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EARP DECISION REPORT--Curragh Resources Inc.

Attached is the final EARP Decision Report on the Curragh Resources Inc. Vangorda Development proposal. The decision report has been prepared based upon the screening report of the Regional Environmental Review Committee, which is appended to the Decision Report as Attachment 1.

The Decision Report states the Department of Indian Affairs and Northern Development's determination that the Curragh Resources proposal, with mitigation as identified in the Initial Environmental Evaluation and the Screening Report, meets the requirements of Section 12 (c) of the Environmental Assessment and Review Process Guidelines Order.

With the completion of EARP screening, the proposed project is now proceeding to the regulatory phase for the issuance of necessary permits, licenses and leases.

  
A.E. Ganske  
Regional Director General

Attachment

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**CURRAGH RESOURCES INC.  
VANGORDA PLATEAU DEVELOPMENT  
EARP DECISION REPORT**

**A. PROJECT IDENTIFICATION**

PROPOSER: Curragh Resources Inc. - Vangorda Plateau Development

FILE #: RERC N-5510-C1  
Water Licence IN-89-002  
Surface Lease #'s 13298 and 13299

ENTRY POINT: EARP - NAP, Yukon Region: March, 1987

PROJECT: Development of the Vangorda and Grum lead-zinc deposits on the Vangorda Plateau to supplement and eventually replace production from the Faro pit; approximate 13 year project life.

**B. ENVIRONMENTAL AND SOCIO-ECONOMIC ISSUES (refer to screening report - Appendix 1 - for details on specific issues and mitigation measures)**

**ENVIRONMENT**

- acid mine drainage control
- impact on fishery resource and habitat
- impact on wildlife, especially sheep
- safety/long term stability of containment structures

**SOCIO-ECONOMIC**

- impact on drinking water quality
- impact on native user rights to hunt, fish and trap
- recreation use impact
- impact on community infrastructure
- band consultation

**C. CONSULTATION**

**GOVERNMENT:**

Representatives from the Federal Government Departments of DIAND, DOE, DFO and Justice and the Yukon Government Departments of Renewable Resources, Economic Development and Justice (Mine Safety) were consulted. Concerns raised have been addressed through the review process and the recommendations.

**NATIVE:**

The Council for Yukon Indians, the Ross River Dena Council and the Selkirk Indian Band were consulted. Concerns of these groups were addressed in IEE addendums, revisions to the mine plan and/or the Screening Report.

**PUBLIC:**

Copies of the IEE were sent to the Yukon Conservation Society and the Town of Faro for comment. Copies of the IEE were placed in community libraries and advertisements of their availability were placed in the papers.

Curragh Resources held public meetings May 14 in Faro, May 15 in Ross River and May 16 in Whitehorse. DIAND conducted public meetings on June 12 in Whitehorse and June 14 in Faro. (See screening report for more detailed information.)

Copies of the Screening Report were provided to participants in the review process for review and comment. Advertisements were placed in the papers indicating the availability of the Screening Report and soliciting public comment.

**D. DECISION**

The Department of Indian Affairs and Northern Development's EARP review of Curragh Resources Inc. proposal to develop the Vangorda and Grum lead-zinc deposits on the Vangorda Plateau has been concluded. The Department notes that some comments and clarifications were submitted on the Screening Report. The input did not raise substantive concerns and the Department will reply to each respondent. The Department accepts the July 20, 1990 Screening Report (see Appendix 1).

It is DIAND's determination that the proposal, with mitigation as identified in the Initial Environmental Evaluation and the Screening Report, meets the requirements of section 12(c) of the Environmental Assessment and Review Process Guidelines Order and can proceed to the regulatory process for issuance of the necessary licences, leases and permits.

Sec. 12.(c) "the potential adverse environmental effects that may be caused by the proposal are ... mitigable with known technology, in which case the case may proceed ... with mitigation ... ;"


Pursuant to Section 13 of the Order, DIAND has determined based on the public input on this project, that a public review by an EARP panel is not desirable.

Sec. 13. "Notwithstanding the determination concerning a proposal made pursuant to Section 12, if public concern about the proposal is such that a public review is desirable, the initiating department shall refer the proposal to the Minister for public review by a panel."

