FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION

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June 15, 2020

SECRETARY OF LABOR MINE SAFETY AND HEALTH ADMINISTRATION (MSHA), Petitioner, v. CONSOL PENNSYLVANIA COAL CO., LLC, Respondent.	CIVIL PENALTY PROCEEDING Docket No. PENN 2019-0019 A.C. No. 36-07416-476696 Mine: Enlow Fork Mine

DECISION AND ORDER

Appearances: Brittany Williams, Esq., & Kenneth J. Polka, CLR, Office of the Solicitor, U.S. Department of Labor, Philadelphia, Pennsylvania, for the Secretary of Labor

James P. McHugh, Esq., Hardy Pence, Charleston, West Virginia, for the Respondent

Before: Judge Lewis

STATEMENT OF THE CASE

This case arises under the Federal Mine Safety and Health Act of 1977, 30 U.S.C. § 801 et seq. (the "Act" or "Mine Act"). A hearing was held in Pittsburgh, Pennsylvania. The parties subsequently submitted post hearing briefs and reply briefs which have been fully considered in reaching the within decision.[1]

LAW AND REGULATIONS

§ 75.1700 Oil and gas wells.

[STATUTORY PROVISIONS]

> Each operator of a coal mine shall take reasonable measures to locate oil and gas wells penetrating coalbeds or any underground area of a coal mine. When located, such operator shall establish and maintain barriers around such oil and gas wells

[1] On August 16, 2019, this Court issued a Partial Decision Approving Settlement that disposed of Citation/Order Nos. 9079299, 9079304, 9079305, 9079239, and 9079241.

> in accordance with State laws and regulations, except that such barriers shall not be less than 300 feet in diameter, unless the Secretary or his authorized representative permits a lesser barrier consistent with the applicable State laws and regulations where such lesser barrier will be adequate to protect against hazards from such wells to the miners in such mine, or unless the Secretary or his authorized representative requires a greater barrier where the depth of the mine, other geologic conditions, or other factors warrant such a greater barrier.

FINDINGS OF FACT AND CONCLUSION OF LAW

The findings of fact are based on the record as a whole and the undersigned's careful observation of the witnesses during their testimony. In resolving any conflicts in the testimony, the undersigned has taken into consideration the interests of the witnesses, or lack thereof, and consistencies, or inconsistencies, in each witness's testimony and between the testimonies of the witnesses. In evaluating the testimony of each witness, the undersigned has also relied on his demeanor. Any failure to provide detail as to each witness's testimony is not to be deemed a failure on the undersigned's part to have fully considered it. The fact that some evidence is not discussed does not indicate that it was not considered. *See Craig v. Apfel*, 212 F.3d 433, 436 (8th Cir. 2000) (administrative law judge is not required to discuss all evidence and failure to cite specific evidence does not mean it was not considered).

JOINT STIPULATIONS

The parties' joint stipulations are as follows:

1. Enlow Fork is subject to the jurisdiction of the Federal Mine Safety and Health Review Commission.

2. Enlow Fork is an "operator" as contemplated by the Federal Mine Safety and Health Act of 1997, as amended ("Mine Act").

3. The proposed penalties, if upheld, will not affect Enlow Fork's ability to continue in business.

4. Each citation was properly served as required by the Mine Act.

T. at 5-6; *see also* SBI, p. 1.[2]

[2] "T" refers to the hearing transcript. "GX" refers to the Secretary's exhibits and "RX" refers to Respondent's exhibits. "SBI" refers to the Secretary's original post hearing brief and "SBII" refers to his reply brief. "RBI" refers to Respondent's original post hearing brief and "RBII" refers to its reply brief.

SUMMARY OF TESTIMONY

WITNESSES

James Baker

James Baker had been employed at MSHA for five and a half years. T. 12-13. He had spent 22 week at the National Mine Academy and had a week-long class in journeyman training. T. 13. Prior to his employment with MSHA he had worked for approximately 22 years in mining, 17 years underground, and 5 years on the surface.[3] T. 13.

At the time of hearing, Baker worked as a coal mine inspector. T. 13. On direct examination, Baker testified that in September 2018 he was performing a regular E01 inspection at Enlow Fork Mine when he was informed that the operator had struck a gas well. T. 15. Baker verbally issued a § 103(k) order. T. 18. He met with the mine foreman, Joe Bartolotto, traveled with Bartolotto to the E 30 Longwall Section, No. 73 Shield, and found the borehole that had been cut through. T. 19.

On September 10, 2018, Baker issued Citation No. 9079236. GX-1. He issued such based upon Respondent's failure to properly locate and plug the cited gas well in violation of Section 75.1700. GX-1; T. 22-22. As to the violation's gravity, Baker found that an injury was reasonably likely to occur. T. 21. Without locating the well, there would be no way of knowing if methane gas were present. He concluded that bits on the shearer drum could turn and strike a gas well "not properly grouted or concrete," possibly causing an ignition of any methane gas present. T. 21-22, 48.

Enlow Fork had a history of methane and ignitions. T. 22. It had been on a five-day spot for the amount of methane liberated in a 24-hour period. T. 22.

