



September 20, 2007

Mr. Aaron Marshall
Water Allocation Bureau
Idaho Department of Water Resources
P.O. Box 83720
Boise, ID 83720-0098

Subject: Application to lease/rent water for water right No. 63-32398

Dear Mr. Marshall,

The purpose of this letter is to respond to your letter of August 17, 2007 regarding a review of the companion Application to Sell or Lease Water Right(s) from the Water Supply Bank (bank) and Application to Rent Water Right(s) from the Water Supply Bank. The companion applications were denied because of concerns that the water right point of diversion and the rental point of diversion are not hydraulically connected. Your letter suggested that the applications should be resubmitted if "the applicant can provide evidence of hydraulic connectivity between the water right point of diversion and the rental point of diversion."

I believe there is ample evidence that the water right and rental points of diversion are hydraulically connected. First, both points of diversion are part of the Treasure Valley aquifer system which resides in a continuous sequence of interbedded, tilted, faulted, and eroded sediments extending to depths of over 6,000 feet (Wood and Clemens, 2004). This stratigraphic section, the subject of extensive investigation (Burnham and Wood, 1992; Kimmel, 1982; Petrich and Urban, 2004; Squires and Wood, 2001; Squires et al., 1992; Whitehead, 1987; Whitehead, 1992; Wood, 1994; Wood, 1996a; Wood, 1996b; Wood, 1997a; Wood, 1997b; Wood and Anderson, 1981; Wood and Clemens, 2004), reflects a common history of lacustrine, deltaic, fluvial, and alluvial deposition.

Second, ground-water levels were measured in a large number of wells (between 341 and 390 wells) as part of the Treasure Valley Hydrologic Project between 1996 and 2001 (Petrich and Urban, 2004). Contours drawn from these water-level data (Figure 2 through Figure 4) are continuous – which reflect a hydraulically connected aquifer system. No spatial discontinuity – i.e., discontinuous contours, abrupt changes in hydraulic head, etc. – were observed in these water level data.

Third, the observed geochemical evolution in Treasure Valley wells is consistent with a hydraulically connected ground-water flow system. Geochemical analysis of water from a series of Treasure Valley wells was performed as part of the Treasure Valley

Hydrologic Project (Hutchings and Petrich, 2002). The analysis did not indicate hydraulic discontinuities in the Treasure Valley aquifer system.

Finally, numerical modeling of the Treasure Valley aquifer system (Petrich, 2004a; Petrich, 2004b) was based on, and results were consistent with, a hydraulically connected aquifer system. Hydraulic discontinuities between the water right point of diversion and the rental point of diversion would have been apparent in the rigorous parameter estimation (calibration) process.

Your letter notes that ground water in the vicinity of the water right point of diversion flows toward the Snake River and that ground water near the rental point of diversion flows toward the Boise River. While this is true for shallow aquifer zones, contours for deeper aquifer zones (e.g., Figure 3 and Figure 4) show ground water flow in the vicinity of both points of diversion in a more westerly direction – ultimately toward the Snake River.

In summary, your letter requested evidence of hydraulic connection between the water right and rental points of diversion. Evidence for hydraulic connection between these points of diversion is compelling: hydraulic connection is indicated by common aquifer materials, continuous ground water flow contours, consistent geochemical evolution, and numerical modeling results. Both points are in a common administrative basin (Basin 63). The lease/rental will not injure water users diverting from the Snake River or lower Boise River. The lease/rental would not affect Snake River water levels at Weiser, which is the closest, most relevant minimum flow point in the Snake River.

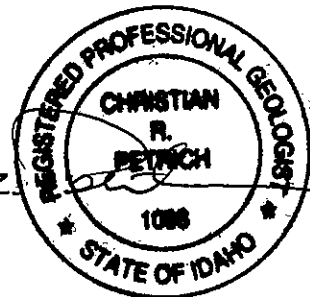
Please call me if you have any questions or if you would like to discuss this letter. In advance, thank you for re-considering the attached applications.

