

Beeland Group, LLC

Non-Hazardous Injection Well

Beeland Group, LLC

Bay Harbor, Michigan Facility

Emmet County

T34N, R6W, NW ¼ Section 9,

MDEQ Permit # TBD

October 30, 2009

Petrotek

10288 West Chatfield Ave., Ste 201
Littleton, Colorado 80127-4239
303-290-9414
www.petrotek.com

Table of Contents

A. Well Identification and Project Description..... 1

A.1 Describe in detail the purpose of the well and its anticipated life expectancy .. 1

A.2 Notification: At the same time as submitting the permit application, mail via first-class United States mail, a copy of the first page of the permit application and cover letter to the clerk of the township and the surface owner of record of the land on which the well is to be located 2

A.3 Form EQP 7200-1, Application for Permit to Drill, Deepen, Operate, with an original signature from the applicant or the applicant’s agent See instructions on reverse of form ... 3

A.4 EQP 7200-2, Survey Record of Well Location signed and sealed by a surveyor licensed in the state of Michigan which identifies: 4

A.5 Form EQP 7200-4, Wellhead Blowout Control System. 6

A.6 Form EQP 7500-3, Environmental Impact Assessment for Mineral Wells Surface Facilities..... 7

A.7 Form EQP 7200-18, Soil Erosion and Sedimentation Control Plan 8

A.8 Provide a conformance bond 9

A.9 The permit application fee as specified by statute: 10

A.10 An organization report, form EQP 7200-13, if a current organization report is not on file with the supervisor 11

A.11 Description of the drilling program, including the drilling fluid and mud program, how the fluids will be handled and ultimate disposition of the drilling fluids Include a discussion of whether overpressured zones are anticipated and how the mud program will be modified to accommodate such a condition 12

A.12 Description of the cementing program including the type, properties and compressive strength of cement to be used on each casing string Indicate if DV tools will be used 14

A.13 Description of the proposed wireline logging program 15

A.14 Description of the testing program, including pressure tests on casing strings, and any planned drill stem tests 16

A.15 Description of any planned coring program 18

B. Additional information required for an application for a permit to drill and operate a disposal well or to convert a previously drilled well to such a well:..... 19

B.1 Form EQP 7200-14, Injection Well Data. 19

B.2 A calculation of the area of review in the injection interval over the anticipated life of the well. “Area of review” means either of the following: 20

B.3 A discussion of the affect of injection on the present and potential mineral resources in the area of review. 23

B.4 A plat which shows the location and total depth of the proposed well, shows each abandoned, producing, or dry hole within the area of influence, and each operator of a mineral or oil and gas well within the area of influence 24

B.5 If a well is proposed to be converted to a disposal well, a copy of the completion report, together with the written geologic description log or record and borehole and stratum evaluation logs for the well 25

B.6 Plugging records of all abandoned wells and casing, sealing, and completion records of all other wells and artificial penetrations within the area of influence of the proposed well location and a map identifying all such artificial penetrations. An applicant shall also submit a plan reflecting the steps or modifications believed necessary to prevent proposed injected waste products from migrating up, into, or through inadequately plugged, sealed, or completed wells. 26

B.7 A map showing the vertical and areal extent of surface waters and subsurface aquifers containing water with less than 10,000-ppm total dissolved solids A summary of the present and potential future use of the waters must accompany the map 29

B.8 Geologic maps and stratigraphic cross sections of the local and regional geology ... 31

B.9 Chemical, physical and bacteriological characterizations of the waste stream before and after treatment and/or filtration. Include a characterization of the compatibility of the injectate with the injection zone and the fluid in the injection zone along with a characterization of the potential for multiple waste streams to react in the well bore or in the injection zone . . . 44

B.10 Information to characterize the proposed injection zone, including: 48

B.11 Information to characterize the proposed confining zone, including: 50

B.12 Information demonstrating injection of liquids into the proposed zone will not exceed the fracture pressure gradient and information showing injection into the proposed geological strata will not initiate fractures through the confining zone. Information showing the anticipated dispersion, diffusion and/or displacement of injected fluids and behavior of transient pressure gradients in the injection zone during and following injection 51

B.13 Proposed operating data including all of the following data: 54

B.14 For a proposed disposal well to dispose of waste products into a zone that would likely constitute a producing oil or gas pool or natural brine pool, a list of all offset operators and certification that the person making application for a well has notified all offset operators of the person's intention by certified mail. If within 21 days after the mailing date an offset operator files a substantive objection with the supervisor, then the application shall not be granted without a hearing pursuant to part 12 of these rules. A hearing may also be scheduled by the supervisor to determine the need or desirability of granting permission for the proposed well . 55

B.15 A proposed plugging and abandonment plan. 56

B.16 Identify the source or sources of proposed injected fluids. Identify if injected fluids will be considered hazardous or non-hazardous as defined by Part 111, Hazardous Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA). 58

B.17 Whether the well is to be a multisource commercial hazardous waste disposal well . 59

B.18 Additional information required for an application for a permit to drill and operate a storage well or to convert a previously drilled well to such a well: 60

B.19 Additional information required for an application for a permit to drill and operate a well for the production of artificial brine or to convert a previously drilled well to such a well: . . . 61

10/30/09



STATE OF MICHIGAN
DEPARTMENT OF NATURAL RESOURCES & ENVIRONMENT
LANSING

JENNIFER M. GRANHOLM
GOVERNOR

REBECCA A. HUMPHRIES
DIRECTOR

February 11, 2010

Mr. Michael C. Sniegowski
Beeland Group, LLC
One Energy Plaza
Jackson, MI 49201

Dear Mr. Sniegowski:

SUBJECT: Beeland Group, LLC - Application #MW 090882
Bay Harbor Disposal Well #1

A number of requirements and corrections to the above subject application have been identified as follows:

SURFACE AND EIA ISSUES

Land and Water Management Division indicate that the site may impact regulated wetlands and may require a permit. It is recommended that CMS/Beeland Group hire a consultant to conduct a review with snow cover off. The consultant must use the Federal Wetland delineation method, per the recent amendments to the wetland statute.

CASING AND SEALING PROGRAM

The casing program is undersized. The conductor should be 16" driven pipe. Area well logs indicate a drift thickness of approximately 100'. Surface casing should be 11 3/4" and set a minimum of 100' into competent bedrock. Excess depth of surface casing may create problems if loss zones are encountered at depth, e.g. Traverse Limestone.

A 9 5/8" intermediate string of casing should be set in the Bass Island formation to enable and ensure control. Both strings should be cemented to surface.

The 7" string should be set and cemented where appropriate after evaluation.

The well head blowout control system pressures on the blind rams, pipe rams and casing, need to be increased from 3000 psi to 5000 psi.

H2S CONTINGENCY PLAN

The potential to encounter H2S exists, so a H2S contingency plan, Part II is required. Additionally, the BOP must have sour trim.

Mr. Michael C. Sniegowski
Page 2
February 11, 2010

IDENTIFICATION OF POTENTIAL DISPOSAL ZONES

The purpose of this well is to identify and utilize disposal zones with adequate confining formations. There are several potential disposal zones/formations below the corrected intermediate casing set point and the Mt. Simon target formation including the Guelph Dolomite, Burnt Bluff Group, Trenton/Black River formations, and possibly others. A discussion of how the well will be completed if more than one disposal zone is present, should be included.

Please send the requested information and revisions addressed to my attention here in Lansing, and a copy to Mr. Mark Cromell in our Gaylord Field Office, 2100 West M-32, Gaylord, MI 49735.

If you have any questions you may contact me at the number listed below

Sincerely,



Rex Tefertiller
Permit Coordinator
Permits and Bonding Unit
Office of Geological Survey
517-241-1523

cc: Mr. Rick Henderson-DNRE
Mr. Mark Cromell-DNRE
Mr. Raymond Vugrinovich-DNRE



August 6, 2010

Mr Rex Tefertiller
Permit Coordinator
Michigan Department of Natural Resources and Environment
Office of Geological Survey
Permits and Bonding Unit
525 West Allegan Street
Lansing, Michigan 48909-7756

RE: Comments and Additional Requirements for Beeland Group, LLC Emmet County, Michigan Disposal Well #MW 090882 MDNRE Permit Application

Dear Mr. Tefertiller:

As discussed over the last several months, the Beeland Group and its consultants have reviewed the technical concerns identified to date during the ongoing MDNRE review of the Bay Harbor, Michigan injection well permit application. This letter provides a summary of responses to your inquiries, including those identified in your letter of February 11, 2010. MDNRE comments are recited, followed with a technical response.

SURFACE AND EIA ISSUES

Land and Water Management Division indicate that the site may impact regulated wetlands and may require a permit. It is recommended that CMS/Beeland Group hire a consultant to conduct a review with snow cover off. The consultant must use the Federal Wetland delineation method, per the recent amendments to the wetland statute.

The requested study performed to address state concerns regarding the potential for wetland impacts has been completed and is submitted as an attachment to this letter.

CASING AND SEALING PROGRAM

The casing program is undersized. The conductor should be 16" driven pipe. Area well logs indicate a drift thickness of approximately 100'. Surface casing should be 11 3/4" and set a minimum of 100' into competent bedrock. Excess depth of surface casing may create problems if loss zones are encountered at depth, e.g. Traverse Limestone. A 9 5/8" intermediate string of casing should be set in the Bass Island formation to enable and ensure control. Both strings should be cemented to surface. The 7" string should be set and cemented where appropriate after evaluation. The well head blowout control system pressures on the blind rams, pipe rams and casing, need to be increased from 3,000 psi to 5,000 psi.

The casing program was intended to include conductor, surface and long-string casing with sufficient size to allow flexibility. Attached to this letter is a copy of a replacement Figure 5, summarizing the revised casing program. As requested, revised BOP details with 5,000 psi sour trim ratings (to be applied for the 7" casing only) are also included with a modified MDNRE form. As discussed with representatives from the MDNRE, both the state and the applicant do not believe that these precautions will be necessary to address probable conditions, but are

acceptable to the Beeland Group for this high-profile project. BOP tests and shoe tests will be conducted consistent with the ability of pipe (as specified) and formations to withstand test pressures

The casing program has been modified as requested to include driving 20" conductor casing to a depth of 100'. Surface casing (still proposed at a larger 13-3/8" size rather than the state proposed 11-3/4" diameter) will be set approximately 100' into bedrock to a depth of approximately 250' as requested. As also requested, the 9 5/8" intermediate string (originally proposed with a shoe depth of between 540' to 2,000') will now be run to a depth of not less than 1,750' or at least 100' into the Bass Islands Group. Depths and casing designs are consistent with historic offset analog exploratory wells. It continues to be proposed that the surface, intermediate, and long string casings be cemented to surface. Site specific well conditions will be utilized to finalize cementing programs and details.

H2S CONTIGENCY PLAN

The potential to encounter H2S exists, so a H2S contingency plan, Part" is required. Additionally, the BOP must have sour trim.

Although none of the offset wells (2-3 miles SW, 20 miles SE, 30+ miles NE) have historically been required to submit sour gas contingency plans and sour gas is not expected, Beeland has committed to sour trim for the BOP and an H2S contingency plan. In conversations regarding the well plan, the state has indicated that it is aware of no specific technical data that suggests sour conditions will be encountered, but that the contingency plan will be required as a general precaution due to the lack of local well control. Attached to this letter is a copy of Part II of the requested contingency plan. As final drilling procedures and contractors/equipment are selected, the plans will be finalized for use in the field.

IDENTIFICATION OF POTENTIAL DISPOSAL ZONES

The purpose of this well is to identify and utilize disposal zones with adequate confining formations. There are several potential disposal zones/formations below the corrected intermediate casing set point and the Mt. Simon target formation including the Guelph Dolomite, Burnt Bluff Group, Trenton/Black River formations, and possibly others. A discussion of how the well will be completed if more than one disposal zone is present, should be included.

Beeland and its consultants have reviewed available data and determined that formations with higher probability for suitable use in long-term injection (>10 years) of significant fluid volumes (>5 bpm) are more likely to exist within the Cambrian and PreCambrian than other zones. However, it is acknowledged that little data is available to characterize the properties of potential target injection zones and that other, more shallow targets, might also be suitable for injection. Beeland intends to monitor drilling progress and review all data and geophysical well logs to determine if formations within the Middle Silurian or Ordovician might also be suitable injection targets. If data collected during well installation appears promising, and insufficient capacity is projected for the primary Cambrian/PreCambrian targets, efforts to further characterize pressures, permeability and fluid quality in other porous zones below the Salina Group including

the Niagaran Group, Black River/Trenton, and others will be pursued prior to running the 7" long-string casing. The well will be completed openhole in the primary target (6,000'-7,500'), and alternative secondary target completions will be selectively perforated (through casing) as deemed appropriate and approved by regulators. Depending on the nature of the porosity development found in alternative injection zones, acid or fracture treatments may be proposed to enhance well capacity. Due to the highly speculative nature of such potential injection targets, additional design details will be submitted once well specific data becomes available. A modified Figure 5 is presented illustrating a potential combined completion. Should insufficient deeper injectivity be present and significant pressure differentials are found that lead to cross-flow complications, the deeper zones may be plugged back as needed to preserve maximum injectivity.

A map showing the final staked well location that is 211' to the west of the originally proposed location is enclosed. This change was made due to surface access issues and is within the existing AOR. No details regarding the area of review or geology are altered in any way by this minor location change.

Based on discussions with Beeland and MDNRE, it is Petrotek's understanding that the state has identified no additional data requirements at this time. Upon completion of the application review, Beeland would appreciate the opportunity to review draft permit conditions and request clarification of the permit language prior to public notice in order to reduce the potential for delays in the process of issuing the permit to drill. Please feel free to call us at your earliest convenience with any questions or if additional clarification is required.

Sincerely,

Via E-mail

Petrotek Engineering Corporation
Ken Cooper, PE

cc: Rick Henderson – MDNRE
Mark Cromell – MDNRE
Ray Vugrinovich – MDNRE
Mike Sniegowski – Beeland Group
Dave Dowhan – Beeland Group



727 Lake Park Drive
Boyer City, MI 49712

Bus (231) 582-3498
Fax (231) 582-2300
www.voiceenv.com

**WETLAND AND JURISDICTION DETERMINATION
OF THE 250' BY 250' AREA SURROUNDING CMS ENERGY'S
PROPOSED BAY HARBOR DISPOSAL WELL #1,
RESORT TOWNSHIP, EMMET COUNTY, MICHIGAN**

Prepared for: Heather M. Prentice, P.E.
1945 W Parnall Road
Jackson, MI 49201

Prepared by Steven P. Voice, MS, PWS, CSE
Senior Ecologist & Regulatory Specialist

VEI Project Number: 10-1376

Inspection Dates May 24 and July 16, 2010

Report Date: July 30, 2010

EXECUTIVE SUMMARY

A wetland determination and boundary delineation was performed for CMS Energy & Beeland Group, LLC at the proposed Bay Harbor Disposal Well #1 site, located adjacent to their current treatment facility on US 31 in Resort Township, Emmet County Michigan. It is the professional opinion of the investigator, Senior Ecologist & Regulatory Specialist Steven P. Voice, that the subject area supports two (2) extremely small areas that appear to marginally meet statutory criteria for wetland designation, as shown on the attached "Wetland Delineation" map by prepared by Barr Engineering Co. dated July 20, 2010

However, neither of these extremely small, depressional areas appears to be within 500' of an inland lake or pond, river or stream, or within 1000' of Lake Michigan, nor obviously is either over 5 acres in size. Accordingly, it is professional opinion of the investigator that neither area would be subject to regulation by the Michigan Department of Natural Resources and Environment (DNRE) under Part 303, Wetland Protection, of NREPA

Respectfully submitted,

VOICE ENVIRONMENTAL, INC.

A handwritten signature in black ink that reads "Steven P. Voice". The signature is written in a cursive, flowing style.

Steven P. Voice, MS, PWS, CSE
Senior Ecologist and Regulatory Specialist

A. Well Identification and Project Description

A.1 Describe in detail the purpose of the well and its anticipated life expectancy

Through the submittal of this application, Beeland Group, LLC, requests authorization from the Michigan Department of Environmental Quality (MDEQ) to install and operate a non-hazardous disposal well located at CMS Land's remediation facility on property owned by The Bay Harbor Company at Bay Harbor, Michigan, pursuant to the applicable MDEQ Mineral Well regulations as specified in the Natural Resources and Environmental Protection Act No. 451, Part 625 (as amended). The well is to be located in Emmet County, Michigan within the limits of Resort Township, approximately 1630 feet from the north line and 1180 feet from the west line in the northwest corner of Section 9, T34N, R6W, based on a surveyed location. A map identifying the facility location is included as Figure 1.

Applicable information, figures and forms as identified by the MDEQ Permit Application Instructions for Disposal, Storage, or Brine Production Wells are included in this document. Section A includes information pertaining to Well Identification and Project Description, including items 1-13 (i.e. purpose of the well through description of the planned coring program). Section B includes additional information required for an application for a permit to drill and operate a disposal well, including items 1-17 (i.e. Form EQP 7200-14 through inquiring if the well is to be a multisource commercial hazardous well). Note that the application is not being sought to drill and operate a storage well or for the production of brine (or conversion of wells for this purpose), but for the injection of groundwater derived from an on-going remediation project. This issue is also addressed in Section B. Figures and forms referenced in each subsection (e.g. Section A 1) are included at the end of the applicable subsection. Also note that the guidance requested two items both numbered as B.2, so this document presents 17 elements under Section B, not 16 as numbered in the Guidance (<http://www.michigan.gov/deq>).