Baker determined that three persons would be affected by the violation because typically two shearer operators and one shield man were at the face the entire 9-hour shift. GX-1; T. 22. If bits struck the unlocated borehole or casing with methane present, an ignition causing burns or smoke inhalation to three individuals could have taken place. T. 22-23. The worst case scenario would have been an explosion. T. 23.

On cross-examination Baker agreed that Consol had preserved the scene after the well breach. T. 30. There was no methane found. T. 31. The top hole was "very clean." T. 32-33. The operator's crew had done everything in regard to the DNF mining procedures longwall mining method.[4] GX-3; T. 34.

[3] *See* T. 13-14 for more detailed description of Baker's mining experience and certifications.

[4] DNF stands for "did not find." T. 23; GX-3.

The well was ultimately plugged with concrete being applied to the mine floor and a 36-inch plug installed in the upper hole. GX-1, Section 17; T. 36. Baker conceded that Section 75.1700 did not specifically set forth a duty to plug located wells. T. 38. He further acknowledged that he knew of no applicable definition or MSHA promulgated rules for "reasonable measures" to locate wells. T. 40.

The cited well was ultimately located under a sand mound at a third-party's house. T. 41.

Baker again affirmed his belief that the operator or operator's contractors should "have probably found" the well because "it was so close to the way they found it underground that they probably should have found it on top…" T. 40.

Baker described the hazard thusly: "if your bits from your shearer hit that casing or well and it had methane in it, it could cause an ignition." T. 48. There was, however, no casing involved in the within citation. T. 48-49. In reaching his S&S determination, he had taken into account the fact that MSHA's cut-through plan allowed the operator to cut through wells that could not be located. T. 50. Baker was surprised that another inspector (Young) had found non-S&S in a similar situation in which an operator had cut through a well that it had been unable to locate. T. 51; GX-3. In reaching his S&S determination, Baker had not considered such factors—as considered by Inspector Young—that the well was not producing, that the well contained no metal casing, that the well was covered over with dirt on the surface, that there was "plenty of air on the face to dilute the methane coming out of [the] well bore." T. 53-54.

When asked how he could determine whether a violation was S&S if he did not know the four parts of *Mathies*, Baker replied: "I guess I can't."[5] T. 54.

Baker again expressed surprise that, in another situation involving a borehole cut-through, an inspector found that the risk of injury to be unlikely. GX-4; T. 54-55.

On redirect examination, Baker noted that wells should be properly sealed, grouted, and plugged before an operator cuts through them. T. 57-58.

On recross, Baker's investigation as to the efforts exerted by Respondent in attempting to locate the cited well was limited to the information received from the contractor, 18 Karat, and Burns. T. 62.

Jeremy Williams

Jeremy Williams began his employment with MSHA in 2005 and had been employed as a supervisory mine safety and health specialist since 2012. T. 66. He had previously worked as a ventilation specialist and health specialist, receiving ventilation training every year. T. 66-67.

[5] Despite Baker's response, this Court is persuaded that the inspector did, in general, understand the steps in *Mathies* but was becoming frustrated by operator's counsel's vigorous cross-examination.

Prior to his employment with MSHA, Williams had worked for Consol Energy beginning in 1998, last working as an assistant shift foreman and section foreman. T. 67. He had a bachelor's degree in mining engineering from West Virginia. T. 67.

On direct examination, Williams testified that his current duties included review and approval of gas well pillar permits, gas well cut-throughs, and alternative borehole plans. T. 68. As to gas well cut-through plans, mine operators, as Respondent, must petition for modifications to plug and mine through gas wells pursuant to Section 75.1700. T. 69; GX-7. Operators may not engage in longwall mining through gas wells without plugging them. T. 74. Operators, through their engineering departments, obtain mapping and databases with the state, and gas well maps to locate on-the-surface gas and oil wells. T. 75.

Hazards associated with cutting into a well, which has not been plugged, included methane inundation, ignition, and explosion. T. 75. Enlow Fork was a gassy mine, probably liberating in excess of six million cubic feet a day, and having a history of ignitions. T. 75-78; GX-6, 7. Some of the past ignitions did not involve a metal casing. T. 89-90. Often boreholes were full of water with methane boiling up through the water. T. 92. Fuel, oxygen, and a heat source were necessary for an ignition to occur. T. 95-96.

Generally, the mine maps show where a gas well is located. T. 102. The mine operator, through its own personnel or contractors, will attempt to locate wells, observing the local topography, including depressions, using metal detectors, searching for any evidence of gas wells. T. 102. Once a well is located, the operator will plug it in order "to mine through to the point for the petition for modification." T. 102. Given the different depths in the Pittsburgh Coal Seam, one would expect that a hole could deviate up to 40 feet away, and Williams believed that it was the operator's responsibility to search that area. T. 103-104.

According to the DNF 2019, Williams testified that a reasonable search to locate a well would require an operator or its contractors to go out and conduct a physical examination of the area. T. 104. If evidence were found, metal detectors could be used to find any casings or other evidence of well drilling, such as couplers. T. 104. Subsurface excavations could also be performed with shovels, Bobcats, bulldozers, and any other types of equipment to strip off the top soil and dig down to locate a borehole. T. 104. Even if metal casings were not found, wood conductors might be discovered on the surface. T. 104. Once a well is located and plugged, the operator can mine through without incident. T. 104.

