DEP Permit # E06-701
DEP Permit HDD Reference # PA-BR-0181.0000-RD-16
DEP HDD # S3-0250
Township – Caernarvon
County - Berks
HDD Site Name – Joanna Road Crossing

2nd Public Comment Period

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1. **Comment**
   DEP HDD Re-Evaluation Report, Horizontal Directional Drill Location (S3-0250-16), Permit No. E06-701 Caernarvon Township, Berks County.

   I am writing in response to the above mentioned Horizontal Directional Drill (HDD) second evaluation comment period. I have a significant concern, not only for the placement of the 20" NGL pipeline but also the future placement of the 16" NGL pipeline. I have contacted both the PUC and the PaDEP in regard to a newly developed and consistent flow of groundwater around the 20" NGL pipeline, post instillation and site remediation. As proven through a professional independent study, the aquifer has been punctured and is flowing in excess of 12 gallons per minute around the active Mariner East 2 20" NGL pipeline. SPLP has also conducted a study of this aquifer puncture and has failed to mention it in either of their

submitted 16" NGL pipeline HDD reanalysis. This "new" groundwater to daylight emergence has a completely different chemical signature than that of surrounding surface waters which confirms that not only is it groundwater but it also presents a significant loss to the aquifer, which is a regulated waterbody of the Commonwealth by PaDEP. This, in my opinion, is the same aquifer that my well is drilled into and therefore is a direct pathway for the contamination of my well as discussed below;

First, there have been no physical examinations performed by Sunoco, SPLP, or the Pennsylvania Department of Environmental Protection, PaDEP, which may have concluded or denied the potential of HDD contamination of my well. There have been no geophysical evaluations or tests, such as cone of influence, performed in any manner by SPLP or PaDEP. The attached drawing, Attachment 1, was the only documentation provided to the PaDEP, by SPLP, seeking exoneration from Special Condition 20b of Permit No. E06-701. This crudely drawn sketch was obtained through Right to Know request and served as the basis of decision by the PaDEP to release SPLP from responsibility. Not only is the drawing less than adequate for such a release it is not accurate to the property, the layout of the construction activities, or the physical properties of the geology and hydrology of the construction site. Only upon continued inquires on the part of the landowner were reports written which conveniently coincided with the original decision and were based entirely from theory and not site observations. In efforts to seek proper answers, environmental testing and site inspections, I have obtained an independent professional report and it is the subject of pending litigation as well as have been provided in a redacted version to the Attorney General's Office.

Secondly, the reanalysis is accurate to reflect my initial refusal of water supplies. At the onset of the incident I was apprehensive about costs I would personally incur for the water buffalo as well as how the process was to function. These concerns are reflected in Attachment 2. Text messages with my land agent as well as phone conversations illustrate that I wanted to have the return of SPLP's water test results, confirming contamination, prior to accepting a water buffalo. My personal obtained testing initially established the presence of bacteriological contamination on August 16, 2017, these results were conveyed to SPLP Land Agent Scarlett Jackson of Perchereon. Upon being offered a water supply, out of the goodness of their heart, I was skeptical of SPLP's intentions and refused until their, SPLP's, own internal testing drawn by contractor GES were returned. GES samples were taken on August 14, 2017 and results were not returned until September 30, 2017, irrespective that the analyzing lab reported the results were completed and reportable on August 15, 2017. This blatant 47 day time lapse, is presumed to be intentional as it was then utilized against my filing in Environmental Hearing Board Case 2018-010-L seeking SPLP to be held liable for Special Condition 20b.