Sincerely,



Christian R. Petrich, Ph.D., P.E., P.G.
Principal Engineer/Hydrologist

cc: Mike and Cindy Cohen



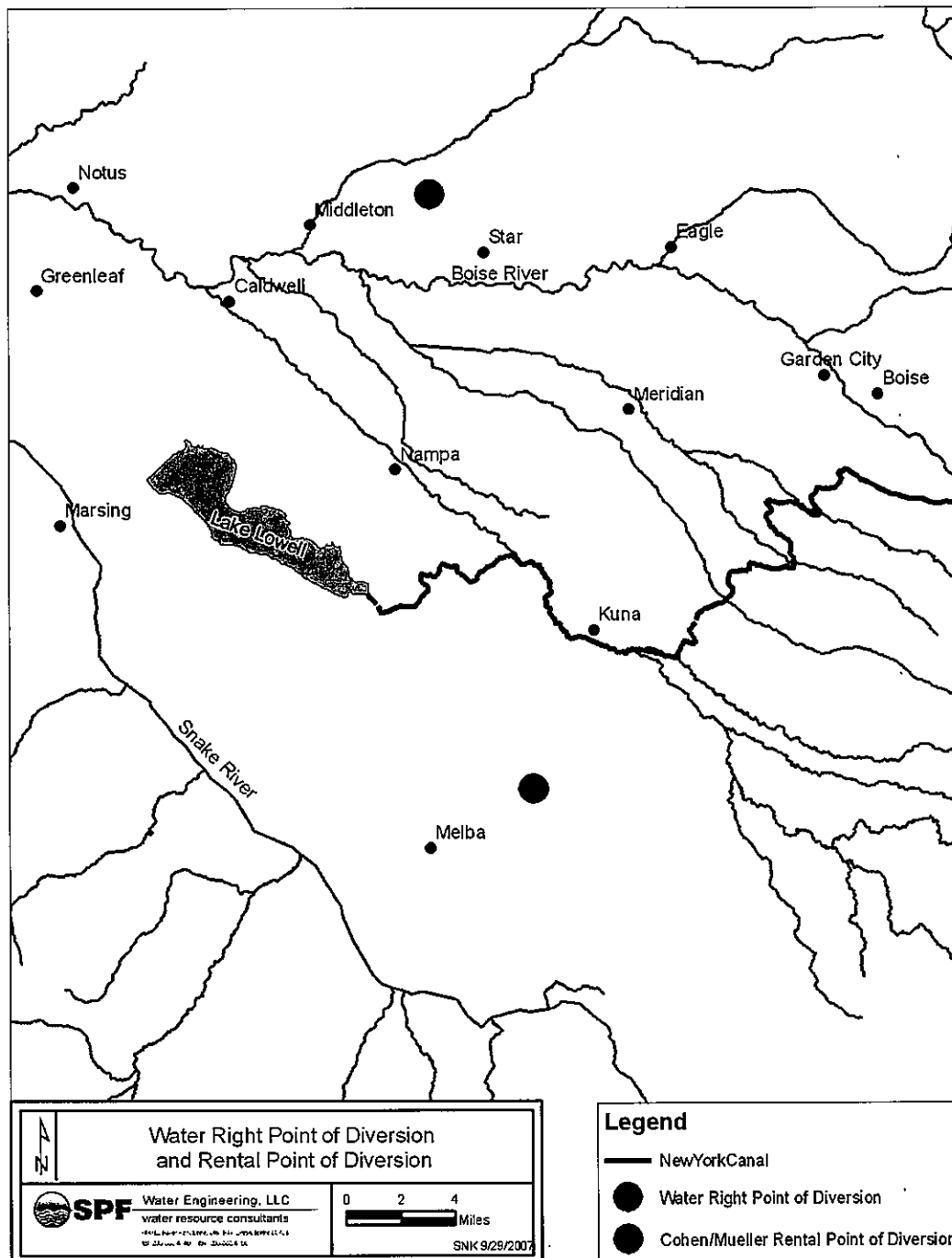


Figure 1: Water right point of diversion and rental point of diversion.

