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## **SHEBERGHAN GAS GENERATION ACTIVITY (SGGA)**

Contract No. EPP-I-00-03-00004-00, USAID Task Order No. AID-306-TO-12-00002

### **Monthly Report on Data Collection Progress**

**Period: January 1 – January 31, 2016**

**Submitted: February 4, 2016**

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This Monthly Data Collection Progress Report is made possible by support from the American People sponsored by United States Agency for International Development (USAID). The contents of this monthly report were prepared by Advanced Engineering Associates International, Inc. and are the sole responsibility of Advanced Engineering Associates International, Inc. and do not necessarily reflect the views of USAID or the United States Government.

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## Acronyms and Abbreviations

AEAI	Advanced Engineering Associates International, Inc.
MoMP	Ministry of Mines and Petroleum
PRMS	Petroleum Resources Management System
RFP	Request for Proposals
SGGA	Sheberghan Gas Generation Activity
SPE	Society of Petroleum Engineers
USAID	United States Agency for International Development

## 1 INTRODUCTION

This Monthly Data Collection Progress Report of the USAID-funded Sheberghan Gas Generation Activities (SGGA) program, of which Advanced Engineering Associates International, Inc. (AEAI) is the prime contractor, covers the period December 1, 2015 through December 31, 2015. The report is submitted as a Project Deliverable under Section F.5, Deliverable 13 of Modification 6 to Task Order AID-306-TO-12-00002 of Contract Number AID-EPP-I-00-03-00004.

Because the data collection process for the data evaluation and reserve estimate has been completed, the subcontract for data evaluation and reserve estimates has been consented to by USAID and the subcontract is to be signed in the first week of February 2016, the Contracting Officer's Representative has authorized SGGA to discontinue this Monthly Data Collection report. Activities and progress for the data evaluation and reserve estimate subcontract will be reported in the SGGA monthly and quarterly reports.

## 2 BACKGROUND

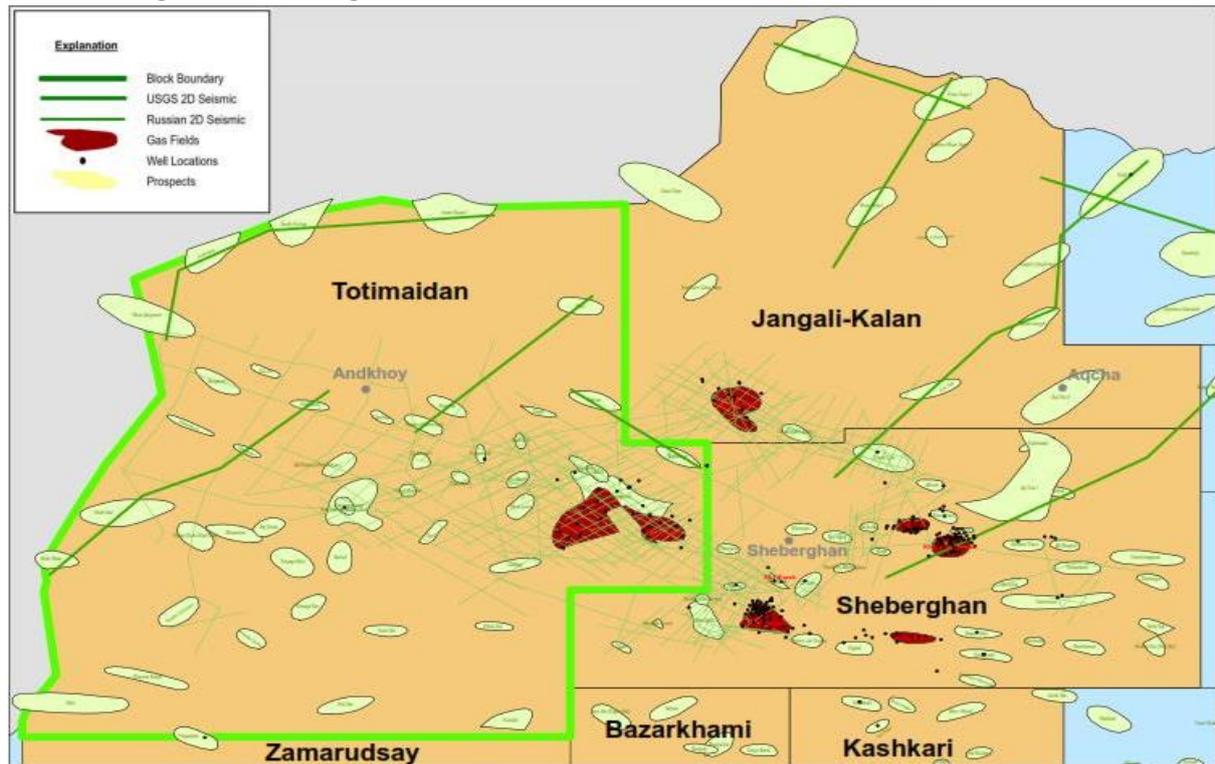
- USAID, through AEA, intends to fund preparation of reserve estimates based on existing data for up to seven natural gas fields in the Sheberghan area of northern Afghanistan. The seven fields, all of which are located in Jawzjan Province in the Amu Darya Basin, are:
  - Gerquduq
  - Khoja Gogerdak
  - Yatimtaq
  - Jangl-e-Kalan
  - Shahkarak
  - Chekh Che
  - Khoja Bolan

The fields are State-owned and controlled by the Ministry of Mines and Petroleum (MoMP). The general field locations are shown on the area map in Figure 1.

