

STATE OF ALASKA

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF MINING AND WATER MANAGEMENT

Northern Regional Office

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Anvil Cr.

INSPECTION REPORT BETTY KRUTZSCH MINE F986842

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Inspection Date: September 14 & 15, 1998
Next Inspection Date: Spring 1999
Land Status: Private
Land Owner: Alaska Gold Company; Betty Krutzsch
Operator: Betty and August Krutzsch
Agency Personnel: Ryan Hull, DMWM
Inspection Objectives: Determine necessary action to avoid further water quality degradation; inspect reclamation and directives that were to occur prior to this inspection.
Note: See attached daily notes, sketches and photos for additional details.

Alaska Dept. of Natural Resources
Habitat - Region III

1) Description of Access:

a) Within Claim Block:

Private Land

b) Outside of Claim Block:

Access is via Glacier Creek Road - all season road.

2) Mining and Exploration Activity:

a) Description of Activity:

9/14 & 15: Equipment breakdowns have caused sluicing to stop. They were about to start up again at the time of the inspection. They indicated that all rock tailings would be hauled to areas requiring armoring. I indicated that I would return on the 18th to look at the site again.

9/18: Sluicing and rock tailing production had begun. They had hauled some rock to various areas. Lower 1997 ponds have been partially reclaimed. (See attached plan sketch for more detail)

Currently mining cut on the left limit as proposed in the 1998 APMA. Total pit disturbance estimated at 4 acres. Pay dirt is hauled across the creek to the wash plant and recycle system. Pond area is approximately 2 acres. Frequent equipment breakdowns have delayed proposed mining and directed reclamation.

b) Topsoil and Overburden Muck:

In the current cut, stockpiled topsoil and overburden appear stable. No apparent impact to the stream observed.

In the upstream disturbance, sediment is still eroding from both limits to the stream.

In accordance with the directive outlined in the previous inspection, stockpiled overburden in the upper areas have not been pushed toward the stream channel.

c) Settling Ponds:

The top two 1997 wash ponds have been capped and additional material has been placed on them to stabilize. Bottom 1997 ponds have not been completely capped. It was agreed that all 1997 ponds would be capped prior to the Sept. inspection.

Current ponds seem stable and are located out of the stream flood plane.

d) Stream Diversion:

No stream diversions; recommended action for stream channel reconstruction not done.

3) Reclamation Activities:

a) Ponds:

All 1997 ponds have not been capped. This was one of the directives to be accomplished prior to the Sept. inspection. Two of the ponds are capped and additional material has been placed on top to secure. By 9/18 capping of the remaining ponds was in progress.

The lower two 1998 ponds appear to be able to withstand heavy rainfall and breakup without failing. The upper 1998 pond is nearly full of sediment and will be capped with tailings prior to the conclusion of the mining season.

b) Stream Diversions:

The stream channel has not been reconstructed as agreed upon during the July inspection. Some rock has been hauled up valley, but has not been utilized for erosion control or stabilization.

Adjacent to the 1997 pond area, it has been agreed upon that rock should be placed in the current channel as both limits are too steep to construct the ADF&G recommended channel.

A ditch has been constructed on the right limit to carry spring water away from the operation.

The spillway on the lowest pond/dam has not been rocked or maintained. This was to be done.

d) Surrounding disturbance:

During the July inspection, it was determined that no overburden would be pushed toward the stream until the stream channel was reconstructed and was reasonably stable. "Chevron" dams were to be placed up valley to stop erosion into the stream. This has not been accomplished.

e) Exploration Trenches and Drill Holes:

N/A

f) Removal of Camp, Equipment and Debris:

Camp and related facilities are located on private land.

l) Recommendations/Directives:

- a) Continue with agreed upon directives as outlined in the July field inspection report;
- b) Adjust stream reclamation adjacent to 1997 ponds as outlined in this report;
- c) Complete the directed stabilization and reclamation and submit **conclusive** photo or video documentation prior to the end of the season and 1999 permitting. Documentation should show each area noted on the July directive list.