Beeland Group, LLC of Jackson, Michigan intends to operate a single Non-Hazardous disposal Well at Bay Harbor, Michigan for the underground injection of fluids from a groundwater remediation project. Fresh water aquifers in the vicinity of this well are to be protected by multiple strings of casing and cement. Fluids will be injected into the Mt. Simon Formation injection interval, in addition to the overlying Munising Formation as practical, under positive pressure flow. Fluids will be conveyed to the injection zone through tubing and a packer. The well is to have one cemented protective long string casing extending into the injection interval. The wellbore is to be an openhole completion within the injection interval. The annulus area between the protective casing and injection tubing string is to be filled with inhibited fresh water. Annulus pressure will be continuously monitored to detect any leaks in the tubing or casing and annulus pressure is to be maintained at levels of more than 100 psi above the tubing pressure.

Beeland Group, LLC intends to operate this well for a period of up to 20 years. Project life may be altered based on future information acquired during the operation of the groundwater remediation project.



Legend



Bay Harbor DW No.1



0 20 40 60 Miles

Projection: Michigan State Plane Central, NAD 83

Beeland Group, LLC

5548 US 31 Petoskey, MI 49770

Figure 1 Site Location Map

2009 Bay Harbor Disposal Well No. 1 Permit

Scale: 1:2,500,000

Date: October 2009

BH_MDEQ_Fig 1.mxd

By: JLM

Checked: KC

Petrotek

10288 West Orchard Ave. Suite 207
Lafayette, Colorado 80127-4235 USA
303-290-8414
www.petrotek.com

A.2 Notification: At the same time as submitting the permit application, mail via first-class United States mail, a copy of the first page of the permit application and cover letter to the clerk of the township and the surface owner of record of the land on which the well is to be located.

Letters have been prepared and submitted to the Clerk of Resort Township and to the City of Petoskey conveying a copy of the first page of this permit application. The permit applicant has also informed the owner of the property on which the well is to be located about plans to install the well

At the end of this Section (A.2), copies of the Cover Letters are presented, notifying each party that an Application for Permit to Drill/Deepen/Convert, and Operate a Well has been submitted. Letters have been sent to the following addresses:

Mr. Bob Wheaton
Resort Township Supervisor
2231 Resort Pike Road
Petoskey, MI 49770

Mr. Alan Terry
City of Petoskey
Director of Finance (City Clerk and Treasurer)
101 East Lake Road
Petoskey, MI 49770

Mr. Dennis Brya
The Bay Harbor Company
4000 Main St
Bay Harbor, MI 49770

BEELAND GROUP LLC

Michael Sniagowski
Vice President

October 30,2009

Mr. Bob Wheaton
Resort Township Supervisor
231 Resort Pike Road
Petoskey, Michigan 49770

Dear Bob:

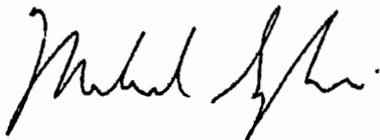
The Beeland Group, LLC has submitted an Application to Drill/Deepen/Convert and Operate a Mineral Well for non-hazardous fluid disposal to the Michigan Department of Environmental Quality. The well will be located at the following address:

5548 US 31,
Petoskey, MI 49770

The Beeland Group will own and operate the well on property owned by Bay Harbor Company and intends to only use this well to manage fluids it generates from a groundwater remediation program at Bay Harbor. As required by Part 625 of Act 451 PA 1994, as amended, attached please find a copy of the first page of the permit application for your records. Please contact me at the following address and telephone number should you have any questions or if we can be of assistance

Michael Sniagowski
Beeland Group, LLC
One Energy Plaza
Jackson, Michigan 49201
517-768-7330

Sincerely,



BEELAND GROUP LLC

*Michael Sniagowski
Vice President*

October 30, 2009

Mr. Allan Terry
City of Petoskey
Director of Finance
101 East Lake Road
Petoskey, MI 49770

Dear Al:

The Beeland Group, LLC has submitted an Application to Drill/Deepen/Convert and Operate a Mineral Well for non-hazardous fluid disposal to the Michigan Department of Environmental Quality. The well will be located at the following address:

5548 US 31,
Petoskey, MI 49770

The Beeland Group will own and operate the well on property owned by Bay Harbor Company and intends to only use this well to manage fluids it generates from a groundwater remediation program at Bay Harbor. As required by Part 625 of Act 451 PA 1994, as amended, attached please find a copy of the first page of the permit application for your records. Please contact me at the following address and telephone number should you have any questions or if we can be of assistance.

Michael Sniagowski
Beeland Group, LLC
One Energy Plaza
Jackson, Michigan 49201
517-768-7330

Sincerely,



BEELAND GROUP LLC

*Michael Sniagowski
Vice President*

October 30,2009

Mr. Dennis Brya
Director of Operations
Bay Harbor Company
4000 Main St.,
Bay Harbor, MI 49770

Dear Denny:

The Beeland Group, LLC has submitted an Application to Drill/Deepen/Convert and Operate a Mineral Well for non-hazardous fluid disposal to the Michigan Department of Environmental Quality. The well will be located at the following address:

5548 US 31,
Petoskey, MI 49770

The Beeland Group will own and operate the well on property owned by Bay Harbor Company and intends to only use this well to manage fluids it generates from a groundwater remediation program at Bay Harbor. As required by Part 625 of Act 451 PA 1994, as amended, attached please find a copy of the first page of the permit application for your records. Please contact me at the following address and telephone number should you have any questions or if we can be of assistance.

Michael Sniagowski
Beeland Group, LLC
One Energy Plaza
Jackson, Michigan 49201
517-768-7330

Sincerely,



A.3 Form EQP 7200-1, Application for Permit to Drill, Deepen, Operate, with an original signature from the applicant or the applicant's agent. See instructions on reverse of form.

The Application for Permit to Drill, Deepen, or Operate the Bay Harbor Disposal Well No 1 is presented on Form EQP 7200-01 A Completed and Signed Form is attached at the end of this Section (A 3)

1
1200 - 1



APPLICATION FOR PERMIT TO:

DRILL DEEPEN CONVERT AND OPERATE A WELL

By authority of Part 615 or Part 625 of Act 451 PA 1994, as amended Non-submission and/or falsification of this information may result in fines and/or imprisonment.

1a. Part 615 Supervisor of Wells Oil and Gas Brine Disposal Hydrocarbon Storage Injection for Secondary Recovery

1b. Part 625 Mineral Wells Waste Disposal Brine Production Processed brine disposal Storage Test, fee sched. on rev.

1c. Fee enclosed Yes No, revision of application No, leg of horz drainhole

2. List all previous permit numbers NA 3. Fed. ID No. (do not use SSN) 20-5321543

4. Conformance bond Blanket Single well 5. Attached On file 6. Bond number Letter of credit 7. Bond amount 60,000

8. Applicant (name of permittee as bonded) Beeland Group, LLC

9. Address facility: 5548 US 32, Petoskey MI 10577 mailing: One Energy Plaza, Jackson MI 49201 Phone 517 778 9045 I authorize DEQ 4 additional days to process this application Yes No

10. Lease or well name (be as brief as possible) Bay Harbor Disposal Well Well number No. 1

11. Surface owner Bay Harbor Company

12. Surface location NE 1/4 of SW 1/4 of NW 1/4 of Sec 9 T 34N R 6W Township Resort County Emmett

13. If directional bottom hole location 1/4 of 1/4 of 1/4 of Sec T R Township County

14. The surface location for this well is 1630 feet from nearest (N/S) N section line AND 969 feet from nearest (E/W) W section line

15. Is this a directional well? No Yes If yes complete line 15. The bottom hole location for this well is feet from nearest (N/S) section line AND feet from nearest (E/W) section line

16. The bottom hole location (whether straight or directional) of this well is feet from nearest (N/S) drilling unit line AND feet from nearest (E/W) drilling unit line

17. Kind of tools Rotary Cable Combination 18. Is sour oil or gas expected? No Yes H2S Cont. plan enclosed 19. Base of lowest known fresh water aquifer Formation Traverse Depth 540'

20. Intended total depth MD 7,500 TVD 7,500 21. Formation at total depth Mt Simon/Granite 22. Producing/Injection formation(s) Mt Simon 23. Objective pool field or project n/a disposal

24. PROPOSED DRILLING, CASING AND CEMENTING AND SEALING PROGRAM

Table with columns: HOLE (Depth, Geol. Formation, Bit Dia.), CASING (O.D. Size, Wt/Ft, Grade, Condition, Depth), CEMENT (Sacks, T.O.C., W.O.C.), MUD (Wt., Vis.).

25. DETAIL CEMENTING PROGRAM IDENTIFY ALL CEMENT CLASSES, ADDITIVES AND VOLUMES (IN CU FT) FOR EACH CASING STRING Surface 208 ft3 Class A equivalent w/additives per hole conditions to surface Intermediate 552 ft3 Class A equivalent w/additives per hole conditions to surface Production/Injection 797 ft3 w/additives per hole conditions. dv tool. tail Class A equivalent w/additives

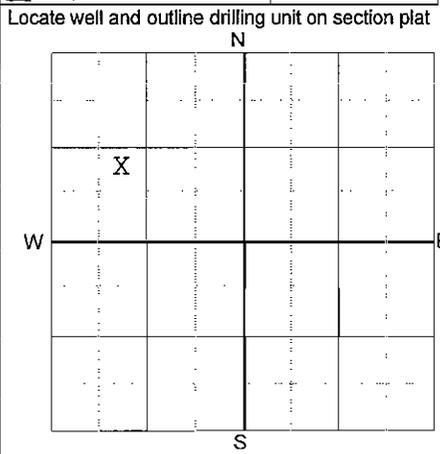
26. Send correspondence and permit to Name Michael C. Sniegowski, Vice President E-mail mcsniego@cmsenergy.com Address One Energy Plaza, Jackson, MI 49201 Phone 517-768-7330

CERTIFICATION I state that I am authorized by said applicant. This application was prepared under my supervision and direction. The facts stated herein are true, accurate and complete to the best of my knowledge. Enclose permit fee of \$300 for all Part 615 wells; \$2,500 for a Part 625 waste disposal well; or \$500 for a brine production, processed brine disposal, or storage well. Make checks payable to State of Michigan.

27. Application prepared by (print or type) Michael C. Sniegowski Phone 517-768-7330

28. Signature Date 8-06-2010

Office of Geological Survey Use Only Permit number API number Date issued Owner number 6344



A.4 EQP 7200-2, Survey Record of Well Location signed and sealed by a surveyor licensed in the state of Michigan which identifies:

- A. A readily visible stake or marker must be set at the well location. If the well will be directionally drilled also identify the bottom hole location.**
- B. A flagged route or explanation of how the well location may be reached.**
- C. Footages of the surface location (and if directionally drilled, the bottom hole location) from the nearest property and section lines.**
- D. Identification of the existing local zoning designation of the surface location of the well.**
- E. The surveyor must include an attached plat that shows all of the following information relative to the approximate distances and directions from the stake or marker to special hazards or conditions, including all of the following:**
 - i. Surface waters and other environmentally sensitive areas within 1,320 feet of the proposed well.**
 - ii. Floodplains associated with surface waters within 1,320 feet of the proposed well.**
 - iii. Wetlands, as identified by the provisions of Part 303 of the NREPA, within 1,320 feet of the proposed well.**
 - iv. Natural rivers, as identified by the provisions of Part 305 of the NREPA, within 1,320 feet of the proposed well.**
 - v. Threatened or endangered species, as identified by the provisions of Part 365 of the NREPA, within 1,320 feet of the proposed well.**
 - vi. All buildings, recorded fresh water wells and reasonably identifiable fresh water wells utilized for human consumption, public roads, railroads, pipelines, power lines and other man-made objects that lie within 600 feet of the proposed well location.**
 - vii. All public water supply wells identified as type I and IIa that lie within 2,000 feet of the proposed well location and type IIb and III that lie within 800 feet of the proposed well location, as defined in Act No. 399 of the Public Acts of 1976, as amended, being §325.1001 et seq. of the Michigan Compiled Laws.**

Form EPQ 7200-02, signed and sealed by a State of Michigan Surveyor is included at the end of Section A 4 The Survey Plat is included as Figure 2 and is also attached to Form EPQ 7200-02. This Plat shows all of the required information, as do various diagrams or other data sources, as discussed below.

Form EPQ 7200-02 at the end of Section A.4 indicates that the surveyor has placed a readily accessible stake or marker set at the well location. The well will not be directionally drilled. Further, the plat shows the roadways near to the facility. The Beeland Group, LLC facility is located at Bay Harbor, Michigan, west of the city of Petoskey in Emmet County. The facility is to be entered via a dedicated site access road from the north side of US Highway 31. The existing site access road will lead to the existing treatment and storage building that are currently projected to house required well-related equipment. Fluids are currently gathered via flow lines at this building, and a flow line will be constructed from this building to the well site on the same property. The well will be located approximately 1,630 feet south of the north section line and 1,180 feet east of the west section line, NE ¼, SW ¼ of the NW ¼ of Section 9, T34N R6W, based on survey results. Current land cover is woodlands and clearing for industrial use, and present land use is woodlands and industrial use for the well-related groundwater remediation project. The property is zoned for public utility use.

- i. Surface Waters and other environmentally sensitive areas within 1,320 feet of the proposed well**

Topographic data are shown on Figure 3 at the end of Section A.4. Nearby surface water features are identified on these maps. Field verification of this information is included in the Survey (Form EPQ 7200-02 and Figure 2), which shows that there are no surface waters and environmentally sensitive areas within 1,320 feet of the proposed location. The Lake Michigan shoreline is more than ¼ mile to the north of the proposed well location.

- ii. Floodplains associated with surface waters within 1,320 feet of the proposed wells

FEMA maps verify that there are not identifiable floodplains within 1,320 feet of the proposed well. Field verification through survey activities (Attachment A) shows no surface water features within 1,320 feet of the proposed location.

- iii. Wetlands, as identified by the provisions of Part 303 of the NREPA, within 1,320 feet of the proposed well.

Survey results indicated that there is a wetland area within 1,320 feet of the proposed well location. Therefore, wetlands were identified in accordance with Part 303 within the specified radius of 1,320 feet around the proposed well location.

- iv. Natural rivers, as identified by the provisions of Part 305 of the NREPA, within 1,320 feet of the proposed well.

Survey results show no indication of natural rivers within the specified radius. Therefore, no natural surface waters were identified within the specified radius of 1,320 feet.

- v. Threatened or endangered species, as identified by the provisions of Part 365 of the NREPA, within 1,320 feet of the proposed well.

Survey results did not indicate the presence of threatened or endangered species, as identified by the provisions of Part 365. Field verification by the property owner has not identified the presence of these species within the specified radius of 1,320 feet.

- vi. All buildings, recorded fresh water wells, wells and reasonably identifiable fresh water wells utilized for human consumption, public roads, railroads, pipelines, power lines and other man-made objects that lie within 600 feet of the proposed well.

Publicly available information indicates that there are no fresh water wells within the specified 600 feet radius. Available data show there to be an existing treatment building, owned by CMS Land on property owned by The Bay Harbor Company within the radius, but no railroads are located in the vicinity of interest as verified by survey. Location maps showing the general location of groundwater wells are provided in Figure 4 at the end of Section A.4.

- vii. All public water supply wells identified as Type I and Type IIa that lie within 2,000 feet of the proposed well location and Type IIb and Type III that lie within 800 feet of the proposed well location, as defined in Act No. 399 of the Public Acts of 1976, as amended, being part 325 1001 et Seq., of the Michigan Compiled Laws.

Based on the well location provided by the surveyor, one public water supply well has been identified within 2,000 feet of the proposed well location (Figure 4).

2
P260 2



SURVEY RECORD OF WELL LOCATION

This information is required by authority of Part 615 Supervisor of Wells, or Part 625 Mineral Wells, of Act 451 PA 1994, as amended, in order to obtain a drilling permit

Applicant
BEELAND GROUP LLC

Well name and number
BAY HARBOR DISPOSAL WELL NO. 1

1a Surface location
NE 1/4 of SW 1/4 of NW 1/4 of section **9** T **34N** R **6W** **RESORT** **EMMET**

1b. If this is a directional well, bottom hole location will be
1/4 of 1/4 of 1/4 of section T R

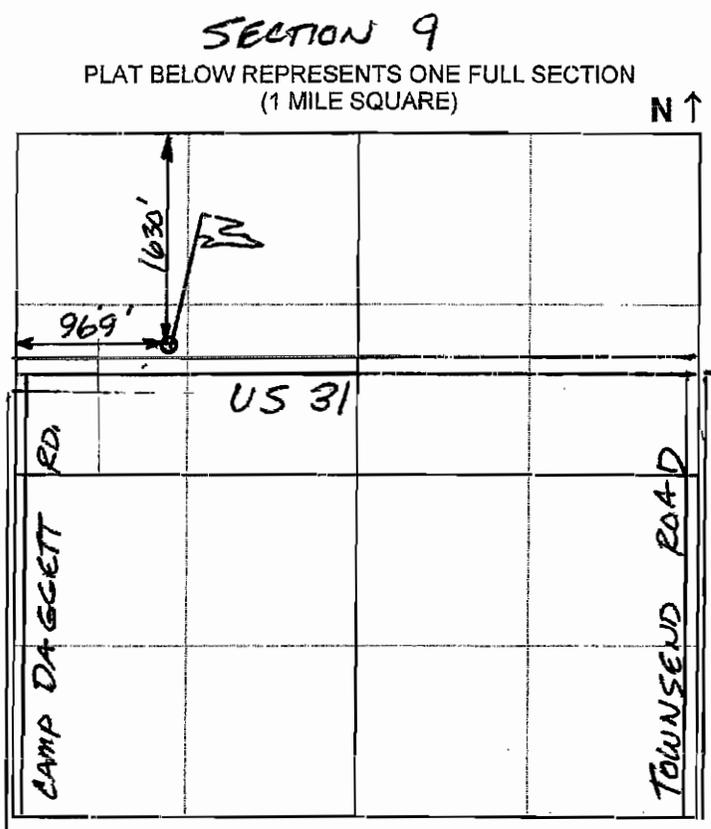
Instructions: Outline drilling unit for oil/gas wells (Part 615) or property boundary for mineral wells (Part 625) and spot well location on plat shown. Locate the well in two directions from the nearest section, quarter section, and unit (or property, Part 625) lines.

