

RECEIVED

OCT 19 2018

10/05/2018

IDWR / NORTH

NOTICE OF ERROR
REPLY

Please type or print clearly, fill out this form completely and mail.

Return this reply form to IDWR by the deadline date printed below if you want IDWR to change your recommendation or you want to let IDWR know that you agree with its recommendation.

YOUR DEADLINE FOR RETURNING A NOTICE OF ERROR REPLY IS: November 16, 2018

Water right number: 95-9356

ASPEN CREEK WATER ASSN INC
5801 W QUAKING ASPEN DR
COEUR D ALENE ID 83814
Telephone Number: 3605813260

1. Describe the portion of the proposed recommendation with which you disagree (e.g. priority date, period of use, source): Quantity 0.030 CFS.

2. Describe the changes you wish to make in the proposed recommendation: The ACWA wishes to have the diversion rate on Water Right 95-9356 corrected to .11 CFS.

3. Give a brief explanation as to why you disagree with these portions: The field examiner was given erroneous information for the 8/22/2008 Beneficial Use Report. A developed diversion rate of .03 CFS for ACWA #4 was established. A well pump test conducted on 12/29/2003 established a diversion rate of 0.11 CFS. A well pump test for ACWA #4 was conducted on 3/9/2016 to verify the production of 0.11 CFS. Both tests were evaluated by James S De Smet of Quantum Engineering. I attached 4/4/2016 letter to Morgan Case from James De Smet regarding this matter.

 I AGREE with this proposed recommendation: no changes need to be made.

DATE: 10/19/2018

SIGNATURE: Bill Schneider

Please print your name: Bill Schneider

IDWR Regional Office, 7600 N MINERAL DR STE 100, COEUR D ALENE, ID 83815-7763, (208) 762-2800

QUANTUM Engineering

and Geologic Consulting

April 4, 2016

Morgan Case
Idaho Department of Water Resources
7600 N Mineral Drive
Coeur d'Alene, ID 83815

Re: Pump Test of Aspen Creek Water Association Well#4
Correspondence #N307.01

Dear Mr. Case:

Background

Quantum Engineering was retained to evaluate pump test data for Aspen Creek Water Association ACWA#4 (commonly known as Newell#4). This well was completed on June 13, 2003. This well was pump tested for 24 hours starting on December 29, 2003. The well produced 46-50 gpm depending on measurement method (flow meter or bucket). The well pumps to a storage reservoir and booster pumps deliver water to the distribution system. Record drawings for the well and associated water system were approved by the Idaho Department of Environmental Quality (IDEQ) on June 23, 2004.

The Idaho Department of Water Resources (IDWR) field examiner for water right 95-9356 for ACWA was given erroneous information that the well was equipped with a 1.5 hp Gould pump (33GS15). Given the field conditions, a developed diversion rate of 0.03 cfs (13.5 gpm) was established for ACWA#4 by the examiner.

The correct pump in ACWA#4 is a Gould 5 hp (Model 55GS50). This pump was in place at the time of the field examination, but the examiner was led to believe it was the above-mentioned 1.5 hp pump.

Given the above discrepancies, verification of the production from ACWA#4 was required by IDWR. This letter report summarizes data collected during the pump test conducted on March 9, 2016.

Pump Test-ACWA#4

This pump test was conducted using the existing well pump with water being discharged to waste during the test. The pump test was initiated on March 9, 2016 at 1:00 PM. The initial static water level in the well was 236.0 feet below top of casing (btc). The well was pumped at 50 gpm until 1:00 PM on March 10, 2016. Total maximum drawdown in this well was 3.9-4.0 feet. Drawdown of 3.9-4.0 feet was obtained within 20-seconds of startup.

Recover data was collected from the well after the end of the pump test. The well recovered to a level of 236.9-feet bgs in approximately 1-hour and then remained at 236.8-236.9 for the remaining 4-hours of recovery readings. The difference between the initial static and the final static water level (0.9 ft.±) is attributed to barometric pressure changes during the pump test period.

Water quality testing was not included in the scope of this pump test. Water quality data was collected in 2003 and the water system was compliant with Idaho Department of Environmental Quality (IDEQ) requirements and was not necessary during this pump test.

Evaluation and Analysis

The well is clearly capable of producing the intended design capacity of 50-gpm that was established in 2003. The difference in the two pump tests lies with the initial and final static water levels for each. The 2003 pump test had an initial static level of 190 ft., immediately drew down to 240 ft. and then stabilized for the remaining 24-hours. The 2016 pump test had an initial static of 236 ft., immediately drew down to 240 ft. and then stabilized there for the remaining 24-hours of the test.

