

# **SHELL CREEK**

**Dunshee  
Frieze  
Kershner  
McDonald  
Porter  
Shell Canal  
Whaley**

**DESCRIPTION AND OPERATION MEMORANDUM**

DUNSHEE DITCH

USGS ID 44108 E1 USGS NAME GREYBULL NORTH

**DIVERSION DESCRIPTION**

One 3' sliding steel gate in timber headwall.

**DIVERSION LOCATION**

Source: Shell Creek  
N 51° 25' W, 1638' from corner no. 2 of Lot 40, Township 52N, Range 93W, R.S., and is in the eastern part of Lot 40.

**CONVEYANCE DESCRIPTION**

Open dirt ditch 3 1/2 miles long with one major lateral crossing Shell Creek in siphon to serve lands on the north side of the creek formerly under Linn ditch, and 3 major pumps. Ditch serves approximately 800 acres and 7 users. Ditch capacity is approximately 20 c.f.s.

**WYOMING WATER RIGHTS**

| Priority Date | Permit Number | Permit Use | Acres  | Flow(cfs) | (af) | Cumulative Flow(cfs) | Comments |
|---------------|---------------|------------|--------|-----------|------|----------------------|----------|
| 4/15/1888     | Terr.         | Irr.       | 597.00 | 8.53      |      | 8.53                 |          |
| 2/13/1902     | 3721          | Irr.       | 269.00 | 3.84      |      | 12.37                |          |
| 4/18/1904     | 1275E         | Irr.       | 25.00  | 0.35      |      | 12.72                |          |
| 3/10/1917     | 3777E         | Irr.       | 30.00  | 0.43      |      | 13.15                |          |
| 4/02/1917     | 3786E         | Irr.,Stk.  | 21.70  | 0.31      |      | 13.46                |          |
| 6/19/1956     | 5859E         | Irr.,Stk.  | 47.11  | 0.67      |      | 14.13                |          |

**STORAGE RIGHTS**

Adelaide Reservoir

**ESTIMATED CANAL LOSSES**

Varies with time of year; estimated 25% at peak.

**IRRIGATION PRACTICES**

Conventional flood irrigation practices enhanced by the use of pumps, irrigation pipe and sprinklers.

**CROP TYPES / CONSUMPTIVE USE**

Alfalfa hay, small grains, pasture, row crops, lawns and gardens.

**RETURN FLOWS**

Moderate; most to Shell Creek, small amount to Big Horn River.

**OTHER OPERATIONAL INFORMATION**

**CONTACT INFORMATION**

Larry Probst  
Greybull, WY  
(307) 765-2023

**PHOTO LOG**

Information collected from files available at Division 3 Office of the State Engineer Office in Riverton, WY, and from the ditch contact person when available.

**DIVERSION RECORD**

| Year | Measured Data  |
|------|--|
| 1983 | 4/17, Off; 5/5, 1 cfs; 5/15, 1 cfs; 5/30, 1 cfs; 6/13, 8 cfs; 6/21, 8 cfs; 6/27, 8 cfs; 7/4, 8 cfs; 7/10, 8 cfs; 7/13, 8 cfs; 7/28, 8 cfs; 8/6, 5 cfs; 8/15, 5 cfs; 9/8, 5 cfs   |
| 1984 | 5/5, 4 cfs; 5/9, 4 cfs; 5/10, 4 cfs; 5/11, 4 cfs; 5/20, 4 cfs; 5/27, 4 cfs; 6/7, 4 cfs; 6/10, 8 cfs; 6/14, 8 cfs; 6/21, 8 cfs; 6/26, 8 cfs; 7/2, 8 cfs; 7/9, 8 cfs; 7/15, 8 cfs; 7/18, 8 cfs; 7/29, 8 cfs; 8/5, 8 cfs; 8/20, 8 cfs; 8/27, 8 cfs; 9/2, 8 cfs  |
| 1985 | 4/17, Off; 5/1, 6.5 cfs; 5/4, 8 cfs; 5/8, 8.01 cfs; 5/11, 8 cfs; 5/14, 8 cfs; 5/17, 10 cfs; 5/20, 10 cfs; 5/22, 10 cfs; 5/26, 10 cfs; 6/2, 10 cfs; 6/6, 10 cfs; 6/10, 12 cfs; 6/14, 10 cfs; 6/18, 7 cfs; 6/21, 7 cfs; 6/28, 7 cfs; 6/29, 7 cfs; 7/3, 8 cfs; 7/7, 8 cfs; 7/10, 8 cfs; 7/14, 8 cfs; 7/15, 10 cfs; 7/21, 10 cfs; 7/24, 10 cfs; 7/28, 10 cfs; 7/31, 10 cfs; 8/4, 12 cfs; 8/7, 12 cfs; 8/11, 12 cfs; 8/14, 12 cfs; 8/18, 12 cfs; 8/22, 12 cfs; 8/26, 12 cfs; 8/30, 12 cfs   |
| 1986 | 5/1, 8 cfs; 5/12, 8 cfs; 5/15, 8 cfs; 5/18, 8 cfs; 5/22, Off; 5/29, Off; 6/1, Off; 6/6, Off; 6/11, Off; 6/15, Off; 6/22, 9 cfs; 6/30, 9 cfs; 7/5, 9 cfs; 7/12, 9 cfs; 7/19, 9 cfs; 7/24, 9 cfs; 7/27, 9 cfs; 8/2, 8 cfs; 8/7, 8 cfs; 8/10, 8 cfs; 8/17, 8 cfs; 8/24, 8 cfs; 9/1, 8 cfs; 9/7, 8 cfs   |
| 1995 | 4/13, 8 cfs  |
| 1996 | 5/3, 6 cfs; 5/17, 15 cfs   |
| 1997 |  |
| 1998 | 5/1, 3 cfs; 5/4, 6 cfs; 5/8, 5 cfs; 5/12, 10 cfs; 5/15, 9 cfs; 5/19, 9 cfs; 5/22, 4 cfs; 5/26, 10 cfs; 6/1, 10.5 cfs; 6/5, 8 cfs; 6/8, 15 cfs; 6/11, 14 cfs; 6/15, 14 cfs; 6/18, 13 cfs; 6/25, 14 cfs; 6/29, 15 cfs; 7/2, 15 cfs; 7/6, 8 cfs; 7/9, 8 cfs; 7/14, 10 cfs; 7/16, 8 cfs; 7/20, 8 cfs; 7/23, 8 cfs; 7/27, 6 cfs; 7/30, 6 cfs; 8/4, 6 cfs; 8/7, 8 cfs; 8/10, 6 cfs; 8/13, 6 cfs; 8/18, 8 cfs; 8/21, 7 cfs; 8/31, 12 cfs; 9/4, 5 cfs; 9/8, 8 cfs; 9/11, 10 cfs; 9/14, 12 cfs; 9/17, 1 cfs; 9/21, 2 cfs; 9/25, 3 cfs; 9/28, 3 cfs; 10/2, 1 cfs; 10/5, 1.5 cfs; 10/8, 1 cfs; 10/12, 1 cfs |
| 1999 | 4/5, Trickle; 4/13, 1 cfs; 4/20, Stock; 4/26, Stock; 5/3, 1 cfs; 5/6, 1 cfs; 5/14, 3 cfs; 5/17, 5 cfs; 5/25, 6 cfs; 5/28, Off; 6/1, 3 cfs; 6/4, 4 cfs; 6/8, 8 cfs; 6/10, 6 cfs; 6/14, 6 cfs; 6/18, 5 cfs; 6/21, 3 cfs; 6/24, 6 cfs; 6/28, 8 cfs; 7/2, 8 cfs; 7/6, 8 cfs; 7/9, 8 cfs; 7/12, 7 cfs; 7/16, 8 cfs; 7/19, 7 cfs; 7/23, 8 cfs; 7/26, 6 cfs; 7/28, 6 cfs; 7/30, 8 cfs; 8/3, 8 cfs; 8/6, 8 cfs; 8/11, 7 cfs; 8/13, 8 cfs; 8/16, 8 cfs; 8/19, 7 cfs; 8/24, 8 cfs; 9/2, 8 cfs; 9/8, 6 cfs; 9/10, 6 cfs; 9/15, 6 cfs; 9/17, 4 cfs; 9/21, 1 cfs; 9/24, 2 cfs; 9/29, 1 cfs; 10/5, 1 cfs       |
| 2000 | 4/3, Off; 4/10, Off; 4/14, Off; 4/17, Off; 4/21, Off; 4/24, Off; 4/28, Off; 5/2, Off; 5/5, 5 cfs; 5/12, 3 cfs; 5/15, 3 cfs; 5/19, 5 cfs; 5/23, 5 cfs; 5/26, 6 cfs; 5/30, 7 cfs; 6/2, 7 cfs; 6/5, 10 cfs; 6/12, 6 cfs; 6/16, 5 cfs; 6/19, 5 cfs; 6/22, 6 cfs; 6/26, 4 cfs; 6/29, 2 cfs; 7/3, 5 cfs; 7/6, 8 cfs; 7/12, 6 cfs; 7/17, 6 cfs; 7/24, 9 cfs; 7/28, 9 cfs; 8/1, 8 cfs; 8/5, 7 cfs; 8/8, 9 cfs; 8/15, 6 cfs; 8/17, 5 cfs; 8/21, 7 cfs; 8/24, 7 cfs; 8/28, 7 cfs; 8/31, 7 cfs; 9/5, 6 cfs; 9/8, 6 cfs; 9/11, 7 cfs; 9/14, 2 cfs; 9/18, 2 cfs; 9/21, 3 cfs; 9/27, 2 cfs                     |
| 2001 | 4/3, Off; 4/6, Off; 4/12, Off; 4/17, Off; 4/20, Off; 4/24, Off; 4/27, Off; 4/30, Off; 5/4, Off; 5/8, Off; 5/11, 4 cfs; 5/15, 8 cfs; 5/18, 7 cfs; 5/21, 6 cfs; 5/24, 6 cfs; 5/29, 8 cfs; 6/1, 8 cfs; 6/6, 8 cfs; 6/11, 10 cfs; 6/18, 8 cfs; 6/22, 7 cfs; 6/26, 3 cfs; 6/29, 2 cfs; 7/3, 1 cfs; 7/6, 2 cfs; 7/10, 8 cfs; 7/13, 7 cfs; 7/15, 6 cfs; 7/17, 6 cfs; 7/20, 5 cfs; 7/23, 4 cfs; 7/26, 6 cfs; 7/31, 5 cfs; 8/6, 8 cfs; 8/10, 8 cfs; 8/17, 5 cfs; 8/21, 5 cfs; 8/27, 3 cfs; 8/30, 3 cfs; 9/4, 3 cfs; 9/10, 8 cfs; 9/14, 5 cfs; 9/17, 4 cfs; 9/20, 5 cfs                                    |

Notes:

- 1 For days in which two measurements were taken, one of the measurements was assigned to the day immediately before or after the actual measurement day.
- 2 Data from SEO Hydrographers Reports for years when spot measurements taken.

**DESCRIPTION AND OPERATION MEMORANDUM**

FRIEZE DITCH

USGS ID 44107 E7 USGS NAME SHELL

**DIVERSION DESCRIPTION**

One 2' screwtype sliding metal gate in concrete headwall.

**DIVERSION LOCATION**

Source: Shell Creek  
S 57° 15' E, 2345' from SW corner of the NW 1/4 of Section 27, Township 53N, Range 91W, and is in the NE 1/4 SW 1/4 of Section 27.

**CONVEYANCE DESCRIPTION**

Open dirt ditch 4 1/4 miles long serving approximately 695 acres and 16 users. Ditch capacity is approximately 16 c.f.s.

**WYOMING WATER RIGHTS**

| Priority Date | Permit Number | Permit Use | Acres  | Flow(cfs) | (af) | Cumulative Flow(cfs) | Comments |
|---------------|---------------|------------|--------|-----------|------|----------------------|----------|
| 3/01/1887     | Terr.         | Irr.       | 50.00  | 0.71      |      | 0.71                 |          |
| 12/17/1900    | 605E          | Irr.       | 611.30 | 8.59      |      | 9.30                 |          |
| 10/12/1908    | 1964E         | Irr.       | 18.00  | 0.26      |      | 9.56                 |          |

**STORAGE RIGHTS**

Shell Reservoir, Adelaide Reservoir

**ESTIMATED CANAL LOSSES**

Varies with time of year; estimated 25-30% at peak.

