BEFORE THE
RECLAMATION COMMISSION

BRIAN & DENISE RILEY, Appellants, -vs- DIVISION OF MINERAL RESOURCES MANAGEMENT, Appellee, and AMERICAN ENERGY CORPORATION, Intervenor.	Case No. RC-13-004 Review of Hydrology Complaint; Permit D-425 (Century Mine: American Energy Corporation) **FINDINGS, CONCLUSIONS & ORDER OF THE COMMISSION**

Appearances: Brian & Denise Riley, Appellants, *pro se*; Brian Ball, Kristina Tonn, Assistant Attorneys General, Counsel for Appellee Division of Mineral Resources Management; Mark S. Stemm, Counsel for Intervenor American Energy Corporation.

Date Issued: October 2, 2013

BACKGROUND

On March 4, 2013, Appellants Brian & Denise Riley filed a notice of appeal with the Reclamation Commission from a decision rendered by the Chief of the Division of Mineral Resources Management [the "Division"]. The Rileys own property that was undermined by coal mining. The Chief's decision under appeal addresses hydrology concerns relative to a stream channel located on the Riley property.

Mining beneath the Riley property was conducted by American Energy Corporation ["AEC"] pursuant to coal mining permit D-425. On April 3, 2013, AEC was **granted** intervenor status in this appeal.

On August 21, 2013, a site view was conducted by the Commission. All parties participated in the view. The Commission, and the parties, viewed the Riley property, including the spring and stream channel at issue, as well as two monitoring points located off the Brian & Denise Riley property. This matter came on for hearing before the Commission on August 22, 2013. At hearing, the parties presented documentary evidence and examined witnesses appearing for and against them. After a review of the Record, the Commission makes the following findings of fact and conclusions of law:

FINDINGS OF FACT

1. Brian & Denise Riley live on a twelve-acre parcel of land, located at 52010 Atkinson Run Road, Beallsville, Ohio. The Rileys have lived on this property since approximately 1998. However, the extended Riley family has lived in this area since the 1880s. Mr. & Mrs. Riley's twelve-acre parcel was originally part of a larger tract of land, owned by the extended Riley family. Mr. Riley grew up on his father's property, which -- at that time -- included the parcel that Brian & Denise Riley now own. The twelve-acre Brian & Denise Riley parcel is located on a ridge top, which slopes predominately to the south and east. Several structures are located on the Brian & Denise Riley property, including the Rileys' home and Mr. Riley's shop.

2. Water resources located on the Brian & Denise Riley property include (1) a spring [identified as Spring DS-206], and (2) a stream channel [which will be referred to as the "B. Riley Channel"]. The outfall of Spring DS-206 occurs in a wooded area, approximately 60 feet below the ridgeline. Spring DS-206 serves as the extreme headwater for the B. Riley Channel. Water from Spring DS-206 flows into the B. Riley Channel. This channel then runs in a southeastern direction, dropping in elevation. The B. Riley Channel is the uppermost reach of a tributary to Ackerson Run, and is one of several tributaries contributing flow to Ackerson Run.

3. The B. Riley Channel is not included as a water resource on the USGS map for this property.[1]

[1] Maps prepared by the United States Geological Survey ["USGS"] depict all streams classified as "intermittent" or "perennial." "Ephemeral" streams are not mapped by the USGS.

4. In 1997, Mr. Riley developed Spring DS-206 through the installation of two perforated pipes into the hillside above the current outfall of Spring DS-206. These pipes direct flow into a 1,200 gallon buried tank, also installed as part of the spring development.

5. From 1998 through January 19, 2008, developed Spring DS-206 was the sole source of domestic water for the Brian & Denise Riley household and property. Mr. Riley testified that Spring DS-206 was a reliable water supply and that his family (consisting of Mr. & Mr. Riley and their son) was never without water during this period.

