

20XX Sand and Gravel Exploration Program

INTRODUCTION:

The XXXXXXXX Indians is a federally recognized Indian Tribe with a Tribal Government operating under a Constitution adopted pursuant to Section 16 of the Indian Reorganization Act, 25 U.S.C., s. 476. The XXXXXXXXXXX is located in CITY, STATE.

The Tribe, with the assistance of the Assistant Secretary – Indian Affairs – Division of Energy and Mineral Development (DEMD) are accepting bids for sand and gravel assessment. The project is expected to begin xx 20XX. The XXXXX Indians is interested in hiring a geologist to create a geologic map correlating geologic units with areas of construction-grade aggregate. The Tribe is ultimately interested in economic development and supplying Tribal aggregate needs for future projects and road repair. Identifying the quality, location, and volume of aggregate will greatly aid the Tribe with these endeavors.

Technical Summary for Geologist Services:

The proposed geotechnical study entails hiring a contract geologist for surficial mapping of up to 10 sites on the Reservation (6 sites which were looked at as possible sites in the 20XX DEMD Assessment, plus an additional 4 sites to be determined by the Geologist), followed by subsurface sampling by backhoe. The samples will then be analyzed by a local engineering test lab to determine the specific composite of the Tribe's aggregate deposit.

Existing known and developed gravel sources in XXXXXX were depleted several years ago. For the last three years all gravel demands for tribal roads and other uses have been purchased from off reservation gravel pits at substantial cost to the Tribe (double the cost of previous on reservation gravel). This cost burden is unsustainable for Tribal Road maintenance and other Tribal uses.

The Division of Energy and Mineral Resources funded a study in 20XX, of the amount and quality of sand and gravel resources in XXXX. This new study will add to the previous assessment results by expanding the number of sites studied, and further studying selected sites that were studied and found to be promising in 20XX. The successful completion of this Sand and Gravel Assessment Study will provide the XXXX Tribe with a better understanding of the type and quantity of aggregate deposits for both domestic maintenance and potential commercial development.

The proposed study will seek to qualify and quantify the aggregate deposit with a comprehensive field mapping and sampling program that includes 1) detailed field mapping, 2) surface sampling and 3) subsurface sampling. Engineering lab testing will

be conducted on surface and subsurface samples to determine the aggregate deposit's technical capacity for ultimate customer usage. Lab testing will include specific gravity, absorption, L.A. abrasion, sodium sulfate soundness, and gradation. The results of the proposed study will be summarized in a final report with maps, diagrams, and digital files and presented to The Tribal Council.

Each site will be located on Tribal Trust Properties and require review by the Bureau of Indian Affairs (BIA) for possible environmental impacts, land use permits, and archaeology study to ensure the proposed development does not intrude on culturally sensitive areas.

The samples will be analyzed by a State approved engineering test lab to determine the quality of the deposits. The study will require the contract geologist to perform preliminary mapping and sampling for up to seven days and detailed_mapping and sampling for an additional seven to ten days. The geologist is responsible for hiring the backhoe for sampling and delivering the samples to a State Certified DOT lab for testing.

After the samples are tested, a follow-up report will be compiled by the geologist and released to the Tribe with a copy going to the DOI-Division of Energy and Mineral Development (DEMD), detailing the aspects of the aggregate deposits so that the Tribe can formulate a well-informed economic decision.

Project Site Location:

XXXXX Indian Reservation is located in the north-central portion of Wisconsin and is primarily located in XXX County with smaller portions of the Reservation located in XXX, and XXX Counties as shown in **Figure 1**. The Reservation borders on the eastern and northern edges of XXXXX National Forest. Access to the reservation is good. State Highway XX passes through the southwest corner while State Highway XX bisects the reservation diagonally southeast-northwest, linking it with U.S. Highway XX, a major north-south route. Additionally, there are also 3 county trunk highways located within the reservation boundaries that provide two main routes of access between highways xx and xx. Other roads located within the reservation are divided in ownership of the town, BIA and the Tribe.

MAP

Figure 1: Location of the XXX Reservation, Wisconsin

The study will be conducted Tribal Trust Lands starting with the sites recommended in the 20XX assessment, with additional sites to be determined by a contract geologist.

The study area will cover the majority of tribally owned lands on the Reservation. The study will focus on five to ten sites located within the reservation boundaries based on the 20XX mineral assessment study. The contract geologist will determine areas to sample after a systematic review of Reservation geology. Samples will only be taken from tribally owned land or properties held in trust.

