If a full water sample has been taken the Sample/Analysis Number may be entered. eg SEE ANAL 123456.

If field measurements such as conductivity have been taken, these measurements must be entered in the water quality field measurement table. A note indicating this may be made in this field. eg. SEE FIELD MEAS.

In many cases, only a comment regarding the quality of the water is made eg. BRACKISH. In these cases, the comment should be entered.

## 16.2.8 Yield from aquifer

The Yield from Aquifer field stores an estimate of the yield from the aquifer. The estimate may be obtained by bailing, air test, pump test, flow test etc.

Values are stored in litres/second to two decimal place.

## 16.2.9 Standing water level of aquifer when drilled

The Standing Water Level of Aquifer when Drilled field is used to record the water level or static head measured from natural surface for each aquifer, when the bore was drilled. Water levels below ground level must be entered as a negative. If the bore is flowing the static head is entered as a positive measurement above ground level.

Values are stored in metres to two decimal places.

## 16.2.10 Date of standing water level

This field records the date on which the standing water level or static head stored in the 'standing water level of aquifer when drilled' field was taken.

## 16.2.11 Formation Name

Formation Name is the name of the geological unit containing the aquifer being recorded. The source of data to be entered in this field is the formation names on published maps or in published documents.

Alluvium is to be treated as a lithological formation. The Formation Name is to consist of the name of the river, creek or geographic feature commonly used to describe the alluvium of an area. The name should be entered in full eg Black River Alluvium

# 17 Equipment

## 17.1 Introduction

This table stores information regarding the bore equipment collected on the Baseline Assessment Form.

Oracle Table Name: PAG\_EQUIPMENT

Baseline Assessment Form Reference: Part C Bore Equipment and Conditions Details

Note there is no GWDB reference for this table.

Attribute Name	Database Column Name	Baseline Assessment Form Name	Form Part
Pump Type	Pump_Type	Pump Type	C
Pump Make & Model	Pump_Make_Model	Make and Model of Pump	C
Pump Inlet depth	Pump_Inlet_Depth	Pump Setting Depth	C
Power Source	Power_Source	Power Source	C
Maximum Pump Capacity	Pump_Rate_Max_Capacity	Max Pump Capacity	C
Pump Rate at Time of Visit	Pump_Rate_Observed	Pumping rate at the time of visit	C
Bore Meter Flag	Metered_Flag	Is the bore equipped with a meter	C
Meter Description	Meter_Desc	Description	C
Headworks Description	Headworks_Desc	Headworks Description	C
Maintenance and Repairs	Maint_Repair_Desc	Repairs / Maintenance History	C
Pump Installed Date	Pump_Installed_Date		
Comments	Comments		

## 17.2 Description of Attributes

### 17.2.1 Pump Type

The type of pump on the bore.

### 17.2.2 Pump Make & Model

The make and model of the pump on the bore.

### 17.2.3 Pump Inlet Depth

The pump inlet/setting depth below the ground level.

Stored in meters to two decimal places.

### 17.2.4 Power Source

The power source to the pump. The following codes are available:

Code	Power Source
EM	Electric Motor
GEN	Generator
DDE	Direct Drive Engine
MS	Mains Supply
TR	Tractor
WM	Windmill

### 17.2.5 Maximum Pump Capacity

The maximum capacity of the pump.

Values are stored in Litres/Second to two decimal places.

### 17.2.6 Pump Rate at Time of Visit

The pumping rate observed at the time of visit.

Values are stored in Litres/Second to two decimal places.

## 17.2.7 Bore Meter Flag

Indicates whether or not the bore is equipped with a meter. The following codes are available.

Code	Bore Metered Flag
Y	Yes
N	No

## 17.2.8 Meter Description

A description of the meter, if the bore is equipped with a meter.

## 17.2.9 Headworks Description

A description of any riser and headwork details including the size and type of riser pipe (e.g. material, diameter, joint type); details of any connection to a reticulated system (e.g. pipe sizes, distances, schematic diagram); headworks size, valves; flow meter etc.

## 17.2.10 Maintenance and Repairs

A description of the repairs and maintenance undertaken on the bore (e.g. nature and date of the work, who has undertaken the maintenance etc).

## 17.2.11 Pump Installed Date

The date that the pump was installed in the bore.

## 17.2.12 Comments

Any comments on the bore equipment and general condition of the bore (e.g. heavily corroded)

# 18 Water Use

## 18.1 Introduction

This table stores information regarding water supply collected on the Baseline Assessment Form.