6. Mr. Riley testified that before undermining in January of 2008, the B. Riley Channel had continuous, and year-around, flow. However, pre-mining water samples from Spring DS-206 show months when there was little or no flow from the spring overflow pipe into the B. Riley Channel.[2]

7. AEC, or its affiliate, owns the coal rights beneath several properties in this area, including the twelve-acre Brian & Denise Riley property. Coal mining and reclamation permit D-425 has been issued to AEC. This underground mine is known as the Century Mine, and the portion of the mine located beneath the Brian & Denise Riley property is identified as the D-425-3 area of the Century Mine. Permit D-425 authorizes AEC to conduct underground coal mining by the longwall mining method. The longwall mining method is a full-coal extraction technology, which completely removes large blocks, or "panels," of coal. The removal of a coal panel may result in surface subsidence. Permit D-425 includes approved plans for the mitigation and repair of subsidence damage. With regards to water resources, AEC's approved mitigation plan states:

> Damage Repairs – Water Resources
> * * *
> AEC will monitor all streams as outlined in the addendum to page 26, part 3(F)(3). In the event that a stream's flow is reduced or diminished due to longwall subsidence, AEC will monitor the stream bed over a five-year period. If normal flow

[2] Pre-mining samples of the water from Spring DS-206 were collected on October 12, 2001, January 19, 2002 and February 27, 2002. However, no flow rates were recorded on these dates (see Appellee Exhibit 9). Pre-mining flow rates from the Spring DS-206 overflow pipe were recorded monthly for the period between April 6, 2007 and January 10, 2008 (see Appellee Exhibit 6). All of these pre-mining samples were collected after the development of Spring DS-206 in 1997.

> is not reestablished in this time frame, AEC will, at [its] expense, fully grout or line the stream bed to mitigate the subsidence damage and restore normal flow to the stream.

(Appellee's Exhibit 11.)[3]

8. On or about January 19, 2008, AEC mined beneath the Brian & Denise Riley property. The mining caused surface subsidence.[4] Flow from Spring DS-206 was temporarily interrupted. Flow from Spring DS-206 eventually returned, but showed increased turbidity, and was unsuitable as a domestic water supply. As Spring DS-206 had been identified as a domestic water supply, AEC was responsible, under the terms of its permit and Ohio law, to provide the Rileys with a replacement water supply. Upon being notified by the Rileys of the interruption of their domestic water supply, AEC first connected the Riley home to a rural public water distribution system. Subsequently, in January 2010, at the Rileys' request, AEC drilled a replacement water well, to an approximate depth of 150 feet, on the Riley property. This water well now serves as the Rileys' domestic water supply.[5]

9. Mr. Riley testified that, beginning in September of 2008, he contacted the Division regarding his concern that flow in the B. Riley Channel had not returned to pre-mining levels. Mr. Riley testified that he discussed the condition of this channel with a Division inspector at least once per year between 2008 and 2012. Mr. Riley testified that he was informed by the Division inspector that AEC would not be required to address concerns relative to this channel until five years after the channel's undermining.[6] John Nagel, AEC's Environmental Compliance Coordinator, testified that he first learned of Mr. Riley's concerns regarding the B. Riley Channel in September of 2011.

---

[3] The B. Riley Channel was not identified as a monitored stream in permit D-425-3. The B. Riley Channel is the uppermost reach of a tributary to Ackerson Run. A monitoring point was established in the lower reaches of this tributary (downstream of the B. Riley Channel), and permit D-425 includes monitoring data for this downstream point (identified as U-41).

[4] This mining caused subsidence damage to the land and structures located on the Riley property. AEC has repaired, replaced, or reimbursed the Rileys' for, this damage in accordance with the provisions of permit D-425 and Ohio law. This damage is not at issue in this appeal.

[5] The replacement of a legitimate water supply that is shown to be diminished or degraded by mining is addressed at O.R.C. §1513.162 and is also specifically addressed in AEC's permit. AEC's responsibility to replace an affected water supply is separate and distinct from its responsibility to minimize disturbances to water resources and the hydrologic balance.