2 The surface location is
1630 ft from nearest (N/S) **N** section line
969' ft from nearest (E/W) **W** section line
and _____ ft from nearest (N/S) _____ quarter section line
_____ ft. from nearest (E/W) _____ quarter section line

3 Bottom hole will be (if directional)
_____ ft from nearest (N/S) _____ section line
_____ ft from nearest (E/W) _____ section line
and
_____ ft from nearest (N/S) _____ quarter section line
_____ ft. from nearest (E/W) _____ quarter section line

4 Bottom hole will be (directional or straight)
1630 ft from nearest (N/S) **N** SECTION LINE drilling unit line
969' ft. from nearest (E/W) **W** SECTION LINE drilling unit line

5 Show access to stake on plat and describe if it is not readily accessible.
STAKE
IS READILY ACCESSIBLE



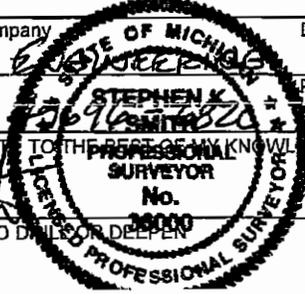
6. Zoning Residential, effective date _____
Initial date of residential zoning _____
 Other **PUBLIC UTILITY DISTRICT**

ON SEPARATE PLAT OR PLOT PLAN, LOCATE, IDENTIFY AND SHOW DISTANCES TO:
A All roads, power lines, buildings, residences, fresh water wells, and other man-made features, within 600 feet of the stake
B All lakes, streams, wetlands, drainage-ways, floodplains, environmentally sensitive areas, natural rivers, critical dune areas, and threatened or endangered species within 1320 feet of the stake.
C All type I and IIa public water supply wells within 2000 feet and all type IIb and III public water supply wells within 800 feet of the well stake

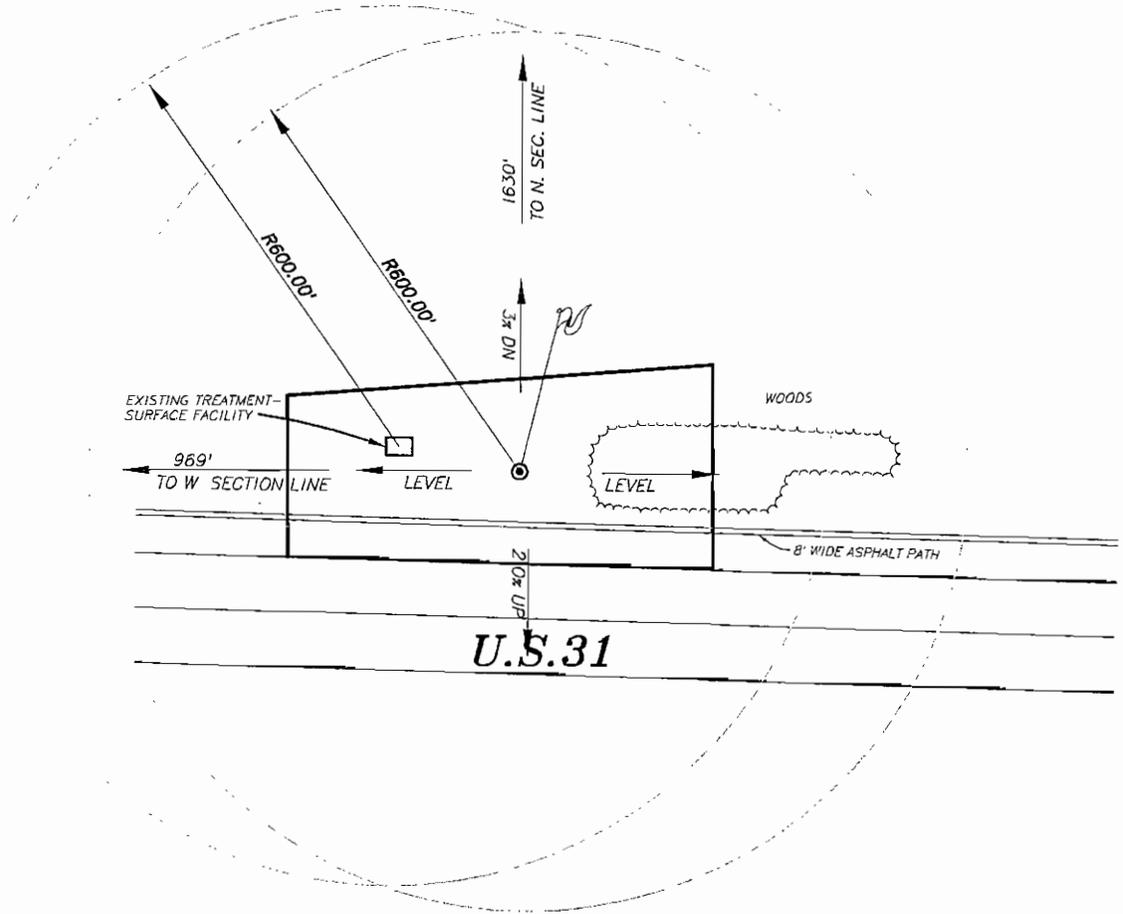
Name of individual who surveyed site **GERALD LIRA** Company **INLAND SEAS** Date of survey **9-30-09**

Address **PO. BOX 6820, TRAVERSE CITY, MI.** Phone **(231) 933-4041**

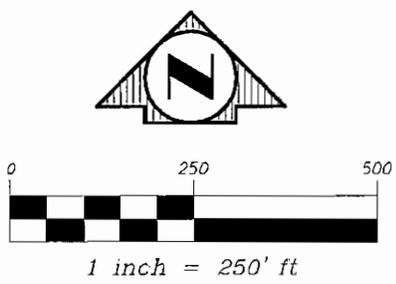
I CERTIFY THE ABOVE INFORMATION IS COMPLETE AND ACCURATE TO THE BEST OF MY KNOWLEDGE AND BELIEF
Signature of licensed surveyor (affix seal) **Stephen K Smith** Date **9-15-10**



3
Supreme
PLAT



U.S. 31



PROPOSED WELL. BEELAND DISPOSAL WELL NO 1
 LOCATION 969' FROM THE WEST SECTION LINE LINE AND 1630' FROM
 THE NORTH SECTION LINE OF THE SE 1/4 OF SECTION 9,
 T34N, R6W, RESORT TOWNSHIP, EMMET COUNTY MICHIGAN

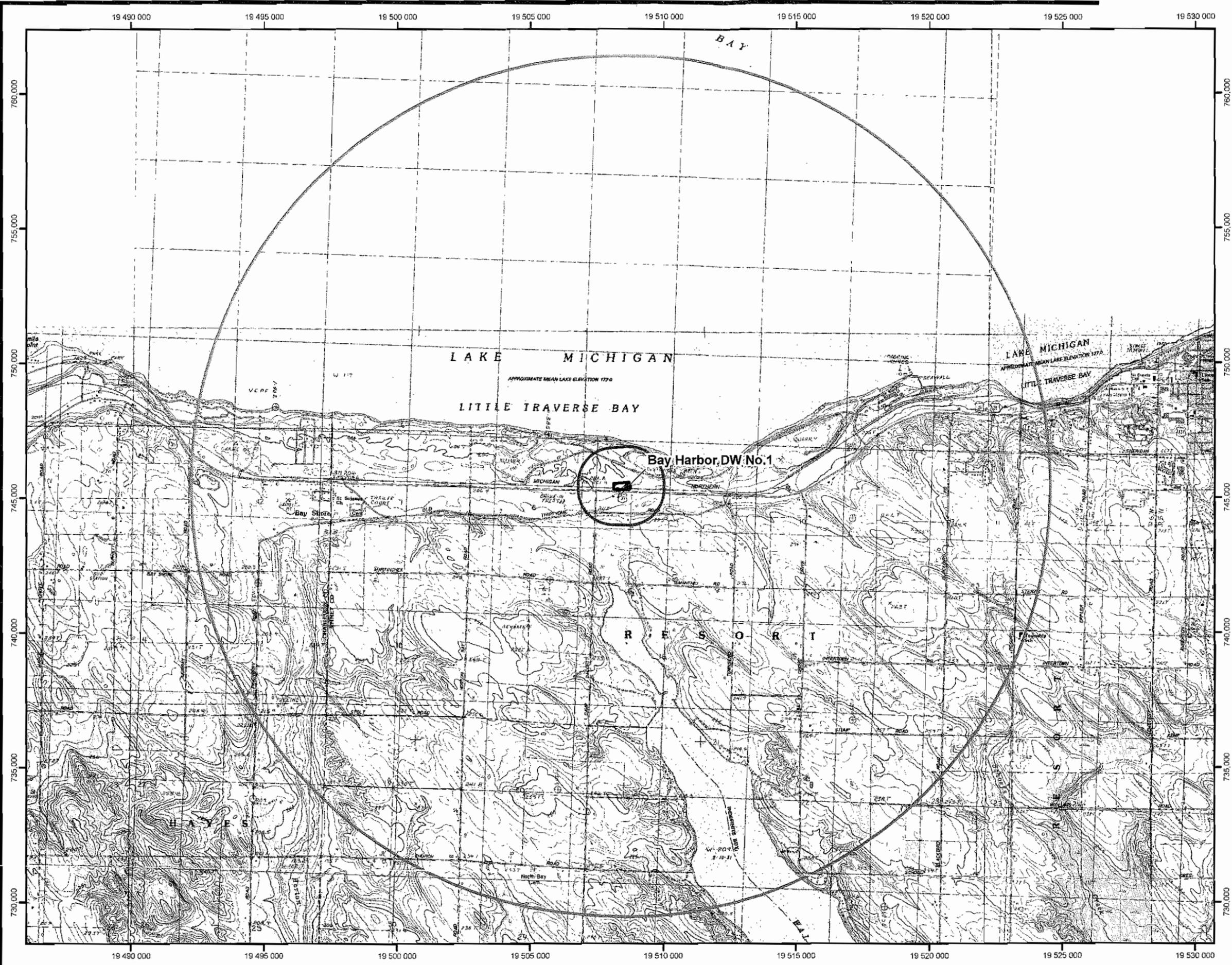
INLAND SEAS ENGINEERING

INLAND SEAS ENGINEERING, INC
 Traverse City, MI
 231-933-4041
 Flushing, MI
 810-487-0555

PLOT PLAN

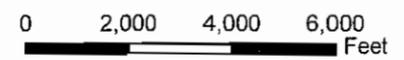
SCALE : 1"=250'	DRAWN BY : SKS
DATE : 4-14-10	CHECKED BY : AJS
PROJECT # : 09120	1
DRAWING : 250.DWG	



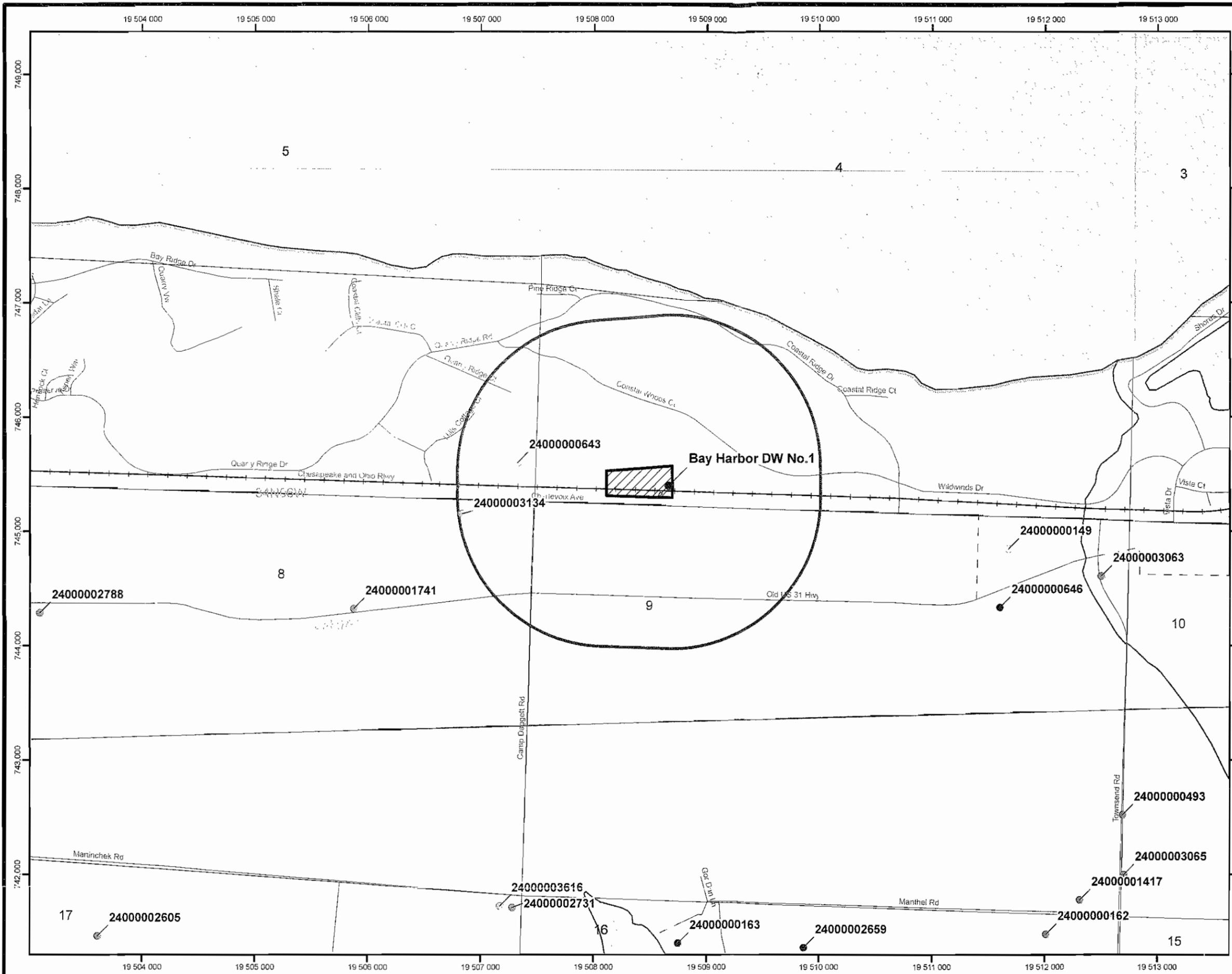


- Legend**
-  Bay Harbor Disposal Well No. 1
 -  PID:52-18-09-152-013
 -  1/4 Mile AOR
 -  3 Mile COI

3a



Beeland Group, LLC		
5548 US 31 Petoskey, MI 49770		
Figure 3		
Topographic Map Showing		
Well Location and AOR		
2009 Bay Harbor Disposal Well No. 1 Permit		
Scale: 1:42,000	Date: October 2009	
BH_MDEQ_Fig 3.mxd	By: JLM	Checked: KC
Petrotek		10288 West Chaffee Ave., Suite 201 Littleton, Colorado 80127-4238 USA 303-256-9414 www.petrotek.com



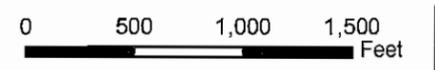
Legend

- Bay Harbor Disposal Well No. 1
- Emmit Co. Drinking Water Wells
 - Heat Pump
 - Household
 - Industrial
 - Irrigation
 - Test Well
 - Type 1 Public
 - Type 2 Public
 - Type 3 Public

- PID:52-18-09-152-013
- 1/4 Mile AOR

Note:
 Numbers associated with wells are the Michigan State Waterwell ID Number.

Emmet County Drinking Water Well data was obtained from: Michigan Geographic Data Library. Data was in the form of an ArcView Shape file and was updated thru 08/10/2009.



Beeland Group, LLC 5548 US 31 Petoskey, MI 49770		
Figure 4 Freshwater Well Penetration Location Map 2009 Bay Harbor Disposal Well No.1 Permit		
Scale: 1:10,000	Date: October 2009	
BH_MDEQ_Fig 4.mxd	By: JLM	Checked: KC
Petrotek		10288 West Chalfield Ave., Suite 201 Lubbock, Colorado 80127-4238 USA 303.290.9414 www.petrotek.com

A.5 Form EQP 7200-4, Wellhead Blowout Control System.

