E-FILED
01/17/2025
PENNSYLVANIA ENVIRONMENTAL HEARING BOARD

COMMONWEALTH OF PENNSYLVANIA
ENVIRONMENTAL HEARING BOARD

MIRANDA LANANGER, *et al.*, and EMMA WRIGHT, *et al.*, Intervenors	**: EHB Docket No. 2024-016-B**
	: Consolidated with: 2024-017-B, 2024-
	: 018-B, 2024-019-B, 2024-020-B, 2024-
v.	**: 021-B, 2024-026-B, 2024-027-B, 2024-**
	: 028-B, 2024-029-B, 2024-030-B, 2024-
	: 031-B, 2024-032-B, 2024-033-B, 2024-
	: 034-B, 2024-035-B, 2024-036-B, 2024-
	: 037-B, 2024-038-B, 2024-041-B, 2024-
	: 042-B, 2024-043-B, 2024-044-B, 2024-
	: 045-B, 2024-046-B, 2024-047-B, 2024-
COMMONWEALTH OF PENNSYLVANIA, DEPARTMENT OF ENVIRONMENTAL PROTECTION AND CATALYST ENERGY INC., PERMITTEE	**: 048-B, 2024-049-B, 2024-050-B, 2024-**
	: 051-B, 2024-052-B, 2024-053-B, 2024-
	: 054-B, 2024-055-B, 2024-056-B, 2024-
	: 057-B
	:
	: Issued: January 17, 2025

OPINION SUPPORTING ORDER DENYING
APPELLANTS' AND INTERVENORS' PETITION FOR SUPERSEDEAS

By Steven C. Beckman, Chief Judge and Chairperson

Synopsis

The Board denies a petition for supersedeas where appellants and intervenors have not shown by a preponderance of the evidence that they are likely to prevail on the merits of their appeal of a permit changing the use of an existing well to an injection well.

O P I N I O N

Background

The Appellants' and Intervenors' (collectively, "Ms. Lananger") have filed a petition for supersedeas in connection with their appeal of the Department of Environmental Protection's ("Department's") issuance of a change in use permit at Permit Number 37-083-46237-00-01

("Permit") to Catalyst Energy, Inc. ("Catalyst"). The Permit authorizes Catalyst to convert an existing conventional oil and gas well to an underground injection well in Keating Township, McKean County ("Injection Well"). The Injection Well is located at 4505 State Route 646, Cyclone, PA (the "Site"). The Injection Well will receive flowback and produced water generated from Catalyst's oil and gas related operations as well as oil and gas related wastewaters from other oil and gas operators. (Stipulation of Fact for Supersedeas Hearing ("Stip."), at ¶ 5). Prior to applying for the change-of-use Permit, Catalyst obtained an Underground Injection Control Permit for the Injection Well from the United States Environmental Protection Agency ("EPA") as is required by the Department.

The Department issued the Permit on January 11, 2024 and a corrected permit was issued on January 17, 2024, including two additional conditions. (Joint Ex. 4) (Stip. at ¶ 13). Between February 15, 2024 and February 26, 2024, the Board received, via U.S. mail, thirty-eight individual appeals of the Permit. The majority of the appeals were consolidated under EHB Docket No. 2024-016-B on March 28, 2024 and the remainder of the appeals were eventually consolidated on April 18, 2024. On May 6, 2024, sixteen individuals, collectively, filed a petition to intervene and the Department subsequently filed an answer in opposition to their petition. On May 30, 2024, the Board issued an Opinion and Order granting the Intervenors' petition. As the case progressed, two appellants withdrew their appeals and ten intervenors discontinued their interventions.

After granting several extensions of pre-hearing deadlines, discovery ultimately concluded in this matter on October 11, 2024. On October 28, 2024, Ms. Lananger filed an expedited motion to reopen discovery and to extend pre-hearing deadlines. The Department and Catalyst filed responses in opposition to the expedited motion on November 7, 2024 and, that same day, Ms. Lananger filed an Application for Temporary Supersedeas ("Application") and a Petition for

Supersedeas (the "Petition"). The Board held a conference call with the parties on November 8th to discuss the Application and Petition, as well as Ms. Lananger's expedited motion. Following the conference call, and after receiving a joint update and proposed orders on the Application and Petition from the parties, the Board, on November 11, 2024, granted in part and denied in part the temporary supersedeas, allowing Catalyst to conduct activities related to the preparation for injection but prohibited any actual injection of oil and gas related fluids and further prohibited any earth disturbance activities. On November 12, 2024, the Board issued an order that scheduled the supersedeas hearing and set deadlines for submitting responses to the Petition, witness and exhibits lists, and stipulations. In addition, the order stayed the deadline for filing dispositive motions until the Petition for Supersedeas was resolved. On November 20, 2024, Ms. Lananger filed a motion for site view and the Department and Catalyst subsequently filed responses in opposition. The Board ultimately denied both Ms. Lananger's outstanding expedited motion to reopen discovery and the motion for site view on November 21st and November 25th, respectively.

The Board held a pre-hearing conference call with the parties on November 26, 2024 to discuss the final logistics in advance of the hearing, including the possibility of relocating the hearing from the Board's Erie office to its Pittsburgh office because of adverse weather conditions. On December 2, 2024, due to the heavy accumulation of snow in Erie Pennsylvania, the Board relocated the hearing to Pittsburgh. The supersedeas hearing was held over the course of five non-consecutive days and concluded on December 10, 2024 after the parties made their closing arguments. The following day, the Board issued an order permitting the parties to file post-hearing briefs by December 24, 2024 which they all opted to submit. On December 27, 2024, we issued an order denying the Petition for Supersedeas and lifting the Temporary Supersedeas (the "Order"). This Opinion is in support of the Order.

Standard of Review

The Environmental Hearing Board Act of 1988, 35 P.S. §§ 7511 – 7514, provides adversely affected parties with the right to file an appeal from a Department action. No appeal acts as an automatic supersedeas, but the Board may grant a supersedeas upon cause shown. 35 P.S. § 7514(d)(1). A supersedeas, as defined by the Board's regulations, is a "suspension of the effect of an action of the Department pending proceedings before the Board." 25 Pa. Code § 1021.2. The grant or denial of a supersedeas is committed to the Board's discretion as guided by relevant judicial precedent and the Board's own precedent and the balancing of relevant criteria applied to the specific facts of the case. 35 P.S. § 7514(d)(1); 25 Pa. Code § 1021.63(a); *Erie Coke Corp. v. DEP*, 2019 EHB 481, 484; *Center for Coalfield Justice v. DEP et al*., 2017 EHB 38, 43. Among the factors to be considered are (1) irreparable harm to the petitioner, (2) the likelihood of the petitioner prevailing on the merits, and (3) the likelihood of injury to the public or other parties. 35 P.S. § 7514(d); 25 Pa. Code § 1021.63(a); *Liberty Township et al., v. DEP et al.*, 2023 EHB 170, 172; *Abercrombie v. DEP*, 2020 EHB 293, 295; *Erie Coke Corp. v. DEP*, 2019 EHB at 485.

