

| PARTICULARS OF COMPLETED BORE/WELL | | | | Index No <u>RN 21396</u> | | |
|---|-----------------------|------------|--|--------------------------|--|---------|
| | | | | Advice No <u>80/2021</u> | | |
| 20. Describe rock type, colour etc. any changes must be recorded. From - To 0-2m Red clay & laterite 2-6m Yellow clay 6-12.2m Yellow & white clay 12.2-18.1m Yellow, red & white clay 18.1-30.3m White, yellow & red clay 30.3-37.2m White, yellow & red clay some quartz & sandstone 37.2-39m No circulation 39-41m Dolomite 41-41.8m Fractured dolomite 41.8-43.1m Cavity - dolomite, quartz & claystone 43.1-43.5m Fractured dolomite 43.5-55m Dolomite | | | 1. Name of Bore <u>Mc Minns 11/82</u> | | 2. Name of Property <u>Koolpinyah Stn</u> | |
| | | | 3. Owner of Property | | 4. Type of Lease <u>Pastoral</u> | |
| | | | 5. Lease/Block No. | | 6. Bore or Well <u>Bore</u> | |
| | | | 7. Name of Contractor <u>Water Div.</u> | | 8. Name of Driller <u>R. Setchell</u> | |
| | | | 9. Depth Recorded | | 10. Depth Drilled. <u>55m</u> | |
| | | | 11. Date Commenced <u>2-9-82</u> | | 12. Date Completed. | |
| | | | 13. Proposed use of Bore <input type="checkbox"/> Domestic <input type="checkbox"/> Pastoral <input type="checkbox"/> Stock Route <input type="checkbox"/> Irrigation <input type="checkbox"/> Town Supply <input type="checkbox"/> Observation <input checked="" type="checkbox"/> Investigation | | | |
| | | | 14. Bore has been drilled by <input checked="" type="checkbox"/> Rotary <input type="checkbox"/> Cable Tool <input type="checkbox"/> Jetting <input type="checkbox"/> Other | | | |
| | | | 15. Bore Drilled Using <input checked="" type="checkbox"/> Air <input type="checkbox"/> Mud <input checked="" type="checkbox"/> Foam <input type="checkbox"/> Water <input checked="" type="checkbox"/> Degradable Polymer Size of drilling Bit. <u>8"</u> from <u>0m</u> to <u>39m</u> ... <u>5 1/2"</u> from <u>39m</u> to <u>55m</u> ... | | | |
| | | | 16. Casing Installed <input type="checkbox"/> Steel <input type="checkbox"/> ABS <input checked="" type="checkbox"/> PVC <input type="checkbox"/> Fibreglass <input type="checkbox"/> Other..... <u>2"</u> Dia from <u>0m</u> to <u>43m</u>Dia from..... to Threaded Welded | | | |
| | | | 17. Screens <input checked="" type="checkbox"/> None installed <input type="checkbox"/> Stainless Steel <input type="checkbox"/> Bronze <input type="checkbox"/> PVC Dia.....Slot Size.....From.... to..... Dia.....Slot Size.....From.... to..... Screens are Screwed connected by Pack | | | |
| 21. Sample of strata and water have been <u>will be left at</u> <u>Darwin Katherine</u> <u>Allice Springs</u> Other..... | | | 18. Perforation in casing <input type="checkbox"/> Percussion Slotted <input type="checkbox"/> Oxy-cut <input checked="" type="checkbox"/> Drilled Other..... Slot/hole size <u>3/16"</u> From <u>40</u> to <u>43m</u> ... Slot/hole size.....From..... to..... | | | |
| | | | 19. Is any strata cemented off <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If so, give depth to | | | |
| 22. WATER | 1st Supply | 2nd Supply | 3rd Supply | 4th Supply | 5th Supply | Remarks |
| Struck at | <u>41.8 - 43.1m</u> | | | | | |
| Standing Water Level | <u>15m</u> | | | | | |
| Discharge | <u>3l/sec</u> | | | | | |
| Duration of Test | <u>While Drilling</u> | | | | | |



