

HOUSE BILL No. 6213

September 24, 1998, Introduced by Rep. Basham and referred to the Committee on Conservation, Environment and Recreation.

A bill to amend 1994 PA 451, entitled
"Natural resources and environmental protection act,"
(MCL 324.101 to 324.90106) by adding part 141.

THE PEOPLE OF THE STATE OF MICHIGAN ENACT:

1 PART 141 GEOTECHNICAL WELLS

2 SEC. 14101. AS USED IN THIS PART:

3 (A) "DEPARTMENT" MEANS THE DEPARTMENT OF ENVIRONMENTAL
4 QUALITY.

5 (B) "FRESH GROUNDWATER" MEANS GROUNDWATER THAT HAS LESS THAN
6 10,000 MG/L TOTAL DISSOLVED SOLIDS.

7 (C) SUBJECT TO SUBDIVISION (D), "GEOTECHNICAL WELL" OR
8 "WELL" MEANS ANY OF THE FOLLOWING:

9 (i) A WELL OR BORING UTILIZED TO DETERMINE SOIL OR ROCK
10 CHARACTERISTICS FOR CONSTRUCTION PURPOSES, OTHERWISE REFERRED TO
11 AS A SOIL BORING.

1 (ii) A WELL OR BORING UTILIZED TO DETERMINE PHYSICAL OR
2 CHEMICAL CHARACTERISTICS OF FRESH GROUNDWATER OR POTENTIAL CON-
3 TAMINATION OR OTHER IMPACTS TO FRESH GROUNDWATER, OTHERWISE
4 REFERRED TO AS A GROUNDWATER MONITORING WELL.

5 (iii) A WELL THAT IS UTILIZED TO EXCHANGE HEAT WITH THE
6 SOILS OR FRESH GROUNDWATER FOR HEATING OR AIR CONDITIONING, OTH-
7 ERWISE REFERRED TO AS A CLOSED-LOOP HEAT EXCHANGE WELL.

8 (iv) A WELL OR BORING UTILIZED FOR THE PLACEMENT OF AN ELE-
9 VATOR CYLINDER BELOW GROUND LEVEL, OTHERWISE REFERRED TO AS AN
10 ELEVATOR CYLINDER WELL.

11 (v) A WELL OR BORING UTILIZED TO PROTECT SUBSURFACE STRUC-
12 TURES SUCH AS PIPELINES AGAINST CORROSION, OTHERWISE REFERRED TO
13 AS A CATHODIC PROTECTION WELL.

14 (D) "GEOTECHNICAL WELL" DOES NOT INCLUDE EITHER OF THE
15 FOLLOWING:

16 (i) A WATER WELL REGULATED UNDER PART 127 OF THE PUBLIC
17 HEALTH CODE, 1978 PA 368, MCL 333.12701 TO 333.12771.

18 (ii) A WELL REGULATED UNDER THE SAFE DRINKING WATER ACT,
19 1976 PA 399, MCL 325.1001 TO 325.1023.

20 (E) "OWNER" MEANS THE PERSON WHO HAS THE RIGHT TO DRILL OR
21 OPERATE A GEOTECHNICAL WELL.

22 (F) "SATURATED ZONE" MEANS THE SUBSURFACE ZONE IN WHICH ALL
23 ROCK OR SOIL PORE SPACE IS FILLED WITH WATER.

24 SEC. 14102. (1) A GEOTECHNICAL WELL SHALL MEET ALL OF THE
25 FOLLOWING REQUIREMENTS:

26 (A) A GEOTECHNICAL WELL SHALL BE DRILLED, CASED, AND SEALED
27 IN A MANNER THAT PREVENTS THE MOVEMENT OF CONTAMINANTS OR OTHER

1 INJURIOUS SUBSTANCES FROM THE SURFACE TO A SUBSURFACE STRATUM OR
2 FROM 1 SUBSURFACE STRATUM TO ANOTHER, AND PREVENTS THE FLOW OF
3 GROUNDWATER FROM 1 STRATUM INTO ANOTHER OR TO THE SURFACE OF THE
4 GROUND.

5 (B) EQUIPMENT AND MATERIALS USED IN THE DRILLING, CONSTRUC-
6 TION, AND OPERATION OF GEOTECHNICAL WELLS SHALL BE FREE OF MATE-
7 RIALS THAT MAY CAUSE CONTAMINATION OF THE SOILS OR GROUNDWATER.

