IN THE OFFICE OF THE STATE ENGINEER OF THE STATE OF NEVADA

IN THE MATTER OF APPLICATION NUMBER 77543
FILED BY MUD CAMP MINING COMPANY, LLC,
On October 29, 2008, to Appropriate the Waters of
Under permit 14059, Certificate 5156

PROTEST

FILED
JAN 09 2009
STATE ENGINEER'S OFFICE

2009 JAN -9 AM 11:49

Comes now John F. Bosta, whose post office address is. P.O. Box 42 Amargosa Valley, Nevada. 89020, whose occupation is Retired and protests the granting of Application Number 77543., filed on October 29, 2008 by Mud Camp Mining Company, LLC of Amargosa Valley, Nevada to appropriate the waters of an underground source under permit 14059, Certificate 5156 situated Basin 230 in Nye County, State of Nevada, for the following reasons and on the following grounds, to wit:

On September 20, 2002 I purchased my home on 1830 E. McCoy Street that is located in Section 35, Township 16 South, Range 49 East, M.D.B.&M. My domestic water supply well is located about 0.5 miles from the POD in Section 35, Township 16 South, Range 49 East, M.D.B.&M. for the proposed Application Permit 77543 for 56.0 AFA for Irrigation purposes.

The proposed Amended Application No. 77543 POD is within the NE ¼ NW ¼ of Section 35, T. 16S., R. 49E., M.D.B.&M. at a point that bears N 11 degrees 0 minutes E., a distance 50 feet to NE corner of NW ¼ said Section 35. The Submitted Map numbered 77543, 77321 locates the POD –EXISITING WELL, and makes reference #20162. The POD is located at 1750 E. Sage St. (APN 19-641-13), which appears to be the Applicant's new home. The residence and domestic well are not located on the submitted maps for application permit 77543. The domestic well in use now is not well #20162 under well log 4478.

Last November the valve for a pipe, about 14 inches in diameter, for well was in the location. By December 23, 2008 the valve has been removed and on December 24, 2008 the area around the location has been graded. It appears that the top of 14-inch pipe is covered with plywood with a large block of wood holding the plywood down. Today, January 3, 2009 one well pipe with the concrete seal can be seen which is about two or three feet above the graded ground. The State Water Rights Surveyor, Stephen F. Turner, has identity this well to be well 20162 for well log 4478.

At an unknown date a second well with a diameter, which appears to be less than 14 inches, has been drilled at the location within the NE ¼ NW ¼ of Section 35, which is **not the location** of well no. 20162, log 4478 under permit 15849 There is no well log number in the Well Driller's Log-General Report for this second well close to the new home located within 1750 E. Sage St. (APN 19-641-13). It appears that this is the domestic well for the house.

I have reviewed the time-line for well no. 20162, which begins with Permit 15849 filed by Walter A. Schwartz first application under the date November 19, 1954 for water to be diverted from its source at the following point: NE ¼ NW ¼ Sec. 35, T. 16 S., R. 49 E., M.D.B.&M. or at a point from which the N ¼ corner

of said Section 35 bears N. 45 degrees 03 minutes E., 28.28 feet. A corrected application was filed January 31,1957 with a map prepared by Lawrence G. Chambers, R.E. 459 for applications numbers 15849 and 15850. Amount of Water Applied for is 4 cubic second- feet. The water is to be used for irrigation and domestic for 160 acres in the NW ¼ of Sec. 35. Item 7. Remarks, "This application is made in connection with my Desert Land Entry with the Bureau of Land Management Office at Reno, Nevada." Under the date of February 18, 1957 Walter A. Schwartz Assigned 15849 to E. D. McCoy, the deed was filed April 25, 1957. The State Engineer approved the Amended Application for Permit 15849 for 2.5 c.f.s. or a yearly duty of 5 AFA per acre of land irrigated on May 20,1957.

Under the date April 15, 1959 E. D. McCoy filed Well log 4478 for Permit 15849; which is 14-inch well that was drilled to a depth of 325 feet and is cased to 223 feet with perforations from 100-223 feet at the location: NE ¼ NW ¼ Sec. 35, T. 16 S., R. 49 E., M.D.B.&M. or at a point from which the N ¼ corner of said Section 35 bears N. 45 degrees 03 minutes E., 28.28 feet.