ACWA#4 was drilled to 390 feet and obtained water from a clay/sand zone at 260-278 ft. and a broken basalt zone at 380-385 ft. The well was completed by perforating a zone from 370-390 ft. It is likely that water from the upper zone is traveling down the annular space of the well to the lower zone, thereby increasing the static over time to reflect the static level in the upper zone. Productivity or communication from the upper zone is very limited, explaining why the static quickly drops to the 240 ft. level in the 2003 pump test.

The 2016 pump test started with a static water level of 236 ft. with a final stabilized drawdown to 240 ft. It is speculated that one or both of the following are at play in this scenario.

- Silt and iron sediment have sealed the annular flow from the upper aquifer to the lower aquifer since 2003, thereby reducing the positive static influence.
- The upper aquifer has been mined since 2003, making the relative contribution to ACWA#4 minimal.

Given the information at hand it is not possible to determine which of the above contributing factors may prevail in this scenario. Development of a monitoring well in the upper zone only, would be necessary to properly determine productivity and static water level of the upper aquifer.

Summary

Although the pump test has raised some questions regarding mining in the vicinity, ACWA#4 production clearly meets the existing and future design requirements the Aspen Creek subdivision. Monitoring wells constructed in the upper basalt aquifers in the vicinity would be necessary for trend monitoring of static water levels to determine if groundwater mining is occurring.

ACWA is capable of producing of 50 gpm with only 3.9-4.0 feet of drawdown. Maximum drawdown was achieved in approximately 20-seconds of startup and recovery was complete in 1-hour (neglecting possible barometric changes). These factors all suggest a productive well with no apparent negative boundaries that would adversely impact the well. There are likewise no indications that ACWA#4 cannot continue to produce the design capacity of 50 gpm in the future.

Please let me know if you have any further questions for need any additional information. The well log and data summary are included for your review.

Sincerely,



James S. De Smet, PE, PG

Cc: Rich Agueros, United Crown Drilling
Donna Findlay,

Form 238-7
7/98
Starships Consulting and
Management Services

IDAHO DEPARTMENT OF WATER RESOURCES

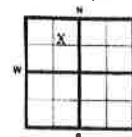
WELL DRILLER'S REPORT

Office Use Only			
Inspected by			
Twp	Rgn	Sec	
Lat	1/4	1/4	1/4
Long			

1. WELL TAG NO. D0028488 JUL 09 2003
Drilling Permit No: 803125 IDWR/North
Other IDWR No: 95-9180

2. OWNER Well Number:
Name MIKE NEWELL / ASPEN CRK LLC W 7 583
Address 1100 E. LAKESHORE 102B
City COEUR D'ALENE State ID Zip 83814

3. LOCATION OF WELL by legal description
sketch map location must agree with written location



Twp. 49 North or South
Rge. 4 East or West
Sec. 4 NW 1/4 NE 1/4 NW 1/4

Gov't Lot County KOOTENAI

Lat: Long:

Address of Well Site OFF MICA &
City CDA

KIDD ISLAND RD.
LL Blk. Sub. Name ASPEN CRK

4. USE:
☒ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☐ Other

5. TYPE OF WORK check all that apply (Replacement, etc.)
☒ New Well ☐ Modify ☐ Abandonment ☐ Other

6. DRILL METHOD
☒ Air Rotary ☐ Cable ☐ Mud Rotary ☐ Other

7. SEALING PROCEDURES			
SEAL/FILTER PACK		AMOUNT	METHOD
Material	From To	Sacks or Pounds	
DRY GRANULE			
BENTONITE	0 45	36 BAGS	OVERBORE

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) 278
Was drive shoe seal tested? ☐ Y ☒ N How?