**IRRIGATION PRACTICES**

Conventional flood irrigation practices enhanced with irrigation pipe and sprinklers.

**CROP TYPES / CONSUMPTIVE USE**

Alfalfa hay, pasture, occasional small grains, occasional corn, lawns and gardens.

**RETURN FLOWS**

Some to Shell Creek, some to Beaver Creek.

**OTHER OPERATIONAL INFORMATION**

**CONTACT INFORMATION**

Tom Garland  
Shell, WY  
(307) 765-2841

**PHOTO LOG**

Information collected from files available at Division 3 Office of the State Engineer Office in Riverton, WY, and from the ditch contact person when available.

**DIVERSION RECORD**

| Year | Measured Data   |
|------|---|
| 1983 | 4/17, Off; 5/3, 5.3 cfs; 5/4, 7.15 cfs; 5/15, 10.16 cfs; 7/4, 16 cfs; 8/6, 13.55 cfs; 8/15, 12.38 cfs   |
| 1984 | 5/10, 10.16 cfs; 5/11, 9.11 cfs; 5/27, 16 cfs; 6/10, 16 cfs; 6/14, 16 cfs; 7/9, 16 cfs; 7/15, 14.5 cfs; 7/18, 16 cfs; 7/29, Off; 8/5, 12.38 cfs   |
| 1985 | 4/17, Off; 4/28, 6.05 cfs; 5/4, 5.36 cfs; 5/8, 21.33 cfs; 5/11, 16 cfs; 5/14, 16 cfs; 5/17, 13.55 cfs; 5/20, 21.33 cfs; 5/22, 16 cfs; 5/26, 13.55 cfs; 6/2, 16 cfs; 6/6, 15 cfs; 6/10, 15 cfs; 6/14, 15 cfs; 6/18, 13.55 cfs; 6/21, 13.55 cfs; 6/28, 13.55 cfs; 6/29, 14.03 cfs; 7/3, 13.55 cfs; 7/7, 12.38 cfs; 7/10, 12.38 cfs; 7/14, 10.84 cfs; 7/15, 8.71 cfs; 7/21, 8.91 cfs; 7/24, 10.16 cfs; 7/28, 10.16 cfs; 7/31, 10.16 cfs; 8/4, 10.38 cfs; 8/7, 10.38 cfs; 8/11, 10.38 cfs; 8/14, 10.38 cfs; 8/18, 10.38 cfs; 8/22, 10.38 cfs; 8/26, 10.38 cfs; 8/30, 10.38 cfs  |
| 1986 | 5/1, 7.15 cfs; 5/12, 14.76 cfs; 5/15, 13.55 cfs; 5/18, 18.6 cfs; 5/22, 21.33 cfs; 6/1, 21.33 cfs; 6/6, 16 cfs; 6/11, 13.55 cfs; 6/15, 14.76 cfs; 6/22, 21.33 cfs; 6/30, 8.11 cfs; 7/5, 13.55 cfs; 7/12, 13.55 cfs; 7/19, 13.55 cfs; 7/24, 13.55 cfs; 7/27, 12.38 cfs; 8/2, 11.25 cfs; 8/7, 11.25 cfs; 8/10, 13.55 cfs; 8/17, 13.55 cfs; 8/24, 12.38 cfs; 9/1, 11.25 cfs; 9/7, 11.25 cfs; 9/15, 9.11 cfs; 10/15, Off   |
| 1995 | 4/20, Off; 4/26, Off; 5/5, 1.26 cfs; 5/10, 3.05 cfs; 5/11, 3.05 cfs; 5/17, 5.36 cfs; 5/28, 7.15 cfs; 6/3, 8.11 cfs; 6/19, 30.34 cfs; 7/13, 12.61 cfs; 8/5, 16 cfs; 8/14, 14.7 cfs; 8/21, 16 cfs   |
| 1996 | 5/1, 2 cfs; 5/6, 2.39 cfs; 5/7, 5 cfs; 5/9, 4.5 cfs; 5/13, 9 cfs; 5/17, 20 cfs; 6/1, 21 cfs; 6/16, 16 cfs; 7/11, 17.28 cfs; 7/20, 14.7 cfs; 7/27, 14.7 cfs; 7/31, 14.7 cfs; 8/3, 18 cfs; 8/15, 17 cfs; 8/17, 17 cfs; 8/18, 17 cfs; 8/24, 17 cfs; 9/14, 15 cfs   |
| 1997 | 6/17, 11.25 cfs; 7/2, 16 cfs; 7/8, 16 cfs; 8/9, 13.55 cfs; 8/23, 9.74 cfs   |
| 1998 | 5/1, 11.47 cfs; 5/4, 11.7 cfs; 5/8, 16 cfs; 5/12, 14.76 cfs; 5/15, 19.95 cfs; 5/19, 21.33 cfs; 5/22, 24.5 cfs; 5/26, 18.6 cfs; 6/1, 14.76 cfs; 6/5, 17.28 cfs; 6/8, 16 cfs; 6/11, 15.25 cfs; 6/15, 16 cfs; 6/18, 16 cfs; 6/25, 15.5 cfs; 6/29, 13.08 cfs; 7/6, 11.7 cfs; 7/9, 16.76 cfs; 7/13, 13.31 cfs; 7/16, 11.47 cfs; 7/20, 18.6 cfs; 7/23, 18.86 cfs; 7/27, 18.6 cfs; 7/30, 19.13 cfs; 8/4, 19.13 cfs; 8/7, 19.13 cfs; 8/10, 19.13 cfs; 8/13, 19.13 cfs; 8/17, 17.28 cfs; 8/18, 21.33 cfs; 8/31, 9.11 cfs; 9/4, 13.08 cfs; 9/6, 9.32 cfs; 9/8, 13.55 cfs; 9/11, 13.55 cfs; 9/14, 11.7 cfs; 9/17, 11.7 cfs; 9/21, 11.47 cfs; 9/25, 11.47 cfs   |
| 1999 | 4/5, Off; 4/20, Off; 5/6, 2.92 cfs; 5/14, 14.27 cfs; 5/17, 13.55 cfs; 5/25, 16 cfs; 5/28, 14.76 cfs; 6/1, 16.25 cfs; 6/4, 16.25 cfs; 6/8, 24.2 cfs; 6/10, 22.75 cfs; 6/14, 13.55 cfs; 6/18, 17.02 cfs; 6/21, 18.6 cfs; 6/24, 12.84 cfs; 6/28, 11.7 cfs; 7/2, 14.27 cfs; 7/6, 14.27 cfs; 7/12, 11.92 cfs; 7/16, 14.27 cfs; 7/19, 15 cfs; 7/28, 16.76 cfs; 7/30, 14.03 cfs; 8/3, 14.76 cfs; 8/6, 14.76 cfs; 8/11, 14.27 cfs; 8/13, 14.76 cfs; 8/16, 14.03 cfs; 8/19, 13.55 cfs; 8/24, 10.59 cfs; 9/8, 13.31 cfs; 9/10, 13.31 cfs; 9/15, 13.08 cfs; 9/17, 13.08 cfs; 9/21, 13.31 cfs; 9/24, 13.08 cfs; 9/29, 3.92 cfs; 10/5, Off   |
| 2000 | 4/14, 1.8 cfs; 4/17, 1.8 cfs; 4/21, 2.92 cfs; 4/24, 9.32 cfs; 4/28, 6.41 cfs; 5/2, 6.77 cfs; 5/5, 13.31 cfs; 5/12, 11.25 cfs; 5/15, 11.7 cfs; 5/19, 14.27 cfs; 5/23, 17.02 cfs; 5/26, 21.61 cfs; 5/30, 21.33 cfs; 6/2, 14.27 cfs; 6/5, 14.51 cfs; 6/12, 16.51 cfs; 6/16, 16.76 cfs; 6/19, 15.75 cfs; 6/22, 18.07 cfs; 6/26, 17.28 cfs; 6/29, 15.5 cfs; 7/3, 13.31 cfs; 7/6, 11.47 cfs; 7/12, 7.15 cfs; 7/17, 14.03 cfs; 7/24, 14.76 cfs; 7/28, 15.5 cfs; 8/1, 13.79 cfs; 8/5, 14.51 cfs; 8/8, 13.79 cfs; 8/15, 10.81 cfs; 8/17, 14.03 cfs; 8/21, 13.79 cfs; 8/24, 14.27 cfs; 8/28, 13.79 cfs; 8/31, 14.03 cfs; 9/5, 13.79 cfs; 9/8, 13.79 cfs; 9/11, 13.08 cfs; 9/14, 12.61 cfs; 9/18, 11.92 cfs; 9/21, 12.38 cfs; 9/27, Off; 9/29, Off; 10/3, 5.19 cfs |
| 2001 | 4/3, Off; 4/30, Off; 5/4, Off; 5/8, 5.53 cfs; 5/11, 12.84 cfs; 5/15, 15.5 cfs; 5/18, 16.25 cfs; 5/21, 13.79 cfs; 5/24, 16 cfs; 5/29, 18.6 cfs; 6/1, 16 cfs; 6/6, 13.55 cfs; 6/12, 13.55 cfs; 6/19, 9.74 cfs; 6/22, 9.53 cfs; 6/29, 9.11 cfs; 7/3, 5.53 cfs; 7/6, 11.7 cfs; 7/10, 12.61 cfs; 7/15, 12.84 cfs; 7/17, 11.47 cfs; 7/20, 9.32 cfs; 7/23, 9.32 cfs; 7/26, 9.32 cfs; 7/31, 11.7 cfs; 8/6, 8.51 cfs; 8/10, 8.51 cfs; 8/13, 9.32 cfs; 8/17, 9.32 cfs; 8/21, 13.31 cfs; 8/27, 3.92 cfs; 8/30, 3.92 cfs; 9/4, 0.75 cfs; 9/10, 0.75 cfs; 9/14, 0.75 cfs; 9/17, 0.75 cfs; 9/20, 0.75 cfs; 9/25, 2.78 cfs; 10/12, 0.5 cfs; 10/16, 0.5 cfs; 10/22, 0.5 cfs   |

Notes:

- 1 For days in which two measurements were taken, one of the measurements was assigned to the day immediately before or after the actual measurement day.
- 2 Data from SEO Hydrographers Reports for years when spot measurements taken.

**DESCRIPTION AND OPERATION MEMORANDUM**

KERSHNER DITCH

USGS ID 44107 USGS NAME BLACK MOUNTAIN

**DIVERSION DESCRIPTION**

One 48" screwtype sliding steel headgate in treated timber wingwalls.

**DIVERSION LOCATION**

Source: Shell Creek  
N 40° 45' W, 1350' from the East quarter corner of Section 19, Township 53N, Range 90W, and is in the SE 1/4 NE 1/4 Section 19.

**CONVEYANCE DESCRIPTION**

Open dirt and concrete lined and buried ditch approximately 2 1/4 miles long delivering water to 340 acres and 19 users. Ditch capacity is ~ 15 c.f.s.

**WYOMING WATER RIGHTS**

| Priority Date | Permit Number | Permit Use | Acres  | Flow(cfs) | (af) | Cumulative Flow(cfs) | Comments |
|---------------|---------------|------------|--------|-----------|------|----------------------|----------|
| 6/01/1893     | 508           | Irr.       | 86.00  | 1.23      |      | 1.23                 |          |
| 12/26/1895    | 176E          | Irr.       | 233.10 | 3.33      |      | 4.56                 |          |

**STORAGE RIGHTS**

Adelaide Reservoir

**ESTIMATED CANAL LOSSES**

Varies with time of year; estimated 10-15% at peak.

**IRRIGATION PRACTICES**

Conventional flood irrigation practices using considerable irrigation pipe, and some sprinklers.

**CROP TYPES / CONSUMPTIVE USE**

Alfalfa hay, native hay, pasture, occasional small grain, occasional corn, lawns and gardens, orchard.

**RETURN FLOWS**

All to Shell Creek

**OTHER OPERATIONAL INFORMATION**

Managed by informal ditch company.

