

24 March 1999

Mullah Abdul Bahri, Governor
Helmand Province
Lashkar Gah

Sir,

The following information is a summary of the accomplishments of the MCI Boghra Desilting Project between December 1998 and March 1999:

1. Graded and improved 57 km. of service road along the Boghra canal, between Chan-i-Anjir and the Boghra canal, and between Lashkar Gah and Chan-i-Anjir.

These service roads were primarily in the areas where the project worked or roads leading to the area. This is only a very small percentage of the roads in need of grading. We used the MCI grader to do this work. The road work was in direct support of the Boghra canal work.

2. Cleaned 38 km. of the Boghra canal of accumulated silt using hand labor. This involved about 80,000 man days of labor on all hand labor activities. At maximum work level, we had up to 2,500 men working in a single day.

3. Cleaned 28 km. of the Boghra canal of accumulated silt using two HAVA UNEX backhoes (heavy machinery). We followed the backhoes with hand labor to remove additional loose silt and to smooth the embankment surface.

For cleaning the first two kms. of the Boghra canal, we used a HAVA bulldozer, an MCI bulldozer and two HAVA draglines.

About 6 km. of this desilting work was double counted. The backhoe cleaned one side of the canal while hand labor cleaned the other.

The total length of the Boghra canal is 94 km.

4. Cleaned 19 underdrains along the Boghra canal in both Nad-i-Ali and Marja mainly using hand labor. An additional 7 underdrains were cleaned by UNEX backhoe between 75 and 79 kms.

south of the Boghra canal intake. Underdrains are structures that allow desert flood water to pass under the Boghra canal. If these structures are not cleaned, the desert flood waters may break the canal embankment. Most of these underdrains were completely blocked by silt and required considerable hand excavation. None functioned at more than 10% of the original capacity before cleaning.

5. Repaired 130 meters of Boghra canal wall and service road on the left bank, 1.8 km. south of the Boghra intake structure. About half the service road surface road had flaked into the Boghra canal at this point.

We used HAVA dump trucks, a backhoe loader, some local tractors and an MCI bulldozer for this work.

6. Repaired 120 meters of canal wall and service road on the right bank of the Boghra canal, 11.2 km. south of the Boghra intake structure. The complete canal embankment had been washed into the Boghra canal at this point. We used mainly local tractors and the MCI bulldozer for this work.

7. Built a nullah inlet concrete culvert, 5.8 km. south of the Boghra intake structure just below the Girishk power house, using hand labor.

8. Built gabion flood protection structures for the barrels of the Loy Manda (km. 29+865) and Ab Pashak (km. 15+325) siphons. These siphons were in the process of being damaged by the annual flood waters.

We used HAVA dump trucks, a backhoe loader, local tractors, a HAVA bulldozer and the MCI bulldozer for this work, plus a lot of hand labor.

9. Repaired 335 meters of damaged canal wall with gabion protection in 8 different locations. Three locations near the Shamalan canal intake off the Boghra canal, 31.9 km. south of the Boghra intake structure. And 5 locations near the siphon in Nadi-Ali 46.6 km. south of the Boghra canal intake structure.

We used local dump trucks, tractors and a lot of hand labor to do this work.

10. Repaired 32 meters of canal wall and service road on the right bank of the Boghra canal, 48 km. south of the Boghra canal intake structure. The complete canal embankment had been washed into the Boghra canal at this point. We used the large HAVA bulldozer to do this work.

11. Repaired and rebuilt 695 meters of flood protection dikes that help channel flood water into the siphon 46.6 km. south of

the Boghra intake structure. The 32 meter break in the canal wall in #10 above, was caused by flood water not diverted by the old eroded dikes. This repair protects the canal at this point. We used the large HAVA bulldozer to do this work.

12. Rechannelled the wash crossing at Shovel siphon at 39.8 kms. south of the Boghra canal intake. This wash becomes Chan-i-Anjir wash further down stream. Some of the large protection rocks were moved to the outer edges of the wash to protect the service road and siphon embankment. Silt was removed from the center of the wash crossing to clear the channel. Large quantities of earth fill were placed and compacted on the edges of this embankment. This work was done by local tractors, the large HAVA bulldozer and a lot of hand labor.

There were other small Boghra canal repair activities in addition to the above but the primary activities are listed here. If there are other details of this work needed, please let us know. We do not yet know what the total cost of this work was.

It was an honor and a pleasure to have worked with you, your staff and HAVA during these past 4 months. It was truly the joint and cooperative effort that made the success of this work on the Boghra canal possible. I hope that this work can continue. Best wishes.

Richard B. Scott
MCI Project Manager
Lashkar Gah