Board of Minerals and Environment
523 East Capitol Avenue
Pierre, South Dakota 57501-3182
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AGENDA

Meeting of the
Board of Minerals and Environment
Matthew Environmental Education and Training Center
523 East Capitol Avenue
Pierre, South Dakota

March 21, 2013
10:00 a.m. CDT

10:00 a.m.	Call to order and roll call Approval of minutes from January 17, 2013, meeting Mining Issues
10:15 a.m.	Contested Case Proceeding in the matter of the Applications of Quartz Operations for Permits to Drill Oil/Gas Wells (Northern Points 1 and 2)
	Adjourn

Note: Scheduled times are estimates only. Agenda items may be delayed due to prior scheduled items or may be moved up on the agenda. Breaks and recess will be at the discretion of the chair.

Minutes of the
Board of Minerals and Environment
Telephone Conference Call Meeting

Matthew Environmental Education and Training Center
523 East Capitol Avenue
Pierre, South Dakota
and
Department of Environment and Natural Resources
Rapid City Office Conference Room
2050 West Main Street, Suite 1
Rapid City, South Dakota

January 17, 2013
10:00 a.m. CT

CALL TO ORDER AND ROLL CALL: The meeting was called to order by Chairman Richard C. Sweetman. The roll was called and a quorum was present.

BOARD MEMBERS PARTICIPATING: Richard Sweetman, Lee McCahren, Linda Hilde, Dennis Landguth, Glenn Blumhardt, Doyle Karpen, and Michael Day. Pete Bullene was included on the call, but did not participate due to a faulty telephone connection.

Chairman Sweetman welcomed new board member Michael Day. Mr. Day was appointed to fill the vacancy left by Tim Johns.

BOARD MEMBER ABSENT: Rex Hagg.

OTHERS PRESENT: Roxanne Giedd, Deputy Attorney General; Bob Townsend, Mike Lees, Lucy Dahl, Jeff Klenner, DENR Minerals and Mining Program; Kyrik Rombough and Brian Gustafson, DENR Air Quality Program; Tom Jackson, attorney from Washington, DC, representing Halliburton; Matt Collins, attorney from Denver, CO; Tara Fortier, Cadmus Group, Virginia; Dan Daulton, Baker Hughes, Houston, TX; Steve Willard, Pierre, lobbyist for the American Petroleum Institute, representing Luff Exploration Company and Continental Resources; Myron Andersen, Whitewood, VMC; and Rick Addison, attorney from Dallas, TX, representing Hyperion.

APPROVAL OF MINUTES FROM November 15, 2012, MEETING: Motion by McCahren, seconded by Hilde, to approve the minutes from the November 15, 2012, Board of Minerals and Environment meeting, as mailed. A roll call vote was taken, and the motion carried unanimously.

PUBLIC HEARING TO CONSIDER ADOPTION OF REVISIONS TO THE OIL & GAS CONSERVATION RULES IN ARSD 74:12:02:19, 74:12:03:06, 74:12:03:07: Chairman Sweetman opened the hearing at 10:05 a.m. Central Time.

The purpose of the hearing was to consider the adoption and amendment of proposed rules numbered ARSD 74:12:02:19, 74:12:03:06, 74:12:03:07.

The proposed rules require reporting of hydraulic fracturing details to a nationwide hydraulic fracturing database, specify final well site reclamation requirements, and add requirements for interim well site reclamation.

Bob Townsend, Administrator, DENR Minerals and Mining Program, requested the board consider three rules; two are new and one is an amendment of an existing rule.

The rule changes stem from work done over this last summer and fall by the Interim Legislative Oil and Gas Study Committee, which was formed to study all the various issues that might arise as the result of increased oil and gas development in both North and South Dakota.

Mr. Townsend stated that 74:12:02:19 is a new rule and it relates to chemical disclosure reporting of hydraulic fracturing.

Hydraulic fracturing is a mechanical process involving the high pressure injection of water and sand with a small percentage of chemicals into the target geologic formation to fracture it so oil and gas will flow. Although there are no documented cases where hydraulic fracturing has contaminated drinking water sources, there have been considerable concerns expressed across the country by some groups and members of the public over the use of the process and the chemicals used.

To address these concerns, the legislative committee adopted a bill, House Bill 1005, with essentially the same language as the proposed rule. The committee also suggested it might be more appropriate to include this requirement in rule and the department agreed.

The new rule requires operators to report the composition of the fluids used to hydraulically fracture an oil or gas well on the FracFocus website. The reporting requirements basically follow the form provided on the website. The FracFocus website was developed by the Interstate Oil and Gas Compact Commission and Ground Water Protection Council for the specific purpose of reporting chemicals used to stimulate oil and gas wells by the hydraulic fracturing process. Mr. Townsend stated that at least eight states have adopted similar requirements, including North Dakota.

The FracFocus website does not require the reporting of confidential or proprietary information related to hydraulic fracturing.

Mr. Townsend noted that large-scale, high-volume hydraulic fracturing as practiced on Bakken Formation wells in North Dakota has not been used in South Dakota, although there has been some limited use of low-volume hydraulic fracturing in the past; most recently on gas wells in Harding County several years ago. The difference is based on volume. In North Dakota and elsewhere in the country, huge volumes are used to fracture wells. In North

Dakota, it can range from three to six million gallons per well, which might equate to three hundred to six hundred truckloads. In South Dakota, the volumes used are in the tens of thousands of gallons range, which might equate to one or two truckloads.

Mr. Townsend stated that the department does not anticipate any large-scale hydraulic fracturing in South Dakota, at least in the near term, unless an unconventional type resource similar to the Bakken Formation is discovered. He noted that the Bakken Formation does not occur in South Dakota.