**CONTACT INFORMATION**

Jack Clucas  
Shell, WY  
(307) 765-2946

**PHOTO LOG**

Information collected from files available at Division 3 Office of the State Engineer Office in Riverton, WY, and from the ditch contact person when available.

**DIVERSION RECORD**

| Year | Measured Data  |
|------|--|
| 1983 | 4/17, Off; 5/4, 5.11 cfs; 5/15, 5.11 cfs; 6/13, 4.84 cfs; 7/4, 5.11 cfs; 8/15, 4.98 cfs  |
| 1984 | 5/10, 4.84 cfs; 6/10, 4.31 cfs; 6/14, 4.75 cfs; 6/21, 4.24 cfs; 7/9, 4.84 cfs; 7/18, 5.39 cfs; 8/5, 4.84 cfs; 8/27, 4.84 cfs   |
| 1985 | 4/17, Off; 4/28, 2.86 cfs; 5/1, 5.39 cfs; 5/4, 12 cfs; 5/8, 12 cfs; 5/11, 7.65 cfs; 5/14, 7.81 cfs; 5/17, 8.46 cfs; 5/20, 10.17 cfs; 5/22, 10.17 cfs; 5/26, 11.07 cfs; 6/2, 7.65 cfs; 6/6, 7.65 cfs; 6/10, 7.65 cfs; 6/14, 7.65 cfs; 6/18, 6.86 cfs; 6/21, 12 cfs; 6/28, 6.86 cfs; 6/29, 6.86 cfs; 7/3, 5.39 cfs; 7/7, 6.86 cfs; 7/10, 6.86 cfs; 7/14, 6.86 cfs; 7/15, 6.86 cfs; 7/21, 4.7 cfs; 7/24, 5.11 cfs; 7/28, 5.11 cfs; 7/31, 5.11 cfs; 8/4, 5.11 cfs; 8/7, 5.11 cfs; 8/11, 5.11 cfs; 8/14, 5.11 cfs; 8/18, 5.11 cfs; 8/22, 5.11 cfs; 8/26, 5.11 cfs; 8/30, 5.11 cfs   |
| 1986 | 4/16, 8.46 cfs; 5/1, 7.65 cfs; 5/5, 8.46 cfs; 5/15, 8.46 cfs; 5/18, 9.82 cfs; 5/22, 9.48 cfs; 5/29, 10.17 cfs; 6/1, 8.46 cfs; 6/6, 8.46 cfs; 6/11, 8.46 cfs; 6/15, 7.65 cfs; 6/22, 9.3 cfs; 6/30, 9.3 cfs; 7/5, 8.46 cfs; 7/12, 10.17 cfs; 7/19, 8.46 cfs; 7/24, 8.46 cfs; 7/27, 8.46 cfs; 8/2, 8.46 cfs; 8/7, 8.46 cfs; 8/10, 10.17 cfs; 8/17, 8.46 cfs; 8/24, 8.46 cfs; 9/1, 8.46 cfs; 9/7, 8.46 cfs; 9/15, 8.46 cfs; 10/15, 6.12 cfs  |
| 1995 | 4/5, 1 cfs; 4/23, 1.12 cfs; 5/5, 4.05 cfs; 5/17, 10.17 cfs; 5/24, 10.17 cfs; 5/28, 9.82 cfs; 6/4, 10.17 cfs; 6/7, 8.79 cfs; 6/14, 10.53 cfs; 6/27, 10.17 cfs; 7/5, 8.4 cfs; 7/13, 8.4 cfs; 7/18, 8.4 cfs; 7/30, 10 cfs; 8/2, 8.8 cfs; 8/5, 8.5 cfs; 8/14, 8.4 cfs; 8/21, 8.4 cfs; 9/7, 8.4 cfs; 9/11, 8.4 cfs  |
| 1996 | 4/23, 3 cfs; 5/6, 3.5 cfs; 5/17, 10.5 cfs; 5/20, 9.3 cfs; 6/1, 5.4 cfs; 6/9, 13 cfs; 6/16, 11 cfs; 7/17, 8.5 cfs; 7/20, 9.3 cfs; 7/27, 9.3 cfs; 8/3, 6.5 cfs; 8/5, 5.5 cfs; 8/17, 4.75 cfs; 8/24, 4.75 cfs; 9/14, 5.39 cfs   |
| 1997 | 5/9, 3.44 cfs; 5/18, 8.46 cfs; 5/31, 8.79 cfs; 6/17, 10.17 cfs; 7/2, 9.3 cfs; 7/8, 11.26 cfs; 8/23, 7.65 cfs   |
| 1998 |  |
| 1999 |  |
| 2000 | 4/3, Off; 4/10, Off; 4/14, Off; 4/17, Off; 4/21, Off; 4/24, Off; 4/28, 1.28 cfs; 5/2, 9.3 cfs; 5/5, 10 cfs; 5/12, 10 cfs; 5/15, 10.35 cfs; 5/19, 10.53 cfs; 5/23, 11.81 cfs; 5/26, 10 cfs; 5/30, 9.82 cfs; 6/2, 8.63 cfs; 6/5, 8.46 cfs; 6/12, 6.86 cfs; 6/16, 5.39 cfs; 6/19, 6.86 cfs; 6/22, 6.56 cfs; 6/26, 10.89 cfs; 6/29, 110.7 cfs; 7/3, 9.82 cfs; 7/6, 8.13 cfs; 7/12, 12.19 cfs; 7/17, 8.96 cfs; 7/24, 9.82 cfs; 7/28, 9.82 cfs; 8/1, 10 cfs; 8/5, 10 cfs; 8/8, 11.07 cfs; 8/15, 5.25 cfs; 8/17, 10.17 cfs; 8/21, 10 cfs; 8/24, 7.65 cfs; 8/28, 7.33 cfs; 8/31, 7 cfs; 9/5, 7 cfs; 9/8, 7 cfs; 9/11, 7 cfs; 9/14, 7 cfs; 9/18, 4 cfs; 9/21, 4 cfs; 9/27, 2 cfs                    |
| 2001 | 4/3, Off; 4/6, Off; 4/12, Off; 4/17, Off; 4/20, Off; 4/24, Off; 4/27, Off; 4/30, Off; 5/4, 3.32 cfs; 5/8, 5.82 cfs; 5/11, 11.63 cfs; 5/15, 8.3 cfs; 5/18, 8.79 cfs; 5/21, 6.26 cfs; 5/24, 8.63 cfs; 5/29, 10 cfs; 6/1, 10.35 cfs; 6/6, 10.89 cfs; 6/12, 11.07 cfs; 6/18, 10.35 cfs; 6/22, 10 cfs; 6/26, 9.48 cfs; 6/29, 9.13 cfs; 7/2, 6.41 cfs; 7/3, 6.56 cfs; 7/6, 5.39 cfs; 7/9, 5.53 cfs; 7/15, 5.11 cfs; 7/17, 5.11 cfs; 7/20, 5.11 cfs; 7/23, 4.57 cfs; 7/26, 4.57 cfs; 7/31, 5.11 cfs; 8/6, 5.11 cfs; 8/10, 5.11 cfs; 8/13, 5.11 cfs; 8/17, 5.11 cfs; 8/21, 5.11 cfs; 8/27, 5.11 cfs; 8/30, 5.11 cfs; 9/4, 5.11 cfs; 9/10, 1.92 cfs; 9/14, 1.82 cfs; 9/17, 2.86 cfs; 9/20, 2.86 cfs |

Notes:

- 1 For days in which two measurements were taken, one of the measurements was assigned to the day immediately before or after the actual measurement day.
- 2 Data from SEO Hydrographers Reports for years when spot measurements taken.

## DESCRIPTION AND OPERATION MEMORANDUM

### MCDONALD DITCH

USGS ID 44107 USGS Name Devils Kitchen, Shell

#### DIVERSION DESCRIPTION

Three 5-foot sliding gates in concrete headwall, 36" diversion dam across Shell Creek.

#### DIVERSION LOCATION

Source: Shell Creek

S 43° 30' S, 4193' from NE corner of Section 26, and is in the NE 1/4 SW 1/4 Section 26, Township 53N, Range 91W

#### CONVEYANCE DESCRIPTION

Open earthen canal 6.5 miles long. Common carrier for Shell Canal water thru this first 6.5 miles. McDonald ditch serves ±2000 acres. Capacity of Shell-McDonald combined canal ~ 120 c.f.s.

#### WYOMING WATER RIGHTS

| Priority Date | Permit Number | Permit Use     | Acres  | Flow(cfs) | (af) | Cumulative Flow(cfs) | Comments |
|---------------|---------------|----------------|--------|-----------|------|----------------------|----------|
| 3/01/1886     | Terr.         | Irr.           | 145.00 | 3.50      |      | 3.50                 |          |
| 3/07/1893     | 430           | Irr.,Mun.      | 65.00  | 2.26      |      | 5.76                 |          |
| 9/18/1897     | 271E          | Irr.           | 537.00 | 7.66      |      | 13.42                |          |
| 1/06/1905     | 1330E         | Irr.,Dom.      | 615.00 | 8.78      |      | 22.20                |          |
| 5/22/1905     | 1439E         | Irr.           | 190.00 | 2.71      |      | 24.91                |          |
| 4/10/1907     | 1938E         | Irr.           | 20.00  | 0.29      |      | 25.20                |          |
| 6/23/1959     | 5986E         | Irr.,Stk.,Dom. | 42.00  | 0.60      |      | 25.80                |          |

#### STORAGE RIGHTS

Shell Reservoir and Adelaide Reservoir

#### ESTIMATED CANAL LOSSES

Varies with time of year; estimated 15% at peak.

#### IRRIGATION PRACTICES

Conventional flood irrigation practices, enhanced by concrete delivery ditches, gated pipe, buried pipe and sprinklers.

#### CROP TYPES / CONSUMPTIVE USE

Pasture, alfalfa hay, grass hay, small grains, some corn, some beans, lawns and gardens.

#### RETURN FLOWS

100% to Shell Creek

#### OTHER OPERATIONAL INFORMATION

Managed by a formal ditch company – employs manager and ditchrider. Operation is in cooperation with management of Shell Canal (common carrier).

#### CONTACT INFORMATION

Fred Barnett  
Shell, WY  
(307)765-4393

#### PHOTO LOG

Information collected from files available at Division 3 Office of the State Engineer Office in Riverton, WY, and from the

ditch contact person when available.

