

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

ORDER OF THE SUPERVISOR OF WELLS

IN THE MATTER OF:

THE PETITION OF LINN OPERATING, INC., FOR AN)
ORDER FROM THE SUPERVISOR OF WELLS FOR AN)
EXCEPTION TO THE NO FLARE ORDER PROVISIONS) ORDER NO. 01-2013
OF SPECIAL ORDER NO. 3-71 IN LYON TOWNSHIP,)
OAKLAND COUNTY, MICHIGAN.)

OPINION AND ORDER

This case involves the Petition of Linn Operating, Inc. (Petitioner). The Petitioner is the permittee of two oil and gas wells (Chicorel 1-17 and Felber 1-8) in the Guelph Dolomite Formation. The Petitioner asserts it is not economically feasible to construct pipeline to provide a gas market connection. Under Special Order No. 3-71, any Guelph Dolomite well in Oakland County not having a gas market connection shall be closed in until a market connection is achieved or an exception is granted. By letter dated May 7, 2008, the Supervisor of Wells (Supervisor) issued an exception to Special Order 3-71, for the purpose of limiting gas production and flaring to a maximum of 40 thousand cubic feet (Mcf) per day for each well. The Petitioner seeks an Order from the Supervisor authorizing it to flare up to 150 Mcf of gas per day for each of the Chicorel 1-17 and Felber 1-8 wells, as an exception to Special Order No. 3-71. The 40-acre drilling unit for the Chicorel 1-17 well consists of the NE 1/4 of NW 1/4 of Section 17, and the 40-acre drilling unit for the Felber 1-8 well consists of the NW 1/4 of NE 1/4 of Section 8, T1N, R7E, Lyon Township, Oakland County, Michigan.

Jurisdiction

The development of oil and gas in this state is regulated under Part 615, Supervisor of Wells, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, MCL 324.61501 *et seq.* The purpose of Part 615 is to foster the orderly development and production of the oil and gas resources of this state

while preventing waste. MCL 324.61502. To that end, the Supervisor may issue orders necessary to enforce rules promulgated under Part 615. MCL 324.61506(a). Part 615 provides that a person shall not commit waste in the production of oil or gas. MCL 324.61504. Waste includes the unnecessary or excessive loss of gas. MCL 324.61501. Special Order No. 3-71 provides for a public hearing upon filing of a petition to resolve factors of exception. The evidentiary hearing is governed by the applicable provisions of the Administrative Procedures Act, 1969 PA 306, as amended, MCL 24.201 *et seq.* See 1996 MR 9, R 324.1203. The evidentiary hearing in this matter was held on January 8, 2013.

FINDINGS OF FACT

The Administrative Law Judge determined the Notice of Hearing was properly served and published. Answers in opposition to the Petition were filed by the following: Ted Wagg, Bernice Wagg, Karin L. Wolski, Robert J. Wolski, Karin C. Wolski, Christopher P. Grobbel, George W. Wisman, Dorothy Wisman, Julia McMahon, Joe Stanson, Gordon McIndoe, Mary McIndoe, Jim Husband, Mary Husband, David Connell, Rebecca Connell, James Girard, Patricia Girard, Vyvian Gorbea-Opplinger, Kevin Hardy, William Oatman, Bonnie Oatman, Dennis Grace, Kathy Grace, John Robinson, Sally Robinson, Dale Tuchel, Jeff Barton, William Thomas, Madonna Thomas, Patrick Groleau, Regina Groleau, Geraldine Swiderski, Pamela Nielson, Michael Nielson, Donald J. Cogo, Lawrence Olson, Greg Schamp, Tony Thompson, Tom Tjalsma, George Dekle, Michael Capaldi, John C. Hicks, Lorraine Hicks, Bob Lofthouse, Michael Goodyear, Dana Tidwell, Kathy Agan, Vernan Bedell, Denise Wilcox, Donald McAtamney, Mary McAtamney, Edward McKenna, Pearle McKenna, Jack Hurick, Todd Cunningham, Matthew Macchiarolo, Linda Macchiarolo, Deborah Valicento, Randy Valicento, Jill Janisse, Anthony Janisse, Keith Novara, Tanya Novara, Carrie Pryce, Andrew Cook, Kristine Glover, Dale Glover, Terri Morris, Alan Sartori, Lynda Robertson, Robert Kujawa, Lori Gasparotto, Kevin Gasparotto, Elizabeth Gormley, Diane Bays, and Glen Bays. In addition to the Petitioner's representatives,