The Board may grant a supersedeas temporarily suspending the status of the Department's action "upon cause shown." 35 P.S. §7514(d). The petitioner bears the burden of demonstrating that a supersedeas should be granted. *Erie Coke Corp*, 2019 EHB at 484; *Delaware Riverkeeper Network*, 2016 EHB 41, 43 (citing *Tinicum Twp. v. DEP*, 2008 EHB 123, 126). In order for the Board to grant a supersedeas, a petitioner generally must make a credible showing on each of the three statutory criteria, with a strong showing of likelihood of success on the merits. *Delaware Riverkeeper Network et al., v, DEP*, 2022 EHB 103,110; *Hudson v. DEP*, 2015 EHB 719, 726; *Mountain Watershed Ass'n v. DEP*, 2011 EHB 689, 690-91 (citing *Pa. Mining Corp. v. DEP*, 1996 EHB 808, 810); *Lower Providence Twp. v. DER*, 1986 EHB 395, 397. Where a petitioner fails to

satisfy any one of the supersedeas criteria, the Board is not obligated to consider the remaining criteria. *Liberty Township*, 2023 EHB at 172**;** *Spencer v. DEP*, 2019 EHB 756, 760 (citing *Teska v. DEP*, 2016 EHB 541, 547). In considering whether the criteria have been met, we are mindful that "a supersedeas is an extraordinary remedy and will not be granted absent a clear demonstration of need." *PBS Coals, Inc. v. DEP*, 2021 EHB 104, 106 (citing *Del. Riverkeeper Network v. DEP*, 2016 EHB 41, 43).

Analysis

Ms. Lananger's appeal challenges the Department's issuance of the Permit for the Injection Well. Ms. Lananger, along with the other Appellants and Intervenors, objected to the Injection Well because of concerns that it would leak and have a negative impact on the drinking water and the general environment, as well as the health and safety of people in the area. Apparently, Catalyst was gearing up to begin injecting fluids into the Injection Well in mid-November 2024. In early November 2024, prior to Catalyst commencing injection, Ms. Lananger filed her application for temporary supersedeas and Petition for Supersedeas. Unlike most supersedeas petitions before the Board which are filed far earlier in the proceedings, Ms. Lananger's filed her Petition after discovery had fully concluded. The Board granted the temporary supersedeas, prohibiting Catalyst from disposing of fluids in the Injection Well and held a hearing on the Petition for Supersedeas in early December 2024. Following the conclusion of the hearing and the review of the parties post-hearing briefs, on December 27, 2024, the Board issued an Order denying the Petition for Supersedeas and lifting its temporary supersedeas. We also stated in that Order that an Opinion supporting the Order would follow. This is that Opinion.

In order to prevail on her Petition, Ms. Lananger, must convince the Board that the factors that we consider in evaluating a supersedeas request, including but not limited to, the risk of irreparable harm to Ms. Lananger, the likelihood of her success on the merits, and the likelihood

of injury to the public or other parties, such as the permittee in third-party appeals, support the grant of a supersedeas. Ms. Lananger failed to do so in this case. Specifically, the filings and the evidence presented at the hearing do not demonstrate that she is likely to succeed in winning her appeal at a full hearing. Because Ms. Lananger failed to prevail on the key factor in our consideration, her likelihood of success on the merits, we are not required to address any additional factors in denying her Petition for Supersedeas and, as such, do not discuss those in our decision.

Likelihood of Success on the Merits

In order to succeed in challenging a Department permit decision, Ms. Lananger must demonstrate by a preponderance of the evidence that the Department acted unreasonably or contrary to the law, that its decision is not supported by the facts, or that the decision is inconsistent with the Department's obligations under the Pennsylvania Constitution. *Brockway Borough Mun. Auth. v. DEP*, 2015 EHB 221, 236, *aff'd*, 131 A.3d 578 (Pa. Cmwlth. 2016); *Friends of Lackawanna v. DEP*, 2017 EHB 1123, 1156. In considering this case, it is important to keep in mind the type of permit that is at the heart of this matter. Ms. Lananger is challenging the Department's decision to grant a permit to Catalyst, authorizing it to change the use of an existing production well, the Catalyst Lot 580-1 well, into an injection well for the disposal of oil and gas waste fluids. Because Catalyst's activity involves the conversion of an existing well to an injection well, the Site contained the pre-existing production well, some limited production equipment and an access road prior to the permit decision. The regulation governing the permitting of an injection well is found at 25 Pa. Code § 78.18. It provides that a person may not alter an existing well to be a disposal well unless the person: (1) obtains a well permit under § 78.11; (2) submits a copy of the well permit for the disposal well from EPA along with the EPA well permit application and related documentation; (3) submits a copy of a control and disposal plan for the disposal well and

related facilities that meets the requirements of § 91.34; and (4) submits a copy of an erosion and sedimentation plan for the disposal well that meets the requirements of Chapter 102 and §78.53.

In her filings and at the hearing on the Petition for Supersedeas, Ms. Lananger raised a number of issues with the Department's permit decision that can be grouped into two major lines of argument. The first focused on the permitting of the surface infrastructure and the potential impact on the watershed and wetlands arising from Catalyst's additional development at the Site and the future operations of the Injection Well. In her post-hearing brief, Ms. Lananger argues that the Department failed to require Catalyst to satisfy the requirements of 25 Pa. Code § 78.18 (3) and (4) dealing with the control and disposal ("C&D") plan and an erosion and sedimentation ("E&S") plan. Further, she argues that the Department did not properly consider and apply the Clean Streams Law and regulations governing the waterways and wetlands at the Site. Ms. Lananger's second line of argument is centered on the downhole integrity of the Injection Well and the potential impact of the injection of oil and gas fluids on the drinking water in the area surrounding the Injection Well. Ms. Lananger stated that the groundwater in the vicinity of the Injection Well has existing contamination issues that have not been properly addressed by the Department or Catalyst and asserts that the Department's issuance of the Permit did not properly evaluate and/or account for the risks posed by the Injection Well. The Department and Catalyst of course oppose the positions set forth by Ms. Lananger and contend that the Department's permit decision complied with all relevant statutes and regulations, was reasonable and supported by the facts, and satisfied the Department's constitutional obligation.

We first address Ms. Lananger's claims surrounding the Department's actions regarding the surface development activities at the Site. In its initial permit application dated May 5, 2023 ("May 2023 Application) (Joint Ex. 29), as is required under 25 Pa. Code § 78.18, Catalyst

included copies of a C&D plan dated April 20, 2023 ("April 2023 C&D Plan") and an E&S plan dated March 2023 ("March 2023 E&S Plan"). Both the April 2023 C&D Plan and the March 2023 E&S Plan were updated several times as the development at the Site moved forward. There is a revised C&D plan dated September 15, 2023 (Joint Ex. 16) and an updated C&D plan attached as Appendix D to the Preparedness, Preventions, and Contingency ("PPC") plan that was submitted on October 11, 2024. (Joint Ex. 17). Revised E&S plans are dated April 2024 (Joint Ex. 19) and August 2024 (Joint Ex. 20). Revisions to these plans incorporate changes to the Site's development as well as comments from the Department. The initial and revised E&S plans and C&D plans, along with conditions related to the E&S plans that were added to the Permit, are the main mechanisms by which the Department regulated Catalyst's surface development activities.