Mr. Townsend reported that 74:12:03:06 and 74:12:03:07 deal with surface reclamation of well sites.

During the interim committee's hearings, several surface owners from Harding County testified about problems they have with some producing wells sites, including such things as discarded equipment, erosion, collapsed trenches and related issues.

The current final reclamation rule (74:12:03:06) only applies to a well site after it is plugged and abandoned.

The proposed interim reclamation rule (74:12:03:07) is designed to address these issues during the time between well completion and abandonment by specifying disturbed lands not needed for development have to be reclaimed within twelve months of completing the well. The proposed rule lays out the measures to be used during reclamation and defines the standard for reclamation as returning the land to original condition or to a condition acceptable to the landowner.

The department also proposed to amend the current final reclamation rule 74:12:03:06 to make it consistent with what we have proposed for interim reclamation in terms of best management practices and reclamation standards.

Mr. Townsend reported that following the Legislative Interim Oil & Gas Study Committee's adoption of draft bills pertaining to hydraulic fracturing reporting requirements and surface owner issues, DENR drafted rule revisions to address these issues.

The proposed rule revisions were sent to South Dakota's oil & gas operators and industry stakeholders for informal review and comment on November 15, 2012. The proposed rules and required forms were filed with LRC and Bureau of Finance and Management on December 13, 2012.

On December 18, 2012, the Notice of Hearing and draft rules were posted on the DENR website. The Notice of Hearing was published in the Hot Springs Star on December 18, 2012, and the Nation's Center News, Rapid City Journal, Capital Journal, and Mitchell Daily Republic on December 20, 2012.

On December 19, 2012, the Notice of Hearing was sent to the department's Oil & Gas Interested Persons List.

As a result of the public notice, the department received comments from the following:

Kathy Glines, Harding County Auditor, suggested the hydraulic fracturing reporting requirements should also contain a section addressing baseline and follow-up water quality sampling of aquifers in the vicinity of oil and gas wells subject to hydraulic fracturing.

Mr. Townsend stated that rather than include it in rule, the department developed a new policy on sampling of domestic wells in the vicinity of oil and gas wells subject to high volume hydraulic fracturing. The policy was developed to address Harding County's concern regarding ground water quality near oil or gas fields where high volume hydraulic fracturing is utilized. The staff will take a sample at the request of the landowner before fracturing takes place and take another sample after fracturing takes place. The results will be provided to the landowner. Mr. Townsend noted that Colorado has a similar policy.

Blu Hulsey, Director, Governmental Affairs, Continental Resources, expressed concern regarding language in the proposed reclamation and interim reclamation rules describing adequate reclamation as, "a condition acceptable to the surface landowner."

Richard George, Manager of Engineering, Luff Exploration Company, expressed concern regarding the proposed reclamation requirements. His concern involved the proposed requirement to reclaim well sites to the original condition or a condition acceptable to the surface owner. Mr. George was also concerned that landowners may deem "acceptable" surface conditions that are unreasonable, or require things that were never there to begin with.

Lawrence Bender, attorney, representing Halliburton Company, indicated that Halliburton supported the hydraulic fracturing reporting requirement, but requested the proposed rule explicitly state that trade secret information is not required to be disclosed to the FracFocus Chemical Disclosure Registry. Mr. Townsend stated the department had no objection to the changes suggested by Halliburton.

This concluded Mr. Townsend's presentation.

Chairman Sweetman requested public comments.

Steve Willard representing Luff Exploration and Continental Resources, discussed the concerns raised by Richard George regarding 74:12:03:06 and 74:12:03:07. He stated that Luff did not object to the premise, but it is hard to define. He stated the proposed language established a bar that the operator will be unable to obtain because it is entirely subjective. Mr. Willard stated that "condition acceptable to the surface landowner" is a moving target, depending upon the landowner.

Mr. Willard proposed replacing the language in both 74:12:03:06 and 74:12:03:07 with, "return the site to a condition reasonably comparable to the condition of the site as it existed prior to the commencement of drilling operations." He noted that Mr. Townsend has proposed similar language.

Mr. Willard stated that Ken Luff has indicated to him that at some of the sites, when roads are constructed out to the site, the landowner wants the roads to remain. If the roads are to remain, it cannot be put back to its original condition.

Tom Jackson stated that Halliburton fully supports FracFocus. The company has submitted information on the fluid that is used to fracture hundreds, if not thousands, or wells across the country in the two years since FracFocus has been operational. However, trade secret protection is also critical to Halliburton, and ultimately to the oil and gas industry in general. Trade secret protection in the oil and gas service industry, like a lot of other industries, encourages innovation and it is what allows Halliburton to feel comfortable investing millions of dollars in developing new fluids and other types of technologies that make oil and gas production more effective, more efficient, and even more green. Mr. Jackson said Halliburton presumes the intent here is not to require public disclosure of trade secrets through FracFocus. FracFocus does not contemplate disclosure of trade secret information. It specifically contemplates that trade secret information can be withheld and no state in the country requires public disclosure of trade secrets related to fracturing fluids through FracFocus, or otherwise. Mr. Jackson stated that given the importance of trade secrets, Halliburton's view is that it makes sense and would be appropriate to clarify the regulations by adding a statement that trade secret information is not required to be disclosed to the FracFocus Chemical Disclosure Registry.

Mr. Jackson said the other clarification Halliburton suggested relates to the requirement to disclose ingredients of fracturing fluids. Halliburton proposed adding "intentionally added" to 74:12:02:19(4)(d). Halliburton also proposed adding the following sentence after 74:12:02:19(4)(g), "Trade secret information is not required to be disclosed to the FracFocus Chemical Disclosure Registry."