the following persons appeared at the hearing: Christopher Grobbel, Richard Oberstaedt, Scott Oppliger, Kathleen Grace, Dennis Grace, George W. Wisman, Dorothy Wisman, Julia McMahon, Matthew Macchiarolo, Jacob N. Hurick, and Tony Thompson. The Supervisor designated the hearing to be an evidentiary hearing pursuant to R 24.1205(1)(b) and directed evidence be presented in the form of oral testimony.

The Petitioner specifically requests that the Supervisor issue an Order that authorizes an exception to the No Flare Order, Special Order No. 3-71, allowing it to flare up to 150 Mcf of gas per day for each of the Chicorel 1-17 and Felber 1-8 wells. The Petitioner is the operator of both wells, which were completed as oil and gas wells in the Guelph Dolomite Formation. In support of its case, the Petitioner offered the testimony of Megan Lichtenwalter, engineer for the Petitioner and Diane Lundin, an employee of the Petitioner.

Ms. Lichtenwalter testified the Chicorel 1-17 well is located in the NE 1/4 of NW 1/4 of Section 17, and the Felber 1-8 well is located in the NW 1/4 of the NE 1/4 of Section 8, Lyon Township, Oakland County, Michigan, with both wells in 40-acre Guelph Dolomite drilling units (Exhibits 1 & 2). Ms. Lichtenwalter stated there are no other producing wells in the 40-acre corridors surrounding the Chicorel and Felber wells.

Ms. Lichtenwalter testified that the cumulative production from both wells is approximately 1.0 million barrels of oil and 1.5 million Mcf of gas. She characterized the wells as declining in production and being towards the end of their expected life (Exhibit 5). Currently gas from both wells is being flared at the Chicorel well site at a rate of up to 40 Mcf per day per well. Ms. Lichtenwalter estimated there are approximately 48,000 barrels of recoverable oil remaining in the reservoir.

Ms. Lichtenwalter testified the Petitioner was granted permission to conduct a three-month test of the wells allowing a maximum gas flare of 150 Mcf per well per day, with all gas flared at the Chicorel 1-17 well site. The test was conducted between July and September 2012. During the test, gas flared from the Chicorel 1-17 well peaked at 150 Mcf per day, while gas from the Felber 1-8 well peaked at 86 Mcf per day. It is

Ms. Lichtenwalter's opinion the wells are capable of producing more than 40 Mcf per day, and increasing the flare rate will not cause any reservoir damage.

Ms. Lichtenwalter testified the Petitioner would need to reconnect with a MichCon pipeline, install 0.6 miles of pipeline and a new meter station to market the gas. She reviewed the Petitioner's economic estimate showing a cost of \$942,000 for capital associated with the pipeline connection, meter station, and equipment needed on site. Estimated incremental operating costs total \$19,000 per month for equipment needed to separate the heavier components out of the natural gas stream so that it could be brought to market. This equipment includes a mechanical refrigeration unit, a stabilizer, and a compressor. Ms. Lichtenwalter further testified there are approximately 86,000 Mcf gas reserves and 16,000 barrels natural gas liquids in the drilling units. Based on this economic analysis, it is her opinion that it is not economical for the Petitioner to install a pipeline and to do so would be economic waste. (Exhibit 7).

