HAZLETON SHAFT COLLIERY

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Foreword:

As a junior engineer when I first started in the Pennsylvania anthracite industry, my job of designing the Stockton mine in Hazleton led me down an unforgettable path of adventure to become fascinated with the history of the Colliery and the city. Over the years I have endured countless hours of research and applied personal experience to present to the reader, the most comprehensive history of the largest colliery that built the city of Hazleton.

-JWE

Discovering the Hazleton Seam

The roots of the Hazleton Shaft Colliery date back to the construction of the Beaver Meadow Railroad in 1835 when Philadelphian business merchant Pierson A. Reading learned of Hazleton's rich resources upon invitation to manage a store in Beaver Meadow of which he had acquired the interest from fellow wine merchant and friend, James Gowen. Upon arriving in the small woodland village, Pierson met with the store clerk to review the business details. It was during these discussions when the clerk started, *"Mr. Reading, I am inclined to think there is more coal in this neighborhood than what is contained in the Beaver Meadow mines."* When questioned with interest, the clerk continued about his discovery of a piece of coal within a ravine behind the Drumheller Tavern on the outskirts of a small nearby settlement locally known as "Haselschwamp." When shown the outcrop later that day, Pierson, who had previously worked at the Lehigh Coal & Navigation Company for two years, knew it was a valuable discovery. After learning the land was owned by watchmaker William Drysdale of Philadelphia, Pierson and his business partner, Samuel Moore, who was Director of the United States Mint, met with Mr. Drysdale and secured his five tracts totaling 1,135 acres at a mortgage for $17,546 ($583,000 in 2022). After transferring titles on August 24, the group then applied for a charter, and on March 18, 1836, the Hazleton Coal Company was incorporated by the Act of Assembly. The coal tracts were then transferred over to the company on April 25 to allow mining to commence.

After doing extensive exploration through pits and shafts, three coal beds were identified lying on top of each other forming a syncline. The thickest, averaging 27 feet, was coined the name, the Mammoth or "Big" Vein. Immediately, the Company began erecting houses while an agent was sent to England to recruit experienced miners to come to the region. By December of 1836, a new 8-mile-long rail line was underway to unite with the Beaver Meadow Line in preparation for shipping coal. During this time, the Company became acquainted with the Line's young engineer residing in Beaver Meadow who would later be titled the "King of Coal Barons"– Ario Pardee. Joining Hazleton Coal Company in February 1837 as superintendent of operations, Pardee disclosed his discovery of coal which he had learned of from a local hunter who reported quarrying black stones on the northwest side of the village for Conyngham blacksmith John Charles Fitzgerald, who had first stumbled upon the outcrop in 1826. Soon after, the Hazleton or "Hazle Mines" Colliery was opened at the site of the outcrop via the Hazleton No. 1 slope, sunk in the south dip of the Mammoth Vein. The operation was soon joined by the Laurel Hill Coal Company, organized by Adam Eckfeldt, Chief Coiner of the United States Mint, with the opening of the Laurel Hill Colliery on the southeast side of the village via the No. 2 or Laurel Hill slope sunk in the north dip of the Big Vein in the location of Pierson's discovery.

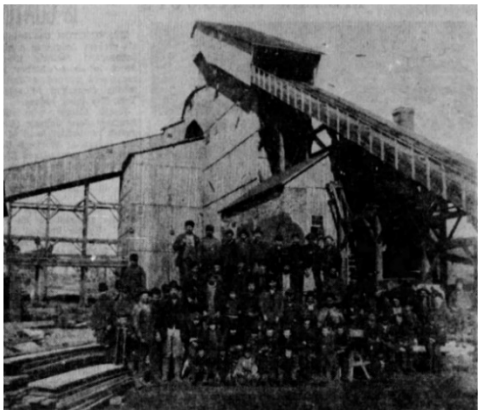


Figure 1: Hazleton No. 3 Breaker shortly after construction

As word of Hazleton's booming coal development spread, Philadelphia attorney John L. Newbold organized the Sugar Loaf Coal Company on April 16, 1838, following the purchase of a 1,400-acre tract adjoining the north and eastern edge of the Hazleton and Laurel Hill Companies from Nathan Beach. The new company rapidly began developing its lands during the summer of 1838, establishing the village of Old Sugar Loaf along the outskirts of the northeast side of Hazleton. Under the direction of General Superintendent Henry H. Mears, the Sugar Loaf Colliery was then opened via the Old Sugar Loaf slope sunk in the south dip of the Mammoth Vein, along with the South Sugar Loaf Colliery located a half-mile south and opened by the No. 3 slope sunk in the Mammoth north dip. Meanwhile, operations inside the Hazleton Mine had reached full production by early 1838, and on April 18, the Company purchased land 14 miles southeast at Penn Haven to use as a port for shipping coal on the Lehigh River. Finally, after three years of hard work, the first coal shipment from the Hazleton Mine arrived by barge in Philadelphia on May 21, 1838, ahead of the Laurel Hill Company in August, and the Sugar Loaf Company the following year. With the business a success, at the close of the financial year on December 31, 1838, the Hazleton Coal Board of Directors approved a sketch outlining the layout of the future city of Hazleton.

As the two companies entered the coal trade, the Hazleton Company began to expand, acquiring the capital stock of the Laurel Hill Coal Company in early 1839 and purchasing a 426-acre tract adjacent to the Laurel Hill property from stockholder Samuel Ingham, who had acquired the land to use for timber to support the Beaver Meadow mines, giving the Company control of over 36 million tons of virgin coal. The Sugar Loaf Coal Company would later undergo numerous management changes following the flood of January 1841 which wiped out the line between Mauch Chunk and Parryville, spelling out disaster for the Company which operated that section. Embarrassed and unable to move its coal to market, the Company sold its property under mortgage to its shareholders under the name Diamond Coal Company in 1841, which subsequently, led to the Collieries being called the "Diamond Mines."

After managing operations for three years, Ario Pardee entered the private sector as a coal operator in 1840 under the name Pardee, Miner & Company who was then contracted to operate the Hazleton Coal estates. Two years later, the firm began marketing coal for the Company which retained part of the tonnage to market itself. In 1843, the firm's name was changed to A. Pardee & Company, which would eventually become the dominant producer in the Hazleton district. In September of 1846, Pardee took

lease of the Sugar Loaf Mines following the property's sheriff sale to Dr. Benjamin Mears of Philadelphia for $30,000. In 1850, Pardee opened Hazleton No. 3 Colliery, situated north of Laurel Hill, with the No. 3 breaker commencing operation in May 1851. In mid-1860, Pardee completed developing the Old Sugar Loaf mine, which, at the time, was reported to be the deepest coal mine in the United States at over 970 feet. Subsequentially in 1862, he initiated the sinking of two new slopes to penetrate the basin at Laurel Hill, identified as No. 4 and No. 5. By 1863, Pardee had amassed an annual income of over $1 million ($23 million in 2022), cementing his place as one of the wealthiest men in America

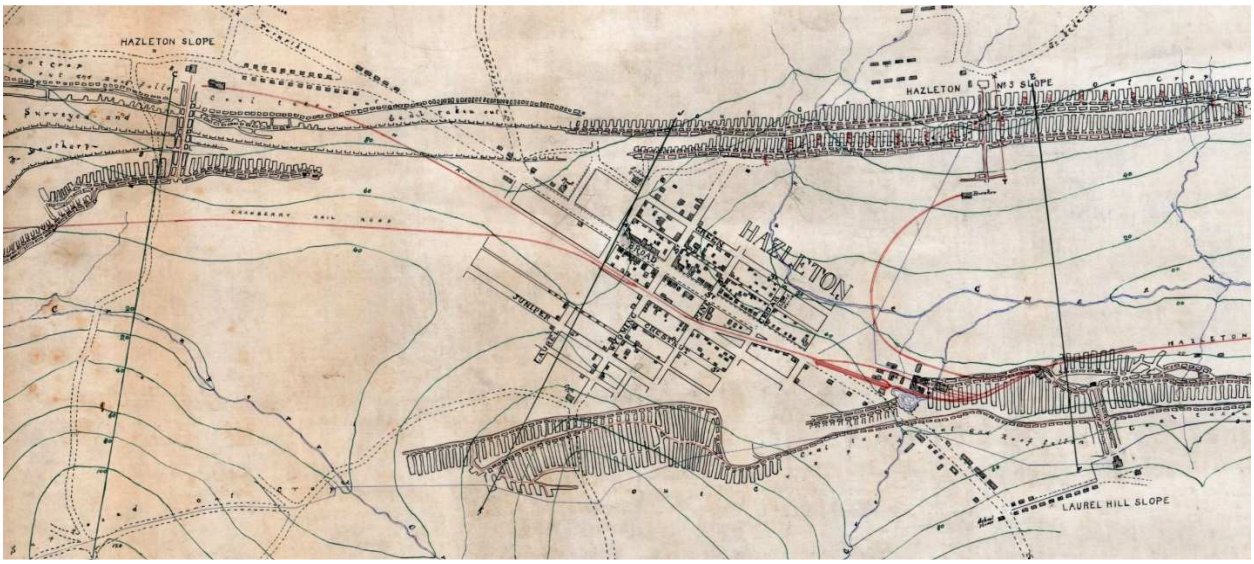


Figure 2: Map of Hazleton circa 1859 showing the location and workings of the Hazleton (upper left), Hazleton No. 3 (upper right), and Laurel Hill (lower right) slopes

Enter Lehigh Valley

Hazleton Coal Company changed its name to Hazleton Railroad Company on March 9, 1865, before merging with the Lehigh Valley Railroad Company on May 4, 1868, which placed all the coal estates under the ownership of the Railroad, which was actively seeking to expand into the mining sector. After consolidating the Green Land Company and the Luzerne Coal & Iron Company on February 27, 1875, the Railroad transferred all its coal holdings to the new subsidiary and re-registered it as the Lehigh Valley Coal Company on November 9, 1875, as the mining division of the Lehigh Valley Railroad. Under the new ownership, Pardee continued as the operator for the Hazleton coal estates, which, by this time, had grown to consume 4,600 acres containing eight collieries producing over 16,000 tons per week while employing 1,672 workers at a monthly payroll of over $50,000 ($1.4 million in 2022). Furthermore, A. Pardee & Company's long-established customer base in the coal trade led other local producers to use the firm as the exclusive marketing agent to ship over 1 million tons annually, making Ario Pardee, the single largest coal operator in the State. Moreover, Pardee's empire had grown from what was once a small settlement to a thriving town of over 6,000 residents, establishing Hazleton as the largest and

most prosperous region in the Lehigh coal field. The town would continue to grow as coal reined king, with the Diamond Coal Land Company, whose name was changed from Diamond Coal Company in 1877, drawing out the Diamond Addition plots to the north of the Borough.