Proof of Commencement of Work was filed December 18, 1959. Permit 15849 was cancelled March 3, 1961 because of failure of applicant to comply with the provisions of permit.

Permit 15852 filed by Emma E. Schwartz first application under the date November 19, 1954 for POD for water to diverted from its source at the following point: with in Lot 3 of Sec. 35, T. 16 S., R. 49 E., M.D.B.&M. or at a point from which the W ¼ corner of Section 35 bears N. 89 degrees 30 minutes 45 seconds W., a distance of 2620.09 feet. A corrected application was filed January 31,1957 with a map prepared by Lawrence G. Chambers, R.E. 459 for applications numbers 15851 and 15852. The map locates Well no.15852 at the POD described above. The Amount of Water Applied for is 4 cubic second- feet. The water is to be used for irrigation and domestic for 160 acres in the Lots 3, 4, 5, & 6 of Sec. 35, T. 16S, R. 49E, M.D.B.&M. Item 7. Remarks, "This application is made in connection with my Desert Land Entry with the Bureau of Land Management Office at Reno, Nevada." Under the date of February 18, 1957 Emma E. Schwartz Assigned 15852 to Robert H. Berry, the deed was filed April 25, 1957. The State Engineer approved the Amended Application for Permit 15852 for 2.5 c.f.s. or a yearly duty of 5 AFA per acre of land irrigated on May 20,1957. Proof of Commencement of Work was filed November 27, 1957.

Under the date April 25, 1957 Robert H. Berry filed Well log 4022 for Permit 15852; which is 16-inch well that was drilled to a depth of 200 feet and is cased to 200 feet with perforations from 110-200 feet at the location: Lot 3 of Sec. 35, T. 16 S., R. 49 E., M.D.B.&M. or at a point from which the W ¼ corner of Section 35 bears N. 89 degrees 30 minutes 45 seconds W., a distance of 2620.09 feet. Well Log 4022 was completed by Enloe Drilling Co. February 21, 1958 and filed with Office State Engineer March 5, 1958. Proof of Completion of Work was filed November 26, 1958. Applicant withdrew permit 15852 December 2, 1963. The well log 4022 for permit 15852 is located in APN 19-631-44, 1688 E. McCoy Street under the owner, Raymundo & Blanca Hernandez and is taxed by Nye County for domestic well use.

E. D. McCoy filed an Application for Permit 20162 on November 21, 1961. A map was filed January 31, 1957 under 15849. The amount of water applied for was 2.7 c.f.s. to be used for Irrigation & Domestic. The POD is a source at the following point: NE ¼ NW ¼ Sec. 35, T. 16 S., R. 49 E., M.D.B.&M. or at a point from which the N ¼ corner of said Section 35 bears N. 45 degrees 03 minutes E., 28.28 feet. The estimate time required to construct works was answered; "work completed" implying the well was drilled under well log 4478. Item 11. Remarks: "Use map filed under 15849 to support this application. Application supports D.L.E 029747." The State Engineer approval limited the well to what it would produce but not to exceed 2.7 c.f.s., of

a yearly duty of 4.0 acre-feet per acre of land irrigated for Permit 20162 on April 24, 1962. In the upper right hand corner of Well Log 4478 the space in third line titled Well No: is filled in with 20162.