[6] This five-year period is consistent with the provisions of AEC's mitigation plan for damage repairs to water resources contained in permit D-425. (See Appellee's Exhibit 11 and Finding of Fact No. 7.)

10. In October 2012, Mr. Riley lodged a citizen complaint with the Division, asserting that the B. Riley Channel had never fully recovered following undermining in January 2008. On October 5, 2012, Division Inspector Monty Morrison investigated Mr. Riley's complaint. On October 18, 2012, Inspector Morrison issued a written response to Mr. Riley. Inspector Morrison's response concluded:

> Conclusion: After reviewing flows at the downstream monitoring station before mining and comparing them to the flow now, it is apparent the stream has returned. It is important to note that "intermittent streams", by their nature, can lose flow during certain times of the year. The Division will require no further action by the operator.

(Appellee's Exhibit 4).[7]

11. On November 11, 2012, Mr. Riley requested informal review of Inspector Morrison's October 18, 2012 response to his water loss complaint.

12. On November 19, 2012, Division Hydrologist Cheryl Socotch conducted an investigation pursuant to Mr. Riley's request for informal review. On January 23, 2013, Ms. Socotch provided a report from her investigation to the Division Chief. In this report, Ms. Socotch evaluated monitoring data associated with (1) the spring that feeds the B. Riley Channel (Spring DS-206), (2) the downstream portion of the main-stem tributary to Ackerson Run (monitoring point U-41) and (3) another tributary that (similar to the B. Riley Channel) contributes flow to the main-stem tributary to Ackerson Run (monitoring point U-41-01). Ms. Socotch also evaluated the topographic setting and geophysical characteristics of the B. Riley Channel, noting (1) the channel's high elevation within the watershed, (2) the limited size of the channel's recharge area, and (3) depth of overburden separating the channel from the mined-out coal seam. Ms. Socotch, who was qualified at hearing as an expert in hydrology, concluded that permanent, or long-term, adverse impacts from mining were not substantiated with regard to the B. Riley Channel.[8]

---

[7] Inspector Morrison's response misidentified landowners of certain properties adjacent to the Brian & Denise Riley property, and included photographs of stream conditions on portions of tributaries to Ackerson Run, located off the Brian & Denise Riley property.

[8] Ms. Socotch's report also contained several errors, including (1) the mislabeling of the Spring DS-206 overflow pipe in a photograph, (2) the use of incorrect units in a chart displaying flow rates for Spring DS-206, and (3) the incorrect citing of a website address in her references.

13. On January 31, 2013, the Division Chief issued his decision in response to Mr. Riley's request for informal review of Inspector's Morrison's October 18, 2012 response to Mr. Riley's water loss complaint. The Chief, relying upon Ms. Socotch's report, concluded that "there has not been a permanent loss of flow in the stream as a result of longwall mining operations." The Socotch report was enclosed with the Chief's January 31, 2013 decision sent to Mr. Riley.

14. The Division Chief's January 31, 2013 decision was appealed to the Commission by Brian & Denise Riley.

DISCUSSION

Coal mining operations in Ohio are conducted pursuant to permits issued by the Ohio Division of Mineral Resources Management, and are regulated in accordance with Ohio's mining laws.

Coal mining permit D-425 is issued to American Energy Corporation. This permit allows underground mining by the longwall mining method. This mining method removes large blocks, or "panels," of coal. After the removal of coal from a longwall panel, the rock that was situated above the coal collapses into the mine void. "Subsidence" is the result of the settling of the strata overlying an area where coal has been removed. Subsidence is an inherent and planned aspect of the longwall mining process. *Brad Fisher vs. Division & American Energy Corporation*, RC-09-012 (August 15, 2010).

Subsidence from longwall mining may (1) damage surface structures,[9] (2) create cracks on surface lands and beneath water resources (temporarily or permanently), and (3) cause the diminution or degradation of utilized water supplies (temporarily or permanently).

[9] In this case, certain structures on the surface of the Rileys' property were damaged by subsidence. AEC undertook repair, replacement or reimbursement for these damages, and these matters have been resolved between the parties.