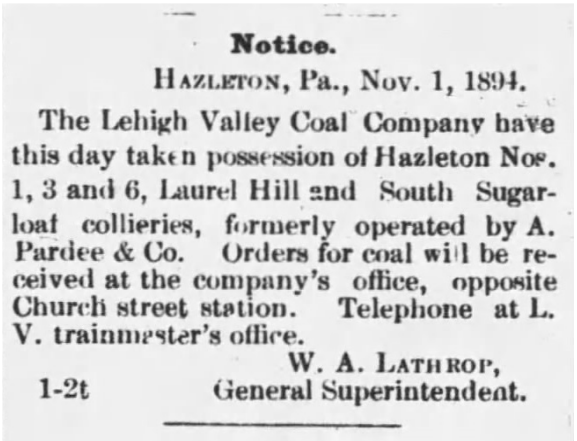
In 1874, stripping operations first began in Hazleton to recover previously worked areas of the Mammoth Vein which, by 1878, had become nearly worked out, forcing many collieries to begin driving tunnels to tap other underlying veins, such as the Wharton, which although high-quality, was not as lustful as the Mammoth making it more difficult to market. In July 1879, construction began on a new 650-ton-per-day colliery opposite Hazle Mines known as Hazleton No. 6, to extract the Mammoth lying in a shallow basin on the southwestern end of the property. In 1881, slope No. 7 was sunk 1,800 yards west at Laurel Hill to extract more deep basin coal, along with No. 8 slope at Hazle Mines, sunk in 1882 to recover coal left behind from early mining on the first lift. Finally, after exhausting all reserves, the first to suspend work indefinity in the spring of 1885 was the Sugar Loaf mine which was then allowed to flood. This was followed by the closure of Hazleton No. 6 Colliery on September 7, 1894, two years after the death of Ario Pardee, by which time, the Pardee firm looked to sell its interests and found a buyer– The Lehigh Valley Coal Company.

BIG COAL DEAL.

The Lehigh Valley Coal Company Secures Seven More Collieries.

HAZLETON, Oct. 30.—SPECIAL TO TIMES.

Figure 3: Newspaper headlining Lehigh Valley's acquisition of the Hazleton Collieries, which at the time, was the largest coal deal ever made at one time by a single corporation in the Lehigh region.



Notice.

HAZLETON, Pa., Nov. 1, 1894.

The Lehigh Valley Coal Company have this day taken possession of Hazleton Nos. 1, 3 and 6, Laurel Hill and South Sugarloaf collieries, formerly operated by A. Pardee & Co. Orders for coal will be received at the company's office, opposite Church street station. Telephone at L. V. trainmaster's office.

W. A. LATHROP,
General Superintendent.

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Figure 4: November 1, 1894- Lehigh Valley formally announces the change in management

Rumors of the sale began to circulate in late October following both parties taking account of stock, while others formed when the private carriage of Rollin H. Wilbur, General Superintendent of the Lehigh Valley Railroad, was seen arriving in town on October 24. More speculation arose when orders were given to empty the coal pockets in certain breakers- a sure sign to many that something was about to happen. Then, on November 1, 1894, after over half a century of mining coal, A. Pardee & Company transferred the leases of all six Hazleton Collieries to the Lehigh Valley Coal Company, making it the largest coal deal ever made at one time by a single corporation in the Lehigh region. The big deal had been orchestrated by Philadelphian capitalist Dr. Herbert Marshall Howe of A. Pardee & Company.

Following the acquisition in the year 1895, the new management elected to rename a few of the ex-Pardee Collieries. Hazle Mines was renamed Hazleton No. 1, Laurel Hill became Hazleton No. 5 and South Sugar Loaf was changed to Hazleton No. 2. As management performed studies on the operations, it became clear that operating multiple breakers, pumping plants, shops, and slopes was uneconomical, and that a more profitable operation in Hazleton could be run if there was consolidation. At the time, Hazle Mines operated the highest capacity breaker rated at 1,200 tons per day which was completed in March of 1889, whereas, the smaller No. 3, South Sugar Loaf, and Laurel Hill breakers were rated at a mere 700, 500, and 350 tons per day, respectively. Therefore, the eastern collieries were seen as the center to unite operations. After months of discussions, on February 6, 1896, management announced

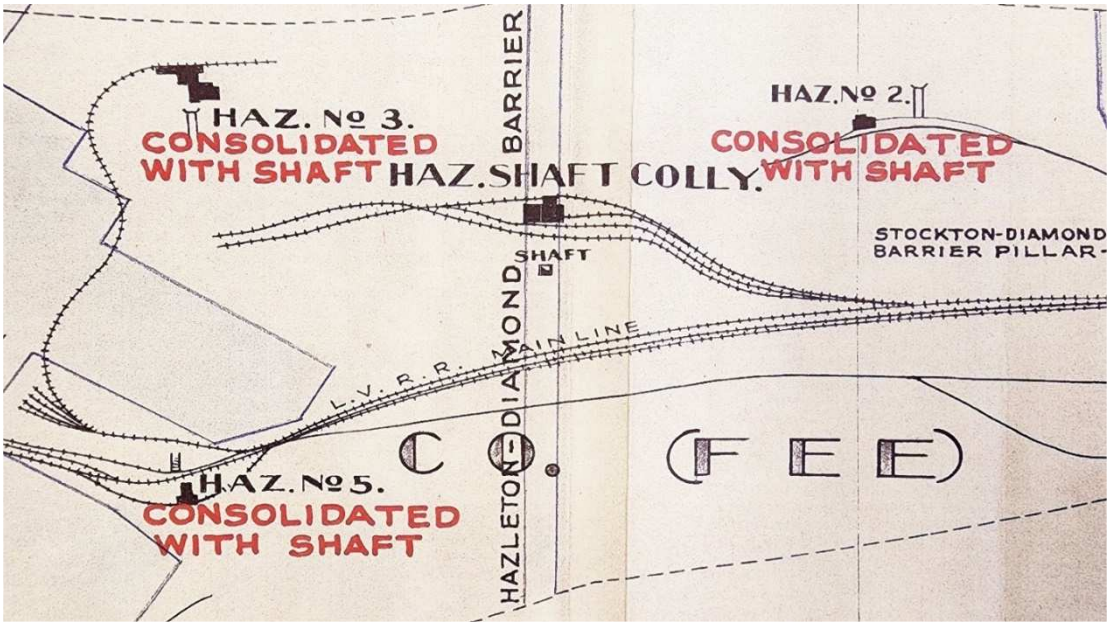


Figure 5: Map showing the location of the Hazleton Shaft Colliery and barrier pillar in relation to Hazleton No. 2 (Sugar Loaf), Hazleton No. 3, and Hazleton No. 5 (Laurel Hill)

the construction of an all-new central colliery featuring a more efficient high-capacity breaker to replace the three smaller existing structures. The new breaker was to be colossal while being strategically placed in between the three collieries on the Sugar Loaf lands. To feed the behemoth, a vertical coal hoisting shaft was planned to be sunk leading to a new network of subterranean haulage ways; thus, uniting all six Hazleton collieries together. This intervention would eliminate the cost of hoisting coal from multiple slopes, with a target that each car of coal dumped by the new method would save 1 ¼ tons dumped against the old principle; thus, amounting to immense annual savings. Lastly, a new slope was planned to house an all-new centralized underground pumping station. This new colliery was given the name, Hazleton Shaft.

On March 18, 1896, a dozen families in Old Sugar Loaf were notified to vacate their homes to make way for the construction of the new breaker. As ground broke, Lehigh Valley began accepting bids to

sink the shaft on April 9 which measured 37 feet by 13 feet 10 inches and divided into four coal compartments, each measuring 7 ½ feet by 12 ½ feet, along with a "half" compartment measuring 3 feet by 12 ½ feet. The contract for sinking the shaft was issued to John H. Thomas & Son of Parsons and the contract for concrete work, to McDonald & Sayre of Hazleton on April 25, and five days later, excavation began. Originally planned to be sunk to a depth of 735 feet, this was later reduced to 326 feet to allow for the first two levels of development above water. The location of the shaft was carefully chosen with centering over the barrier pillar dividing the Hazleton and Sugar Loaf basins. After reaching 75 feet down to bedrock, work on the shaft was temporarily suspended and all focus was turned to the sinking of the new slope which would ultimately be used to drain the entire Hazleton basin.

To Tap a Mine

After reviewing the underground surveys carried out by the Lehigh Valley Survey Corps in 1895, engineers noted that the Mammoth and Wharton Veins had only been first and second-mined, meaning there were still millions of tons of coal that could be recovered once the old workings were robbed out. However, robbing could only be conducted outside of the city limits, which thus omitted the bulk of the reserves at Laurel Hill, No. 3, and Hazle Mines, or approximately 8 million tons, as un-mineable for city support. Therefore, in designing the new mine, Lehigh Valley engineers elected to first reopen the flooded Old Sugar Loaf workings, which were situated outside of the eastern city limits. Here, robbing would be conducted by driving rock gangways parallel with and behind both the north and south dips of the Mammoth Vein to protect workers while funneling the blasted coal down chutes into awaiting coal cars. Additionally, efforts would be taken to extract other veins overlying the Mammoth that had been left untouched during the Pardee ownership. However, before these rich deposits could be readied for mining, the Sugar Loaf mine needed to be drained.