Ms. Lichtenwalter also testified that, in her opinion, flaring both wells at a maximum of 150 Mcf per day per well will result in minimal increase in noise or odors at the Chicorel well site. The flare equipment, installed in May 2012, includes a large topless tank, approximately 15 feet tall, surrounding the burner. In addition, the Chicorel well is surrounded by a wooded area, which helps reduce visual impacts. Ms. Lichtenwalter testified neither well produces any hydrogen sulfide; however, she did not submit any test results as evidence. Both Ms. Lichtenwalter and Ms. Lundin testified that the Petitioner received no visual, odor, or noise complaints during the three-month test period. It is Ms. Lichtenwalter's opinion that allowing the Chicorel 1-17 and Felber 1-8 wells to each flare up to 150 Mcf of gas per day would result in more oil reserves being recovered and shorten the time period the wells are producing.

Several respondents testified that they did, on occasion, experience odors from the Chicorel 1-17 well but did not know who to report the odors to. The reports of odors were sporadic and included many incidences prior to 2010, when the Petitioner took over the wells. Mr. Macchiarolo testified that he heard a noise like a furnace coming from the Chicorel 1-17 well location during the testing period. The Respondents also

testified as to their concerns about the increased flaring causing air and water contamination.

The Respondents offered the testimony of Christopher Paul Grobbel, an independent environmental consultant. Mr. Grobbel stated that under the Michigan Environmental Protection Act (MEPA), the cumulative environmental impacts of the flare should be considered by the Supervisor. This includes air quality, noise, and odor impacts. Mr. Grobbel testified MEPA also requires an analysis of alternatives, and the Petitioner's alternatives analysis leaves out the primary economic value of the 48,000 barrels of oil that would be captured. He argued by including the Petitioner's anticipated oil revenues, the Petitioner would still show a profit after piping and selling the gas.

Mr. Grobbel testified that it was the Petitioner's responsibility to contact the DEQ to see if they needed an air quality permit. In addition, he questioned the efficiency of the Petitioner's burner and suggested the Supervisor require a Best Available Control Technology analysis.

Mr. Grobbel further testified to concerns with the Felber 1-8 well being a site of environmental contamination; however, this line of testimony was stopped as it was determined to not be relevant to the Petition filed in this matter.

I find that the Respondents' testimony of odor complaints at the Chicorel 1-17 well indicates that occasional odors from the well operations may have occurred; however, I am unable to determine that the odors were caused by the increased flaring of gas during the three-month test period. While the DEQ takes all possible environmental contamination issues seriously, many of the concerns the Respondents testified to, including the need for an air quality permit, water quality and quantity issues, and hydraulic fracturing are beyond the scope of this hearing and will not be addressed in this Order. The Office of Oil, Gas, and Minerals conducts inspections of the wells and production facilities to ensure that their operations are in compliance with Part 615 and its administrative rules.

I find as a matter of fact that the value of the oil recovered by the Petitioner is not relevant to the Petitioner's economic analysis as the oil will be recovered eventually,

whether or not the gas is flared at an increased rate. I further find evidence presented by the Petitioner does not show that increasing the flaring of gas from the wells will significantly shorten the productive life of the wells and result in a corresponding increase in oil production. Additionally, I find that the Petitioner has failed to show that flaring of up to 150 Mcf of gas per day from each of the Chicorel 1-17 and Felber 1-8 wells will prevent waste. Therefore, the Petitioner's request is denied.

CONCLUSIONS OF LAW

Based on the findings of fact, I conclude, as a matter of law:

1. Exceptions to the No Flare Order, Special Order No. 3-71, may be granted by the Supervisor after a hearing upon his option or by petition in a contested case.

2. The Supervisor has jurisdiction over the subject matter and the persons interested therein.

3. Due notice of the time, place, and purpose of the hearing was given as required by law and all interested persons were afforded an opportunity to be heard. 1996 MR 9, R 324.1204.

DETERMINATION AND ORDER

Based on the Findings of Fact and Conclusions of Law, the Supervisor determines that the Petitioner's request for an exception to the No Flare Order, Special Order No. 3-71, is denied.

NOW, THEREFORE, IT IS ORDERED:

1. The Petitioner's request to flare up to 150 Mcf of gas per day from each of the Chicorel 1-17 and Felber 1-8 wells as an exception to the No Flare Order, Special Order No. 3-71, is denied.

2. The Supervisor retains jurisdiction in this matter.
3. This Order shall be effective immediately.

DATED: *March 21, 2013*


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