8 (C) WATER USED IN THE DRILLING AND CONSTRUCTION OF A GEOTEC-
9 HNICAL WELL SHALL BE POTABLE WATER. SURFACE WATER SHALL NOT BE
10 USED UNLESS IT IS OBTAINED FROM A MUNICIPAL WATER SUPPLY SYSTEM.

11 (D) DRILL CUTTINGS GENERATED DURING THE DRILLING OF A GEO-
12 TECHNICAL WELL SHALL BE HANDLED AND DISPOSED OF IN A MANNER THAT
13 DOES NOT CAUSE CONTAMINATION OF THE SOIL, SURFACE WATER, OR
14 GROUNDWATER.

15 (E) A GEOTECHNICAL WELL THAT IS NOT PLUGGED IMMEDIATELY
16 AFTER COMPLETION OF DRILLING SHALL BE PROPERLY CASED AND SEALED
17 AS FOLLOWS:

18 (i) A GEOTECHNICAL WELL THAT DOES NOT PENETRATE BEDROCK
19 SHALL BE CASED THROUGHOUT THE ENTIRE DEPTH OF THE WELL.

20 (ii) THE SECTION OF A GEOTECHNICAL WELL THAT PENETRATES BED-
21 ROCK MAY BE LEFT UNCASSED FROM A DEPTH OF 20 FEET BELOW THE TOP OF
22 THE BEDROCK TO THE BOTTOM OF THE WELL IF THE BEDROCK IS COMPETENT
23 AND CAPABLE OF MAINTAINING AN OPEN HOLD THROUGHOUT THE LIFE OF
24 THE WELL AND IF THE REQUIREMENTS OF SUBDIVISION (A) ARE MET.

25 (iii) CASING AND JOINTS SHALL BE WATERTIGHT AND SHALL BE
26 DESIGNED TO WITHSTAND THE INTERNAL AND EXTERNAL PRESSURES AND THE

1 TENSION AND COMPRESSION FORCES ANTICIPATED DURING THE DRILLING,
2 CONSTRUCTION, AND OPERATION OF THE WELL.

3 (iv) MATERIALS USED FOR CASING, JOINTS, SCREENS, AND OTHER
4 PERMANENT WELL EQUIPMENT SHALL BE CHEMICALLY COMPATIBLE WITH
5 SOILS AND GROUNDWATER ANTICIPATED DURING THE DRILLING, CONSTRUC-
6 TION, AND OPERATION OF THE WELL.

7 (v) A GEOTECHNICAL WELL IN WHICH THE BOREHOLE DIAMETER
8 EXCEEDS THE OUTSIDE CASING DIAMETER SHALL BE GROUTED BY FILLING
9 THE ANNULAR SPACE BETWEEN THE CASING AND THE BOREHOLE WALL FROM
10 THE BOTTOM OF THE ANNULAR SPACE TO THE SURFACE AS FOLLOWS:

11 (A) ANY SECTION OF A GEOTECHNICAL WELL THAT PENETRATES BED-
12 ROCK SHALL BE GROUTED WITH CEMENT GROUT.

13 (B) ANY SECTION OF A GEOTECHNICAL WELL THAT PENETRATES GLA-
14 CIAL DRIFT OR OTHER UNCONSOLIDATED MATERIALS SHALL BE GROUTED
15 WITH CEMENT GROUT OR BENTONITE GROUT.

16 (C) GROUT SHALL BE PLACED BY CIRCULATING THROUGH THE CASING
17 OR BY PLACEMENT THROUGH A TREMIE PIPE.

18 (vi) A GEOTECHNICAL WELL IN WHICH THE CASING IS DRIVEN OR IS
19 OVERSIZE WITH RESPECT TO THE BOREHOLE DIAMETER SHALL BE GROUTED
20 BY INTRODUCING BENTONITE GRANULES CONTINUALLY ALONG THE OUTSIDE
21 OF THE CASING AS THE CASING IS ADVANCED.

22 (F) THE TOP OF THE CASING IN A GEOTECHNICAL WELL SHALL BE
23 SEALED IN SUCH MANNER THAT IT EXCLUDES PRECIPITATION, SURFACE
24 WATER, DIRT, OR OTHER FOREIGN MATERIALS FROM ENTERING THE WELL.