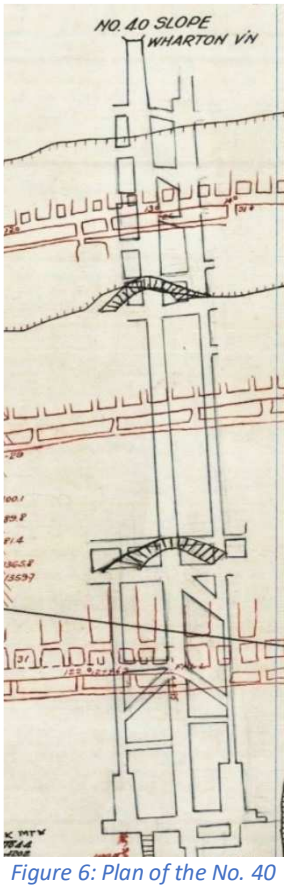
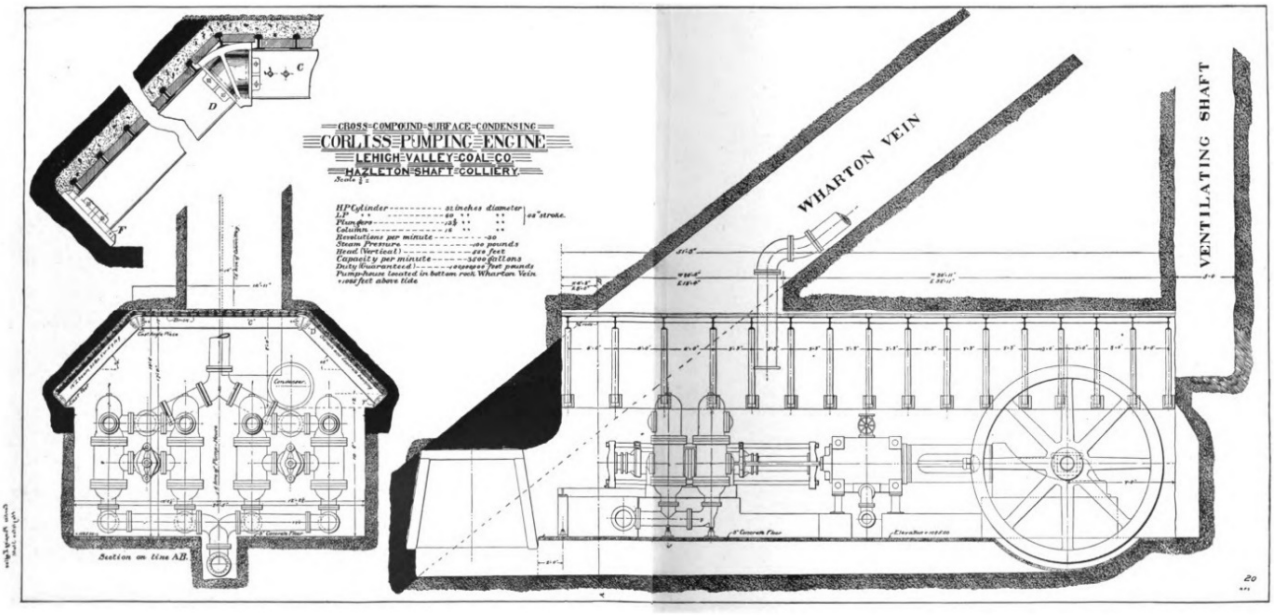


Figure 6: Plan of the No. 40 slope (blue) to drain the first three levels of the Hazleton Mammoth workings (red) down 490 feet.

Although a drainage tunnel was first considered as the means to expel the Sugar Loaf water during preliminary discussions in 1895, management favored the installation of a new large-scale pumping station, which not only offered a faster completion time at a significantly lower capital cost but would also eliminate other various pumping plants around Hazleton. To reclaim the Sugar Loaf workings, a new slope was planned to be sunk immediately west of the barrier pillar separating the No. 3 and Laurel Hill mines from the Old Sugar Loaf mine in the south dip of the first underlying vein, which was the Wharton.

When determining the location for the portal, engineers opted to revamp an old breast that outcropped at the surface, which, coincidentally, was the fortieth breast driven in that vein east of the No. 3 Colliery. It was from this account that many workers began calling the new mine the "No. 40." The term stuck and not only became the identification number for the new slope but also the nickname of the Hazleton Shaft Colliery that lasted its lifetime.




A MONSTER PLANT

Is That of the Lehigh Valley Coal Co. at Old Sugarloaf.

Figure 7: (Top) Plan of the Pump houses and engines at the bottom of the No. 40 Slope.

Figure 8: (Bottom) Newspaper headlining the new 40 slope pumping plant which was as large as Hazleton City Water Authority's plant at Hudsondale.

The sinking of the No. 40 slope began on August 22, 1896. Designed by General Manager William A. Lathrop of the Lehigh Valley Coal Company, the slope exhibited the highest stability and workmanship ever seen before in the Hazleton region. With a spread of 14 feet, a height of 7 feet, and extending 1,075 feet from mouth to foot when complete, the slope led directly into two large pump houses constructed in the rock behind the Wharton Vein off the east and west gangways. The pump houses were the first of their kind to feature all structural steel reinforcements, rather than timber, to shelter a pair of monster high-duty steam pumping engines ordered from the Dickson Manufacturing Company of Scranton in October 1896. Each pump featured lead lining to prevent corrosion from the sulfur water and was driven by a Corliss cross-compound condensing engine with a 32-inch high-pressure cylinder and a 60-inch low-pressure cylinder with a 48-inch stroke. The pumps had been specially designed by Dickson General Manager DeCourcy May with a rating of 10 million gallons per day at a vertical lift of 550 feet and sold under a guarantee to handle all water in the Hazleton basin prior to their acceptance.

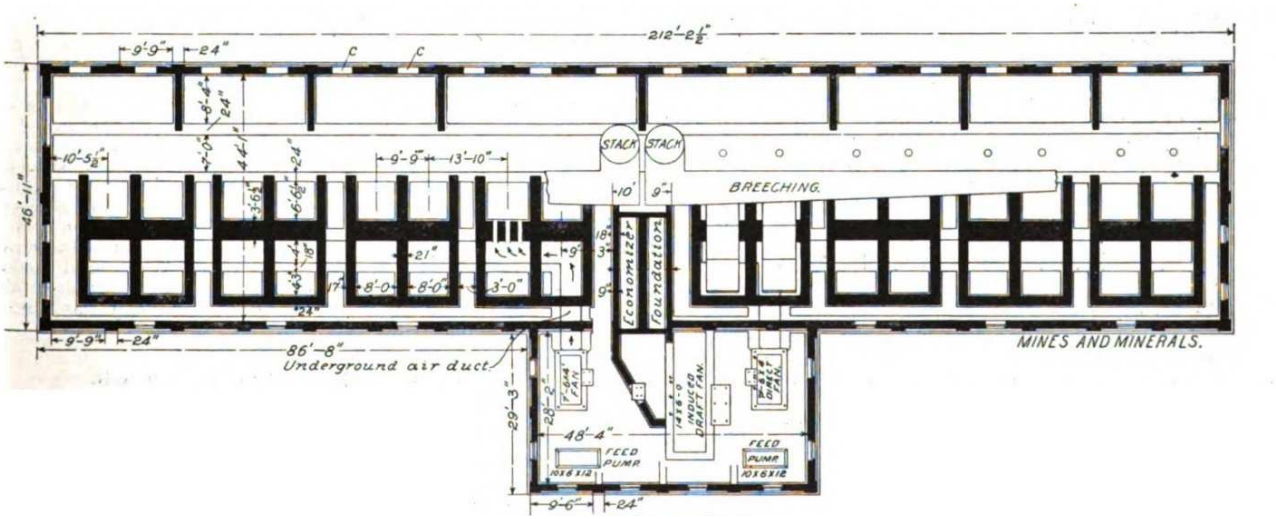


Figure 9: Plan of the new Boiler Plant for Hazleton Shaft

Power for the pumps came from a new boiler plant measuring 47 feet by 212 feet housing sixteen 72-inch by 18-foot tubular boilers developing 2,400 horsepower which were paired in two sets- eight on the west end to power the pumps and eight on the east end to power the entire colliery. Separating the boiler sets was an economizer which utilized the exhaust steam to heat the feed water which resulted in a 10 percent fuel saving. With the big 100-ton pumps arriving on June 12, 1897, preparations began to tap the water that had submerged the Old Sugar Loaf mine for nearly a quarter of a century.

While the pump houses were being constructed, a rock tunnel was driven 250 feet south from the foot of the 40 slope to intersect breast No. 39 in the Mammoth Vein at the Laurel Hill Colliery. From this point, workers then drove a heading east which opened into breast No. 40, which was the last breast driven in the Mammoth Vein before the barrier pillar. Next, a brick dam was constructed in the center of the rock tunnel of which were placed two 17-inch pipes with stop plugs equipped with bypass valves for equalizing pressure which would allow for the adjustment of water flow to the pumps whenever necessary. After this work was completed, on July 18, contract diamond drillers from H. P. Simpson & Company of Scranton were taken to the back of the dam to the east rib of breast No. 40. Here, the men engaged in the challenging task of drilling through the 100-foot-thick Mammoth barrier pillar to tap the immense body of water towering 185 feet above them.

Under the careful supervision of Lehigh Valley Division Superintendent Frederick E. Zerby, General Superintendent Caleb Williams, mine foreman Thomas Williams, and state mine inspector William H. Davis, the first test hole measuring 1 ½ inch in diameter and 85 feet in length, penetrated the barrier pillar at 9 o'clock on the evening of Thursday, July 22. Water sprayed out with immense force launching fist-sized chunks of coal across the breast as the drillers worked quickly to draw the steels. A second 3-inch hole, measuring 135 feet in length followed, piercing the barrier pillar at 9:30 p.m. on Monday, July

26. Four additional holes were drilled before the work, having been considered a remarkable feat of engineering, was successfully completed on August 15. This arrangement allowed the Sugar Loaf water to drain into the Laurel Hill mine and rise to a vertical height of 150 feet behind the dam, converting the old Hazleton basin workings into a titanic sump stretching 2 ½ miles in length. On August 28, the valves on the six boreholes were opened and with the pumps beginning to take on water under pressure from the dam, work resumed on sinking the shaft in November 1897. The sheer size of the 40 slope plant would become a subject of mechanical ingenuity, being visited frequently by many students and professionals to witness its performance.

