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INTRODUCTION

The Wyoming Mineral Corporation (WMC) is considering the possible construction of a conventional uranium mine and mill that will be located in te Workman Creek area of the Tonto National Forest north of Globe, Arizona. WMC would be the operator of both the mine and mill and would have the responsibliity of obtaining the necessary federal and state permits and licenses for the facility. Information concerning specific baseline data is required in several of the permit applications.

You are hereby requested to submit a proposal or proposals for the subject matter contained in the one or more General Scope(s) of work presented in this RFP for the proposed site. Subsequent sections of this request-for-proposal provide information needed to prepare and submit the proposal. Your proposal should be concise, but provide all the information requested in accordance with the guidelines presented herein.

BACKGROUND INFORMATION

The proposed mine and mill site is located approximately 50 miles north of Globe, Arizona in Gila County (see Map 1). The property includes approximately 3400 acres and is referred to as the Workman Creek property. Proposed mines will be located

on both the north and south sides of Workman Creek in the Sierra Ancha Mountains.

The Sierra Anchas are a prominent mountain-range located in east-central Arizona at approximately 34 north latitude and 110 west longitude. (See index map, Plate 1). The region is covered in large part by the McFadden Peak quadrangle, and is situated between Globe and Young in Gila County. These mountains are bounded by the Salt River and Roosevelt Reservoir on the south, by Tonto Creek on the west, by Pleasant Valley on the north, and by Cherry Creek on the east. From an elevation of 2200 feet at Roosevelt Reservoir, the range rises in bold steps up to an elevation of over 7700 feet in the central portion. Access into the region is by highway 88 to Roosevelt Reservoir and northward via the Young highway (State Route 288).

The mill site is located on the south side of Workman Creek, about one half mile east of the road to Young, Arizona. The Workman Creek mine sites lay on the slopes of a mountain valley. The elevations range from 5500 feet at Workman Creek to 7500 feet at Carr Mountain on the south side of Workman Creek.

The vegetation is sparse below elevations of about 5,000-6,000 feet. Cacti of many species are represented, as well as desert trees, mesquite and palo verde. Juniper grows between about 3,000 and 5,000 feet. Vegetation above 6,000 feet is more plentiful, and the highest country, as in the Sierra Ancha, is well wooded. Pine is the most plentiful tree, but sycamore and black walnut are also common where water is adequate.

Precipitation in Gila County ranges from very meager in the low country to moderately plentiful in the higher mountains. At lower elevations, where precipitation is generally less than 20 inches per year and evaporation is rapid, semiarid conditions prevail. In the Sierra Ancha, however, precipitation, which includes snow during the winter months, may be considerably more than 20 inches per year. Much of the precipitation occurs during two periods: rain and snow in the mountainous areas in January and February, and short but violent rainstorms in the entire area in July and August.

Gila County is very sparsely populated except for the immediate vicinity of Globe and Miami. The combined population of these towns and the intervening area was about 15,000 in 1980. Each of the other towns in the county has a population of 3,000 or less, and miles of nearly uninhabited country separate the communities. All the towns are supported mainly by mining and ranching.

The Workman Creek mine will supply ore sufficient to maintain a 1000 TPD mill and production of some 1,000,000 pounds of U_3^0 8 product per year. The estimated life of the mine and mill is 10 years. Final decisions on the mill process and tailings alternatives will not be made until approximately July 1982.

The current plans are to initiate preparation of data required for sections of NRC Regulatory Guides 3.5 and 3.8. Collection of EIS data and final mine, mill process and designs will proceed concurrently. Projected mill start-up is January 1985.