As to the well at issue, it "was basically in a guy's back yard," located in the leach bed for his sewage system. T. 104. Williams opined that the operator had not exercised due diligence in opting not to do subsurface excavation. T. 105.

At times there might be sand pipes sticking out of the ground, indicating the presence of a well. T. 105. However, here there were none, probably due to the construction of the home. T. 105. The area was graded over and there was no evidence of the presence of a well due to excavations and landscaping over the years. T. 105. There was no hole present and no pipe sticking out of the ground. T. 105.

Given that the petition for modification required the operator to locate and plug gas wells, Williams opined that Section 75.1700 was violated because "in this scenario, a gas well was not located or plugged and then mined through." T. 107, 108.

On cross-examination, Williams testified that he had been told that the mine operator had not dug with Bobcats or bulldozers. T. 110. Williams agreed that, consistent with the standard of the industry, Respondent's contractors had dug down in the cited area to uncover any metal evidence. T. 110-111. Old mine maps might have wells separated by 700 to 1,000 feet. T. 111.

MSHA has not promulgated any rules as to what would constitute reasonable measures to be taken by operators to locate wells. T. 111-112. Williams was unaware of any definition of reasonable measures that could be given to the regulated community. T. 112. He was aware that Respondent's contractors had dug with hand tools in the area of the "guy's yard" to search for metal fragments—but not with Bobcats, bulldozers, or high lifts. T. 113. Williams agreed that the petition for modification did not specifically set forth a requirement that wells be located; rather it dealt with the plugging procedures to be followed once a well was discovered. GX-8; T. 115.

As to planning operations near a well believed to exist, Williams opined that this would not apply to a situation where the operator simply could not find the well. T. 116-118; GX-7, p. 7.

Williams was aware that of five reported wells believed not to have existed, the operator had only intersected one. T. 124; RX-E. He could not remember whether in the past he had stated that the Respondent had taken reasonable measures to find the well in question. T. 124.

Of the approximately seven episodes characterized as ignitions, Williams agreed that all but one were located in the headgate, tailgate or development sections. T. 126-127. At 50,000 CFM, there would be approximately ten times more ventilation delivered to the longwall surface at Enlow as opposed to the continuous miner development section, which only had 5,000 CFM. T. 128-129.

Williams was not aware of any incident where Consol had caused anyone to be injured because of intersecting a borehole or gas well. T. 134. He couldn't "say for sure" whether the operator's contractor's grid search in the 100-foot zone area with metal detectors constituted a reasonable search. T. 137. Williams testified that Consol usually did a "good job" in looking for gas wells, and to the best of his knowledge 18 Karat was a reputable contractor. T. 138, 140.

Joseph Bartolotto

At the time of hearing, Joseph Bartolotto had been safety inspector at Enlow Fork Mine for the past 8 months. T. 143-144. He had gone to technical school for computer-aided drafting. T. 144. He had started in the coal industry in 2013 as a surveyor, moving into the dust department. T. 144. He had worked at Bailey Mine as a GMS contractor employee, working on the longwall, then as a dust technician. He had all his dust certifications, PA blasting cap, federal train-the-trainer card, West Virginia and Pennsylvania black hat. T. 144.

On direct examination, Baker testified that he had accompanied Baker on the date the inspector had issued Citation No. 9079236. T. 144-145. They went to the longwall, met with the section boss, and traveled onto the face. T. 146. They checked for gas immediately and found none. T. 146. People on the section had also found none. T. 146. After inspecting the intersected borehole, they decided upon a course of action to plug it and then continue mining through. T. 147.

The well site was intersected at 12:10 and they were on the scene prior to 2:30. T. 147. At 3:33 there was a verbal modification of the K order and permission was given to plug the hole. T. 147; RX-D.

Reflective signs hanging down from shields gave notice that the area was a gas well zone. T. 148. There was a sign reading "gas well zone starts here" and then a sign on the other side reading "ends here." T. 148. The start of the zone was No. 62 Shield and the end of the zone was No. 80 Shield at the pluses of 107, plus 85 to 106. T. 149; RX-L. The gas well was intersected at No. 73 Shield. T. 151.

Robert Botroac

Botroac worked as a section foreman at Consol. He had an associate's degree in mining and technology and had worked for Respondent since 2008, primarily as a longwall and gate foreman. T. 153. He was section foreman when the borehole in question was intersected. T. 154. Botroac testified that on September 6, 2018, he had received information about a DNF well zone and had set the 100-foot zone with signs wired to a shield. T. 155-157. In mining the 100-foot zone, additional gas checks are taken. T. 157.

Robert J. Robinson

Since 2017, Robert J. Robinson had worked as director of engineering for Consol mines. T. 162. He had a bachelor's of science in mining engineering. T. 162. He had worked in the coal industry since 1976, had transferred to Bailey Mine in 1998 and had been promoted to director of engineering for Respondent in 2017. [6] Dating back to the late 1980's he had been involved in conducting searches for gas wells and plugging them according to the 101 (c) petition. T. 163-164.