**DIVERSION RECORD**

| Year | Measured Data   |
|------|---|
| 1983 | 4/17, 35.06 cfs; 5/1, 33.27 cfs; 5/3, 33.27 cfs; 5/4, 39.38 cfs; 5/5, 45.83 cfs; 5/15, 83.51 cfs; 5/30, 100.84 cfs; 6/13, 102.65 cfs; 6/27, 83.51 cfs; 7/4, 78.55 cfs; 7/28, 79.33 cfs; 8/6, 71.35 cfs; 8/15, 83.51 cfs; 9/8, 75.32 cfs   |
| 1984 | 5/5, 17.39 cfs; 5/9, 19.76 cfs; 5/10, 52.72 cfs; 5/11, 55.86 cfs; 5/20, 97.3 cfs; 6/7, 96.33 cfs; 6/10, 83.51 cfs; 6/14, 86.9 cfs; 6/21, 61.39 cfs; 6/26, 83.51 cfs; 7/2, 97.3 cfs; 7/9, 100.84 cfs; 7/15, 86.03 cfs; 7/18, 92.02 cfs; 7/29, 71.35 cfs; 8/20, 80.21 cfs; 8/27, 73.77 cfs; 9/2, 71.35 cfs  |
| 1985 | 4/17, 17.39 cfs; 4/24, 33.27 cfs; 4/28, 32.09 cfs; 5/1, Off; 5/4, 42.57 cfs; 5/8, 92.02 cfs; 5/11, 79.38 cfs; 5/14, 79.38 cfs; 5/17, 79.38 cfs; 5/20, 87.73 cfs; 5/22, 92.02 cfs; 5/26, 92.02 cfs; 6/2, 81.86 cfs; 6/6, 92.02 cfs; 6/10, 79.38 cfs; 6/14, 92.02 cfs; 6/18, 81.86 cfs; 6/21, 87.73 cfs; 6/28, 75.32 cfs; 6/29, 87.73 cfs; 7/3, 75.32 cfs; 7/7, 63.63 cfs; 7/10, 67.45 cfs; 7/14, 63.63 cfs; 7/15, 56.27 cfs; 7/21, 52.72 cfs; 7/24, 59.93 cfs; 7/28, 59.93 cfs; 7/31, 67.45 cfs; 8/4, 63.63 cfs; 8/7, 57.72 cfs; 8/11, 56.27 cfs; 8/14, 56.27 cfs; 8/18, 42.57 cfs; 8/22, 42.57 cfs; 8/26, 52.72 cfs; 8/30, 52.72 cfs  |
| 1986 | 4/16, 36.27 cfs; 5/1, 33.27 cfs; 5/5, 83.5 cfs; 5/15, 52.72 cfs; 5/18, 76.3 cfs; 5/22, 87.73 cfs; 5/29, 96.33 cfs; 6/1, 92.02 cfs; 6/6, 92.02 cfs; 6/11, 87.73 cfs; 6/15, 83.51 cfs; 6/22, 92.02 cfs; 6/30, 105.37 cfs; 7/5, 105.37 cfs; 7/12, 105.37 cfs; 7/19, 87.73 cfs; 7/24, 71.35 cfs; 7/27, 71.35 cfs; 8/2, 75.32 cfs; 8/7, 75.32 cfs; 8/10, 71.35 cfs; 8/17, 65.91 cfs; 8/24, 71.35 cfs; 9/1, 71.35 cfs; 9/7, 71.35 cfs; 9/15, 56.27 cfs; 10/15, 49.26 cfs  |
| 1995 | 4/19, 15.13 cfs; 4/23, 15.1 cfs; 4/26, 11 cfs; 5/5, 15.82 cfs; 5/9, 29.8 cfs; 5/11, 27.5 cfs; 5/15, 34.46 cfs; 5/17, 39.37 cfs; 5/24, 63.64 cfs; 5/25, 63.64 cfs; 5/28, 73.7 cfs; 5/31, 79 cfs; 6/3, 83.52 cfs; 6/4, 100.8 cfs; 6/5, 87.74 cfs; 6/7, 87.74 cfs; 6/11, 46.16 cfs; 6/14, 63.64 cfs; 6/19, 75.33 cfs; 6/22, 79.39 cfs; 6/24, 32.68 cfs; 6/27, 92 cfs; 7/1, 79.3 cfs; 7/5, 87.7 cfs; 7/9, 87.7 cfs; 7/13, 92 cfs; 7/18, 100 cfs; 7/24, 100 cfs; 7/27, 55 cfs; 7/31, 48.6 cfs; 8/2, 44 cfs; 8/3, 53 cfs; 8/5, 53 cfs; 8/9, 87 cfs; 8/14, 75.3 cfs; 8/15, 94.7 cfs; 8/17, 100.8 cfs; 8/27, 87.7 cfs; 9/3, 87.7 cfs; 9/7, 92.03 cfs; 9/11, 75 cfs  |
| 1996 | 5/4, 30 cfs; 5/9, 42 cfs; 5/10, 51 cfs; 5/17, 58 cfs; 5/20, 60 cfs; 5/27, 42 cfs; 6/1, 60 cfs; 6/4, 54.5 cfs; 6/9, 51 cfs; 6/12, 51 cfs; 6/16, 62 cfs; 7/1, 67 cfs; 7/5, 65 cfs; 7/7, 60 cfs; 7/9, 51 cfs; 7/14, 55 cfs; 7/16, 51 cfs; 7/17, 65 cfs; 7/19, 65 cfs; 7/22, 60 cfs; 7/25, 60 cfs; 7/27, 55 cfs; 7/31, 48.6 cfs; 8/2, 44 cfs; 8/3, 53 cfs; 8/5, 53 cfs; 8/8, 60 cfs; 8/15, 55 cfs; 8/17, 49 cfs; 8/18, 48.5 cfs; 8/22, 51 cfs; 8/24, 55 cfs; 8/27, 46 cfs; 9/3, 42 cfs; 9/7, 23 cfs; 9/14, 44 cfs   |
| 1997 | 5/9, 49.24 cfs; 5/13, 53.42 cfs; 5/18, 115.56 cfs; 5/31, 114.62 cfs; 6/10, 111.81 cfs; 6/17, Off; 7/2, 76.94 cfs; 7/5, 79.38 cfs; 7/8, 96.4 cfs; 7/12, 96.4 cfs; 7/17, 96.4 cfs; 7/31, 100.84 cfs; 8/8, 92.03 cfs; 8/9, 79.38 cfs; 8/23, 75.33 cfs; 8/28, 75.33 cfs   |
| 1998 | 4/27, 22.76 cfs; 5/1, 26.46 cfs; 5/4, 39.37 cfs; 5/8, 75.33 cfs; 5/12, 100.84 cfs; 5/15, 95.52 cfs; 5/18, 119.36 cfs; 5/19, 109.95 cfs; 5/22, 117.45 cfs; 5/26, 105.36 cfs; 6/1, 90.3 cfs; 6/5, 99.05 cfs; 6/8, 82.69 cfs; 6/11, 81.86 cfs; 6/15, 75.33 cfs; 6/18, 71.35 cfs; 6/25, 54.12 cfs; 6/29, 74.52 cfs; 7/2, 105.36 cfs; 7/6, 111.81 cfs; 7/9, 119.36 cfs; 7/13, 139.02 cfs; 7/16, 108.11 cfs; 7/20, 102.64 cfs; 7/23, 100.84 cfs; 7/27, 102.64 cfs; 7/30, 85.2 cfs; 8/4, 86.04 cfs; 8/7, 86.04 cfs; 8/10, 85.2 cfs; 8/13, 85.2 cfs; 8/17, 91.16 cfs; 8/18, 85.2 cfs; 8/21, 92.03 cfs; 9/4, 87.74 cfs; 9/6, 75.33 cfs; 9/8, 83.52 cfs; 9/11, 83.52 cfs; 9/14, 83.52 cfs; 9/17, 63.64 cfs; 9/21, 54.12 cfs; 9/25, 52.71 cfs; 9/28, 52.71 cfs; 10/2, 46.53 cfs; 10/5, 43.88 cfs |
| 1999 | 4/5, Off; 4/20, Off; 4/26, 44.53 cfs; 5/3, 49.24 cfs; 5/6, 42.57 cfs; 5/14, 57.72 cfs; 5/17, 57.72 cfs; 5/25, 74.52 cfs; 5/28, 85.2 cfs; 6/1, 74.52 cfs; 6/4, 86.04 cfs; 6/8, 74.52 cfs; 6/10, 66.69 cfs; 6/14, 65.92 cfs; 6/18, 95.52 cfs; 6/21, 68.23 cfs; 6/24, 99.05 cfs; 6/28, 99.9 cfs; 7/2, 109 cfs; 7/6, 99.05 cfs; 7/12, 110 cfs; 7/16, 110 cfs; 7/19, 105 cfs; 7/23, 115 cfs; 7/28, 92.03 cfs; 7/30, 102 cfs; 8/3, 99.05 cfs; 8/6, 99.95 cfs; 8/11, 86.04 cfs; 8/13, 90.3 cfs; 8/16, 86.89 cfs; 8/19, 86.89 cfs; 8/24, 81.86 cfs; 9/2, 87.74 cfs; 9/8, 69 cfs; 9/10, 67.45 cfs; 9/15, 63.64 cfs; 9/17, 68.23 cfs; 9/24, 60.65 cfs; 9/29, 53.42 cfs; 10/8, 51.31 cfs; 10/18, 36.27 cfs; 10/20, 36.27 cfs; 10/26, 34.46 cfs; 10/28, 35.06 cfs                                 |
| 2000 | 4/3, Off; 4/10, Off; 4/14, Off; 4/17, Off; 4/21, 30.36 cfs; 4/24, 33.27 cfs; 4/28, 32.09 cfs; 5/2, 75.33 cfs; 5/5, 96.4 cfs; 5/12, 84.36 cfs; 5/15, 84.36 cfs; 5/19, 93.77 cfs; 5/23, 87.74 cfs; 5/26, 91.16 cfs; 5/30, 82.69 cfs; 6/2, 83.52 cfs; 6/5, 84.36 cfs; 6/12, 103.54 cfs; 6/16, 93.77 cfs; 6/19, 84.36 cfs; 6/22, 90.3 cfs; 6/26, 92.03 cfs; 6/29, 90.3 cfs; 7/3, 96.4 cfs; 7/6, 100.84 cfs; 7/12, 94.64 cfs; 7/17, 78.57 cfs; 7/24, 87.74 cfs; 7/28, 75.33 cfs; 8/1, 92.03 cfs; 8/2, 65.92 cfs; 8/5, 79.38 cfs; 8/8, 92.03 cfs; 8/15, 75.33 cfs; 8/17, 70.56 cfs; 8/24, 54.12 cfs; 8/28, 56.27 cfs; 8/31, 58.44 cfs; 9/5, 59.91 cfs; 9/8, 56.99 cfs; 9/11, 62.89 cfs; 9/14, 59.18 cfs; 9/18, 56.99 cfs; 9/21, 49.24 cfs; 9/27, 49.24 cfs                                  |
| 2001 | 4/3, Off; 4/6, Off; 4/12, Off; 4/17, Off; 4/20, Off; 4/24, 17.39 cfs; 4/27, 43.22 cfs; 4/30, 49.24 cfs; 5/4, 35.06 cfs; 5/8, 55.55 cfs; 5/11, 80.2 cfs; 5/15, 102.64 cfs; 5/18, 105.36 cfs; 5/21, 99.05 cfs; 5/24, 114.62 cfs; 5/29, 117.45 cfs; 6/1, 114.62 cfs; 6/6, 99.05 cfs; 6/12, 88.59 cfs; 6/18, 77.75 cfs; 6/22, 60.65 cfs; 6/26, 65.92 cfs; 6/29, 63.64 cfs; 7/2, 45.86 cfs; 7/3, 35.06 cfs; 7/6, 75.33 cfs; 7/9, 67.45 cfs; 7/15, 67.45 cfs; 7/17, 76.35 cfs; 7/20, 75.33 cfs; 7/23, 65.92 cfs; 7/26, 71.35 cfs; 7/28, 61.39 cfs; 7/30, 61.39 cfs; 7/31, 61.39 cfs; 8/9, 56.27 cfs; 8/10, 56.57 cfs; 8/13, 24.85 cfs; 8/17, 24.85 cfs; 8/21, 27 cfs; 8/27, 24.85 cfs; 8/30, 24.85 cfs; 9/4, 22.75 cfs; 9/10, 17.85 cfs; 9/14, 17.39 cfs                                    |

Notes:

- 1 For days in which two measurements were taken, one of the measurements was assigned to the day immediately before or after the actual measurement day.
- 2 Data from SEO Hydrographers Reports for years when spot measurements taken.

**DESCRIPTION AND OPERATION MEMORANDUM**

PORTER DITCH

USGS ID 44107 E8 USGS NAME DEVILS KITCHEN

**DIVERSION DESCRIPTION**

Two 24" screwtype sliding metal gates in concrete headwall.

**DIVERSION LOCATION**

Source: Shell Creek

Intake from Shell Creek into old channel is in the NW 1/4 SW 1/4 Section 25, Township 53N, Range 92W. Actual headgate out of old channel into Porter Canal is 1617 feet North and 293 feet West of Section corner common to Sections 25,26,35, and 36.

**CONVEYANCE DESCRIPTION**

Open earthen canal 4 1/2 miles long serving approximately 1325 acres and 7 users. Ditch capacity ~ 40 c.f.s. Several flumes across badland gulches.