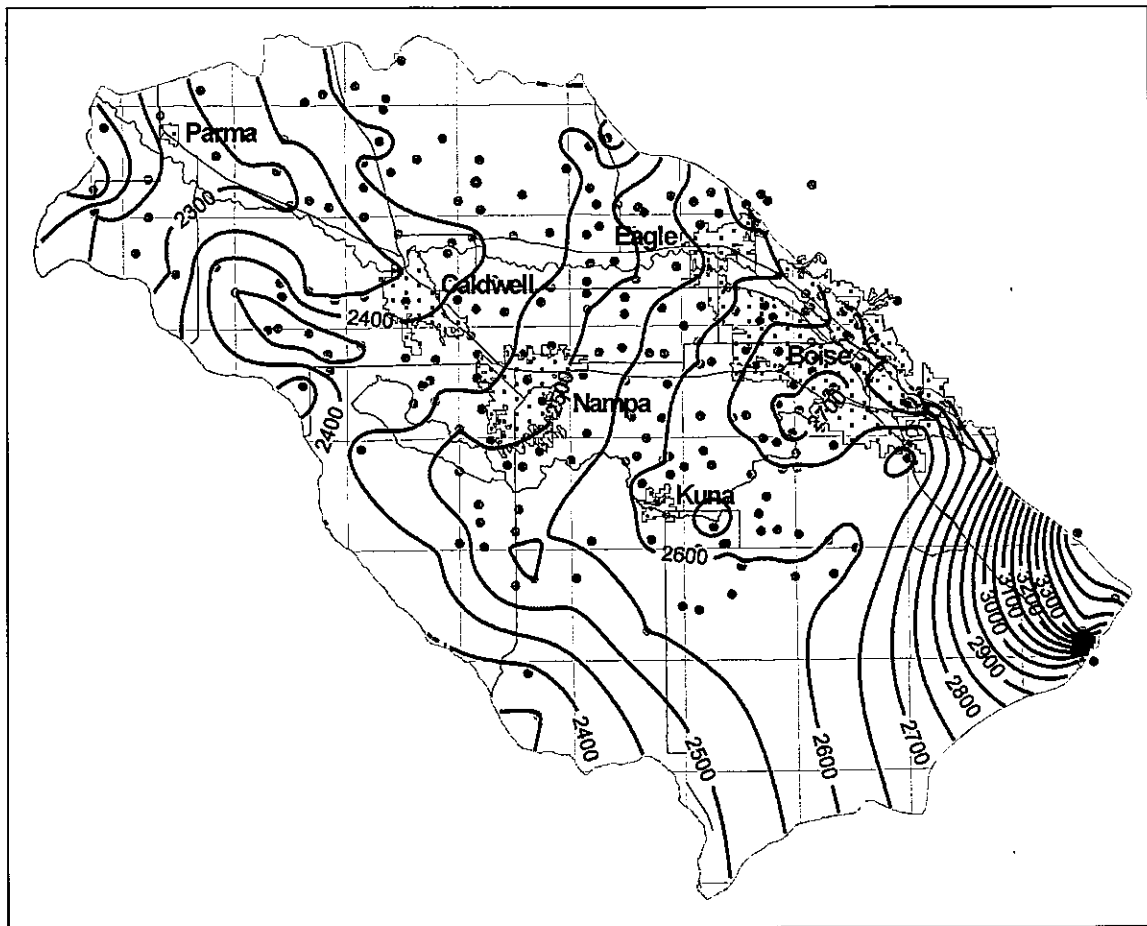


Figure 2: Potentiometric surface, spring 1996, shallow zone (49 wells).