Accordingly, DIAND has decided to proceed with the regulatory phase of the project, during which steps will be taken to implement mitigation measures identified in the Initial Environmental Evaluation and the Regional Environmental Review Committee (RERC) Screening Report.

**E. ACKNOWLEDGEMENTS:**

The Department would like to acknowledge each of the following parties for their assistance and input in the screening of this project: Curragh Resources Inc., Ross River Dena Council and Selkirk Band, Community of Faro, Council for Yukon Indians, members of the public who participated in public meetings or expressed their concerns in letters to the Department, the federal departments of Environment and Fisheries and Oceans and the Government of Yukon.

  
A.E. Ganske  
Director General  
Northern Affairs Program  
Yukon Region  
DIAND

September 27, 1990

**THE DEPARTMENT OF INDIAN AFFAIRS  
AND  
NORTHERN DEVELOPMENT  
WHITEHORSE, YUKON**

**SCREENING REPORT  
UNDER THE ENVIRONMENTAL ASSESSMENT AND  
REVIEW PROCESS GUIDELINES ORDER**

**CURRAGH RESOURCES INC.  
VANGORDA PLATEAU DEVELOPMENT PROPOSAL**

**JULY 20, 1990**

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THE DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT

ENVIRONMENTAL ASSESSMENT REVIEW PROCESS  
SCREENING REPORT  
VANGORDA PLATEAU DEVELOPMENT PROPOSAL  
CURRAGH RESOURCES INCORPORATED

A. INTRODUCTION

The EARP process ensures that as early in the planning process as possible and before any irrevocable decisions are made, the environmental implications of all proposals for which the Federal Government has decision making authority are fully considered. The Federal Government shall include in its considerations: the potential environmental effects of the proposal and the social effects directly related to those environmental effects, including any effects that are external to Canadian Territory; and the concerns of the public regarding the proposal and its potential environmental effects. Consideration of the proposal may include such matters as the general socio-economic effects of the proposal and the technology assessment of and need for the proposal.

The Curragh Resources Vangorda project is subject to EARP by virtue of Section 6 of the Guidelines Order because it takes place on Federal Crown Land and will have an environmental effect on an area of Federal responsibility. The Minister must comply with the provisions of EARP before a water licence or surface lease are issued for this project.

Satisfaction of the EARP Guidelines Order in this case is contingent upon Curragh Resources Inc. committing to mitigation of potential significant environmental impacts attributed to the Vangorda Plateau Project using known technology, or committing to compensation measures that could prevent any of the adverse environmental impacts from becoming significant. Curragh must also demonstrate that the financial commitment exists to implement the control measures specified for the mitigation of the impacts of acid mine drainage and other identified impacts during operation and after mine closure. DIAND as the lead initiating agency, and in compliance with Section 14 of the Guidelines Order, must ensure that all measures that could prevent potential adverse impacts from becoming significant are implemented.

**B. PROJECT IDENTIFICATION**

Proponent - Curragh Resources Inc. - Vangorda Plateau Development

File # - RERC N-5510-C1 / WATER LICENCE IN-89-002 / LEASE #'S 13298 AND 13299

Entry Point - The proponent voluntarily entered the process in March of 1987. The proponent was advised in May 1987 that an Initial Environmental Evaluation (IEE) pursuant to EARP was required and formally entered the EARP process at that time. An application for a surface lease was submitted on December 20, 1989 and an application for a water licence was submitted on December 18, 1989.

**C. DATE OF RECEIPT**

Chronology

March 1987

In March, Curragh Resources met with DIAND to present their plans for the development of the Vangorda Plateau and the Vangorda and Grum ore deposits. At this time a document entitled, "Long Range Plan Development Overview" was filed.

May 1987

In May, due to the potential environmental problems associated with the mining of sulphide ore deposits, the Vangorda project was referred to the Regional Environmental Review Committee (RERC) and Curragh was notified that an Initial Environmental Evaluation (IEE) was required. The RERC is an interdepartmental and intergovernmental advisory committee to DIAND, Yukon Region.