The blowout control system for the proposed well is presented in form EQP-7200-4, presented at the end of this Section (A 5) This equipment will be modified as required for the available drilling rig and final drilling prognosis

6
1200-4



WELLHEAD BLOWOUT CONTROL SYSTEM

Worksheet supplement for 'Application for Permit to Drill or Deepen a Well

This information is required by authority of Part 615
Supervisor of Wells or Part 625 Mineral Wells, Act 451
PA 1994 as amended in order to obtain a permit

Applicant Beeland Group, LLC One Energy Plaza Jackson MI 49201

Well name and number Bay Harbor Disposal Well No 1

Max anticipated surface pressure 1000 psi

Annular B O P 9" 5000 psi W P

B O P Pipe Rams 4 1/2" 5000 psi W P
(Pipe/Blind)

B O P blind Rams 0" 5000 psi W P
(Pipe/Blind)

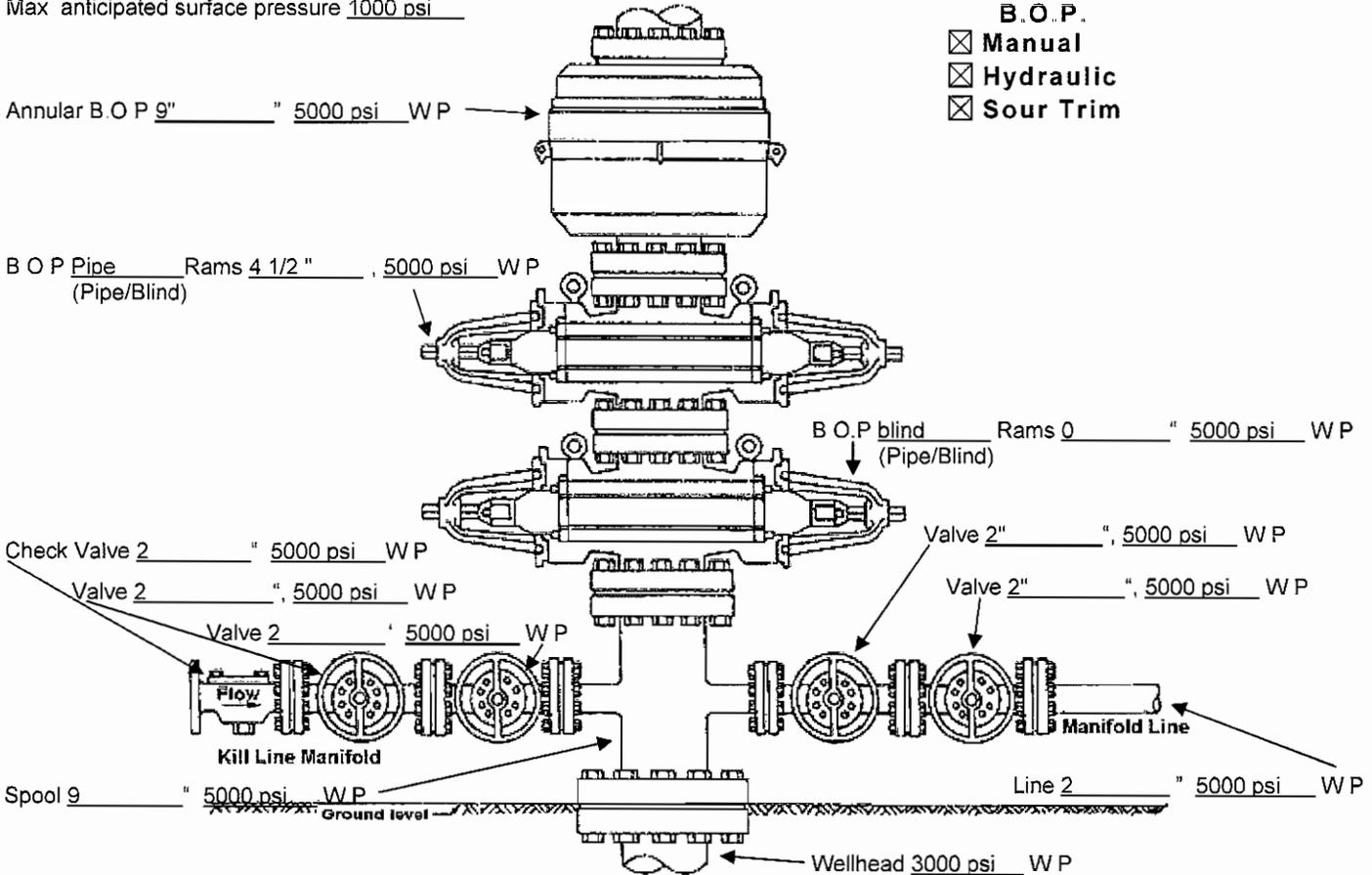
Check Valve 2" 5000 psi W P

Spool 9" 5000 psi W P

Line 2" 5000 psi W P

Wellhead 3000 psi W P

- B.O.P.**
- Manual
 - Hydraulic
 - Sour Trim



Fill above blanks with applicable information. If not applicable enter 'N A' or cross-out item shown.
Describe test pressures and procedure for conducting pressure test. Identify any exceptions to R324.406 being requested.

Standard pressure testing and verification of operation to be conducted before drilling out of 9 5/8" at >1,750' BGL.
Standard pressure testing and verification of operation to be conducted before drilling out of 7" at >6,010' BGL.
Wellhead/casing design and tests to be conducted based on maximum casing specifications. 3,000 psi BOP to be used for all shallow casing strings (except 7" long-string). Shoe tests to be conducted at below anticipated formation fracture pressures.

No exceptions to R324.406 requested at this time.

A.6 Form EQP 7500-3, Environmental Impact Assessment for Mineral Wells Surface Facilities

The Environmental Impact Assessment of Mineral Wells Surface Feature is presented in/on Form EQP 7500-3, presented at the end of this Section (A.6)

4
75cc-3



ENVIRONMENTAL IMPACT ASSESSMENT FOR MINERAL WELLS AND SURFACE FACILITIES

To be submitted with an application for a well permit pursuant to Part 625, 1994 PA 451, as amended (The Act) or prior to construction of associated surface facilities located more than 300 feet from the proposed well.

Check all boxes and fill in all blanks that apply to the proposed well(s) or proposed surface facility.

Submit a *Soil Erosion and Sedimentation Control Plan* (EQP 7200-18) for each drill site, surface facility and flowline identified in the EIA.

This EIA is for (check one)

- Well only Complete Parts A, B, D, E, and F
- Surface facility only (to be constructed more than 300 feet from the well). Complete Parts A1, A2, C, D, E, and F
- Well and surface facility. Complete all Parts.

A. PROJECT DESCRIPTION

1. Applicant

Beeland Group, LLC One Energy Plaza, Jackson MI 49201

2. Well name and number

Bay Harbor Disposal Well No. 1

3. Well type

- Artificial brine production well
- Natural brine production well
- Test well greater than 250' deep or penetrating below deepest freshwater aquifer
- Blanket test well(s) Number of proposed wells ___ Anticipated maximum depth _____
- Processed brine disposal well
- Single-source, non-commercial, waste disposal well
- Multi-source commercial non-hazardous waste disposal well
- Multi-source commercial hazardous waste disposal well
- Storage well

4. Yes No Is this well a replacement for an existing well?

If Yes, list

- Existing well name and number
- Current owner
- Existing well type and status
- Existing well location
- Reason for replacement
- Disposition of existing well

5. Yes No Is this well a reentry of an existing well?

If Yes, list

- Existing well name and number
- Current owner
- Existing well type and status
- Reason for reentry

6. Yes No Is the well expected to encounter hydrogen sulfide (H₂S)?

If Yes, list formations expected to contain H₂S and anticipated depths to tops of formations

7. Yes No Is the well expected to encounter oil or gas?

If Yes, list formations expected to contain oil or gas and anticipated depths to tops of formations

8. Yes No Will the well be drilled from an existing drill pad?

If Yes, list well name, number, permit number and status of all existing wells on the drill pad (if no wells, write "none")
See Attachment A for Plot Plan.

Show proposed well and all existing wells on accompanying scale map identified as applying to Part A1 of the EIA.

B. DRILLSITE

1. **Drill site access route dimensions** 25 feet x approx 600 feet.

Provide a detailed description of topography, drainage, soil type(s), direction and percentage of slopes, land cover and present land use for the drill site access route. Show route on accompanying scale map labeled **Part B1**. See Attachment A for Plot Plan. The drill site occurs in an area of relatively flat topography (slopes of level to 3%), surface drainage is to the north. Soil type encountered will be glacial till/drift. Current land cover is woodlands and clearings for industrial use, and present land use is woodlands and industrial use for the well-related groundwater remediation project.

2. **Drill site dimensions** 250 feet x 250 feet.

Provide a detailed description of topography, drainage, soil types(s), direction and percentage of slopes, land cover and present land use for the drill site. Show well site on accompanying scale map labeled **Part B2**. See Attachment A for Plot Plan. The drill site occurs in an area of relatively flat topography (slopes of level to 3%), surface drainage is to the north. Soil type encountered will be glacial till/drift. Current land cover is woodlands and clearings for industrial use, and present land use is woodlands and industrial use for the well-related groundwater remediation project.

NOTE: If any "Yes" box in items B3, B4, B5, B6, B7 or B8 is checked, the corresponding feature(s) must be identified on an accompanying scale map identified as applying to Part B of the EIA.

3. Yes No Are drain tiles present on the drill site?

If Yes, how they will be handled if they are encountered?

4. **Are any of the following located within 600 feet of the proposed wellhead?**

- Yes No Buildings
- Yes No Domestic fresh water wells
- Yes No Public roads
- Yes No Railroads
- Yes No Power lines
- Yes No Pipelines
- Yes No Other man-made features (list individual features)

Existing site treatment building used for groundwater remediation project and to be used for well operations.
To south, recreational trail on old railroad right-of-way along US 31

5. **Are any of the following located within 800 feet of the proposed wellhead?**

- Yes No Type IIB public water wells Type II is a non-community water supply with ≥ 15 service connections or ≥ 25 individuals for not less than 60 days per year.
- Yes No Type III public water wells Type III is a public water supply which is neither Type I nor type II.

6. **Are any of the following located within 1320 feet of the proposed wellhead?**

- Yes No Surface waters and other environmentally sensitive areas
- Yes No Floodplains associated with surface waters
- Yes No Wetlands, as identified by sections 30301 to 30323 of the Act.
- Yes No Natural rivers, as identified by sections 30501 to 30515 of the Act
- Yes No Threatened or endangered species as identified by sections 36501 to 36507 of the Act

7. **Are any of the following located within 2000 feet of the proposed wellhead?**
 Yes No Type I public water wells
Type I is a community water supply with year-round service, ≥ 15 living units or ≥ 25 residents.
 Yes No Type IIA public water wells Type II is a non-community water supply with ≥ 15 service connections or
≥ 25 individuals for not less than 60 days per year.

8. Yes No **Are Great Lakes shorelines located within 1500 feet of the proposed wellhead?**

9. Yes No **Will fresh water be used to drill this well?**
If Yes, will the water be supplied from
 A "permanent" water well, to be retained after final completion OR used for drinking water (to be drilled and installed pursuant to Part 127 of 1979 PA 368, as amended) **OR**
 A "temporary" water well, to be plugged upon final completion and not used for drinking water **OR**
 Another source (identify) local city water supply
If No, identify the drilling fluid to be used.

10. **Drilling fluid pit location and handling and disposal of drill cuttings, muds and fluids**
Anticipated depth to groundwater <100 feet Depth determined by local well logs

Pit type
 On site in-ground pit. Anticipated dimensions: L ___ W ___ D ___
Show proposed pit location on accompanying scale map labeled **Part B10**.

Remote in-ground pit. Anticipated dimensions: L ___ W ___ D ___
Attach approval of landowner and show remote pit location on accompanying scale map labeled **Part B10**

On-site steel tanks with no in-ground pits (complete 10a and 10d below, do not complete 10b and 10c)

a. Yes No **Will the well be drilled into or through bedded salt deposits?**
If Yes,
 Yes No Will the drill cuttings contain solid salt?
If Yes, describe plans for handling and disposing of drill cuttings.

Should solid salts and/or anhydrites be produced at surface, materials will be managed at locally available landfills as special wastes or via alternative methods acceptable under applicable regulations.

b. Yes No **Will the drilling fluid pit contents be solidified after drilling?**
If Yes, identify the pit solidification contractor and pit solidification method.

c. Yes No **Will the drilling fluid pit contents be removed after drilling?**
If Yes, identify the site for disposal of the removed material.
any acceptable permitted landfills

d. Yes No **Will any pit fluid be disposed by a licensed liquid waste hauler?**
If Yes, identify the waste hauler.
Northern A-1 or other suitable equivalent.

If No, describe disposal plans for pit fluids.

C. SURFACE FACILITY

1. Yes No Will the well have associated surface facilities?

If No, Do not complete the remainder of Part C.

If Yes,

Yes No Does a surface facility currently exist?

If Yes, show facility location relative to the wellhead on a scale map labeled Part C1. Do not complete the remainder of Part C.

If No,

Yes No Has a location for the surface facility been chosen?

If Yes, complete Parts C2 through C10

If No, at least 60 days prior to beginning construction, submit an EIA for the Surface Facility (this form), a facility plan, and a Soil Erosion and Sedimentation Control Plan (EQP 7200-18) to the Office of Geological Survey District Supervisor.

2. Yes No Is the proposed surface facility site more than 300 feet from the wellhead?

If Yes, complete Parts C3 through C10 and submit a map showing the location of the surface facility site relative to the wellhead.

If No, do not complete the remainder of Part C.

3. Dimensions of surface facility access road: 12 feet x 150 feet.

Describe the topography, drainage, soil type(s), direction and percentage of slopes, land cover and present land use: See Attachment A for Plot Plan. The flow line site occurs in an area of relatively flat topography (slopes of level to 3%), surface drainage is to the north. Soil type encountered will be glacial till/drift. Current land cover is woodlands and clearing for industrial use, and present land use is woodlands and industrial use for the well-related groundwater remediation project

4. Dimensions of surface facility site: 200 feet x 300 feet.

Describe the topography, drainage, soil type(s), direction and percentage of slopes, land cover and present land use: approx 30x40 foot existing building with parking lot and access road

NOTE: If any "Yes" box in items C5, C6, C7, C8, C9, or C10 is checked, the corresponding feature(s) must be identified on an accompanying scale map identified as applying to the appropriate section of Part C of the EIA.

Yes No Are drain tiles present on the proposed surface facility site?

If Yes, discuss how they will be handled if they are encountered?

6. Are any of the following located within 600 feet of the proposed surface facility site?

- Yes No Buildings
- Yes No Domestic fresh water wells
- Yes No Public roads
- Yes No Railroads
- Yes No Power lines
- Yes No Pipelines
- Yes No Other man-made features (list individual features)

To south, recreational trail on old railroad right-of-way along US 31.

Are any of the following located within 800 feet of the proposed surface facility site?

Yes No Type IIB public water wells. Type II is a non-community water supply with ≥ 15 service connections or ≥ 25 individuals for not less than 60 days per year.

Yes No Type III public water wells. Type III is a public water supply which is neither Type I nor type II.

8. Are any of the following located within 1320 feet of the proposed surface facility site?

- Yes No Surface waters and other environmentally sensitive areas
 Yes No Floodplains associated with surface waters
 Yes No Wetlands, as identified by sections 30301 to 30323 of the Act.
 Yes No Natural rivers, as identified by sections 30501 to 30515 of the Act
 Yes No Threatened or endangered species as identified by sections 36501 to 36507 of the Act

9. Are any of the following located within 2000 feet of the proposed surface facility site?

- Yes No Type I public water wells. Type I is a community water supply with year-round service, ≥ 15 living units or ≥ 25 residents.
 Yes No Type IIA public water wells Type II is a non-community water supply with ≥ 15 service connections or ≥ 25 individuals for not less than 60 days per year.

10. Yes No Are Great Lakes shorelines located within 1500 feet of the proposed surface facility site?

D. FLOWLINE

Yes No Will the well have an associated flow line?

If Yes,

Flow line rout dimensions 10 feet x 500

Show flow line route from well to the surface facility, junction with an existing flowline or gathering system, on a scale map labeled **Part C2**.

Anticipated maximum operating pressure (psig): 750

Describe leak detection program, including schedules of periodic pressure testing and periodic flowline patrols

Injection pressure will be continuously monitored, with alarms systems for irregular operations. Flowlines will be visually inspected a minimum of once per week

Flow line material: carbon steel, lined as required

Describe the topography, drainage, soil type(s), direction and percentage of slopes, land cover and present land use along the flow line route. See Attachment A for Plot Plan. The flow line site occurs in an area of relatively flat topography (slopes of level to 3%), surface drainage is to the north. Soil type encountered will be glacial till/drift. Current land cover is woodlands and clearing for industrial use, and present land use is woodlands and industrial use for the well-related groundwater remediation project.

Yes No Will the flowline be buried?

If Yes

Burial depth: >4 feet

Describe flowline route marking scheme

Labeled steel posts (minimum 2' height) minimum every 50 feet

If No, describe measures to protect flowline from vehicular damage.

Where flowline is elevated above ground, it will be located inside a building or concrete/steel post bollasters will be used to isolate from roadways.

E. MITIGATION OF IMPACTS FROM DRILLING AND/OR OPERATION

Describe measures to be taken to protect environmental and/or land use values at the well/surface facility sites(s)

The well will be installed on private property and will be located more than 50 feet offset from any property line. Any property disturbed during initial well drilling will be used as part of the ultimate operation or will be restored to it's current state as practicable. Truck traffic will decrease in the area, since previous hauling of fluid offsite will no longer be needed.

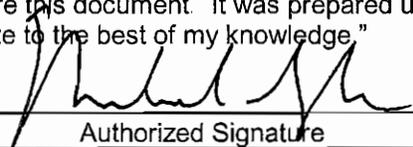
Appropriate surface pump facilities will be constructed to be used along with existing treatment and storage tanks in compliance with the current environmental regulations, and the surface facilities will include secondary spill protection (curbing) and other safeguard measures

F. CERTIFICATION

"I state that I am authorized by said applicant to prepare this document. It was prepared under my supervision and direction. The facts stated herein are true, accurate and complete to the best of my knowledge."