8. CASING/LINER:				
Diameter	From To	Gauge	Material	Casing Liner Welded Threaded
8	+2 278 322		STEEL	☒ ☐ ☒ ☐
6	-250 390 250		STEEL	☒ ☐ ☒ ☐

Length of Headpipe Length of Tailpipe

9. PERFORATIONS/SCREENS

☒ Perforations Method TORCH
☐ Screens Screen Type

From To	Slot Size	Number	Diameter	Material	Casing Liner
-370 390	1/8 X 6	48	6	STEEL	☒ ☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:
240 ft. below ground Artesian pressure lb.
Depth flow encountered 385 ft. Describe access port or control device:

11. WELL TESTS:

☐ Pump ☐ Bailor ☒ Air ☐ Flowing Artesian	Yield gal./min.	Drawdown	Pumping Level	Time
	50			1 HR

Water Temp COLD Bottom Hole Temp COLD
Water Quality test or comments: CLEAR
Depth first Water encountered 260

12. LITHOLOGIC LOG:(Describe repairs or abandonment)

Depth	From	To	Remarks: Lithology, Water Quality, Temperature	Water
14	0	5	Clay	☐ ☐
12	5	45	Basalt	☐ ☐
10	45	210	Basalt	☐ ☐
10	210	260	Brown Clay	☐ ☐
10	260	278	Clay w/ Brown Sand	☒ ☐
8	278	380	Basalt	☐ ☐
8	380	385	Fractured Basalt	☒ ☐
8	385	390	Basalt	☐ ☐

Completed Depth 390 (Measurable)
Date Started 6/5/03 Completed 6/13/03

13. DRILLER'S CERTIFICATION

I/We certify that all minimum well construction standards were
complied with at the time the rig was removed.

Firm Name H2O Well Service, Inc. Firm No. 448
Firm Official *Monica Smith* Date 6-16-03
and
Supervisor or Operator *Ed May* Date 6-16-03

DATA

5:30:00 PM	239.6	04:30:00	3.600	-0.72699873
5:45:00 PM	239.6	04:45:00	3.600	-0.70351763
6:00:00 PM	239.6	05:00:00	3.600	-0.68124124
6:15:00 PM	239.6	05:15:00	3.600	-0.66005194
6:30:00 PM	239.7	05:30:00	3.700	-0.63984855
6:45:00 PM	239.7	05:45:00	3.700	-0.6205434

DATA

7:00:00 PM	239.3	06:00:00	3.300	-0.60205999
7:15:00 PM	239.3	06:15:00	3.300	-0.58433122
7:30:00 PM	239.3	06:30:00	3.300	-0.56729789
7:45:00 PM	239.3	06:45:00	3.300	-0.55090747
8:00:00 PM	239.5	07:00:00	3.500	-0.5351132
8:15:00 PM	239.5	07:15:00	3.500	-0.51987324
8:30:00 PM	239.5	07:30:00	3.500	-0.50514998
8:45:00 PM	239.5	07:45:00	0.000	-0.49090954
9:00:00 PM	239.5	08:00:00	0.000	-0.47712125
9:15:00 PM	239.5	08:15:00	0.000	-0.46375729
9:30:00 PM	239.5	08:30:00	0.000	-0.45079232
9:45:00 PM	239.5	08:45:00	0.000	-0.43820319
10:00:00 PM	239.5	09:00:00	0.000	-0.42596873
10:15:00 PM	239.5	09:15:00	0.000	-0.41406951
10:30:00 PM	239.5	09:30:00	0.000	-0.40248764
10:45:00 PM	239.5	09:45:00	0.000	-0.39120663
11:00:00 PM	239.5	10:00:00	0.000	-0.38021124
11:15:00 PM	239.5	10:15:00	0.000	-0.36948738
11:30:00 PM	239.5	10:30:00	0.000	-0.35902194
11:45:00 PM	239.5	10:45:00	0.000	-0.34880278
12:00:00 PM	239.5	23:00:00	0.000	-0.01848341
12:15:00 PM	239.5	23:15:00	0.000	-0.01378828
12:30:00 PM	239.5	23:30:00	0.000	-0.00914338
12:45:00 PM	239.5	23:45:00	0.000	-0.00454763
1:00:00 AM	239.5	12:00:00	0.000	-0.30103
1:15:00 AM	239.5	12:15:00	0.000	-0.29207515
1:30:00 AM	239.5	12:30:00	0.000	-0.28330123
1:45:00 AM	239.5	12:45:00	0.000	-0.27470106
2:00:00 AM	239.5	13:00:00	0.000	-0.26626789
2:15:00 AM	239.5	13:15:00	0.000	-0.25799536
2:30:00 AM	239.5	13:30:00	0.000	-0.24987747
2:45:00 AM	239.5	13:45:00	0.000	-0.24190854
3:00:00 AM	239.5	14:00:00	0.000	-0.23408321
3:15:00 AM	239.5	14:15:00	0.000	-0.22639638
3:30:00 AM	239.5	14:30:00	0.000	-0.21884324
3:45:00 AM	239.5	14:45:00	0.000	-0.21141922
4:00:00 AM	239	15:00:00	0.000	-0.20411998

