

WATER RESOURCES ACT

(reg.16)

(Cap.72:03)

WATER RESOURCES REGULATIONS, 2018 **FORM G**

BOREHOLE COMPLETION REPORT

To be completed in triplicate

Water point information

**1. Identification and location data**

Type of water point: ( ) Borehole (i) Wet Borehole ( ) (ii) \*Dry Borehole ( )

( ) Dug well ( ) Protected Shallow Well fitted with pump ( ) Augered shallow well

Identification: Project I.D. No. \_\_\_\_\_\_\_\_\_\_

Location Coordinates (in UTM format) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Altitude (masl) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

District \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Traditional Authority\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Village \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Water point ownership: ( ) Private ( ) Communal ( ) Institutional

Water point use: ( ) Domestic ( ) Irrigation ( ) Livestock ( ) Industrial

If abandoned, state the reasons for abandonment.

Water point abandoned: ( ) Low yield ( ) Water quality ( ) Technical ( ) Other (specify)\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date abandoned \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**\**If dry borehole, fill only those parts which are relevant***

**2. Site selection data**

Sited by: Organization \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Sited by: Name of person \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Title \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date sited \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Method of site selection: Resistivity \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Electromagnetic \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Seismic \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Other (specify) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Attach survey results.

**3. Construction data**

Contractor: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Drilled by: Name of person \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Title \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Method of drilling: ( ) Air rotary ( ) Cable tool ( ) Mud rotary

( ) Augered ( ) Hand Dug ( ) Other (specify) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Drilling completion date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Total depth of borehole/well at date of completion (m) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Water/well diameter:

|  |  |
| --- | --- |
| Depth (interval) | Diameter (mm) |
|  |  |
|  |  |
|  |  |

Permanent casing/well ring diameter: \_\_\_\_\_\_\_\_\_\_\_\_\_ (mm)

Type of permanent casing: ( ) PVC ( ) Mild steel ( ) Concrete ( ) Bricks ( ) Other (specify) \_\_\_\_\_\_\_\_\_\_\_\_\_

Borehole sealing material: ( ) None ( ) Cement ( ) Bentonite ( ) Other (specify) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Borehole sealed depth:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Filter slot size and intervals:

|  |  |
| --- | --- |
| Depth (interval) | Size (mm) |
|  |  |
|  |  |
|  |  |

Borehole filters: ( ) Gravel pack ( ) Natural pack

Well development: Duration (hrs.) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Method of well development: ( ) Air lift ( ) Bailed ( ) Compressed air ( ) Over pumping ( ) Other (specify) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**4. Pump Installation data**

Type of pump: ( ) Submersible pump ( ) Centrifugal pump ( ) Hand pump ( ) Other \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date of pump installation: (day/month/year) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name of pump \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Pump capacity \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (m3/h).

Pump installation/intake depth \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (m.b.g.l).

Riser pipe material: ( ) PVC ( ) Galvanized pipes ( ) Other (specify) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Riser pipe diameter \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (mm)

Number of riser pipe:

Pumping rod material: ( ) stainless steel ( ) Other (specify)

Pumping rod diameter \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ mm.

**5. Hydrogeological data**

Depth to bedrock (m.b.g.l.) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Overall geological setting \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Lithology (m.b.g.l.):

|  |  |
| --- | --- |
| **Depth Interval** | **Description** |
|  |  |
|  |  |
|  |  |
|  |  |

|  |  |
| --- | --- |
| **Water strike depth (m.b.g.l)** | **Aquifer Yield (m3/hr)** |
|  |  |
|  |  |
|  |  |

**6. Water Quality data**

Date of sampling (day/month/year) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Sampling method: ( ) Pumping ( ) Air-lift sampling ( ) Bailer

Sample preservation: ( ) None ( ) Acid ( ) Other (specify) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Samples analyzed by: Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Organization \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Parameter** | **Unit** | **Result** | **Date** | **Field/Lab** |
| Turbidity | NTU |  |  |  |
| Temp. (time of sampling) | °Celsius |  |  |  |
| Electrical Conductivity (EC)  Conductivity | µS/cm |  |  |  |
| pH |  |  |  |  |
| Total alkalinity | mg/l |  |  |  |
| Hardness (CaC03 -) | mg/l |  |  |  |
| Calcium (Ca2+) | mg/l |  |  |  |
| Magnesium (Mg2+) | mg/l |  |  |  |
| Sodium (Na+) | mg/l |  |  |  |
| Potassium (K+) | mg/l |  |  |  |
| Carbonate (C032-) | mg/l |  |  |  |
| Bicarbonate (HC032-) | mg/l |  |  |  |
| Sulphate (S042-) | mg/l |  |  |  |
| Nitrate (N0-3) | mg/l |  |  |  |
| Ammonium (NH+4) | mg/l |  |  |  |
| Total Iron (Fe2+ + Fe3+) | mg/l |  |  |  |
| Manganese (Mn2+) | mg/l |  |  |  |
| Flouride (F-) | mg/l |  |  |  |
| Total Dissolved Solids | mg/l |  |  |  |
| Faecal coliform | Count/ml |  |  |  |

7. **Yield test, flow and water level data**

Test carried out by:

Organisation Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Title \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date of test \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Duration of test \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ hrs.

**A. Step pumping test ( ) Yes ( ) No**

|  |  |  |
| --- | --- | --- |
| Step Yield (m3/hr.) | Drawdown (m) | Spec. capacity (m3/hr/m) |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

**B. Constant discharge test ( ) Yes ( ) No**

Average discharge during test (m3/hr.) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Static water level, SWL (m.b.g.l.) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date measured\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Transmissivity (m3/day) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Specific capacity (m3/hr/m) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Hydro-fracturing? ( ) Yes ( ) No If yes, day/month/year \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**C. Natural flow: ( ) Yes ( ) No**

**D. Air lift test: ( ) Yes ( ) No**

**E. Pumping: ( ) Yes ( ) No. If yes, indicate pump set depth: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (m)**

8. Other information (include information not catered for in the above sections)

9. Details of organization submitting data

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Address \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Telephone No. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Fax No. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Mobile Number: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Email \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name of responsible officer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Title: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date of data submission: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Official Stamp: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_