25 (G) THE TOP OF THE CASING IN A GEOTECHNICAL WELL SHALL BE
26 PROTECTED FROM DAMAGE BY APPROPRIATE MEASURES.

1 (H) THE CASING IN A GEOTECHNICAL WELL SHALL BE SECURED IN A
2 MANNER THAT PREVENTS UNAUTHORIZED ENTRY INTO THE WELL.

3 (2) THE DEPARTMENT MAY GRANT AN EXCEPTION TO A PROVISION OF
4 SUBSECTION (1) IF THE OWNER OF THE GEOTECHNICAL WELL DEMONSTRATES
5 TO THE SATISFACTION OF THE DEPARTMENT THAT AN ALTERNATIVE METHOD
6 OR MATERIAL SATISFIES THE INTENT OF SUBSECTION (1).

7 SEC. 14103. (1) THE OWNER OF A GEOTECHNICAL WELL SHALL PLUG
8 THE WELL WITHIN 90 DAYS AFTER THE WELL CEASES TO BE USED FOR ITS
9 INTENDED PURPOSE. A GEOTECHNICAL WELL SHALL BE PLUGGED IN COM-
10 PLIANCE WITH ALL OF THE FOLLOWING:

11 (A) A GEOTECHNICAL WELL SHALL BE PLUGGED IN A MANNER THAT
12 PREVENTS THE MOVEMENT OF CONTAMINANTS OR OTHER INJURIOUS SUB-
13 STANCES FROM THE SURFACE TO A SUBSURFACE STRATUM OR FROM 1 SUB-
14 SURFACE STRATUM TO ANOTHER, AND PREVENTS THE FLOW OF GROUNDWATER
15 FROM 1 STRATUM INTO ANOTHER OR TO THE SURFACE OF THE GROUND.

16 (B) A GEOTECHNICAL WELL THAT DOES NOT PENETRATE BEDROCK
17 SHALL BE PLUGGED BY FILLING THE WELL WITH CEMENT GROUT, CONCRETE
18 GROUT, BENTONITE GROUT, OR BENTONITE PELLETS OR CHIPS. HOWEVER,
19 IF THE WELL DOES NOT REACH THE WATER TABLE AND DOES NOT ENCOUNTER
20 SILT OR CLAY, OR ANY COMBINATION OF SILT OR CLAY WITH OTHER MATE-
21 RIALS, THE WELL MAY BE PLUGGED BY FILLING WITH NATIVE MATERIALS
22 MIXED WITH 50% BENTONITE GRANULES, PELLETS, OR CHIPS.

23 (C) THE SECTION OF A GEOTECHNICAL WELL THAT PENETRATES BED-
24 ROCK SHALL BE PLUGGED BY FILLING WITH CEMENT GROUT OR CONCRETE
25 GROUT FROM THE BOTTOM OF THE WELL TO NOT LESS THAN 20 FEET ABOVE
26 THE TOP OF THE BEDROCK OR TO THE GROUND SURFACE. THE SECTION OF

1 THE WELL FROM 20 FEET ABOVE THE BEDROCK TO THE GROUND SURFACE
2 SHALL BE PLUGGED PURSUANT TO SUBDIVISION (B).

3 (D) GRAVEL, SAND, OR STONE AGGREGATE MAY BE USED FOR PLUG-
4 GING THAT PORTION OF A GEOTECHNICAL WELL THAT PENETRATES LOST
5 CIRCULATION ZONES.

6 (E) ONLY CEMENT OR CONCRETE GROUT SHALL BE USED TO PLUG GEO-
7 TECHNICAL WELLS THAT DISCHARGE GASES FROM THE SUBSURFACE.

8 (F) PLUGGING MATERIALS FOR GEOTECHNICAL WELLS SHALL BE
9 PLACED AS FOLLOWS:

10 (i) CEMENT, CONCRETE, OR BENTONITE GROUT SHALL BE PLACED BY
11 CIRCULATING THROUGH A TREMIE PIPE FROM THE BOTTOM OF THE WELL TO
12 THE GROUND SURFACE.

13 (ii) BENTONITE GRANULES, PELLETS, OR CHIPS SHALL BE POURED
14 SLOWLY INTO THE TOP OF THE WELL TO PREVENT BRIDGING IN THE CASING
15 OR BOREHOLE, UNTIL THE WELL IS FILLED TO THE GROUND SURFACE.
16 POTABLE WATER SHALL THEN BE PLACED INTO THE WELL TO PROMOTE
17 EXPANSION OF THE BENTONITE.

