

MEMORANDUM

DATE: August 13, 2001

TO: File 29-00589.

FROM: Cindy E. Bird

REF: Portneuf-Marsh Valley Canal Company Diversion Points.

Thursday August 9th, 2001 I met with three representatives from the Portneuf-Marsh Valley Canal Company, Ellis Gilbert, Gordon and Eric Olson. We met at the Majestic Market in Lava Hot Springs at 9:00 A. M. where I outlined that I would need to verify the points of diversion for the system. We also discussed the contact on the claim is now deceased and that the updated contact is now Ellis Gilbert and those changes are noted in the claim file. I also informed them that Allen Ruberry would be doing the final review on the claim and they should direct any specific questions about the claim to him.

First, I followed them from the Majestic Market to Chesterfield Reservoir. Chesterfield Reservoir is used for irrigation storage. The reservoir is located in Caribou County within two adjacent townships; 5 south, range 38 east, sections 11, 13 and 14, township 6 south, range 38 east, section 24 and 6 south, 39 east, section 19, of the Boise Meridian.

The Portneuf-Marsh Valley Canal Company diverts water from Toponce Creek into Chesterfield Reservoir for storage from 9-16 to 4-30. At the reservoir they divert the water into the Portneuf River from 5-1 to 9-15 for irrigation. Where it's delivered free of losses to the head of their system below the steel railroad bridge between McCammon and Lava Hot Springs on state Hwy 30. *ABOVE (upstream of)*

Conveying Toponce Creek:

Toponce Creek is diverted from the SESE of section 33, township 6 south, range 38 east of the Boise Meridian and flows northeasterly into the feeder canal to Chesterfield Reservoir for irrigation storage.

Photo 1 shows the diversion structure from Toponce Creek to the feeder canal. The yellow dot in Figure 1 below graphically shows this same point of diversion. The GPS point was obtained with a Garmin GPS III plus unit on top of



Photo 1. Toponce Creek Diversion

the diversion structure. The background image is the 1987-88 NAPP photography. The figure also shows the Garmin Waypoint file name 589TOP highlighted in yellow. The file name reflects the claim number A29-00589 at Toponce Creek.

Several GPS points were taken for the Portneuf-Marsh Valley Canal Company with the same Garmin GPS unit. All of the points were downloaded using the Garmin Waypoint+ program and then displayed using ArcView.



Photo 2. Feeder Canal at Toponce Creek.

Photo 2 above is looking northeasterly from the Toponce Creek diversion at the feeder canal.