Plans and Methods Used

The scope of work will be as follows:

Reconnaissance Evaluation

- Overview: The purpose of the reconnaissance field mapping program is to narrow down the area of interest and then complete a detailed sampling program. Information collected under this program should be sufficient to determine higher quality and quantity areas on the Reservation, allowing the Tribe to select a smaller area to focus on in the detailed study portion of the assessment.
- 2. Site Visit: Areas of sand and gravel will be identified by the Tribe and by the contract geologist. The geologist will select up to ten sites for reconnaissance mapping and sampling to determine the quality of sand and gravel deposits. These ten sites will be cleared by the XXXXXXXXX Tribe's Natural Resources Department and Historic Preservation Department prior to any subsurface sampling.
- 3. Reconnaissance Sample Testing: Engineering sample analysis would be conducted at a state certified commercial lab closest to the Reservation. Typical physical sample tests would include: Los Angeles abrasion, sulfate soundness, absorption, specific gravity and grading (sediment sizing). The sand and gravel will be tested to determine its suitability for use. STATE DOT standards will be used as a benchmark in all testing.
- Reconnaissance Report Preparation: A single report will be prepared for all of the reconnaissance sites. The report will include a description of the program, maps, sample locations, cross sections, photos, test results, results, and recommendations.
- 5. **Reconnaissance Report Presentation:** The contract geologist will present all reports and verbal summaries of findings and recommendations to the Tribal Council, or other Tribal organization chosen by the Tribe.

Deliverable Products:

The Deliverable Products will include two copies of the **final report** (one for the tribe and one for the DEMD). The final report will include maps and diagrams, and digital files for all work products. There will also be a **presentation** of final results given to the XXXXXXXX Tribal Council or other Tribal Business Entity designated by the Tribe.

Final Report:

The report should include at the minimum the following, as applicable (not necessarily in this order), shall be completed for the Tribe:

- i. Introduction
 - 1. Description of Project
 - 2. Purpose of Study
 - 3. Location and Geographical Setting
 - 4. Scope of Work
 - 5. Who Performed Work
- ii. Background
 - 1. Previous Work
 - 2. Local Geology
 - 3. State Specifications
 - 4. Historical Aggregate Production
- iii. Methodology
 - 1. Initial location selection
 - Detailed-study location selection_
 - 3. Selection of sample sites at each location
 - 4. Sampling methodology
 - 5. Laboratory analysis
- iv. Resource Assessment Results
 - Initial location assessments
 - 2. Detailed-study location assessments
 - 3. Surface sampling
 - 4. Sample sites
 - Field evaluation
 - 6. Laboratory analysis
 - a. Sieve analysis
 - b. Los Angeles Abrasion and Uniform Hardness
 - c. [Magnesium/ Sodium] Sulfate Soundness
 - d. Specific Gravity and Absorption
 - e. Other tests as applicable
 - 7. Resource Volume Estimates
 - 8. Computer Model (if applicable)
- v. Conclusions and Discussion
 - 1. Resource Quality
 - 2. Resource Quantity
- vi. Recommendations
 - 1. Evaluation location rankings
- vii. References
- viii. Appendices
 - 1. Appendix A: State Specifications Used
 - 2. Appendix B: Analyses performed on samples raw data

In addition, the report shall include geological maps, location of all sample sites, and any other maps pertinent to this study. All raw data, digital data, and data collected during the process of this investigation shall be included in the report, and given as digital data to the Tribe and DEMD. Three hard copies of the report, with digital data included in the book on DVD or other acceptable digital media, shall be given to the Tribe and DEMD.

Bidder Instructions:

The contractor shall perform all services within ninety (90) days from date of award. The bid shall be firm-fixed price, identify BID AMOUNT, no deviations or partial BIDS will be considered. Bids will be evaluated by lowest price, technical acceptability and contractor experience. The bid must address the minimum qualifications in a statement (including any resume and copy of degree) not to exceed 5 pages. The bidder shall provide an itemized estimate of travel mileage. The current Federal Travel Regulation authorized mileage rate can be found at: http://www.gsa.gov/portal/content/100715. The bidder's estimate is not a guarantee of travel reimbursement, rather a ceiling, as the Tribe will only pay actual expenses.

To be determined technically acceptable the bidder must meet these minimum qualifications:

- 1. The contractor must have experience assessing sand and gravel in the XXXXX Region with emphasis on XXXXXX State.
- 2. The contractor must have a degree in geology or other earth science related discipline (geophysics, hydrology, etc.).
- 3. The contractor must be able to use or have access to software and hardware for GPS and GIS to make comprehensive maps of the study area(s) for the report.

The XXXXXX Tribal Aggregate Assessment Project will be administered by the XXXXXXX Tribe in conjunction with the BIA and the Tribal Roads Department. Tribal

Roads Department Manager, NAME, will be the authorized representative to oversee this project.

The (RFP) closes on DATE, 20XX at X:XX PM Central Time. All questions must be submitted in writing and may be sent via email to individuals listed below. All bids shall be submitted to:

NAME
XXXXXXXX Tribal Roads Department
Po Box XX

CITY, STATE ZIP

Email: XXXXXXXXXX

Office: XXX-XXX-XXXX; Cell: XXX-XXX-XXXX

Fax: XXX-XXX-XXXX