**WYOMING WATER RIGHTS**

| Priority Date | Permit Number | Permit Use | Acres   | Flow(cfs) | (af) | Cumulative Flow(cfs) | Comments |
|---------------|---------------|------------|---------|-----------|------|----------------------|----------|
| 11/18/1892    | 365           | Irr.       | 1080.00 | 15.42     |      | 15.42                |          |
| 1/21/1898     | 322E          | Irr.       | 146.00  | 2.09      |      | 17.51                |          |
| 11/03/1905    | 1464E         | Irr.       | 54.00   | 0.77      |      | 18.28                |          |
| 4/22/1907     | 1726E         | Irr.       | 43.00   | 0.61      |      | 18.89                |          |

**STORAGE RIGHTS**

None

**ESTIMATED CANAL LOSSES**

Varies with time of year; estimated 20-25% at peak.

**IRRIGATION PRACTICES**

Conventional flood irrigation practices enhanced by buried and gated pipe.

**CROP TYPES / CONSUMPTIVE USE**

Alfalfa hay, native hay, pasture, occasional small grain, occasional corn, occasional beans, lawn and gardens.

**RETURN FLOWS**

All to Shell Creek.

**OTHER OPERATIONAL INFORMATION**

**CONTACT INFORMATION**

Fred Barnett  
Greybull, WY  
(307)765-4393

**PHOTO LOG**

Information collected from files available at Division 3 Office of the State Engineer Office in Riverton, WY, and from the ditch contact person when available.

**DIVERSION RECORD**

| Year | Measured Data  |
|------|--|
| 1983 | 4/17, Off; 5/5, 1.2 cfs; 5/15, 1.2 cfs; 6/27, 24 cfs; 7/4, 32.1 cfs; 7/13, 24.8 cfs; 8/6, 24 cfs; 8/15, 27.94 cfs; 9/8, 20.29 cfs  |
| 1984 | 5/10, 15.49 cfs; 6/10, 16.15 cfs; 6/14, 16.81 cfs; 7/9, 20.29 cfs; 7/18, 30 cfs; 8/5, 24.77 cfs; 8/20, 24 cfs; 8/27, 24 cfs  |
| 1985 | 4/17, Off; 4/24, Off; 4/28, Off; 5/1, Off; 5/4, Off; 5/8, 21.01 cfs; 5/11, 22.12 cfs; 5/14, 12.08 cfs; 5/17, 18.52 cfs; 5/20, 27.94 cfs; 5/22, 32.1 cfs; 5/26, 41.05 cfs; 6/2, 32.1 cfs; 6/6, 34.26 cfs; 6/10, 32.1 cfs; 6/14, 24 cfs; 6/18, 16.81 cfs; 6/21, 13.59 cfs; 6/28, 16.92 cfs; 6/29, 21.75 cfs; 7/3, 13.59 cfs; 7/7, 7.94 cfs; 7/10, 5.57 cfs; 7/14, 10.63 cfs; 7/15, 10.63 cfs; 7/21, 10.63 cfs; 7/24, 24 cfs; 7/28, 20.29 cfs; 7/31, 30 cfs; 8/4, 30 cfs; 8/7, 18.52 cfs; 8/11, 18.12 cfs; 8/14, 27.94 cfs; 8/18, 22.12 cfs; 8/22, 20.29 cfs; 8/26, 21.75 cfs; 8/30, 22.12 cfs  |
| 1986 | 5/1, Off; 5/15, 16.15 cfs; 5/18, 18.795 cfs; 5/22, 19.93 cfs; 5/29, 18.52 cfs; 6/1, 24 cfs; 6/6, 24 cfs; 6/11, 32.1 cfs; 6/15, 24 cfs; 6/22, 24 cfs; 6/30, 16.81 cfs; 7/5, 30 cfs; 7/12, 24 cfs; 7/19, 22.12 cfs; 7/24, 13.59 cfs; 7/27, 12.08 cfs; 8/7, 13.59 cfs; 8/10, 19.57 cfs; 8/17, 18.87 cfs; 8/24, 15.17 cfs; 9/1, 15.17 cfs; 9/7, 13.59 cfs; 9/15, 12.08 cfs; 10/15, 12.08 cfs   |
| 1995 | 4/26, 12.08 cfs; 5/5, 2.6 cfs; 5/20, 20.29 cfs; 6/14, 32.1 cfs; 7/1, 77.4 cfs; 7/9, 24 cfs; 7/24, 14.21 cfs; 7/26, 14.5 cfs; 8/2, 20.3 cfs; 8/4, 24 cfs; 8/5, 36.4 cfs; 8/9, 36.4 cfs; 8/14, 24 cfs; 8/21, 36.4 cfs  |
| 1996 | 5/9, 0.5 cfs; 6/1, 24 cfs; 6/12, 24 cfs; 6/16, 17 cfs; 7/5, 24 cfs; 7/23, 20 cfs; 8/5, 17 cfs; 8/8, 24 cfs; 9/3, 45 cfs  |
| 1997 | 5/13, 10.63 cfs; 6/17, 24 cfs  |
| 1998 | 5/4, 12.07 cfs; 5/8, 22.12 cfs; 5/12, 22.12 cfs; 5/15, 22.12 cfs; 5/19, 32.95 cfs; 5/22, 33.02 cfs; 5/26, 41.51 cfs; 6/1, 36.47 cfs; 6/8, 28.35 cfs; 6/11, 27.94 cfs; 6/15, 37.36 cfs; 6/25, 37.82 cfs; 6/29, 28.35 cfs; 7/2, 27.54 cfs; 7/6, 18.52 cfs; 7/9, 15.17 cfs; 7/13, 24 cfs; 7/16, 22.12 cfs; 7/20, 25.94 cfs; 7/23, 23.62 cfs; 7/27, 21.38 cfs; 7/30, 29.99 cfs; 8/4, 31.25 cfs; 8/7, 25.16 cfs; 8/13, 19.57 cfs; 8/18, 20.65 cfs; 8/21, 22.12 cfs; 8/31, 34.26 cfs; 9/4, 18.52 cfs; 9/8, 18.52 cfs; 9/11, 19.57 cfs; 9/25, 21.01 cfs; 9/28, 21.01 cfs; 10/2, 21.01 cfs; 10/5, 15.17 cfs; 10/8, 20.29 cfs; 10/12, 15.17 cfs; 10/14, 12.07 cfs; 10/19, 12.07 cfs; 10/22, 12.98 cfs; 10/26, 12.98 cfs   |
| 1999 | 4/5, Off; 4/20, Off; 5/3, Off; 5/6, 1 cfs; 5/14, 10 cfs; 5/17, 10.07 cfs; 5/25, 17.15 cfs; 5/28, 22.12 cfs; 6/4, 17.83 cfs; 6/10, 17.83 cfs; 6/14, 32.1 cfs; 6/18, 32.1 cfs; 6/21, 27.94 cfs; 6/24, 23.62 cfs; 6/28, 16.17 cfs; 7/2, 13.59 cfs; 7/6, 18.52 cfs; 7/12, 23.62 cfs; 7/16, 40.11 cfs; 7/19, 36.02 cfs; 7/23, 36.91 cfs; 7/28, 25.94 cfs; 7/30, 36.47 cfs; 8/3, 18.52 cfs; 8/11, 32.52 cfs; 8/13, 38.27 cfs; 8/19, 27.94 cfs; 8/24, 23.62 cfs; 9/2, 34.26 cfs; 9/8, 28.75 cfs; 9/10, 29.99 cfs; 9/15, 20.29 cfs; 9/17, 20.29 cfs; 9/21, 19.57 cfs; 9/24, 18.52 cfs; 9/29, 20.29 cfs; 10/5, 12.07 cfs; 10/8, 9.52 cfs; 10/18, 23.62 cfs; 10/20, 13.59 cfs  |
| 2000 | 4/3, 5.57 cfs; 4/10, 5.57 cfs; 4/14, 5.79 cfs; 4/17, 6.02 cfs; 4/24, 19.57 cfs; 4/28, 16.81 cfs; 5/2, 19.93 cfs; 5/5, 32.1 cfs; 5/12, 16.15 cfs; 5/15, 17.15 cfs; 5/23, 25.16 cfs; 5/26, 25.94 cfs; 5/30, 28.35 cfs; 6/2, 27.54 cfs; 6/12, 24.38 cfs; 6/16, 22.86 cfs; 6/19, 20.29 cfs; 6/22, 21.75 cfs; 6/26, 17.83 cfs; 6/29, 16.15 cfs; 7/3, 18.52 cfs; 7/6, 18.52 cfs; 7/12, Off; 7/17, 20.29 cfs; 7/24, 24 cfs; 7/28, 24 cfs; 8/1, 24.38 cfs; 8/5, 29.99 cfs; 8/8, 24 cfs; 8/15, 17.49 cfs; 8/17, 17.49 cfs; 8/21, 19.57 cfs; 8/24, 18.17 cfs; 8/28, 19.57 cfs; 8/31, 27.94 cfs; 9/5, 21.97 cfs; 9/8, 22.86 cfs; 9/11, 12.98 cfs; 9/14, 21.01 cfs; 9/18, 20.65 cfs; 9/21, 24 cfs; 9/27, 23.24 cfs; 9/29, 20.65 cfs; 10/3, 20.29 cfs; 10/6, 32.1 cfs |
| 2001 | 4/3, 2 cfs; 4/6, 2 cfs; 4/12, 2 cfs; 4/17, 2 cfs; 4/20, 2 cfs; 4/24, 2 cfs; 4/27, 2 cfs; 4/30, 2 cfs; 5/4, 6.72 cfs; 5/8, 10.91 cfs; 5/11, 31.67 cfs; 5/15, 36.47 cfs; 5/18, 24.38 cfs; 5/21, 17.15 cfs; 5/24, 28.35 cfs; 5/29, 28.75 cfs; 6/1, 19.93 cfs; 6/6, 22.12 cfs; 6/18, 19.57 cfs; 6/22, 21.75 cfs; 7/3, 15.49 cfs; 7/6, 16.15 cfs; 7/10, 13.9 cfs; 7/13, 13.9 cfs; 7/15, 16.48 cfs; 7/17, 17.15 cfs; 7/20, 20.29 cfs; 7/23, 15.82 cfs; 7/26, 13.59 cfs; 7/28, 16.15 cfs; 7/30, 1.33 cfs; 8/6, 13.59 cfs; 8/9, 21.01 cfs; 8/10, 18.17 cfs; 8/13, 16.15 cfs; 8/17, 20.65 cfs; 8/21, 18.17 cfs; 8/27, 22.12 cfs; 8/30, 13.59 cfs; 9/4, 14.85 cfs; 9/10, 18.17 cfs; 9/14, 16.15 cfs; 9/17, 18.17 cfs; 9/20, 18.17 cfs; 9/25, 16.81 cfs             |

Notes:

- 1 For days in which two measurements were taken, one of the measurements was assigned to the day immediately before or after the actual measurement day.
- 2 Data from SEO Hydrographers Reports for years when spot measurements taken.

## DESCRIPTION AND OPERATION MEMORANDUM

### SHELL CANAL

USGS ID 44107, 44108 D1, 44107 D8 USGS Name Greybull South, Wild Horse Flats, Devils Kitchen

#### DIVERSION DESCRIPTION

Three 5-foot sliding gates in concrete headwall, 36" high diversion dam across Shell Creek

#### DIVERSION LOCATION

Source: Shell Creek

Creek diversion is common facility with McDonald Ditch and is located S 43° 30' W, 4193' from NE corner Section 26, Township 53 N, Range 91 W and is in the NE 1/4 SW 1/4 Section 26.

#### CONVEYANCE DESCRIPTION

Open earthen canal with some lined sections approximately 27 miles long (not including 6.5 miles common carrier portion with McDonald Ditch). Irrigates approximately 2500 acres below McDonald Ditch. Five major concrete siphons, tunnels and wasteways deliver to 3 major laterals and numerous sublaterals. Estimated canal capacity ~ 120 c.f.s.

#### WYOMING WATER RIGHTS

| Priority Date | Permit Number | Permit Use     | Acres   | Flow(cfs) | (af) | Cumulative Flow(cfs) | Comments |
|---------------|---------------|----------------|---------|-----------|------|----------------------|----------|
| 3/20/1908     | 8290          | Irr.,Dom.,Stk. | 876.00  | 12.49     |      | 12.49                |          |
| 6/01/1909     | 2084E         | Irr.,Dom.,Stk. | 2404.55 | 34.29     |      | 46.78                |          |
| 5/24/1941     | 5312E         | Irr.,Dom.,Stk. | 140.00  | 2.00      |      | 48.78                |          |
| 1/18/1963     | 6091E         | Irr.,Stk.      | 20.29   | 0.29      |      | 49.07                |          |

#### STORAGE RIGHTS

Shell Reservoir and Adelaide Reservoir

#### ESTIMATED CANAL LOSSES

Varies with time of year; estimated 15% at peak.

