Massachusetts Department of Environmental Protection
Bureau of Resource Protection
GEOTHERMAL CLOSED-LOOP WELL REPORT

Note: GPS coordinates must be in WGS84 datum, in degrees decimal degree format.

1. WELL LOCATION GPS (Required) North ___ ___ ___. ___ ___ ___ West ___ ___ ___. ___ ___ ___

Address at Well Location ______ ☐ Property Owner ______

Subdivision/Property Description ______ ☐ Engineering Firm ______

City/Town ______ Mailing Address ______

Assessors Map ______ Assessors Lot # ______ City/Town ______ State ______

Board of Health permit obtained ☐ Yes ☐ Not Required Permit Number ______ Date Issued ______

2. WORK PERFORMED ☐ ☐

3. WELL TYPE ☐ Closed-Loop ☐ DX ☐ Concentric

4. DRILLING METHOD Overburden ☐ ☐ Bedrock ☐ ☐

6. ADDITIONAL WELL INFORMATION

Date drilling begun ______ Date last well drilled ______

Number of wells in circuit ______ Total Well Depth ______

5. WELL LOG **OVERBURDEN LITHOLOGY**

From (ft)	To (ft)	Code	Color	Comment	Drop in Drill Stem	Extra Fast or Slow Drill Rate	Loss or Addition of Fluid
					☐ Y ☐ N	☐ F ☐ S	☐ L ☐ A
					☐ Y ☐ N	☐ F ☐ S	☐ L ☐ A
					☐ Y ☐ N	☐ F ☐ S	☐ L ☐ A
					☐ Y ☐ N	☐ F ☐ S	☐ L ☐ A
					☐ Y ☐ N	☐ F ☐ S	☐ L ☐ A
					☐ Y ☐ N	☐ F ☐ S	☐ L ☐ A
					☐ Y ☐ N	☐ F ☐ S	☐ L ☐ A
					☐ Y ☐ N	☐ F ☐ S	☐ L ☐ A
					☐ Y ☐ N	☐ F ☐ S	☐ L ☐ A
					☐ Y ☐ N	☐ F ☐ S	☐ L ☐ A
					☐ Y ☐ N	☐ F ☐ S	☐ L ☐ A

7. GEOTHERMAL INFORMATION *(Optional)*

Thermal Conductivity (BTU/hr·ft·°F)	Thermal Diffusivity (ft^2/day)	Formation Water Temperature (°F)

DEP UIC #

8. CASING

From	To	Type	Thickness	Diameter
		☐☐☐		
		☐☐☐		

9. LOOP MATERIAL

From	To	Type	Thickness	Diameter
		☐☐☐		
		☐☐☐		

5. WELL LOG **BEDROCK LITHOLOGY**

From (ft)	To (ft)	Code	Comment	Drop In Drill Stem	Extra Large Chips	Extra Fast or Slow Drill Rate	Loss or Addition of Fluid	Visible Rust Staining
				☐ Y ☐ N	☐ Y ☐ N	☐ F ☐ S	☐ L ☐ A	☐ Y ☐ N
				☐ Y ☐ N	☐ Y ☐ N	☐ F ☐ S	☐ L ☐ A	☐ Y ☐ N
				☐ Y ☐ N	☐ Y ☐ N	☐ F ☐ S	☐ L ☐ A	☐ Y ☐ N
				☐ Y ☐ N	☐ Y ☐ N	☐ F ☐ S	☐ L ☐ A	☐ Y ☐ N
				☐ Y ☐ N	☐ Y ☐ N	☐ F ☐ S	☐ L ☐ A	☐ Y ☐ N
				☐ Y ☐ N	☐ Y ☐ N	☐ F ☐ S	☐ L ☐ A	☐ Y ☐ N
				☐ Y ☐ N	☐ Y ☐ N	☐ F ☐ S	☐ L ☐ A	☐ Y ☐ N
				☐ Y ☐ N	☐ Y ☐ N	☐ F ☐ S	☐ L ☐ A	☐ Y ☐ N