September, 1987

In September, a Stage 1 IEE was submitted to the RERC. The submission consisted of the plan for clearing and drainage of the site, some water quality data, consideration of impact from AMD, and preliminary information on sheep.

February, 1989

In February, a draft Stage II IEE was submitted to the RERC consisting of the Project Overview, Baseline Data, and Projected Impacts.

March, 1989

In March the RERC met with Curragh to discuss the IEE, and subsequent to this, comments on the IEE were sent to the Company.

July, 1989

On the basis of the comments provided to Curragh, a revised IEE was submitted by Curragh in July.

August, 1989

In August the IEE was declared inadequate by DIAND because the mine plan and the mitigation measures proposed by the company were inadequate to ensure protection of the environment and the compensation proposal pertaining to fish in Vangorda Creek was unacceptable. Curragh predicted in the IEE that Vangorda Creek which is habitat for chinook salmon, would be severely contaminated by metals from acid mine drainage following abandonment. Comments were provided to the company.

October, 1989

In October further comments were provided to Curragh detailing the information deficiencies and the inadequacy of the abandonment plan.

February, 1990

In February Curragh submitted an addendum to the July, 1989 IEE consisting of two reports entitled Fisheries Assessment Study, and Review of Abandonment Alternatives. The mine plan and abandonment mitigation measures remained unchanged from the July IEE.

May, 1990

In May of 1990, comments were submitted to Curragh from the RERC regarding the adequacy of the February addendum and remaining deficiencies.

In May, Curragh submitted an addendum to the IEE which responded to deficiencies identified in October 1989. The mine plan was slightly altered, and mitigation and compensation measures associated with abandonment altered and withdrawn respectively. Late in May a letter was provided by Curragh which clarified statements in the IEE addendum associated with the Vangorda pit wall till cover and operation of a long term treatment plant.

June, 1990

In June additional correspondence from Curragh to DOE which formed part of the final addendum to the IEE further clarified Curragh's commitment to the placement of the till covers and treatment of final effluent as long as required.

#### D. PROJECT DESCRIPTION

##### Project

The development by Curragh Resources Incorporated of the Vangorda and the Grum lead-zinc deposits on the Vangorda Plateau near Faro.

##### Location and Summary Mine Plan

Curragh Resources Incorporated currently owns and operates an open pit mine near the community of Faro in the Yukon Territory. The mine which was previously owned by Cyprus Anvil, was reactivated by Curragh in 1986, and milling of the ore resumed in June of that year. Curragh is preparing to develop additional ore bodies on the Vangorda Plateau located approximately 13 kilometres southeast of the Faro Mine. Development of the Vangorda Plateau deposits, namely Vangorda and Grum, will supplement and eventually replace production from the Faro Pit. The proposed milling rates of the Vangorda and Grum ore bodies would be 11,000 tonnes per day and the proven, open pit mineable reserves are expected to be sufficient for a 13 year project life.

The development of the Vangorda and Grum deposits will produce a total of about 75 million cubic metres (194 million tonnes) of waste material consisting of about 36 million tonnes of glacial till overburden, 149 million tonnes of phyllite, and 9 million tonnes of sulphide waste rock. Based on Curragh's experience at the Faro minesite and their lab testing of the drill core from the Vangorda minesite, it was determined that acid mine drainage will develop from the sulphide-rich waste rock interacting with air and water in the waste dumps and in the exposed pits. The Vangorda pit has the higher potential for acid generation and consequently two separate waste rock cells are planned.

It is recognized that the details of the mine plan may change as the project progresses.

### Area Involved

The minesite is located at the centre of the Vangorda watershed, which drains to the Pelly River. The West Fork of Vangorda Creek drains the west half of the watershed and Vangorda Creek, with Dixon and Shrimp tributaries, drains the east. The Grum pit lies on a gently sloping broad plateau which forms a local drainage divide. The south-facing slope of the plateau sheds run-off directly into Vangorda Creek. The North and West slopes drain to the small tributaries. The waste dumps will be located on a westerly tending ridge which drains partially to Vangorda Creek.