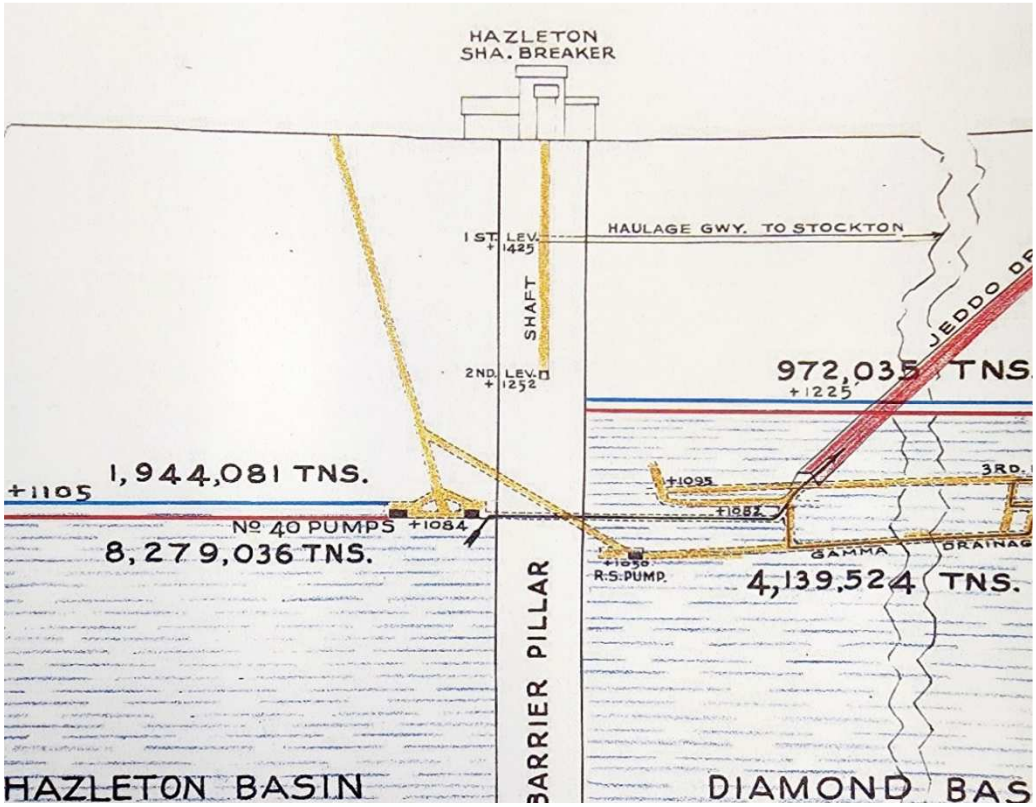


Figure 10: Section through the Hazleton-Diamond (Sugar Loaf) barrier pillar looking north showing the location of the Breaker, Shaft 1st and 2nd level, and the 40 slope pumps. Note the difference in water levels between the Hazleton and the Diamond basins

The Mammoth Colliery

Construction on the Hazleton Shaft breaker began on April 11, 1898, under the supervision of contractor Henry K. Christ of Mahanoy City, who had been awarded the contract on April 6 after having completed erecting a similar-sized breaker in Centralia. Originally referred to as the New Laurel Hill breaker, within weeks, over one hundred carpenters had applied for a position to work on the massive structure, many offering their services for one dollar a day. Before long, 160 men were hard at work to hit the contract deadline for the framing to be done in 90 days. Following inclement weather which led to the project's delay in April, the work was soon rushed and carpenters were put on twelve-hour shifts

to have the breaker ready by September 15. Below ground, miners worked to reopen gangways and tunnels at the No. 3 and Laurel Hill collieries in preparation for mining. As the framework rose, workers began tearing down the old Laurel Hill breaker on May 26 followed by the No. 6 and South Sugar Loaf breakers later in July. After months of hard work, on Saturday, September 3, 1898, the breaker was started for the first time and run for several hours to test all machinery. An official who witnessed the test run enthusiastically remarked: "*It beats everything in the region.*"

Measuring 180 feet long, 158 feet wide, and standing 145 feet tall, Hazleton Shaft surpassed every other breaker in size in the Lehigh region when completed. Constructed from 2 million feet of Georgia yellow pine and Ohio white oak supplied by The Lehigh Lumber Company of Hazleton, the inside housed 28 jigs, 9 sets of rolls, 7 revolving screens, and 32 shaker screens, driven by a 250-horsepower Corliss 22-inch by 42-inch engine which allowed for an output of 2,000 tons per day. Many new inventions and ideas went into the breaker, such as squirrel cages and Coxe-style oscillating bars for removing slate, which eliminated the need for as many breaker boys and cast-iron main center columns for increased structural strength. Additionally, the breaker featured an automatic feed control system governed by operating speed and large double pockets, allowing cars to be loaded simultaneously from both ends. Improvements to safety were also seen inside, with guard rails fastened around every piece of machinery to protect workers from injury. And unlike older breakers which were often dark with limited natural inside, the Shaft was equipped with no less than 612 windows containing 14,688 panes of glass to provide a better work environment.

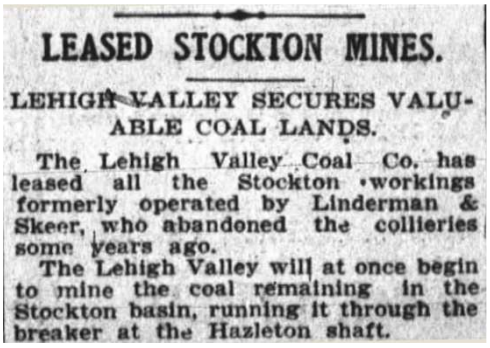
As workers put the final touches on the breaker, work on sinking the shaft concluded on September 8 after reaching a depth of 381 feet, with the last 55 feet being sunk below the second level of the mine to allow for sufficient sump room. In addition, rock tunnel landings around the shaft had been constructed on both first and second level. On Monday, September 26, 1898, the breaker went into full operation. While the shaft was being framed, coal was supplied to the breaker from Hazleton No. 3, which had resumed underground operations in September, followed by Laurel Hill on October 10, after 2 ½ years of idleness. On September 30, the mine received its first consignment of mules and on November 2, the first fifteen out of 300 new mine cars arrived. On December 17, Lehigh Valley began accepting bids to drive two massive tunnels– one 2,600 feet in length and the other 2,000 feet, to connect the north and south sides of the basin with the shaft landings on both levels. These tunnels would provide direct haulage to the shaft while cutting through several veins, many of which had been untouched, and open them up for immediate mining. Rock contractor David J. Roderick of Scranton was awarded the contract to drive both tunnels on March 13, 1899, which were later completed in 1900.

Figure 11: Hazleton Shaft Colliery shortly after construction.

By January 1899, the shaft framework was complete and ready for the installation of the cages and guides. The new shaft engine house, measuring 52 ½ feet by 95 ½ feet, housed two 30-inch by 48-inch hoisting engines manufactured by Vulcan Iron Works in Wilkes-Barre, which were placed into position on March 4. Each engine drove twin conical drums- one 10 feet in diameter and the other 14 feet in diameter, containing 1,250 feet of 1 ¾ inch cable to raise and lower each cage. On September 13, construction began on a 300-foot-long automatic self-dumping feed conveyor to transfer the coal from the shaft to the breaker. Finally, in late 1899, the shaft was put into service and before long, all previous records of hoisting coal in Hazleton were broken when 850 cars were hoisted by the shaft in 9 hours- more than three times the hoist capacity of a single slope. With the new colliery in full swing, the neighboring No. 3 breaker was then razed in 1904, leaving only the Hazle Mines breaker on the western end of the city to remain operating in conjunction with the Shaft until its demolition in 1934. The final cost for the Hazleton Shaft breaker, boiler plant, engine house, along with the shaft, rock work, and the 40-slope plant was $302,300 ($10.6 million in 2022).

The early 1900s brought on a booming expansion for the new Shaft Colliery. On January 1, 1903, Lehigh Valley took the first step to expand the mines' reserves by acquiring the adjoining East Sugar Loaf Coal Company Stockton Mine lease, and the following summer, in September 1904, the Stockton No. 2 mine was reopened and merged with the Shaft. More improvements came in January 1905, with the installation of electric haulage which slowly began phasing out the use of mules. In April, the first pair of

several new mine motors arrived along with telephones to replace the old speaking tubes previously installed inside the mine in 1900. On November 1, 1905, Lehigh Valley assumed control of the Stockton No. 3 mine following the acquisition of Coxe Brothers & Company for $19 million ($631 million in 2022). In 1908, the Hazle Mines breaker was enlarged for additional capacity. In April 1909, Lehigh Valley announced the reopening of South Sugar Loaf and Stockton No. 1 in preparation to rob out more old workings. Concurrently, the Shaft breaker was further remodeled to handle the additional incoming coal from Eckley, Derringer, and Tomhicken Collieries.



LEASED STOCKTON MINES.

LEHIGH VALLEY SECURES VALUABLE COAL LANDS.

The Lehigh Valley Coal Co. has leased all the Stockton workings formerly operated by Linderman & Skeer, who abandoned the collieries some years ago.

The Lehigh Valley will at once begin to mine the coal remaining in the Stockton basin, running it through the breaker at the Hazleton shaft.

Figure 12: Newspaper announcement of Lehigh Valley's acquisition of the Stockton mine

Driving a Tunnel

During the flood of December 1901, the 40 slope pumps struggled to keep up with the rapidly rising water, which reportedly gained 50 feet in 12 hours and flooded the second level. To assist the pumps, twin 2,000-gallon water tanks were constructed and installed in the two western shaft compartments to hoist water to the surface. Two more tanks were installed during the January 1903 flood, however, even with this addition, flooding on the second level still occurred. As seasonal floods continued to plague the mine, the need to purchase larger pumps was seen as the only possible solution to keep the mine dry. Beginning in 1903, a skip was taken off along the north side of the 40 slope pump houses to allow for the addition of two more pumps. In January 1906, work began on sinking a rock slope branching off the east side of the 40 slope for the installation of a third pump room to handle the Stockton water. Five more pumps were installed prior to 1912 doubling the plant's capacity from 7,000 to 15,000 gallons per minute, however, despite all these modifications, it became clear that the big pumps with their great capacity were insufficient for handling flood conditions. Drown-outs and periods of idleness with associated pumping expenses ranging from $25,000 to $100,000, began to take their financial toll on the Company; thus, proving the undoubtful need for a drainage tunnel.