10. WATER-BEARING ZONES

From	To	Yield (gpm)

11. WATER LEVEL

Date Measured	Static Depth BGS (ft)	Flowing Rate (gpm)

12. WELL SEAL

From (ft BGS)	To (ft BGS)	Material 1	Weight	Material 2	Weight	Water (gal)	Batches	Method of Placement
		☐ ☐		☐ ☐				☐ ☐
		☐ ☐		☐ ☐				☐ ☐
		☐ ☐		☐ ☐				☐ ☐

13. COMMENTS

14. WELL DRILLERS STATEMENT This well was drilled or altered under my direct supervision, according to the applicable rules and regulations, and this report is complete and accurate to the best of my knowledge.

Driller ______ Supervising Driller Signature ______ Certification # ______

Company ______ Date Job Complete ______ Rig Permit # ______

NOTE: Well Completion Reports must be filed by the registered well driller within 30 days of well completion.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection
GEOTHERMAL CLOSED-LOOP WELL REPORT

WELL COMPLETION ADDENDUM FORM
CLOSED-LOOP GEOTHERMAL WELLS

Corresponds with Well Completion Report #: ______________________________

Well ID	GPS Coordinates (WGS 1984) Degree Decimals	
____________	North ___ ___° ___ ___. ___ ___ ___	West ___ ___° ___ ___. ___ ___ ___
____________	North ___ ___° ___ ___. ___ ___ ___	West ___ ___° ___ ___. ___ ___ ___
____________	North ___ ___° ___ ___. ___ ___ ___	West ___ ___° ___ ___. ___ ___ ___
____________	North ___ ___° ___ ___. ___ ___ ___	West ___ ___° ___ ___. ___ ___ ___
____________	North ___ ___° ___ ___. ___ ___ ___	West ___ ___° ___ ___. ___ ___ ___
____________	North ___ ___° ___ ___. ___ ___ ___	West ___ ___° ___ ___. ___ ___ ___
____________	North ___ ___° ___ ___. ___ ___ ___	West ___ ___° ___ ___. ___ ___ ___
____________	North ___ ___° ___ ___. ___ ___ ___	West ___ ___° ___ ___. ___ ___ ___
____________	North ___ ___° ___ ___. ___ ___ ___	West ___ ___° ___ ___. ___ ___ ___
____________	North ___ ___° ___ ___. ___ ___ ___	West ___ ___° ___ ___. ___ ___ ___
____________	North ___ ___° ___ ___. ___ ___ ___	West ___ ___° ___ ___. ___ ___ ___
____________	North ___ ___° ___ ___. ___ ___ ___	West ___ ___° ___ ___. ___ ___ ___
____________	North ___ ___° ___ ___. ___ ___ ___	West ___ ___° ___ ___. ___ ___ ___
____________	North ___ ___° ___ ___. ___ ___ ___	West ___ ___° ___ ___. ___ ___ ___
____________	North ___ ___° ___ ___. ___ ___ ___	West ___ ___° ___ ___. ___ ___ ___
	North ___ ___° ___ ___. ___ ___ ___	West ___ ___° ___ ___. ___ ___ ___

