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State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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DIVISION OF OIL GAS & MINING
FIELD VISIT FORM
TECHNICAL

Date: July 23, 1997

Time: 10:30 AM to 1:00 PM

Mine: Willow Creek

File Number: ACT/007/038, Folder #2

DOG M Staff: Paul Baker

Other Attendees: Mike Slater (Wildlife Resources), Rollin Daggett and Dennis Martin (consultants)

Purpose: To look at vegetation in the relocated areas of Willow Creek and on the topsoil pile. I fortuitously met Messrs. Slater, Daggett and Martin who were electrofishing the creek as part of the effort to quantify any effects of the mine on fish populations.

Observations: There are two areas where the creek was relocated. The total distance is about 1100 feet. I tried to count all willows and cottonwoods in the new stream channel area with the exception of several plants near the upper- and lowermost sections. I found a total of 36 willows and 28 cottonwoods which averages about one every 35 feet on each side of the creek.

Most of the upland areas are dominated by weeds, particularly tumbled mustard (*Sisymbrium altissimum*) and an annual *Chenopodium* spp. There is also quite a lot of downy brome and little barley.

Among the desirable species are some transplanted Wood's rose and golden currants. Other species include fourwing saltbush, prostrate kochia, bottlebrush squirreltail, yellow sweet clover, rubber rabbitbrush, and big sage.

There were apparently not as many fish in the creek as there have been in the past. We caught two rainbow trout, and two others escaped. We also caught at least three speckled dace, a reidside shiner, and a mountain sucker. The two trout were both about 10 inches long and weighed about 150 grams.

Recommendations/Conclusions: I was impressed there were several places the stream where sandbars are starting to build up and that it may be easier to try any remedial revegetation efforts

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next spring rather than this fall. Also, it looks like there is some natural recruitment from adjacent willow stands, and these are more likely to become established when there is a finer substrate in which they can root.

Despite this, I think it will be necessary to plant more willow and cottonwood cuttings, plants, and poles. The density is not very high, and it will take a long time to get adequate numbers with strictly natural establishment. However, I do believe the streambank vegetation would eventually reestablish to a natural condition given adequate time.

I do not feel the same about vegetation on the slopes above the stream. If left alone, I feel strongly the area will be dominated by weeds indefinitely.

Signature: _____



on August 14, 1997

Paul B. Baker, Reclamation Biologist

cc: Pete Hess

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