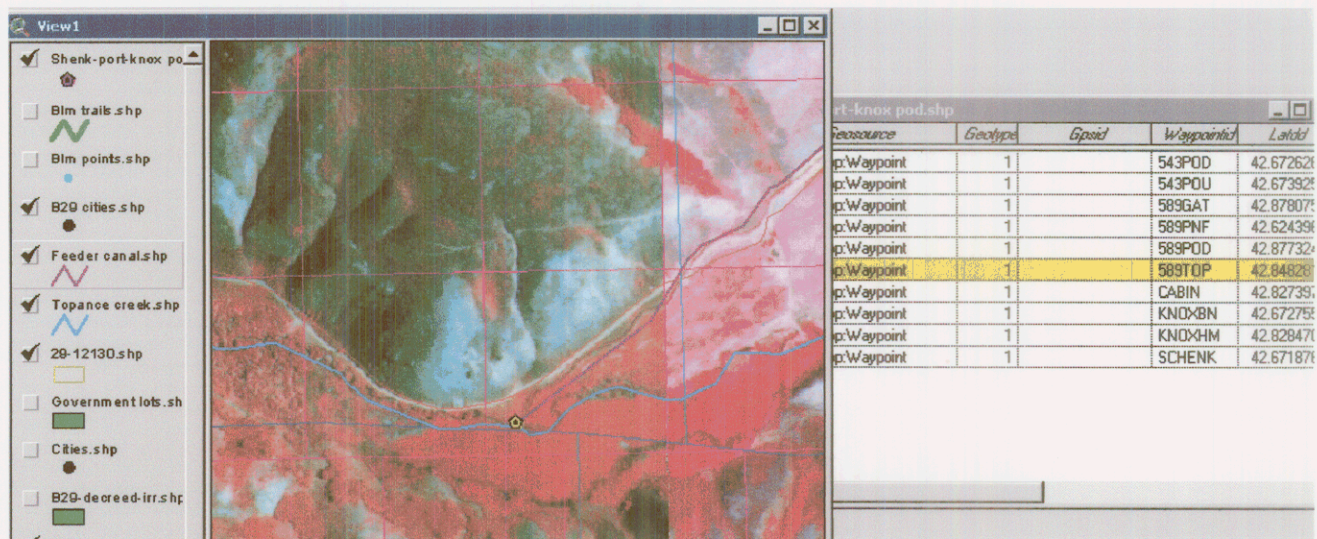


Figure 1. Toponce Creek Diversion. Toponce Creek is the light blue line and the purple line is the Feeder Canal.



Photo 3. Chesterfield Reservoir

Chesterfield Reservoir stores the irrigation water from 1-1 to 12-31.

Photo 3 was taken from the crest of the earth dam looking in a northwesterly direction at the reservoir.

Photo 4 below was also taken from the crest looking at the structure for the manual release gate from the reservoir. Once the water exits the reservoir it's conveyed through an open channel

approximately 212 feet to the Portneuf River. A staff gage (photo 5) was installed approximately 137 feet from the release point (figure 2) in the open channel at the flume. Figure 2 below graphically shows the conveyance from the reservoir to the Portneuf River. The yellow points in figure 2 indicate the location of the manual gate and the flume in the open channel. GPS file 589GAT was acquired at the manual gate shown in photo 4 below.



Photo 4. Release gate at Chesterfield Reservoir.



Photo 5. Staff gage at Chesterfield Reservoir.