Michael C. Sniegowski, Vice President

Name and title (printed or typed)


Authorized Signature

10/30/2009

Date

Enclose with Application For Permit To Drill

A.7 Form EQP 7200-18, Soil Erosion and Sedimentation Control Plan

The Soil Erosion and Sediment Control Plan is presented in/on Form EQP 7200-18, presented at the end of this Section (A.7)

5
7220-18

**SOIL EROSION & SEDIMENTATION CONTROL PLAN**

By authority of Part 91, and Part 615 or Part 625 of Act 451 PA 1994, as amended. Non-submission and/or falsification of this information may result in fines and/or imprisonment

Part 615 Oil/Gas Well Part 625 Mineral Well

1. Name and address of applicant

Beeland Group, LLC
One Energy Plaza
Jackson, MI 49201
Facility Location: 5548 US 31, Petoskey, MI 49770
Phone: (517)768-7330 Fax: (517) 788 1955

2. Well or project name:

Bay Harbor Disposal Well No. 1

3. Well or project location:

Section(s) 9 T34N R6W

4. Name and address of County or local Enforcement Agent (CEA)

Nancy Salar, Administrator
Emmet Conservation District
3434 Harbor Petoskey Road
Harbor Springs, MI 49740
Phone: (231)439) 8996 Fax: ()

5. Township

Resort

6. County

Emmet

7. Date earth changes expected to start

Spring 2010

8. Date of expected completion

Summer 2010

9. Name and address of person responsible for earth change:

Beeland Group, LLC
One Energy Plaza
Jackson, MI 49201
Phone: (517)768 7330 Fax: (517) 788 1955

10. Name and address of person responsible for maintenance:

Beeland Group, LLC
One Energy Plaza
Jackson, MI 49201
Phone: (517)768 7330 Fax: (517) 768 1955

11. Send copies of supplemental plat required by Part 615, R 324.201(2)(b) or R 324.504(4) and this form and all attachments, to CEA.

Date sent to CEA To be submitted prior to commencement of activities

EARTH CHANGE ACTIVITIES

12. Project description: (Project activities may be permitted sequentially)

- a. Number of well sites 1, <1.0 acres
b. Number of surface facility sites 1, <1.0 acres
c. New access roads 0 feet, 0 acres
d. Flow line(s) trenched in off well site* <500 feet <0.1 acres
e. Flow line(s) plowed in off well site* N/A feet, 0 acres
*Contact CEA for fee schedule

13. Describe sites for which permits are being sought under Part 301 (Inland Lakes & Streams) noneDescribe sites for which permits are being sought under Part 303 (Wetlands) nonest file numbers if known NA

14. Areas requiring control structures

Will earth changes occur in areas with slopes of 10% or greater; areas where runoff water is likely, such as runs greater than 500' of moderate slope (5% to 10%), narrow valley bottoms, etc.; areas within 500' of a lake or stream; or other areas where sedimentation to a wetland or drainage way may occur?

Yes Attach detail map at scale of 1"=200' or larger, with contour lines at a minimum of 20' intervals OR percent slope descriptions.

Also indicate any of the following erosion control structures that will be utilized. Identify location on map and attach detail plan

Indicate on plan whether erosion control structures are temporary or permanent

Diversions Culverts Sediment basins Silt fences Rip-rap Berms Check dams Other _____

 No

15. Site restoration

Topsoil will be segregated from subsoil and stockpiled OR No topsoil on site

Recontour and revegetate as soon as weather permits. Seed mix DNR mix if applicable, most disturbance to be permanently used for operations

Describe other proposed methods of restoration site area already in industrial use and will be maintained as such

16. Application prepared by (name)

Michael C. Sniegowski

Signature

Date

10-30-09

FOR USE OF COUNTY OR LOCAL ENFORCING AGENT

INSTRUCTIONS TO COUNTY OR LOCAL ENFORCMENT AGENT: Return this form to the applicable field or district office of the Office of Geological Survey within 30 days of receipt. Explain reasons for recommendation or disapproval and conditions required for approval. Include copies of any revisions to the plan.

17. Comments

Conducted on site inspection Date _____

Inspected site with representative of applicant Date _____

18. Approved Disapproved

CEA signature _____

Date _____

A.8 Provide a conformance bond.

For information regarding bonding options see the link to mineral well bonds at <http://www.michigan.gov/deqogs> and click on Mineral Wells or contact David Davis at 517-241-1529.

Beeland Group, LLC has secured a Conformance Bond in the amount of \$33,000.00 with a rider of \$27,000 for a total amount of \$60,000. The Michigan Department of Environmental Quality Office of Geologic Survey is designated as the beneficiary. A copy of this document is provided at the end of Section A.8, along with a copy of the letter submitted to USEPA requesting that this financial assurance be accepted simultaneously for satisfying applicable federal requirements

H2S Sour Gas Contingency Plan
 Beeland Group, LLC DW No. 1
 SW 1/4 of NW 1/4 of Section 9 T34N R6W
 Emmet County Michigan

EMERGENCY TELEPHONE NUMBERS

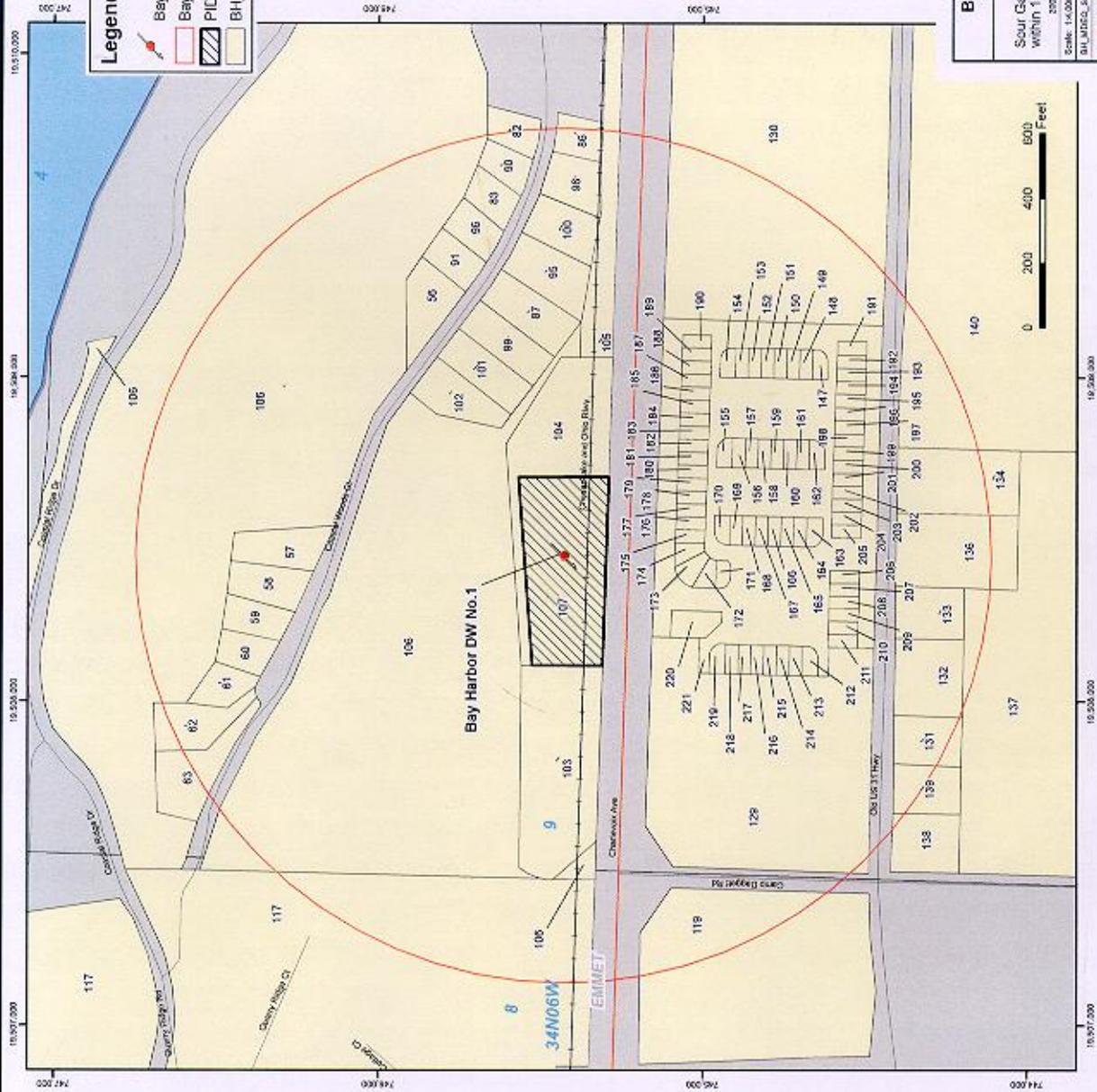
		LOCATION		NUMBER(S)
Company Personnel:	Michael Snięowski	2939 Charlevoix Avenue	Petoskey	231-622-8541
Department of Natural Resources (DNR)	Natural Resources Conservation Service Environmental Emergency	2235 Mitchell Park Drive	Petoskey	231-347-2133 1-800-292-4706 (within Michigan) 1-517-373-7660 (outside Michigan)
	Cadillac District Office	120 W Chapin St	Cadillac	231-775-3960
	Gaylord Field Office	2100 West M-32	Gaylord	989-731-4920
Sheriff	Office	450 Bay Street	Petoskey	347-2032
Emergency Service	Emergency Management	1694 US 131S	Petoskey	439-3333
	Health Department	3434 M-119	Harbor Springs	347-6014
State Police	Petosky Post #78	1200 M-119	Petoskey	231-347-8102
Ambulance	Life Link Ambulance Service	501 West Mitchell Street	Petoskey	231-533-8040
	DAO of Health LLC	480 W Mitchell St	Petoskey	231-34-3009
	Little Traverse Area Bay Band	1080 Hager Dr	Petoskey	231-242-1700
Hospital	Bay Bluffs Medical Care Facility	750 E Main St	Petoskey	526-2161
Fire Department	Petoskey Fire Department	100 West Lake Street	Petoskey	231-347-2500
City of Petoskey	Director of Public Safety	101 E Lake St	Petoskey	231-347-2500
	Michigan Public Power Association	809 Centennial Way	Lansing	517-323-8919
Emmet County Emergency Management	Emergency Service (See above)	jmesser@cce911.com	Petoskey	231-439-3333
Nearest Public Telephone	N/A physical site inspection of the area conducted as of 7/1/2010 indicates all pay phones have been removed			
Mud Treatment	To be determined based on rig contractor selected and final drilling plan a gas buster will be provided as necessary			

H2S Sour Gas Contingency Plan
 Beeland Group, LLC DW No. 1
 SW 1/4 of NW 1/4 of Section 9 T34N R6W
 Emmet County, Michigan

PID	OWNER	OWNER02	ADDRESS	CITY	STATE	ZIP	OPHONE
52-18-09-110-112	GOLF SITES, LLC		5434 COASTAL WOODS CT	BAY HARBOR	MI	49770	231-439-2500
52-18-09-110-127	TREtrice BYRON W JR & MAUREEN E &	TREtrice BYRON WARE II ET AL	5514 COASTAL WOODS CT	BAY HARBOR	MI	49770	231-347-6092
52-18-09-110-128	FRIESS GEORGE & MANGA		5544 COASTAL WOODS CT	BAY HARBOR	MI	49770	231-347-6092
52-18-09-110-129	KING THOMAS E TRUST	KING THOMAS E TTEE	5574 COASTAL WOODS CT	BAY HARBOR	MI	49770	231-487-0307
52-18-09-110-130	BOYNE USA, INC		5604 COASTAL WOODS CT	BAY HARBOR	MI	49770	no local listing
52-18-09-110-132	SEBOLD THOMAS & ASSOCIATES INC		5634 COASTAL WOODS CT	BAY HARBOR	MI	49770	231-439-4000
52-18-09-110-133	JP MORGAN CHASE BANK NA		5664 COASTAL WOODS CT	BAY HARBOR	MI	49770	231-439-7711
52-18-09-110-107	DREW STEPHEN R & CLARICE (Grand Rapids #)		5684 COASTAL WOODS CT	BAY HARBOR	MI	49770	231-347-7711
52-18-09-110-109	GOLF SITES, LLC		5344 COASTAL WOODS CT	BAY HARBOR	MI	49770	616-956-0257
52-18-09-110-119	DELTA ACQUISITIONS LLC (owner of record as of 5/7/09 Mariflax Corporation)		5285 COASTAL WOODS CT	BAY HARBOR	MI	49770	231-439-2541
52-18-09-110-123	GOLF SITES, LLC		5405 COASTAL WOODS CT	BAY HARBOR	MI	49770	231-536-9950
52-18-09-110-108	GOLF SITES, LLC		5314 COASTAL WOODS CT	BAY HARBOR	MI	49770	231-439-2541
52-18-09-110-111	GOLF SITES, LLC		5404 COASTAL WOODS CT	BAY HARBOR	MI	49770	231-439-2541
52-18-09-110-122	GOLF SITES, LLC		5375 COASTAL WOODS CT	BAY HARBOR	MI	49770	231-439-2541
52-18-09-110-110	GOLF SITES, LLC		5374 COASTAL WOODS CT	BAY HARBOR	MI	49770	231-439-2541
52-18-09-110-120	DELTA ACQUISITIONS LLC (owner of record as of 5/7/09 Mariflax Corporation)		5315 COASTAL WOODS CT	BAY HARBOR	MI	49770	231-439-2541
52-18-09-110-124	GOLF SITES, LLC		5435 COASTAL WOODS CT	BAY HARBOR	MI	49770	231-536-9950
52-18-09-110-121	MICHIGAN HERITAGE BANK (closed by State of Michigan Office of Financial and Insurance R		5475 COASTAL WOODS CT	BAY HARBOR	MI	49770	no local listing
52-18-09-110-125	DEWARTINS SHARON		5475 COASTAL WOODS CT	BAY HARBOR	MI	49770	586-677-1501
52-18-09-110-126	BAY HARBOR VILLAGE CO		5505 COASTAL WOODS CT (address with	BAY HARBOR	MI	49770	231-439-2500
52-18-09-152-011	CITY OF PETOSKEY		100 W Lake St	PETOSKEY	MI		231-347-2500
52-18-09-152-012	CITY OF PETOSKEY		100 W Lake St	PETOSKEY	MI		231-347-2500
52-18-09-152-014	BAY HARBOR CO, LLC		CHARLEVOIX AV	BAY HARBOR	MI	49770	231-439-2500
52-18-09-152-010	BAY HARBOR GOLF CLUB, INC		3600 Village Harbor Dr	PETOSKEY	MI	49770	231-439-4028
52-18-09-152-013	BAY HARBOR CO, LLC		5548 CHARLEVOIX RD	PETOSKEY	MI	49770	231-439-2500
52-18-06-250-001	BAY HARBOR GOLF CLUB, INC		CHARLEVOIX AV	BAY HARBOR	MI	49770	231-439-4028
13-18-06-200-003	WIENSON JOHN & AMANDA		5756 OLD US 31	PETOSKEY	MI	49770	248-645-9894
13-18-09-100-013	SIGNATURE RESORTS OF MI INC (owner of record as of 6/1/09 Michigan RV Resorl LLC)		5505 US 31 South	BAY HARBOR	MI	49770	231-348-2400
13-18-09-100-014	BAY HARBOR CO, LLC		5251 CHARLEVOIX RD	PETOSKEY	MI	49770	231-439-2500
13-18-09-300-003	MOORE GEORGE E & GARNETTE		5613 OLD US 31	PETOSKEY	MI	49770	231-348-1815
13-18-09-300-004	MOORE GARNETTE		5585 OLD US 31	PETOSKEY	MI	49770	231-348-1815
13-18-09-300-005	LEGATO JEFFREY & LYNETTE		5541 OLD US 31	PETOSKEY	MI	49770	231-347-1213
13-18-09-300-007	KIRWAN PETER & CAROL		5487 OLD US 31	PETOSKEY	MI	49770	231-347-6132
13-18-09-300-011	MARQUARDT JOHN & LYNN	MARQUARDT TRUST	5505 OLD US 31	PETOSKEY	MI	49770	231-439-0342
13-18-09-300-013	MARQUARDT VIRGINIA, TRUSTEE		5681 OLD US 31	PETOSKEY	MI	49770	231-347-3516
13-18-09-300-015	MOORE DANIEL C & ESTHER L		5631 OLD US 31	PETOSKEY	MI	49770	231-547-2209
13-18-09-300-016	PETTENGER RONALD & RUBY		5121 OLD US 31	PETOSKEY	MI	49770	231-347-5440
13-18-09-300-017	MARQUARDT FAMILY TRUST & MARQUARDT LIVING TRUST ET AL (1/3 INT EA)		5410 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-347-3516
13-18-09-150-101	SIGNATURE RESORTS OF MI INC		5406 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-102	SIGNATURE RESORTS OF MI INC		5402 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-103	SIGNATURE RESORTS OF MI INC		5396 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-104	SIGNATURE RESORTS OF MI INC		5394 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-105	SIGNATURE RESORTS OF MI INC		5390 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-106	SIGNATURE RESORTS OF MI INC		5386 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-107	SIGNATURE RESORTS OF MI INC		5382 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-108	SIGNATURE RESORTS OF MI INC		1362 WATERFALL LN	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-109	SIGNATURE RESORTS OF MI INC		1380 WATERFALL LN	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-110	SIGNATURE RESORTS OF MI INC		1398 WATERFALL LN	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-111	SIGNATURE RESORTS OF MI INC		1416 WATERFALL LN	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-112	SIGNATURE RESORTS OF MI INC		1434 WATERFALL LN	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-113	SIGNATURE RESORTS OF MI INC		1452 WATERFALL LN	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-114	SIGNATURE RESORTS OF MI INC		1470 WATERFALL LN	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-115	SIGNATURE RESORTS OF MI INC		1488 WATERFALL LN	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-116	SIGNATURE RESORTS OF MI INC		1483 CLUB LANE EAST	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-117	SIGNATURE RESORTS OF MI INC		1465 CLUB LANE EAST	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-118	SIGNATURE RESORTS OF MI INC			PETOSKEY	MI	49770	