In 1909, Lehigh Valley purchased a tract of land alongside the Lehigh River with intentions of using it as the portal for what was to be called the "Glen Onoko Tunnel"- a massive 10-mile-long drainage tunnel extending northwest from the bank of the Lehigh River and penetrating the basin of the Shaft mine, thus permanently ending water issues in the Hazleton basin. However, this project was later put on hold, and in 1914, a second project was taken up known as the "Nescopeck Tunnel." This tunnel was targeted to intersect 92 feet below the seventh level at Hazle Mines and extend 5 ½ miles northwest to the portal at Nescopeck Creek into which the Jeddo Drainage Tunnel also emptied. After acquiring the necessary

tracts of land with tunneling rights reserved, management began accepting bids for the project in 1915 and entered into discussions with G.B. Markle Company who owned both the Jeddo Tunnel and the riparian rights of Nescopeck Creek. It was during these discussions that Mr. John Markle, President of G.B. Markle Company, expressed that the Lehigh Valley Coal Company had no right to further contaminate the creek nor obtain the benefits of its releases without legal action following, which subsequently, led to the project's abandonment in July 1917.

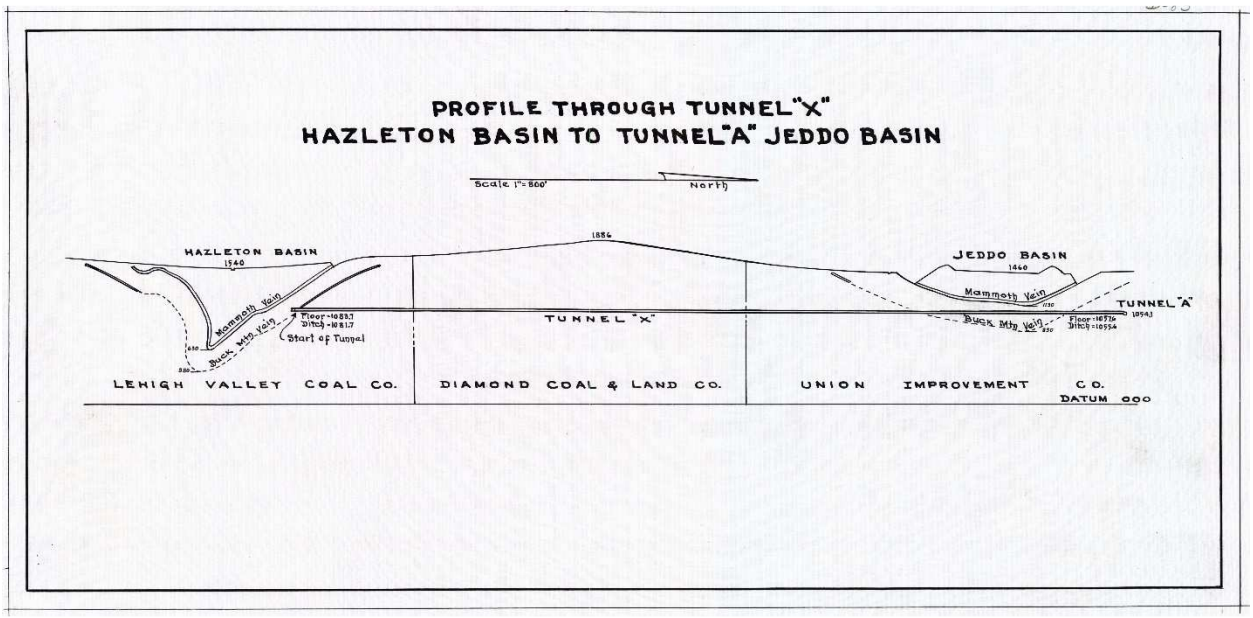


Figure 13: Section through Tunnel X looking west showing the connection between the two basins.

The following month, in August, both parties agreed to allow an independent engineer report on the proposed tunnel projects which, when released in September, was most favorable to a connection tunnel between the Hazleton basin and the Jeddo Tunnel as it accounted for the lowest capital cost. The project, known as "Tunnel X," would connect the third level of the Hazleton Shaft mine with Jeddo Tunnel B at Ebervale via a 1.8-mile-long tunnel at an estimated cost of $325,000 ($7.3 million in 2022). Alternatively, the Glen Onoko Tunnel had the highest cost estimated at $1.75 million ($39 million in 2022). Although negotiations continued after 1917, nothing ever materialized. In subsequent years, numerous meetings were held to review the possibility of connecting the Hazleton mine with the Jeddo Tunnel, which was intentionally figured as the solution for dewatering the Hazleton basin back in 1895 when engineers established the elevation for the 40-slope plant. However, strikes, labor troubles, and unbalanced market conditions all delayed the project, by which time, the peak anthracite production years, which would have made driving the tunnel more cost-effective, had long forepassed. By 1929, the water situation in Hazleton had worsened due to the extensive stripping of coal outcrops which brought on surface subsidence and breaches. Moreover, by 1933, the amount of minable coal above the third, or water level, amounted to a mere 18 percent remaining.

HAZLETON, PA., TUESDAY MORNING, JANUARY 10, 1933.

AWARD CONTRACT FOR MINE TUNNEL IN THIS REGION

Gigantic Mining Project To Start Here Immediately—To Connect With No. 40.

General Manager A. B. Jessup, of the Jeddo-Highland Coal Company, made announcement last night that a contract has been signed between the Jeddo Tunnel Co., and the

Figure 14: Newspaper announcement of Tunnel X

After years of discussions, finally, on June 25, 1932, both parties agreed to jointly drive a connection tunnel between the Ebervale Mine and Hazleton Shaft of which an annual tunnel rental fee of $37,500 would be charged for its usage ($800,000 in 2022). On January 9, 1933, the Jeddo Tunnel Company awarded the contract to Kaschak & Hidgon of Hazleton who began work on February 20 with crews working from both ends to eventually join the tunnel in the middle. At Ebervale, a rock slope was sunk to the elevation of the tunnel floor, allowing crews to begin advancing northeast at a descending grade toward Jeddo Tunnel B and southwest at an ascending grade toward Hazleton Shaft where, concurrently, a rock turnout was driven east off the foot of an inside slope in the Buck Mountain Vein to begin driving the tunnel northeast. As the crews advanced deep into the Stockton Mountain, patrolling watchmen were employed to alert the men driving the tunnel on a descending grade in case of a break-in from any local bodies of water which could trap them. Then on September 8, 1934, a final blast was made and both crews came face-to-face. The tunneling work was almost perfect in that both ends met within 8 inches along the rib. After several months of timbering and lining work through red shale, Tunnel X was officially put into service on April 1, 1935, at a final cost of $297,678 ($6.3 million in 2022).

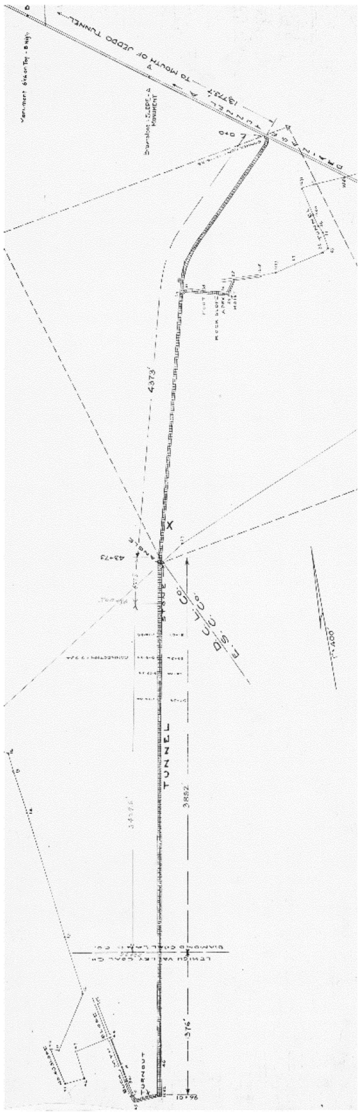


Figure 15: Planview of Tunnel X looking north showing the connection with Tunnel B

Driven at a .3 percent grade, Tunnel X allowed for drainage on third level Shaft to flow out by gravity, thus eliminating the big 40 slope pumps along with their associated expenses. In addition, the tunnel also benefited Hazle Mines whose drainage was connected to Hazleton Shafts in 1931. Moreover, the tunnel released 3 million tons of previously inundated reserves for immediate mining and provided a lower discharge point for future pumping plants as the mine advanced deeper. Amortized at 3 percent over 40 years, the tunnel investment quickly proved its value during the flood of March 1936 when water was recorded to be exiting the mine through Tunnel X at a rate of 49,500 gallons per minute - more than three times the pumping capacity of the 40 slope plant.

The Colossal Expansion

During the late 1930s, as reserves above the third level decreased, more stripping coal was imported and run through the breaker to make up for the lack of tonnage, totaling about 70 percent. This, along with the mining of thinner, low-yielding veins, began to increase the overall cost per ton which averaged $5.36 since 1931 ($108 in 2022). In October 1937, a reserve and cost analysis report on the Colliery was prepared by Vice President & General Manager Frank H. Wagner. His report outlined the options of either shutting down the colliery for two years to develop it into a more productive operation at a total loss of $2 million ($40 million in 2022) or continuing operations while boosting production in which the total losses were not expected to exceed $750,000 over the same two-year period ($15 million in 2022). Ultimately, to maintain a sound cost at Hazleton Shaft, deep mine production needed to increase and the amount of imported stripping coal, decrease. After discussion, management decided to continue to operate the colliery and increase subsurface production from 1,200 tons per day to an objective of 4,250 tons per day to hit a $3.80 per ton cost and meet the trend of realization.

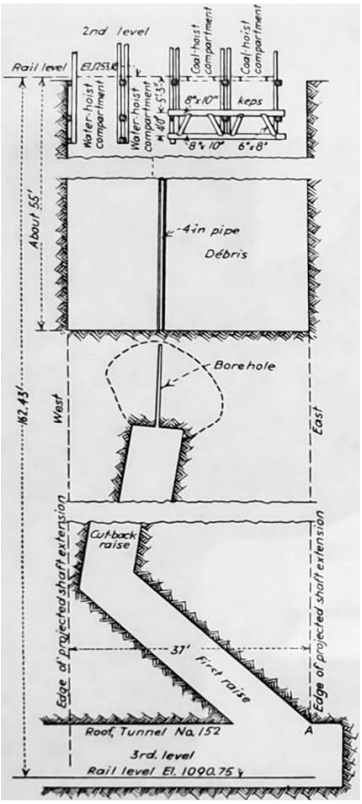


Figure 16: Diagram showing the method used to raise the Hazleton Shaft from a lower level. In this method, a rock hole is driven up from a below tunnel for loading out rock in the drivening of the shaft extension upward.