#### IRRIGATION PRACTICES

Conventional flood irrigation practices enhanced by some concrete lined delivery ditches, gated pipe, buried pipe and sprinklers.

#### CROP TYPES / CONSUMPTIVE USE

Pasture, alfalfa hay, grass hay, small grains, some corn, some beans, lawn and gardens.

#### RETURN FLOWS

90% to Shell Creek and 10% to Bighorn River

#### OTHER OPERATIONAL INFORMATION

Managed by a formal ditch company – employs manager and ditchrider.

#### CONTACT INFORMATION

Jack Clucas  
Shell, WY  
(307)765-2946

Raymond Weese  
Greybull, WY  
(307)765-2623

## PHOTO LOG

Information collected from files available at Division 3 Office of the State Engineer Office in Riverton, WY, and from the ditch contact person when available.

## DIVERSION RECORD

| Year | Measured Data  |
|------|--|
| 1983 | 4/17, 35 cfs; 5/1, 20 cfs; 5/3, 20 cfs; 5/4, 14.04 cfs; 5/5, 20 cfs; 5/15, 38.06 cfs; 5/30, 56.32 cfs; 6/13, 50.83 cfs; 6/21, 46.43 cfs; 6/27, 50.83 cfs; 7/4, 43.86 cfs; 7/10, 48.61 cfs; 7/13, 49.05 cfs; 7/28, 52.64 cfs; 8/6, 46.43 cfs; 8/15, 69.9 cfs; 9/8, 53.55 cfs  |
| 1984 | 5/5, 14.04 cfs; 5/9, 7.74 cfs; 5/10, 40.51 cfs; 5/11, 42.17 cfs; 5/20, 62 cfs; 6/7, 69.9 cfs; 6/10, 75.01 cfs; 6/14, 75.01 cfs; 6/21, 44.28 cfs; 6/26, 60.08 cfs; 7/2, 75.01 cfs; 7/9, 69.9 cfs; 7/15, 43.01 cfs; 7/18, 36.46 cfs; 7/29, 42.17 cfs; 8/5, 52.64 cfs; 8/20, 64.92 cfs; 8/27, 49.05 cfs; 9/2, 37.26 cfs   |
| 1985 | 4/17, Off; 4/24, 32.2 cfs; 4/28, 30.33 cfs; 5/1, 23.26 cfs; 5/4, 38.06 cfs; 5/8, 56.32 cfs; 5/11, 34.89 cfs; 5/14, 50.83 cfs; 5/17, 64.92 cfs; 5/20, 69.9 cfs; 5/22, 69.9 cfs; 5/26, 70 cfs; 6/2, 69.9 cfs; 6/6, 62.48 cfs; 6/10, 48.61 cfs; 6/14, 64.92 cfs; 6/18, 60.08 cfs; 6/21, 67.39 cfs; 6/28, 60.08 cfs; 6/29, 44.28 cfs; 7/3, 48.61 cfs; 7/7, 30.33 cfs; 7/10, 32.2 cfs; 7/14, 32.2 cfs; 7/15, 40.09 cfs; 7/21, 36.06 cfs; 7/24, 42.17 cfs; 7/28, 34.11 cfs; 7/31, 46.43 cfs; 8/4, 55.39 cfs; 8/7, 53.09 cfs; 8/11, 36.06 cfs; 8/14, 37.26 cfs; 8/18, 32.2 cfs; 8/22, 32.2 cfs; 8/26, 28.5 cfs; 8/30, 32.2 cfs  |
| 1986 | 4/16, 25.66 cfs; 5/1, 23.16 cfs; 5/5, 55.39 cfs; 5/12, 48.61 cfs; 5/15, 46.43 cfs; 5/18, 59.005 cfs; 5/22, 60.08 cfs; 5/29, 62.48 cfs; 6/1, 67.39 cfs; 6/6, 67.39 cfs; 6/11, 69.9 cfs; 6/15, 69.9 cfs; 6/22, 64.92 cfs; 6/30, 60.08 cfs; 7/5, 62.48 cfs; 7/12, 53.09 cfs; 7/19, 53.09 cfs; 7/24, 50.83 cfs; 7/27, 46.43 cfs; 8/2, 46.43 cfs; 8/7, 48.61 cfs; 8/10, 60.08 cfs; 8/17, 60.08 cfs; 8/24, 36.06 cfs; 9/1, 36.06 cfs; 9/7, 42.17 cfs; 9/15, 38.06 cfs; 10/15, 32.2 cfs   |
| 1995 | 4/21, 5.6 cfs; 4/23, 5.6 cfs; 4/26, 14 cfs; 5/5, 23.2 cfs; 5/8, 23.2 cfs; 5/15, 28.5 cfs; 5/17, 28.5 cfs; 5/20, 57.7 cfs; 5/24, 42.17 cfs; 5/28, 48.61 cfs; 5/31, 53.09 cfs; 6/3, 44.28 cfs; 6/4, 50.83 cfs; 6/7, 60.28 cfs; 6/11, 60.28 cfs; 6/14, 60.28 cfs; 6/19, 55.39 cfs; 6/24, 54 cfs; 6/27, 62.48 cfs; 7/1, 51.7 cfs; 7/5, 53 cfs; 7/9, 60.5 cfs; 7/13, 48.1 cfs; 7/18, 51.7 cfs; 7/22, 58.1 cfs; 7/24, 50.8 cfs; 7/26, 48.1 cfs; 7/29, 50.8 cfs; 7/30, 53 cfs; 8/2, 50 cfs; 8/4, 53 cfs; 8/5, 56.7 cfs; 8/9, 53 cfs; 8/11, 50.8 cfs; 8/14, 44.28 cfs; 8/15, 44.3 cfs; 8/17, 55 cfs; 8/21, 55 cfs; 8/27, 44 cfs; 9/3, 57.7 cfs; 9/7, 60 cfs; 9/11, 53 cfs  |
| 1996 |  |
| 1997 | 5/9, 38.06 cfs; 5/13, 50.83 cfs; 5/18, 67.39 cfs; 5/26, 64.92 cfs; 5/31, 64.92 cfs; 6/10, 69.89 cfs; 6/17, Off; 6/25, 44.28 cfs; 7/2, 46.42 cfs; 7/5, 50.83 cfs; 7/8, 60.08 cfs; 7/12, 60.08 cfs; 7/17, 57.72 cfs; 7/21, 69.89 cfs; 7/31, 23.27 cfs; 8/2, 64.92 cfs; 8/8, 50.83 cfs; 8/23, 50.83 cfs   |
| 1998 | 5/1, 21.59 cfs; 5/4, 28.9 cfs; 5/8, 68.59 cfs; 5/12, 84.93 cfs; 5/15, 84.93 cfs; 5/18, 85 cfs; 5/22, 85 cfs; 5/26, 80 cfs; 6/1, 70 cfs; 6/5, 80 cfs; 6/8, 75 cfs; 6/11, 75 cfs; 6/15, 75 cfs; 6/18, 73 cfs; 6/25, 45 cfs; 6/29, 45.5 cfs; 7/2, 56 cfs; 7/6, 79 cfs; 7/9, 67.8 cfs; 7/13, 82.2 cfs; 7/16, 51.8 cfs; 7/20, 65 cfs; 7/23, 67 cfs; 7/27, 60.2 cfs; 7/30, 71 cfs; 8/4, 81 cfs; 8/7, 69 cfs; 8/8, 51.92 cfs; 8/13, 72.44 cfs; 8/18, 79 cfs; 8/21, 78.44 cfs; 9/4, 56 cfs; 9/8, 45.5 cfs; 9/11, 63 cfs; 9/14, 38.5 cfs; 9/17, 50.8 cfs; 9/21, 71 cfs; 9/25, 42 cfs; 9/28, 40.3 cfs; 10/2, 50.8 cfs; 10/5, 54.3 cfs; 10/8, 22 cfs; 10/12, 22 cfs; 10/14, 22 cfs  |
| 1999 | 4/5, Off; 4/20, Off; 4/26, 40.02 cfs; 5/3, 36.99 cfs; 5/6, 25.79 cfs; 5/14, 43.14 cfs; 5/17, 42.62 cfs; 5/25, 45.27 cfs; 5/28, 50.76 cfs; 6/1, 69.85 cfs; 6/4, 64.86 cfs; 6/8, 71.75 cfs; 6/10, 62.42 cfs; 6/14, 53.59 cfs; 6/18, 60.02 cfs; 6/21, 63.03 cfs; 6/24, 65.48 cfs; 6/28, 64.86 cfs; 7/2, 66.09 cfs; 7/6, 62.24 cfs; 7/12, 61.21 cfs; 7/16, 60.61 cfs; 7/19, 111 cfs; 7/23, 113 cfs; 7/26, 105 cfs; 7/28, 108 cfs; 7/30, 92.9 cfs; 8/3, 60.02 cfs; 8/6, 83.58 cfs; 8/11, 53.59 cfs; 8/13, 72.39 cfs; 8/16, 54.74 cfs; 8/19, 64.25 cfs; 8/24, 47.98 cfs; 9/2, 60.02 cfs; 9/8, 45.27 cfs; 9/10, 54.16 cfs; 9/21, 50.76 cfs; 9/24, 46.35 cfs; 9/29, 45.81 cfs; 10/5, 45.27 cfs; 10/8, 49.09 cfs; 10/18, 39 cfs; 10/26, 38.5 cfs; 10/28, 39 cfs |
| 2000 | 4/3, Off; 4/10, Off; 4/14, Off; 4/17, Off; 4/21, 9.83 cfs; 4/24, 29.36 cfs; 4/28, 16.18 cfs; 5/2, 32.62 cfs; 5/5, 65.48 cfs; 5/12, 65.48 cfs; 5/15, 88.59 cfs; 5/19, 83.52 cfs; 5/23, 92.9 cfs; 5/26, 78.57 cfs; 5/30, 78.9 cfs; 6/2, 71.75 cfs; 6/5, 70.48 cfs; 6/12, 71.75 cfs; 6/16, 84.93 cfs; 6/19, 74.32 cfs; 6/22, 59.42 cfs; 6/26, 84.93 cfs; 6/29, 71.75 cfs; 7/3, 70.48 cfs; 7/6, 59.42 cfs; 7/12, 47.98 cfs; 7/17, 43.14 cfs; 7/24, 49.09 cfs; 7/28, 51.32 cfs; 8/5, 53.59 cfs; 8/8, 59.42 cfs; 8/15, 60.02 cfs; 8/17, 42.62 cfs; 8/21, 37.49 cfs; 8/24, 36.99 cfs; 8/28, 29.36 cfs; 8/31, 30.27 cfs; 9/5, 30.27 cfs; 9/8, 33.09 cfs; 9/11, 40.54 cfs; 9/14, 45.27 cfs; 9/18, 45.27 cfs; 9/21, 41.57 cfs; 9/27, 42.09 cfs; 9/29, 42.62 cfs  |
| 2001 | 4/3, Off; 4/24, Off; 4/27, 9.83 cfs; 4/30, 24.08 cfs; 5/4, 27.55 cfs; 5/8, 25.36 cfs; 5/11, 59.42 cfs; 5/15, 78.9 cfs; 5/18, 84.93 cfs; 5/21, 83.58 cfs; 5/24, 74.32 cfs; 5/29, 60.02 cfs; 6/1, 82.9 cfs; 6/6, 67.34 cfs; 6/12, 66.03 cfs; 6/18, 53.59 cfs; 6/22, 40.02 cfs; 6/26, 35.51 cfs; 6/29, 41.05 cfs; 7/3, 28 cfs; 7/6, 36.49 cfs; 7/9, 28 cfs; 7/13, 29.36 cfs; 7/15, 30.74 cfs; 7/17, 42.62 cfs; 7/20, 53.59 cfs; 7/23, 52.45 cfs; 7/26, 49.64 cfs; 7/28, 48.43 cfs; 7/30, 45.27 cfs; 8/6, 51.32 cfs; 8/10, 47.98 cfs; 8/13, 46.89 cfs; 8/17, 7.8 cfs; 8/21, 6.98 cfs; 8/27, 12.36 cfs; 8/30, 7.8 cfs; 9/4, 8.08 cfs; 9/10, Off; 9/14, Off; 9/17, 4.07 cfs; 9/20, Off; 9/25, Off; 10/12, 12.03 cfs; 10/16, 23.65 cfs; 10/22, 23.65 cfs      |

### Notes:

- 1 For days in which two measurements were taken, one of the measurements was assigned to the day immediately before or after the actual measurement day.
- 2 Data from SEO Hydrographers Reports for years when spot measurements taken.