Encl: July Inspection Directives
Plan Sketch of Operation
Photos from September Inspection

cc: Jules Tileston, Division of Mining and Water
Mitch Henning, Division of Mining and Water
Rep. Richard Foster
Scott Miller, Alaska Gold Company
Mac McLean, Alaska Dept. of Fish & Game
Pete Rob, Alaska Dept. of Fish & Game, Nome
Cindi Godsey, EPA
Michael Yanez, City of Nome
Shannon Hanson, U.S. Army Corps of Engineers
Joran Freeman, Office of Environmental Health, Nome

Daily Notes:

Sept. 14: Conducted a quick overview visit to the site. Purpose was to determine progress on directives outlined during the July inspection. The following things were noted and observed:

- 1) The spillway located at the removed dam was not armored nor maintained. Some down cutting in the dam and upstream sediments had occurred. Spillway was to be armored and maintained by Sept. inspection.
- 2) 1997 ponds which remained to be capped, were not capped. Auggie Krutzsch told me that the pond was left open for the bus loads of tourists that visit the site to pan into. The upper two 1997 ponds have had additional material placed on top and some topsoil/vegetation spread on top. Down slope side of uppermost pond decreased. Remaining ponds were to be capped by Sept. inspection.
- 3) Some rock has been hauled up-valley to the uppermost disturbed area. The rock is to be spread adjacent to the stream to stabilize the slopes and stream. No stream channel has been reconstructed. Reason this and all other reclamation were not accomplished is due to equipment breakdowns.
- 4) Current operation has begun. Ponds have been constructed on the recommended right limit side of the creek. Ponds and cut appear stable.
- 5) A ditch has been constructed on the right limit side of the access road to carry the spring water around the operation.

Sept. 15: Scott Miller, AK Gold Company, accompanied me to the site to discuss the operation with Betty K.

During the visit I discussed with Betty and Auggie concerning the fact that the agreed upon directives were not accomplished. They blamed equipment failure for not accomplishing the work. During the July inspection Scott Miller told Betty that she could get as much rock as needed from his operations near Nome. Betty's dump truck is not in shape enough to make the necessary travel.

The spillway was not rocked or maintained as agreed. Betty claimed that her loader would not make it across to place rock.

I indicated that since the work was not accomplished, as agreed, that I would probably pursue non-compliance measures. They asked that I come back Friday, 9/18, to see that they are trying to do the work – once they get their plant and equipment running. They have limited rock and use rock washed in plant. Their plant has been down, therefore no rock. We walked the disturbance:

- 1) Upstream, no stream reclamation has been done.
- 2) A berm will be constructed above the top 1997 capped pond to channel runoff water across valley to the creek, rather than across the capped ponds.
- 3) Adjacent to the 1997 pond area, the stream flows into a deep channel. Pulling the banks back to create a stream channel is not feasible. We agreed that in this area, rock would be placed into the channel and partially up both slopes; enough rock is to be placed such that erosion is eliminated.
- 4) Downstream from the 1997 ponds no stream channel reconstruction has occurred.
- 5) Ditch to carry spring water around the right limit side seems to be working well. Discussed routing water through JD Walsh's old pond but rejected the idea due to obvious erosion potential.
- 6) Need to rock the spillway.

Sept. 19: Equipment and plant is working. They are washing pay dirt.

The rock produced is being trucked to areas needing erosion control:

- 1) Spillway on low end of operation;
- 2) Berm and drainage above 1997 wash plant area;
- 3) Channel to be rock filled on left limit side of 1997 ponds;
- 4) Up-valley to uppermost disturbance for erosion control and stream reconstruction.

Lowest 1997 pond capping has begun. Pond will be entirely capped by end of 1998. An emerging spring on the right limit of the pond will be routed above the 1998 pond system. A significant berm will be constructed to avoid runoff into the 1998 ponds system. At least the first 1998 pond will be capped. Remaining lower two ponds will be capped if excess water is entering them. Otherwise, they will be secured and left for 1999 operations.

A drainage ditch will be constructed on the up-slope side of the 1998 cut.

I indicated to them that a notice of non-compliance will be issued because the agreed upon directives were not completed. The non-compliance will state that if all 1998 work is not completed and conclusive documentation submitted to the Division of Mining by the end of the 1998 season, a permit to mine in 1999 will be denied until work is completed. They understood.

They indicated that they would be on-site early enough in 1999 to control break up water.

A copy of this report was delivered to Betty Krutzsch on Sept. 18, 1998 (signature on original).

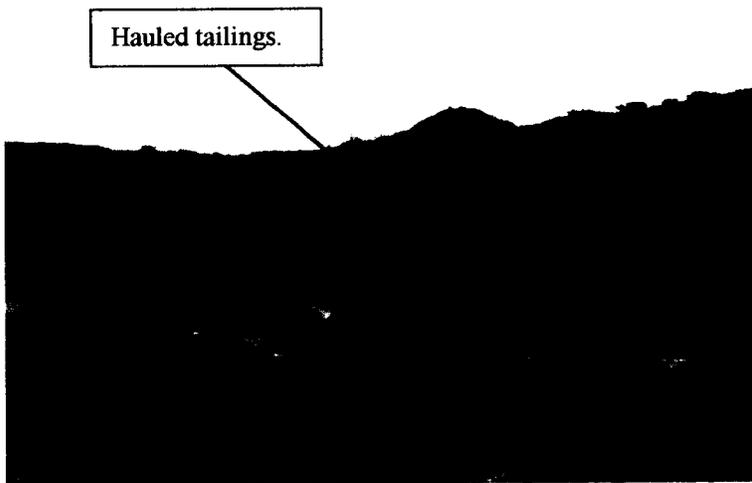


Figure 1. Coarse tailings hauled upstream to be used for stream reconstruction and erosion control.