The Department reviewed the C&D and E&S plans, requested changes where appropriate, approved them as necessary, and conducted numerous inspections to ensure that the plans were followed and that the environment, including the waterways and wetlands around the Site, were protected. Brian Ayers ("Mr. Ayers"), a Water Quality Specialist Supervisor for the Department, conducted the initial review of the March 2023 E&S Plan and also an early version of the C&D Plan[1]. He drafted an internal Department memo dated October 16, 2023 stating that the March 2023 E&S Plan "is consistent with the requirements set forth in Chapter 102 & Chapter 78.53." (Joint Ex. 22). In the same memo, he reached a similar conclusion regarding the C&D plan finding that it "meets the requirements set forth in" the Department's Guidelines for the Development and Implementation of Environmental Emergency Response Plans. (*Id.*). A week later, on October 23, 2023, Mr. Ayers wrote a second memo ("October 23 Memo") in which he again stated that the

[1] We cannot determine from Mr. Ayers' testimony or his internal memo whether he initially reviewed the April 2023 C&D Plan or the C&D Plan dated September 15, 2023.

plans met the requirements but, in addition, suggested permit conditions addressing E&S control measures to protect the nearby wetlands and watercourses. (Joint Ex. 23). The three specific conditions discussed in the October 23 Memo were as follows: (1) Mark the boundaries of all wetlands with high visibility fencing during all phases of the activity, including construction; (2) The owner or operator may not cause or allow a discharge from the well pad under 25 Pa Code § 78.60; and (3) The owner or operator shall implement ABACT BMPs[2] throughout the well site to maintain and protect the existing water quality of surface water resources. Mr. Ayers testified that these suggestions were based on discussions with his staff after Evan Bruce, a Department inspector, conducted a field inspection on September 7, 2023. (Lananger Ex. XX). He explained that the conditions were intended to ensure that Catalyst undertook the necessary steps to protect the waterways and wetlands. The Department incorporated the three specific conditions set forth in the October 23 Memo as special conditions in the Permit, making them enforceable conditions governing Catalyst's site development activities.

The evidence at the hearing satisfied us that Catalyst complied with the Permit's special conditions and followed the other requirements in its March 2023 E&S Plan as subsequently revised. The high visibility fencing and the ABACT BMPs, which consists of a rock construction entrance and filter sock, were installed in February 2024 (See Joint Ex. 7) and appeared to still be in place and maintained close to the time of the hearing. (Joint Ex. 1; Notes of Testimony Page No. ("T") 249-50). The hearing record reflects that these ABACT BMPs were effective in protecting the identified wetlands and principal waterway in the area, the unnamed tributary to Kinzua Creek. The Department's inspection reports associated with its frequent inspections of the

[2] ABACT BMPs is an acronym for Antidegradation best available combination of technologies – best management practices. 25 Pa Code § 102.1.

Site (See Joint Exs. 8, 9, 10, 11 and 12; DEP Ex. 19) and the testimony provided at the hearing do not evidence any discharges from the Site or any other violations of the E&S special conditions in the Permit. Ms. Lananger presented no evidence of any impacts on the identified wetlands or waterways from the surface activities at the Site.

Ms. Lananger's principal argument is that the Department did not follow its own regulations and the Clean Water Act in permitting the surface activities at the Site. The site plan in the March 2023 E&S plan identified three wetlands and the unnamed tributary to Kinzua Creek. While it is a little unclear from the testimony, the unnamed tributary and two of the wetlands at the Site qualify as exceptional value waters pursuant to the Department's classification scheme. Ms. Lananger argues that because of the exceptional value classification, the Department was required to apply various regulations that govern development in areas containing exceptional value waterways. The problem with Ms. Lananger's argument is that the regulations that she cites in support of her position are triggered during water permitting. Catalyst did not apply for any water permits for this project nor did the Department issue any water permits for this project. The only question is whether the Department was correct in determining that no water permits were required for this site development.

There was no evidence at the hearing that Catalyst planned for or had a point source discharge at the Site during construction. The hearing record also did not contain any evidence of a point source discharge from the proposed operations of the Injection Well. The water collected in the containment area surrounding the equipment at the Site will be added to the incoming disposal fluids and then injected into the underground formation rather than discharged as a point source. The lack of a point source discharge obviates the need for an NPDES permit which eliminates the specific antidegradation requirements cited by Ms. Lananger. Early in the

development and permitting process, one water permit was discussed by the Department and Catalyst for the Site. The March 2023 E&S Plan identified the need for a GP-7 permit to cover the construction of a portion of the Site's driveway that would encroach into existing wetland #3. A GP-7 permit is a general permit intended to cover minor road crossings in wetlands that impact less than a 1/10th of an acre. The April 2024 E&S Plan continued to discuss the need for the GP-7 permit and at least as of May 1, 2024, the Department's position remained that a GP-7 permit was necessary before construction commenced. (Lananger Ex. DDD). However, Catalyst neither applied for nor received the GP-7 permit prior to commencing construction. (T. 581). Instead, Catalyst redesigned its Site layout to avoid encroaching on wetland #3. An updated site plan was sent to the Department on July 15, 2024 by Catalyst employee Jason Horvath. (Lananger Ex. BBB). In response to this e-mail, Department staff conducted a site inspection on July 17, 2024 to confirm that Catalyst had followed the new site plan and that it did not encroach on wetland #3. Following that on-site inspection, the Department determined that a GP-7 was no longer required and communicated that to Catalyst via email. (Catalyst Ex. 24). Ms. Lananger argues that the failure to have a GP-7 permit when Catalyst began construction is a violation and thereby supports her supersedeas claim. We do not see it that way and agree with the Department's position that this permit issue became moot as it was not ultimately necessary for the Site as developed. (T. 593). Catalyst should have communicated with the Department regarding its decision to alter the Site design to avoid encroaching on wetland #3 earlier than mid-July 2024 when construction was well underway. However, we don't find that the communication issue here gives rise to a violation by Catalyst sufficient to grant a supersedeas. The Site redesign led to a better environmental outcome by avoiding any impact or encroachment to wetland #3 thereby obviating the need for a

GP-7 permit. Catalyst's failure to obtain a permit that ultimately was not required simply does not support superseding the Department's permit decision in this case.

Ms. Lananger also argues in her post-hearing brief that the Department failed to properly account for the exceptional value wetlands and waterways in the permitting process. She states that the Department was not authorized to issue the Permit because it failed to evaluate and apply the criteria for special protection wetlands and watersheds and failed to require proper permits under Chapter 102 and 105. Ms. Lananger failed to establish that any permits were required at the Site under these regulations. Chapter 102 governs erosion and sedimentation requirements. It requires an NPDES Permit for earth disturbance activities that equal or exceed one acre. 25 Pa Code § 102.5(b). It specifically lists oil and gas activities as requiring an E&S permit if the activities involve 5 acres or more of earth disturbance over the life of the project. 25 Pa Code § 102.5(c). Neither of these permit requirements apply in this case based strictly on the size requirement alone. The Site developed by Catalyst was under one acre as originally proposed and as ultimately constructed. The constructed Site measures .8458 acres. (T. 978). The Department correctly determined that no Chapter 102 permit was required. In the absence of a GP-7 permit, Catalyst was still required to follow an E&S plan and did so in this case as demonstrated by the testimony at the hearing.

Chapter 105 requires a written permit if a person is going to construct, operate, maintain, enlarge or abandon a dam, water obstruction or encroachment. 25 Pa Code § 105.11(a). There was no evidence that Catalyst proposed a dam or a water obstruction. An encroachment is defined as "a structure or activity which changes, expands or diminishes the course, current or cross section of a watercourse, floodway or body of water." 25 Pa Code § 105.1. Ms. Lananger produced no evidence that Catalyst encroached into any water course, floodway or body of water associated

with the wetlands or unnamed tributary to Kinzua Creek located near the Site. As we understand it, Ms. Lananger's main argument here has to do with the permitting of activities in the exceptional value wetlands identified on the Site. The regulation that she cites in support of her argument is found at 25 Pa Code § 105.18a. It provides that the Department will not grant a permit for an encroachment located in, along, across or projecting into an exceptional value wetland, or otherwise effecting an exceptional value wetland unless certain requirements are met. However, there is no evidence of any encroachment, so the need for a Chapter 105 permit and its related requirements raised by Ms. Lananger does not apply to the Site development undertaken by Catalyst. Ultimately, the facts of the case support the finding that the Department properly addressed the surface development activities at the Site and required Catalyst to take the proper steps to protect the wetlands and waterways. Further, Ms. Lananger produced no evidence that the development activities had any impact on the wetlands or the unnamed tributary to Kinzua Creek. The E&S controls required by the Department and implemented by Catalyst, specifically, the high visibility fencing and the filter sock, along with the stone placed on the Site, effectively protected the surface water resources during construction and will prevent and/or address any issues that might arise during future operations.