While longwall mines are "allowed" to subside the strata overlying coal removal, the law requires that certain protections be afforded to lands, and landowners, that may be impacted by mining-related subsidence. The law requires that mining be conducted in a manner that will minimize disturbances to the prevailing hydrologic balance at the mine site and in associated offiste areas. (See O.R.C. §1513.35(A)(9); O.A.C. §1501:13-4-14(E)(1).) The Division must also consider whether impacts to hydrologic features affect a property's ability to support the same, or any foreseeable, uses that existed prior to mining. (See O.R.C. §1513.07(C)(3); Appellee's Exhibit 6.)

The extended Riley family has owned property in this area of Monroe County since the 1880s. Mr. Brian Riley grew up on this property. In the late 1990's, Mr. Riley returned to Monroe County, and built his home on a twelve-acre parcel located at 52010 Atkinson Run Road. The Brian & Denise Riley property is situated on a ridge top. The property slopes rather steeply to the south and east.

Among the water resources located on the Riley property are: (1) developed Spring DS-206, and (2) the B. Riley Channel. Spring DS-206 surfaces approximately 60 feet below the ridgeline. Thus, Spring DS-206 is a "perched" water supply, located above the local ground water table. The B. Riley Channel and Spring DS-206 constitute the extreme headwaters of a tributary to Ackerson Run. The B. Riley Channel begins at the outfall of Spring DS-206 and then runs in a southeastern direction, ultimately emptying into Ackerson Run. Mr. Riley testified that, historically, the B. Riley Channel showed a continuous, and year-around, flow. Mr. Riley asserts that after AEC undermined his property, the B. Riley Channel never returned to its pre-mining flow.

However, pre-mining flow measurements taken from Spring DS-206, which is the primary contributor to the B. Riley Channel, show sporadic and relatively low flows from this spring. Indeed a pre-mining flow rate recorded in September 2007 shows no flow from the spring at all.[10] As Spring DS-206 is the principal source of ground water into the B. Riley Channel, it is highly unlikely that the upper reaches of the B. Riley Channel would contain any ground water flow when water was not entering this channel from the spring.

[10] All of the pre-mining data for Spring DS-206 was collected after the development of that spring in 1997. Therefore, none of the data produced at hearing indicates the flows rates prior to a time when a portion of the spring flow was diverted for domestic purposes. However, the diversion of a portion of this spring's flow as a domestic water supply, where there is a 1,200 gallon storage capacity, would not be so great as to change the flow character of the B. Riley Channel.

The physical locations of Spring DS-206 and the B. Riley Channel show them to be recharged by precipitation percolating through a relatively small "watershed" (*i.e.*, the area of ground located above the elevation of Spring DS-206). Mr. Riley's recollections of this portion of the stream channel as always carrying water are contradicted by the physical and topographic characteristics of the B. Riley Channel, and the spring that feeds it. There is simply not an adequate recharge area to create constant flow in the upper reaches of the B. Riley Channel. Moreover, expert testimony from Ms. Socotch established that the B. Riley Channel and Spring DS-206 are located above the local ground water table, and thus have no constant supply of water. Based upon elevation drops over the entire tributary channel, it is more likely that water would have flowed regularly in the lower reaches of the main-stem of the tributary, where there are numerous other small channels contributing water to this tributary.

At hearing, and in the documents generated by the Division, there was discussion of the "classification" of the B. Riley Channel as "ephemeral," "intermittent" or "perennial." These terms are defined in Ohio mining law at O.A.C. §1501:13-1-02, as follows:

> (TT) "Ephemeral stream" means a stream which flows only in direct response to precipitation in the immediate watershed or in response to the melting of a cover of snow and ice, and which has a channel bottom that is always above the local water table.
>
> * * *
>
> (RRR) "Intermittent stream" means a stream that is below the local water table and flows for at least some part of the year, and obtains its flow from both surface runoff and ground water discharge.
>
> * * *
>
> (HHHH) "Perennial stream" means a stream or a part of a stream that flows continuously during all of the calendar year as a result of ground-water discharge or surface runoff. The term does not include intermittent stream or ephemeral stream.