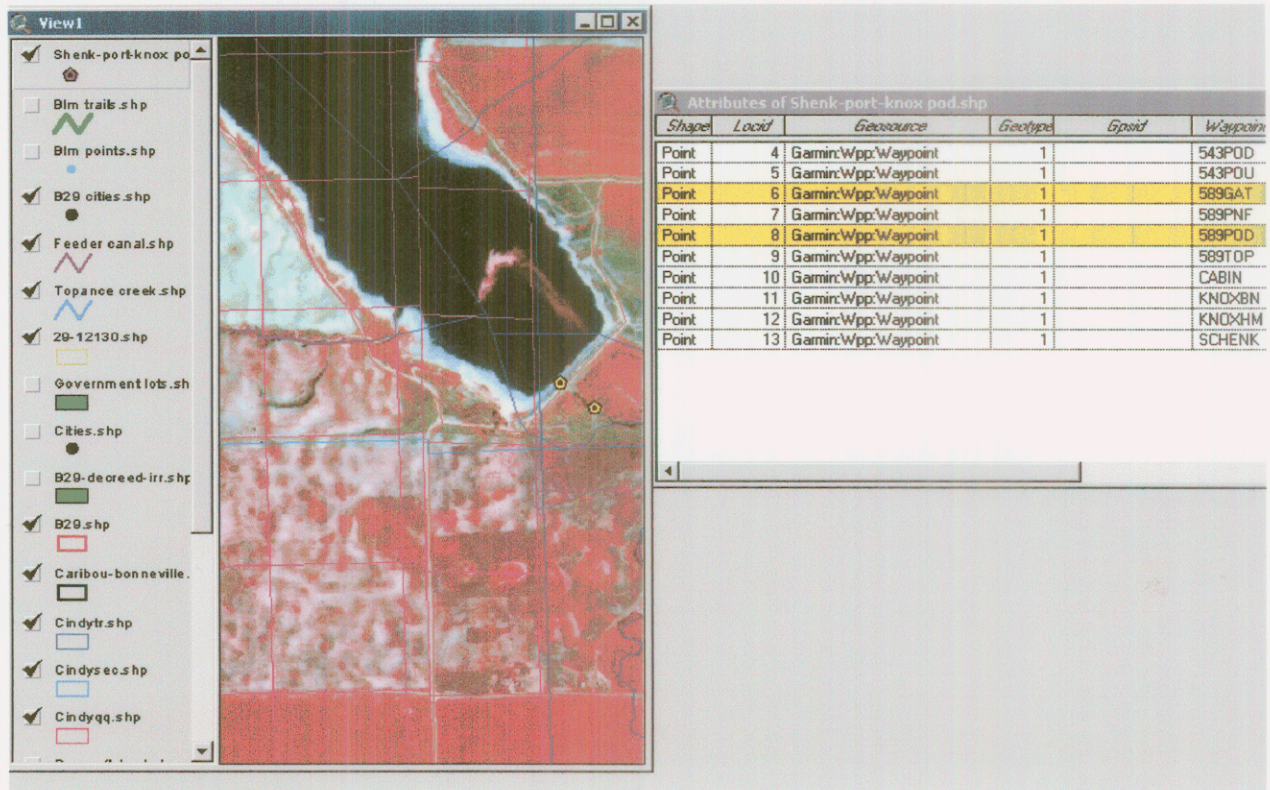


Figure 2. Chesterfield Reservoir



Photo 6. Down stream from the flume at Chesterfield Reservoir.

GPS file 589POD was acquired from the top of the flume structure shown in photo 6.

We finally arrived at the diversion structure below the steel railroad bridge on state Hwy 30 located in the SENW of section 22, township 9 south, range 37 east of the Boise Meridian.

Photo 7 was taken from the upstream side where the water is diverted from the Portneuf River.



Photo 7. Head of the canal system.

Figure 3 below shows the location and relative GPS point to that site. The GPS file for this site is also highlighted in yellow.

The GPS points taken for this claim will be forwarded to Allen Ruberry to use in his final recommendation.

In conclusion, Topance Creek and Portneuf River diversions should be added to the claim as points of diversion as noted in the file.

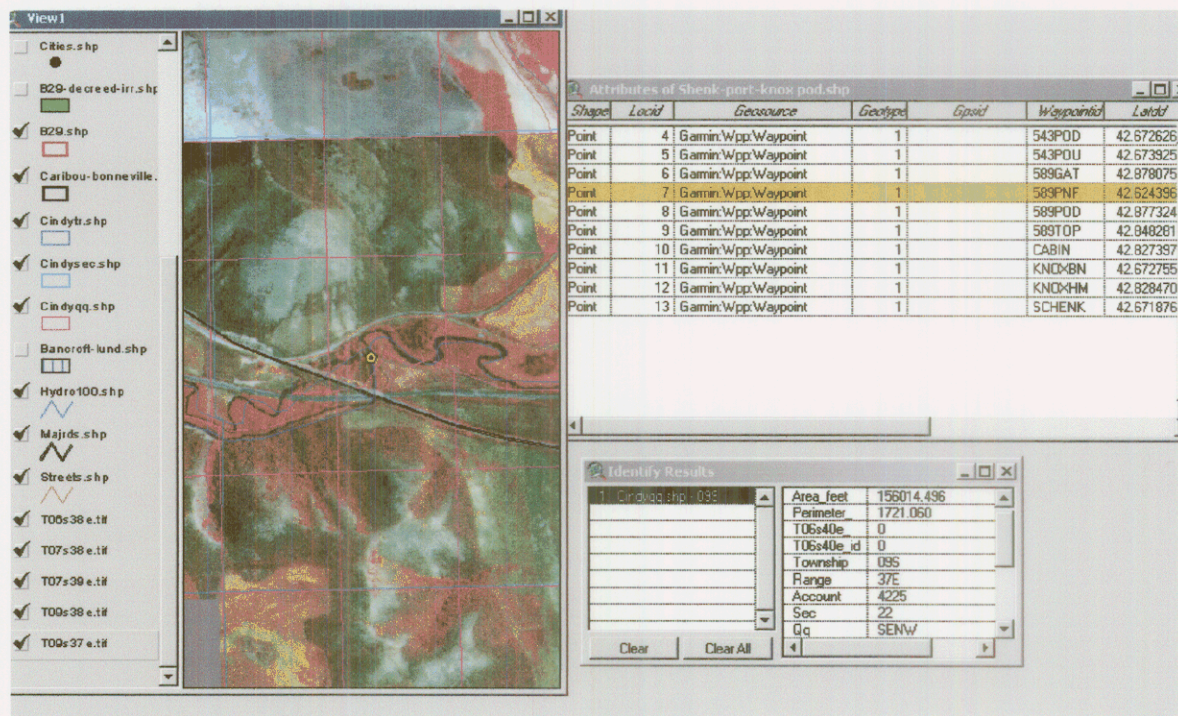


Figure 3. Diversion from the Portneuf River to the head of the canal system.