This concluded public comments.

Chairman Sweetman requested board action.

Motion by McCahren to continue the hearing until the next meeting.

Mr. McCahren stated that the rules are too complex to handle in this fashion and of great significance to the people involved.

The motion died for lack of a second.

Chairman Sweetman stated that the changes being proposed are not tremendously different from what was sent to the board members prior to the hearing. He said the proposed changes to 74:12:03:06 and 74:12:03:07 would allow more flexibility and the proposed additions to

74:12:02:19 regarding intentionally added ingredients and trade secret information disclosure make sense.

Mr. Townsend stated the department had no objection to the additions suggested by Mr. Jackson.

Mr. McCahren asked why Halliburton requested the addition of the sentence regarding trade secret disclosure.

Mr. Jackson stated that trade secret protection is well recognized around the world; it encourages innovation in a variety of industries, oil and gas included. He noted that no other state requires public disclosure of trade secrets related to hydraulic fracturing fluids. Mr. Jackson said Halliburton would agree to provide the information to the regulators whenever they need it.

Ms. Hilde asked if the oil and gas companies notify the department if the formula has changed.

Mr. Townsend stated that the rule does not specify the information is provided to the department. The rule requires companies to publicly disclose information on the FracFocus website.

Mr. Townsend said hydraulic fracturing is not currently taking place in South Dakota. Some of the reports the department has seen in the past basically identify the volumes of fluids used and some of the chemicals used, but specific formulas are not included in the reports.

Mr. Jackson said Halliburton's position, regardless of whether the rules specifically require it or not, is that if there is a specific need for this trade secret information, the company would provide the department with whatever information is requested.

Mr. McCahren asked if the statute needs to be changed.

Mr. Townsend stated that during the Oil & Gas Summer Study, the committee adopted a draft law essentially the same as the rule the board is talking about today. That piece of legislation was introduced as H.B. 1005. The committee suggested it would be better to adopt that language in rule and the department agreed. If the board adopts the rule, the intention is to withdraw H.B. 1005.

Mr. McCahren stated that the board needs statutory authority in order to adopt the rule.

Roxanne Giedd stated that the board has statutory authority already to adopt this rule in SDCL 45-9-11 and SDCL 45-9-13, so the status of H.B. 1005 does not matter for purposes of the board's authority to adopt the rule.

Chairman Sweetman requested that Mr. Townsend read the proposed changes for 74:12:03:06 and 74:12:03:07 to address industry's concerns. The changes are shown with overstrikes and underlines.

74:12:03:06. Surface reclamation of abandoned well sites. Within one year after plugging and abandoning a well, the site must be reclaimed. ~~in a manner approved by the secretary that will~~ Reclamation includes replacing topsoil, reseeding, revegetation, grading, disposing of drilling wastes, backfilling pits, correcting subsidence of backfilled pits or trenches, controlling weeds, controlling erosion, removing equipment, disposing of demolition debris, and related activities. Reclamation shall be conducted to return the land to a condition suitable for the use to which it was subjected immediately before drilling commenced. Alternatives to this standard may be proposed by the operator and approved by the department if they are acceptable to the surface landowner. Reclamation shall be conducted to prevent ground water or surface water contamination. If a reportable crude oil release occurred at the site in the past and was not properly remediated, the secretary may require additional soil contamination assessment and remediation pursuant to § 74:12:04:12, before reclamation is approved. Completion of reclamation must be reported to the secretary on a sundry notice in accordance with 74:12:02:17.

74:12:03:07. Interim reclamation of well sites. Interim reclamation must be conducted on all areas disturbed by a well drilling operation and not needed for production operations within 12 months after the well is completed. Interim reclamation includes replacing topsoil, reseeding, revegetation, grading, disposing of drilling wastes, backfilling temporary pits, correcting subsidence of backfilled pits or trenches, controlling weeds, controlling erosion, removing unused or discarded equipment, and related activities. Interim reclamation shall be conducted to return the land to a condition suitable for the use to which it was subjected immediately before drilling commenced. Alternatives to this standard may be proposed by the operator and approved by the department if they are acceptable to the surface landowner. Interim reclamation shall be conducted to prevent ground water or surface water contamination. Completion of interim reclamation must be reported to the secretary on a sundry notice in accordance with 74:12:02:17.

Mr. Townsend and Mr. Lees answered questions from the board.

Chairman Sweetman requested board action.

Motion by Day, seconded by Blumhardt, to adopt the following changes in 74:12:02:19:

(d) Intentionally added ingredients.

A roll call vote was taken, and the motion carried unanimously.

Motion by Landguth, seconded by Day, to adopt the following addition to 74:12:02:19 after (g):

Trade secret information is not required to be disclosed to the FracFocus Chemical Disclosure Registry.

A roll call vote was taken, and the motion carried unanimously.

Motion by Blumhardt, seconded by Hilde, to adopt the changes in 74:12:03:06 and 74:12:03:07, as discussed by Mr. Townsend during the hearing. A roll call vote was taken, and the motion carried unanimously.

Mr. McCahren requested the board postpone adoption of the amended rules until the board can be provided with a copy of all of the changes.

Motion by Hilde, seconded by Blumhardt, to adopt 74:12:02:19, 74:12:03:06, and 74:12:03:07, as amended.

Mr. McCahren requested the board postpone adoption of the amended rules until the board can be provided with a copy showing all of the changes. Mr. Karpen and Ms. Hilde agreed.

Chairman Sweetman stated that it is appropriate for the board to adopt the rules now. He noted that there is an opportunity for amendment of the rules in the future if needed.

A roll call vote was taken, and the motion carried. Mr. McCahren cast the only dissenting vote.