To achieve this huge production increase, mining would advance into the Stockton No. 3 mine, which had not operated since the strike of 1902 when the mine was abandoned and allowed to flood. Here, engineers identified that virgin coal remained below the flooded fourth and fifth levels, which could provide an additional 20 years of mine life when pumped out. This, along with coal from Stockton No. 5 and Hazle Mines, whose workings were merged with the Shafts in 1933 via a 1.5-mile-long underground connection, would provide the necessary short-term tonnage. Finally, because 65 percent of Hazleton Shaft's reserves were still inundated, operations would follow a strategic development plan to drain the Sugar Loaf and Hazleton basins into the Jeddo Tunnel in preparation for mining another level. Even as the anthracite market continued to diminish, the decision to continue developing the Hazleton Shaft mine was seen as a logical move if the Company wanted to ensure its customers a supply of Lehigh coal in the future.

In May 1938, management initiated the expansion by granting approval to deepen the Hazleton Shaft by 117 ½ feet down to the third level. Additionally, the two western water hoist compartments, which had long been out of use, were to be reconditioned for coal hoisting,

thereby, doubling the amount of coal delivered to the breaker each day. Finally, to maximize shaft production, the new third level landing would be equipped with double-track tunnels to expedite coal transportation. To lower the shaft, management elected to raise the extension from the third level to connect with the shaft bottom on the second level in order to eliminate having to idle the shaft for an extended period. Moreover, a "raise" method would permit the use of a mechanical conveyor to load the shot rock into cars, thereby expediting the work and reducing labor. Work began on July 1, with rock contractor Hugh G. Jeffreys of Mt. Carmel employing three shifts in the raising and one during the sinking. The crews worked fast, advancing 13 feet through rock each day, and within three months, the first car was hoisted from the new third level landing on September 26, 1938. The shaft extension not only boosted the levels' production but also eliminated three internal slopes in the Buck Mountain and Primrose Veins previously used for hoisting coal up to the second level.

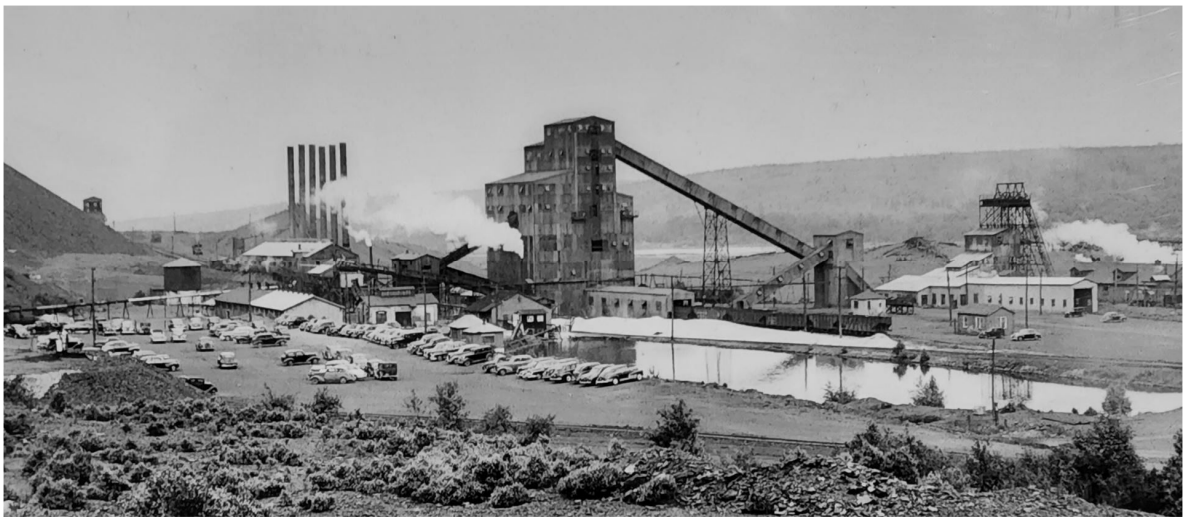


Figure 17: Hazleton Shaft Colliery in the late 1940s, showing the new steel breaker

In addition to the deep mine expansion, a new steel breaker was planned to replace the aging wooden breaker to increase output and reduce the risk of fires. To eliminate idling operations for an extended period, the new breaker was constructed to the east of the old breaker until the switchover between the two plants was ready to be made. Pouring of the foundation began in late October 1941 and soon, the steel skeleton began to rise. On July 2, 1942, the old breaker processed its last load of coal before being officially shut down. As workers began to raze the structure, coal was sent to the nearby Silver Brook breaker for processing until the new breaker was ready for operation. After two weeks of testing, on September 3, 1942, the breaker went into full operation. Although slightly smaller than its predecessor, the new breaker featured all-new processing equipment capable of producing over 5,000 tons of prepared anthracite per day. By 1942, the Colliery had grown to employ over 1,400 men underground and 300 on the surface, making Hazleton Shaft the largest colliery in Lehigh Valley's holdings and Hazleton's single largest employer.

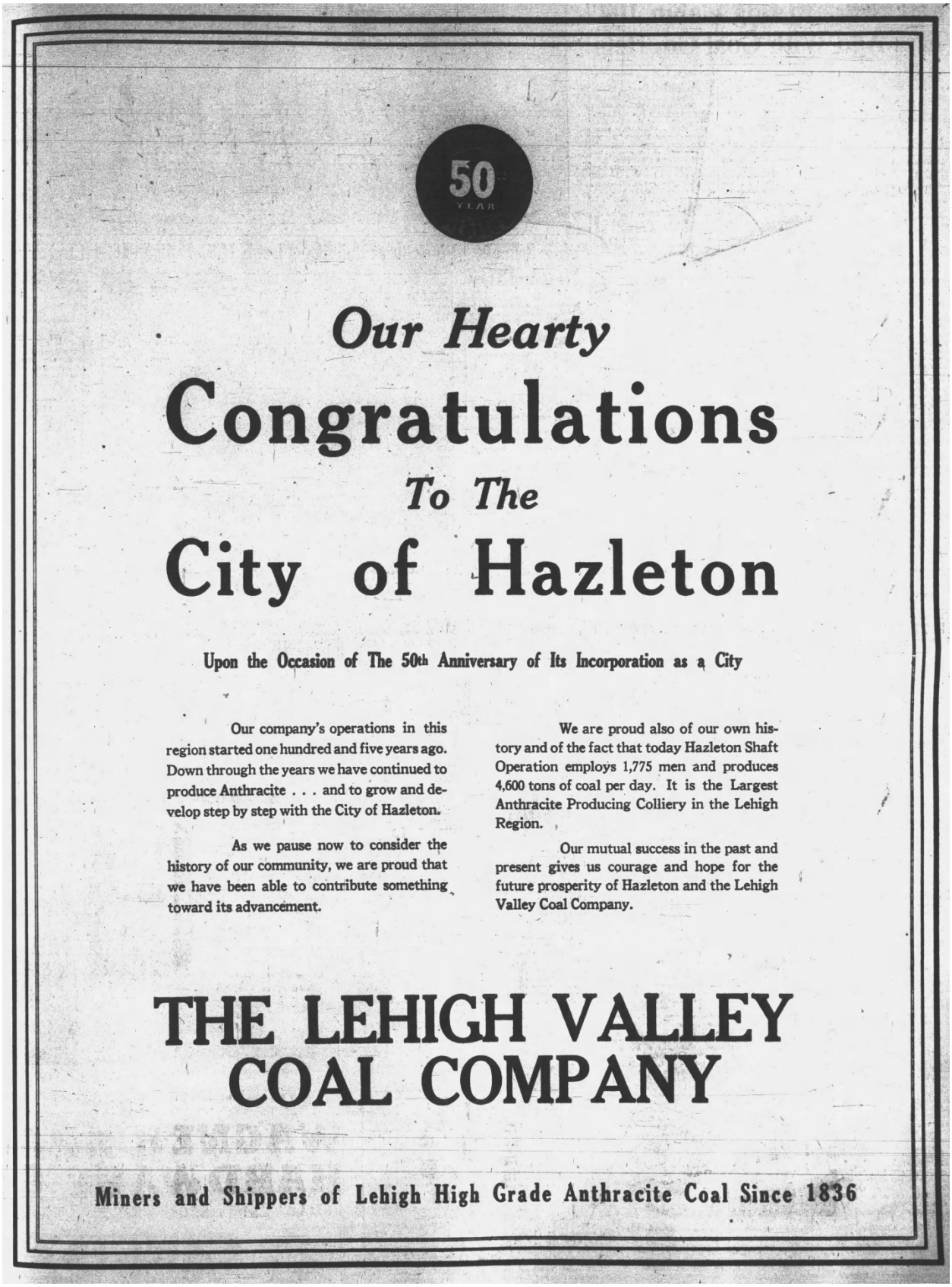


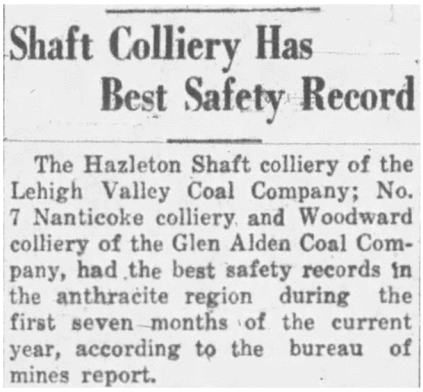
Figure 18: In 1941, as Hazleton celebrated its 50th Anniversary of Incorporation, The Lehigh Valley Coal Company proudly publicized its recognition of the city's rich history and growth to become the largest anthracite producing Colliery in the Lehigh Region, employing 1,775 workers

As development began on the fourth level, representatives of the Hazleton Shaft local United Mine Workers of America advanced a "mine flood control project" proposal to Washington in July 1942, which requested federal funding for the Glen Onoko Tunnel to improve safety and eliminate the periodic idleness from heavy rains. Unfortunately, the proposal failed to raise the necessary interest and was later dismissed. In mid-1943, work began on driving the shaft 200 feet down to connect with the fourth level to continue extracting the rich Mammoth reserves in the Stockton and Sugar Loaf sections. In addition, the 40 slope was revamped for hoisting men and machinery and extended down to the new level. As work on sinking the shaft concluded in October 1944, efforts to reopen the flooded No. 9 slope began at Hazle Mines in preparation to develop a ninth and tenth level to extract more deep coal. During this time, flash flooding frequently hindered the mines' development, accounting for a 40 percent production loss in July 1945 and a 200,000-ton production loss with an associated $128,000 loss in wages in July 1947 from the fourth level being drowned out and idle for three weeks. By early 1948, work was progressing on the fifth level with the shaft bottom beginning to take shape reaching a depth of 847 feet from the surface. However, this time, only the two eastern shaft compartments were deepened, leaving the two western compartments to end at the fourth level.