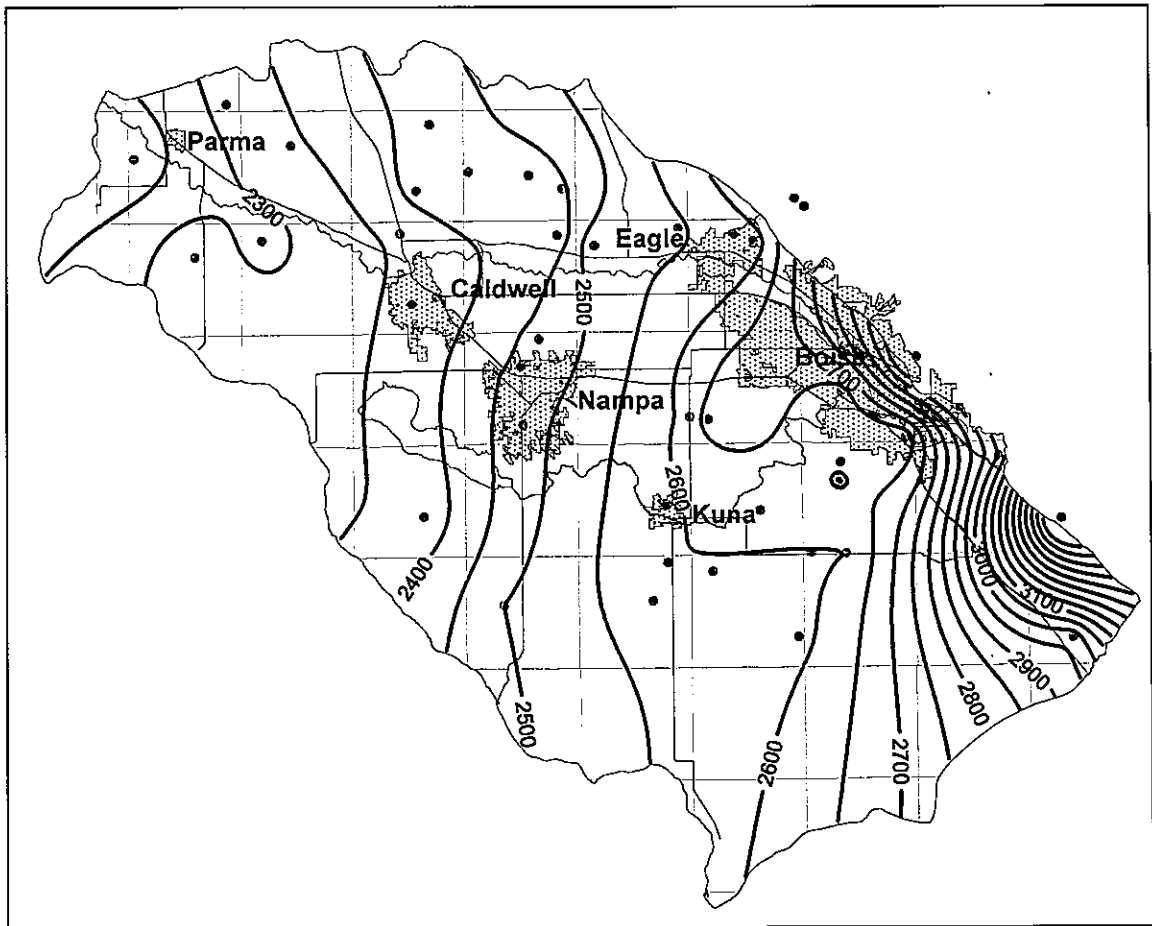


Figure 3: Potentiometric surface, spring 1996, intermediate zone (49 wells).