Chairman Sweetman closed the hearing at 11:05 a.m.

The rules, as adopted by the board, are shown below. The changes are shown with overstrikes and underlines.

CHAPTER 74:12:02

DRILLING

Section

74:12:02:01 Requirements to drill, deepen, or reenter for oil or gas.
74:12:02:02 Requirements to drill a directional or horizontal well.
74:12:02:03 Failure to commence drilling cancels permit -- Extensions.
74:12:02:04 Minimum spacing of oil wells.
74:12:02:05 Minimum spacing of gas wells.
74:12:02:06 Spacing of wells after discovery of oil or gas.
74:12:02:07 Dissolution of abandoned oil or gas fields.
74:12:02:08 Secretary authorized to approve exception location.
74:12:02:09 Identification sign required at each well.
74:12:02:10 Pit construction and reclamation.
74:12:02:11 Oil, gas, and water strata required to be sealed.
74:12:02:12 Procedures for setting surface casing and production casing.
74:12:02:13 Operators to seal off or plug wells with defective casings or cement.
74:12:02:14 Blowout prevention equipment required.
74:12:02:15 Vertical deviation test.
74:12:02:16 Wellhead pressure testing equipment.

74:12:02:17 Well logs, completion/recompletion reports, and sundry notice reports to be filed with secretary.
74:12:02:18 Cores and samples required to be sent to the state geologist.
74:12:02:19 Hydraulic fracturing reporting requirements.

74:12:02:19. Hydraulic fracturing reporting requirements. If hydraulic fracture stimulation is performed on an oil or gas well, the operator shall post on the FracFocus Chemical Disclosure Registry the following stimulation detail:

(1) Fracture date;
(2) American petroleum institute number;
(3) The operator name, county, and state;
(4) Well name and number, longitude, latitude, longitude/latitude projection, production type, true vertical depth, total water volume, and hydraulic fracturing fluid composition as follows:
(a) Trade name;
(b) Supplier;
(c) Purpose;
(d) Intentionally added ingredients;
(e) Chemical abstract number;
(f) Maximum ingredient concentration in additive; and
(g) Maximum ingredient concentration in hydraulic fracturing fluid.

Trade secret information is not required to be disclosed to the FracFocus Chemical Disclosure Registry.
For the purpose of this section, the term, hydraulic fracturing stimulation, means the pressurized injection of fluids commonly made up of water and chemical additives into a geologic formation for the purposes of fracturing the host geologic formation.

Source:
General Authority: SDCL 45-9-11, 45-9-13.
Law Implemented: SDCL 45-9-11.

Note: The FracFocus Chemical Disclosure Registry website address is http://fracfocus.org/.

CHAPTER 74:12:03

ABANDONMENT AND PLUGGING OF WELLS

Section

74:12:03:01 Notification of plugging and abandoning of well.
74:12:03:02 Secretary to approve method of plugging.
74:12:03:03 Temporary abandonment of a well.

74:12:03:04 Markers required on abandoned wells.
74:12:03:05 Operators of wells responsible for plugging.
74:12:03:06 Surface reclamation of abandoned well sites.
74:12:03:07 Interim reclamation of well sites.

74:12:03:06. Surface reclamation of abandoned well sites. Within one year after plugging and abandoning a well, the site must be reclaimed. ~~in a manner approved by the secretary that will~~ Reclamation includes replacing topsoil, reseeding, revegetation, grading, disposing of drilling wastes, backfilling pits, correcting subsidence of backfilled pits or trenches, controlling weeds, controlling erosion, removing equipment, disposing of demolition debris, and related activities. Reclamation shall be conducted to return the land to a condition suitable for the use to which it was subjected immediately before drilling commenced. Alternatives to this standard may be proposed by the operator and approved by the department if they are acceptable to the surface landowner. Reclamation shall be conducted to prevent ground water or surface water contamination. If a reportable crude oil release occurred at the site in the past and was not properly remediated, the secretary may require additional soil contamination assessment and remediation pursuant to § 74:12:04:12, before reclamation is approved. Completion of reclamation must be reported to the secretary on a sundry notice in accordance with 74:12:02:17.

Source:
General Authority: SDCL 45-9-11, 45-9-13.
Law Implemented: SDCL 45-9-11, 45-9-13, 45-9-15, 45-9-15.1.
Cross-Reference: Remediation criteria for petroleum-contaminated soils, ch 74:56:05.

74:12:03:07. Interim reclamation of well sites. Interim reclamation must be conducted on all areas disturbed by a well drilling operation and not needed for production operations within 12 months after the well is completed. Interim reclamation includes replacing topsoil, reseeding, revegetation, grading, disposing of drilling wastes, backfilling temporary pits, correcting subsidence of backfilled pits or trenches, controlling weeds, controlling erosion, removing unused or discarded equipment, and related activities. Interim reclamation shall be conducted to return the land to a condition suitable for the use to which it was subjected immediately before drilling commenced. Alternatives to this standard may be proposed by the operator and approved by the department if they are acceptable to the surface landowner. Interim reclamation shall be conducted to prevent ground water or surface water contamination. Completion of interim reclamation must be reported to the secretary on a sundry notice in accordance with 74:12:02:17.

Source:
General Authority: SDCL 45-9-11, 45-9-13.
Law Implemented: SDCL 45-9-11, 45-9-15.

IN THE MATTER OF THE CONFIDENTIALITY OF CERTAIN BUSINESS INFORMATION CONCERNING BP WHITING SUBMITTED IN THE HYPERION PROCEEDINGS: STIPULATED MOTION TO HOLD SPECIFIED BUSINESS INFORMATION CONCERNING BP WHITING CONFIDENTIAL UNDER SDCL 34A-1-14: Roxanne Giedd

stated that the confidentiality motion is stipulated by the parties. The motion has to do with some business information concerning BP Whiting, which was submitted in the Hyperion case.