DATA

5:00:00 AM	239	16:00:00	0.000	-0.17609126
6:00:00 AM	239.8	17:00:00	0.000	-0.14976232
7:00:00 AM	239.8	18:00:00	0.000	-0.12493874
8:00:00 AM	239.8	19:00:00	0.000	-0.10145764
9:00:00 AM	239.8	20:00:00	0.000	-0.07918125
10:00:00 AM	240	21:00:00	0.000	-0.05799195
11:00:00 AM	239.9	22:00:00	0.000	-0.03778856
12:00:00 AM	239.8	11:00:00	0.000	-0.33881856
1:00:00 PM	239.9	24:00:00	0.000	0

Recovery Data

1:00:00 PM	239.9
1:30:00 PM	237.2
2:00:00 PM	236.9
2:30:00 PM	239.6
3:30:00 PM	236.9
5:00:00 PM	236.8

DATE	12/29/03
WELL CONSTRUCTION	Steel
WELL DEPTH	390
STATIC WATER LEVEL	190
GPM DRILLER TESTED	50
TEST PUMP USED	55gs500
PUMP SETTING	360' @ pump suction
PIPE SIZE 2" WIRE SZ	4"
LIQUID LEVEL CONTROLS	

CUSTOMER NAME	Mike Newell/Aspen Creek
ADDRESS	
PHONE	
JOB LOCATION	Mica Meadows Ranch
PITLESS	PUMP HOUSE
CONDITION	
PRESSURE TANK SIZE	
ELECTRICAL CONTROLS	

TIME	FLOW RATE		PRESSURE	WATER QUALITY	STATIC
	Flow Meter	Bucket			
23:00	46	50+	0	Clear	240.4
23:15	46	50+	0	Clear	240.4
23:30	46	50+	0	Clear	240.4
23:45	46	50+	0	Clear	240.4
24:00	46	50+	0	Clear	240.4
24:15	46	50+	0	Clear	240.4
24:30	46	50+	0	Clear	240.4
24:45	46	50+	0	Clear	240.4
1:00	46	50+	0	Clear	240.4
1:15	46	50+	0	Clear	240.4
1:30	46	50+	0	Clear	240.4
1:45	46	50+	0	Clear	240.4
2:00	46	50+	0	Clear	240.4
2:15	46	50+	0	Clear	240.4
2:30	46	50+	0	Clear	240.4
2:45	46	50+	0	Clear	240.4
3:00	46	50+	0	Clear	240.4
3:15	46	50+	0	Clear	240.4
3:30	46	50+	0	Clear	240.4
3:45	46	50+	0	Clear	240.4
4:00	46	50+	0	Clear	240.4
4:15	46	50+	0	Clear	240.4
4:30	46	50+	0	Clear	240.4
4:45	46	50+	0	Clear	240.4
5:00	46	50+	0	Clear	240.4
5:15	46	50+	0	Clear	240.4
5:30	46	50+	0	Clear	240.4
5:45	46	50+	0	Clear	240.4
6:00	46	50+	0	Clear	240.4
6:15	46	50+	0	Clear	240.4
6:30	46	50+	0	Clear	240.4
END TEST					
6:30	0	0	0	0	220
6:40	0	0	0	0	198
6:50	0	0	0	0	195
7:00	0	0	0	0	190
END					

WELL TEST SUMMARY

Samples where taken at 6:20

C:\My Documents\Cust. Quotes drill\Newell-Well Test03.xls

DATE	12/29/03
WELL CONSTRUCTION	Steel
WELL DEPTH	390
STATIC WATER LEVEL	190
GPM DRILLER TESTED	50
TEST PUMP USED	55gals500
PUMP SETTING	360' @ pump suction
PIPE SIZE 2" WIRE SZ	4"
LIQUID LEVEL CONTROLS	

CUSTOMER NAME	Mike Newell/Aspen Creek
ADDRESS	
PHONE	
JOB LOCATION	Mica Meadows Ranch
PITLESS	PUMP HOUSE
CONDITION	
PRESSURE TANK SIZE	
ELECTRICAL CONTROLS	