H2S Sour Gas Contingency Plan
 Beeland Group, LLC DW No. 1
 SW 1/4 of NW 1/4 of Section 9 T34N R6W
 Emmet County, Michigan

PID	OWNER	OWNER02	ADDRESS	CITY	STATE	ZIP	OPHONE
13-18-09-150-119	SIGNATURE RESORTS OF MI INC		1447 CLUB LANE EAST	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-120	SIGNATURE RESORTS OF MI INC		1429 CLUB LANE EAST	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-121	SIGNATURE RESORTS OF MI INC		1411 CLUB LANE EAST	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-122	SIGNATURE RESORTS OF MI INC		1393 CLUB LANE EAST	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-123	SIGNATURE RESORTS OF MI INC		5302 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-124	SIGNATURE RESORTS OF MI INC		5306 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-125	SIGNATURE RESORTS OF MI INC		5303 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-125	SIGNATURE RESORTS OF MI INC		5307 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-127	SIGNATURE RESORTS OF MI INC		5311 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-123	SIGNATURE RESORTS OF MI INC		5315 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-123	SIGNATURE RESORTS OF MI INC		5319 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-130	SIGNATURE RESORTS OF MI INC		5323 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-131	SIGNATURE RESORTS OF MI INC		5327 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-132	SIGNATURE RESORTS OF MI INC		5331 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-133	SIGNATURE RESORTS OF MI INC		5335 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-134	SIGNATURE RESORTS OF MI INC		5339 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-135	SIGNATURE RESORTS OF MI INC		5343 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-136	SIGNATURE RESORTS OF MI INC		5347 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-137	SIGNATURE RESORTS OF MI INC		5351 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-138	SIGNATURE RESORTS OF MI INC		5355 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-139	SIGNATURE RESORTS OF MI INC		5359 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-140	SIGNATURE RESORTS OF MI INC		5363 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-141	SIGNATURE RESORTS OF MI INC		5367 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-142	SIGNATURE RESORTS OF MI INC		5371 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-143	SIGNATURE RESORTS OF MI INC		5375 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-144	SIGNATURE RESORTS OF MI INC		5379 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-145	SIGNATURE RESORTS OF MI INC		5415 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-146	SIGNATURE RESORTS OF MI INC		5419 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-147	SIGNATURE RESORTS OF MI INC		5423 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-148	SIGNATURE RESORTS OF MI INC		5427 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-149	SIGNATURE RESORTS OF MI INC		5431 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-150	SIGNATURE RESORTS OF MI INC		5435 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-151	SIGNATURE RESORTS OF MI INC		5439 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-152	KIRVAN RONALD FREDERICK & LOUISE E		5443 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2401
13-18-09-150-153	SIGNATURE RESORTS OF MI INC		5447 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-154	SIGNATURE RESORTS OF MI INC		5451 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-155	SIGNATURE RESORTS OF MI INC		5455 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-156	SIGNATURE RESORTS OF MI INC		5459 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-157	SIGNATURE RESORTS OF MI INC		5463 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-158	SIGNATURE RESORTS OF MI INC		5467 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-159	SIGNATURE RESORTS OF MI INC		5471 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-160	SIGNATURE RESORTS OF MI INC		5479 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-161	SIGNATURE RESORTS OF MI INC		5483 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-163	SIGNATURE RESORTS OF MI INC		5487 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-164	SIGNATURE RESORTS OF MI INC		5495 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-165	SIGNATURE RESORTS OF MI INC		5499 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-166	SIGNATURE RESORTS OF MI INC		1486 CLUB LANE WEST	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-167	SIGNATURE RESORTS OF MI INC		1488 CLUB LANE WEST	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-168	SIGNATURE RESORTS OF MI INC		1450 CLUB LANE WEST	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-169	SIGNATURE RESORTS OF MI INC		1432 CLUB LANE WEST	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-170	SIGNATURE RESORTS OF MI INC		1414 CLUB LANE WEST	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-171	SIGNATURE RESORTS OF MI INC		1396 CLUB LANE WEST	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-172	SIGNATURE RESORTS OF MI INC		5668 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-173	SIGNATURE RESORTS OF MI INC		5664 BIRCH VIEW CIR	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-174	SIGNATURE RESORTS OF MI INC		5505 CHARLEVOIX RD	PETOSKEY	MI	49770	231-348-2400
13-18-09-150-001	SIGNATURE RESORTS OF MI INC		5680 BIRCH VIEW CIR	PETOSKEY	MI	49771	231-348-2400



Legend

- Bay Harbor Disposal Well No. 1
- Bay_Harbor_DW_1320R_AOR
- PID:52-18-09-152-013
- BH_1320R_AOR_Parcels

Emmet County Land Parcel data was obtained from: Emmet County GIS Coordinator. Data was in the form of an ArcView Shape file. Data was current thru 09/22/2008.

Note: See attached table for owners and phone numbers associated with PID's.

Beeland Group, LLC
 2504 US 31, P.O. Box 47770
 St. Louis, MO 63146-4770

Figure 1
 Sour Gas Contingency Plan Properties within 1/4 Mile of Bay Harbor DW No. 1
 2009 Bay Harbor Disposal Well No. 1 Permit
 Scale: 1:4,000 Date: May 2010
 BH_AOR_1320R_AOR.dwg By: J.M. Checked: M.C.

Petrotek
 1000 Peachtree St., NE, Suite 1000
 Atlanta, GA 30309
 Phone: 404.525.1000

Map ID	PID	OWNER
37	15-00-00-101-000	EMMET COUNTY
38	15-00-00-101-000	EMMET COUNTY
39	15-00-00-101-000	EMMET COUNTY
40	15-00-00-101-000	EMMET COUNTY
41	15-00-00-101-000	EMMET COUNTY
42	15-00-00-101-000	EMMET COUNTY
43	15-00-00-101-000	EMMET COUNTY
44	15-00-00-101-000	EMMET COUNTY
45	15-00-00-101-000	EMMET COUNTY
46	15-00-00-101-000	EMMET COUNTY
47	15-00-00-101-000	EMMET COUNTY
48	15-00-00-101-000	EMMET COUNTY
49	15-00-00-101-000	EMMET COUNTY
50	15-00-00-101-000	EMMET COUNTY
51	15-00-00-101-000	EMMET COUNTY
52	15-00-00-101-000	EMMET COUNTY
53	15-00-00-101-000	EMMET COUNTY
54	15-00-00-101-000	EMMET COUNTY
55	15-00-00-101-000	EMMET COUNTY
56	15-00-00-101-000	EMMET COUNTY
57	15-00-00-101-000	EMMET COUNTY
58	15-00-00-101-000	EMMET COUNTY
59	15-00-00-101-000	EMMET COUNTY
60	15-00-00-101-000	EMMET COUNTY
61	15-00-00-101-000	EMMET COUNTY
62	15-00-00-101-000	EMMET COUNTY
63	15-00-00-101-000	EMMET COUNTY
64	15-00-00-101-000	EMMET COUNTY
65	15-00-00-101-000	EMMET COUNTY
66	15-00-00-101-000	EMMET COUNTY
67	15-00-00-101-000	EMMET COUNTY
68	15-00-00-101-000	EMMET COUNTY
69	15-00-00-101-000	EMMET COUNTY
70	15-00-00-101-000	EMMET COUNTY
71	15-00-00-101-000	EMMET COUNTY
72	15-00-00-101-000	EMMET COUNTY
73	15-00-00-101-000	EMMET COUNTY
74	15-00-00-101-000	EMMET COUNTY
75	15-00-00-101-000	EMMET COUNTY
76	15-00-00-101-000	EMMET COUNTY
77	15-00-00-101-000	EMMET COUNTY
78	15-00-00-101-000	EMMET COUNTY
79	15-00-00-101-000	EMMET COUNTY
80	15-00-00-101-000	EMMET COUNTY
81	15-00-00-101-000	EMMET COUNTY
82	15-00-00-101-000	EMMET COUNTY
83	15-00-00-101-000	EMMET COUNTY
84	15-00-00-101-000	EMMET COUNTY
85	15-00-00-101-000	EMMET COUNTY
86	15-00-00-101-000	EMMET COUNTY
87	15-00-00-101-000	EMMET COUNTY
88	15-00-00-101-000	EMMET COUNTY
89	15-00-00-101-000	EMMET COUNTY
90	15-00-00-101-000	EMMET COUNTY
91	15-00-00-101-000	EMMET COUNTY
92	15-00-00-101-000	EMMET COUNTY
93	15-00-00-101-000	EMMET COUNTY
94	15-00-00-101-000	EMMET COUNTY
95	15-00-00-101-000	EMMET COUNTY
96	15-00-00-101-000	EMMET COUNTY
97	15-00-00-101-000	EMMET COUNTY
98	15-00-00-101-000	EMMET COUNTY
99	15-00-00-101-000	EMMET COUNTY
100	15-00-00-101-000	EMMET COUNTY
101	15-00-00-101-000	EMMET COUNTY
102	15-00-00-101-000	EMMET COUNTY
103	15-00-00-101-000	EMMET COUNTY
104	15-00-00-101-000	EMMET COUNTY
105	15-00-00-101-000	EMMET COUNTY
106	15-00-00-101-000	EMMET COUNTY
107	15-00-00-101-000	EMMET COUNTY
108	15-00-00-101-000	EMMET COUNTY
109	15-00-00-101-000	EMMET COUNTY
110	15-00-00-101-000	EMMET COUNTY
111	15-00-00-101-000	EMMET COUNTY
112	15-00-00-101-000	EMMET COUNTY
113	15-00-00-101-000	EMMET COUNTY
114	15-00-00-101-000	EMMET COUNTY
115	15-00-00-101-000	EMMET COUNTY
116	15-00-00-101-000	EMMET COUNTY
117	15-00-00-101-000	EMMET COUNTY
118	15-00-00-101-000	EMMET COUNTY
119	15-00-00-101-000	EMMET COUNTY
120	15-00-00-101-000	EMMET COUNTY
121	15-00-00-101-000	EMMET COUNTY
122	15-00-00-101-000	EMMET COUNTY
123	15-00-00-101-000	EMMET COUNTY
124	15-00-00-101-000	EMMET COUNTY
125	15-00-00-101-000	EMMET COUNTY
126	15-00-00-101-000	EMMET COUNTY
127	15-00-00-101-000	EMMET COUNTY
128	15-00-00-101-000	EMMET COUNTY
129	15-00-00-101-000	EMMET COUNTY
130	15-00-00-101-000	EMMET COUNTY
131	15-00-00-101-000	EMMET COUNTY
132	15-00-00-101-000	EMMET COUNTY
133	15-00-00-101-000	EMMET COUNTY
134	15-00-00-101-000	EMMET COUNTY
135	15-00-00-101-000	EMMET COUNTY
136	15-00-00-101-000	EMMET COUNTY
137	15-00-00-101-000	EMMET COUNTY
138	15-00-00-101-000	EMMET COUNTY
139	15-00-00-101-000	EMMET COUNTY
140	15-00-00-101-000	EMMET COUNTY
141	15-00-00-101-000	EMMET COUNTY
142	15-00-00-101-000	EMMET COUNTY
143	15-00-00-101-000	EMMET COUNTY
144	15-00-00-101-000	EMMET COUNTY
145	15-00-00-101-000	EMMET COUNTY
146	15-00-00-101-000	EMMET COUNTY
147	15-00-00-101-000	EMMET COUNTY
148	15-00-00-101-000	EMMET COUNTY
149	15-00-00-101-000	EMMET COUNTY
150	15-00-00-101-000	EMMET COUNTY
151	15-00-00-101-000	EMMET COUNTY
152	15-00-00-101-000	EMMET COUNTY
153	15-00-00-101-000	EMMET COUNTY
154	15-00-00-101-000	EMMET COUNTY
155	15-00-00-101-000	EMMET COUNTY
156	15-00-00-101-000	EMMET COUNTY
157	15-00-00-101-000	EMMET COUNTY
158	15-00-00-101-000	EMMET COUNTY
159	15-00-00-101-000	EMMET COUNTY
160	15-00-00-101-000	EMMET COUNTY
161	15-00-00-101-000	EMMET COUNTY
162	15-00-00-101-000	EMMET COUNTY
163	15-00-00-101-000	EMMET COUNTY
164	15-00-00-101-000	EMMET COUNTY
165	15-00-00-101-000	EMMET COUNTY
166	15-00-00-101-000	EMMET COUNTY
167	15-00-00-101-000	EMMET COUNTY
168	15-00-00-101-000	EMMET COUNTY
169	15-00-00-101-000	EMMET COUNTY
170	15-00-00-101-000	EMMET COUNTY
171	15-00-00-101-000	EMMET COUNTY
172	15-00-00-101-000	EMMET COUNTY
173	15-00-00-101-000	EMMET COUNTY
174	15-00-00-101-000	EMMET COUNTY
175	15-00-00-101-000	EMMET COUNTY
176	15-00-00-101-000	EMMET COUNTY
177	15-00-00-101-000	EMMET COUNTY
178	15-00-00-101-000	EMMET COUNTY
179	15-00-00-101-000	EMMET COUNTY
180	15-00-00-101-000	EMMET COUNTY
181	15-00-00-101-000	EMMET COUNTY
182	15-00-00-101-000	EMMET COUNTY
183	15-00-00-101-000	EMMET COUNTY
184	15-00-00-101-000	EMMET COUNTY
185	15-00-00-101-000	EMMET COUNTY
186	15-00-00-101-000	EMMET COUNTY
187	15-00-00-101-000	EMMET COUNTY
188	15-00-00-101-000	EMMET COUNTY
189	15-00-00-101-000	EMMET COUNTY
190	15-00-00-101-000	EMMET COUNTY
191	15-00-00-101-000	EMMET COUNTY
192	15-00-00-101-000	EMMET COUNTY
193	15-00-00-101-000	EMMET COUNTY
194	15-00-00-101-000	EMMET COUNTY
195	15-00-00-101-000	EMMET COUNTY
196	15-00-00-101-000	EMMET COUNTY
197	15-00-00-101-000	EMMET COUNTY
198	15-00-00-101-000	EMMET COUNTY
199	15-00-00-101-000	EMMET COUNTY
200	15-00-00-101-000	EMMET COUNTY
201	15-00-00-101-000	EMMET COUNTY
202	15-00-00-101-000	EMMET COUNTY

BOND



BOND FOR CONFORMANCE

By authority of Part 625, Mineral Wells Act 451 PA 1994 as amended Non-submission and/or falsification of this information may result in fines and/or imprisonment

MINERAL WELL OPERATIONS BOND	
Bond number 6658081	Well name and number Bay Harbor Disposal Well No. 1

Part 625 Bond Amounts

Individual test well permit	Blanket test well permit	Disposal, storage, or brine well
<input type="checkbox"/> \$5 500.00 for a depth of 0 to 1000	<input type="checkbox"/> \$5 500 00 for 1 to 24 wells	<input checked="" type="checkbox"/> \$33 000 00 for a single well
<input type="checkbox"/> \$11,000 00 for a depth greater than 1000 to 2000'	<input type="checkbox"/> \$11 000 00 for 25 to 49 wells	Disposal, storage, brine, and individual test well
<input type="checkbox"/> \$22 000 00 for a depth greater than 2000 to 4000	<input type="checkbox"/> \$16 500 00 for 50 to 75 wells	
<input type="checkbox"/> \$33,000.00 for a depth greater than 4000	<input type="checkbox"/> \$22,000.00 for 76 to 200 wells	<input type="checkbox"/> \$440,000.00 for blanket coverage

Beeland Group, LLC 5548 US 31, Petoskey, MI 49770

(Name and Address of Principal)

in the State of Michigan as Principal and

Safeco Insurance Company of America, 10 S. Riverside Plaza, Chicago, IL 60606

(Name and Address of Surety)

a corporation organized and existing under the laws of the State of Washington and duly authorized to transact business in the State of Michigan as Surety are held and firmly bound unto the State of Michigan in the penal sum of

Thirty-three thousand dollars (\$33,000) Dollars

The Principal named is about to commence and prosecute to final completion well(s) authorized by permits issued or to be issued under Part 625 Act 451 PA 1994, as amended.