Shaft Expands Working Area

Lehigh Valley Coal Co. officials said today that the sinking of the shaft at Shaft Colliery to the fourth level is about finished and work is being pushed on the development of the workings in the newly reached lower level.

Figure 19: Newspaper discussing the progress of developing the Fourth level at Hazleton Shaft in 1944



Shaft Colliery Has Best Safety Record

The Hazleton Shaft colliery of the Lehigh Valley Coal Company; No. 7 Nanticoke colliery and Woodward colliery of the Glen Alden Coal Company, had the best safety records in the anthracite region during the first seven months of the current year, according to the bureau of mines report.

Figure 20: Throughout the 1940s boom, Hazleton Shaft maintained one of the best safety records in the Anthracite region

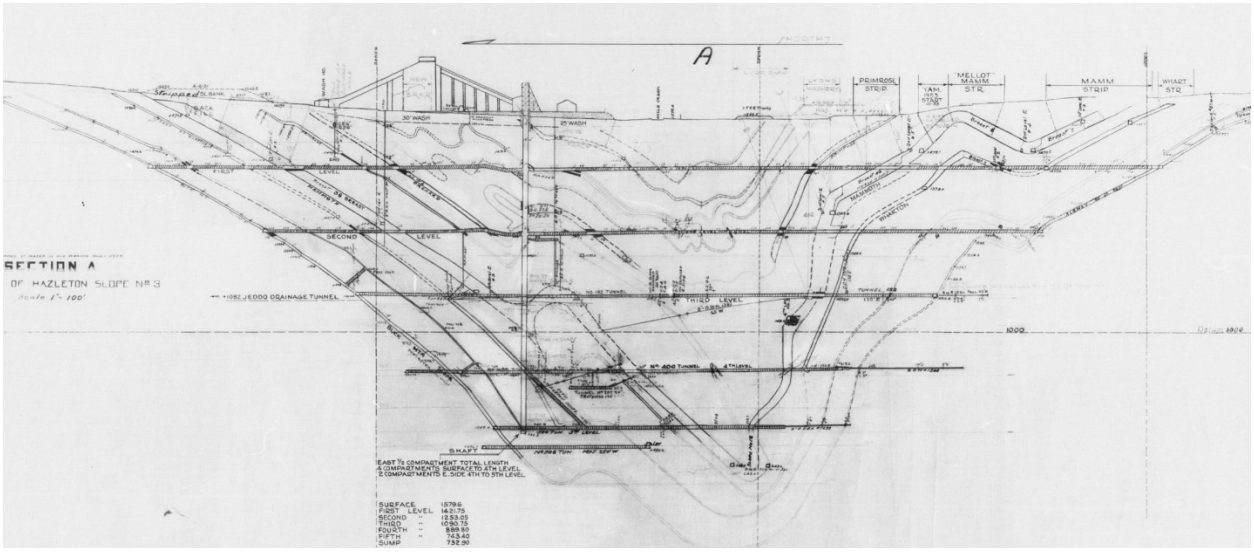


Figure 21: Section through the heart of Hazleton Shaft Colliery in 1950 showing the Breaker, Shaft, and the 5 ½ levels of development reaching 885 feet below ground to tap all coal veins

End of an Era

As 1950 turned the corner, anthracite sales decreased drastically due to inroads made by competitive fuels and the fallout of export markets. Furthermore, competition among producers became severe resulting in pricing reaching the lowest in several years. By 1952, 39 collieries had shut down due to the industries' depressed condition, idling over 5,200 men. On September 8, 1952, Vice President and Director Benjamin Henderson of the Lehigh Valley Coal Company resigned his position stating that the firm lacked an aggressive sales policy which was directly affecting the welfare of the company and its employees. Moreover, Henderson attested that since 1946, the working time at the company's operations had declined by an alarming 50 percent, causing increased losses and the transfer of many valued employees to other hard coal firms. Although corporate disregarded his claims, within the first quarter of 1953, Lehigh Valley had lost $848,738 ($9.3 million in 2022). In an attempt to stop losses, the firm began centralizing its Wyoming Division operations during the first half of the year followed by suspending operations on the third level of Hazleton Shaft on November 25, terminating 153 workers. The decision, made based on the levels' exhaustion of veins, was then followed by the elimination of second shift on February 16, 1954, which laid off an additional 458 miners at Hazleton Shaft and 141 at Hazle Mines, leaving 640 to remain employed underground.

LEHIGH VALLEY COAL CO. OUSTS ITS DIRECTORS

WILMINGTON, Del. (AP) — The century-old Lehigh Valley Coal Corp., one of the six largest anthracite producers in the nation, headed for a face-lifting today after company stockholders turned out the old board of directors in favor of an opposition group.

Figure 22: In 1954, Stockholders of the Lehigh Valley Coal Corporation voted in favor of new leadership to stop financial losses as the anthracite market diminished

After suffering $2.6 million in losses between 1952 and 1953 ($28.5 million in 2022), the Stockholder Protective Committee of the Lehigh Valley Coal Corporation began a solicitation of proxies to call for an immediate change of management on March 15, 1954, stating that the future of the Company and the safety of investments was seriously threatened. After electing new leadership on April 7, tremendous efforts were made to slash operational and administrative costs wherever possible and at 1:15 p.m. on Monday, May 3, the new management issued an order to terminate operations at Hazle Mines, which, at the time, was producing 150 cars a day to feed the Shaft breaker. The cease order, which laid off 130 more workers, was made due to the high pumping cost while mining the ninth level, which had more than tripled from 14.4 tons of water pumped for each ton mined in 1941 to over 48 tons of water pumped per ton mined by 1954. Following the announcement, Hazle Mines Union President Thomas Howley argued that the costs were not high and attempted to form a lease with the Company which would allow the Union to run the mine. Lastly,

., WEDNESDAY MORNING, MAY 5, 1954

Lehigh Valley Coal Suspends Operations At Hazle Mines; Vacating Division Office Here

Hazleton Shaft To Suspend 580

Halt Rock Work At 40: 35 Men Are Affected

The Lehigh Valley Coal Company has ordered suspension of all rock work at Hazleton No. 40 Shaft

Figure 23: Between November 1953 and May 1954, 882 workers were laid off at Hazleton Shaft and Hazle Mines as Lehigh Valley took drastic measures to cut costs. The above Newspaper headlines capture the impact of job loss on the community

the decision was made to close the Lehigh Valley division office building at 455 East Broad Street, with management being transferred to either the Shaft Colliery office or to the firm's corporate office in Wilkes-Barre.

With the closure of Hazle Mines, management still needed to fulfill orders while maintaining a sound cost curve from a reduced workforce at Hazleton Shaft. Therefore, on May 14, Lehigh Valley issued an order stating that Shaft production must increase from 760 to 1,100 cars per day, within one week or the mine would be permanently shut down. The following day, the Hazleton Shaft local responded saying that the miners agreed to do everything humanly possible to attain the company's goal and keep the colliery open. Two weeks later, Hazleton Shaft Union President Joseph McCluskey reported an increase of about 145 cars per day within a seven-hour shift, indicating that an additional shift hour would help in the return of empty cars for work the next day. A final order was issued on June 21, calling to halt all rock work being done inside the mine for continued development, which laid off some 35 contractors and further enhanced the feeling among the men that the end of their employment was near. By the close of 1954, the cuts made by the new management allowed the firm to finish in the black and although Lehigh Valley reported a $508,000 profit during the first quarter of 1955, the final disaster that would seal the Shaft's fate was about to come.

On the morning of Thursday, August 18, 1955, the local weather reported that Hurricane Diane, which had struck the coast of North Carolina the morning prior, was headed directly for northeast and central Pennsylvania carrying a drenching supply of rain. Diane was following a similar path as Hurricane Connie which had struck the coast five days prior, however, unlike Connie which receded to the sea,

Figure 24: August 16, 1955 – Hurricane Diane heads for the Carolina coast

Diane was steering inland. In response to the approaching storm, workers were ordered to close all safety doors to seal off the mines' main pumping plant located 885 feet underground below the fifth level at the end of the shift. This plant was the home of twin electric centrifugal pumps- the mines' true lifeline. The pumps were automatically controlled according to the water elevation in the sump, which when reaching a certain height, would trigger one pump to start and operate until the water level was lowered. Failure of the first pump to empty the dam would trigger the second pump to operate in conjunction with the first until the water level was lowered, thus eliminating the need for a constant pump attendant. Moreover, the pump room was designed to be water-tight, allowing the pumps to continue operating and pushing the water up 388 feet to the discharge at Tunnel X during flood conditions. After the colliery had ceased operations, later that afternoon, Diane struck, dumping 11.1 inches of rain on the city within 23 hours- the highest rainfall ever recorded in 55 years. As basements and streets flooded, and creeks and rivers rose, so did the Hazleton mine pool.

Figure 25: 4 ½ Level Underground pump room at Hazleton Shaft showing twin 10,000 GPM centrifugal pumps

After the storm system dispersed at 4 a.m. on Friday, Hazleton Shaft Superintendent Hayden Owens, accompanied by other foremen, entered the mine to inspect for damage. Arriving at third level, water was observed to be 6 inches below the roof of Tunnel X as it exited the mine. As the men attempted to access the fourth level, water quickly encountered, confirming that both lower working levels were completely inundated. Further investigation revealed that the pumps, although isolated, were not functioning, suggesting that either the safety doors failed or that water had come down from an upper level and down them out. Returning to the surface, Owens later reported that although the company's main interest was to resume operations as soon as possible, no prediction could be made when work could resume, adding that water was still seeping into the mine and would need to recede from the third level before the lower levels could be cleared. Similarly, Joseph McCluskey added that the colliery might be idle for 30 days and urged the workers to remain calm.