Under the date, March 9, 1962 Robert H. Berry filed an application for Permit 20353 and used a map filed January 31, 1957 under Permit 15851. The POD is in Lot 3, Sec. 35, T. 16S., R. 49 E. or at a point from which the W ¼ corner of Section 35 bears N. 89 degrees 30 minutes 45 seconds W., a distance of 2620.09 feet (APN 19-631-44). The water is to be used for Irrigation and domestic on 80 acres of land in Lots 2 and Lot 7 Section 35, T. 16S, R.49E. Item 9, the well is completed as shown by log 4022 but additional work will be required. Item 11, This is same well as drilled under Application #15852 and map in support of 15852 is to support this application Map under 15852 is filed under 15851. Under the date October 19, 1962 the Bureau of Land Management issued Patent No. 1229248 for Nevada 029748 to Robert H. Berry, assignee by means conveyance of Emma E. Schwartz, T.16S, R49E Section 35, Lots 2, 3, 6, and 7; the area described contains 160.00 acres. Permit 20353 was ASSIGNED; on Dec. 18, 1962 by Robert H & Jan T. Berry to E. D. McCoy. Deed filed April 15, 1963. State Engineer approved the permit 20353 on August 28, 1965; this permit is issued to all existing rights on the source and is limited to what the well produce but not to exceed 1.7 c.f.s. The amount of water to be appropriated shall be limited to the amount which can be applied to beneficial use, and not to exceed 1.7 cubic feet per seconds, or a yearly duty of 5.0 acre-feet per acre of land irrigated. The permit was cancelled April 30, 1970 because of failure of applicant to comply with the provisions of permit.

Under the date May 17, 1962 the Bureau of Land Management issued Patent No. 1226944 for Nevada 029747to Edger D. McCoy, assignee by means conveyance of Walter A. Schwartz, T.16S, R49E Section 35, W ½ NE ¼, and E ½ NW ¼, the area described contains 160.00 acres.

E. D. McCoy filed a second map to accompany proof of beneficial use surveyed by State Water Right Surveyor, James C. Perkins, Jr. under application No. 20162 on November 26, 1965. The second map outlines the easements for all the parcels in the portion N ½ Sec. 35, T.16S, R.49E. The well is located at the edge of the easement, Sage St., at the NE corner of the 10-acre lot in E ½ E ½ NW ¼ of Sec. 35 with a point that bears N 11 degree E, a distance 50 feet to the ¼ Cor. Fd. Brass Cap. The point is labeled, "Pt. of Diversion-20162". Hope St. is in the easement on east side of the 40-acre subdivision, however the names of the easement are not marked as roads. This second map amends the location of the Tie description of the POD of Permit 20162 in the map filed January 31, 1957 under 15849 <u>from</u> which the N ¼ corner of said Section 35 bears N. 45 degrees 03 minutes E., 28.28 feet <u>to</u> a point that bears N 11 degree E, a distance 50 feet to the ¼ Cor. Fd. Brass Cap.

The certification No. 6236 issued March 22, 1967 gives a bearing for POD as NE ¼ NW ¼ of Section 35, T. 16S., R. 49E., M.D.B.&M. or at a point from which the N ¼ corner of said Section 35 bears N. 11 degrees E., a distance 50 feet. There is no well log that has been issued for a well at the bearing of the certificate unless this is the same location of well log 4478.

Question for the State Engineer, Is a bearing at a point from which the N ¼ corner of said Section 35 bears N. 45 degrees 03 minutes E., 28.28 feet the same as a bearing at a bearing at a point that bears N 11 degrees 0 minutes E. a distance 50 feet to N 1/4 corner Fd. Brass Cap of said Section 35?

Well log 23121 under the name W. Bradshaw was filed August 5, 1974 for a domestic well at 1738 Adobe St (19-641-28). In the original WELL DRILLERS REPORT; Item 2, PERMIT NO. contains the word " Domestic", someone crossed out the word domestic and replaced it with 28828; Item 4, PROPOSED USE, the box marked domestic is crossed out and remarked with an X, also the box Irrigation is marked with an X.

When a person changes a recorded document or contract they should initial and date the change. The when and who making these changes on the original well is unknown.

Bradshaw filed an application for Permit 28828 October 25, 1974. A corrected application was filed January 22, 1975, which is AMENDED Serial No. 28828; Bradshaw made application to change the point of diversion and place of use of a portion of water heretofore appropriated under Permit 20162; Item 1, the source of water is a drilled well (domestic), Amargosa desert area. (Emphasis added); for a use of irrigation of 30 acres and domestic. The State Engineer approved permit 28828 July 10, 1981; This permit to change the point of diversion and place of use of a portion o the waters of an underground source as heretofore, granted under Permit 20162, Certificate 6236. The amount of water to be changed shall be limited to the amount which can be applied to beneficial use, and not to exceed 0.43 cubic feet per second, but not to exceed a yearly duty of 5.0 acre-feet per acre of land irrigated from any and/or all sources.