Ms. Lananger also raised an issue regarding the review of the C&D Plan submitted by Catalyst, questioning whether it met the requirements found in the applicable regulations. The permitting requirements for the Injection Well require that Catalyst submit a C&D Plan to the Department that satisfies the requirements set forth in 25 Pa Code § 91.34. Section 91.34 requires that persons engaged in activities utilizing pollutants provide a plan outlining the nature of the activity and includes preventative measures that the person intends to undertake to prevent pollutants from reaching the waters of the Commonwealth. In addition to these general

requirements, the Department has specific requirements for C&D plans involving oil and gas facilities found at 25 Pa Code § 78.55. Multiple Department witnesses testified that the Catalyst's C&D Plan met the regulatory requirements. In his initial review, Mr. Ayers stated that the C&D Plan met the regulations' requirements. Despite that, Catalyst continued to revise the C&D Plan as the Site plans developed. Eventually a final C&D Plan was incorporated into the PPC Plan identified as Joint Exhibit 17. The Department had Kevin Maskol ("Mr. Maskol") review the final C&D plan because he had experience in reviewing plans for facilities like Catalyst's Injection Well. (T. 936-7). Mr. Maskol testified that the PPC Plan, including the C&D Plan, generally satisfied the Department's requirements. (T. 942).

During the hearing, Ms. Lananger raised an issue concerning whether the PPC Plan, including the C&D Plan, required the signature of a registered professional engineer. Mr. Maskol testified that the Site did not meet the criteria requiring a stamp by a professional engineer and Ms. Lananger did not provide evidence to the contrary. In her post-hearing brief, Ms. Lananger also raised the specific issue that the C&D Plan presented at the time of the application did not include a pressure barrier policy which she claimed is required under 25 Pa Code § 78.55. We are not convinced that Ms. Lananger is correct in this assertion. A pressure barrier plan is not mentioned in the permitting requirements for injection wells as forth in 25 Pa Code § 91.34. It is only mentioned as a requirement in 25 Pa Code § 78.55 which requires a C&D plan "prior to generation of waste." Mr. Maskol testified that this phrase requires that the final and complete plan be in place prior to Catalyst beginning operations at the Injection Well. The last C&D Plan that Catalyst submitted in October 2024 as part of the PPC Plan does contain a pressure barrier plan and, therefore, appears to satisfy the requirement at 25 Pa Code § 78.55. Overall, we again find that

Ms. Lananger has not shown that she is likely to prevail on the merits of her claim that there are issues with the C&D Plan accepted by the Department for the Catalyst Site.

Ms. Lananger's second concern is the potential risk posed by injecting oil and gas fluids into the Injection Well. She argues that the groundwater in the area around the Injection Well is already contaminated and that the disposal of the oil and gas waste authorized by the Permit creates further risk to the people in the area who use that groundwater as the source of their drinking water. She specifically argues that Catalyst has not performed a successful mechanical integrity test and raises a question regarding the lack of a cement bond log for the Injection Well above 3,300 feet. (Ms. Lananger's Post-Hearing Brief at 13). She also raises concerns about numerous oil and gas wells in the vicinity of the Injection Well, many of which are reportedly abandoned, unplugged and/or improperly plugged. Ms. Lananger asserts that the Department lacks sufficient information about these wells and the risk that they potentially provide a pathway by which the injection fluids could reach the shallower groundwater. She argues that the Department should have denied the Permit on the basis of this risk. Upon review of the testimony and the evidence of record, we conclude that the Department and Catalyst adequately addressed these concerns and the Department properly determined that Catalyst met the requirements for the Permit. Therefore, we find that Ms. Lananger is not likely to prevail on the argument that the Department should have denied the Permit based on these concerns, and, as such, her claims do not support a supersedeas.

The Injection Well is classified as a Class II-D commercial injection disposal well and the primary responsibility for permitting these types of wells in Pennsylvania lies with the EPA. Under a cover letter dated December 4, 2020, Catalyst submitted a permit application for the Injection Well to the EPA. (Joint Ex. 2). The EPA issued a permit for the Injection Well on July 18, 2022 and issued a revised permit with minor modifications to correct typographical issues on

or around August 19, 2024. ("EPA Permit") (Joint Ex. 3). The EPA Permit which authorizes Catalyst to operate a Class II-D commercial injection disposal well, was not appealed by any party. The EPA Permit generally controls the Injection Well operations that go to many of Ms. Lananger's concerns and sets forth detailed provisions governing the construction, operation, and monitoring requirements for the Injection Well. As noted previously, the Department regulations that govern the permitting of injection wells, required that Catalyst submit a copy of the EPA Permit, along with the associated application and related documentation, as part of its change-of-use permit application. 25 Pa. Code § 78.18(2). There is no dispute that Catalyst satisfied this requirement as part of its application filings with the Department. Beyond the regulatory requirement that Catalyst possess an EPA Permit, the Department also conditioned the change-of-use Permit on the existence of the EPA Permit and further required Catalyst to submit copies of any revisions or modifications of the EPA Permit to the Department. Even though some of the operating parameters for the Injection Well are contained in the EPA Permit and not the change-of-use Permit, based on the testimony at the hearing, it appears that the Department considered these operating requirements in it permit decision.

Both the EPA Permit and the change-in-use Permit address mechanical integrity testing of the Injection Well. Mechanical integrity looks at the well's ability to prevent the loss of fluids which is generally accomplished by casing and cementing the well bore. In the case of the Injection Well, there are several strings of well casings designed to prevent leakage from the well bore. Starting from the outside of the Injection Well and working in, there is a 11 ¾ inch casing starting from the surface and going down to 425.9 feet; an 8 ⅝ inch casing from the surface to 2,504.36 feet; and a 4 ½ inch production casing from the surface down to 5,396.35 feet. (Joint Ex. 25, CAT001336). Each of these three casing strings are cemented in place. In addition to the

existing casing, Catalyst installed a new 2 ⅞ inch tubular and packer inside the 4 ½ inch production casing. The oil and gas fluids will be sent downhole to the injection level through the new tubular. Ms. Lananger pressed the Department and Catalyst on the issue of the Injection Well's mechanical integrity and, in her post-hearing brief, Ms. Lananger states that Catalyst "has not yet performed a successful mechanical integrity test." (Ms. Lananger's Post-Hearing Brief at 13). The Board heard testimony and reviewed evidence that extensively addressed the mechanical integrity of the Injection Well and the testing conducted to evaluate its integrity. Based on that testimony and evidence, we find that the Ms. Lananger's assertion that Catalyst has not performed a successful mechanical integrity test is not supported by the evidence and, further, she has not shown that the Department's permit decision was unreasonable due to issues involving the mechanical integrity of the Injection Well.

