Well Construction Report



Please print legibly / See report completion guide for notes & definitions of abbreviations Owner Name:
First Well Location: (see note 3; attach sketch if necessary) Civic Address Mailing Address (if different than Mailing Address) Town/City___ Quarter_____ Section_____ Township_____ Range____ □E □W Parish_____ Type & Lot No.____ Email **GPS:** (see note 4) Accuracy +/- ____ □ feet □ metres Well Name: (if applicable)_ Latitude (decimal degrees) Well Identification Tag Number ____ ___ ___ ___ ___ Longitude (decimal degrees) ___ Location of Tag □ Attached to casing stick-up **Rockwood Sensitive Area:** □ Yes - Permit No. □ No ☐ Other (specify) **Test Hole:** (see note 5) - Sealed □ Yes □ No **Method of Construction:** Water Use: (Check all that apply) □ Auger □ Bored □ Backhoe/Dug □ Domestic □ Public/Semi-public □ Irrigation Well Use: ☐ Test Well - Sealed ☐ Yes ☐ No □ Rotary (mud) □ Rotary (air) ☐ Commercial/Industrial ☐ Livestock/Poultry ☐ Production/Source ☐ Recharge/Return ☐ Dual Rotary ☐ Driven ☐ Jetted ☐ Earth Energy (heating/cooling) \square Monitoring \square Dewatering \square Geotechnical ☐ Other (specify)_ ☐ Other (specify)_ ☐ Other (specify) **Lithologic Description:** (see notes 6 and 7) - Measure From/To depths from ground surface; attach another sheet if needed. Τo From Colour Material Description (use recommended names on reverse) Observations (ft) (ft) 0 Well Construction: (see note 8) - Measure From/To depths from ground surface; attach another sheet if needed. Well Screen **Type of Material** Method of Open Hole From Annular F (ex: casing and screen material, screen type and slot size, **Placement** (ft) (ft) use of shale traps, packers, screen blanks or tail pipes, and type and size of (ex: poured, tremie) surface seal/annular fill/filter pack material) Month Well Completion: Day **Source of Drilling Water:** □ Groundwater □ Surface water Top of casing____ inches □ ags □ bgs Well vented: □ Yes □ No Water contains a minimum of 10 mg/L free chlorine: ☐ Yes ☐ No Well disinfected: ☐ Yes ☐ No Well cover installed: ☐ Yes ☐ No Name/Location of Water Source Pitless adapter/unit installed at__ feet bgs □ Not installed **Drilling Additives Used:** ☐ Yes (list type & quantity) Well Yield Test: (see note 9) Well Development: ☐ Air lifting ☐ Surging ☐ Pumping ☐ Jetting Date of Test: Day____ Month_ ☐ Bailing ☐ Hydrofracturing ☐ Other (specify)_ ☐ Same as Date of Well Completion Water Quality Characteristics: ☐ Fresh ☐ Salty ☐ Clear ☐ Cloudy Static Water Level Before Test: feet □ bgs □ ags ☐ Sediment ☐ Odour (specify)_ Method of Test: ☐ Pumping ☐ Air Lift ☐ Bailing ☐ Recovery Flowing Artesian Well: ☐ No ☐ Yes - If yes, estimated rate of artesian ☐ Other (specify)___ flow _____ □ IGPM □ USGPM Annular space cemented: □ Yes □ No Water level at end of test___ ____ feet □ bgs □ ags Flow control device installed: ☐ Yes ☐ No hours ____ Length of test__ __ minutes Does water leak from around the outside of the casing: \square No \square Yes _ □ IGPM □ USGPM Estimated rate of discharge Recommended Pumping Rate:_____ □ IGPM □ USGPM with pump intake at _____ feet bgs Will your company be installing a pump? \square Yes \square No Remarks: (see note 10)_ Well Drilling Contractor: Company Name _ Signature Well Driller (print name): Declaration: I certify that to the best of my knowledge the information provided herein is accurate and true and complies with The Groundwater and Water Well Act. DRILLING CONTRACTOR'S COPY / WATER SCIENCE & MANAGEMENT BRANCH COPY / WELL OWNER'S COPY

Well Construction Report — Completion Guide

General

- 1. Requirements for well construction reports are contained in *The Groundwater and Water Well Act* and *Groundwater and Water Well (General Matters) Regulation*. A person required to prepare a report must while constructing a well or test hole, make and have available at the site for inspection, a field log containing the information necessary to complete the report.
- 2. A copy of the well construction report must be provided to the director and the owner of the land on which a well or test hole is located **no later than 45 days** after the completion of the construction.
- 3. Provide a civic address for the well if its actual location is not clearly identifiable by the mailing address; also provide land parcel information as either a section-township-range or parish-lot type-lot number. Parish lot types include group lots (GL), lake lots (LL), outer two mile lots (OTM), park lots (PL), river lots (RL), settlement lots (SL) and wood lots (WL).
- 4. For GPS latitude and longitude coordinates, provide values in NAD 83 decimal degrees, to 5 decimal points (e.g., 50.17901°). Attach a detailed sketch showing the well location if not providing a GPS location. A detailed sketch may include an image from an online mapping service showing the well location.
- 5. A person who seals, or partially seals, a well or test hole must complete a well sealing report. However, if a test hole is sealed immediately after it is drilled, the information relating to the sealing may instead be included in the well construction report.