Final completion" means either of the following: (1) The time when locating, drilling deepening, converting operating, producing, reworking, plugging and proper site restoration have been performed on a well in a manner approved by the supervisor of mineral wells, including the filing of the mandatory records; (2) The time when a permit has been issued to convert an existing well subject to this part to a purpose allowed under another act or another part of the act

When the Principal complies with the provisions of Part 625, Act 451 PA 1994, as amended, in the final completion of the well(s) the Surety's obligations can be terminated otherwise this obligation remains in full force and effect. The Surety's liability herein is co-extensive with that of the Principal and the State of Michigan has the same remedies against the Surety as against the Principal

The Surety by execution of the bond accepts the liability covered by prior bond(s) None

(number(s) and company)

and gives notice to the Supervisor of Mineral Wells of the need for terminating the prior bond(s) as listed herein with such termination to be effective as of the time that this bond becomes effective

Signed sealed and dated the 27 day of October 2009

Beeland Group, LLC
(Principal)

By Catherine M Reynolds
(Signature)

Catherine M. Reynolds
Vice President and Secretary
(Name and title)

Safeco Insurance Company of America
(Surety)

By C.R. Hernandez
(Signature)

C.R. Hernandez, Attorney-in-Fact
(Name and title)

When the Principal or Surety executes this bond by an agent power of attorney or other evidence of authority must accompany the bond

DEQ USE ONLY	
Permit number	Issue date
Type of well	

MAIL TO:
OFFICE OF GEOLOGICAL SURVEY
MICHIGAN DEPT OF ENVIRONMENTAL QUALITY
P.O. BOX 30256
LANSING MI 48909-7756

POWER OF ATTORNEY

No 4631

KNOW ALL BY THESE PRESENTS:

That SAFECO INSURANCE COMPANY OF AMERICA and GENERAL INSURANCE COMPANY OF AMERICA, each a Washington corporation does each hereby appoint

*****LINH B. BUCHOLTZ; KATHERINE J FOREIT; C R. HERNANDEZ; RALPH E NOSAL; SANDRA NOWAKOWSKI; DAVID J. ROTH; THEODORE C SEVIER, JR.; Chicago, Illinois*****

its true and lawful attorney(s)-in-fact, with full authority to execute on its behalf fidelity and surety bonds or undertakings and other documents of a similar character issued in the course of its business and to bind the respective company thereby

IN WITNESS WHEREOF, SAFECO INSURANCE COMPANY OF AMERICA and GENERAL INSURANCE COMPANY OF AMERICA have each executed and attested these presents

this 6th day of August 2009

Dexter R. Legg

Dexter R. Legg, Secretary

T. Mikolajewski

Timothy A. Mikolajewski, Vice President

CERTIFICATE

Extract from the By-Laws of SAFECO INSURANCE COMPANY OF AMERICA and of GENERAL INSURANCE COMPANY OF AMERICA:

Article V Section 13. - FIDELITY AND SURETY BONDS ... the President, any Vice President, the Secretary, and any Assistant Vice President appointed for that purpose by the officer in charge of surety operations, shall each have authority to appoint individuals as attorneys-in-fact or under other appropriate titles with authority to execute on behalf of the company fidelity and surety bonds and other documents of similar character issued by the company in the course of its business... On any instrument making or evidencing such appointment, the signatures may be affixed by facsimile. On any instrument conferring such authority or on any bond or undertaking of the company, the seal or a facsimile thereof may be impressed or affixed or in any other manner reproduced; provided however that the seal shall not be necessary to the validity of any such instrument or undertaking "

Extract from a Resolution of the Board of Directors of SAFECO INSURANCE COMPANY OF AMERICA and of GENERAL INSURANCE COMPANY OF AMERICA adopted July 28 1970

On any certificate executed by the Secretary or an assistant secretary of the Company setting out

- (i) The provisions of Article V Section 13 of the By-Laws, and
(ii) A copy of the power-of-attorney appointment executed pursuant thereto and
(iii) Certifying that said power-of-attorney appointment is in full force and effect

the signature of the certifying officer may be by facsimile and the seal of the Company may be a facsimile thereof

I, Dexter R Legg, Secretary of SAFECO INSURANCE COMPANY OF AMERICA and of GENERAL INSURANCE COMPANY OF AMERICA, do hereby certify that the foregoing extracts of the By-Laws and of a Resolution of the Board of Directors of these corporations, and of a Power of Attorney issued pursuant thereto are true and correct and that both the By-Laws the Resolution and the Power of Attorney are still in full force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the facsimile seal of said corporation

this 27 day of October 2009



Dexter R. Legg

Dexter R. Legg, Secretary



STATE OF ILLINOIS
COUNTY OF COOK

I, Beatriz Polito, a Notary Public in and for said County, do hereby
certify that C.R. Hernandez as Attorney-in-Fact, of the

SAFECO INSURANCE COMPANY OF AMERICA	GENERAL INSURANCE COMPANY OF AMERICA
--	---

who is personally known to me to be the same person whose name is subscribed to the
foregoing instrument, appeared before me this day in person, and acknowledged that they
signed, sealed, and delivered said instrument for and on behalf of

SAFECO INSURANCE COMPANY OF AMERICA	GENERAL INSURANCE COMPANY OF AMERICA
--	---

for the uses and purposed therein set forth.

Given under my hand and notarial seal at my office in the City of Chicago in said County,
this 27 day of October A.D. 2009

Beatriz Polito
Notary Public



Safeco Insurance Company of America

**SURETY CHANGE RIDER
RIDER NO. 1**

To be attached to and form a part of:

Bond No : **6658081**

Type of Bond: **Bond for Conformance**

Original Effective Date: 10/27/2009
(Month-Day-Year)

Executed by: **Beeland Group, LLC** (Principal)

and by **Safeco Insurance Company of America** (Surety)

and in favor of: **State of Michigan** (Obligee)

In consideration of the mutual agreements herein contained the Principal and the Surety hereby consent to changing the bond amount:

From: \$33,000.00

To: \$60,000.00

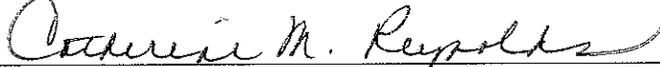
Nothing herein contained shall vary, alter or extend any provision or condition of this bond except as herein expressly stated

This change rider is effective 10/27/2009

Signed and dated on: 10/27/2009

Principal: Beeland Group, LLC

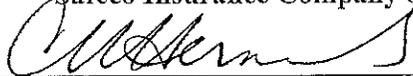
BY:



Catherine M. Reynolds, Vice President and Secretary

Surety: Safeco Insurance Company of America

BY:



C.R. Hernandez, Attorney-in-Fact

POWER OF ATTORNEY

No 4631

KNOW ALL BY THESE PRESENTS:

That SAFECO INSURANCE COMPANY OF AMERICA and GENERAL INSURANCE COMPANY OF AMERICA, each a Washington corporation does each hereby appoint

*****LINH B BUCHOLTZ; KATHERINE J FOREIT; C R. HERNANDEZ; RALPH E NOSAL; SANDRA NOWAKOWSKI; DAVID J. ROTH; THEODORE C. SEVIER, JR.; Chicago, Illinois*****

its true and lawful attorney(s)-in-fact with full authority to execute on its behalf fidelity and surety bonds or undertakings and other documents of a similar character issued in the course of its business and to bind the respective company thereby

IN WITNESS WHEREOF, SAFECO INSURANCE COMPANY OF AMERICA and GENERAL INSURANCE COMPANY OF AMERICA have each executed and attested these presents

this 6th day of August 2009

Dexter R. Legg

TAMIKOLAJEWSKI

Dexter R. Legg, Secretary

Timothy A. Mikolajewski, Vice President

CERTIFICATE

Extract from the By-Laws of SAFECO INSURANCE COMPANY OF AMERICA and of GENERAL INSURANCE COMPANY OF AMERICA:

Article V Section 13. - FIDELITY AND SURETY BONDS . the President any Vice President, the Secretary, and any Assistant Vice President appointed for that purpose by the officer in charge of surety operations, shall each have authority to appoint individuals as attorneys-in-fact or under other appropriate titles with authority to execute on behalf of the company fidelity and surety bonds and other documents of similar character issued by the company in the course of its business . On any instrument making or evidencing such appointment the signatures may be affixed by facsimile On any instrument conferring such authority or on any bond or undertaking of the company, the seal or a facsimile thereof, may be impressed or affixed or in any other manner reproduced; provided however that the seal shall not be necessary to the validity of any such instrument or undertaking."

Extract from a Resolution of the Board of Directors of SAFECO INSURANCE COMPANY OF AMERICA and of GENERAL INSURANCE COMPANY OF AMERICA adopted July 28 1970

On any certificate executed by the Secretary or an assistant secretary of the Company setting out

- (i) The provisions of Article V Section 13 of the By-Laws, and
(ii) A copy of the power-of-attorney appointment executed pursuant thereto and
(iii) Certifying that said power-of-attorney appointment is in full force and effect

the signature of the certifying officer may be by facsimile and the seal of the Company may be a facsimile thereof

I, Dexter R. Legg , Secretary of SAFECO INSURANCE COMPANY OF AMERICA and of GENERAL INSURANCE COMPANY OF AMERICA, do hereby certify that the foregoing extracts of the By-Laws and of a Resolution of the Board of Directors of these corporations, and of a Power of Attorney issued pursuant thereto are true and correct and that both the By-Laws the Resolution and the Power of Attorney are still in full force and effect

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the facsimile seal of said corporation

this 27 day of October 2009



Dexter R. Legg

Dexter R. Legg, Secretary

STATE OF ILLINOIS
COUNTY OF COOK

I, Beatriz Polito, a Notary Public in and for said County, do hereby
certify that C.R. Hernandez as Attorney-in-Fact, of the

SAFECO INSURANCE COMPANY OF AMERICA	GENERAL INSURANCE COMPANY OF AMERICA
--	---

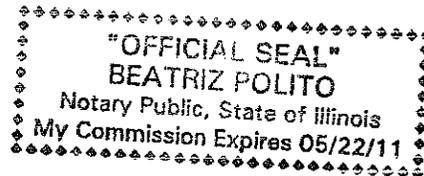
who is personally known to me to be the same person whose name is subscribed to the
foregoing instrument, appeared before me this day in person, and acknowledged that they
signed, sealed, and delivered said instrument for and on behalf of

SAFECO INSURANCE COMPANY OF AMERICA	GENERAL INSURANCE COMPANY OF AMERICA
--	---

for the uses and purposed therein set forth.

Given under my hand and notarial seal at my office in the City of Chicago in said County,
this 27 day of October A.D. 2009

Beatriz Polito
Notary Public



LETTER
TO
GPA

BEELAND GROUP LLC

Michael Sniegowski
Vice President

October 30, 2009

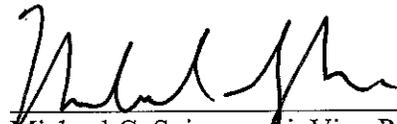
Rebecca L. Harvey, Chief
Underground Injection Control Branch
U.S. Environmental Protection Agency
77 West Jackson Boulevard, WU-16J
Chicago, Illinois 60604-3590

Dear Ms. Harvey:

This letter requests that the attached State Bond #6658081 in the total amount of \$60,000 be considered an acceptable mechanism for meeting the Federal Underground Injection Control program financial responsibility requirement for the following well:

Applicant: Beeland Group, LLC
State: Michigan
County: Emmet
Township: Resort
Facility Address: 5548 US 31 Petoskey, MI 49770
Mailing Address: One Energy Plaza, Jackson, Michigan 49201
Location of Well: SW ¼ of NW ¼ of Section 9, T36N, R6W
USEPA ID Nos.: Bay Harbor Disposal Well No. 1, TBD
Michigan ID No.: Bay Harbor Disposal Well No. 1, TBD
Contact: Mr. Michael C. Sniegowski, Vice President (517) 768-7330

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32)



Michael C. Sniegowski, Vice-President
Beeland Group, LLC

10/30/09

Date Signed

cc: Jim Duszynski, Michigan Department of Environmental Quality

A.9 The permit application fee as specified by statute:

- Disposal well for disposal of waste products \$ 2,500.00
- Disposal well for processed brine 500.00
- Storage well 500.00
- Natural or artificial brine production well 500.00

A check in the amount of \$2,500 for the permit application fee is attached to the cover letter transmitting this application.

A.10 An organization report, form EQP 7200-13, if a current organization report is not on file with the supervisor.

The Organization Report presenting the current corporate organizational status of Beeland Group, LLC is presented on form EQP 7200-13, at the end of this Section (A 10)



Bonds

Company Data Entry Form

Mod Date: 02/23/2007



Number: 6344 00

Status: Active

Hold Permit:

Organization Type: Limited Liability Company Org Rpt Date: 11/20/2006

Company: BEELAND GROUP LLC

First: _____

Alias: _____

Address: ONE ENERGY PLAZA

City St ZIP: JACKSON MI 49201

Country: _____

Phone: (517) 778-9045 Ext: _____ Fax: _____ TaxID: 20-5321543

Company Types

Permittee: Perm Agent: Cement Contr: Oil Field Excv:

Consultants: Inj/Withdraw Oper: Water Trans: Oil Gath/Trans:

Gov/Reg Agency: Drilg Contractor: Service/Supply: Oil Ref/Mkr:

Lease Oper: Bonding Co: Other: Gas Gath/Trans:

Financial/Legal: Logging Contr: Plugging: Gas Ref/Mkr:

Type/Rep	Rep Name	Title	Phone	Ext	Fax	Email
Company Employee	DOWHAN DAVID J	COMMERCIAL DIREC	(517) 768-7517			
Authorized Agent	SPORER DAVID	CMS ENERGY	(517) 768-7389			
Authorized Agent	COOPER KEN	PETROTEK ENGINEE	(303) 290-9414			
Principal	TOMASIK JOSEPH	VP BEELAND GROUP				

Notes

NO BOND as of 1/23/07. Beeland Group LLC is a subsidiary of CMS Land Co. which is a subsidiary of CMS Energy Company.



BOND FOR CONFORMANCE

By authority of Part 625, Mineral Wells, Act 451 PA 1994 as amended. Non-submission and/or falsification of this information may result in fines and/or imprisonment

MINERAL WELL OPERATIONS BOND	
Bond number 6658081	Well name and number Bay Harbor Disposal Well No. 1

Part 625 Bond Amounts		
<u>Individual test well permit</u>	<u>Blanket test well permit</u>	<u>Disposal, storage, or brine well</u>
<input type="checkbox"/> \$5 500.00 for a depth of 0 to 1000'	<input type="checkbox"/> \$5 500.00 for 1 to 24 wells	<input checked="" type="checkbox"/> \$33,000.00 for a single well
<input type="checkbox"/> \$11,000.00 for a depth greater than 1000' to 2000'	<input type="checkbox"/> \$11 000.00 for 25 to 49 wells	<u>Disposal, storage, brine, and individual test well</u>
<input type="checkbox"/> \$22 000.00 for a depth greater than 2000' to 4000'	<input type="checkbox"/> \$16,500.00 for 50 to 75 wells	<input type="checkbox"/> \$440,000.00 for blanket coverage
<input type="checkbox"/> \$33,000.00 for a depth greater than 4000'	<input type="checkbox"/> \$22,000.00 for 76 to 200 wells	

Beeland Group, LLC, 5548 US 31, Petoskey, MI 49770

(Name and Address of Principal)

in the State of Michigan as Principal and

Safeco Insurance Company of America, 10 S. Riverside Plaza, Chicago, IL 60606

(Name and Address of Surety)

a corporation organized and existing under the laws of the State of Washington and duly authorized to transact business in the State of Michigan as Surety are held and firmly bound unto the State of Michigan in the penal sum of

Thirty-three thousand dollars (\$33,000) Dollars

The Principal named is about to commence and prosecute to final completion well(s) authorized by permits issued or to be issued under Part 625 Act 451 PA 1994, as amended

"Final completion" means either of the following: (1) The time when locating, drilling, deepening, converting, operating, producing, reworking, plugging, and proper site restoration have been performed on a well in a manner approved by the supervisor of mineral wells, including the filing of the mandatory reports; (2) The time when a permit has been issued to convert an existing well subject to this part to a purpose allowed under another act or another part of the act

When the Principal complies with the provisions of Part 625, Act 451 PA 1994, as amended, in the final completion of the well(s) the Surety's obligations can be terminated otherwise this obligation remains in full force and effect. The Surety's liability herein is co-extensive with that of the Principal and the State of Michigan has the same remedies against the Surety as against the Principal

The Surety by execution of the bond accepts the liability covered by prior bond(s) None

(number(s) and company)

and gives notice to the Supervisor of Mineral Wells of the need for terminating the prior bond(s) as listed herein with such termination to be effective as of the time that this bond becomes effective

Signed, sealed and dated the 27 day of October 2009

Beeland Group, LLC

(Principal)

Safeco Insurance Company of America

(Surety)

By Catherine M. Reynolds (Signature)

By C.R. Hernandez (Signature)

Catherine M. Reynolds

Vice President and Secretary

(Name and title)

C.R. Hernandez, Attorney-in-Fact

(Name and title)

When the Principal or Surety executes this bond by an agent power of attorney or other evidence of authority must accompany the bond

DEQ USE ONLY	
Permit number	Issue date
Type of well	

MAIL TO: OFFICE OF GEOLOGICAL SURVEY, MICHIGAN DEPT OF ENVIRONMENTAL QUALITY, P.O. BOX 30256, LANSING, MI 48909-7756

ORG.
CHART
Page 13

**WELL PERMITTEE ORGANIZATION REPORT**

Required by authority of Part 615 SUPERVISOR OF WELLS and Part 625 MINERAL WELL, Natural Resources and Environmental Protection Act, 1994 PA 451, as amended Non-submission and/or falsification of this information may result in fines and/or imprisonment.

PURPOSE FOR FILING: New Change of Principal or Agent Address Correction Name Change

ORGANIZATION Enter the complete organization name, plan, and current business addresses and phone number.

1. Company name (as shown on permit to drill)		Beeland Group, LLC		2. If organization shown in 1 is a subsidiary or an assumed name (dba), give name and address of associated or parent	
Mailing Address City, State, Zip		One Energy Plaza Jackson, MI 49201		CMS Land Company One Energy Plaza Jackson MI 49201	
Street Address City, State, Zip					
Phone		517-768-7330		517-788-1955	
Fed. ID No.		20-5321543		38-2810979	
3. Current Organization Plan (check one)					
<input type="checkbox"/> Corporation		<input type="checkbox"/> Joint Venture		<input type="checkbox"/> Limited Partnership	
<input type="checkbox"/> Partnership		<input type="checkbox"/> Trust		<input checked="" type="checkbox"/> Limited Liability Company	
		<input type="checkbox"/> Sole Proprietorship		<input type="checkbox"/> Other	
4. If reorganization or name change, name & address of previous organization					
n/a					

PRINCIPALS List all corporate officers, directors, incorporators, partners, or shareholders who have the authority to or responsibility for making operational decisions including siting, drilling, operating, producing, reworking, and plugging of wells. Attach extra sheet if needed.