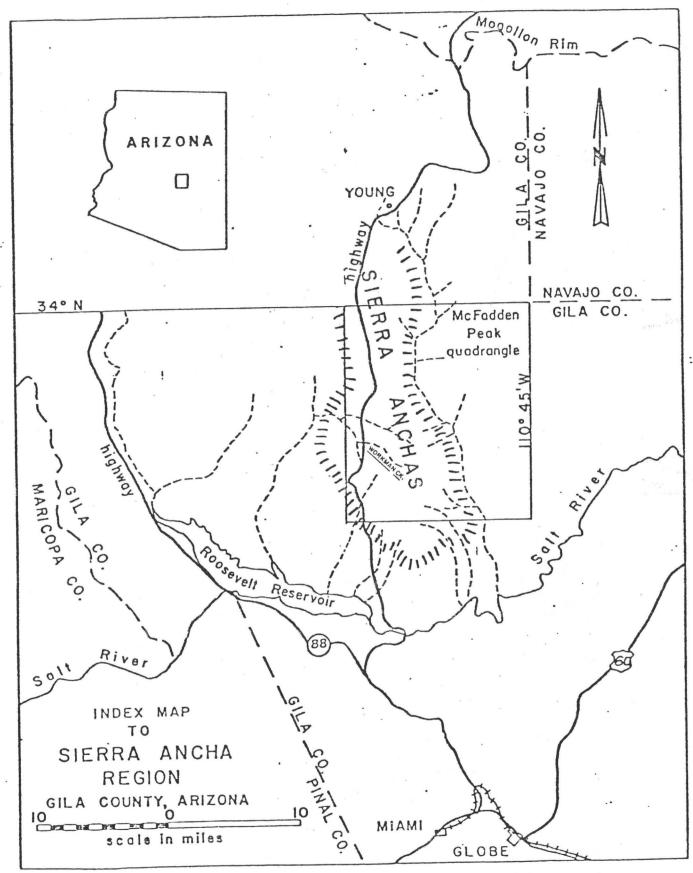


PLATE 1. Index map to Sierra Ancha Region, Gila County, Arizona

PROPOSAL FORMAT AND CONTENT

Your Proposal should include answers to the following questions:

1. What will be done?

A concise statement of your approach to the proposal including objectives of the proposed study.

2. How will it be done?

Describe field, laboratory and office methods to be used (include approximate references). Provide details concerning the final report (including table of contents, list of figures and list of tables).

- 4. When will it be done? Provide a schedule comparing major tasks and project deliverables with project months (include field, laboratory and office activities for each task and subtask).
- 5. Who will do it? Describe your proposed project organization and key personnel involved (include estimated majpower commitments and professional resumes of key project personnel). What will be produced?
- hours) by grade level, major tasks, and project month; also include a detailed breakdown of non-labor costs by major task and project month; show overhead rate, general and administrative cost, fee, and total estimated cost.

 Applicable sampling and analytical costs should be included.

7. Why should you or your firm be chosen to do this project?

Provide a brief description of your qualifications to do

this job; provide at least three references who will attest

to your ability to conduct this type of endeavor; do not

burden the proposal reviewer with unnecessary "boiler

plate".

Several types of reports will be required for this project.

The following reports should be described in your proposal and included in the schedules:

- Monthly progress report a brief summary of work completed and funds expended during the past month timeline updates, work planned and estimated funds to be spent in the current month (to be received by the 5th of the month for all individual tasks.
- Detailed draft outlines of reports required in the General Scope of Work to be received by WMC within one month of project initiation.
- Interim, draft final, and final reports to be received by WMC as per the project schedule that will be developed and agreed upon by all participants during the early phases of the project.
- . WMC may incorporate all final reports into any final document.

PROPOSAL SUBMISSION INFORMATION

Six (6) copies of your proposal are to be received by Mr. Frank Kardian at the address listed below:

Wyoming Mineral Corporation 3900 S. Wadsworth Blvd. Lakewood, Colorado 80235

This project is confidential and should not be discussed with anyone outside your firm during the course of preparing the proposal, or subsequently without written consent from WMC.

Questions concerning this RFP should be asked of Mr. Frank Kardian at (303) 988-8530, or Mr. Fred C. Hohne at (602) 834-3116.

SCHEDULE LIMITATIONS

The following guidelines should be incorporated into your proposed schedule:

- Proposals must be in WMC's hands by ?
- . WMC reserves the right to reject any or all proposals submitted, or to accept only those proposals

considered to be in the best interest of WMC. However, you may assume that if you are selected you will be notified by?

The consultant should commence the work to be performed as soon as contractual agreements are signed by both parties - WMC and the consultant.

Laboratory Analytical Work

The Wyoming Mineral Corporation, at its analytical facility in Boulder, CO, has the capabilities to perform the types of analyses shown in attached Appendix B. The bidder is to plan to have all the analyses shown on that list performed at the WMC Boulder Laboratory, unless there are demonstrated bases for doing, otherwise. The costs of the analyses performed at the Boulder Laboratory should be omitted from your quotation. However, costs for sample preparation and shipping should be included.

REGULATORY AGENCY CONTACTS

Normally, \underline{all} $\underline{contacts}$ with the applicable regulatory agencies will be made by designated WMC personnel only. Th consultants will not contact

any regulatory agency official in regard to this project without prior

consent from WMC.