Figure 2. Adjacent to the 1997 wash area. Due to restrictions the stream will not be widened. It will be filled with rock to deter erosion. August Krutzsch – left, Scott Miller – Right.

This area will be widened.

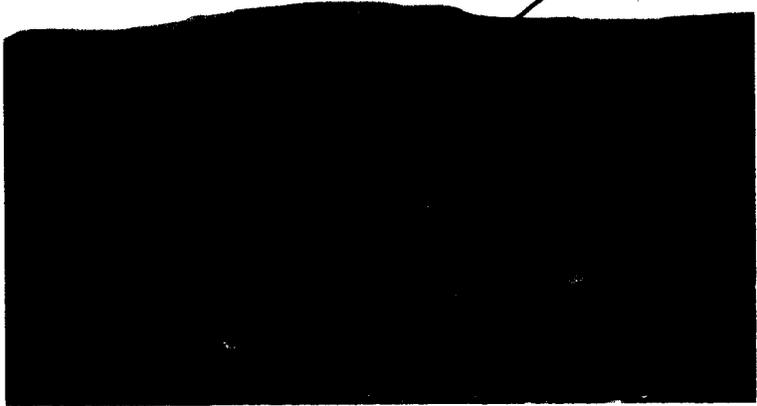


Figure 3. Lower end of the channel that is adjacent to the 1997 capped ponds. Material will be pulled back from stream where feasible. Rock will be placed in the stream to deter erosion.

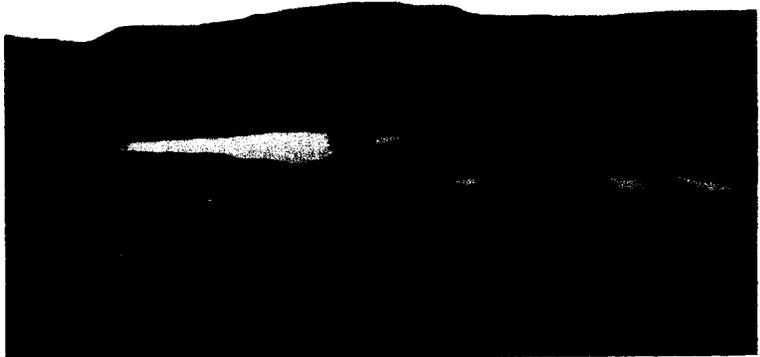


Figure 4. Unreclaimed 1997 ponds. These were to be capped prior to the Sept. inspection. Trees in foreground were transplanted.



Figure 5. 1998 pond system. Tailings in the lower right will be pushed out to cap pond immediately below.

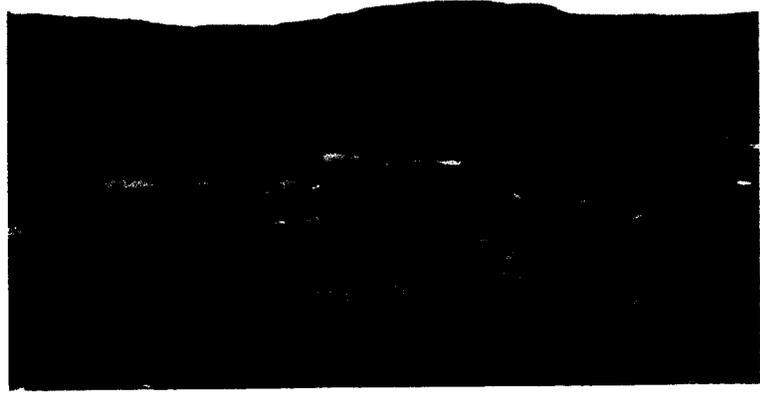


Figure 6. Road from 1998 mining cut to wash plant. Culvert will be removed at the end of the season.