Moreover, the water supply which was eventually provided, was provided as a condition of the PaDEP's settlement with SPLP that they must provide a water buffalo, free of charge, to those residents within 450 feet of an HDD alignment during HDD activities. Given protections and guarantees by the department, in conjunction

with a legally binding agreement with SPLP in reference to damages which may be incurred to my water system and property through the use of a water buffalo, I allowed the instillation. The installed water buffalo has and continues to place undue burden on myself and my family both in quality of life and financially. Below is a professional opinion as to the uses of a water buffalo for a long term water supply; SPLP initially supplied water buffalo water testing with every delivery (weekly) to confirm the absence of bacteria. These test have not been consistent nor have results been provided to myself, the end user, despite numerous requests of the testing agency, Elk Environmental, the transportation company, Stallion Oilfield Services as well as land agent, Percheron. At least one time during the necessary use of the water buffalo, I was instructed by land agent Toby Resetar not to drink the water due to potential water buffalo contamination and bottled water was supplied for personal consumption. Additionally, due to the uses of a water buffalo, I have incurred a continual cost to heat tankage in the winter and at least one point still incurred frozen water supply, due to extreme cold temperatures. These electrical costs, in addition to costs to clean my house and pool after construction activities caused damage to them, have been offered to be covered by SPLP, with no follow through.

Contained within the HDD reanalysis itself is the evidence which correlates SPLP's drilling activity to bacteriological contamination on all sites. Observing the Twin Valley report indicates a presence of Total coliform, 1.0 MPN/100ml, nearest to the drilling in March 2018 a subsequent lapse in contamination while there was a suspension of activity and a resumption of contamination during drilling in September 2018 at 13.4 MPN/100ml. Such a result is also seen in the 512 Joanna Road sampling in March 2018 as well as my personal well reports during the same time frame. Also contained within these reports is the first mention of any descriptive quantification of quality. A column of PaDEP drinking water Maximum Contamination Limit, MCL, was only provided in documentation to the department and not to the homeowner. Numerous times SPLP has been asked to explain what the results of the well testing means but has never responded. The home owner is left to decipher if results are clean or contaminated. According to the results provided in this HDD reanalysis my personal well exceeds MCL numerous times for both Sulfate, Manganese, Iron and Dissolved Solids. Additionally, MCL's for the bacteria related categories are left out, as they should be zero or non-detect, all of my well tests exceed these limits.

This understanding of contamination in conjunction with 2012 PA Act 13; section 3217, which is in relation to gas and oil wells, yet utilizes similar technology, puts the presumption of contamination events occurring due to the drilling and makes the driller responsible for 1 year for any and all contamination events to groundwater supplies. The only exoneration to this would be had the water been testing in a pre-drilled status thereby excluding the contamination occurring as a result of the drilling. This did not occur and therefore the PaDEP should have automatically concluded that the contamination occurred as a result of the drilling and required SPLP to be accountable for Special Condition 20b. This regulation is presumed to also be the source for the PaDEP's current water supply/ water buffalo requirements.

Finally, I will reiterate that I have retained a professional whom has, within a reasonable degree of scientific and professional certainty, definitively linked the aforementioned HDD activities directly with the contamination and potential future diminution of my well water supply. It has also been presumed that due to the aquifer puncture, that not only has it presented the conduit of contamination in the past, it may continue to present the same conduit of contamination in the future. This aquifer puncture has also contributed to a major change in my property as it now contains a newly formed emergent wetland complete with standing pools harboring a multitude of flora and fauna including mosquitoes.

While the PaDEP does not regulate private drinking wells it does regulate the aquifers into which they are placed and in this case, significant damages and potential permanent diminution to the aquifer may be incurred due to the initial instillation as well as the continued construction of this HDD. I urge the PaDEP to require complete investigation of the aquifer puncture to include the study of impacts by and to the currently installed 20" NGL pipeline, including a review of the constant flow of slightly acidic groundwater upon the design rating of the pipe, a decreased lifespan thereby, and plan for emergency remedial actions necessary as there is an instantaneous potential environmental impact to the local waterways in the event of a failure. Additionally, the PaDEP should require SPLP to conduct studies to identify subsequent impacts to the aquifer which may occur through additional HDD drilling during the 16" NGL pipeline installation. Moreover, the PaDEP should require SPLP to conduct impact studies to the created emergent forested wetlands as this was the site of numerous discharges of drilling mud during the instillation of the 20" NGL pipeline which were the subject of notices of violation.