On direct examination, Robinson testified that some of the challenges presented to Respondent in locating old gas wells included the fact that many of the wells were drilled prior to 1940, using steam rigs. T. 164. These old wells were almost exclusively drilled with cable tool rigs. T. 164. Wells, such as the one at issue, were extremely difficult to find, because there was no permit requirement or plat that went with the well. T. 164. The driller simply reached an agreement with the landowner and started drilling, there being no record made. T. 164-165. Wooden derricks were erected on the site. T. 165. The equipment used—oil-and-gas driven

[6] *See* pp. 162-164 for more detailed description of Robinson's past experience.

steam engines—was small, as opposed to the large well pads utilized in the Marcellus Shale industry. T. 165.

The cable drill had a 12-inch very heavy drill bit, the drill being about 15 feet long. T. 165. Typically, the wells would go 2,800 to 3,200 feet deep, depending where the coal was at or where the gas zone was located. T. 166. If, however, the drillers encountered an issue, they would simply skid the rig over 15 feet and begin a new hole with no need for permits. T. 167. Over the years such unpermitted skidded holes would be found and plugged. T. 167-168.

In the 1970s and 1980s, plats provided good information as compared to previously when wells were unpermitted with no drawing or records.[7] T. 168. In the modern day, handheld GPS devices are used so that one can walk up to a latitude/longitude location with the geographic coordinate value noted on the drilling permit and get within 10 feet of a platted or permitted well. T. 168.

In searching for unpermitted older wells, Consol uses farm line maps or producer maps. Such maps were developed by past gas companies such as Carnegie Manufacturers Heat and Light, Columbia, and Equitable Gas. T. 169. Gas company employees would go out to farms, meet with the landowners, and mark farm line maps with symbols showing the location of wells. T. 169. The problem with the older Carnegie/Columbia maps was that they might depict the same gas well in different locations. T. 170-171; RX-K. Furthermore, the range that the company's (Carnegie's) symbol might cover could be up to 1,000 feet. T. 172.

The petition for modification filed by Respondent for Enlow Fork Mine dealt with the procedures, practices, and methods for plugging gas wells to be mined through with a continuous miner or a longwall. T. 173. It did not specifically address the questions of locating a borehole or gas well. T. 173.

Once Consol has obtained maps and plotted them, it scans the hard copy images into an autoCAD-type program, scales them, rotates them, and fits them to a farm tract or to a quadrangle section. T. 174.

The digital image can be overlayed on Respondent's § 75.1200 mine drawing. T. 174. A search map can be generated that will have the various gas company symbols which, together with available aerial imaging, can show where a gas well might be located. T. 175-176; RX-I. The mapping however is not 100% accurate. "Not found wells" might never be found underground. T. 178. Exhibit RX-B was the Enlow Fork approved oil and gas well cut-through plan, which was an addendum that was used to spell out the procedure for the mine to follow when mining through a gas well area. T. 178-179.

Robinson outlined the measures taken by Consol to locate wells or boreholes on the surface based on his past experiences. T. 179. All available mapping is reviewed; historical photographs are examined; the best location to conduct a field reconnaissance or foot search is

[7] Robinson described "plats" as "basically, like, a property survey." T. 168.

selected; people are sent out to the site and work under the supervision and direction of Matthew Ruckle, the project engineer. T. 179, 227.

A map may have five different companies' symbols. T. 179. If one of the symbols ends up a vertical cliff, there is good probability that there was no drilling sitting there, so the area is narrowed down. T. 179-180. Aerial photography is used. Topography is looked at; a bench is tried to be found. T. 180. Once an area is zeroed in, there is always a metal detector search for cut nails, for past drilling, and miscellaneous materials. T. 179-180. A lot of times the material detected is old farm scrap and has nothing to do with a gas well. T. 180. If drilling material is discovered, the site is evaluated as to whether further excavation is warranted. T. 180. Depressions and sinkholes and ground features that don't quite fit into the topography are noted. T. 180.

Exhibit J depicted the area where Respondent's project engineer and contractors conducted their search for the well. T. 181. The type of search conducted for the subject well was the type "normally" employed. T. 182. The operator had already mined through three other areas that had shown wells believed not to exist (DNFs) and were not ultimately found there. T. 182. Given the number of duplicate wells on available farm line and producer maps, finding the actual location of wells was difficult. T. 182.

In the past, Consol had worked with the state of Pennsylvania and MSHA to get plans approved in order to mine using a longwall and continuous miner above a gas storage field. T. 182. Due to Consol's success in locating 32 more wells than the gas storage operator believed to have existed, Consol had been asked to train individuals as to how to properly search for wells. T. 182-182.

Anytime Consol is unable to locate a DNF, it shows a symbol to alert individuals to be watchful. T. 184; RX-B.

Robinson opined that Respondent was improperly cited for violating § 75.1700 in that the operator had taken reasonable measures to locate the well, employing methods routinely used for such searches. T. 185. This was not a situation where there was a plat that showed the well location with a surveyed location, or, even without a surveyed location, a plat that showed distances from two corners. A failure to locate in such situations would be the result of unreasonable measures. T. 185.

On cross-examination, Robinson opined that a cable tool rig had been used in the well at issue. T. 191. In the past, Respondent's employees had utilized hard copy farm line maps. T. 192. But when oil and gas came out with digital mapping, farm line maps were digitized and Respondent refined the symbols showing gas well locations. T. 192. The red symbol depicted a dry hole; the green symbol was also a dry hole; and the blue symbol was a gas well. T. 193; RX-I. A second look at the mapping had taken place in late 2017-early 2018 prior to Respondent starting the longwall panel. T. 193.