Strict adherence to this procedure is required.

GENERAL SCOPE OF WORK - RADIOLOGICAL

The overall objectives of the Radiological Assessment Study for the proposed uranium mill are to conduct the necessary work and prepare the reports describing the areas noted below. The program strategy must be developed and conducted in accordance with: Nuclear Regulatory Commission (NRC) Guides 3.5 and 3.8 guidelines, branch position papers, regulations, and the Generic Environmental Impact Statement - NUREG 0706 (GEIS); U. S. Forest Service requirements and applicable Arizona Radiation Regulatory Agency (ARRA) regulations and guidelines. Recommendations by the consultant as to other considerations (tasks and regulatory requirements) not addressed in this proposal should be presented.

Two task levels have been identified:

- A. Develop monitoring strategy in accordance with NRC Regulatory Guides 3.5 and 3.8, the GEIS, and all other pertinent NRC guidelines and branch position papers, etc., conduct all field measurements, analyze data and write report.
- B. Analyze data collected by WMC technician or other consultants, in accordance with NRC Guidelines, and write report.

The study will address the following areas at the specified task level.

PREOPERATIONAL RADIOLOGICAL ENVIRONMENTAL PROGRAM

- A. SURFACE WATERS TASK LEVEL A
- B. GROUNDWATER TASK LEVEL B Responsibility for obtaining samples will lie with WMC. However, assistance in program organization, sample preparation techniques, radiological parameters, number and frequency of samples, analyses, modeling and presentation of the radiological results for the permit application will be required.
- C. AIR PARTICULATE (RADIOLOGICAL) TASK LEVEL A
- D. RADON GAS TASK LEVEL A
- E. RADON-222 EXHALATION TASK LEVEL A

F. SURFACE SOIL - TASK LEVEL A

Provisions should be made for including some soil sampling along the shoulders of roads used for haulage of the ore from the mine to the mill.

- G. SUBSURFACE SOIL TASK LEVEL A
- H. SEDIMENT SAMPLING TASK LEVEL A
- I. VEGETATION TASK LEVEL A
- J. GAMMA DOSE-RATE MEASUREMENT TASK LEVEL A The consultant should plan on conducting a gamma survey for the haul roads (including the shoulders of highways) between the site and the State Route 288
- K. QUALITY ASSURANCE AUDIT PROGRAM The consultant will prepare a quality assurance plan for the routine radiological monitoring, i.e., radon gas, low volume particulate samplers, and TLD's. Consultant will provide assistance in the implementation of the plan, e.g., followup and periodic program review and refinement.

The consultant will prepare detailed audit procedures and conduct audits on a quarterly basis (or more frequent if needed). Strict adherence to applicable NRC regulations and guidelines will be followed.

Concise written audit reports will be made after each audit is completed, covering such items as: audit methods and equipment; exact audit procedures and conditions, audit results, corrective actions taken, and recommended actions.

The consultant is specifically requested to discuss the effects of postponing data analysis until all sampling and measurement analyses have been completed. A quotation stating the costs of data analysis as a function following after and separate from data collection is requested.

GENERAL SCOPE OF WORK - METEROLOGICAL/AIR QUALITY

WMC is requesting a proposal for conducting a Meterological/Air Quality Study for the proposed project. The program strategy must be developed and conducted in accordance with Nuclear regulatory Commission (NRC) Regulatory Guides 3.5 and 3.8, applicable guidelines and branch position papers, and the Generic Environmental Impact Statement - NUREG 0706 (GEIS); U. S. Forest Service requirements; and applicable Arizona Radiation Regulatory Agency (ARRA) regulations and guidelines. Recommendations by the consultant as to other considerations

(tasks and regulatory requirements) not addressed in this proposal should be presented.

The following tasks have been identified for the proposed study:

TASK 1 MONITORING PLAN DEVELOPMENT AND APPROVAL

The consultant will prepare an integrated monitoring plan for WMC approval and will assist WMC during and consultations with regulatory agencies regarding the monitoring plan. Consultant will provide implementation of the plan, e.g., followup and periodic program review and refinement.

The consultant will design the monitoring program

(e.g., type of equipment, number of stations,
locations, parameters measured) and conduct any
necessary modeling. Monitoring
equipment/instrumentation will be purchased and
installed by the consultant as part of this proposal.

The agreed upon site and systems will be documented by
the consultant, including descriptions of how they
fulfill regulatory requirements applicable to the
site. A consultant's technician will be used for
operating and maintaining the field equipment.

