

Illinois Department of Natural Resources

One Natural Resources Way Springfield, Illinois 62702-1271
www.dnr.illinois.gov

Bruce Rauner, Governor

Wayne A. Rosenthal, Director

Operator Memorandum 2017-01

To: All Coal Mine Operators/Consultants

From: Scott K. Fowler, Supervisor
Land Reclamation Division

A handwritten signature in black ink, appearing to read "S. Fowler".

Date: January 19, 2017

Re: Borehole and Groundwater Monitoring Well Completion Diagrams/Boring Logs

The regulations at 62 Ill. Adm. Code 1780.22(b)(2)(A) and 1784.22(b)(2)(A) require geologic information from test borings, drill cores, etc. to be logged to depict the lithologic characteristics including physical properties and thickness of each stratum and the location of groundwater, where occurring.

The regulations at 62 Ill. Adm. Code 1816/1817.13 require exploration holes, other drill or boreholes, wells or other exposed underground openings be cased, lined or otherwise managed, as approved by the Department. The permit application requires completion information and a diagram of each such opening. Finally, 62 Ill. Adm. Code 1777.11(a)(3), requires information to be submitted in a format stipulated by the Department.

In order for the Department to properly track the installation of boreholes and groundwater monitoring wells, a Well Completion Report has been developed for your use. For every borehole or groundwater monitoring well installed within permitted boundaries, a Well Completion Report, accompanied by the appropriate boring or corehole log, shall be completed. The Land Reclamation Division will no longer accept borehole completion forms from the Office of Oil and Gas Resource Management, hand-drawn completion diagrams or completion reports that do not contain the minimum information on the attached form.

As a reminder, Operator Memorandum 2015-02 addressed the proper plugging and sealing of boreholes and groundwater monitoring wells. The Department developed Plugging Affidavit Form is available on our website.



Office of Mines and Minerals

One Natural Resources Way
 Land Reclamation Division
 Springfield, Illinois 62702-1271

| |
|-------------------------|
| Office Use Only: |
| Tech: _____ |
| GIS: _____ |

WELL COMPLETION REPORT

Permittee: _____ Mine: _____
 Permit No. _____ IPR/IBR No. _____ County: _____

Latitude: _____ Longitude: _____ Well /
 (Decimal Degrees) Borehole ID _____

Purpose: _____

Surveyed By: _____ IL Registration #: _____
 Drilling Contractor: _____ Driller: _____
 Consulting Firm: _____ Geologist: _____
 Drilling Method: _____ Drilling Fluid (type): _____
 Logged By: _____ Dates: Start _____ Finish: _____
 Form Completed By: _____ Date Completed: _____

ANNULAR SPACE DETAILS

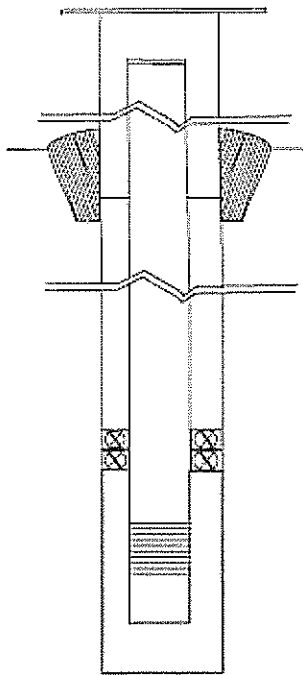
Type of Surface Seal: _____
 Type of Annular Sealant: _____
 Installation Method: _____

| | | | |
|----------------|--------------------------|--------------------------|--------------------------|
| | Granular | Pellet | Slurry |
| Bentonite Seal | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Installation Method: _____

Type of Sand Pack: _____
 Grain Size (Sieve Size): _____
 Installation Method: _____

Type of Backfill Material: _____
 Installation Method: _____



| Elevs. / Depths | (.01 ft.) |
|-----------------|--|
| (msl*) (bgs) | |
| | Top of Protective Casing |
| | Top of Riser Pipe |
| | Ground Surface |
| | Top of Annular Sealant |
| | Static Water level (after Completion) |
| | Top of Seal |
| | Top of Sand Pack |
| | Top of Screen |
| | Bottom of Screen |
| | Bottom of Well |
| | Bottom of Borehole |

*Referenced to a National geodetic Datum

Well Construction Material

| | SS304 | SS316 | PTFE | PVC | Other* |
|-----------------------|-------|-------|------|-----|--------|
| Protection Casing | | | | | |
| Riser Pipe Above W.T. | | | | | |
| Riser Pipe Below W.T. | | | | | |
| Screen: | | | | | |

*Other: _____

Casing Measurements:

Diameter of Borehole (inches) _____
 ID of Riser Pipe (inches) _____
 Protective Casing Length (feet) _____
 Riser Pipe Length (feet) _____
 Bottom of Screen to End Cap (feet) _____
 Screen Length (1st slot to last slot – feet) _____
 Total Length of Casing (feet) _____
 Screen Slot Size ** _____
 **Hand-Slotted Well Screens are Unacceptable.