The Vangorda pit is located across the present channel of Vangorda Creek and, as the pit develops, flow in the creek will be diverted through a culvert constructed on a perimeter bench within the pit. Upon abandonment the pit will be flooded. Although a number of potential adverse environmental effects were identified by the company and by reviewers of the project, the key issue is the effect of acid mine drainage on the water quality, fisheries habitat and fisheries resource of Vangorda Creek and the Pelly River, a major salmon river into which Vangorda Creek flows.

### Scheduling

Development of the Vangorda Plateau would involve sequential mining of the Vangorda and Grum deposits using the conventional truck-shovel open pit method employed at the Faro Mine. The Vangorda pit, which is the smaller of the two, would be the first to be mined. The Vangorda pit will be relatively small, with a proposed maximum depth of 100 metres. The Grum pit, which contains greater ore reserves and has a greater depth of overburden, will be about 300 metres in depth. Stripping of the two pits started in 1989 with the overburden being used to build the haul road to the Faro mill site. The stripping, overburden removal, and road building took place on mineral claims in accordance with the provisions of the Yukon Quartz Mining Act and the Territorial Lands Act. The work carried out by Curragh in 1989 was done so prior to recent court decisions which clarified and broadened the scope of EARP. Bulk sample ore removal from the Vangorda pit is proposed for 1990 with a 100,000 tonne bulk sample to be taken. Ore removal from the Grum pit would not start until 1992.

## E. ENVIRONMENTAL ISSUES AND MITIGATION

### 1. Acid Mine Drainage Control

- Issues:
- i) Metals, particularly zinc in seepage from Vangorda pit walls, and Vangorda and Grum waste rock dumps
  - ii) Long term acid mine drainage (AMD) mitigation
  - iii) Commitment to long-term environmental monitoring and protection
  - iv) Contingency plans in the event of AMD mitigation failure
  - v) Financial security for AMD mitigation

#### Mitigation:

- a. A commitment has been made to maintain water quality in Vangorda Creek such that salmon and salmon habitat in the lower 2 km of the creek will be protected in perpetuity.
- b. Cellularized Vangorda waste rock dumps are to be built as outlined in the February 1990, SRK report. Sulphide and phyllite waste rock will be segregated. Till berms will be built around each waste dump. A three metre thick compacted till cover will be placed over the waste dump. Rock drains will be constructed.
- c. Grum waste rock dumps will be constructed as outlined in the February, 1990 SRK report. Approximately 4.6 million tonnes of sulphide wastes will be cellularized and segregated. 1.7 million tonnes of sulphide waste will be put back into the Grum pit. Three metre thick compacted till cover will be placed over sulphide waste with 1 metre thick internal till layers.
- d. Vangorda pit will be flooded to an elevation of 1,122.5 metres. Pit east of section 12 will be backfilled with waste rock to an elevation of 1,122.5 metres. A further backfill of 2.5 metres of non-acid generating rock will be added to an elevation of 1,125 metres. Pit wall (till) covers will be placed over exposed sulphide rock at a 3:1 slope. This measure will be required unless it can clearly be demonstrated that the pit wall covers are not necessary. If it is demonstrated through seepage monitoring that the untreated pit wall seepage would meet regulatory requirements and contribute little to the metal loads in Vangorda Creek, Curragh will propose an alternate abandonment plan for the pit walls for consideration by the regulatory authorities.
- e. Monitoring of all seeps will be carried out to ensure that water requiring treatment is collected and treated.

- f. A water treatment plant will be built and maintained both during and after operations so as to ensure long term treatment of any remaining seepage and runoff from the Vangorda pit walls, Vangorda and Grum waste rock dumps and from any other sources of acid mine drainage. This will assist to ensure protection of downstream water quality, and ensure that discharges to the creek are in compliance with the Fisheries Act. This measure will be required unless it can clearly be demonstrated to the satisfaction of the regulatory agencies that the water treatment plant is not necessary.
- g. Additional mitigation and/or more effective long term treatment will be provided if monitoring results indicate it is required to fulfil the overall commitment to maintaining good water quality. The company may implement alternative measures for mitigation as technology becomes available as long as control remains at least as effective, but only with the approval/concurrence of the Yukon Territory Water Board and such other regulatory agencies which may at the relevant time have jurisdiction.
- h. Financial commitment by Curragh Resources Inc. in the form of adequate financial security is also required to implement the control measures specified for the mitigation of the impacts of acid mine drainage and other identified impacts. This security must also be adequate for any other mitigation measures proposed by the company or regulatory agency in the event that either technology improves or the mitigation proposed is insufficient to prevent impacts both during operation and after closure.