Oracle Table Name: PAG WATER USE

Baseline Assessment Form Reference: Part D Bore Water Supply information

Note there is no GWDB reference for this table.

Attribute Name	Database Column Name	Baseline Assessment Form Name	Form Part
Metered Flag	Usage_Metered_Flag	Is the water use from this bore metered.	D
Average Volume Used	Avg_Vol_Used_Yearly	Avg Vol Used Yearly	D
Estimated Volume Used	Est_Vol_Used_Yearly	Est Vol Used Yearly	D
Estimation Method	Est_Vol_Method_Desc	Est Vol Method Description	D
Estimated Hours Pumped per Day	Est_Hours_Pumped_Per_Day	How often is the bore utilised (estimated hours pumped/day)	D
Bore Utilisation Description	Bore_Utilisation_Desc	Bore Utilisation Description	D
Comments	Comments		

## 18.2 Description of Attributes

### 18.2.1 Metered Flag

Indicates if the water use from the bore is metered.

Code	Metered Flag
Y	Yes
N	No

### 18.2.2 Average Volume Used

The average take of water from the bore in the last five years (in ML/year).

### 18.2.3 Estimated Volume Used

The bore owner representatives estimated yearly take of water from the bore (in ML/year). The estimation method below must also be recorded.

### 18.2.4 Estimation Method

The basis for the bore owners estimated yearly take of water from the bore. This could include the number of hours the bore is pumped, storage of ring tank, number of properties supplied, area irrigated etc.

### 18.2.5 Estimated Hours Pumped per Day

An estimation of the number of hours the bore is pumped per day.

### 18.2.6 Bore Utilisation Description

A description of the utilisation of the bore including the operational capacity of the bore, seasonal variations, peak usage etc.

### 18.2.7 Comments

Any additional comments relating to Water Use from the bore.

## 19 Water Use Log

### 19.1 Introduction

This table stores water use information derived from meter readings.

Oracle Table Name: PAG WATER USE LOG

Baseline Assessment Form Reference:

Note there is no GWDB reference for this table.

Attribute Name	Database Column Name	Baseline Assessment Form Name
From Date	From_Date	
To Date	To_Date	
Volume Used	Vol_Used	
Comments	Comments	

## 19.2 Description of Attributes

### 19.2.1 From Date and To Date

These attributes describe the period over which the volume of water was used. These dates would generally reflect when the meter on the bore was read.

### 19.2.2 Volume Used

The volume of water used over the period specified by the From and To dates, as calculated from the meter readings (in ML).

### 19.2.3 Comments

Any comments related to water use over the period specified by the From and To dates.

## 20 Gas Field Measurements

### 20.1 Introduction

This table stores free gas results collected in the field at the bore. Note that this information must be supplied and stored in the units indicated.

Oracle Table Name: PAG\_GAS\_FIELD\_RESULT

Baseline Assessment Form Reference: Part F - Water Quality – Field Gas Measurements

Note there is no GWDB reference for this table.

Attribute Name	Database Column Name	Baseline Assessment Form Name	Form Part
Result date and time	Result_Date_Time		
Field Gas Measurement Method	Field_Gas_Meas_Method	Multi-Parameter Gas Detector	F
CO	CO		
CO2	CO2	Field Gas Measurements CO2	F
H2S	H2S	Field Gas Measurements H2S	F
O2	O2		
CH4	CH4	Field Gas Measurements CH4	F
Comments	Comments		

## 20.2 Description of Attributes

### 20.2.1 Result date and Time

The date and time the gas measurements were taken in the field.

### 20.2.2 Field Gas Measurement Method

The method used for the gas measurements. The following codes are available:

<b>Code</b>	<b>Field Gas Measurement Method</b>
MPGD	Multi-parameter gas detector

### **20.2.3 CO (Carbon Monoxide)**

The measured value for Carbon Monoxide in ppm<sub>v</sub>.

### **20.2.4 CO<sub>2</sub> (Carbon Dioxide)**

The measured value for Carbon Dioxide in ppm<sub>v</sub>.

### **20.2.5 H<sub>2</sub>S (Hydrogen Sulfide)**

The measured value for hydrogen Sulfide in ppm<sub>v</sub>.

### **20.2.6 O<sub>2</sub> (Oxygen)**

The measured value for oxygen in ppm<sub>v</sub>.

### **20.2.7 CH<sub>4</sub> (Methane)**

The measured value for methane in %LEL

### **20.2.8 Comments**

Comments relating to Gas readings or gas occurrence at the bore, including any pumping regime prior to assessing the bore that may have impacted on the presence or absence of gas.