TASK 2 - FIELD AND OFFICE AUDIT PROGRAM IMPLEMENTATION

The consultant will prepare detailed audit procedures and conduct audits on a quarterly basis (or more frequently if needed) of the monitoring system.

Strict adherence to regulations and guidelines will be followed.

Concise written audit reports will be made after each audit is completed, covering such items as: audit methods and equipment; exact audit procedures and conditions, audit results, corrective actions taken, and recommended actions.

TASK 3 - DATA PROCESSING AND DATA REPORTS

The consultant's responsibilities will consist of, but not be limited to, the following:

- Review and "logging in" of field records, laboratory records, and charts.
- Reading and computer processing of magnetic tapes for the meterological station (wind speed, direction, and sigma; temperature; precipitation; barometric pressure, evaporation).
- Verification and editing of data received.
- Digitizing of strip chart data as necessary.
- Assessment of data for precision and accuracy,
 according to specified procedures.

Preparation of reports and data as per requirements and recommendations.

ALTERNATE PROPOSAL TO TASK 3

WMC is considering reducing and processing the entire accumulation of raw meterological data as a separate task at a later date. In the event we do decide to do this, Task 3 will be modified. Therefore, as a separate proposal for Task 3, you are requested to propose on the following tasks:

- Perform Task 3 as described except delete computer processing and related subsequent data handling.
- Accumulate all raw data at the end of a one year measurement period, perform all computer processing and subsequent data handling to permit preparation of an acceptable report.
- Develop detailed written evaluations and procedures for validation, editing, and processing of data acceptable to the regulatory agencies.

Any additional tasks the consultant considers to be needed should be added.

WMC is requesting a proposal for conducting a complete ecological study of the proposed project site. The program strategy must be developed and conducted in accordance with:

Nuclear Regulatory Commission (NRC) Regulatory Guides 3.5 and 3.8, applicable guidelines and branch position papers, and the Generic Environmental Impact Statement - NUREG 0706 (GEIS); U.S. Forest Service requirements; and applicable Arizona Radiation Regulatory Agency regulations and guidelines. Recommendations by the consultant as to other considerations (tasks and regulatory requirements) not addressed in this proposal should be presented.

The study will address the following areas of the specified task level:

TASK - ECOLOGICAL STUDY

The proposed scope of eventual work for this task that WMC anticipates is presented in Appendix A, which is geared to addressing Section 2.9 of NRC Regulatory Guide 3.8.

However, this is essentially a generic approach and it is realized that site-specific considerations will result in revisions. The main things we are trying to accomplish is to program a "complete" ecological study that it acceptable to the applicable regulatory agencies and can be adequately

defended, and to commence immediately those activities identified as requiring actions over a prolonged period.

Specific animal and plant tissues will be collected for radiological and heavy metal analyses. The consultant will work closely with the Radiological Consultant in determining what species and tissues should be sampled and analyzed.

APPENDIX A ECOLOGICAL STUDY

Task Description

Ecological Survey

1. Survey Requirements

The ecological survey includes identification and review of appropriate biological literature and the design of a field investigative program that would provide the following information:

Identification of the relative abundance, distribution and diversity of the terrestrial and aquatic flora and

fauna in the proposed project site or in offsite areas that may be affected by project operations.

- . Identification of important flora and fauna on the project site or in offsite areas. The identification of rare or endangered species should be emphasized.
- that may be classified as environmentally sensitive areas. Consultation with appropriate Federal or state officials. The identification of local breeding grounds and flyways should be emphasized.
- . Identification of the status of ecological succession.
- Identification of existing environmental stresses in the project site area and offsite areas that may be affected.
- . Identification of ecological relationships.
- Identification of activities that are prolonged or seasonally dependent.

2. Field Survey Program

Perform and document those activities that have been identified as requiring investigations or sampling over a period of more than eight (8) months.

Coordinate flora and fauna sampling with the consultant doing the Radiological Monitoring Program to the extent feasible.

3. Literature and Interview Survey Program

To the extent required for the design of an effective ecological study:

- Identify relevant site specific and regional ecological literature.
- Consult appropriate governmental agencies, specialists and area biologists (reference to project requires WMC approval).
 - Identify previous or current studies.
 - Obtain results of Federal or state wildlife surveys and research reports and observations of local wildlife personnel

relative to important wildlife species.

Provide in an acceptable format the source of information (published studies, personal communications, unpublished data) used in the preparation of reports and assessments.