Various Division employees applied different terms to describe the B. Riley Channel. Some of this confusion may stem from the fact that the distinction between an "intermittent" and an "ephemeral" stream is, to a large extent, a matter of judgment. Both intermittent and ephemeral streams may be greatly impacted by contributions of surface water. Therefore, their flows will be significantly influenced by precipitation events and seasonal variations. Regardless of classification, the B. Riley Channel clearly is not a "perennial" - or continuously flowing - stream. The channel's perched location, and limited recharge area, simply would not provide a source of water to support a continuous, year-around, flow.

A particularly convincing indication of the non-continuous nature of flow in the B. Riley Channel is the fact that the United States Geological Survey (USGS) did not map the B. Riley Channel as a flowing water resource on the Brian & Denise Riley property. The USGS is an independent government agency, whose maps are generated without regard to land or mineral usage, and which operates without any permitting or regulatory responsibilities. Moreover, the approved water resource map submitted with application D-425 does not show an intermittent or perennial stream on the Brian & Denise Riley property.

Based upon the physical characteristic of the B. Riley Channel, this portion of the tributary to Ackerson Run could not have provided a continuous, year-around, flow of water. Rather, the physical location of the B. Riley Channel, and particularly its high elevation on a ridge with little recharge area, indicates a channel whose flow rates would be sporadic, variable and highly influenced by precipitation events. This was the testimony of Division Hydrologist, Cheryl Socotch, a qualified expert. Ms. Socotch's findings were supported by Hydrogeologist Sarah Kreitzer, who was also qualified as an expert at hearing. The Rileys presented no evidence to refute, or overcome, the conclusions of these witnesses.

However, even if the B. Riley Channel is not a continuously-flowing stream, consideration must still be given to whether this water resource has been affected in a manner that could negatively impact the "hydrologic balance" in this area. Monitoring point U-41 is located downstream of the B. Riley Channel, and receives flow from this channel. Monitoring point U-41 is located in what is considered the main-stem of this tributary to Ackerson Run. Point U-41 was monitored before, during and after mining. The main-stem of the tributary to Ackerson Run (to which the B. Riley Channel contributes) continues to carry water. There was no evidence presented to establish that there has been any net loss to the hydrologic balance in this watershed.

There is some concern regarding the quality and effectiveness of the Division's investigation of the Rileys' water loss complaint. Errors in the Division hydrologist's report are troubling, and raise particular concern in a situation where the Division Chief relied upon this report in rendering his decision. (See Footnote 9.)

The hydrologist's report was specifically sent to the Rileys as part of the Chief's response to the Rileys' request for informal review. Based upon Mr. Riley's testimony, it is obvious that Mr. Riley had discovered the errors in the Socotch report, and that he found the report's conclusions to be troubling in light of these errors.

While none of the errors in the Socotch report were fatal to its general conclusions, the public's confidence in a Chief's decision can be understandably diminished when the Chief's decision is based upon incorrect information.

Proceedings before the Reclamation Commission are *de novo* in nature. Therefore, the Commission independently evaluates the evidence, and makes its decision based upon the information presented at hearing. In this case, the Commission can find no evidence of an observable or continuing injury to the Riley property or to the hydrologic balance in this area. Moreover, the B. Riley Channel appears to be functioning exactly as expected, based upon its physical setting and its known stream characteristics.

CONCLUSIONS OF LAW

1. The ultimate burden of persuasion in this matter is placed upon the Appellants Brian & Denise Riley to prove by a preponderance of the evidence that the Division Chief acted arbitrarily, capriciously or in a manner inconsistent with law in finding that American Energy Corporation's longwall mining operations did not result in a permanent loss of flow in the portion of a tributary to Ackerson Run located on the Brian & Denise Riley property and did not negatively impact the hydrologic balance in this watershed. (See O.R.C. §1513.13(B).)