On May 30, 2019 two species of turtle were observed and recorded nesting on the Mariner East 2 Right of Way, see attachment #3. These turtles, the Eastern Box Turtle and the Snapping Turtle have selected nesting sites which would be destroyed in the event of continued construction. The Snapping Turtle's nest is clearly on top of the termination of the 16" NGL pipeline as depicted in the photographs. The incubation period for the Snapping Turtle is 80 to 120 days and I urge the PaDEP to halt construction to allow these young a chance at survival. The Eastern Box Turtle female has also chosen a nest on the Mariner East 2 Right of way and with an incubation 50 to 70 days her young should hatch prior to that of the Snapping Turtle. The placement of the nests in relation to the creek puts the HDD location in the direct downhill path of travel for the young Snapping Turtles on their trek to their natural habitat. I fear allowing this construction to continue would result in their ultimate demise. (1)
Letter – David Anspach

2. **Comment**
On April 1, 2019, the Department requested additional information from Sunoco regarding its reevaluation ("Report") of the horizontal directional drilling ("HDD") indicated by drawing number PA-DA-0005.0000-RD-16 (the "HDD Site"). Sunoco

responded to the April 1, 2019 letter on May 23, 2019, supplementing the Report. Pursuant to the Corrected Stipulated Order entered on EHB Docket No. 2017-009-L on August 10, 2017 ("Order"), and on behalf of Clean Air Council, Mountain Watershed Association, Inc., and the Delaware Riverkeeper Network ("Appellants"), please accept these comments regarding Sunoco's May 23, 2019 supplemental response ("May Response"). The comments are numbered to correspond to the numbering in the Department's April 1, 2019 requests and the May Response.

1. Justification of Drilling Path

As detailed in Appellants' previous comment, Sunoco's installation of the 20-inch line at this site was an utter failure of planning and engineering. If there is to be any hope of construction proceeding safely at this site, Sunoco must demonstrate that it has learned from its mistakes and provide substantial evidence and analysis demonstrating that the redesign of the 16-inch profile will avoid similar problems. To that end, the Department has made a number of requests related to Sunoco's lack of explanation or justification for the specifications it is proposing for the 16- inch profile.

First, the Department pointed out that Sunoco "failed to fully utilize information gathered during the HDD of the 20-inch bore as part of the HDD Re-evaluation for the 16-inch pipeline." The May Response does not address this concern. In the Report, Sunoco claimed it "possesses a complete geologic profile from the horizontal drilling and installation of the 20-inch pipeline." Such data, if available, could be helpful in determining whether the redesign of the 16-inch profile avoids problem areas, especially since Sunoco intends to install much of the length of the 16-inch profile in close proximity to the 20-inch pipe. Instead of using this data though, or data from the geologic and drilling logs as requested by the Department, the May Response disposes of the request by asserting the top of the bedrock has been depicted on its diagram of the redesign of the 16-inch profile. It is not. The diagram Sunoco attached to the May Response includes only a couple hundred feet of approximate bedrock interface, spanning just a fraction of the HDD length. Presumably Sunoco has similar data for the entire profile. The fact that it has chosen to disclose only a small portion of that data is concerning. Is there something Sunoco is trying to hide or does it not actually possess a full data set? Either is problematic.

Moreover, even the limited data Sunoco does provide on the approximate bedrock depth seems to contradict comparable data provided in the Report. Figure 1 in Attachment 2 to the Report is also a diagram of the redesigned 16-inch profile. That diagram includes two small lengths of approximate bedrock, neither of which matches the bedrock depiction in the attachment to the May Response. These two incomplete, contradictory diagrams need to be reconciled.