5. Full Name	Title	Address, if different from address in 1 above
See attached list		

EMPLOYEES List names of persons, employees of the organization, who are authorized to submit applications, workplans, or records pursuant to the above cited Act.

6. Full Name	Position	Address or Phone
Michael C. Sniegowski	VP	One Energy Plaza Jackson, MI 49201 517-768-7330

AGENTS List names of persons, other than employees of the organization, who are authorized to submit applications, work plans, or records pursuant to the above cited Act.

7. Full Name	Company	Address or Phone
Ken Cooper, Consultant	Petrotek Engineering Corp	10288 W. Chatfield Ave Littleton, CO 80127 303 290 9414

Certification "I state that I am authorized to make this report. This report was prepared under my supervision and direction. The facts stated herein are true, accurate and complete to the best of my knowledge."

Name of a principal	Signature	Date
Michael C. Sniegowski, Vice President		10/30/2009

Officers – Beeland Group LLC

Officers

	Title	Effective	First Elected	Last Elected
David W Joos	Chief Executive Officer	8/2/2006	8/2/2006	8/2/2006
David G Mengebier	President	5/9/2008	5/9/2008	5/9/2008
James E Brunner	Senior Vice President and General Counsel	8/2/2006	8/2/2006	8/2/2006
John M Butler	Senior Vice President	9/1/2006	9/1/2006	9/1/2006
Kenneth C Jones	Vice President and Controller	11/15/2007	11/15/2007	11/15/2007
Laura L Mountcastle	Vice President and Treasurer	8/2/2006	8/2/2006	8/2/2006
Catherine M Reynolds	Vice President and Secretary	9/1/2006	9/1/2006	9/1/2006
Michael C Sniagowski	Vice President	5/9/2008	5/9/2008	5/9/2008
Theodore J Vogel	Vice President and Chief Tax Counsel	8/2/2006	8/2/2006	8/2/2006
Jane M Kramer	Assistant Secretary	8/2/2006	8/2/2006	8/2/2006
Joyce H Norkey	Assistant Secretary	8/2/2006	8/2/2006	8/2/2006
Beverly S Burger	Assistant Treasurer	8/2/2006	8/2/2006	8/2/2006
James I Loewen	Assistant Treasurer	8/2/2006	8/2/2006	8/2/2006

A.11 Description of the drilling program, including the drilling fluid and mud program, how the fluids will be handled and ultimate disposition of the drilling fluids. Include a discussion of whether overpressured zones are anticipated and how the mud program will be modified to accommodate such a condition.

The proposed Beeland Well No. 1 is to be a newly-installed Class I well (Mineral Well) Well No. 1 will be located in the northeast ¼, southwest ¼ of the northwest ¼ of Section 9, Township 34 North, Range 6 West, Emmet County, Michigan. Ground level is estimated to be approximately 670 feet above sea level (ASL) with Kelly Bushing (KB) that will be dependent on type of rig available. The well will be drilled to a Total Depth (TD) of approximately 7,500 feet BGL, through the Cambrian and into the Precambrian basement. It will be completed as an openhole in the Munising Group/Mt. Simon Formation

Drilling, Casing and Testing Program

The conductor casing, 13⅝-inch, 61 lb/ft, J-55 grade, ST&C, or equivalent will be cemented to surface in a 17½-inch borehole through the fractured Traverse from an anticipated depth of up to 250 ft BGL. If a gauge borehole diameter is assumed and 20% excess cement is assumed, approximately 177 sx of 1.18 cuft/sx yield Michigan equivalent Class A cement with additives or suitable equivalent would be utilized to cement the casing string to surface

After a rotary rig is brought to the location, a 12¼-inch hole will be drilled out of the surface casing to a depth of approximately 540 feet Testing for base of USDW will be conducted in the base of the Traverse and/or the Dundee as required to establish the base of the USDW (<10,000 mg/l total dissolved solids). Should these formations prove to be qualified as USDWs, drilling and testing will continue up to a maximum depth of 2,000 feet BGL or to lesser depths upon confirmation of the lowermost USDW The intermediate casing shoe will be targeted at a minimum of 50 feet below the base of the USDW. After the shallow openhole logging program is complete (see attached table), the hole will be conditioned and 9⅝-inch, 36 lb/ft, J-55, ST&C, or suitable equivalent surface casing will be installed to a depth of approximately 540-2,000 feet. The cementing program will be determined based on field conditions, but if the Traverse is the base of the USDW and casing is set through the Bell Shale, it will likely consist of a mixture of 646 sacks (based on a depth of 540 feet and 20% excess for an assumed gauge openhole portion) of Michigan equivalent Class A standard cement or suitable equivalent with additives. Additional excess cement, if any, will be pumped based on field conditions. It is anticipated that a float shoe will be used with a float collar one joint up from the bottom and that centralizers are to be placed a minimum of one every fifth joint.

After the intermediate casing string has been cemented, a cement bond log will be conducted to document cement circulation to surface The cement will be drilled out of the intermediate string and an 8½-inch hole will then drilled to approximately 6,010 feet BGL to the top of the Munising Group. The top of the injection interval will be penetrated during this stage of the drilling process. It is projected that after the first phase of the deep openhole logging program is complete (see Table A.1, Section A.13), the hole will be conditioned and 7-inch, 26 lb/ft, J-55, ST&C, or equivalent long-string casing will be installed to a depth of approximately 6,010 feet. The cementing program for the long string will be determined based on field conditions, but will likely consist of a mixture of 856 sacks (based on 20% excess for the gauge openhole section) of Michigan equivalent Class A standard cement or suitable equivalent with additives Depending on hole conditions and geologic considerations, light-weight lead cement and/or a two-stage cement job utilizing a DV tool may be utilized. Additional excess cement, if any, will be pumped based on field conditions. It is anticipated that a float shoe will be used with a float collar one joint up from the bottom and that centralizers are to be placed a minimum of one every fifth joint.

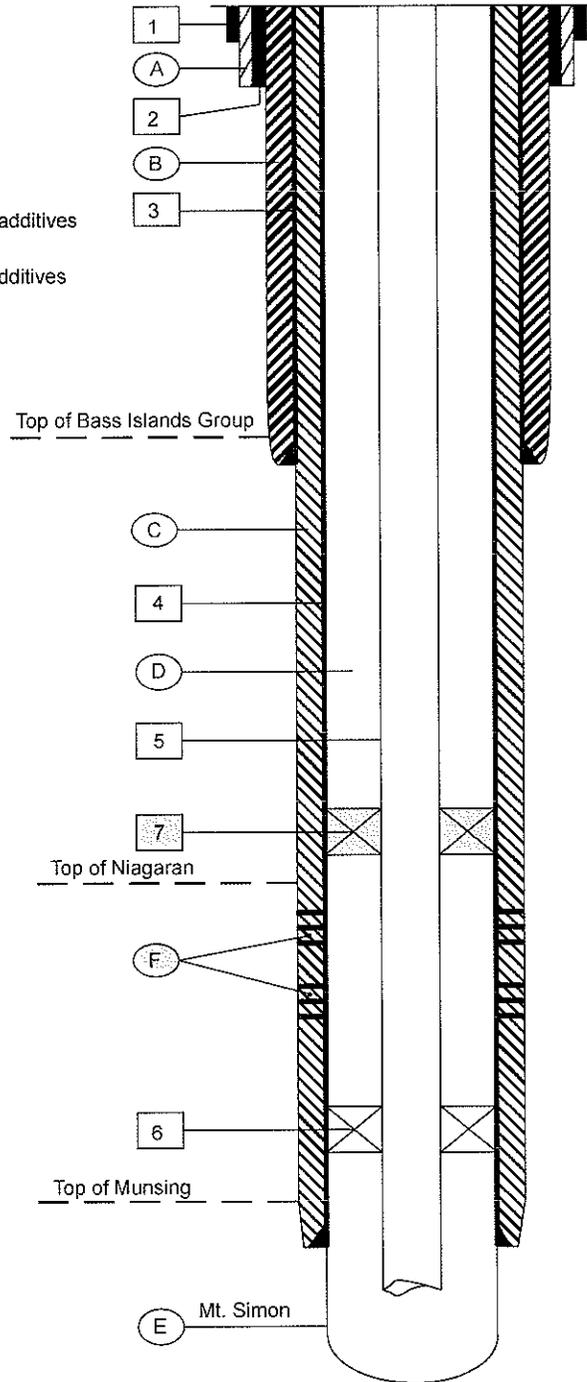
The final stage of drilling will be conducted using a 6¼-inch or 6⅞-inch drill bit to drill out cement and complete the well as an openhole to a depth of approximately 7,500 feet. After drilling is completed, additional openhole logging will be conducted to obtain data regarding the Mt. Simon/Munising injection interval. A drill stem test (DST), downhole sample equipment run, or fluid swabbing will then be conducted to obtain a sample of injection interval fluids. A cement bond log and a baseline casing inspection log will be conducted in the long-string casing, and a directional survey will be conducted to ascertain the bottomhole location and trajectory of the wellbore. A packer will be set at a depth of approximately 6,000 feet inside the 7-inch long string casing. Four and one-half inch injection tubing is proposed for the completion. As appropriate, coated tubing and a coated packer may be used to manage potential corrosion issues. A radioactive tracer survey and a temperature log will then be conducted to establish baseline conditions and initial external mechanical integrity. A pressure transient test will also be conducted to derive estimates of formation pressure and properties. A proposed schematic for the Bay Harbor Well is presented in Figure 5.

7a

- CEMENT VOLUMES FLUIDS and HOLE SIZE
- TUBULARS and COMPONENTS
- (A) 17 1/2" Hole Cemented to Surface with 208 sacks* Class A
- (B) 12 1/4" Hole Cemented to Surface with 552 sacks* Class A w/additives
- (C) 8 1/2" Hole Cemented to Surface with 797 sacks* Class A w/additives
- (D) Annulus Fluid: Fresh water with Inhibitor and scavenger
- (E) Completion: 6 1/4" Open Hole total depth @ +/- 7 500
- (F) Alternate Completion: Perforations may be pursued in any identified Middle Silurian or Ordovician injection targets (~3 079' - 5 635')

* Cementing in open hole with 20% excess

- 1 Conductor Pipe 20" driven to ~100'
- 2 Surface Casing: 13 3/8" 61#/ft Set at approximately 250' (~100' into bedrock)
- 3 Intermediate Casing: 9 5/8" 36 lb/ft, K-55 or J-55, Set @ approximately 1 750' (minimum 100' into Bass Islands Group)
- 4 Long String Casing: 7" 26 lb/ft J-55 or K-55 Set @ approximately 6 010'
- 5 Injection Tubing: 4 1/2" 11 6 lb/ft J-55
- 6 Packer: 7" x 4 1/2" Large Bore Set @ approximately 6 000'
- 7 Packer may be set +/- 50' above any alternate Middle Silurian or Ordovician injection targets



TD Approx +/- 7 500

Beeland Group, LLC		
5548 US 31 Petoskey, MI 49770		
Figure 5 (revised)		
Proposed Well Schematic		
2009 Bay Harbor Disposal Well No. 1 Permit		
Scale: NTS	Date: June 2010	
BH_MDEQ_Fig 5_ Revised.ai	By: JLM	Checked: KC
Petrotek		10288 West Chatfield Ave., Suite 201 Littleton, Colorado 80127-4239 USA 303-296-4114 www.petrotek.com

A.12 Description of the cementing program including the type, properties and compressive strength of cement to be used on each casing string. Indicate if DV tools will be used.

Figure 5 (end of Section A 11) presents the well completion diagram and also includes information pertaining to the cementing program. As discussed in Section A 11, well specific data will be used to modify any cementing plan in the field. Calculations have been conducted assuming a gauge borehole, 20% excess cement for openhole volumes, and a yield of 1.18 cuft/sx for Michigan equivalent Class A cement with minimal additives. As shown on this diagram, approximately 177 sacks of cement would be used to cement the 13³/₈-inch casing in the 17¹/₂-inch hole, and approximately 646 sacks of cement would be used to set the intermediate 9⁵/₈-inch casing from approximately 540 feet BGS to ground surface. Based on a single stage job, approximately 856 sacks of cement would be used to set the long string 7-inch casing from a depth of 6,010 ft BGL to ground surface. Should well and/or geologic condition require light-weight cement or a multi-stage cement job using a DV tool located at a depth between 3,500 and 4,500 feet, notice will be provided during the well drilling process regarding recommended changes. At 60° F and 0 psi (standard surface conditions), all cements used will attain minimum ultimate compressive strength of 1,000 psi or greater.

A.13 Description of the proposed wireline logging program.

The proposed wireline logging program is summarized in Table 1, below.

TABLE 1 LIST OF PROPOSED LOGS BEELAND GROUP, LLC BAY HARBOR DISPOSAL WELL NO. 1

Description	Depth Run
Dual Laterolog Gamma Ray, Formation Density, and Caliper Logs (openhole before intermediate casing)	250' – 540'/or base of USDW*
Cement Bond Log (intermediate casing)	Surface – 540'/or base of USDW*
Dual Laterolog, SP, Gamma Ray, Formation Density, Compensated Neutron, and Caliper Log (openhole before long string casing and in openhole completion)	540'/base of USDW*- TD (7,500')
If required, Fracture Finder ID Log (openhole before long-string casing)	6,010' - 7,500'
Cement Bond Log, Casing Inspection Log and Directional Survey (long-string casing)	Surface - 7,500'
Temperature Log	Surface - TD (7,500')
Radioactive Tracer Log	long string casing
Pressure/Temperature Gradient and Pressure Transient Falloff test	7,000' - 7,500'

*as deep as 2,000 ft BGS

A.14 Description of the testing program, including pressure tests on casing strings, and any planned drill stem tests.

The Bay Harbor Disposal Well No 1 is projected to be installed and tested in 2010 according to applicable regulations and permit requirements. Static pressure of the Mt. Simon Formation and estimates of various injection interval characteristics are to be determined via pressure transient testing, while native brine chemistry and characteristics are to be determined based on acquisition of a fluid sample. Characteristics of the injection interval are also to be evaluated based on conducting geophysical well logging. No core sampling is currently planned. Additional details regarding the well logging are presented in Response A 13 of this application, geophysical logging details.

After the open hole has been drilled, but prior to conducting any injection testing, injection interval fluid will be produced from the well using either a DST or sampling tool, submersible pump or swabbing equipment. Based on fluid loss experienced during drilling and field conditions, target production volumes for obtaining representative samples will be adjusted in the field. Field parameters including pH and conductivity will also be monitored as fluid is recovered to determine when representative sampling is practical. Formation fluid will be subjected to analysis for the following parameters: Alkalinity, Arsenic, Barium, Bicarbonate, Cadmium, Calcium, Carbonate, Chloride, Chromium, Conductivity, Copper, Hardness, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Nitrate, as (N), pH, Potassium, Radium 226, Radium 228, Selenium, Silica as SiO₂, Sodium, Specific Gravity, Strontium, Sulfur, TDS, TSS, and Zinc.

Prior to drilling out of the intermediate and the long string casings, casing pressure tests will be conducted to generally ascertain the condition of the string and cement. At a minimum, pressure test of a 30-minute duration, with a minimum pressure gradient of 0.6 psi/ft will be conducted prior to continued drilling.

Initial mechanical integrity testing for the Bay Harbor well will include reservoir monitoring as specified in 40 CFR 146.13 (d) in addition to static annulus pressure testing. Although test procedures or methods may be changed based on approval in the future by MDEQ staff, the following procedure will be utilized for the first such testing to be performed:

1. Conduct Wellsite Safety Meeting
 - A. Prior to commencement of field activities, conduct safety meeting with contractors and personnel to be involved with field services and MIT testing. Ensure that all safety procedures are understood and review days work activities.
2. Conduct Fall-Off Test
 - A. Record data regarding test well injection at typical operating conditions (constant rate). Rate, temperature and specific gravity versus time will be sampled and recorded during the injection period. Cumulative volume injected should also be recorded. Continue injection for a minimum of approximately five hours. Depending on estimates of permeability generated during fluid sampling activity, this duration may be extended if needed. Note that significant rate variations may yield poor quality data or require more complicated analysis techniques.
 - B. Rig-up pressure gauge.
 - C. Obtain final stabilized injection pressure for a minimum of one hour. Ensure that the gauge temperature readings have also stabilized.
 - D. After gauge recordings are stable, cease injection and monitor pressure fall-off. Instantaneous shut-in yields best results. Continue monitoring pressure for a minimum of twelve hours or until a valid observation of fall-off curve is observed.
 - E. Stop test data acquisition, rig-down and release equipment.

- 3 Annulus Pressure Test
 - A. Stabilize well pressure and temperature.
 - B. Arrangements will be made for a representative from the USEPA to be present to witness this testing
 - C. Install ball valve or similar type "bleed" valve on annulus gate valve. Pressurize annulus to a minimum of 663 psig with liquid and shut-in pump side gate valve. If typical operating annulus pressures are above 563 psi, higher pressures acceptable to the agency and compatible with the well completion configuration will be utilized in this testing. Pressure to be used will be detailed in proposed procedures supplied with notification of testing. Install certified gauge on "bleed" type valve. The annulus may need to be pressurized and bled off several times to ensure an absence of air. Monitor and record pressure for one hour. Pressure may not fluctuate more than 3 percent during the one-hour test. At the conclusion of the test, lower the annulus pressure to normal operating pressure.

A.15 Description of any planned coring program.

No coring program is currently planned for implementation during the drilling of Bay Harbor Disposal Well No. 1.