The State Engineer's Ruling # 4497 under the date February 14, 1997, "Certificate 6236 under permit 20162 was issued on March 22, 1967, for 1.0 cfs of water not to exceed 280 acre feet annually (AFA) for the irrigation of 70 acres of land, located within the N ½ of Section 35, T.16S., R.49E., M.D.B.&M. ... A portion of Permit 20162, Certificate 6236 was changed by Permit 28828. More specifically, 120 AFA of water appurtenant to 20 acres located in the W ½ SW ¼ NE ¼ and 10 acres located in the E ½ E ½ SE ¼ NW ¼ of said Section 35 were changed by Permit 28828. Therefore, in this ruling, the remaining portion of Permit 20162, Certificated 6236, consisting of 160 AFA, appurtenant to 40 acres, is considered. The 40 acres are described as follows: 10 acres located in the E ½ E ½ NE ¼ NW ¼; 20 acres located in the W ½ NW ¼ NE ¼ (the 10 acres and the 20 acres combine to form on 30 acre parcel which can also be identified as APN 19-641-13) and 10 acres in the W ½ E ½ SE ¼ NW ¼ of said Section 35 (APN 19-641-17)." [page 1] "Mrs. Settlemeyers testified that her husband raised about 50 head of cattle on the property from 1985 through 1989 and pigs from 1990 through 1995. In 1987, her husband planted about 400 fruit, chestnut, and pistachio trees. The property was surrounded by a chain link fence and flood irrigated from the certificated well with a diesel powered pump." [Ruling 4497, page 4]. When I purchased my home, September 20, 2002, I could not see the 400 trees and chain link fence. In fact, I see only four or five tree near the location of well 20162. CONCLUSIONS; IV., "The evidence regarding the use or non-use of water on the 30 acres of land identified as APN 19-641-13 is inconclusive. The State Engineer concludes that this portion of Permit 20162, Certificate 6236, amounting to 120 AFA, is not declared forfeited"; V., "Regarding the remainder of Permit 20162, Certificated 6236, amounting to 40 AFA appurtenant to 10 acres identified as APN 19-641-17, the State Engineer concludes that there is clear and convincing evidence of continuous non-use exceeding five years. The State engineer further concludes that this remaining portion of Permit 2016, Certificate 6236 is forfeited." [Page 5].

The State Engineer should reconsider the Conclusion IV regarding use or non-use of water on the 30 acres of land identified as APN 19-641-13. The Water Right Database Page 2, Maps and Due Dates, section Other Dates and Requirement, Forfeiture Due Date is October 12, 2008. There is no indication that the owner has requested an extension.

What is the annual pumpage inventory of the certificated well 6236 known as well no. 20162 located at a point from which the N ¼ corner of said Section 35 bears N. 11 degrees E., a distance 50 feet within the 30 acres of land identified as APN 19-641-13 for the years 1997 to 2007? The answer to this question is none; zero. This is clear and convincing evidence of continuous non-use exceeding five years. Pursuant to NRS 534.090 Forfeiture and abandonment of rights. [Effective through December 31, 2007.] For water rights in

basins for which the State Engineer keeps pumping records, if the records of the State Engineer indicate at least 4 consecutive years, but less than 5 consecutive years, of non-use of all or any part of such a water right which is governed by this chapter, the State Engineer shall notify the owner of the water right, as determined in the records of the Office of the State Engineer, by registered or certified mail that he has 1 year after the date of the notice in which to use the water right beneficially and to provide proof of such use to the State Engineer or apply for relief pursuant to subsection 2 to avoid forfeiting the water right. Since pumping records are kept for basin 230, after 4 consecutive years (1997-2000), but less than 5 consecutive years of non-use did the State Engineer notify the owner, of the water right of permit 20162 by registered or certified letter that he has 1 year after the date of the notice in which to use the water right beneficially and to provide proof of such use to the State Engineer or apply for relief pursuant to subsection 2 to avoid forfeiting the water right? If not, Why? Was a letter sent in 2001, 2002, 2003, 2004, 2005, 2006, or 2007? If not, Why?