2. O.R.C. §1513.35(A)(9) requires that underground coal mining operations be conducted in a manner that will:

> Minimize the disturbances of the prevailing hydrologic balance at the minesite and in associated offsite areas and to the quantity of water in surface and ground water systems both during and after coal mining operations and during reclamation * * *

3. O.A.C. §1501:13-4-14(E) requires that an application of an underground mining permit:

> * * * shall contain a plan for the protection of the hydrologic balance. The plan shall be specific to the local hydrologic conditions and shall describes the measures to be taken during and after the proposed underground mining operations * * * to:
>
> (a) Minimize disturbance to the hydrologic balance within the permit and adjacent areas and to prevent material damage outside the permit area;

4. O.A.C. §1501:13-4-14(E)(2) requires that an application for an underground coal mining permit contain a determination of the probable hydrologic consequences of mining, which shall include:

> (a) * * * a determination of the probable hydrologic consequences of the proposed underground mining operations on the proposed permit area and adjacent areas. This determination shall be based on baseline hydrologic, geologic and other information collected for the permit application with respect to the hydrologic regime, providing information on the quantity and quality of water in surface-and ground-water systems under seasonal conditions, * * *
>
> (b) The [probable hydrologic consequences] determination shall include findings on:
>
> (i) Whether adverse impacts may occur to the hydrologic balance; * * *

5. O.A.C. §1501:13-1-02(JJJ) defines "hydrologic balance" as follows:

> "Hydrologic balance" means the relationship between the quality and quantity of inflow to, outflow from, and storage in a hydrologic unit such as a drainage basin, aquifer, soil zone, lake, or reservoir. It encompasses the quantity and quality relationships between precipitation, runoff, evaporation, and the change in ground and surface water storage.

6. In accordance with O.A.C. §1501:13-4-13(D), an application for an underground coal mining permit must contain a water supply inventory, and water quality analyses, for developed springs located above underground mining operations. O.A.C. §1501:13-4-13(E) requires that surface water bodies, such as streams, be described and sampled as part of the application process.

7. The hydrologic map required to accompany a permit application requires the identification of "perennial" and "intermittent" streams, but does not require the identification of "ephemeral" streams. (See O.A.C. §1501:13-4-08(A)(4); see also O.A.C. §1501:13-4-13(J)(10) (applicable to underground mine permit areas).)

8. O.A.C. §1501:13-4-14(F) requires that applications for underground mining permits contain ground water and surface water monitoring plans:

> (2) (a) * * * based upon the [probable hydrologic consequences] determination required under paragraph (E)(2) of this rule and the analysis of all baseline hydrologic, geologic, and other information in the permit application. The plan shall provide for the monitoring of parameters that relate to the suitability of the surface water for current and approved postmining land uses and to the objectives for protection of the hydrologic balance as set forth in paragraph (E)(1) of this rule as well as the effluent limitations set forth in 40 C.F.R. part 434.

For underground mining operations, such water monitoring plans must comply with the sampling frequency requirements of O.A.C. §1501:13-9-04(N)(1)(b).

9. Evidence presented at hearing established that coal mining permit D-425-3 contained adequate information to determine the probable hydrologic consequences of mining upon the prevailing hydrologic balance on the proposed permit and adjacent areas.

10. Evidence presented at hearing regarding the geophysical characteristics and topographic setting of the B. Riley Stream Channel established that the flow and productivity of this channel has successfully recovered to a condition that would be expected of this channel before mining occurred.

11. Evidence presented at hearing established no net loss to the prevailing hydrologic balance in the area, or watershed, of the B. Riley Channel as a result of mining conducted pursuant to permit D-425-3.

12. Appellants Brain & Denise Riley provided no convincing evidence to refute the Division's findings that the flow and productivity of the B. Riley Channel has recovered to its pre-mining condition.

13. Appellants Brain & Denise Riley provided no convincing evidence to refute the Division's findings that there has been no net loss to the prevailing hydrologic balance in this area as a result of mining conducted pursuant to permit D-425-3.