In regard to Figure 1 in Attachment 2 to the Report, Sunoco also claims that diagram includes a graphical representation of the IRs that occurred during the drilling, reaming, and completion of the 20-inch HDD. That, quite simply, is false. Neither of

the diagrams in Attachment 2 to the Report (both of which are labeled "Figure 1") depict IRs. Including where the IRs occurred on the diagram of the redesign of the 16-inch profile should be straightforward; Sunoco has done it for other sites. Nevertheless, while providing the location of the IRs is a basic and necessary step, it is also not sufficient. The various other incidents that occurred while drilling for the 20-inch line, such as equipment breaking and getting lost underground, the presumed effluent line strike, and subsidence incidents, should also be reflected on the diagram of the redesigned 16-inch profile. All of this locational data must then be used in conjunction with the other information Sunoco acquired while drilling for the 20-inch pipe, including drilling logs and the complete geologic profile, to justify its redesign choice. Bedrock surface and IR locations, even if they had been included, are no substitute.

Sunoco also ignores the Department's request to explain why the proposed bore path for the 16-inch line was chosen. A satisfactory response would discuss, with supporting detail, factors such as the integrity of the bedrock at the specific depth that was chosen for the horizontal run as compared to the integrity of the bedrock at other potential depths. No such discussion is provided. Sunoco claims the RDQ value of the bedrock it drilled through for the 20-inch line was "good." This would appear to be inconsistent with Sunoco's history of incidents at the site and demands explanation.

In terms of IRs, Sunoco's claim that the root cause of the IRs was "repeated tripping and out of the reamer, which mechanically loosened the unconsolidated diabase/boulder spoil matric located above the HDD annulus" is only the start of an explanation—the proximate cause. Why was Sunoco repeatedly tripping in and out? It is safe to assume based on all previous experience with Sunoco's ME2 construction that Sunoco intended to complete the 20-inch HDD as quickly as possible. Removing the drill string takes time. This unusual course of construction is related to the Sunoco's many mechanical failures at the site, as described in the Geology and Hydrogeological Evaluation Report. As Appellants raised in their first comment, Sunoco has not explained the root cause of those failures (several lost drill cones, abandoned bore holes, etc.). The May Response only raises additional questions.

Not only must Sunoco explain how it will avoid IRs and future mechanical failures, it must also explain how it will prevent future subsidence incidents, striking other utilities such as the effluent pipe that was disturbed in previous construction, and flooding. David Anspach, a resident who is well familiar with the destruction Sunoco has caused at this site because it is in his backyard, has reported continued surfacing of groundwater which is likely flowing along the 20-inch line. He has documented the uncontrolled runoff at the site. Sunoco needs to explain how the redesign of the 16-inch line will address all of these very serious concerns.

2. Water Supplies

The Department asked Sunoco to evaluate and discuss how the proposal for the 16-inch profile will "minimize the potential for IR's and impacts to water supplies," as well as provide other information. Sunoco provides no such evaluation or discussion of minimization. Instead, it has provided incomplete information regarding a well contamination incident that occurred on Mr. Anspach's property while drilling for the 20-inch line.

Sunoco's claims, without providing any supporting documentation or analysis, that it was not responsible for the contamination of the Anspach family's well. Despite saying that "Water quality samples were collected from the identified locations prior to the initiation of HDD activities" and during and after, no baseline information is included in the Anspach sampling results table. There is no question that the well tested positive for bacterial contamination and that the timing of that contamination coincided with Sunoco's drilling. The testing results included with the May Response even demonstrate that. How exactly this contamination happened is far too important a question to simply rely on Sunoco's self-serving and unsupported conclusion. The testing results attached to the May Response also show low-level bacterial contamination in other wells in the vicinity of the site. Sunoco has not addressed this at all.

Despite the clear risk to drinking water supplies revealed through the troubled history of this site, Sunoco has ignored the Department's instruction to explain how the redesign of the 16-inch line will mitigate those risks. On the contrary, Sunoco seems to deny there was ever a risk to water supplies in the first place. This is a recipe for continued disaster at the site and the Department should continue to demand answers.

Thank you for considering these comments. Please keep Appellants apprised of any next steps. (2-6)
Letter – Clean Air Council – 6-2-19 – Joanna Road Crossing