RN021396

26. OFFICE USE ONLY:
Map No.: 100481N-14H... 5173... 501 plotted on map dated: 13/7/82
U.T.M. Co-ordinates: 354248 1100000
Datum (A.M.D.):
Checked by:
Geological Basin:

24. This bore has been constructed under by supervision and this report is true to the best of my knowledge.
Signature: R. D. D. D. Driller Date: 4-9-82

PLEASE NOTE THE FOLLOWING:-
1. UNITS If possible please use metric units (metres, millimetres, litres per second). Old units are acceptable (feet, inches, gallons per hour) but make sure you make it clear what you are using.
2. WATER SAMPLES A sample of not less than one litre of each water supply encountered during the drilling is required. Suitable plastic bottles can be obtained from the Water Resources Institute. Rinse out all bottles properly before sampling. (Do not use the bottle leaving no untrapped air. Please label the bottle with the bore name and depth of supply.
3. STRATA SAMPLES A sample of not less than 0.2 kilograms of each stratum encountered during drilling is required. Please label all samples with the hole name and interval drilled. Please tag and tags can be obtained from Water Division.
4. LOCATION Please describe the location as accurately as possible with distances from one or more features (such as road, bore, stream, etc.) within a close distance. Preferably give a sketch of the area.

Please show boundaries of sections etc, and location of bore(s) within section. If more than one bore clearly identify each. Marked distance from boundaries if possible.

100m
700m
100m
HOWARD SPRINGS
GUNN PT ROAD
11/82

WATER ANALYSIS

Dep. of Transport & Works
Water Division, Darwin N.T.



80/2021

Laboratory Register No.

82/1602

Date received in Laboratory

16/9/82

WR 4/1A

Bottle No.

DW12

Time of sampling

1305

Date of sampling

3/9/82

LOCATION AND DETAILS

KOOLPINYAH McMINNS 11/82 RN21396 Depth 55m Disch 34s
G.R. 354246 WPD 8876 RSP1010

Proposed water use:- Domestic, Stock, Irrigation, other (specify)

ANALYSIS — PHYSICAL

| | | | |
|--|-----|--|--|
| <input type="checkbox"/> pH | 6.8 | <input type="checkbox"/> Colour (Hazen units) | |
| <input type="checkbox"/> Specific conductance (microsiemens/cm at 25° C) | 320 | <input type="checkbox"/> Turbidity (NTU's) | |
| <input type="checkbox"/> Total dissolved solids (mg/l - by evaporation at 180° C) | 160 | <input type="checkbox"/> Suspended solids (mg/l) | |

ANALYSIS — CHEMICAL (mg/l)

| | | | |
|---|-------------------------|--|-----|
| <input type="checkbox"/> Sodium, Na | 2 | <input type="checkbox"/> Chloride, Cl | 6 |
| <input type="checkbox"/> Potassium, K | <1 | <input type="checkbox"/> Sulphate, SO ₄ | 4 |
| <input type="checkbox"/> Calcium, Ca | 30 | <input type="checkbox"/> Nitrate, NO ₃ | 41 |
| <input type="checkbox"/> Magnesium, Mg | 19 | <input type="checkbox"/> Bicarbonate, HCO ₃ | 189 |
| <input type="checkbox"/> Total Hardness (as CaCO ₃) | 153 | <input type="checkbox"/> Carbonate, CO ₃ | |
| <input type="checkbox"/> Total Alkalinity (as CaCO ₃) | 155 | <input type="checkbox"/> Fluoride, F | 0.2 |
| <input checked="" type="checkbox"/> Iron, (total) Fe | UNSUITABLE FOR ANALYSIS | <input type="checkbox"/> Orthophosphate, PO ₄ | |
| <input type="checkbox"/> Silica, SiO ₂ | 16 | <input type="checkbox"/> NaCl (calc. from chloride) | 8 |

ANALYSIS — ADDITIONAL (mg/l)

| | | |
|--|-----------------------------------|--------------------------------------|
| <input type="checkbox"/> Copper, Cu | <input type="checkbox"/> Lead, Pb | <input type="checkbox"/> Arsenic, As |
| <input type="checkbox"/> Manganese, Mn | <input type="checkbox"/> Zinc, Zn | <input type="checkbox"/> Cadmium, Cd |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

The sample as analysed is considered suitable for:-

Drinking water —

Yes/No

Stock watering —

Yes/No

Irrigation —

Yes/No

Others (specify)

Yes/No



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With suitable treatment the Iron concentration may be lowered to an acceptable level.