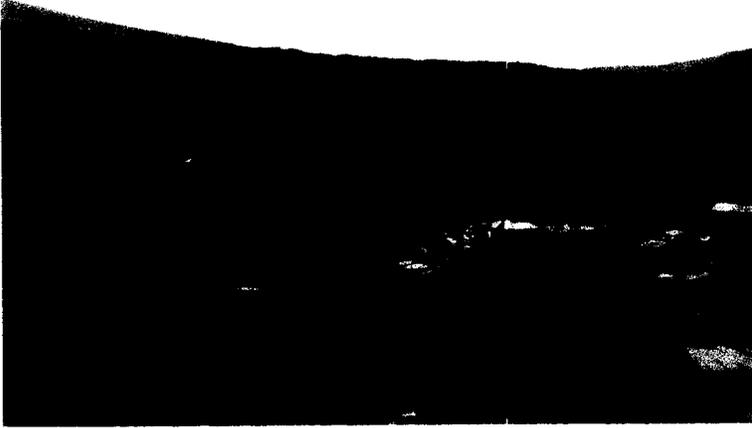


Figure 7. 1998 mining cut.

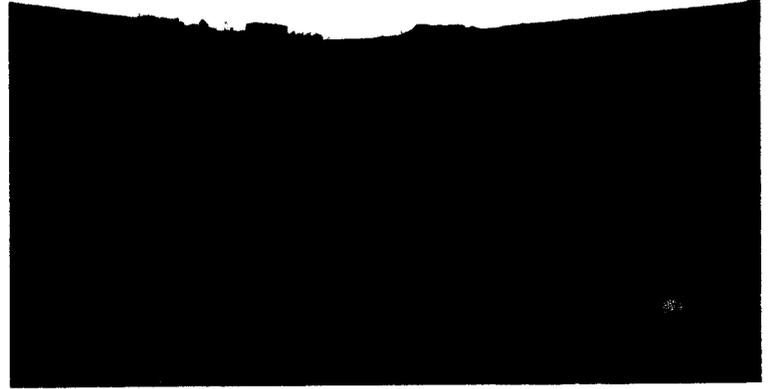


Figure 8. Upstream view of right limit ditch constructed to carry spring and run off water around operation.

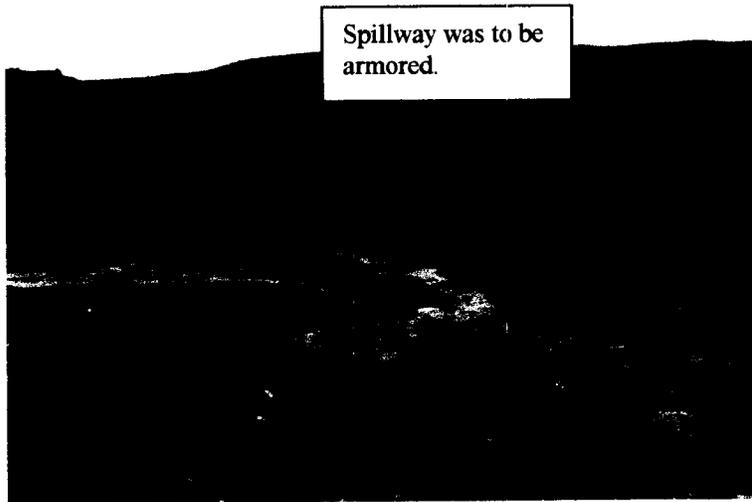


Figure 9. Spillway where dam was removed was to be armored prior to the Sept. inspection. Some down cutting has occurred.



