

Well Construction Report



Sheet ___ of ___

Please print legibly / See report completion guide for notes & definitions of abbreviations

Form No. WELLCON-V01

<p>Owner Name: _____ First _____ Last _____ Mailing Address _____ Town/City _____ Postal Code _____ Phone _____ - _____ - _____ Email _____</p>	<p>Well Location: (see note 3; attach sketch if necessary) Civic Address _____ (if different than mailing address) Quarter _____ Section _____ Township _____ Range _____ <input type="checkbox"/> E <input type="checkbox"/> W Parish _____ Type & Lot No. _____</p>
<p>Well Name: (if applicable) _____ Well Identification Tag Number _____ Location of Tag <input type="checkbox"/> Attached to casing stick-up <input type="checkbox"/> Other (specify) _____</p>	<p>GPS: (see note 4), Accuracy +/- _____ <input type="checkbox"/> feet <input type="checkbox"/> metres Latitude (decimal degrees) _____ Longitude (decimal degrees) _____</p> <p>Rockwood Sensitive Area: <input type="checkbox"/> Yes - Permit No. _____ <input type="checkbox"/> No</p>

<p>Test Hole (see note 5) - Sealed <input type="checkbox"/> Yes <input type="checkbox"/> No or Well Use: <input type="checkbox"/> test well - Sealed <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> production/source <input type="checkbox"/> recharge/return <input type="checkbox"/> monitoring <input type="checkbox"/> dewatering <input type="checkbox"/> geotechnical <input type="checkbox"/> other (specify) _____</p>	<p>Method of Construction: <input type="checkbox"/> auger <input type="checkbox"/> bored <input type="checkbox"/> backhoe/dug <input type="checkbox"/> rotary (mud) <input type="checkbox"/> rotary (air) <input type="checkbox"/> dual rotary <input type="checkbox"/> driven <input type="checkbox"/> jetted <input type="checkbox"/> other (specify) _____</p>	<p>Water Use: (Check all that apply) <input type="checkbox"/> domestic <input type="checkbox"/> public/semi-public <input type="checkbox"/> irrigation <input type="checkbox"/> commercial/industrial <input type="checkbox"/> livestock/poultry <input type="checkbox"/> earth energy (heating/cooling) <input type="checkbox"/> other (specify) _____</p>
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Lithologic Description: (see notes 6 and 7) - Measure From/To depths from ground surface. Attach another sheet if needed.

From (ft)	To (ft)	Colour	Material Description (use recommended names on guide)	Observations
0				

Well Construction: (see note 8) - Measure From/To depths from ground surface. Attach another sheet if needed.

From (ft)	To (ft)	Borehole	Casing	Liner	Open Hole	Well Screen	Surface Seal	Annular Fill	Filter Pack	ID (inches)	OD (inches)	Type of Material (ex: casing and screen material, screen type and slot size, use of shale traps, packers, screen blanks or tail pipes, and type and size of surface seal/annular fill/filter pack material)	Method of Placement (ex: poured, tremie)

<p>Well Completion: Day _____ Month _____ Year 20 _____ Top of casing _____ inches <input type="checkbox"/> ags <input type="checkbox"/> bgs; Well vented: <input type="checkbox"/> Yes <input type="checkbox"/> No Well disinfected: <input type="checkbox"/> Yes <input type="checkbox"/> No; Well cover installed: <input type="checkbox"/> Yes <input type="checkbox"/> No Pitless adapter/unit installed at _____ feet bgs; <input type="checkbox"/> Not installed</p>	<p>Source of Drilling Water: <input type="checkbox"/> Groundwater <input type="checkbox"/> Surface water Water contains a minimum of 10 mg/L free chlorine: <input type="checkbox"/> Yes <input type="checkbox"/> No Name/Location of water source _____</p>
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Drilling Additives Used: Yes (list type & quantity) _____ No

<p>Well Yield Test (see note 9), Date of Test: Day _____ Month _____ Year 20 _____ <input type="checkbox"/> Same as date of well completion Static Water Level Before Test _____ feet <input type="checkbox"/> bgs <input type="checkbox"/> ags Method of Test: <input type="checkbox"/> pumping <input type="checkbox"/> air lift <input type="checkbox"/> bailing <input type="checkbox"/> recovery <input type="checkbox"/> other (specify) _____ Water level at end of test _____ feet <input type="checkbox"/> bgs <input type="checkbox"/> ags Length of test _____ hours _____ minutes Estimated rate of discharge _____ <input type="checkbox"/> IGPM <input type="checkbox"/> USGPM</p>	<p>Well Development: <input type="checkbox"/> air lifting <input type="checkbox"/> surging <input type="checkbox"/> pumping <input type="checkbox"/> jetting <input type="checkbox"/> bailing <input type="checkbox"/> hydrofracturing <input type="checkbox"/> other (specify) _____ Water Quality Characteristics: <input type="checkbox"/> fresh <input type="checkbox"/> salty <input type="checkbox"/> clear <input type="checkbox"/> cloudy <input type="checkbox"/> sediment <input type="checkbox"/> odour (specify) _____</p> <p>Flowing Artesian Well <input type="checkbox"/> No <input type="checkbox"/> Yes - If yes, estimated rate of artesian flow _____ <input type="checkbox"/> IGPM <input type="checkbox"/> USGPM Annular space cemented: <input type="checkbox"/> Yes <input type="checkbox"/> No Flow control device installed: <input type="checkbox"/> Yes <input type="checkbox"/> No Does water leak from around the outside of the casing: <input type="checkbox"/> Yes <input type="checkbox"/> No</p>
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Recommended Pumping Rate: _____ IGPM USGPM with pump intake at _____ feet bgs;
 Will your company be installing a pump?: Yes No

Remarks (see note 10) _____

Well Drilling Contractor: Company Name _____ Licence No. _____
 Well Driller: Print Name _____ Signature _____

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.

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. While constructing a well or test hole, the person preparing the report must keep a field log. The field log must contain the necessary information to complete the report and be available at the site for inspection.
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 (ex: 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 (ex: from 10 feet to 22 feet) could be a layer of clay or till, or an aquifer material such as sand.
 - A specific depth (ex: 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 Materials			Bedrock Materials Name
Name	Range of Particle Size*		
	Inches	Millimetre	
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. Examples include a material that is "oxidized", "fractured" or "water bearing". Observations may also include the absence of a drilling water return, or the "estimated flow of water" from a water-bearing fracture (include 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 (ex: from 50 feet to 60 feet could be the interval of a well screen) or a specific depth (ex: 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**" (ex: 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**" (ex: 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 (ex: well construction, location) or field tests (ex: 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
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 Winnipeg, MB R3J 3W3