18 (G) UPON COMPLETION OF PLUGGING, THERE SHALL BE NO OPEN,
19 UNPLUGGED ANNULAR SPACE BETWEEN CASINGS OR BETWEEN A CASING AND
20 THE BOREHOLE, AND THERE SHALL BE NO OPEN, UNPLUGGED SPACE INSIDE
21 A CASING OR IN THE BOREHOLE.

22 (H) CASING MAY BE REMOVED FROM A GEOTECHNICAL WELL PROVIDED
23 ALL REQUIREMENTS OF THIS SECTION ARE MET.

24 (2) THE DEPARTMENT MAY GRANT AN EXCEPTION TO A PROVISION OF
25 SUBSECTION (1) IF THE OWNER OF A GEOTECHNICAL WELL DEMONSTRATES
26 TO THE SATISFACTION OF THE DEPARTMENT THAT AN ALTERNATIVE METHOD
27 OR MATERIAL SATISFIES THE INTENT OF SUBSECTION (1).

1 SEC. 14104. IF THE DEPARTMENT DETERMINES THAT AN OWNER OF A
2 GEOTECHNICAL WELL HAS FAILED OR NEGLECTED TO CASE, SEAL, OPERATE,
3 REPAIR, OR PLUG THE GEOTECHNICAL WELL PURSUANT TO THIS PART OR
4 THE RULES PROMULGATED UNDER THIS PART, THE DEPARTMENT SHALL GIVE
5 NOTICE OF THE DETERMINATION TO THE OWNER. IF THE OWNER FAILS TO
6 CORRECT THE SPECIFIED CONDITIONS WITHIN 60 DAYS AFTER SERVICE OF
7 NOTICE, THE DEPARTMENT MAY ENTER INTO OR UPON ANY PRIVATE OR
8 PUBLIC PROPERTY ON WHICH THE WELL IS LOCATED, AND ACROSS ANY PRI-
9 VATE OR PUBLIC PROPERTY TO REACH THE WELL, AND REPAIR OR CORRECT
10 THE SPECIFIED CONDITION, AND THE OWNER IS LIABLE FOR ALL EXPENSES
11 INCURRED. THE DEPARTMENT SHALL CERTIFY TO THE OWNER THE CLAIM OF
12 THE STATE, LISTING IN THE CLAIM THE ITEMS OF EXPENSE IN MAKING
13 THE REPAIR OR CORRECTION. THE CLAIMS SHALL BE PAID BY THE OWNER,
14 WITHIN 30 DAYS, AND IF NOT PAID WITHIN THAT TIME, THE DEPARTMENT
15 MAY BRING SUIT IN THE CIRCUIT COURT OF INGHAM COUNTY AGAINST THE
16 OWNER FOR THE COLLECTION.

17 SEC. 14105. (1) IF A GEOTECHNICAL WELL IS DRILLED ON OR
18 AFTER THE EFFECTIVE DATE OF THIS PART, WITHIN 60 DAYS AFTER
19 DRILLING THE WELL, THE PERSON DRILLING THE WELL SHALL PREPARE AND
20 SUBMIT TO THE GEOLOGIC SURVEY DIVISION WITHIN THE DEPARTMENT A
21 GEOTECHNICAL WELL REPORTING FORM DESCRIBED IN SECTION 14106 IF
22 BOTH OF THE FOLLOWING CONDITIONS EXIST:

23 (A) THE DRILLING OF THE GEOTECHNICAL WELL HAS NOT BEEN
24 REPORTED TO THE DEPARTMENT UNDER OTHER APPLICABLE LAW.

25 (B) THE GEOTECHNICAL WELL EXCEEDS A DEPTH OF 25 FEET OR PEN-
26 ETRATES A SATURATED ZONE OR BEDROCK.