Under the date August 21, 2007 the Settlemeyers sold the 30-acre parcel to Bonnie Wahl. The pumping record indicate at least 4 consecutive years 2004-2007 of non-use, did the State Engineer notify Bonnie Wahl by registered or certified mail that she has 1 year after the date of the notice in which to use the water right beneficially and to provide proof of such use to the State Engineer or apply for relief pursuant to subsection 2 to avoid forfeiting the water right? If not, Why? There is no indication in the record that the she has requested an extension.

If the State Engineer did not send notice in 2007, he should send to Bonnie Wahl by registered or certified mail a notice of non-use of all or any part of the underground water pursuant to NRS 534.090 Forfeiture and abandonment of rights [Effective January 1, 2008.] to begin the forfeiture process to declare that the portion of Permit 20162, Certificate 6236, amounting to 120 AFA will be forfeited.

I have attached hereto a Google aerial view some time in 2007 before the remolding of the residence of APN 19-641-13 as Exhibit A. The yellow pins on the corners of the 30 acres identify APN 19-641-13. The color, shading, and texture of the 30 acres are the same as the surrounding uncultivated land, indicating that it has not been irrigated for many years. In the upper right of the photo you can see the tree in front of the Post Office and the trees on the left side of the parking lot. Also you can see the trees making a right angle on the left boarder of the 20-acre parcel containing the Post Office parcel. On the left side of APN 19-641-13 you can see the trees around the residents. In the bottom of the view you can see the irrigated alfalfa fields.

There are 20 or more domestic water supply wells within a 0.75-mile radius of the proposed POD for the application 77321. A domestic well is located at 1750 E. Sage St (19-641-13) is about or less than 50 feet from the POD. A domestic well is located at 1744 E. Sage St (19-641-40) is about or less than 600 feet from the POD. A domestic well is located at 1646 E. Sage St (19-641-06) is about or less than 1000 feet from the POD. A domestic well is located at 634 S. Turquoise St (19-641-01) is about or less than 1300 feet from the POD. A domestic well is located at 539 S. Turquoise St (19-641-32) is about or less than 1300 feet from the POD. A domestic well is located at 553 S. Turquoise St (19-641-33) is about or less than 1300 feet from the POD. A domestic well is located at 565 S. Turquoise St (19-641-34) is about or less than 1400 feet from the POD. A domestic well is located at 589 S. Turquoise St (19-641-05) is about or less than 1500 feet from the POD. A domestic well is located at 1660 E Adobe St (19-641-15) is about or less than 1900 feet from the POD. A domestic well is located at 1738 E Adobe St (19-641-28) is about or less than 1400 feet from the POD. A domestic well is located at 598 Windmill Ln. (19-641-10) is about or less than 1900 feet from the POD. A domestic well is located at 572 Windmill Ln. (19-641-09) is about or less than 1500 feet from the POD. A domestic well is located at 534 Windmill Ln. (19-641-07) is about or less than 1200 feet from the POD. A

domestic well is located at McCoy St (19-631-51) is about or less than 2460 feet from the POD. A domestic well is located at McCoy St (19-631-52) is about or less than 2460 feet from the POD. A domestic well is located at 1772 McCoy St (19-631-37) is about or less than 2460 feet from the POD. A domestic well is located at 1830 McCoy St (19-631-55) is about or less than 2460 feet from the POD. A domestic well is located at 775 S.Turquoise St (19-63 1-54) is about or less than 2800 feet from the POD. A domestic well is located at S.Turquoise St (19-63 1-50) is about or less than 3900 feet from the POD. A domestic well is located at Opal St (19-63 1-53) is about or less than 2800 feet from the POD. A domestic well is located at 795 S. Faith St (19-631-38) is about or less than 2800 feet from the POD. A domestic well is located at Whitesands Ave/ (19-631-49) is about or less than 3900 feet from the POD. A domestic well is located at Whitesands Ave. (19-631-08) is about or less than 3900 feet from the POD. I have attached hereto a Google aerial view some time in 2007 for my list of 20 or more residence APN as Exhibit B, some of the locations are now vacant.