According to the operator's calculations the gas well was estimated to be located in the area of No. 71 Shield. T. 197. It was actually intersected at No. 73 Shield. T. 198. The operator would not have needed to tear down the private property owner's house to locate the well. T. 203. There was, however, a sewage sand mound or septic system where the well was eventually located. T. 203.

Robinson had spoken with the private property owner, who had grown up in the area and whose father had owned the neighboring farm. T. 207. She had no knowledge whatsoever of a well in the area. T. 207.

Robert Conner

Robert Conner worked since 2006 as foreman for gas well locating for 18 Karat. T. 209-210. Over the years he had searched for approximately 1,000 wells and had performed services for multiple companies, including Consol, CNX Gas, and Murray Energy Corporation. T. 210.

On direct examination, Connor testified that he had been contacted by Respondent to search for the gas well at issue. T. 210-211. He reviewed a Carnegie Gas map which showed a location that an earlier search company had found not to be accurate. T. 211. Conner overlaid the old gas map on top of Google Earth. T. 213. He pulled it in as best he could with the old roads and property lines; then faded out the old map on top of Google Earth and got a search location that was submitted to Respondent. T. 213.

At the selected site, 18 Karat worked a grid with searchers four feet apart, digging up any evidence that could be located. T. 214. On March 12, 2018, two searchers spent 10 hours searching, and found cable down by a fence. T. 213-215. They also found round nails and some modern nails with no rust. T. 213-215. On March 13, 2018, the same two people found part of a three way, which was described as "a T," and round and modern nails. T. 215. On March 14, 2018, the same searchers again found round and modern nails. T. 216. The property owner said there was 10 feet of fill over where 18 Karat was looking for the well, located behind his house, going down next to where a fence was at near a pond. T. 216. Conner was uncertain how long the pond had been on the property. T. 216. On March 15, 2018, Conner continued to hand-search for the well, searching down into the swamp on the pond on the hollow side of the fence. T. 216-217. A few pieces of molten metal and right-handed cable were located at a depth of four feet in the hollow to the left of the pond in a wooden area. T. 217. Locating molten metal is relevant because it could be where past drillers dressed tools on old drilling rigs. T. 217. The March 16, 2018 notes by 18 Karat indicate continued hand searching for well 2019, with a few pieces of molten metal found a few inches deep along a creek bank along with a few scattered nails in no pattern. T. 217. The lack of pattern was considered significant because in attempting to locate wells "there will be a pattern the way the rig sat in there, the derrick fell." T. 218. No pattern of any kind was found. T. 218.

Metal detectors were used because metal was important evidence in locating a well: "you can lay out how that rig sat in there to give you direction of which way the hole would be." T. 218. Specifically, the metal that is relevant to where the rig sat would be: 16, 18, and 20-inch long rig bolts; ¾ inch bolts with hex heads; hex nuts and a couple of washers on them. T. 219.

These items would be about 6 feet apart and "pairs of four the way the rig laid in there for the motor house to be bolted onto." T. 219. Such pattern of residual evidence would indicate the location of a well whereas scattered debris and molten metal and nails would not be helpful. T. 219.

Exhibit RX-J depicted the area searched by 18 Karat, with a yellow outline indicating the area searched and a red outline to indicate the items found. T. 219. 18 Karat employees searched with metal detectors in the yellow outlined area and dug in the area of the private property owner's back yard, but found no indicia of a well's presence. T. 220.

Shovels were used to do the digging. Shovel digging was a normal practice in attempting to locate a well. T. 220. 18 Karat employees used shovels anywhere, including woods and yards. T. 220. When, however, searching in a private individual's back yard, shovels were preferable because there are unmarked lines, including gas lines, phone lines, and electronic lines, which must be approached with care. T. 221. Shovels were "the common practice" for looking for a well. T. 221. Conner remembered 18 Karat employees searching in the third party's yard. T. 221.

Of the thousand or so wells that Conner had searched for, he had been unable to locate approximately 300 of the older wells through field searches. T. 221-222. Of these 300, possibly 9 wells had been intersected. T. 222. Some of such wells had actually been dug for in the past with equipment but with no success. T. 222.

The decision to use heavy equipment is based upon the "reasonable well evidence" uncovered by the initial hand search such as fire pit, drilling cable (left-handed) and rig bolts. T. 223. However, during 18 Karat's search there was nothing found to suggest that equipment should be brought in. T. 223. Conner opined there was no evidence found that warranted bringing in additional equipment. T. 223. 18 Karat could have gotten equipment if it had requested such. T. 223.

On cross-examination, Conner agreed that the large house and pond depicted on RX-J would have required a lot of ground to be moved in the digging and construction of such. T. 224. He also agreed that there was an area that had 10 feet of fill that was between the pond and the house, included in the red zone of RX-J. T. 224.