Ms. Giedd said this is an unusual confidentiality motion. Normally, when the board is asked for board approval of a confidentiality order in an air quality case, the applicant is submitting something that needs to be held as confidential business information.

In the Hyperion matter, the Sierra Club submitted comments and attached specific business information concerning BP Whiting regarding their coker steam vents and quench water tank. BP Whiting contacted Ms. Giedd and informed her that the information is confidential business information, and they requested that the department hold it confidential. In the meantime, the information had been placed in the department's public files and on the department's website.

The document was removed from the files and the website, pending an order from the board.

Ms. Giedd drafted a stipulated motion and contacted all of the parties, as well as BP Whiting's attorney and everyone has agreed to the motion and the order, and to holding the two particular documents that are listed in the motion confidential.

Ms. Giedd requested that the board enter an order holding those documents confidential. The documents will then be placed in the department's confidential file so they are not subject to public review.

Motion by McCahren to deny the confidentiality motion. The motion died for lack of a second.

Motion by Landguth, seconded by Day, to approve and enter the confidentiality order.

Mr. Karpen stated that this information has already been made public.

Mr. McCahren stated that the board is supposed to protect the public. The public has already seen this information so there no reason for the board to adopt the confidentiality order.

Ms. Giedd noted that the Sierra Club submitted these documents. It is unknown as to how many people actually viewed the documents, but she would prefer that if BP Whiting wishes to sue someone for disclosing confidential business information, that it not be the state of South Dakota.

A roll call vote was taken and the motion carried. Mr. McCahren cast the only dissenting vote.

<u>VMC, LLC REQUEST FOR APPROVAL OF DR. MICHAEL K. MADDEN AS ITS SOCIOECONOMIC CONTRACTOR FOR A LARGE-SCALE GOLD MINE PERMIT APPLICATION PURSUANT TO SDCL 45-6B-33.1</u>: Eric Holm reported that VMC, LLC requested board approval of Dr. Michael Madden as its socioeconomic contractor. VMC, LLC intends to apply for a large-scale mine permit application for its proposed Deadwood Standard

gold mining project located five miles west of Lead, South Dakota, near the rim of Spearfish Canyon.

Under the mining statutes, an applicant for a large-scale mine is required to conduct a socioeconomic impact study, and include it in its mine permit application. The law requires the applicant to get board approval for the contractor to conduct the study.

As part of its decision making process on a mine permit application, the board may consider the socioeconomic impacts of a mining operation. The board can deny a mine permit application if it finds the adverse socioeconomic impacts of the proposed mining operation outweigh the benefits of the operation.

A copy of Dr. Madden's resume was sent to the board prior to the meeting and it was placed on the department's web page for public review.

Myron Andersen, representative for VMC, LLC, was available to answer questions. None of the board members had questions.

Motion by Blumhardt, seconded by Hilde, to approve Dr. Michael K. Madden as socioeconomic contractor for VMC, LLC's large-scale gold mine permit application, pursuant to SDCL 45-6B-33.1. A roll call vote was taken, and the motion carried unanimously.

NEXT MEETING: The next board meeting is scheduled for February 21, 2013, in Pierre.

ADJOURNMENT: Chairman Sweetman declared the meeting adjourned.

Approved this 21st day of February, 2013.

Secretary	Date	Witness	Date

South Dakota Board of Minerals & Environment

March 21, 2013

License/Permit Holder	License/ Permit	Site No.	Surety Amt.	Surety No.	Surety Company/Bank	DENR Recommendation
Releases of Liability & Surety:						
Mineral Technology Corporation Custer, SD	90-403		$500	7779	First Western Bank, Custer	Release liability and $500.
		403002	NE1/4 Section 35; T2S-R3E, Custer County			
Rocky Oakley Rockham, SD	11-920		$1,000	1098	Turtle Creek Federal Credit Union, Redfield	Release liability and $1,000.
		920001	NW1/4 Section 10; T116N-R67W, Hand County			
Transfers of Liability & Release of Surety:						
Terry Sayler Yankton, SD	03-772		$500	77592	First National Bank, Pierre	Transfer liability and release $500.
		772001	Accreton Lot C Section 16; T93N-R55W, Yankton County			
Transfer to:						
C & C Hauling & Construction Inc. Yankton, SD	13-948		$1,000	7000308539	First National Bank, Yankton	

South Dakota Board of Minerals & Environment

March 21, 2013

License/Permit Holder	License/ Permit	Site No.	Surety Amt.	Surety No.	Surety Company/Bank	DENR Recommendation
Transfers of Liability & Release of Surety:						
Jeanette Schaefer Hoven, SD	96-584		$500 $1,000	15501 300014030	Plains Commerce Bank, Hoven Plains Commerce Bank, Hoven	Transfer liability and release $1,500.
		584001	SW1/4 Section 10; T121N-R74W, Walworth County			
Transfer to:						
Joseph Arbach Hoven, SD	12-947		$1,500	300015867	Plains Commerce Bank, Hoven	
Sunland Industries, LLC Black Hawk, SD	08-864		$4,000	7108141261	First Interstate Bank, Rapid City	Transfer liability and release $4,000.
		864001	W1/2 Section 32; T3N-R9E, Meade County			
Transfer to:						
Black Hills Environmental Partner, LLC Box Elder, SD	13-949		$4,000	1022395	Lexon Insurance Company	
Transfers of Liability:						
Matthew Beld Hayti, SD	09-887		$-0-	NA	NA	Transfer liability.
		887001	SE1/4 Section 23; T113N-R53W, Hamlin County			
Transfer to:						
John Hurley Arlington, SD	12-941		$1,000	1700093051	First Premier Bank, Lake Norden	