**DESCRIPTION AND OPERATION MEMORANDUM**

WHALEY DITCH

USGS ID 44107E7 USGS NAME SHELL

**DIVERSION DESCRIPTION**

Two 24" screwtype sliding steel headgates in concrete headwall that extends across Shell Creek as concrete diversion dam.

**DIVERSION LOCATION**

Source: Shell Creek  
S 49° 52' E, 325' from the NE corner of Section 32, Township 53N, Range 91W, and is in the NW 1/4 NW 1/4 Section 33.

**CONVEYANCE DESCRIPTION**

Open dirt ditch 8 1/2 miles long serving 17 users and approximately 1470 acres. Ditch capacity is approximately 40 c.f.s.

**WYOMING WATER RIGHTS**

| Priority Date | Permit Number | Permit Use | Acres  | Flow(cfs) | (af) | Cumulative Flow(cfs) | Comments |
|---------------|---------------|------------|--------|-----------|------|----------------------|----------|
| 1/01/1889     | Terr.         | Irr.       | 142.00 | 2.03      |      | 2.03                 |          |
| 6/17/1893     | 42E           | Irr.       | 692.00 | 10.03     |      | 12.06                |          |
| 9/18/1899     | 462E          | Irr.       | 434.00 | 6.19      |      | 18.25                |          |
| 4/22/1901     | 650E          | Irr.       | 269.00 | 3.83      |      | 22.08                |          |
| 12/10/1906    | 1730E         | Irr.       | 150.00 | 2.14      |      | 24.22                |          |
| 4/19/1945     | 5420E         | Irr.,Stk.  | 40.00  | 0.57      |      | 24.79                |          |
| 7/26/1948     | 5472E         | Irr.       | 15.24  | 0.22      |      | 25.01                |          |
| 12/06/1967    | 6196E         | Irr.       | 2.96   | 0.04      |      | 25.05                |          |

**STORAGE RIGHTS**

Adelaide Reservoir

**ESTIMATED CANAL LOSSES**

Varies with time of year; estimated 15-20% at peak.

**IRRIGATION PRACTICES**

Conventional flood irrigation practices with some ditch lining, considerable use of solid and gated pipe, and some sprinklers.

**CROP TYPES / CONSUMPTIVE USE**

Alfalfa hay, native hay, pasture, small grains, occasional corn, lawns and gardens, Whaley Cemetery.

**RETURN FLOWS**

All to Shell Creek.

**OTHER OPERATIONAL INFORMATION**

Informal Ditch Company.

**CONTACT INFORMATION**

Carolyn Walton  
889 HWY 14  
Greybull, WY 82426  
(307)765-4308

## PHOTO LOG

Information collected from files available at Division 3 Office of the State Engineer Office in Riverton, WY, and from the ditch contact person when available.

## DIVERSION RECORD

| Year          | Measured Data  |
|---------------|--|
| 1983          | 4/17, Off; 5/3, 2.22 cfs; 5/4, 18.75 cfs; 5/5, 23.26 cfs; 5/15, 23.26 cfs; 5/30, 23.94 cfs; 6/13, 15.96 cfs; 6/21, 11.88 cfs; 6/27, 26.71 cfs; 7/4, 23.26 cfs; 7/10, 20 cfs; 7/13, 20 cfs; 7/28, 23.26 cfs; 8/6, 16.92 cfs; 8/15, 23.26 cfs; 9/8, 16.92 cfs  |
| 1984          | 5/5, 15.46 cfs; 5/9, 16.92 cfs; 5/10, 16.92 cfs; 5/11, 22.6 cfs; 5/20, 26.71 cfs; 6/10, 22.6 cfs; 6/14, 17.52 cfs; 6/21, 18.44 cfs; 6/26, 32.2 cfs; 7/2, 16.92 cfs; 7/15, 20.32 cfs; 7/18, 21.61 cfs; 7/29, 15.75 cfs; 8/5, Off; 8/20, 64.92 cfs; 8/27, 20 cfs   |
| 1985          | 4/17, Off; 4/24, Off; 4/28, Off; 5/1, Off; 5/4, 21.61 cfs; 5/8, 26.01 cfs; 5/11, 23.26 cfs; 5/14, 16.92 cfs; 5/17, 23.26 cfs; 5/20, 30.33 cfs; 5/22, 30.33 cfs; 5/26, 21.65 cfs; 6/2, 26.71 cfs; 6/6, 26.71 cfs; 6/10, 23.26 cfs; 6/14, 23.26 cfs; 6/18, 20 cfs; 6/21, 24.96 cfs; 6/28, 20 cfs; 6/29, 18.44 cfs; 7/3, 15.46 cfs; 7/7, 15.46 cfs; 7/10, 16.04 cfs; 7/14, 13.48 cfs; 7/15, 11.88 cfs; 7/21, 8.89 cfs; 7/24, 16.92 cfs; 7/28, 17.52 cfs; 7/31, 17.52 cfs; 8/4, 16.92 cfs; 8/7, 18.44 cfs; 8/11, 16.92 cfs; 8/14, 16.92 cfs; 8/18, 18.44 cfs; 8/22, 16.92 cfs; 8/26, 14.04 cfs; 8/30, 16.92 cfs  |
| 1986          | 5/1, 4.68 cfs; 5/5, 26.71 cfs; 5/12, 23.26 cfs; 5/15, 20 cfs; 5/18, 24.25 cfs; 5/22, 26.71 cfs; 5/29, 72.43 cfs; 6/1, 23.26 cfs; 6/6, 24.96 cfs; 6/14, 12.95 cfs; 6/22, 15.46 cfs; 6/30, 24.96 cfs; 7/5, 24.96 cfs; 7/12, 23.26 cfs; 7/19, 23.26 cfs; 7/24, 15.46 cfs; 7/27, 12.67 cfs; 8/2, 3.78 cfs; 8/7, 14.04 cfs; 8/10, 18.75 cfs; 8/17, 23.26 cfs; 8/24, 18.75 cfs; 9/1, 14.04 cfs; 9/7, 14.6 cfs; 9/15, 11.36 cfs; 10/15, 6.66 cfs  |
| 1995          | 5/9, 15.45 cfs; 5/11, 8.89 cfs; 5/15, 12.67 cfs; 5/17, 20 cfs; 5/20, 17.22 cfs; 5/24, 17.52 cfs; 5/28, 17.22 cfs; 5/31, 17.22 cfs; 6/7, 16.92 cfs; 6/19, 14.04 cfs; 6/27, 27.21 cfs; 7/1, 30.3 cfs; 7/5, 30.3 cfs; 7/9, 26.7 cfs; 7/13, 24.9 cfs; 7/18, 21.6 cfs; 7/22, 21.6 cfs; 7/24, 16.92 cfs; 7/26, 16.9 cfs; 7/30, 12.7 cfs; 8/2, 26.7 cfs; 8/4, 15.4 cfs; 8/5, 21.6 cfs; 8/9, 15.5 cfs; 8/14, 11.3 cfs; 8/15, 23.3 cfs; 8/17, 25.6 cfs; 8/27, 26.7 cfs; 9/7, 20 cfs; 9/15, 16.9 cfs   |
| (Howard Enl.) | 5/8, 13.9 cfs; 5/11, 1.82 cfs; 5/15, 6.86 cfs; 5/17, 8.79 cfs; 5/20, 6.86 cfs; 5/24, 9.3 cfs; 5/31, 7.65 cfs; 6/3, 25.05 cfs; 6/7, 12.57 cfs; 6/14, 12.95 cfs; 6/19, 8.46 cfs; 6/27, 18 cfs; 7/1, 15.9 cfs; 7/9, 25 cfs; 7/13, 18.9 cfs; 7/18, 9.23 cfs; 7/22, 8.9 cfs; 7/30, 7.6 cfs; 8/5, 10.1 cfs; 8/11, 8.6 cfs; 8/21, 11 cfs; 8/27, 10.1 cfs  |
| 1996          | 5/1, 5 cfs; 5/4, 5 cfs; 5/7, 5 cfs; 5/9, 7.5 cfs; 5/13, 13 cfs; 5/20, 26 cfs; 6/1, 26 cfs; 6/5, 9 cfs; 6/9, 14 cfs; 6/12, 17 cfs; 7/1, 27 cfs; 7/5, 23 cfs; 7/14, 11 cfs; 7/16, 14 cfs; 7/17, 17 cfs; 7/19, 20 cfs; 7/20, 14 cfs; 7/22, 17 cfs; 7/25, 20 cfs; 7/27, 17 cfs; 7/31, 20 cfs; 8/3, 20 cfs; 8/5, 20 cfs; 8/8, 20 cfs; 8/17, 17 cfs; 8/18, 11 cfs; 8/21, 17 cfs; 8/24, 14.25 cfs; 8/27, 17 cfs; 9/5, 11 cfs; 9/6, 20 cfs; 9/9, 17 cfs; 9/14, 14 cfs  |
| (Howard Enl.) | 5/4, 4 cfs; 5/7, 5 cfs; 5/9, 4.2 cfs; 5/13, 8.5 cfs; 5/17, 14 cfs; 5/20, 14 cfs; 5/27, 17 cfs; 6/1, 20 cfs; 6/5, 12 cfs; 6/9, 10 cfs; 6/12, 11 cfs; 6/16, 10 cfs; 7/1, 17 cfs; 7/5, 14 cfs; 7/7, 12 cfs; 7/17, 6.5 cfs; 7/19, 6.8 cfs; 7/22, 7.65 cfs; 7/25, 8.5 cfs; 7/27, 10 cfs; 7/31, 14 cfs; 8/3, 14 cfs; 8/8, 11 cfs; 8/15, 5 cfs; 8/24, 2.93 cfs; 8/27, 8.46 cfs; 9/2, 2.86 cfs; 9/3, 5.39 cfs; 9/4, 9.46 cfs; 9/5, 4.71 cfs; 9/6, 7.5 cfs; 9/14, 8.46 cfs  |
| 1997          | 5/9, 6.03 cfs; 5/13, 8.89 cfs; 5/18, 50.83 cfs; 5/26, 32.2 cfs; 5/31, 42.17 cfs; 6/3, 20 cfs; 6/10, 20 cfs; 6/17, 7.74 cfs; 6/25, 23.27 cfs; 7/5, 17.52 cfs; 7/8, 14.04 cfs; 7/12, 14.04 cfs; 7/17, 20 cfs; 7/21, 20 cfs; 7/31, 20 cfs; 8/8, 11.36 cfs; 8/9, 16.92 cfs   |
| (Howard Enl.) | 5/9, 3.44 cfs; 5/13, 2.86 cfs; 5/18, 30.13 cfs; 5/26, 22.64 cfs; 5/31, 25.05 cfs; 6/10, 12 cfs; 6/17, 1.82 cfs; 6/25, 13.93 cfs; 7/2, 15.97 cfs; 7/5, 11.07 cfs; 7/8, 11.63 cfs; 7/12, 10.53 cfs; 7/17, 8.46 cfs; 7/21, 12 cfs; 8/2, 20.32 cfs; 8/8, 8.46 cfs; 8/23, 2.86 cfs  |
| 1998          | 5/1, 6.87 cfs; 5/4, 10.1 cfs; 5/8, 20 cfs; 5/12, 19.68 cfs; 5/15, 33.34 cfs; 5/22, 38.06 cfs; 5/26, 31.82 cfs; 6/1, 23.27 cfs; 6/5, 20.64 cfs; 6/8, 20.96 cfs; 6/11, 20.64 cfs; 6/15, 23.94 cfs; 6/18, 23.27 cfs; 6/25, 23.6 cfs; 6/29, 23.27 cfs; 7/2, 22.6 cfs; 7/6, 19.68 cfs; 7/9, 16.92 cfs; 7/13, 13.21 cfs; 7/16, 2.96 cfs; 7/20, 0.78 cfs; 7/23, 11.36 cfs; 7/27, 9.37 cfs; 7/30, 26.71 cfs; 8/4, 23.27 cfs; 8/7, 26.71 cfs; 8/10, 24.97 cfs; 8/13, 24.62 cfs; 8/17, 23.27 cfs; 8/18, 22.93 cfs; 8/21, 24.97 cfs; 8/31, 26.71 cfs; 9/4, 10.1 cfs; 9/8, 21.61 cfs; 9/11, 21.37 cfs; 9/17, 23.94 cfs; 9/21, 25.94 cfs; 9/25, 20.64 cfs; 9/28, 23.27 cfs; 10/2, 23.27 cfs; 10/5, 20.96 cfs; 10/8, 23.61 cfs; 10/12, 25.27 cfs; 10/14, 23.27 cfs; 10/19, 23.27 cfs |
| (Howard Enl.) | 5/1, 4.71 cfs; 5/4, 6.71 cfs; 5/8, 14.94 cfs; 5/12, 11.63 cfs; 5/15, 18.54 cfs; 5/18, 13.93 cfs; 5/22, 35.53 cfs; 5/26, 25 cfs; 6/1, 21.47 cfs; 6/5, 22.64 cfs; 6/8, 22.17 cfs; 6/11, 21.47 cfs; 6/15, 22.64 cfs; 6/18, 22.64 cfs; 6/25, 19.65 cfs; 6/29, 22.41 cfs; 7/2, 17.23 cfs; 7/6, 9.3 cfs; 7/9, 7.02 cfs; 7/13, 8.79 cfs; 7/16, 7.17 cfs; 7/20, 8.3 cfs; 7/23, 6.71 cfs; 7/27, 4.05 cfs; 7/30, 18.1 cfs; 8/4, 19.8 cfs; 8/7, 19.8 cfs; 8/10, 22.64 cfs; 8/13, 15.97 cfs; 8/18, 18.32 cfs; 8/21, 3.44 cfs; 8/31, 22.64 cfs; 9/4, 3.08 cfs; 9/8, 17.02 cfs; 9/11, 20.32 cfs; 9/14, 22.64 cfs; 9/17, 22.64 cfs; 9/21, 22.64 cfs; 9/25, 22.64 cfs; 9/28, 22.64 cfs; 10/2, 22.64 cfs; 10/5, 22.64 cfs; 10/10, 22.64 cfs; 10/12, 22.64 cfs; 10/14, 22.64 cfs         |
| 1999          | 4/5, Off; 4/26, Off; 5/3, 19.37 cfs; 5/6, 24.97 cfs; 5/17, 20.32 cfs; 5/25, 20.32 cfs; 5/28, 19.37 cfs; 6/1, 19.68 cfs; 6/4, 18.44 cfs; 6/8, 20 cfs; 6/10, 17.82 cfs; 6/14, 24.97 cfs; 6/18, 27.06 cfs; 6/21, 23.6 cfs; 6/24, 24.97 cfs; 6/28, 23.6 cfs; 7/2, 23.94 cfs; 7/6, 34.5 cfs; 7/12, 26.01 cfs; 7/16, Off; 7/19, 19.37 cfs; 7/23, 16.92 cfs; 7/28, 19.68 cfs; 7/30, 29.96 cfs; 8/3, 21.61 cfs; 8/6, 20.96 cfs; 8/11, 22.64 cfs; 8/13, 22.64 cfs; 8/16, 22.32 cfs; 8/19, 19.37 cfs; 8/24, 11.61 cfs; 9/2, 20.32 cfs; 9/8, 26.01 cfs; 9/10, 26.01 cfs; 9/15, 23.61 cfs; 9/17, 20.64 cfs; 9/21, 24.28 cfs; 9/24, 21.28 cfs; 9/29, 20 cfs; 10/5, 16.92 cfs; 10/8, 16.92 cfs; 10/18, 12.14 cfs; 10/20, 12.14 cfs; 10/26, 11.87 cfs; 10/28, 11.87 cfs               |
| (Howard Enl.) | 4/13, Off; 4/26, Off; 5/3, 7.17 cfs; 5/6, 16.33 cfs; 5/14, 13.15 cfs; 5/17, 12 cfs; 5/25, 25.84 cfs; 5/28, 20.32 cfs; 6/1, 17.23 cfs; 6/4, 16.17 cfs; 6/8, 19.87 cfs; 6/10, 22.64 cfs; 6/14, 11.26 cfs; 6/18, 22.64 cfs; 6/21, 10.17 cfs; 6/24, 22.64 cfs; 6/28, 19.65 cfs; 7/2, 9.3 cfs; 7/6, 13.93 cfs; 7/12, 17.88 cfs; 7/16, 4.05 cfs; 7/19, 15.97 cfs; 7/23, 13.73 cfs; 7/26, 11.62 cfs; 7/28, 5.68 cfs; 7/30, 19.2 cfs; 8/3, 17.02 cfs; 8/6, 17.66 cfs; 8/11, 17.02 cfs; 8/13, 16.38 cfs; 8/16, 15.55 cfs; 8/19, 21.05 cfs; 8/24, 10 cfs; 9/2, 3.93 cfs; 9/8, 7.81 cfs; 9/10, 15.14 cfs; 9/17, 19.2 cfs; 9/21, 14.53 cfs; 9/24, 20.32 cfs; 9/29, 17.02 cfs; 10/5, 19.65 cfs; 10/8, 19.87 cfs; 10/18, 14.33 cfs; 10/20, 14.13 cfs; 10/28, 13.93 cfs               |