The major aspects of the abandonment plan to be covered by the security should include, but not necessarily be limited to: cellularization of the dumps and placement of covers on pit walls; construction of permanent structures such as drainage ditches and spillways; treatment of Grum and Vangorda pit waters until water quality is satisfactory; construction and long term operation of a contingency water treatment plant. In addition, an amount shall be included to provide for long term monitoring, maintenance and administration.

## 2. Fisheries

- Issues:
- i) Downstream water quality impact on fish stocks and habitat
  - ii) Need to identify Fisheries resources
  - iii) Commitment to prevent impact on Vangorda Creek and Pelly River fish stocks during life of project and after abandonment

- iv) Toxicity of metals, particularly zinc, to chinook salmon and grayling fry

**Mitigation:**

- a. A commitment has been made by Curragh to ensure that the fish habitat of Vangorda Creek will be protected. The protection of Vangorda Creek will ensure the protection of the Pelly River, into which Vangorda Creek flows, from the products of acid mine drainage. Refer to section E.1 of this report for AMD protection measures.
- b. Information on fisheries has been made available through studies carried out by Curragh and a significant amount of information has been collected to date. A commitment has been made by Curragh to further study fish abundance, population composition, feeding habits and productivity annually during the first half of the mine plan, and at a lesser frequency as required later.
- c. A technical advisory committee which includes government, industry and Yukon First Nations will be struck to look at cooperative research programs on metal toxicity, especially zinc, and aquatic resources in Vangorda Creek.
- d. Funding will be provided to the Ross River Band to gather further information on the impact to and use of fisheries resources in the vicinity of the Vangorda Plateau.

**3. Wildlife**

- Issues:**
- i) Impact on sheep and critical sheep habitat
  - ii) Commitment to contingency plans in the event that mitigation of impacts on sheep fails
  - iii) Area furbearer impact
  - iv) Adequate wildlife data collection and impact analysis
  - v) Effect of zinc on sheep and moose
  - vi) Monitoring required to determine disturbance on sheep

**Mitigation:**

- a. Studies and literature review have been carried out to provide the assurance that the health risk to wildlife from zinc is understood and negligible.
- b. The water treatment plant has been located away from sheep migration areas.
- c. A 500 metre wide migration corridor will be maintained to facilitate passage of sheep through the mine site.

- d. Alternative sheep migration routes through the site will be encouraged by baiting with alfalfa as a contingency.
- e. Traffic will be controlled while sheep are on or near the haul road.
- f. Staff are requested to record sheep sightings and are instructed to avoid disturbance/harassment of sheep.
- g. Ore transfer point will be re-established outside of the sheep migration corridor.
- h. A joint study was carried out by Curragh and YTG to trap and radio collar sheep with funding for the radio collars and the live sheep traps being provided by Curragh.
- i. Studies on hunting and trapping on the Plateau are included in sections F.2 and G.2.

**4. Safety/Long Term Stability**

**Issues:** i) Stability of proposed containment structures

**Mitigation**

- a. Curragh has committed to the stability of the design. Pit and waste dump designs are adequate. The mine has been designed for closure. It is imperative that till covers be monitored and maintained over the long-term in order to minimize water flow through acid-generating rock. AMD collector ditch and ponds will be monitored and maintained and an inspection schedule specified.