South Dakota Board of Minerals & Environment

March 21, 2013

License/Permit Holder	License/ Permit	Site No.	Surety Amt.	Surety No.	Surety Company/Bank	DENR Recommendation
Transfers of Liability:						
Darrell's Rock, Sand, & Gravel, Inc. Wessington Springs, SD	86-320		$20,000	RC-0016	Sun Surety Insurance Company	Transfer liability.
		320018	SE1/4 Section 16; T108N-R64W, Jerauld County			
Transfer to:						
Michael Feistner Woonsocket, SD	03-759		$500 $500 $4,000	73242 79284 3001873	First National Bank, Pierre First National Bank, Pierre First National Bank, Woonsocket	
McLaughlin & Schulz, Inc. Watertown, SD	83-5		$20,000	SD 9006	Merchants Bonding Company	Transfer liability.
		5009	SW1/4 NW1/4, NW1/4 SW1/4 Section 19; T117N-R51W, Codington County			
Transfer to:						
Vincent Brueggeman Watertown, SD	09-871		$2,500	224207	Reliabank Dakota, Watertown	
Codington County Highway Department Watertown, SD	83-169		EXEMPT	NA	NA	Transfer liability.
		169012	SW1/4 NW1/4, NW1/4 SW1/4 Section 19; T117N-R51W, Codington County			
Transfer to:						
Vincent Brueggeman Watertown, SD	09-871		$2,500	224207	Reliabank Dakota, Watertown	

South Dakota Board of Minerals & Environment

March 21, 2013

License/Permit Holder	License/ Permit	Site No.	Surety Amt.	Surety No.	Surety Company/Bank	DENR Recommendation
Releases of Liability:						
Bowes Construction, Inc. Brookings, SD	83-164	**164035**	$20,000 SW1/4 Section 11; T115N-R64W, Spink County	HGMW-10-206-0065	Hudson Insurance Company	Release liability.
Dakota Earthworks, Inc. Sioux Falls, SD	05-809	**809004**	$20,000 S1/2 SE1/4 Section 8; T98N-R51W, Lincoln County	2074857	North American Specialty Insurance Company	Release liability.
Friessen Construction, Inc. Sioux Falls, SD	83-129	**129006**	$20,000 Lot 5 ex. E. 1296' Section 25; T101N-R50W, Minnehaha County	538279	Ohio Farmers Insurance Company	Release liability.
Charles Mix County Highway Department Lake Andes, SD	83-22	**22023**	EXEMPT E1/2 NE1/4 Section 17; T97N-R64W, Charles Mix County	NA	NA	Release liability.

South Dakota Board of Minerals & Environment

March 21, 2013

License/Permit Holder	License/ Permit	Site No.	Surety Amt.	Surety No.	Surety Company/Bank	DENR Recommendation
Releases of Liability:						
Kingsbury County Highway Department DeSmet, SD	83-117		EXEMPT	NA	NA	Release liability.
		117001	SW1/4 Section 16; T111N-R56W, Kingsbury County			
		117003	SW1/4 NE1/4, NE1/4 NW1/4, & NE1/4 NE1/4 Section 28; T111N-R56W, Kingsbury County			
		117010	E1/2 NW1/4 Section 18; T109N-R55W, Kingsbury County			
		117011	NE1/4 Section 9; T112N-R54W, Kingsbury County			
		117012	NW1/4 Section 10; T112N-R54W, Kingsbury County			
Meade County Highway Department Sturgis, SD	83-113		EXEMPT	NA	NA	Release liability.
		113062	SW1/4 Section 1; T4N-R14E, Meade County			
Sanborn County Highway Department Woonsocket, SD	83-225		EXEMPT	NA	NA	Release liability.
		225006	E1/2 SE1/4 Section 26; T107N-R63W, Jerauld County			
		225008	S1/2 SW1/4 Section 29; T108N-R62W, Sanborn County			

South Dakota Board of Minerals & Environment

March 21, 2013

License/Permit Holder	License/ Permit	Site No.	Surety Amt.	Surety No.	Surety Company/Bank	DENR Recommendation
Annual Update of Homestake Mining Company's Letter of Credit for Post Closure Bond:						
Homestake Mining Company Lead, SD	332		$41,866,975	ILOC 96586/80085	Scotia Bank The Bank of Nova Scotia New York, NY	Accept amendment to Irrevocable Letter of Credit 96586/80085 to decrease the amount to $38,498,041.

BEFORE THE BOARD OF MINERALS AND ENVIRONMENT

DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

IN THE MATTER OF THE APPLICATIONS OF QUARTZ OPERATIONS FOR PERMITS TO DRILL OIL / GAS WELLS AT THE FOLLOWING LOCATIONS:

NOTICE OF HEARING

WELL "NORTHERN POINTS 1",

In the Northwest Quarter of the
Northwest Quarter of Section 7,
Township 1 North, Range 14 East,
Pennington County, South Dakota;

And

WELL "NORTHERN POINTS 2",

In the Northeast Quarter of the
Northeast Quarter of Section 12,
Township 1 North, Range 13 East,
Pennington County, South Dakota.

TO: Quartz Operations:

NOTICE IS HEARBY GIVEN that a contested case hearing pursuant to the provisions of SDCL ch. 1-26 and ARSD art. 74:09 has been scheduled before the Board of Minerals and Environment ("Board") concerning the above-referenced applications for Permits to Drill Oil/Gas Wells. This hearing concerns the issues arising as a result of the Petition for Contested Case Proceeding and For Approval of Drilling Permits With Conditions Including

Additional Surety Under 45-9-15 filed by the Minerals and Mining Program of the Department of Environment and Natural Resources ("DENR") in the above-entitled matter.