The mechanical integrity of the Injection Well is clearly important because if the casing and cement are unable to contain the fluid within the wellbore above the injection zone, the injected fluids could theoretically leak from the Injection Well and potentially reach the shallow groundwater that serves as the drinking water in the area. Andrea McGill, a Department geologist involved in reviewing the permit application, repeatedly testified that as long as the mechanical integrity was upheld, she did not see any chance of migration from the injection reservoir to the shallower geological zones. (T. 820, 821, 826). The EPA Permit prohibits Catalyst from commencing injection operations until it has demonstrated to the EPA's satisfaction that the Injection Well has mechanical integrity and it has received written correspondence from EPA confirming as much. (Joint Ex. 3). The Permit requires Catalyst to provide the Department with documentation from EPA demonstrating compliance with the EPA mechanical integrity requirements. Catalyst demonstrated the mechanical integrity of the Injection Well by passing two

mechanical integrity tests witnessed by EPA and Department staff. The first mechanical integrity test was conducted on July 16, 2024. The first test was described as a joint effort between Catalyst and EPA. The EPA inspection report (Joint Ex. 14) listed Jason Horvath ("Mr. Horvath") of Catalyst, as the person conducting the test and Dave Rectenwald ("Mr. Rectenwald") as the EPA witness. Doug Welsh ("Mr. Welsh") of the Department was listed as present for the test. Mr. Rectenwald marked the section of the EPA form for the test results as "Passed." Mr. Rectenwald did not testify but both Mr. Horvath and Mr. Welsh testified that the first test passed EPA requirements to demonstrate mechanical integrity. (T. 270, 510). A second mechanical integrity test was run on November 26, 2024. The EPA inspection report (Joint Ex. 31) again lists Mr. Horvath as conducting the test and Mr. Rectenwald as the EPA witness. Marshall Wurst ("Mr. Wurst") of the Department was listed as present for the second test. The second test was run at a higher starting pressure and for a longer time than the first test. The EPA inspection report again lists the test result as "Passed." (Joint Ex. 31, CAT001847).

Ms. Lananger did not put on any direct fact or expert witness testimony challenging the mechanical integrity test results. Through her counsel's cross-examination of various witnesses, Ms. Lananger attempted to create doubt surrounding the results of the two mechanical integrity tests. None of the testimony elicited on cross-examination overcame the clear testimony and evidence presented by Catalyst and the Department that showed the Injection Well satisfactorily passed both tests. When a party raises technical issues, such as those pertaining to the mechanical integrity tests, the Board would generally expect the party questioning the test's reliability and results to present expert testimony to support their position.

While Ms. Lananger failed to provide expert testimony challenging the mechanical integrity testing, Catalyst presented testimony from David Wozniak ("Mr. Wozniak") who was

admitted as an expert petroleum and reservoir engineer. Mr. Wozniak testified that he reviewed the test information and that it was his expert opinion that both of the mechanical integrity tests were conducted per the EPA guidelines and, furthermore, based on those guidelines, he concurred with the EPA in finding that the Injection Well passed the tests and that it was mechanically sound. (T. 451).

Ms. Lananger raised issues regarding the cement surrounding the well casings. Her counsel seized on the term "open hole" in an effort to raise concerns about the Injection Well. It is our understanding that in this case, the term "open hole" was used to describe a portion of the wellbore where the 4 ½ inch production casing is not cemented in place. This occurs from the top of the cement at 3,512 feet back to the surface. Mr. Wozniak and others testified that this lack of cement was purposefully designed because the filling of that void with cement would create hydrostatic pressure that could potentially fracture the surrounding rock; a result that the company who originally drilled the well would obviously want to avoid. (T. 216-217, 439). The "open hole" does not, as Ms. Lananger's questioning tried to suggest, create an automatic pathway for injected fluids to enter the level containing the area's drinking water. Any injected fluids would first have to escape the tubular and the 4 ½ inch production casing which is unlikely to take place due in part to the pressure monitoring discussed below. If fluids did in fact get released from the 4 ½ inch production casing, they would then have to pass through either the surrounding thousands of feet of rock or, after moving up through the uncemented portion of the well bore, escape out of either the 8 ⅝ inch casing and cement or the 11 ¾ inch casing and cement or both. None of these possibilities seem likely to occur and the repeated discussions of the "open hole" did not convince the Board otherwise.

Ms. Lananger also took issue with the completion report because it lacked a cement bond log for the Injection Well above 3,300 feet. (Ms. Lananger's Post-Hearing Brief at 13). As the Board understands it, the intent of the cement bond log run in the Injection Well was to determine the condition of the cement around the 4 ½ inch casing. (T. 491). The cement bond log identified that the top of the cement was at 3,512 feet and the lack of cement above that point was clearly identified in the log. (Joint Ex. 25). Ms. Lananger neither identified any statutes or regulations requiring a cement bond log be run above 3,300 feet, nor did she present an expert to testify why the lack of a cement bond log above that depth created an issue with the integrity of the Injection Well. Based on the testimony discussed above that explained the lack of cement was part of the intended design of the cement program for the 4 ½" production casing, we find that the lack of a cement bond log in a section where all parties acknowledge there is no cement, is not an issue. Without expert testimony to explain why the lack of the cement bond log poses a risk of a release from the Injection Well, there is no basis on which we can find that the Department's permit decision was improper or unreasonable.

Beyond requiring that the Catalyst demonstrate that Injection Well is mechanically sound prior to injection, both the EPA Permit and the Permit require Catalyst to monitor the pressures in the Injection Well to ensure that mechanical integrity is maintained during ongoing operations. The Permit requires that Catalyst continuously monitor injection pressures, annular pressures, and injection rates. If the monitoring indicates that any mechanical integrity problems have arisen, Catalyst is required to notify the Department within 24 hours of these conditions and must cease fluid injection. Ms. Lananger's counsel asked Catalyst's expert, Mr. Wozniak, what was the most common cause for failures of Class II injection wells. He testified that, based on his experience,

it was failure in the tubulars due to corrosion caused by improper maintenance. (T. 457).[3] He stated, however, that in the instances involving tubular failures that he was aware of that occurred at other sites, no environmental impacts occurred because these failures were detected as a result of the companies' monitoring of the pressures in the wells. Catalyst has installed two pressure monitoring gauges on the Injection Well that are designed to ensure the integrity of the tubular and of the 4 ½ inch production casing. Mr. Horvath, a district engineer for Catalyst, testified extensively about the two pressure monitoring gauges. Pressure gauge P1 continuously monitors the pressure in the tubular and P2 continuously monitors the pressure in the annular space between the tubular and the 4 ½ inch production casing. If a problem with the tubular occurred above the packer, there would be a drop in the pressure on the P1 gauge and an increase in the pressure in the P2 gauge. (T. 990). Mr. Horvath stated that Catalyst would be aware of the issue "the second it happened" as text messages would go out to multiple Catalyst staff and, in addition, the injection pump would automatically shut-off under these circumstances, thereby preventing any further injection of fluid into the Injection Well. (T. 990-91). Any leaks would be contained within the 4 ½ inch production casing. (T. 991-92). Similarly, if there was any issue with the integrity of the 4 ½ inch production casing independent of an issue with the tubular, the pressure measured by the P2 gauge would drop and Catalyst would immediately be notified of that issue. (T. 241, 244-45). In addition, the EPA Permit also requires Catalyst to run a full mechanical integrity test on the Injection Well every two years and also in the event of certain activities, such as removal of the tubing from the well. The EPA can also request that Catalyst run a mechanical integrity test at any time it deems it appropriate to do so. Overall, we find that Catalyst and the Department have

[3] Catalyst will be adding a corrosion inhibitor to the injected fluids to address potential corrosion issues. (T. 79-81).

properly addressed the mechanical integrity of the Injection Well and have put in place proper safety monitoring to ensure that any issues are quickly identified and that the risk of any fluid escaping the wellbore is minimal. Ms. Lananger has failed to show that the Department's permit decision should be superseded because of issues surrounding the mechanical integrity of the Injection Well.