Analysed By: G. JOHNSTON

Date 24/11/82

Boxes marked thus ☒ indicate levels considered undesirable for drinking water by the Northern Territory Department of Health.

GEOPHYSICAL DOWN HOLE LOGGING

80.

| | |
|-------------|-----------|
| OPERATOR | Peri. |
| DATE | 08/11/83. |
| GAMMA RAY | 5/11/6. |
| RESISTIVITY | |
| S. P. | |
| CALIPER | |
| TEMP. | |
| GAMMA GAMMA | |

80/2021
RN021396.

WR 9/1

DRILLERS LOG

DATE Thurs 2-9-82

BORE No. M^c Minns 11/82 RN 21396

Driller: R. Setchell

| Time | Depth | Feet drilled | Mins lapsed | Drillers remark, casing details | BIT DATA | | | | STRING DATA | | | MUD DATA | | |
|------|-------|--------------|-------------|--|----------|------|----------|-------------|-------------|--------|--------|-------------|--|--|
| | | | | | No. | Size | Type | Worn cond'n | Item | O.D. | Length | Prog. tally | | |
| | | | | Clear site Dig mud pit & set up rig | | | | | | | | | | |
| 0947 | | | | Drill 10" hole 1.5m Run surface casing | | | | | | | | | | |
| | | | | Re assemble drag bit with new fingers | | 8" | Drag bit | | Bit | 8" | 0.90 | 0.90 | | |
| 1044 | | | | Commence drilling | | | | | D.P. | 4 1/2" | 6.10 | 7.00 | | |
| 1050 | 6.0 | 6.0 | 6 | Red clay - 2m Yellow clay - 6m | | | | | | | | | | |
| 1058 | | | | Add D.C. & cont. | | | | | D.C. | 5 1/2" | 6.20 | 13.20 | | |
| 1103 | 9.2 | 3.2 | 5 | Yellow & white clay - change to mud | | | | | | | | | | |
| 1130 | | | | Continue - no circulation | | | | | | | | | | |
| 1137 | | | | Out of mud - waiting on water | | | | | | | | | | |
| 1217 | | | | Misc more mud | | | | | | | | | | |
| 1230 | | | | Continue | | | | | | | | | | |
| 1235 | 12.2 | 3.0 | 12 | Yellow & white clay | | | | | | | | | | |
| 1240 | | | | Add D.C. & cont | | | | | D.C. | 5 1/2" | 5.90 | 19.10 | | |
| 1251 | 18.1 | 5.9 | 11 | Yellow, red & white clay | | | | | | | | | | |
| 1254 | | | | Add red & cont. | | | | | D.P. | 4 1/2" | 6.10 | 25.20 | | |
| 1256 | 19.5 | 1.4 | 4 | out of mud - waiting on water | | | | | | | | | | |
| 1327 | | | | Misc more mud | | | | | | | | | | |
| 1347 | | | | Continue | | | | | | | | | | |
| 1355 | 24.2 | 4.7 | 8 | White, yellow & red clay | | | | | | | | | | |
| 1357 | | | | Add red & cont. | | | | | D.P. | 4 1/2" | 6.10 | 31.30 | | |
| 1413 | 30.3 | 6.1 | 16 | White, yellow & red clay - out of mud | | | | | | | | | | |
| | | | | Waiting on water | | | | | | | | | | |
| 1427 | | | | Misc more mud | | | | | | | | | | |
| 1440 | | | | Clear out hole | | | | | | | | | | |