This proposed application presents no information about the cone of depression or the capture zone of the 4 existing pumping wells under applicants permits. The State Engineer should require a standard Theis Non-Equilibrium equation to estimate the cumulative drawdown of the water level of intersecting cone of depressions from the pumping of the existing four wells no.; 23131, 81177, 87077 for approved permit nos. 70715, 70716, 70717, & 70718 for a combined duty of 125.70 AFA; well no. 20162 for the remaining 120 AFA; and the two proposed applications 77321 for 117 AFA and 77543 for 56 AFA for a total combined duty of 418.70 AFA. Multiple cones of depression can intersect and result in greater drawdown than expected from a single well. As the equation governing groundwater flow (Laplace equation) is linear, the drawdown at any point is found by summing the drawdown produce by all the wells. (See, Exhibit C, 2 pages attached hereto)

A Potentiometric map should be prepared to determine the size of present day cone of depression under the existing use before this permit is approved. The domestic water supply wells within 1 mile from the center of the cone of depression under the existing use must be protected. If any domestic water supply wells fails due to cone of depression lowering the static water level of the domestic well, the applicant should be held responsible to pay the cost to deepen the well. A statement to this affect should be included if the permit is approved. At least two monitoring well should be required, one north and one south or a monitoring plan to check every year the static water level of the 20 or more domestic well identified in last paragraph page 5 and first paragraph page 6 above.

THEREFORE the Protestant requests that the application be Denied and that an order be entered for such relief as the State Engineer deems just and proper.

Signed John F. Bosta

John F. Bosta
P.O. Box 42
Amargosa Valley, NV 89020
(775) 372-9038

Subscribed and sworn to before me this 7th day of January, 2009

Shelly Kadrmas

Notary Public

State of Nevada

County of Nye

NOTARY PUBLIC
STATE OF NEVADA
County of Nye
SHELLY KADRMAS
No: 96-1623-14
My Appointment Expires Mar. 7, 2012

Exhibit A

My well
Google

After pumping for a long period of time and drawdown has stabilized, the Thiem equation can be used with observations of hydraulic head in two observation wells to calculate the transmissivity of the confined aquifer. The Thiem equation for drawdown calculations is:

$$s = \frac{Q}{2\pi T} \ell n\left(\frac{R}{r}\right)$$

where,

R = radial extent of the cone of depression

You are now prepared to complete **Module Problem 3: Radial Drawdown of Groundwater Potentiometric Surface by a Pumping Well in a Confined Aquifer**

Multiple Wells

In many cases, a field site may have more than one pumping well. Multiple cones of depression can intersect and result in greater drawdown than expected from a single well (Fig. 7). As the equation governing groundwater flow (Laplace equation) is linear, the drawdown at any point is found by summing the drawdowns produced by all the wells (Fig. 8).