|               |   |
|---------------|---|
| 2000          | 4/3, Off; 4/10, 4.31 cfs; 4/14, 15.45 cfs; 4/17, 15.17 cfs; 4/21, 16.62 cfs; 4/24, 6.45 cfs; 4/28, 14.32 cfs; 5/2, 27.78 cfs; 5/5, 22.6 cfs; 5/12, 20.32 cfs; 5/15, 20.96 cfs; 5/19, 34.5 cfs; 5/23, 30.33 cfs; 5/26, 27.78 cfs; 5/30, 14.04 cfs; 6/2, 15.17 cfs; 6/5, 15.45 cfs; 6/12, 25.31 cfs; 6/16, 27.42 cfs; 6/19, 21.28 cfs; 6/22, 20.64 cfs; 6/26, 23.27 cfs; 6/29, 20.32 cfs; 7/3, 16.92 cfs; 7/6, 23.27 cfs; 7/12, 12.67 cfs; 7/17, 19.37 cfs; 7/24, 20.96 cfs; 7/28, 23.27 cfs; 8/1, 11.36 cfs; 8/5, 20.32 cfs; 8/8, 16.33 cfs; 8/15, 10.84 cfs; 8/17, 17.52 cfs; 8/21, 20 cfs; 8/24, 20 cfs; 8/28, 20.32 cfs; 8/31, 21.28 cfs; 9/5, 18.44 cfs; 9/8, 20 cfs; 9/11, 20.64 cfs; 9/14, 13.76 cfs; 9/18, 9.37 cfs; 9/21, 11.36 cfs; 9/27, 23.27 cfs |
| (Howard Enl.) | 4/3, Off; 4/10, Off; 4/14, 5.39 cfs; 4/17, 5.53 cfs; 4/21, 5.68 cfs; 4/24, 2.64 cfs; 4/28, 1.04 cfs; 5/2, 9.3 cfs; 5/5, 19.65 cfs; 5/12, 22.41 cfs; 5/15, 19.2 cfs; 5/19, 22.64 cfs; 5/23, 22.78 cfs; 5/26, 22.64 cfs; 5/30, 19.1 cfs; 6/2, 13.15 cfs; 6/5, 22.24 cfs; 6/12, 23.24 cfs; 6/16, 18.59 cfs; 6/19, 10.65 cfs; 6/22, 12.19 cfs; 6/26, 15.53 cfs; 6/29, 10.82 cfs; 7/3, 12.63 cfs; 7/6, 16.97 cfs; 7/12, 8.97 cfs; 7/17, 5.53 cfs; 7/24, 14 cfs; 7/28, 11.82 cfs; 8/1, 2.82 cfs; 8/5, 11.17 cfs; 8/8, 12.63 cfs; 8/15, 5.98 cfs; 8/17, 7.56 cfs; 8/21, 7.56 cfs; 8/24, 5.57 cfs; 8/31, 12 cfs; 9/5, 14.93 cfs; 9/8, 19.98 cfs; 9/11, 12.81 cfs; 9/14, 5.97 cfs; 9/18, 7.65 cfs; 9/21, 9.3 cfs; 9/27, 22.64 cfs; 9/29, 22.41 cfs                   |
| 2001          | 4/3, Off; 5/4, Off; 5/8, 7.52 cfs; 5/11, 35.34 cfs; 5/15, 31.07 cfs; 5/18, 44.7 cfs; 5/21, 40.9 cfs; 5/24, 37.66 cfs; 5/29, 39.28 cfs; 6/1, 34.89 cfs; 6/6, 21.94 cfs; 6/12, 22.6 cfs; 6/18, 15.45 cfs; 6/22, 17.22 cfs; 6/26, 10.59 cfs; 6/29, 10.59 cfs; 7/3, 17.22 cfs; 7/6, 8.2 cfs; 7/10, 19.37 cfs; 7/15, 19.37 cfs; 7/17, 18.44 cfs; 7/20, 12.4 cfs; 7/23, 19.68 cfs; 7/26, 12.67 cfs; 7/28, 18.44 cfs; 7/30, 20 cfs; 8/6, 11 cfs; 8/10, 16.92 cfs; 8/13, 7.97 cfs; 8/17, 17.22 cfs; 8/21, 14.88 cfs; 8/27, 15.17 cfs; 8/30, 17.22 cfs; 9/4, 16.92 cfs; 9/10, 19.37 cfs; 9/14, 18.13 cfs; 9/17, 18.13 cfs; 9/20, 18.13 cfs; 9/25, 16.62 cfs; 10/12, 15.45 cfs; 10/16, 16.92 cfs; 10/22, 15.45 cfs  |
| (Howard Enl.) | 4/3, Off; 4/6, Off; 4/12, Off; 4/17, Off; 4/20, Off; 4/24, Off; 4/27, Off; 4/30, Off; 5/4, Off; 5/8, 1.63 cfs; 5/11, 20.1 cfs; 5/15, 21.24 cfs; 5/18, 25.64 cfs; 5/21, 25.64 cfs; 5/24, 26.36 cfs; 5/29, 26.6 cfs; 6/1, 20.23 cfs; 6/6, 18.94 cfs; 6/11, 19.81 cfs; 6/18, 15.73 cfs; 6/22, 15.14 cfs; 6/26, 8.71 cfs; 6/29, 4.42 cfs; 7/3, 7.33 cfs; 7/6, 10.53 cfs; 7/9, 15.97 cfs; 7/13, 12.38 cfs; 7/15, 12.76 cfs; 7/17, 8.46 cfs; 7/20, 5.68 cfs; 7/23, 5.79 cfs; 7/26, 4.98 cfs; 7/28, 10.35 cfs; 7/30, 8.63 cfs; 8/6, 2.64 cfs; 8/10, 5.53 cfs; 8/13, 3.44 cfs; 8/17, 9.49 cfs; 8/21, 9.13 cfs; 8/27, 3.68 cfs; 8/30, 7.49 cfs; 9/4, 11.26 cfs; 9/10, 9.82 cfs; 9/14, 7.65 cfs; 9/17, 12.38 cfs; 9/20, 7.97 cfs; 9/25, 3.68 cfs                      |

Notes:

- 1 For days in which two measurements were taken, one of the measurements was assigned to the day immediately before or after the actual measurement day.
- 2 Data from SEO Hydrographers Reports for years when spot measurements taken.