**F. SOCIO-ECONOMIC ISSUES/CONCERNS**

- Issues:**
- i) Impact on drinking water quality
  - ii) Impact on native users rights to fish, hunt and trap
  - iii) Recreational use impact
  - iv) Consultation with bands insufficient.
  - v) Community infra-structure

## Mitigation

- a. Data in the Curragh Resources/Caréfoot Engineering, study entitled " Assessment of the Potential for a Hydraulic Link between Vangorda Creek and the Faro Town Wells" suggest that, under normal conditions, direct hydraulic continuity between Vangorda Creek and the aquifer in which the Town of Faro water wells are completed is unlikely. Monitoring will be carried out to ensure contamination does not occur and that drinking water standards are maintained. Surface water quality is protected through the mitigation measures outlined in this report. Contingency plans will be in place for the protection of Vangorda Creek and the Pelly River in the event of an oil or hazardous material spill.
- b. Further information will be gathered on hunting and trapping by and in consultation with the Ross River and Selkirk Bands. Government will assist the Ross River and Selkirk Bands with funding for specific research on the use of the Vangorda Plateau for hunting, trapping and fishing and the impacts of the mine development on the Vangorda Plateau. The Ross River Band will also be a member of the technical committee to examine and direct further research on metal toxicity and aquatic resources. In addition, Curragh has offered to hire a consultant to act as a technical advisor to the bands to assist them in their role on the technical committee.
- c. Curragh will ensure that their policy on business opportunities is not framed too narrowly and remains flexible and creative to ensure that preference can be given to the band in respect to business opportunities. Bands will be offered contracts on a preferential basis where possible.
- d. Recreational access to the area north-east of the haul road will not be disrupted but the industrial area will be closed to the public for safety reasons.
- e. Curragh will discuss mitigation or compensation on a case-by-case basis with anyone whose livelihood is effected or impacted as a result of Curragh's operations.
- f. Consultation with local hunters and trappers and wildlife officials has taken place on placement of haul road crossings.
- g. Participation by mine staff, local residents and band members will be offered for training programs offered both in-house and off of the mine site.
- h. DIAND and Yukon Government will play a role in seeing that the intent of the Employment and Opportunities Accord is achieved.

- i. DIAND and Yukon Government will assist in development of training programs to ensure a pool of trained personnel is available for mine closure.
- j. There will be little change in the population and infrastructure of Faro because trained personnel from Faro will be drawn from for the Vangorda development as the Faro pit operations draw to a close.
- k. In the past, there was insufficient consultation between Curragh and members of the Ross River Band. This was partly due to the urgency of start-up requirements in the years immediately following the purchase of the Faro Mine from Cyprus Anvil and the negotiation of land claims by Yukon First Nations. Curragh is committed to meaningful consultation with the Ross River Band and recent discussions have been fruitful. In addition, consultation by government has been carried out during the environmental review of the Vangorda proposal. Refer to section G.2 of this report for further information on consultation.

## G. CONSULTATION

### 1. Government

For this project the RERC participants included representatives from the Federal Government Departments of DIAND, DOE, and DFO and the Yukon Government Departments of Renewable Resources, Economic Development and Justice (Mine Safety). Federal Justice was also extensively consulted. Concerns raised by RERC members have been addressed through the review process.

### 2. Native

The Council for Yukon Indians and bands impacted by projects are represented on the RERC. The Bands involved with the review of this project included the Ross River Dena Council and the Selkirk Indian Band.

At the end of the review period the Ross River Dena Council submitted a number of concerns in regards to the adequacy of the environmental review conducted and perceived outstanding deficiencies in the IEE. Reference was made to the recent Sparrow decision by the Supreme Court of Canada relating to aboriginal rights to fish, and as well to the prospective agreement for settlement of the Yukon First Nations Land Claim.

Band concerns in general are as follows:

- a. The federal government must act in accordance with the Sparrow decision of the Supreme Court of Canada;

- b. Disagreement with the RERC position that the project is one that has known impacts which can be addressed through acceptable mitigation measures with proven technology; they cite the admitted uncertainty about actual impacts, the unproven reliability of the water treatment plant, the synergistic effects of metals on fish, and impacts on the water supply at fish camps;
- c. The Vangorda area is noted to be more important as a Ross River trapping and hunting area than the proponent has indicated, and the socio-economic effects of the project are not well-known either by government or the company;
- d. Assurance by government of suitable means of enforcement of commitments;
- e. The granting of a lease to the company would effectively preclude public access to land and privatize the land, a step which the Dena Council view should be denied until the Council's interests are fairly and properly dealt with; this is a problem which could be resolved through the negotiation of certain rights of access between Curragh and the band.