Over the next two weeks, every effort was made to install a submersible pump on the internal Buck Mountain slope in the hopes of dewatering it to reach the main pumping station below the fifth level. However, this work was later aborted at the end of August, due to the rapid rise and recession of water in-between levels. After all efforts had failed, management assessed the damage and estimated the cost to dewater the fourth and fifth levels along with replacing all the lost equipment ranged between $750,000 – $1 million ($8 – $10.9 million in 2022). Furthermore, it was estimated that it would take approximately six months to a year before the mine could be completely dewatered, after which, several additional months of rehabilitation work would be required before actual mining could resume. With distressed financials and no insurance to cover the damage, Lehigh Valley could not defray the tremendous capital to restore the mine.

As desperation began to hit the homestead, on the evening of September 9, hundreds organized at the United Mine Workers building on West Broad Street to discuss actions to reopen the mine which had left some 1,000 workers unemployed. During the meeting, a full report on the collieries' condition was given, which identified the water elevation to be 88 feet below the third level and still rising. It was also brought to attention that with the pumping cost so prohibitive, financial aid was necessary to get the mine reopened. Joseph McCluskey concluded by asking the entire Hazleton area to join in a regional-wide movement with officials from both the United Mine Workers and the Lehigh Valley Coal Company to seek state and federal aid by requesting that every man, woman, and child write to their State Senator and Representatives for help. In addition, all union leaders at both the international and district levels pledged to help the company. In response to McClusky's plea, Dr. Edgar Dessen, President of the Greater Hazleton Chamber of Commerce, urgently wrote to several government officials including Joseph Kennedy, Secretary of Mines, and Thomas Kennedy, International Vice President of the United Mine Workers of America, stating that the city had hit massive unemployment and was faced with the permanent closing of the Hazleton Shaft Colliery which represented nearly $3.5 million of annual income for the community ($38.2 million in 2022).

Pennsylvania State Senator James Duff later responded to the City Council on October 8 that the federal government would consider a plan proposed by the State under the cooperative mine drainage program to drain the Shaft mine, but, that plan should benefit the entire coalfield as much as possible; not just one property. Additionally, he cited that the Commonwealth of Pennsylvania had specified that no state funds could be employed in the operation, maintenance, or rehabilitation of flooded mines without a special act from the state legislature. Finally, Duff emphasized that neither the Federal Civil Defense Administration nor the Army Corps of Engineers had the funds nor the legal authority to make

Hazleton Shaft Local Asks Area Help In Plea For Govt. Aid

Shaft Colliery Men Ponder Jobs For Over 1,000 Tonight

Figure 26: By early September 1955, desperation hit the homestead after the wrath of Hurricane Diane left some 640 miners and 350 indirect workers unemployed

monetary contributions to private entities. On October 11, Thomas Kennedy and Martin Brennan, President of the United Mine Workers District 7, along with President Harry Bradbury and Vice President Harold Wickey of the Lehigh Valley Coal Company, met with Director John J. Forbes of the United States Bureau of Mines in Washington to discuss alternative financial means to get the mine back in operation. Their efforts were also unsuccessful.

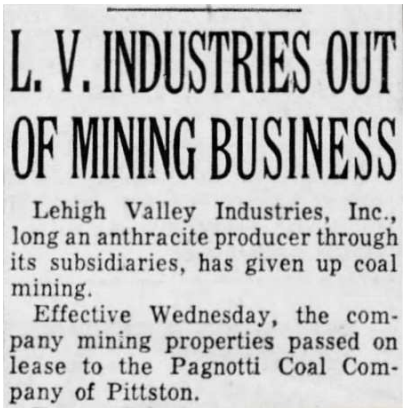
By the fall, the prospect of receiving any federal aid was looking dim. On October 19, the City Council received letters from Senator James Duff and Wilkes-Barre Congressman Daniel Flood which stated that the Lehigh Valley Coal Company did not request direct financial assistance from the federal government as its officials felt that the Company could not qualify for aid under the current government regulations. Additionally, it was further emphasized that the federal government did not have the legal authority to give loans to private industries matters such as pumping. Moreover, Flood commented that he heard many unverified rumors that the Coal Company had scheduled the closing of the Colliery even before the mine was drowned out. Flood concluded that with Congress not scheduled to reconvene until January, there was little hope of any immediate action without enabling legislation. Although other agencies did respond with offerings of equipment, none offered any financial aid and by the winter of 1955, the city had become a ghost town as hundreds of families were forced to vacate after the whistle that once called the men to work fell silent.

As 1955 drew to a close, it became clear that no agency was willing to help. During a U.S. Senate subcommittee hearing to discuss proposed legislation to relieve hardship in depressed areas held in Wilkes-Barre on February 10, 1956, Thomas Kennedy adamantly expressed his concerns regarding the lack of effort to help Hazleton's unemployed workforce, stating that the answers received by Legislators Duff and Flood were "inadequate." Urging on the importance of anthracite, Kennedy suggested that the U.S. invest in its homestead rather than in foreign regions and that Congress establish a national fuel

policy to explore exporting coal and prevent the importing of other foreign fuels. Moreover, Kennedy stated that the mine's closure should be viewed as a national defense issue, explaining that it would take months to rehabilitate a shutdown mine and its employment should it be required for wartime efforts. With the suspension of underground operations in Hazleton, the Shaft breaker continued to process coal from nearby strippings while employing around 80 workers.

A King Dethroned

Lehigh Valley's coal sales continued to nosedive after the loss of Hazleton Shaft, causing the firm to begin a program of diversification in May of 1957, in which $5 million was raised for the acquisition of three companies to expand into the manufacturing of furniture springs, automobile directional signals, and lamination assemblies for electrical components, with the coal division becoming the tail of the kite. As a sign of changing times, the stockholders overwhelmingly approved the organization's name change to Lehigh Valley Industries Incorporated on March 20, 1958. With a loss of enthusiasm for mining, the Company began divesting itself of its coal properties by leasing them to other operators. On May 27, 1957, Hazle Mines was leased to Rudy Paulick of Luzerne who formed Hazleton No. 1 Coal Company with authorization to rob out specific areas approved by Lehigh Valley engineers. Although the July reopening provided work for some 43 miners, economic conditions, and the quick exhaustion of coal above water level led to the mines' closure three years later September 15, 1960.



L. V. INDUSTRIES OUT OF MINING BUSINESS

Lehigh Valley Industries, Inc., long an anthracite producer through its subsidiaries, has given up coal mining.

Effective Wednesday, the company mining properties passed on lease to the Pagnotti Coal Company of Pittston.

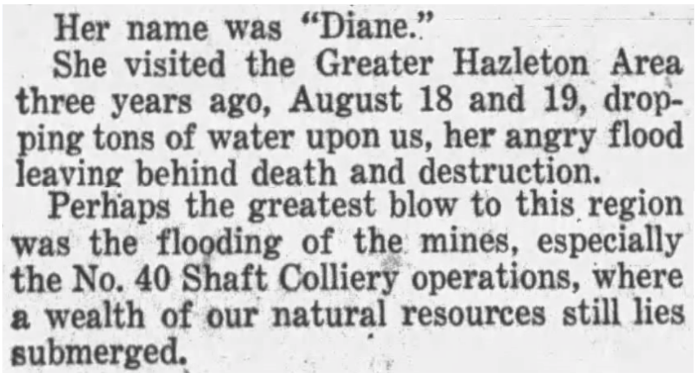
Figure 27: Six months after the loss of Hazleton Shaft, Lehigh Valley announced a plan of diversification as an exit strategy from the coal business and sold its interests to Pagnotti Enterprises on October 4, 1963

On April 1, 1959, just two months after the break-in of the Susquehanna River at Port Griffith, which wiped out the firm's Wyoming Division collieries at a staggering loss of $3.9 million ($39 million in 2022), Lehigh Valley leased three of its major holdings, which included the 2,032-acre Hazleton Shaft property, to Pagnotti Enterprises Incorporated of West Pittston. Headed by Louis Pagnotti I- the largest stripping operator in northeastern Pennsylvania, the Shaft breaker underwent an $800,000 renovation in July of that year, which included the installation of a new heavy media circuit to replace the old Chance cone cleaning system to more efficiently separate rock from coal, a 20,000-ton capacity clean coal storage system, and doubling the breaker's retail coal pocket capacity from 1,100 to 2,200 tons. Although the Pagnotti firm did express interest in dewatering the Hazleton Shaft mine, nothing ever transpired and over time, the colliery became a memory. On October 4, 1963, Pagnotti Enterprises purchased all of Lehigh Valley Coal Company's anthracite holdings at a sale price of over $500,000 ($4.7 million in 2022).

Finally, after selling its last coal operation on January 28, 1964, Lehigh Valley Industries reported a $25 million tax credit to its shareholders, thus dethroning the once-mighty firm, 89 years after it first entered the mining business.

Figure 28: Hazleton Shaft Breaker sitting idle during the late 1980s

Hazleton Shaft Colliery never reopened after Diane swept away the livelihood of many men, but its massive breaker would continue operating until economic conditions forced it to idle on April 21, 1982. The breaker would last operate during the summer of 1984 following a fire that damaged the Harleigh breaker of Jeddo-Highland Coal Company on June 24. Fourteen years later, a new company, Hazleton Shaft Corporation, formed and leased the property to reclaim the 15-million-ton culm bank left behind from the colliery days. That same year, the Shaft breaker was sold for salvage and on October 1, 1998, the largest monument to Hazleton mining *vanished* from history.



Her name was "Diane."

She visited the Greater Hazleton Area three years ago, August 18 and 19, dropping tons of water upon us, her angry flood leaving behind death and destruction.

Perhaps the greatest blow to this region was the flooding of the mines, especially the No. 40 Shaft Colliery operations, where a wealth of our natural resources still lies submerged.

Figure 29: A newspaper editor reflects on the grim reminder of Hurricane Diane

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