WR 9/1

DRILLERS LOG

DATE Thurs 2-9-82

BORE No. MC Minns 11/82 RN 21396

Driller: R. Setchell

[illegible]

WR 9/1

DRILLERS LOG

DATE Fri 3-9-82

BORE No. M^c Minns 11/82 RN 21396

Driller: R. Setchell

| Time | Depth | Feet drilled | Mins lapsed | Drillers remark, casing details | BIT DATA | | | | STRING DATA | | | | MUD DATA | | |
|------|-------|--------------|-------------|--|----------|-------------------|------|-------------|-------------|-------------------|--------|-------------|----------|--|--|
| | | | | | No. | Size | Type | Worn cond'n | Item | O.D. | Length | Prog. tally | | | |
| 0730 | 37.2 | | | Service rig - Hole cased in to 4.8m | | 7 $\frac{3}{8}$ " | R.R. | | Bit | 7 $\frac{3}{8}$ " | 6.60 | 6.60 | | | |
| | | | | Trip in & clean out hole | | | | | 20.C | 5 $\frac{1}{2}$ " | 12.10 | 12.70 | | | |
| 0838 | | | | Commence with 7 $\frac{3}{8}$ " R.R. | | | | | S.D.P. | 4 $\frac{1}{2}$ " | 30.50 | 43.20 | | | |
| 0841 | | | | Out of mud - mix more mud | | | | | | | | | | | |
| 0903 | 39.0 | 1.8 | 15 | Lost circulation - trip out | | | | | | | | | | | |
| 0938 | | | | Run casing | | | | | | | | | | | |
| | | | | 1. + shoe = 6.27m | | | | | | | | | | | |
| | | | | 2. 6.23 = 12.50m | | | | | | | | | | | |
| | | | | 3. 6.26 = 18.76m | | | | | | | | | | | |
| | | | | 4. 6.16 = 24.92m | | | | | | | | | | | |
| | | | | 5. 7.00 = 31.92m | | | | | | | | | | | |
| 1015 | | | | 6. 7.55 = 39.77m | | | | | | | | | | | |
| | | | | Clean out lines & cut casing | | | | | | | | | | | |
| 1036 | | | | Repair D.P. guides & biomic arm | | | | | Bit | 5 $\frac{1}{2}$ " | 1.20 | 1.20 | | | |
| 1045 | | | | Trip in with 43-15 | | | | | 20.C | 4 $\frac{1}{2}$ " | 12.10 | 13.30 | | | |
| 1110 | | | | Commence with hammer | | | | | S.D.P. | 4 $\frac{1}{2}$ " | 30.50 | 43.80 | | | |
| 1128 | 42.8 | 3.8 | 18 | Dolomite to 41 Fractured to 41.8m - Cavity to 42.8m - 38/sec | | | | | | | | | | | |
| 1134 | | | | Add rod & cont. | | | | | D.P. | 4 $\frac{1}{2}$ " | 6.10 | 49.90 | | | |
| 1227 | 48.9 | 6.1 | 53 | Cavity to 43.1m Fractured to 43.5m - Dolomite to 48.9m | | | | | | | | | | | |
| 1230 | | | | Add rod & cont. | | | | | D.P. | 4 $\frac{1}{2}$ " | 6.10 | 56.00 | | | |
| 1306 | 55.0 | 6.1 | 36 | Dolomite - trip out & run 2" P.V.C | | | | | | | | | | | |
| 1418 | | | | P.V.C went to 43m. perforations 43-40m | | | | | | | | | | | |
| 1439 | | | | Gravel pack back to 40.6m - get more gravel | | | | | | | | | | | |
| 1530 | | | | Gravel pack back to 37m. | | | | | | | | | | | |
| | | | | Start pulling 6" casing | | | | | | | | | | | |
| 1640 | | | | Clean up & knock off | | | | | | | | | | | |
| | | | | Water sample D.W 12' S.W 15m Flow = 38/sec | | | | | | | | | | | |