The second argument Ms. Lananger presents is the possibility that the injected fluids may escape from the injection zone and contaminate the drinking water level. The Injection Well is permitted to inject fluids into the Onondaga Formation in an interval from 5,170 feet to 5,188 feet. The Injection Well was initially drilled by Belden and Blake in 1990 to produce gas from the Onondaga. Catalyst presented testimony from its expert witness Mr. Wozniak describing the specifics of the reservoir that will receive the disposal fluids. Besides his extensive experience in the oil and gas industry, Mr. Wozniak was very familiar with the Injection Well and the development of the Onondaga Formation around the Injection Well. He described the Onondaga Formation in the area of the Injection Well as a reef formation called the Cyclone Reef. While Mr. Wozniak did not work for Belden and Blake at the time that the Injection Well was drilled, he joined Belden and Blake in 1995 and worked there while the Injection Well was in production. During his time at Belden and Blake, his responsibilities included evaluating reserves, so he was familiar with the production characteristics of the Injection Well. He also testified that he was part of a study at Belden and Blake to evaluate the reservoir quality and the aerial extent of the Cyclone Reef, examining this formation from a reservoir engineering, geologic, and geophysical standpoint. This study was undertaken because Belden and Blake considered using the Onondaga Formation in the area of the Injection Well for gas storage. He stated that based on this analysis, the Onondaga Formation at the Injection Well has "excellent containment" and "tremendous

deliverability" which make it "a perfect container" for disposal. (T. 432). We found Mr. Wozniak's testimony on this topic well-supported and persuasive given his direct knowledge of the geologic setting and characteristics of the injection formation. Ms. Lananger offered no expert testimony that contradicted Mr. Wozniak's expert opinions regarding the suitability of the Onondaga Formation for receiving the disposal fluids from Injection Well.

Mr. Wozniak's testimony and opinions were also consistent with the factual and expert testimony offered by Susan Price ("Ms. Price") and Andrea McGill ("Ms. McGill"). Ms. Price is a Professional Geologist Manager at the Department and a licensed professional geologist in the Commonwealth of Pennsylvania. Ms. Price testified that there was several thousand feet of predominantly shale layers between the Onondaga Formation and the shallower Bradford Sandstone (also known as the Bradford Sands) located at a depth of around 2,000 feet. Ms. Price described the shale as a good confining zone to prevent the movement of fluids because it does not have good permeability. (T. 657). She also identified that there is another approximately 2,000 feet or so of shale between the Bradford Sandstone and the lowermost source of drinking water at 350 feet that is also a protective confining layer preventing injected fluids from reaching the shallow drinking water zone. Ms. McGill is a licensed professional geologist in the Department's oil and gas program and was the main reviewer for the Permit. (T. 804). She testified that several thousand feet of confining shales exists between the injection depth and the underground sources of drinking water. (T. 820). Ms. McGill stated that "with correct mechanical integrity and the confining layers, there should not be natural pathways" for injected fluids to reach the drinking water. (*Id.*). Ms. Lananger offered no expert testimony or other evidence challenging Mr. Wozniak's and the Department's professional geologists' testimony that supported the position

that the Onondaga Formation is a well contained formation with several thousand feet of confining layers of overlying shale and, therefore, offers a suitable formation for the injection of fluids.

The Department evaluated two possible issues with the confining layers as part of its analysis of the permit application. The first involved reviewing geologic information to determine the presence or absence of faults and the potential for seismic activity in the vicinity of the Injection Well. The presence of faults is a concern because they can create a potential pathway for injected fluid to move through the confining shale layers. Faults can also be activated by the pressures created by injection wells, resulting in earthquakes, a concept known as induced seismic activity. Department geologic staff, specifically Ms. Price and Ms. McGill, reviewed the information on this issue. Ms. McGill testified that there are no known faults within the area of review, a distance of 1,000 feet from the Injection Well. (T. 819, 822). The closest known earthquake to the Injection Well occurred 25 miles away and took place in 1995. (T. 822). Ms. Price stated that, based on maps of faults in Pennsylvania, there are no known faults in the formations above the Onondaga Formation. (T. 661-2).

Ms. Price also testified that the Department uses a spreadsheet to evaluate the risk of induced seismic activity at disposal wells. (T. 636). The spreadsheet involves seven questions and is scored from zero to seven, with seven being the highest score indicating the highest risk level for induced seismic activity. The Injection Well scored a one on the spreadsheet with the one-point deriving from a question concerning the monthly volume of injected fluids. The question asks whether the injected volume is at a rate below 100,000 barrels per month. The EPA Permit allows Catalyst to inject 100,000 barrels per month. As such, the Department treated the answer to this question on the spreadsheet as a "yes" and gave it one-point. Based on the spreadsheet score, the Department considers the Injection Well is at low risk for induced seismic

activity. Ms. Price offered her expert opinion that the use of the Injection Well is not likely to induce seismic activity. (T. 664). Ms. Lananger offered no testimony, expert or otherwise, disputing any of the factual testimony offered by the Department regarding the presence or absence of faults, the risk of seismic activity, or challenging the expert opinion offered by Ms. Price.

Despite the low risk of induced seismic activity and the lack of any known faults in the area, the Department still placed special conditions in the Permit requiring Catalyst to address the potential for seismic activity in the vicinity of the Injection Well. (Joint Ex. 4). The Permit gave Catalyst the option of either installing seismic monitoring equipment or obtaining data from the Pennsylvania earthquake monitoring system. Catalyst elected to install their own seismic monitoring equipment and submitted a seismic monitoring plan to the Department. (Catalyst Ex. 21). The Department approved the seismic monitoring plan (Catalyst Ex. 59; T. 621) and, in addition, inspected the seismic monitoring equipment that Catalyst installed and did not identify any problems during the inspection. (Joint Ex. 13). Overall, we find that the Department properly reviewed the issues posed by potential faults and induced seismic activity at the Injection Well and took appropriate steps to monitor these issues going forward. Ms. Lananger has failed to identify any problems or shortcomings on this issue that create a likelihood of her prevailing on her claims in this case.

The second issue raised by Ms. Lananger is the potential for existing wells to create a path for fluids to move from the Injection Well and the Onondaga Formation into the shallow groundwater. Both the Department and Catalyst evaluated this concern. The Department evaluated the area for existing wells based on a 1,000 foot radius around the Injection Well. Additionally, the EPA sets the area of review at a slightly greater distance of a ¼ mile. There is no dispute among the parties that there are numerous historic oil and gas wells in the vicinity of

the Injection Well. There is also no dispute that the status of some of the historic oil and gas wells in this area are unknown and others are unplugged and/or abandoned. The Board heard extensive testimony during the hearing about historic maps of the oil and gas wells in the area, including the Tidewater Oil map (1937), the South Penn map (date unknown) and the Pennzoil map (undated). In addition, the Department and Catalyst testified about historic information collected and published by the Pennsylvania Geologic Survey that tracks deep wells in Pennsylvania. The term "deep well" is historically used to describe conventional wells in Pennsylvania that reach the Onondaga Formation. The Department concluded that there are only four deep wells that penetrate to the depth of the Onondaga Formation within the area of the Injection Well and required Catalyst to address all four of these wells. The Department determined that the remaining wells falling in the area of review are much shallower and only penetrate into the Bradford Sands at a depth of between 2,000 and 2,200 feet and, therefore, do not pose a risk to the integrity of the injection zone and are unlikely to act as a pathway for fluids to move into the shallow groundwater. Ms. Lananger argued that the Department lacked sufficient information about the wells and failed to undertake a thorough enough investigation of the existing wells to support its conclusion that they do not create an unreasonable risk to the groundwater. We thoroughly reviewed and considered the testimony and evidence on this issue and find that the evidence supports the Department's conclusion that the existing wells do not create a level of risk that should have led to denying the Permit.