- The seven fields were discovered by Soviet state companies in the 1960's and '70's. Most of the available geological, geophysical and other data for the fields and their wells date from before 1989, the end of the Soviet occupation, and are in Russian with limited information in Dari. Well test reports in English from 2013 are available for four Yatimtaq wells and four Gerquduq wells.
- Natural gas from the fields is sour (containing high concentrations of H<sub>2</sub>S and CO<sub>2</sub>) requiring processing beyond the capacity of the small uncommissioned amine plant in the area to render it fuel/pipeline quality.
- Reserve estimates are needed for the fields to attract private investment for the development of central gas gathering and gas processing facilities and for the development of a proposed 200 MW gas-fired electrical generation facility near the city of Sheberghan. Additionally, a 50 MW gas-fired power plant is proposed to be built at Mazar-e-Sharif and supplied from the fields.
- The threshold question for foreign investors and financial institutions in considering a large investment in gas gathering lines, a gas processing plant or gas-fueled power infrastructure will be whether there are sufficient economically recoverable reserves to supply gas to the gas

processing plant and its anticipated principal customer(s), the power plant(s), for 25 years. They must be convinced that there are adequate gas reserves and so will expect detailed reserve estimates that comply with internationally accepted petroleum engineering and evaluation principles and that conform to the concepts, definitions and standards of the Society of Petroleum Engineers (SPE) Petroleum Resources Management System (PRMS), as well as the related Guidelines for Application of the PRMS.

- The ability of the selected engineering firm to develop reserve estimates and the accuracy of those estimates will depend in large measure on the completeness of the data provided to the firm. In order for AEAI to collect all available data, it needed the MoMP to agree in writing to allow AEAI full access to all geological, geophysical and well data related to the fields and to provide AEAI the authority to review and copy all data. Beginning in October 2014, AEAI worked to persuade the Ministry to provide AEAI such access and authority, including supplying the MoMP a draft authorization letter and a confidentiality agreement.
- AEAI received the Agreement for Access to and Use of Data, and Confidentiality of Data (Confidentiality Agreement) signed by the Minister of Mines and Petroleum under date of June 28, 2015, and the directive to MoMP divisions to cooperate with and assist AEAI in gas field technical data access and collection signed by the Minister under date of July 12, 2015. The receipt of those documents represented the culmination of nine months of efforts by AEAI, reinforced by USAID, to obtain the cooperation of MoMP in data collection needed for reserve estimates for the fields.
- AEAI worked with the MoMP, Afghan Gas Enterprise, Afghan Geological Survey, Afghanistan Petroleum Authority, and the Oil and Gas Survey to collect the available data and documents on the fields and to have the data scanned. More than 25,000 pages of data and documents from multiple sources were collected, organized and scanned and will be made available to the firm awarded the Subcontract.
- In November 2015, AEAI issued a Request for Proposal (RFP) to the four shortlisted firms that had earlier expressed an interest in participating in a competitive tender to enlist the services of a qualified engineering firm (i) to evaluate the existing geological, geophysical and well data for the fields and (ii) to prepare the reserve estimates using the existing data to meet the internationally accepted concepts and standards, if the available data is sufficient.
- AEAI also prepared lists and brief descriptions of the over 25,000 pages of documents on the seven fields that it had collected, organized and scanned. The lists were made available to the short-listed international engineering firms to which the RFP was sent, since according to the confidentiality agreement with the MoMP, the actual data itself could only be provided to the firm ultimately selected.

**Figure 1 - Sheberghan Areas Blocks - Known Fields, Structures, and Seismic**

### 3 ACHIEVEMENTS/ACTIVITIES

- An SGGA internal review committee evaluated the final proposals for the data evaluation and reserve estimate subcontract submitted by three international petroleum engineering firms after all clarifications had been made to firms expressing an interest.
- The review committee determined that two of the responding firms did not comply with the requirements of the RFP to provide not-to-exceed blended rates for the work to be performed.
- The third firm complied with all of the RFP requirements and its proposal was determined to be technically acceptable and the cost reasonable and within the approved budget.
- Obtained vetting clearance for preferred bidder and informed bidder of federal SAM registration requirements.
- On 27 January 2016, AEAI/SGGA submitted to USAID a request for consent to subcontract with McDaniel Associates Consultants Ltd. of Calgary to perform the data evaluation and reserve estimates. Consent was granted on 3 February 2016.

### 4 MEETINGS

- 14 JAN 16, met with senior USAID staff to discuss the status of the responses to the RFP and schedule for completion of the reserve estimates.

## **5 CHALLENGES**

- The only significant challenge was attempting to determine the range of competitive rates for non-bidding international petroleum engineering firms for reserve analysis work. The sector is highly competitive and rates are not publicly accessible for major leading firms.

## **6 PLANS FOR NEXT MONTH**

- Complete award and subcontract execution.
- Deliver collected data to subcontracted firm for commencement of data evaluation and reserve estimates.