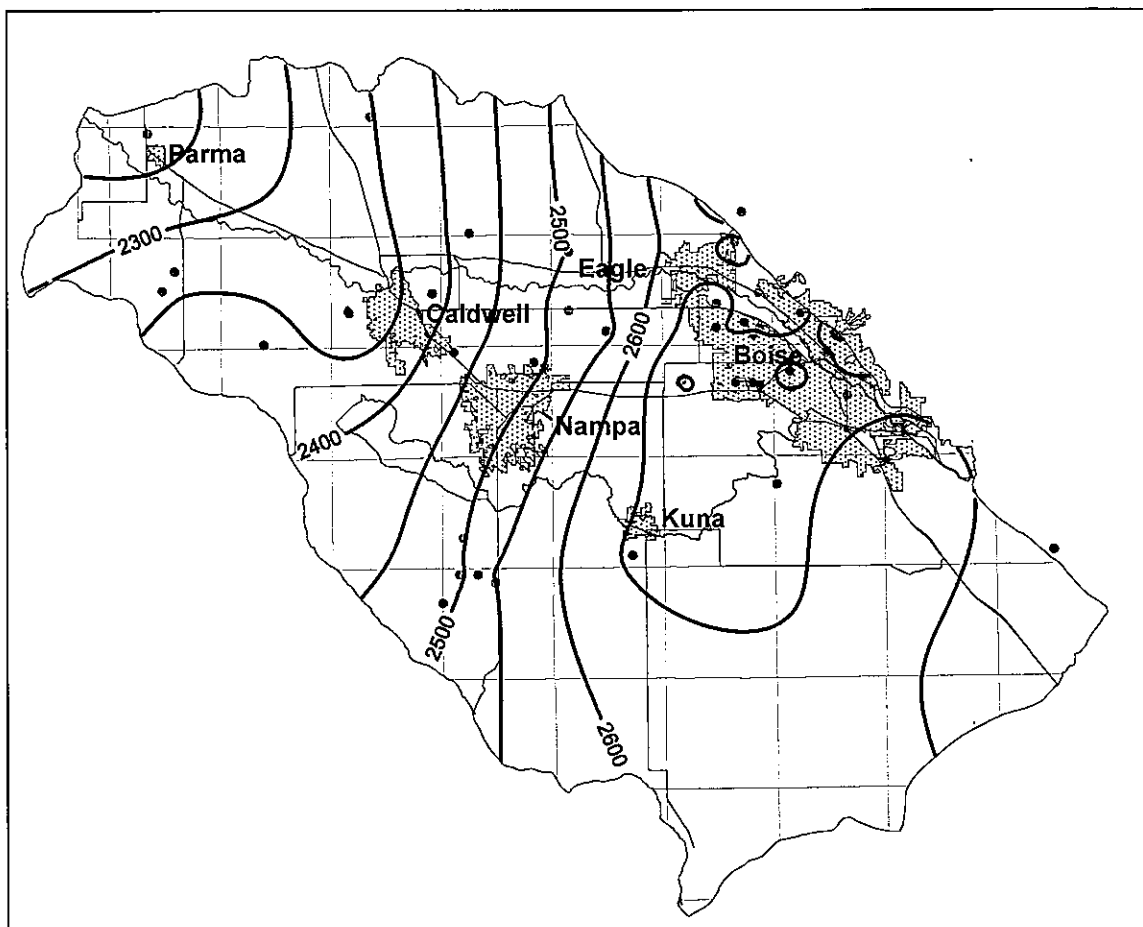


Figure 4: Potentiometric surface, spring 1996, deep zone (45 wells).

Document Info:

Filename: S:\Projects\A thru D Projects\C Projects\Cohen, Michael_423\0010_water_right_transfer\Correspondence\Ltr to IDWR re reconsideration (CP).doc
SPF file number: 423.0010

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RECEIVED
MAY 4 1965

WELL LOG AND REPORT TO THE
STATE RECLAMATION ENGINEER OF IDAHO

Department of Reclamation

36372

SUBMIT WITHIN 30 DAYS AFTER COMPLETION OF WELL: SEE IDAHO STATUTES 42-238

Permit No. 28448 Well No. _____ County ADAOwner JACK SMELTZER Schmalz

Address _____

Driller BILL LUKSARTAddress Box 234 BoiseWell location SE 1/4 NE 1/4 Sec. 21, T. 1 N, R. 1 E/WSize of drilled hole 16" x 12"Total depth of well 743'Give depth to standing water from the ground 282 Water temp. _____ °Fahr.Test delivery was 1460 g.p.m. or _____ c.f.s. Drawdown was 33 feet. Pump? ✓ Bail? _____Size of pump and motor used to make test 380' 8" COL - 10" SOWLSLength of time of test 8 hours _____ minutes.

If flowing well, give flow _____ c.f.s. or _____ g.p.m. and of shut off pressure _____

If flowing well, described control works _____ (TYPE AND SIZE OF VALVE, ETC.)

Water will be used for irrigation Weight of casing per lineal foot 45Thickness of casing 250 Casing material STEEL
(STEEL, CONCRETE, WOOD, ETC.)Diameter, length and location of casing 12 - 667'
(CASING 12" IN DIAMETER OR LESS, GIVE INSIDE DIAMETER;
CASING OVER 12" IN DIAMETER, GIVE OUTSIDE DIAMETER)

CASING RECORD

Diam. Casing	From Feet	To Feet	Length	Remarks—seals, grouting, etc.
16	0	5	5	16"
12	0	667'	667'	12" SEAL IN CLAY

Number and size of perforations 248' 1/4" x 2" located 586' feet to 448' feet from groundDate of commencement of well _____ Date of completion of well April 16, 1965

WELL LOG

From Feet	To Feet	Type of Material	Water-bearing Formation Ans. Yes or No	Casing Perforated Ans. Yes or No
0'				
0'	5'	Soil	No	No
5	135	Lava	No	No
135	144	Red rindera	No	No
144	258	Lava	No	No
258	264	Broken Lava - Cinder	No	No
264	286	Lava	No	No
286	291	Sandy Clay	No	No
291	308	Lava	No	No
308	314	Sandy Clay	No	No
314	388	Lava	No	No
388	405	Sandy Clay	No	No
405	441	Gravel	Yes	Yes
441	443	Sandy Clay + Panicles	Yes	Yes
443	565	Sand	Yes	No
565	590	Sandy Grey Clay	Yes	No
590	643	Muddy Sand	Yes	No
643	650	Grey Clay	No	No

If more space is required use Sheet No. 2

WELL DRILLER'S STATEMENT

This well was drilled under my supervision and the above information is complete, true and correct to the best of my knowledge and belief.

Signed Billie M. Ruckert

By _____

Dated May 1, 1965

License No. 122

Well Driller's Helper _____