14. The Commission cannot find that American Energy Corporation bears any further or continuing obligation to repair the B. Riley Channel.

15. The Commission finds that the Division did not act arbitrarily, capriciously or in a manner inconsistent with law in determining that the B. Riley Channel has recovered to its pre-mining condition and that there has been no net loss to the prevailing hydrologic balance within the drainage basin that includes the B. Riley Channel.

16. The Commission finds that the Division did not act arbitrarily, capriciously or in a manner inconsistent with law in determining that American Energy Corporation is not required to repair the B. Riley Channel.

ORDER

Based upon the foregoing findings of fact and conclusions of law, the Commission hereby **AFFIRMS** the Division Chief's decision as regards the Brian Riley Stream Channel.

10/2/13
DATE ISSUED

SEAN A. McCARTER
Chairman, Reclamation Commission

INSTRUCTIONS FOR APPEAL

This decision may be appealed to the Court of Appeals, within thirty days of its issuance, in accordance with Ohio Revised Code §1513.14 and Ohio Administrative Code §1513-3-22. If requested, copies of these sections of the law will be provided to you from the Reclamation Commission at no cost.

DISTRIBUTION:

Brian & Denise Riley, Via Regular Mail & Certified Mail #: 91 7199 9991 7030 3939 0585
Brian Ball, Kristina Tonn, Via Inter-Office Certified Mail#: 6720
Mark Stemm, Via Certified Mail #: 91 7199 9991 3939 0592

BEFORE THE

RECLAMATION COMMISSION

BRIAN & DENISE RILEY, Appellants, -vs- DIVISION OF MINERAL RESOURCES MANAGEMENT, Appellee, and AMERICAN ENERGY CORPORATION, Intervenor.	:	Case No. RC-13-004 Review of Hydrology Complaint; Permit D-425 (Century Mine; American Energy Corporation) **INDEX OF EVIDENCE PRESENTED AT HEARING**

Before: Sean A. McCarter.

In Attendance: A. Thomas Althauser, Richard Cappell, Fred Dailey, Craig Porter, and Hearing Officer Linda Wilhelm Osterman.

Appearances: Brian & Denise Riley, Appellants *pro se*; Brian Ball, Kristina Tonn, Assistant Attorneys General, Counsel for Appellee Division of Mineral Resources Management; Mark S. Stemm, Counsel for Intervenor American Energy Corporation.

WITNESS INDEX

Appellee's Witnesses:

Brian Riley	Cross Examination
Michael Kosek	Direct Examination; Cross Examination
Cheryl Socotch	Direct Examination; Cross Examination
Monty Morrison	Direct Examination; Cross Examination

Appellants' Witnesses:

Brain Riley	Statement on the Record; Cross Examination

Intervenor's Witnesses:

John Nagel	Direct Examination; Cross Examination
Sarah R. Kreitzer	Direct Examination; Cross Examination

EXHIBIT INDEX

Appellee's Exhibits:

Appellee's Exhibit 1	Notice of Appeal filed with Reclamation Commission; dated February 25, 2013; filed March 4, 2013 (1 page)
Appellee's Exhibit 2	Letter from Brain Riley to ODNR Director James Zehringer; dated May 2, 2013 (3 pages)
Appellee's Exhibit 3	Memorandum from Michael Kosek to Lanny Erdos, re: Riley History, dated February 25, 2013 (2 pages)
Appellee's Exhibit 4	Letter from Monty Morrison to Brian Riley, containing Division's response to Brian Riley's citizen complaint regarding reduction in stream flow on the Brian Riley property, dated October 18, 2013, with five attached photographs (some taken on B. Riley property, some taken off B. Riley property) (7 pages)
Appellee's Exhibit 5	Letter from Brian Riley to Division Chief, requesting review for Morrison's October 18, 2013 response to the Riley complaint re: stream flow, dated November 11, 2012 (2 pages)