The contested case hearing on this matter has been scheduled to be heard by the Board of Minerals and Environment on Thursday, March 21, 2013 at 10:15 am CDT in the Matthew Training Center, Foss Building, 523 East Capitol, Pierre, SD 57501.

The nature and issues to be addressed at the hearing are whether the Board will approve, approve with conditions, or deny the applications for Permits to Drill Oil/Gas Wells submitted by Quartz Operations, and whether the Board will impose the conditions recommended by the DENR, including the additional surety under SDCL 45-9-15, on the Permits to Drill Oil/Gas Wells.

The legal authority and jurisdiction under which the hearing is to be held appear at SDCL 1-26-27 and SDCL 45-9-4, -15, -54, -56 and -57; and ARSD ch. 74:09:01. The substantive statutes and rules involved appear in the provisions of SDCL ch. 45-9, particularly 45-9-4 and -15, and ARSD art. 74:12. The hearing will be conducted pursuant to SDCL ch. 1-26 and ARSD art. 74:09.

As a result of the evidence presented at the hearing, the Board may approve the applications for Permits to Drill Oil/Gas; approve the applications for Permits to Drill Oil/Gas subject to terms and conditions, including additional surety under SDCL 45-9-15; or deny the applications for Permits to Drill Oil/Gas.

The contested case proceeding before the Board is an adversary proceeding. Corporations must be represented by counsel admitted to practice within South Dakota. Any Party has the right at the hearing to be present, to be represented by an attorney, and to participate at the hearing as a party to the proceeding. These and other due process rights will be forfeited if they are not exercised at the hearing. If the amount in controversy exceeds two thousand five hundred dollars or if a property right may be terminated, any party to the contested case hearing may require that the hearing be held before the Office of Hearing Examiners by giving notice of this request to the below-signed counsel for the DENR no later than ten days after service of this Notice of Hearing.

Any decision issued by the Board may be appealed to the circuit court and the State Supreme Court as provided by law.

Dated this 11th day of March, 2013.

Roxanne Giedd
Deputy Attorney General
Counsel for Minerals and Mining Program, Department of Environment and Natural Resources

Attorney General's Office
1302 E. Highway 14, Suite 1
Pierre, S.D. 57501
(605) 773-3215

BEFORE THE BOARD OF MINERALS AND ENVIRONMENT

DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

IN THE MATTER OF THE APPLICATIONS OF QUARTZ OPERATIONS FOR PERMITS TO DRILL OIL / GAS WELLS AT THE FOLLOWING LOCATIONS:	PETITION FOR CONTESTED CASE PROCEEDING AND FOR APPROVAL OF DRILLING PERMITS WITH CONDITIONS INCLUDING ADDITIONAL SURETY UNDER SDCL 45-9-15

WELL "NORTHERN POINTS 1",

In the Northwest Quarter of the
Northwest Quarter of Section 7,
Township 1 North, Range 14 East,
Pennington County, South Dakota;

And

WELL "NORTHERN POINTS 2",

In the Northeast Quarter of the
Northeast Quarter of Section 12,
Township 1 North, Range 13 East,
Pennington County, South Dakota.

The DENR Minerals and Mining Program submits this Petition pursuant to ARSD 74:09:01:01, and states and alleges as follows:

1. The Minerals and Mining Program of the Department of Environment and Natural Resources, hereinafter "DENR", is authorized to issue certain oil well drilling permits pursuant to SDCL 45-9-4 and ARSD ch. 74:12:02.

2. The Board of Minerals and Environment has retained jurisdiction of and authority for the issuance of drilling permits which require additional surety under SDCL 45-9-15.

3. Quartz Operations has submitted two complete applications for permits to drill at the locations described above. Both applications propose the drilling of wildcat oil

and gas wells to a depth of 9700 feet, with the target formation being the Precambrian formation.

4. The DENR Minerals and Mining Program is recommending conditional approval of these applications for permits to drill, with one of the conditions requesting that the Board of Minerals and Environment require additional surety under its authority in SDCL 45-9-15.

5. The Board of Minerals and Environment has jurisdiction over this matter under the provisions of SDCL 45-9-1, -4, -15, -54, -56 and -57.

6. The applications for permits to drill disclose that the wells proposed are relatively deep wells that require significant site preparation and equipment, and must be drilled by large oil drilling rigs with a capacity to drill to significant depths.

7. The applications for permits to drill disclose that the depth of the wells is approximately 9700 feet below surface, and the target formation of the wells is the Precambrian formation.

8. While oil wells have been drilled in South Dakota and other neighboring states to a depth of approximately 9700 feet below surface, the target formations of such wells have been above the Precambrian formation.

9. The Precambrian formation is a geologic formation from which neither oil nor gas has been discovered in economic quantities in South Dakota or neighboring states, and is not a formation traditionally associated with the discovery of oil and gas.

10. Quartz Operations has not submitted any documentation or information substantiating that oil or gas is likely to exist in economic quantities in the Precambrian formation in the locations of the proposed wells.

11. The cost of drilling an oil well to a depth of approximately 9700 feet in other more easily drilled target formations is approximately $3 million per well.

12. Quartz Operations has no experience drilling oil and gas wells, or producing oil or gas. During the application process, Quartz Operations submitted invalid mineral leases and substantially incomplete applications. Quartz Operations refused to disclose their basis for belief that oil and/or gas exists at the Precambrian formation that is the target formation for the two complete applications for drilling permits. Quartz Operations has not disclosed the identity of an oil well drilling contractor hired to drill these wells.