The department feels that although the requirements under the Umbrella Final Land Claims Agreement and the actions expected of the government in terms of the recent Sparrow decision are not yet fully clear, the department has sought to comply and embrace the concepts underlying in both.

DIAND, DOE, DFO and YTG are satisfied that the mitigation measures and technology proposed by the company are adequate and appropriate to ensure that the potentially adverse environmental impacts do not become significant. Government scientific experts used available information, other government and non-government scientific experts and best judgement in determining if proposed mitigation would work. Regarding uncertainties that may arise with any mitigation required in perpetuity, the combination of mitigation measures using known technology, the financial security requirements for acid mine drainage control and the ongoing monitoring and research program reduce the risk of uncertainties such that the proposal is acceptable.

Curragh Resources has hired consultants which under the supervision and direction of a technical advisory committee will carry out metal toxicity and aquatic resource studies on Vangorda Creek. The technical advisory committee will include Ross River Band representatives. As well, a technical advisor to the bands will be provided under contract by Curragh.

The Government of Canada will assist the Ross River and Selkirk Bands with funding for additional information on the Vangorda Plateau which is to include outstanding wildlife and aboriginal use information as well as the impact of both the present Faro Mine and the proposed Vangorda Mine on the way of life of the aboriginal people in the mine area.

With very few exceptions, the mitigation requirements for this proposal can be enforced under the provisions of the Northern Inland Waters Act for the water licence and the Territorial Lands Act for the Surface Lease. The remaining commitments and requirements of the company are a requirement of the EARP process and will be addressed or enforced as required through agreement between the Government and Curragh.

Curragh is not opposed to access by Ross River band members to the Vangorda Plateau and will be further pursuing requirements with the Band. The basis for the requirement of a surface lease is public safety and certainty of tenure for Curragh.

### 3. Public

The Yukon Conservation Society and the Town of Faro were sent copies of the Vangorda IEE and were invited to participate in the review of the project. Both parties participated and provided comments to the process.

Curragh Resources held public meetings to introduce the Vangorda Development Plan and the summary of environmental commitments on May 14, in Faro, May 15, in Ross River, and May 16 in Whitehorse. A small number of people were present at each meeting except the Ross River Meeting where no-one attended. Copies of the IEE were also placed in community libraries and advertisements of their availability were placed in the papers.

In order to be certain that all public concerns and interest had been addressed, DIAND conducted public meetings as part of the EARP process on June 12, in Whitehorse and on June 14, in Faro. Advertisements in community papers and on radio notified the public of these meetings. Curragh again presented information on the mine plan at both of these meetings. The primary concerns were raised by members of the Faro community including the possible contamination of Faro's drinking water supply.

A number of points of clarity were raised at the meetings in regard to zinc levels in the creek, how much of the effect is from natural causes and how much is due to Cyprus Anvil and Curragh Resources activities. Concerns were raised as to the reliance of the community and the Territory on the mine and fears of another recession similar to the one which occurred when Cyprus Anvil shut down. Another concern raised by the community was the possible impact of the new development on the community's water supply. The Town manager wanted some assurance that a spill into Vangorda Creek or AMD would not contaminate the water supply. The Mayor of Faro also expressed his support particularly in view of the final mitigation and abandonment plans proposed by the company.

In addition, seven businesses in the Yukon wrote DIAND expressing both support for the Vangorda Plateau Project and concern that there would be a further delay before issuance of a water licence.

## **H. RECOMMENDATIONS**

The RERC recommends that:

1. All mitigation measures relating to water use and discharge be included as a condition of the water licence issued by the Yukon Territory Water Board.
2. When considering the issuance of a surface lease for this project, the mitigation measures relating to land use including those relating to wildlife be included in the terms of the lease.
3. When considering the issuance of any licence or permit for the use of waters and lands on the Vangorda Plateau, the principles of the Comprehensive Land Claim Umbrella Final Agreement and the recent Sparrow Supreme Court case dealing with aboriginal rights to fish should be considered.
4. In view of the importance of the project to the Yukon and the importance of implementation of mitigation as committed to by Curragh Resources Inc. the company should be requested to submit to the Department of Indian Affairs and Northern Development an annual report during the operational phase of the project. The report should address progress on the project and the status of mitigation to the extent that this information is not already requested and provided to regulatory agencies pursuant to regulatory requirements.