How to Fill Out the Lithologic Description Table

- 6. Each row in the lithologic description table represents either a depth interval or a specific depth. For example:
 - A depth interval (e.g., from 10 feet to 22 feet) could be a layer of clay or till, or an aquifer material such as sand.
 - A specific depth (e.g., 120 feet) could be the location of a water-bearing fracture.
- 7. For each depth interval or specific depth:
 - Describe the overall colour of the geologic material in the column "Colour". Descriptions should be chosen from the following recommended list of colours: white, grey, blue, green, yellow, brown, red, tan, black.
 - Describe the geologic material in the column "Material Description". Descriptions should be chosen from the following recommended list of surficial or bedrock materials:

| Surficial | Bedrock Materials | | | |
|--|-------------------------|------------------------|--------------------|--|
| N | Range of Particle Size* | | | |
| Name | Inches | Millimetre | Name | |
| Boulders | 10.08 and larger | 256 and larger | Shale | |
| Cobbles | 2.52 to 10.08 | 64 to 256 | Limestone/Dolomite | |
| Coarse gravel | 0.63 to 2.52 | 16 to 64 | Sandstone | |
| Medium gravel | 0.31 to 0.63 | 8 to 16 | Siltstone | |
| Fine gravel | 0.08 to 0.31 | 2 to 8 | Gypsum/Anhydrite | |
| Sand (can always be felt as individual grains) | 0.002 to 0.08 | 0.063 to 2 | Conglomerate | |
| Silt (usually has a floury feel when dry, and a slippery feel when wet but not sticky) | 0.0002 to 0.002 | 0.004 to 0.063 | Breccia | |
| Clay (forms hard lumps when dry, is very sticky when wet, and plastic when moist) | smaller than 0.0002 | smaller than 0.004 | Coal | |
| Till (unsorted) | variable particle size | variable particle size | Metamorphic | |
| Organics (such as top soil, wood, peat) | Granite | | | |
| Fill (such as backfill, asphalt, cement) | | | | |

^{*}Reference: United States Geological Survey

• Use the "Observations" column to provide additional information on the materials or drilling conditions encountered such as if a material is "oxidized" or "fractured", if it is "water bearing", if there is no drilling water return, or the "estimated flow of water" from a water-bearing fracture (use units of flow such as IGPM or USPGM).

How to Fill Out the Well Construction Table

- 8. Each row in the well construction table represents either a depth interval (e.g., from 50 feet to 60 feet could be the interval of a well screen) or a specific depth (e.g., 100 feet be the location of a packer). For each depth interval or specific depth:
 - Check off the appropriate well construction item and provide any necessary inside diameter (ID) and outside diameter (OD) details in the ID and OD columns. Use the OD column to provide the diameter of a borehole.
 - Describe the construction materials in the column "Type of Material" (e.g., steel, PVC or fiberglass for casing or liners, stainless steel or plastic screen, screen type and slot size, use of shale traps, packers, screen blanks or tail pipes, bentonite or cement for surface seals, bentonite, cement or drill cuttings for backfill material and type/size of filter pack material).
 - Where applicable, describe how the material was placed in the column "Method of Placement" (e.g., poured, tremie).

Well Yield Test

9. A well yield test must be performed on a production well or open loop geothermal (source or return) well that is new or whose yield may have changed as a result of a well repair or modification. An exception applies if a formal pumping test is planned to be performed as a licensing requirement under *The Water Rights Act*. However, a static water level is still required to be reported.

Remarks

10. Provide any other relevant information (e.g., well construction, location) or field tests (e.g., conductivity, hardness, iron) in this section.

Definitions of Abbreviations

| ags above ground surface | ID Inside diameter | E East | IGPM Imperial gallons per minute |
|--------------------------|---------------------|--------|----------------------------------|
| bgs below ground surface | OD Outside diameter | W West | USGPM US gallons per minute |
| ft feet | | | |

Return Completed Reports to:

Groundwater Management Section Box 18, 200 Saulteaux Crescent Winnipeg, MB R3J 3W3