Matthew Ruckle

Matthew Ruckle graduated in 2008 majoring in engineering. T. 226. He began working for Respondent in May 2005 as a summer intern and started full time in January 2009 as a project engineer in such activities as air shaft installation. T. 226. He was laid off for two years, during which time he worked for 18 Karat as a project manager, estimating and managing jobs, surface jobs, and site construction. He returned to Consol in March 2018 as a project engineer. He was responsible for gas well searching and maintaining degas boreholes. T. 227.

On direct examination, Ruckle testified that he had reviewed the various searches for gas wells associated with the E 30 Longwall. T. 228. Exhibit RX-I contained a drawing showing the E 30, the back end of the longwall panel, depicting two wells that had been located and three wells that were not located shown as DNFs. The borehole that was intersected and subject of the within citation was 2019. T. 228. At some point Ruckle decided that a more extensive search for the well should be conducted. T. 228-229. He reviewed all the search records of 2019 located in his office. T. 229; RX-C. This file included the search records from Burns Drilling and 18 Karat. T. 229. Burns Drilling had found some pipe and some nails but not much more. T. 230.

Respondent did some research, looking at old producer maps. T. 230. It was felt that more searching, a little further to the south, needed to be conducted. T. 230. 18 Karat was Respondent's primary well searching company and was asked to go back out to search for the well further to the south. T. 232.

Exhibit RX-I depicted the location of well 2019 moved to the best estimated location away from its originally estimated location. T. 231.

Ruckle reviewed all of Conner's search reports and was provided with a best estimated location with GPS coordinates. T. 234-235. No actual evidence of a well, however, was uncovered. T. 239.

It was normal to use metal detectors and shovels in searches. T. 236. If Conner had requested heavy equipment, Ruckle would have approved the request. T. 236.

Exhibit RX-E contained a notification letter sent to MSHA's district manager by Respondent's mine engineer, stating that the E Longwall would be mining through areas where there were five reported wells believed not to exist, including DNF well 2019. T. 237. This notification was based upon search records provided by Ruckle. T. 237. Ruckle did not believe any of the five wells existed based upon the lack of evidence. T. 238.

The procedures utilized by Respondent in attempting to locate the well were consistent with procedures used by Respondent in the past. T. 238. In the past Ruckle had gone out with MSHA personnel, including District Manager Riley, to attempt to locate DNF wells and had been unsuccessful. T. 238-239.

On cross-examination, Ruckle testified that he had not gone out to the search location until after the well was intersected. T. 241. Despite an 18 Karat search note dated March 14, 2018, indicating there was "10 foot of fill over where the well should be," Ruckle opined that the area could be accurately excavated with a shovel. T. 242-244; RX-C.

On redirect examination, Ruckle testified that 18 Karat notes from March 15, 2018, indicated that the metal and a right-handed cable were located at 4-foot depth. T. 244. Diggers would follow where the evidence led. T. 244.

Jonathan Tajc

Jonathan Tajc had a Bachelor of Science degree from Penn State. T. 243. He had worked for Respondent as an industrial engineer foreman, assistant mine foreman, and mine engineer. He had also worked for the Commonwealth of Pennsylvania Bureau of Mine Safety as a mining engineering specialist. T. 246. As a mine engineer, Tajc had experience in plotting the location of gas wells. T. 246. His office maintained records such as the letter contained in RX-E. T. 247.

CONTENTIONS OF THE PARTIES

The Secretary argues that Respondent violated 30 C.F.R. § 75.1700 when it failed to take reasonable measures to locate and plug a gas well prior to mining through the E 30 Longwall at Enlow Fork Mine. It argues that, given that Respondent had markings on its mine maps indicating the potential existence of a DNF well in the area where the gas well was ultimately intersected, the Respondent bears the burden of demonstrating that it had taken reasonable measures to locate the gas well. Specifically, Respondent's contractors were negligent in failing to further search the gas zone area and to conduct additional digging and excavation with heavy equipment in the area.

Respondent initially argues that the intersected borehole referred to on Consol maps as "DNF 2019" was not, in fact, a gas well but rather an abandoned "dry hole" and, as such, would not be subject to § 75.1700 provisions.[8] Assuming the site in question was a gas well, Respondent argues that it had, in good faith and with due diligence, followed its MSHA approved ventilation plan, including its gas well cut-through plan which dealt with mining operation near a well believed not to exist. Despite that it had failed to locate the gas well before its intersection, Respondent had satisfied § 75.1700's "reasonable measures" mandate by reviewing old farm line and gas producer maps, available photography, and by contracting with experienced gas well searchers. Considering the lack of evidence uncovered in the suspected gas well area, Respondent's contractor(s) had not acted unreasonably in using only hand tools and shovels for digging and declining to use heavy machinery in its search.

[8] Given the within holding which is wholly dispositive, this contention need not be fully addressed. The ALJ does observe that MSHA has not yet promulgated a definition for "gas well." In *Sec'y. v Consol*, 42 FMSHRC 118 (Jan. 30, 2020) (ALJ), this Court addressed the question of whether the Secretary's interpretation of § 75.1700 should be given controlling weight in light of *Kisor v. Wilkie*, 139 S. Ct. 2400, 2411 (2019). The ALJ further notes that the distinction between an abandoned dry hole and an old gas well site becomes increasingly more problematic when passing time, decay, and/or property development destroys much of the evidentiary indicia distinguishing such. Suffice it to say that the Secretary had presented persuasive evidence and compelling arguments (s*ee inter alia* SBII, pp 1-2) in support of finding DNF to be a "gas well." If required to resolve this issue, this Court would presently not be inclined to find that the Secretary had acted unreasonably in treating the intersected site in question as a gas well for § 75.1700 enforcement purposes.