13. As part of the applications for the permits to drill, Quartz Operations submitted a $20,000 statewide Plugging and Performance Bond.

14. DENR estimates the costs to the State of plugging each oil well and reclaiming the affected surface land proposed in the drilling permit applications identified above in accordance with plugging and reclamation laws to be $130,000 per well.

15. The $20,000 Statewide Plugging and Performance Bond is insufficient to pay the costs that will accrue to the State of plugging the oil wells and reclaiming affected surface lands in the drilling permit applications identified above, if Quartz Operations fails to comply with its obligations to plug the wells and reclaim the affected surface lands.

16. SDCL 45-9-15 states as follows:

> Without limiting its general authority, the Board of Minerals and Environment may require, or may delegate to the secretary of environment and natural resources, specific authority to require the furnishing of a plugging and performance bond in the amount of five thousand dollars per well drilled, or twenty thousand dollars blanket, with good and sufficient surety, conditioned for the performance of the duty to plug each dry or abandoned well, to restore the premises, insofar as possible, to the condition that existed before the filing of the application to drill; and conditioned on the proper performance of all of the requirements of §§ 45-9-5 to 45-9-18, inclusive. The condition of the bond insofar as it relates to restoration of the surface is deemed to have been complied with if the landowner or lessee and the producer or driller adopt a different plan as approved by the board. *The board may require additional bond if the circumstances require.*

17. The circumstances associated with the applications for oil well drilling permits identified above require additional surety bond (over and above the submitted Statewide Plugging and Performance Bond) to ensure the performance of the duty to plug each dry or abandoned well, restore the premises of the wells, and properly perform the requirements of law.

18. As a result, DENR is recommending *conditional approval* of these permits to drill, with the conditions as set forth below:

    a. This permit is conditioned on compliance with all applicable requirements of SDCL Title 45-9 and ARSD Article 74:12.

    b. That the operator submit additional surety bonds for each well in the amount of $130,000 per well, to be held in addition to the $20,000 Statewide Plugging and Performance Bond already submitted. The form of the surety

bond may be in the form of a certificate of deposit in the name of the Board of Minerals and Environment or a surety bond.

c. A 12-mil woven, reinforced high-density polyethylene liner must be used for pits or cuttings storage areas.

d. Surface runoff must be diverted around the drill site.

e. The surface hole must be drilled with fresh water.

f. Cement must be circulated to the ground surface on the surface casing.

g. Vertical deviation survey results must be submitted to the department within 30 days of completion of the well pursuant to rule 74:12:02:15.

h. If production casing is set:

(1). The casing and cementing program submitted with the application, including cementing the production casing from total depth to surface, shall be followed.

(2). A cement bond log must be run and filed with the department within 60 days of completion of the well as required by rule 74:12:02:12.

(3). A completion report must be submitted to the department within 30 days of completion of the well as required by rule 74:12:02:17.

i. Technical reports and well logs must be submitted to the department as required by rule 74:12:02:17.

j. If abandoned:

(1). If production casing is left in the wellbore, a mechanical integrity test (MIT) must be conducted to verify the integrity of the casing as required by rule 74:12:03:02(4)(b)(ii).

(2). With production casing:

(a). A cast iron bridge plug and a 20-foot cement plug must be installed immediately above any perforations.

(b). <u>If a portion of the production casing is retrieved, a</u> 100-foot cement plug, half in and half out of the top of the casing stub after

the retrievable part of the production casing has been removed, must be installed.

(c). A 100-foot cement plug, half in and half out of the top of the following formations: Deadwood, Red River, Interlake, Minnelusa, Minnekahta, and Inyan Kara, must be installed.

(d). A 100-foot cement plug, half in and half out of the base of the surface casing, must be installed.

(e). A 25-foot cement plug must be installed at the top of the surface casing.

(3). Without production casing:

(a). 100-foot cement plugs must be installed, half in and half out of the top of the following formations: Deadwood, Red River, Interlake, Madison, Minnelusa, Minnekahta, and Inyan Kara.

(b). A 100-foot cement plug, half in and half out of the base of the surface casing, must be installed.

(c). A 25-foot cement plug must be installed at the top of the surface casing.

(d). Heavy, mud-laden fluid must be used between all open hole plugs.

(4). The casing string must be cut off at least three feet below the final ground surface contour. A plate with the name of the operator, well name and number, and legal location by quarter-quarter section, township and range must be welded to the casing stub. The location of the abandoned well must be surveyed with high resolution global positioning system equipment or other appropriate survey methods sufficient to accurately locate the well. Survey coordinates must be included in the final abandonment report.

(5). A plugging report must be submitted to the department within 30 days after plugging and abandonment operations are complete as required by rule 74:12:03:01.

k. Surface reclamation of the site must be completed within one year of plugging and abandoning the well.

l. A washed set of sample cuttings (or cores, if cut) must be shipped, free of charge, to:

Derric Iles
Geological Survey Program
Akeley-Lawrence Science Center
University of South Dakota
414 Clark Street
Vermillion, SD 57069-2390

WHEREFORE, the DENR requests that the Board of Minerals and Environment:

(a) Approve the applications for permits to drill set forth above with the conditions recommended by DENR, including the requirement that additional surety bond be submitted; and

(b) For such other and further relief as the Board of Minerals and Environment deems appropriate and necessary to comport with SDCL Title 45-9.

Dated this 11th day of March, 2013.

Roxanne Giedd
Deputy Attorney General
Counsel for Minerals and Mining Program, Department of Environment and Natural Resources

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