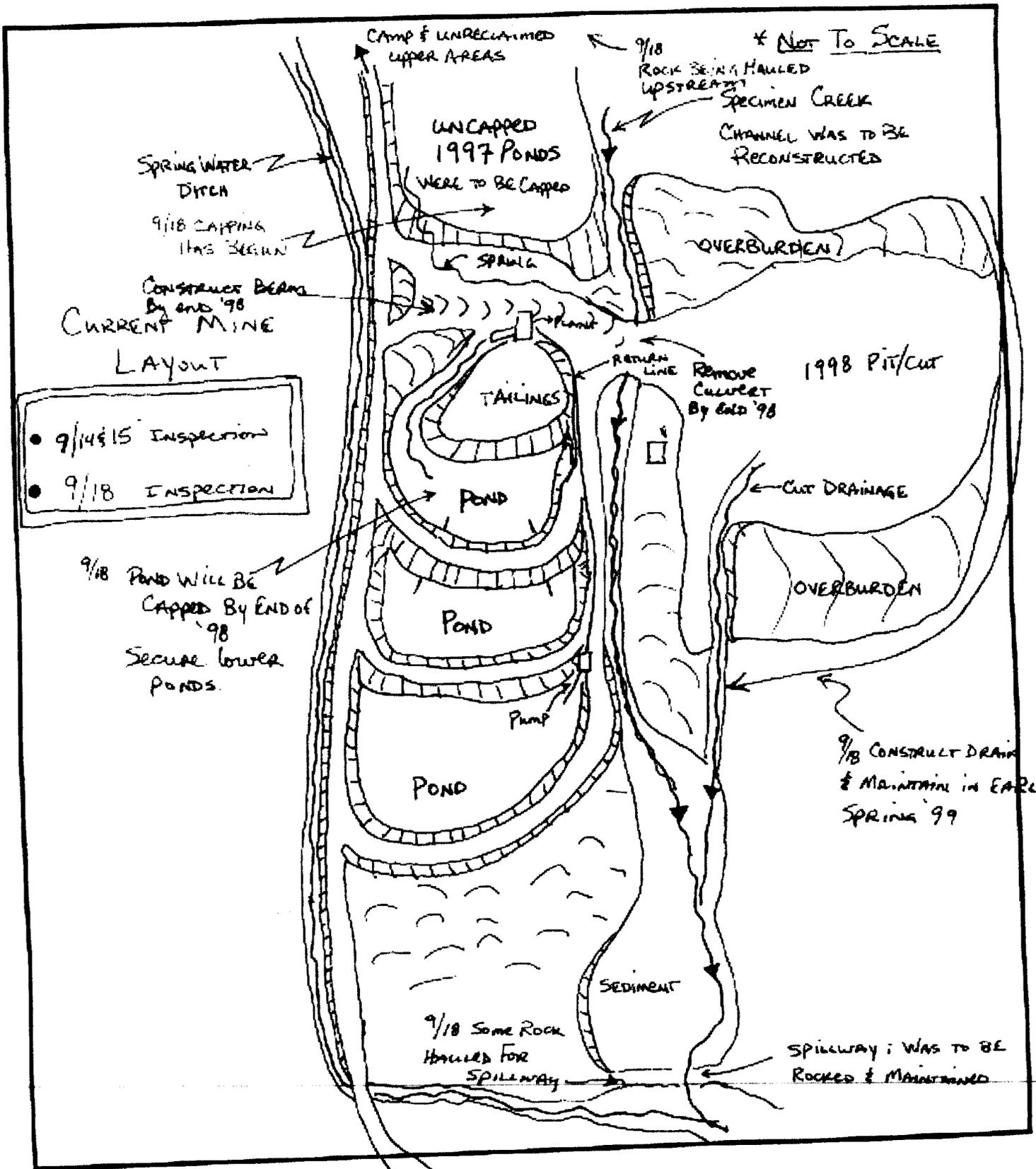
Figure 10. Lower 1997 ponds; partially capped.

Coarse tailings for
stream stabilization.



ETCH OF OPERATION

Betty Krutzsch
Specimen Creek



- 9/14 & 15 INSPECTION
- 9/18 INSPECTION

SPECIMEN QUICK
NOML C-1

8/23/98

APPROVAL: Betty Krutzsch

1998 RECOMMENDATIONS / DIRECTIVES BASED ON JULY 21, 23, 1998

FIELD INSPECTION. ITEMS MARKED W/A "*" MUST BE DONE BY NEXT INSPECTION.

REMAINING ITEMS MUST BE DONE BY END OF SEASON.

- *1- CONSTRUCT STREAM CHANNEL THROUGHOUT ENTIRE OPERATION.
 - a) CONSTRUCT ACCORDING TO FISH & GAME GUIDELINES
 - b) FOLLOW EXISTING MEANDER PATHS - WHERE POSSIBLE
 - c) DO NOT PUSH LEFT OR RIGHT OVERRBURDEN PILES TOWARD STREAM UNTIL STREAM CHANNEL IS CONSTRUCTED & EXHIBITS REASONABLE STABILITY.
- 2- CONSTRUCT DRAINAGE CHANNELS AS NECESSARY IN AREAS WITH POTENTIAL FOR EXCESSIVE EROSION * ESPECIALLY AROUND CAPPED PONDS.
- *3- CAP REMAINING 1997 PONDS. CAP WITH ENOUGH MATERIAL TO ENSURE POND SECURITY; PROVIDE DRAINAGE TO AVOID EROSION.
- 4- CAP ALL PONDS USED FOR 1998 PROCESSING
- 5- REINFORCE ENTIRE LENGTH OF STREAM CHANNEL; ESPECIALLY AROUND CAPPED POND AREAS
- 6- COMPLETE DRAINAGE CONTROLS AROUND AREAS OF GREATEST EROSION POTENTIAL. (CHECKDAMS)
- 7- CONSTRUCT & MAINTAIN SPILLWAY ON LOWEST RECLAIMED DAM.