ANALYSIS

Issue: Did the Secretary carry its burden of proving that Respondent failed to take reasonable measures to locate the cited gas well in violation of § 75.1700?

I. The Secretary bears the burden of proving Respondent's violation of § 75.1700 oil and gas wells.

It is black letter Commission law that the Secretary has the burden of proof in establishing *each and every element* of a citation.[9] *See also* 29 C.F.R. § 2700.63 (b). In his post hearing brief, the Secretary attempts to relieve himself of this burden thusly: "because the Respondent had all of the records including the mine maps pertaining to this gas well, (it) bears the burden of demonstrating that it took reasonable measures to locate the well." SBI, p. 7. The Secretary cites no source or case cite for this bald proposition. Furthermore, this Court has found no statutory or appellate case law supporting Secretary's argument for a shifted burden of persuasion as to operators cited under § 75.1700 and declines to do so instantly.[10] The burden remains with the Secretary to establish a breach of each and every element of § 75.1700, including whether Respondent failed to take reasonable measures to locate the gas well *sub judice*.

II. The test to determine whether Respondent had violated § 75.1700 should be the reasonably prudent operator standard.

As noted *intra*, there is no statutory or case law directly on point as to what constitutes reasonable measures regarding the location of wells under § 75.1700.[11] MSHA to date has not promulgated any regulations or specific guidelines for operators to follow in satisfying § 75.1700's reasonable measures mandate. Given no binding case law directly on point, this Court holds that the test for determining compliance with § 75.1700's requirements is a reasonably prudent operator standard. Were the steps taken to locate the well, measures which *a reasonably prudent operator, familiar with the factual circumstances surrounding the hazardous condition, including any facts peculiar to the mining industry and considering the protective purpose of § 75.1700, would have taken.*

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[9] Such an evidentiary burden dates back to even ancient times. For example, the Latin maxim, "*Semper necessitas probandi incumbit ei qui agit*." ("The necessity of proof always lies with the person who lays charges.") *See also* Luther's defense at the Diet of Worms that those charging heresy bore the burden of presenting specific scriptural proof of his theological errors.

[10] As discussed *infra*, the ALJ finds neither the law nor applicable facts justifying a shifted burden. The fact that Respondent had in its possession mapping giving clues to the well's possible location does not in itself warrant a shifting of the *burden*. This Court was persuaded by Respondent's arguments/testimony that the DNF 2019 symbol was not an exact longitude/latitude point, as Secretary implied, but rather a best estimate spanning up to 1,000 square feet. *See also* RBI, pp 3-4.

[11] *See* Secretary's concession of such at SBI, p. 8.

Thus, this Court concludes that the critical question in determining a violation of § 75.1700 is not whether Respondent was ultimately successful in locating the well—*nor, indeed, whether Respondent could have done more to locate the well.*[12] Rather the enquiry must focus on whether the actual measures taken by Respondent were sufficiently reasonable, considering the totality of the circumstances.

III. The steps taken by the Respondent to locate the gas well were reasonable measures so as to satisfy § 75.1700 requirements.

The protective purpose of § 75.1700 is that miners should be shielded from the inherent hazards of inundation, ignition, and explosion associated with the intersection of unlocated wells. There are all too many abandoned gas and oil wells in Pennsylvania posing hidden dangers to miners.[13]

However, the language and protective purpose of § 75.1700 should not be interpreted in such a way that any failure to locate a gas well penetrating a coal bed operates as a *per se* violation of this mandatory safety standard.[14] Operators should not be placed in a "catch-22" situation in which they are deemed not to have taken reasonable measures, if they are unsuccessful in ascertaining a particular well's location.

In his post hearing brief Secretary argues that "gas well DNF was…not the needle in the haystack that Respondent attempts to portray." SBII, p. 3. This Court agrees that finding a needle in a haystack is not an apt metaphor for describing an operator's onus in locating a DNF in

[12] MSHA's improper application of § 75.1700 reasonable measures standard is illustrated by Inspector Baker's testimony at T. 104: "I don't believe they took *every effort* to locate it (the well) outside on this man's property."

[13] Though the following statistics have no bearing on the instant decision, it should be noted that in a recent front-page article titled the "Looming Crisis," the Pittsburgh Post-Gazette reported that there were roughly 200,000 orphan wells dotting Pennsylvania and abandoned by their owners over a century of drilling. For most of the time period, fully sealing off expired wells was not required. Very little money has been allocated for funding and plugging wells which, at the present allocation, would take *17,500 years and cost $6.6 billion* (emphasis added). Laura Legere, "The Looming Crisis," Pittsburgh Post-Gazette, Sunday Edition, Vol. 93, No. 248, April 5, 2020.