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WELL COMPLETION ADDENDUM FORM
DIRECT EXCHANGE GEOTHERMAL WELLS

Corresponds with Well Completion Report #: ____________________

Well ID	Length (ft)	Angle	Direction	GPS Coordinates (WGS 1984) Degree Decimal Degrees
				North __ __°. __ __ __ __ __ West __ __°. __ __ __ __ __
				North __ __°. __ __ __ __ __ West __ __°. __ __ __ __ __
				North __ __°. __ __ __ __ __ West __ __°. __ __ __ __ __
				North __ __°. __ __ __ __ __ West __ __°. __ __ __ __ __
				North __ __°. __ __ __ __ __ West __ __°. __ __ __ __ __
				North __ __°. __ __ __ __ __ West __ __°. __ __ __ __ __
				North __ __°. __ __ __ __ __ West __ __°. __ __ __ __ __
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				North __ __°. __ __ __ __ __ West __ __°. __ __ __ __ __
				North __ __°. __ __ __ __ __ West __ __°. __ __ __ __ __
				North __ __°. __ __ __ __ __ West __ __°. __ __ __ __ __
				North __ __°. __ __ __ __ __ West __ __°. __ __ __ __ __
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Geothermal Well Report Codes

(to be used in completing the Geothermal Closed-Loop Well Report)

Section 2	
Work Performed	Code
Deepen	DP
Hydrofracture	HF
New Well	NW
Repair	RP
Replacement	RE

Section 4	
Drilling Method	Code
Air Hammer	AH
Air Rotary	AR
Auger	AG
Cable Tool	CT
Casing Advancement	CA
Core	CR
Direct Push	DP
Drive and Wash	DW
Dug	DG
Mud Rotary	MR
Reverse Rotary	RR
Sonic	SN

Section 5							
Overburden Lithology	OB Code		Overburden Color	OB Color Code		Bedrock Lithology	BR Code
Boulders	B		Black	BL		Amphibolite	AM
Clay	CL		Bluish Gray	BG		Basalt	BS
Clean Fill	CF		Brown	BR		Conglomerate/Breccia	CG/BR
Coarse Sand	CS		Dark Gray	DG		Diorite	DI
Cobbles	C		Greenish Gray	GG		Gabbro	GB
Fine Sand	FS		Light Gray	LG		Gneiss	GN
Fine to Coarse Sand	FCS		Reddish Brown	RB		Granite	GR
Gravel	G		Yellowish Brown	YB		Limestone	LS
Medium Sand	MS					Marble	MA
Organics	O					Quartzite	QZ
Sand & Gravel	SG					Rhyolite	RH
Silt	SI					Sandstone	SS
Silty Clay	SICL					Schist	SC
Silty Sand	SIS					Shale	SH
Silty Sand & Gravel	SISG					Slate/Phyllite	SL/PH
Till	T					Pegmatite	PM
Urban Fill	UF						

Section 8			
Casing Type	Code		Thickness
Certa-Lok	CTL		Schedule 5
Fiberglass	FBG		Schedule 10
Galvanized Pipe	GLP		Schedule 40
HDPE	HDP		Schedule 80
NSF Coated Sheet	NCS		Schedule 160
PVC	PVC		SDR 13.5
Stainless Steel	SST		SDR 17
Steel	STL		SDR 21
			SDR 26
			SDR 32.5
			SDR 40
			17#
			19#

Section 9	
Loop / Porter Shroud Material	Material Code
Fiberglass	FBG
Copper	CUP
HDPE	HDP

Section 12							
Annular Seal / Filter Pack	Code		Purpose	Purpose Code		Method of Placement	Method of Placement Code
Bentonite Chips / Pellets	BC		Fill	FL		Gravity	GR
Bentonite / Graphite	BT		Filter	FT		Tremie	TR
Bentonite Grout	BG		Seal	AS		Other	OT
Cement Bentonite Grout	CB						
Concrete	CT						
Sand	SD						
Native Material	NM						
Pea Gravel / Gravel	GR						

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Fine Sand	FS		Light Gray	LG		Gneiss	GN
Fine to Coarse Sand	FCS		Reddish Brown	RB		Granite	GR
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Organics	O					Quartzite	QZ
Sand & Gravel	SG					Rhyolite	RH
Silt	SI					Sandstone	SS
Silty Clay	SICL					Schist	SC
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PVC	PVC		SDR 13.5
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Steel	STL		SDR 21
			SDR 26
			SDR 32.5
			SDR 40
			17#
			19#

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