5. That a technical committee be formed to study metal toxicity and aquatic resources and that this committee include relevant First Nation's representation, including the Ross River Band, and representatives from government, non-government interest groups and industry.
6. That studies by the Ross River Band be funded to provide further information on aboriginal use of the Vangorda Plateau, Vangorda Creek and Pelly River for fishing, hunting and trapping, on the impact of mining activities, both past and present, on the native users of the plateau, and on the life history of fish populations used by the Ross River Band.
7. That appropriate remedies be provided by Curragh for demonstrated impacts upon members of the Ross River Band associated with Curragh's operation on the Vangorda Plateau.
8. That adequate financial security be provided by Curragh Resources to the Government of Canada prior to issuance of the water licence and surface lease to ensure that the control measures specified for acid mine drainage mitigation and other identified impacts both during mine operation and after closure are implemented (refer to Section E.1.h).

The security should also be accessible to the Government of Canada should Curragh be unwilling or unable to undertake the mitigation measures required, and should be in a form which requires periodic re-evaluation of the amount of security. As the mine plan contemplates progressive abandonment, the assurance should be provided in installments such that the assurance is sufficient to cover the cost of remaining mitigation requirements in any given year.

9. That the company commits to the protection of the environment through measures designed to reduce the impacts of acid mine drainage. Although the company has committed to specific mitigation measures agreed upon by government, if new technology will allow mitigation which is at least as effective as that already specified, Curragh can request through the appropriate regulatory body, that the mine plan and mitigation requirements are changed. If unpredicted impacts arise as a result of this project, notwithstanding the mitigation measures deemed acceptable to the Government of Canada, Curragh should seek to mitigate these impacts regardless of the specific requirements agreed upon previously.

## I. CONCLUSION

The Regional Environmental Review Committee has concluded that Curragh Resources Inc. has submitted adequate information on which to conclude its review. RERC recommends that the Curragh Resources Vangorda Plateau Development proposal meets the requirements of the Environmental Assessment and Review Process Guidelines Order under Section 12(c) as set out below and that the proposal with mitigations as identified in the Initial Environmental Evaluation and this report now proceed to the regulatory process for issuance of the necessary licences, leases and permits.

Sec. 12.(c) "the potential adverse environmental effects that may be caused by the proposal are insignificant or mitigable with known technology, in which case the case may proceed or proceed with mitigation, as the case may be;"

Pursuant to Section 13 of the Order, the Regional Environmental Review Committee recommends that a public review by an EARP panel is not necessary.

Sec. 13. "Notwithstanding the determination concerning a proposal made pursuant to Section 12, if public concern about the proposal is such that a public review is desirable, the initiating department shall refer the proposal to the Minister for public review by a panel."

"Panel" means an Environmental Assessment Panel that conducts the public review of the proposal.

Recommended by:



Lois Craig  
Chair  
Regional Environmental Review Committee

July 20, 1990

## REFERENCES

The references used in the review of the Vangorda Plateau proposal were Volumes I, II and III of the Initial Environmental Evaluation (IEE) prepared by Curragh Resources Inc.; addendums to the IEE entitled "Impact Assessment of Fish Resources in Vangorda Creek" by Harder and Associates and "Review of Alternate Abandonment Plans and Water Quality Prediction Methods", by SRK Consulting; the May, 1990 Addendum to the IEE and the two May and June supplemental letters from Curragh Resources which formed the final addendum to the IEE.

The IEE includes information on the following: a description of the project; the mine plan including access and haulage roads, stream crossings, and abandonment; information on both the Vangorda and Grum pits; waste material disposal; waste dumps; waste rock; tailings composition; water management plan; water treatment; baseline environmental conditions including meteorology, aquatic environment, surface water hydrology, surface water monitoring, fisheries resources, thin-horned sheep and baseline socio-economic conditions; proposed abandonment plan; environmental impacts on the aquatic environment, fisheries resources, Town of Faro water supply, sheep, and socio-economic impacts.