We start by looking at the deep wells. The Department and Catalyst identified four deep wells that penetrate the Onondaga Formation in the area of the Injection Well: 1) the Enervest Lot 581-1 Well; 2) the Amoco-Witco Lot 580-1 Well; 3) the Sweeley No. 1 Well; and 4) the Lot 580 – 1 Well. The Department required Catalyst to address all four of these identified deep wells. The Lot 580-1 Well is the well the Department permitted for conversion into the Injection Well.

Although the Permit only required the conversion of the Amoco-Witco Lot 580-1 Well to a monitoring well, Catalyst converted both the Amoco-Witco Well and the Sweeley Well into monitoring wells to monitor the level of the disposal fluid in the injection zone of the Onondaga Formation. (Stip. at ¶ 8). Conversion of the Sweeley Well to a monitoring well was not required by the EPA Permit or the Permit. Catalyst voluntarily added the Sweeley Well as an additional monitoring well. Lastly, Catalyst plugged the Enervest Lot 581-1 Well, bringing it into compliance with the Permit and the EPA Permit.

The Department determined that these were the only four deep wells in the vicinity of the Injection Well based on several lines of evidence. The Oil and Gas Conservation Law became effective in 1961. As a result of that law going into effect, drillers were required to report to the Commonwealth any wells that penetrated the Onondaga Formation. The Department's records only show the four deep wells identified by Catalyst and the Department. To investigate wells drilled prior to the Oil and Gas Conservation Law, the Department and Catalyst relied on a study and publications from the Pennsylvania Geologic Survey, commonly referred to as the Fettke report. The Survey collected information about all deep wells in Pennsylvania and compiled that information into reports. Those reports do not identify any deep wells in the vicinity of the Injection Well prior to the enactment of the Oil and Gas Conservation Law. Mr. Wurst, the Department's acting oil and gas inspector for the area around the Injection Well, was questioned by Ms. Lananger's counsel about deep wells in the area. Mr. Wurst testified that he had reviewed the Tidewater, South Penn and Pennzoil maps to see if they showed any deep wells. (T. 559). He stated that the historic maps use a specific symbol demarcating deep wells and that this symbol "stands out pretty well" and "is kind of unmistakable." (*Id.*). According to Mr. Wurst, none of the maps contained the distinctive symbol that would indicate the presence of a deep well. Mr.

Wurst was also involved in paper record reviews and field investigations of abandoned wells in the Cyclone area since March of 2023. Mr. Wurst testified that based on his investigation, he did not see evidence that the abandoned wells in the Cyclone area are deep wells. (T. 551-59). Ms. Lananger presented no evidence that directly contradicted the Department's and Catalyst's determination that there are only four deep wells in the vicinity of the Injection Well.

As we have stated, there are numerous historic wells in the Cyclone area. Based on its review of the available information, the Department concluded that these wells were shallow wells and were unlikely to have penetrated below the Upper Devonian Bradford Sands at a depth of around 2,200 feet. The Department further concluded that these shallow wells do not create a risk to the drinking water because they are separated from the Onondaga Formation by approximately 3,000 feet of confining shale layers. (Catalyst Ex. 46). Ms. Lananger's stated concern is that the Department lacks sufficient records and other information pertaining to these historic wells to adequately support its conclusion that the wells within the Injection Well's vicinity are shallow and, therefore, do not pose a risk to the drinking water wells in the area.

Various Department staff testified in support of its conclusion that the historic wells are shallow and do not go below the Bradford Sands. Mr. Wurst testified that he had reviewed the Tidewater, South Penn and Pennzoil maps and completed over 50 inspections of wells in the area. (T. 548-51). Based on that information and his investigation, as well his knowledge of historic practices, he stated that these were water-flood wells that he concluded were drilled in the Bradford Third Sand at an approximate depth of 2,000 to 2,200 feet. He testified that most of the wells were likely drilled in the 1930's and 1940's and because they had good oil recovery, the operators lacked an incentive to drill deeper than the Bradford Third Sand. He noted that most operators at the time also lacked the capacity to drill deeper wells. (T. 553). Ms. Lananger's counsel asked Mr. Wurst

about the possibility that other deep wells could be present in the area besides the four wells identified by Catalyst. He responded, stating "[n]ot according to any mapping we have. […] they tend to keep good records of those [deep] wells. So we feel confident that anything past the Bradford Third Sand doesn't exist in this area." (T. 558). In response to a question from Department counsel, asking him whether, based on his experience, his multiple inspections, available mapping, and the symbols on the maps, he was confident that the abandoned wells in the Cyclone area were shallow, Mr. Wurst simply answered "Yes." (T. 564).

The two Department licensed professional geologists, Ms. McGill and Ms. Price both testified briefly regarding the historic wells. Ms. McGill testified that based on her review of the geologic setting and the wells in the area, the area is "rich with basically shallow oil wells to the Bradford Sands, which are thousands of feet shallower" than the Injection Well. (T. 825). While discussing the deep wells, she further stated that all the other wells the Department found or were identified in the area are shallow wells. (T. 826). Ms. Price was asked to discuss the geology of the Cyclone area. She stated that the Department looked at the Bradford Sandstone which is at about 2,000 feet in depth. She noted that this is where all the shallow wells in the area are located. (T. 657).

Catalyst's expert witness Mr. Wozniak discussed early drilling history and noted that the Bradford Sands within the Cyclone area was extensively developed. He agreed with Mr. Wurst that this included water-flooding to enhance oil recovery. (T. 441). He noted that the Bradford Sands were separated from the Onondaga Formation by 3,000 feet of Middle and Upper Devonian Shales that provided an excellent confining interval. (T. 445). He offered his expert opinion that the existence of the wells drilled into the Bradford Sands, even if abandoned and unplugged, would

not create a pathway for fluids to migrate from the Onondaga Formation into the groundwater. (T. 448-49).

Ms. Lananger presented testimony from a local Cyclone resident, Dennis Johnson ("Mr. Johnson"). Mr. Johnson testified that he grew up in Cyclone and worked in the oil fields, including for a period of approximately 22 years when he worked for Pennzoil from 1973 to 1996. (T. 398-401, 415). He stated that there were wells all over the place, some of which were plugged while others he described as abandoned with open holes. (T. 402-04). He was asked whether the wells in the area drilled by Pennzoil during the time he worked for the company were drilled into the Bradford Sands. He testified that many of the wells were drilled prior to his time at Pennzoil but that the newer wells that he was involved with were drilled to the Bradford Third Sand at a depth of around 2,210 feet. (T. 415-16). Mr. Johnson did not offer any testimony that contradicted the Department's conclusion that the historic wells were shallow and drilled to the Bradford Sands.