1 (2) UNLESS OTHERWISE PROVIDED BY RULES PROMULGATED UNDER
2 THIS ACT, THE GEOLOGIC SURVEY DIVISION OF THE DEPARTMENT SHALL
3 KEEP CONFIDENTIAL ALL GEOTECHNICAL WELL REPORTING FORMS RECEIVED
4 UNDER THIS SECTION UNLESS THE DEPARTMENT DETERMINES THAT THE WELL
5 TO WHICH THE REPORT RELATES POSES A THREAT TO PUBLIC HEALTH OR
6 THE ENVIRONMENT. UNLESS OTHERWISE PROVIDED BY RULES PROMULGATED
7 UNDER THIS ACT, GEOTECHNICAL WELL REPORTING FORMS RECEIVED BY THE
8 GEOLOGIC SURVEY DIVISION OF THE DEPARTMENT ARE NOT SUBJECT TO
9 DISCLOSURE UNDER THE FREEDOM OF INFORMATION ACT, 1976 PA 442, MCL
10 15.231 TO 15.246.

11 SEC. 14106. THE DEPARTMENT SHALL PREPARE AND PROVIDE TO ANY
12 PERSON UPON REQUEST GEOTECHNICAL WELL REPORTING FORMS. THE GEO-
13 TECHNICAL WELL REPORTING FORMS SHALL REQUIRE ALL OF THE FOLLOWING
14 INFORMATION:

15 (A) THE LOCATION OF THE WELL PROVIDED IN A MANNER REQUIRED
16 BY THE DEPARTMENT.

17 (B) THE DEPTH TO AND THICKNESS OF SOIL AND ROCK STRATA
18 PENETRATED.

19 (C) ACCURATE AND COMPLETE LITHOLOGIC DESCRIPTIONS, INCLUDING
20 COLOR, HARDNESS, AND THE CHARACTER OF THE SOIL OR ROCK.

21 (D) WATER LEVELS, IF AVAILABLE.

22 (E) HOLE SIZES.

23 (F) CASING USED, INCLUDING THE SIZE, MATERIALS, AND DEPTH
24 SET.

25 (G) THE AMOUNT AND TYPE OF GROUT USED AND THE INTERVAL WHERE
26 IT IS PLACED.

(H) THE DATE OF EXPECTED PLUGGING OF THE WELL.

SEC. 14107. (1) THE GEOTECHNICAL WELL OVERSIGHT FUND IS
CREATED WITHIN THE STATE TREASURY.

(2) THE STATE TREASURER MAY RECEIVE MONEY OR OTHER ASSETS
FROM ANY SOURCE FOR DEPOSIT INTO THE FUND. THE STATE TREASURER
SHALL DIRECT THE INVESTMENT OF THE FUND. THE STATE TREASURER
SHALL CREDIT TO THE FUND INTEREST AND EARNINGS FROM FUND
INVESTMENTS.

(3) MONEY IN THE FUND AT THE CLOSE OF THE FISCAL YEAR SHALL
REMAIN IN THE FUND AND SHALL NOT LAPSE TO THE GENERAL FUND.

(4) THE DEPARTMENT SHALL EXPEND MONEY FROM THE FUND, UPON
APPROPRIATION, ONLY TO IMPLEMENT THIS PART.

SEC. 14108. THE DEPARTMENT MAY PROMULGATE RULES TO IMPLE-
MENT THIS PART.

SEC. 14109. (1) EXCEPT AS PROVIDED IN SUBSECTION (2), A
PERSON WHO VIOLATES THIS PART IS RESPONSIBLE FOR A CIVIL FINE OF
NOT MORE THAN \$1,000.00.

(2) A PERSON WHO VIOLATES SECTION 14105 IS RESPONSIBLE FOR A
CIVIL FINE OF NOT MORE THAN \$2,000.00.

(3) A DEFAULT IN THE PAYMENT OF A CIVIL FINE OR COSTS
ORDERED UNDER THIS SECTION OR AN INSTALLMENT OF THE FINE OR COSTS
MAY BE REMEDIED BY ANY MEANS AUTHORIZED UNDER THE REVISED JUDICA-
TURE ACT OF 1961, 1961 PA 236, MCL 600.101 TO 600.9948.

(4) CIVIL FINES COLLECTED UNDER THIS SECTION SHALL BE FOR-
WARDED TO THE STATE TREASURER FOR DEPOSIT INTO THE GEOTECHNICAL
WELL OVERSIGHT FUND CREATED IN SECTION 14107.

1 SEC. 14110. A PERSON WHO VIOLATES THIS PART IS GUILTY OF A
2 MISDEMEANOR PUNISHABLE BY IMPRISONMENT FOR NOT MORE THAN 90 DAYS
3 OR A FINE OF NOT MORE THAN \$2,500.00, OR BOTH.