F. D. ATKINSON, Government Printer, Darwin

WR 9/1

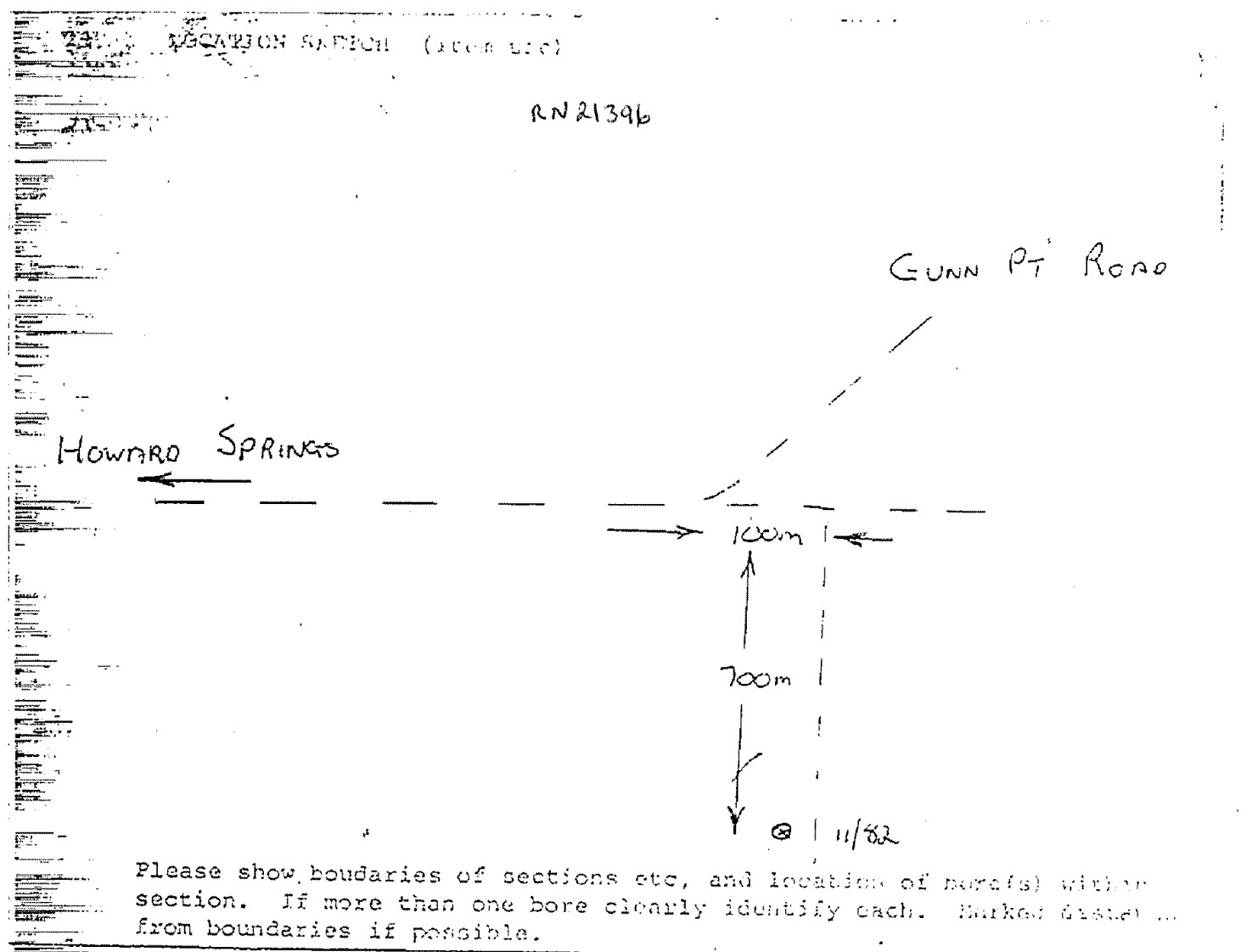
DRILLERS LOG

DATE Sat 4-9-82

BORE No. *M^c Minno* *11/82* *Rw 21396*

Driller: R. Setchell

[illegible]



24. This bore has been constructed under by supervision and this report is true to the best of my knowledge.

Signature... R. Setchell ...Driller Date... 11-9-82 ...