[14] This is not to say this Court is altogether adverse to the application of strict liability and to the finding of *per se* violations of mandatory safety standards in certain limited circumstances. This Court's decision in *The Doe Run Co. v. Sec'y*, 40 FMHSRC 1165 (July 20, 2018) (ALJ) is presently pending before the Commission. In such, this Court proposed that *whenever there is an unexplained catastrophic roof collapse killing a miner,* a *per se* violation of the underlying safety standard should be found with no necessity for a prudent operator analysis as *intra.*

general nor this Respondent/operator's onus in particular.[15] However, this Court does accept Respondent's essential argument and testimony in support thereof that DNF wells can be often quite difficult to locate and that the failure to do so may not necessarily be grounded in the failure to take reasonable measures. *See inter alia* Robinson testimony at T. 164-168.

At hearing, Respondent's witnesses described the various steps that Respondent had taken in attempting to locate DNF wells, including DNF 2019. These steps were succinctly summarized in the August 14, 2018 notification to the MSHA district manager (RX-E). These measures including "field searching, gas well map reviews, online database searching, aerial photograph searching, and API map reviews." RX-E.

At hearing Robert Conner, foreman of gas well locating for 18 Karat, outlined the measures taken in the onsite field search which included using metal detectors, working a grid with searchers 4 feet apart, attempting to find evidence indicative of past rigging, like rig bolts in a pattern, using shovels for digging. T. 214-220, *see also* Robinson testimony regarding such.

Conner had long experience in searching for gas wells and characterized the steps taken by 18 Karat as standard in the mining industry. T. 111, 182, 220. The Secretary's witnesses, Baker and Williams, while honest and straight forward, did not appear to have the length or depth of specific experience in gas well searching possessed by Respondent's witnesses, Robinson and Conner. Baker and Williams offered no persuasive testimony establishing that Respondent had somehow departed from the standard of care expected of those in the mining industry searching for gas wells.[16]

At hearing Respondent's witnesses credibly described the problematic nature of old farm line and gas producer maps.[17] See *inter alia* Robinson testimony at T. 164-169. As noted *supra*, this testimony reasonably counters Secretary's argument that the possession of mine maps shifts the burden of proof (SBI, p. 7) or, for that matter, necessarily points to a finding of violation.

At hearing and in its arguments, Secretary further seeks to take the position that if an operator searches close to an estimated location of a well and fails to find such, it is derelict in its duty. *See* SBII, p. 4; *see also* Baker testimony at T. 24 and Williams' testimony at T. 108. This Court declines to impose a "if you come close, you must find" standard for § 75.1700.

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[15] Perhaps a more apt metaphor for describing the less daunting task facing mine operators charged with locating abandoned wells is the old expression, "finding a black cat in a coal cellar."

[16] This Court, of course, recognizes that certain industry practices—"custom and usage"—may not necessarily operate as a defense to an alleged safety standard violation. However, it may be relevant to determining reasonableness.

[17] The dangers posed to miners due to the absence of mapping or inaccurate mapping was exemplified in the Quecreek disaster. *See also Sec'y v. Musser Engineering, Inc., and PBS Coals, Inc.*, 32 FMSHRC 1257 (Oct. 2010).

In support of a § 75.1700 violation the Secretary has also argued that, given notice of a 10 foot land fill in the area of the private citizen's residence, Respondent's decisions to only use shovel tools and not to utilize heavy machinery were unreasonable and further motivated by economic concerns. SBI, p. 8. This Court, however, found Conner's explanations as to the look of patterned evidence at the digging site and the adequacy of hand shoveling to be arguably reasonable.

Further, this Court finds that the existence of, extent of, and location of the alleged 10-foot land fill in this matter is problematic and should not be accorded great probative or substantive weight. *See also* Respondent's persuasive arguments on this point at RBI, p. 18 and RBII, p. 5.

As to possible economic considerations motivating Respondent not to bring in heavy equipment, this Court is not naïve regarding human cupidity nor unaware that unscrupulous mine operators in the past have placed "profits over people." However, there is nothing in the record to support the Secretary's bald assertion that Consol or its contractors were driven by monetary concerns in their decision-making.

Conner's testimony was credible that he did not believe that evidence at the scene warranted the bringing in of heavy machinery. T. 223. This Court further found Conner to be credible in his assertion that he could have gotten heavy machinery had he asked for it. T. 223.[18] Arguably, as Respondent's primary gas well searcher, 18 Karat would have little to gain in failing to use needed equipment to locate gas wells whose intersections could lead to such citations as within.

This Court accepts that Respondent may have found the cited gas well—had Respondent searched longer, further, and deeper in the gas well zone area and had it chosen to use larger machinery. However, this Court nonetheless concludes that the steps taken by Respondent and its contractors were sufficiently reasonable under the circumstances, such that the within citation was not warranted.

Given the above holding this Court does not find it necessary to go forward with a full blown *Mathies/Newtown* analysis. Suffice it to say that, given the particular facts surrounding this alleged violation, including the lack of casing or methane found at the scene, the increased ventilation at the longwall surface, the occurrence of the hazard against which the mandatory safety standard was directed would have been unlikely.

[18] At hearing Consol's project engineer, Matthew Ruckle, also essentially corroborated such. T. 236.

ORDER

It is the **ORDER** of this Court that Citation No. 9079236 is hereby **VACATED** and **DISMISSED**.

John Kent Lewis
Administrative Law Judge

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