TIME	FLOW RATE		PRESSURE	WATER QUALITY	STATIC
	Flow Meter	Bucket			
13:45	46	50+	0	Clear	240.4
14:00	46	50+	0	Clear	240.4
14:15	46	50+	0	Clear	240.4
14:30	46	50+	0	Clear	240.4
14:45	46	50+	0	Clear	240.4
15:00	46	60+	0	Clear	240.4
15:15	46	50+	0	Clear	240.4
15:30	46	50+	0	Clear	240.4
15:45	46	50+	0	Clear	240.4
16:00	46	50+	0	Clear	240.4
16:15	46	50+	0	Clear	240.4
16:30	46	50+	0	Clear	240.4
16:45	46	50+	0	Clear	240.4
17:00	46	50+	0	Clear	240.4
17:15	46	50+	0	Clear	240.4
17:30	46	50+	0	Clear	240.4
17:45	46	50+	0	Clear	240.4
18:00	46	50+	0 Rick on site	Clear	240.4
18:15	46	50+	0	Clear	240.4
18:30	46	50+	0	Clear	240.4
18:45	46	50+	0	Clear	240.4
19:00	46	50+	0	Clear	240.4
19:15	46	50+	0	Clear	240.4
19:30	46	50+	0	Clear	240.4
19:45	46	50+	0	Clear	240.4
20:00	46	50+	0	Clear	240.4
20:15	46	50+	0	Clear	240.4
20:30	46	50+	0	Clear	240.4
20:45	46	50+	0	Clear	240.4
21:00	46	50+	0	Clear	240.4
21:15	46	50+	0	Clear	240.4
21:30	46	50+	0	Clear	240.4
21:45	46	50+	0	Clear	240.4
22:00	46	50+	0	Clear	240.4
22:15	46	50+	0	Clear	240.4
22:30	46	50+	0	Clear	240.4
22:45	46	50+	0	Clear	240.4

WELL TEST SUMMARY

C:\My Documents\Cust. Quotes drill\Newell-Well Test02.xls

DATE	12/29/03
WELL CONSTRUCTION	Steel
WELL DEPTH	390
STATIC WATER LEVEL	190
GPM DRILLER TESTED	50
TEST PUMP USED	55gs500
PUMP SETTING	360' @ pump suction
PIPE SIZE 2" WIRE SZ	4"
LIQUID LEVEL CONTROLS	

CUSTOMER NAME	Mike Newell/Aspen Creek
ADDRESS	
PHONE	
JOB LOCATION	Mica Meadows Ranch
PITLESS	PUMP HOUSE
CONDITION	
PRESSURE TANK SIZE	
ELECTRICAL CONTROLS	

TIME	FLOW RATE		PRESSURE	WATER QUALITY	STATIC
	Flow Meter	Bucket			
6:00	50	50+	0	Dark Gray	190
6:10	47	50+	0	Clear	237.6
6:20	46	50+	0	Clear	240
6:30	46	50+	0	Clear	240.2
6:40	46	50+	0	Clear	240.3
6:50	46	50+	0	Clear	240.4
7:00	48	50+	0	Clear	240.4
7:10	46	50+	0	Clear	240.4
7:20	46	50+	0	Clear	240.4
7:30	46	50+	0	Clear	240.4
7:40	46	50+	0	Clear	240.4
7:50	46	50+	0	Clear	240.4
8:00	46	50+	0	Clear	240.4
8:10	46	50+	0	Clear	240.4
8:20	46	50+	0	Clear	240.4
8:30	46	50+	0	Clear	240.4
8:40	46	50+	0	Clear	240.4
8:50	46	50+	0	Clear	240.4
9:00	46	50+	0	Clear	240.4
9:15	46	50+	0	Clear	240.4
9:30	46	50+	0	Clear	240.4
9:45	46	50+	0	Clear	240.4
10:00	46	50+	0	Clear	240.4
10:15	46	50+	0	Clear	240.4
10:30	46	50+	0	Clear	240.4
10:45	46	50+	0	Clear	240.4
11:00	46	50+	0	Clear	240.4
11:15	46	50+	0	Clear	240.4
11:30	46	50+	0	Clear	240.4
11:45	46	50+	0	Clear	240.4
12:00	46	50+	0	Clear	240.4
12:15	46	50+	0	Clear	240.4
12:30	46	50+	0 Russel Helgeson, Eng.	Clear	240.4
12:45	46	50+	0 Russel Helgeson Eng.	on site - clear	240.4
13:00	46	50+	0	left site - clear	240.4
13:14	46	50+	0	Clear	240.4
13:40	46	50+	0	Clear	240.4

WELL TEST SUMMARY

C:\My Documents\Cust. Quotes drill\Newell-Well Test01.xls