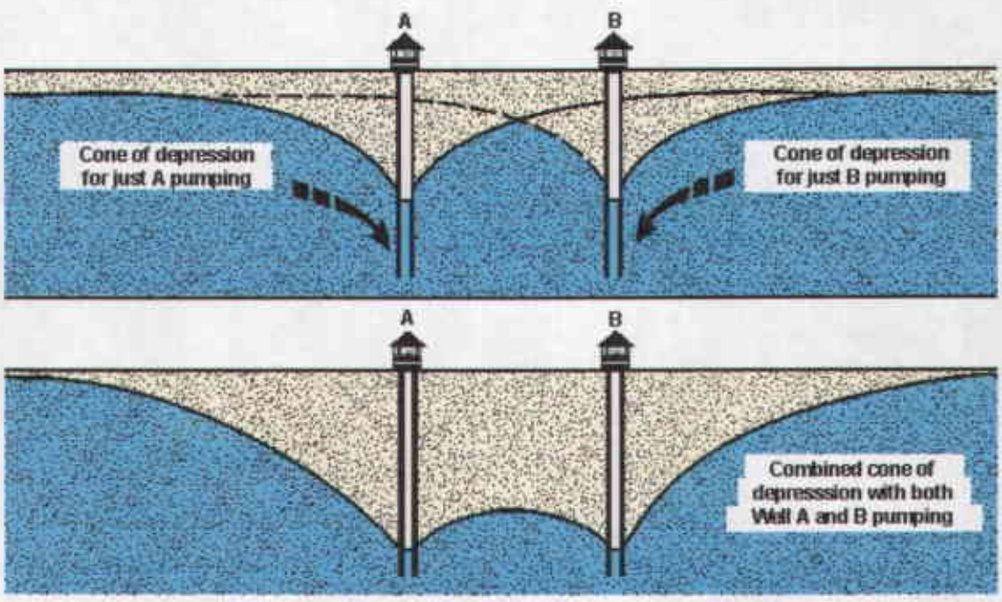

Figure 7. Coalescing of multiple cones of depression (from Oregon State University Extension Service http://groundwater.orst.edu/under/wells.html)

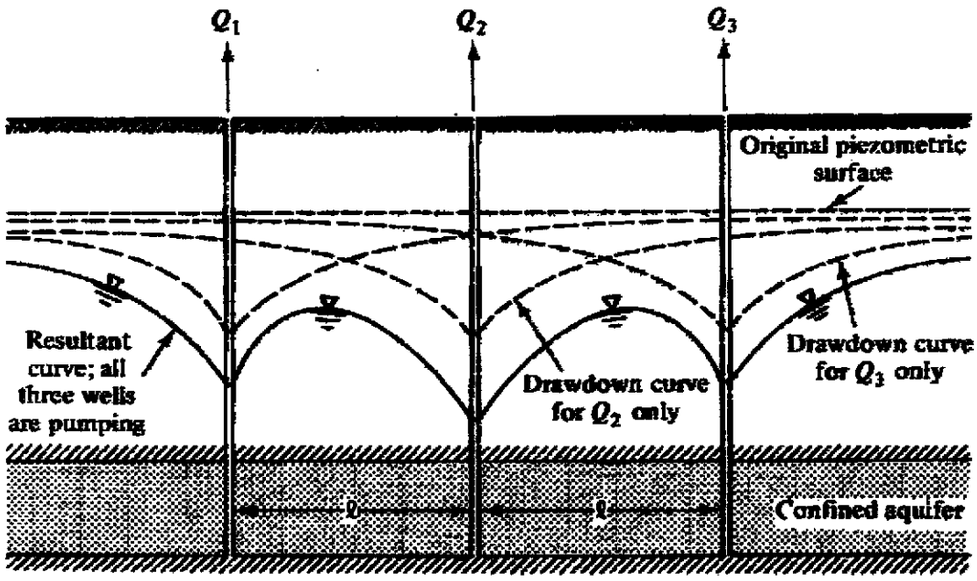

Figure 8. Summing of individual calculated drawdowns for multiple well scenarios (from Bear, 1979)

Hydrogeologic Boundaries and Image Wells

All the solutions previously discussed assumed infinite horizontal extent aquifers. In reality, most aquifers will be bounded by recharge sources or boundaries (ocean, lakes, streams) or impermeable boundaries (alluvial sand-bedrock contact). Utilizing the Theis and Thiem equations will result in cones of depression which extend an unrealistic distance past these boundaries. Imaginary wells called image wells are used to simulate the boundary effects.

In the case of a recharge boundary, once the cone of depression reaches a recharge source, the rate of drawdown decreases as the well now receives water from this source. The cone of depression will not extend past the recharge boundary and will have less drawdown than simulated by the Theis or Thiem equation. The effect of a recharge boundary is simulated by use of an image well which injects water into the aquifer:

1. The image well is placed across the boundary at the same distance the pumping well is from the boundary (mirror image).
2. At a given point of known radial distance from the pumping well, drawdown for the pumping well is calculated by the Theis or Thiem equation.