Appellee's Exhibit 6	Letter from Lanny Erdos to Brian Riley, containing Division's response to Riley's request for review of Morrison's October 18, 2013 response to the Riley complaint re: stream flow; dated January 31, 2013; with attached report of Hydrologist Cheryl Socotch; dated January 23, 2013 (15 pages)
Appellee's Exhibit 7	Attachment 31; portion of Subsidence Control Survey for permit D-425-3; received by Division on April 6, 2003; (1 page)
Appellee's Exhibit 8	Attachment 14C; portion of Well/Spring Inventory for permit D-425-3; received by Division on August 13, 2003; (1 page)
Appellee's Exhibit 9	Attachment 14A; portion of Hydrologic Measurements and Analyses for permit D-425-3; (2 pages)
Appellee's Exhibit 10	Table B, Addendum to Page 18, Part 2 F (1); portion of Spring, Pond and Stream Data for permit D-425-3; received by Division on August 12, 2003; (1 page)
Appellee's Exhibit 11	(1) Addendum to Page 30, Part 3, K(5)(c), *Mitigation Measures – Surface Lands and Water Resources;* (2) Addendum to Part 3, Page 26, F, *Ground Water and Surface Water Monitoring Plans*; (3) Addendum to Part 3, Page 26, F(3), *Ground and Surface Water Monitoring*; (4) Addendum to Page 18, Part 2, F(2), *Alternative water Supply Information*; all part of application for permit D-425-3 ; (9 pages)
Appellee's Exhibit 12	Quarterly Monitoring Report Sheet, Century Mine; 1st Quarter 2009 (January, February and March 2009), includes Spring DS-206; (1 page)
Appellee's' Exhibit 13	**PROFFER** – *Stream Flow Characterization Over Longwall Coal Mines in Pennsylvania, Ohio and West Virginia;* OSM Technology Transfer, Applied Science, Final Report Fact Sheet; Scott A. Wade; (2 pages)

Appellants' Exhibits:

Appellants' Exhibit A	**PROFFER** – *Stream Flow Characterization over Longwall Coal Mines in Pennsylvania, Ohio, and West Virginia*; Master's Thesis of Scott A. Wade (West Virginia University, 2008); (322 pages)
Appellants' Exhibit B	Diagram, drawn by witness Cheryl Socotch during testimony, showing flow to Spring DS-206 and from Spring DS-206 to monitoring point U-41; (1 oversized page)
Appellants' Exhibit C	Diagram, drawn by Appellant Brian Riley during testimony, showing development of Spring DS-206 as a domestic supply; (one oversized page)
Appellants' Exhibit D	Diagram, drawn by Appellant Brian Riley during testimony, showing development of Spring DS-206 as a domestic supply; (1 oversized page)

Intervenor's Exhibits:

Intervenor's Exhibit 1	Letter from Michael Kosek to Brian Riley, re: site visit on April 9, 2010 and Riley subsidence complaint of 2010; dated May 12, 2010 (2 pages)
Intervenor's Exhibit 2	Full and Final Release Agreement between Brian & Denise Riley and American Energy Corporation; dated July 20, 2011 (1 page)
Intervenor's Exhibit 3	Aerial photograph of Brian & Denise Riley property and adjacent properties (1 oversized page)
Intervenor's Exhibit 4	Portion of the D-425-3 Hydrology Map, from approved permit (1 page)
Intervenor's Exhibit 5	Aerial photograph of portions of James Riley and Brian & Denise Riley properties, showing required and additional monitoring points; dated August 19, 2013 (1 page)

Intervenor's Exhibit 6	Chart showing monitoring results for additional monitoring points in gallons per minute, collected between December 12, 2011 and June 21, 2013 (1 page)
Intervenor's Exhibit 7	Chart showing monitoring results for additional monitoring points in cubic feet per second, collected between December 12, 2011 and June 21, 2013 (1 page)
Intervenor's Exhibit 8	Resume of Sarah R. Kreitzer, (1 page, two-sided)