Ms. Lananger also presented an expert witness, Marc Glass. ("Mr. Glass"). Mr. Glass was admitted as an expert in environmental monitoring and remediation but acknowledged during questioning that he is neither a licensed professional geologist nor a licensed professional engineer in Pennsylvania and had little to no expertise involving oil and gas wells. (T. 846-58). Mr. Glass reviewed the Tidewater and Pennzoil maps and attempted to review well records. He testified that he was unable to determine the well depths of more than 20 wells located in the ¼ mile area of review around the Injection Well. (T. 879). Mr. Glass testified that the lack of information confirming the depth of the wells in the area of review created a data gap that he concluded created a risk that the Department failed to address in its permit application review and decision. (T. 878-85). Mr. Glass did not directly contradict the Department's determination that the historic wells

were shallow wells that did not penetrate below the Bradford Sands, but only offered his opinion that the available information was insufficient to support that conclusion.

Overall, we find Ms. Lananger has not shown that there are wells unaccounted for that penetrate the confining shales above the Onondaga Formation and thereby pose a risk of transporting fluids into the groundwater. She did not produce any well records or map information that definitively demonstrate the existence of any wells deeper than the Bradford Sands, a depth of around 2,200 feet. Her one fact witness on this topic, Mr. Johnson, confirmed that the Pennzoil wells, about which he had personal knowledge, were drilled to around a 2,200 foot depth. Mr. Lananger's expert witness, Mr. Glass, stated that the lack of certain well information left open the possibility that there were deeper wells unaccounted for but had no evidence, either direct or indirect, that this was the case. As such, we find his testimony on this issue speculative at best. In contrast, we found the testimony from the Department staff, particularly Mr. Wurst, and Catalyst's expert, Mr. Wozniak, convincing regarding the limited number of deep wells near the Injection Well and that the historic wells identified in the area of review are likely shallow wells that do not extend deeper than the Bradford Sands. The Department did a reasonable review of the available information, which included its own field investigations, in reaching this decision.

There is one other issue Ms. Lananger raised that we want to address. Witnesses presented by Ms. Lananger raised concerns with the existing contamination of the groundwater in the Cyclone area. There appears to be no question that groundwater contamination exists in the area. Helen Dragonette testified that the well she uses for her drinking water contains methane and that this has been confirmed by testing the Department conducted. Catalyst tested the water from 15 water wells within 1,000 feet of the Injection Well to establish baseline conditions prior to injecting fluids. (T. 197, 203). Lab reports showing methane along with other potential contaminants in

the water from three of those locations were presented at the hearing. (Lananger Exs. T, PP and QQ). Ms. Lananger also entered evidence pertaining to a water supply investigation the Department conducted of a well belonging to Jamie Coleman. This water well also showed methane and other potential contaminants in the water. (Lananger Ex. RR). We also heard testimony about the Pithole Water Association and water issues with its water supply well. The Pithole Water Association well is located approximately 2,000 feet northeast of the Injection Well and is outside the area of review. (Joint Ex. 2; T. 640). The problem with this evidence is that Ms. Lananger made no showing that any of the contamination was caused by Catalyst's Injection Well and, moreover, she is unlikely to be able to do so based on the information we know about the situation. Catalyst had not begun commercial injection of oil and gas fluids into the Injection Well when the contamination in the above-mentioned water wells was identified. At most, Catalyst had placed/injected limited quantities of water into the Injection Well in order to control the Injection Well during the work it performed on the casing and when it ran the mechanical integrity tests. On one inspection report, the Department stated that brine may have been run down the Injection Well when it was being worked on but Catalyst disputed that fact and asserted that only water was used. Regardless, there was no evidence presented that showed the limited amounts of fluids that Catalyst placed in the Injection Well during the development stage had any relationship with the identified water well contamination. Short of some evidence of causation, the most that can be said about this line of evidence is that there is a concern that a bad water situation in Cyclone might be made more problematic if, and only if, there is an issue with the Injection Well. However, given the evidence we heard at the hearing, this argument presents an insufficient basis to hold that Ms. Lananger is likely to prevail on her claim that the Department improperly issued the Permit.

Conclusion

Ms. Lananger had the burden in this case to demonstrate that she was entitled to a supersedeas. In order to do so, she needed to make a strong showing that she was likely to succeed on the merits of her claim at a full hearing by demonstrating by a preponderance of the evidence that the Department acted unreasonably or contrary to the law, that its decision was not supported by the facts, or that the decision was inconsistent with the Department's constitutional obligations. Ms. Lananger failed to convince the Board that she is likely to succeed on the merits of her case. This is especially true in light of the fact that, unlike most supersedeas petitions heard by the Board, the discovery process had been completed at the time of the hearing and, therefore, little new evidence is likely to be brought forth at the full hearing. The evidence presented at the supersedeas hearing demonstrates that the Department acted reasonably, followed the law and regulations in its review of Catalyst's permit application and did a fair and thorough evaluation of the risks posed by granting the Permit. The Department addressed those risks through the terms of its Permit to further minimize any potential for harm from the development and operation of the Injection Well. Ms. Lananger failed to present any expert witness evidence in this case that challenged the technical decisions made by the Department. The lack of expert witness testimony on technical issues such as well construction, mechanical integrity, geology and seismic activity that contested the Department's positions make it very difficult for the Board to find in her favor. Overall, Ms. Lananger has failed to meet her burden. We issue this Opinion in support of our December 27, 2024 Order denying her request for a supersedeas suspending the Department' Permit. A copy of our December 27, 2024 Order is attached.

E-FILED
01/17/2025
PENNSYLVANIA ENVIRONMENTAL HEARING BOARD

COMMONWEALTH OF PENNSYLVANIA
ENVIRONMENTAL HEARING BOARD

MIRANDA LANANGER, *et al.*, and EMMA WRIGHT, *et al.*, Intervenors	**: EHB Docket No. 2024-016-B**
	: Consolidated with: 2024-017-B, 2024-
	: 018-B, 2024-019-B, 2024-020-B, 2024-
v.	**: 021-B, 2024-026-B, 2024-027-B, 2024-**
	: 028-B, 2024-029-B, 2024-030-B, 2024-
	: 031-B, 2024-032-B, 2024-033-B, 2024-
	: 034-B, 2024-035-B, 2024-036-B, 2024-
	: 037-B, 2024-038-B, 2024-041-B, 2024-
	: 042-B, 2024-043-B, 2024-044-B, 2024-
	: 045-B, 2024-046-B, 2024-047-B, 2024-
COMMONWEALTH OF PENNSYLVANIA, DEPARTMENT OF ENVIRONMENTAL PROTECTION AND CATALYST ENERGY LLC, PERMITTEE	**: 048-B, 2024-049-B, 2024-050-B, 2024-**
	: 051-B, 2024-052-B, 2024-053-B, 2024-
	: 054-B, 2024-055-B, 2024-056-B, 2024-
	: 057-B

O R D E R

AND NOW, this 27th day of December, 2024, following the hearing on the Petition for Supersedeas and review of the parties' post-hearing briefs, it is hereby ORDERED that:

1. The Appellants' and Intervenors' Petition for Supersedeas is **denied**.
2. The temporary supersedeas granted by the Board's November 12, 2024 Order is **lifted**.
3. An Opinion in support of this Order shall follow.

ENVIRONMENTAL HEARING BOARD

s/ Steven C. Beckman
STEVEN C. BECKMAN
Chief Judge and Chairperson

DATED: December 27, 2024

c: For the Commonwealth of PA, DEP:
Jennifer N. McDonough, Esquire
Paul J. Strobel, Esquire
Nicholas A. Maskery, Esquire
(via electronic filing system)

For Appellants and Intervenors:
Lisa Johnson, Esquire
(via electronic filing system)

For Permittee:
Jean M. Mosites, Esquire
Sean Keegan, Esquire
Joshua Snyder, Esquire
Kathy Condo, Esquire
(via electronic filing system)