PLEASE NOTE THE FOLLOWING:-

1. UNITS If possible please use metric units (metres, millimetres, litres per second). Old units are acceptable (feet, inches, gallons per hour) but make sure you make it clear what you are using.
2. WATER SAMPLES A sample of not less than one litre of each water supply encountered during the drilling is required. Suitable plastic bottles can be obtained from the Water Resources Branch. Please rinse out all bottle properly before sampling. Completely fill the bottle leaving no entrapped air. Please label the bottle with the bore name and depth of supply.
3. STRATA SAMPLES A sample of not less than 0.2 kilograms of each type of stratum encountered during drilling is required. Please label all samples with the hole name and interval drilled. Please label and tags can be obtained from Water Division.
4. LOCATION Please describe the location as accurately as possible of the distances from one or more features (e.g. road, river, etc.) within a close distance. Preferably give a distance of the bore.

26. OFFICE USE ONLY:

Map No.: KOOKPIN YAH ... 5173 ... Plotted on Map Date: ... 13/9/82 ...

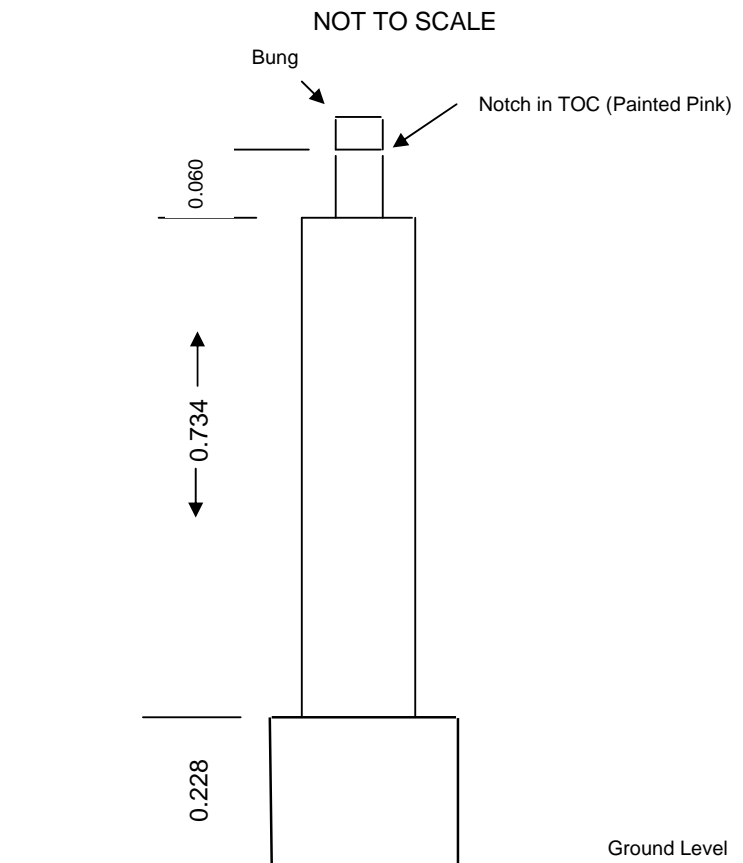
BMG Co-ordinates: 35218 ... 1:100,000 ... Plotted to Master Map Date: ... 13/9/82 ...

Datum (A.H.D.): ... Checked By: ... 13/9/82 ...

Geological Basin: ... Signature: ...

73S104E GDA94 GPS
8624738N ZONE:52 R. Farrow

LOCATION DIAGRAM



Coordinates of
Monitoring Bore
WGS 84
Lat 12.43179048
Lon 131.1627743
AHD 27.254

04/08/2011

Natural Resources Division, Water Resources Branch

Department of Natural Resources, Environment & The Arts and Sports

Koolpinyah Monitoring Bore Survey
Control Mark Locality

Primary Name
RN021396