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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

SGGA Monthly Report on Data Collection Progress

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Table of Contents

1 INTRODUCTION 1

2 BACKGROUND 1

3 ACHIEVEMENTS/ACTIVITIES 3

4 MEETINGS AND PROGRESS 5

5 CHALLENGES 3

6 PLANS FOR NEXT MONTH 6

Acronyms and Abbreviations

AEAI	Advanced Engineering Associates International, Inc.
AGE	Afghan Gas Enterprise
AGS	Afghan Geological Survey
APA	Afghanistan Petroleum Authority
MoMP	Ministry of Mines and Petroleum
OGS	Oil and Gas Survey
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 October 1, 2015 through October 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.

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 set forth below:
 - Gerquduq
 - Khoja Gogerdak
 - Yatimtaq
 - Jangl-e-Kalan
 - Shakarak
 - Chekh Che
 - Khoja Bolan

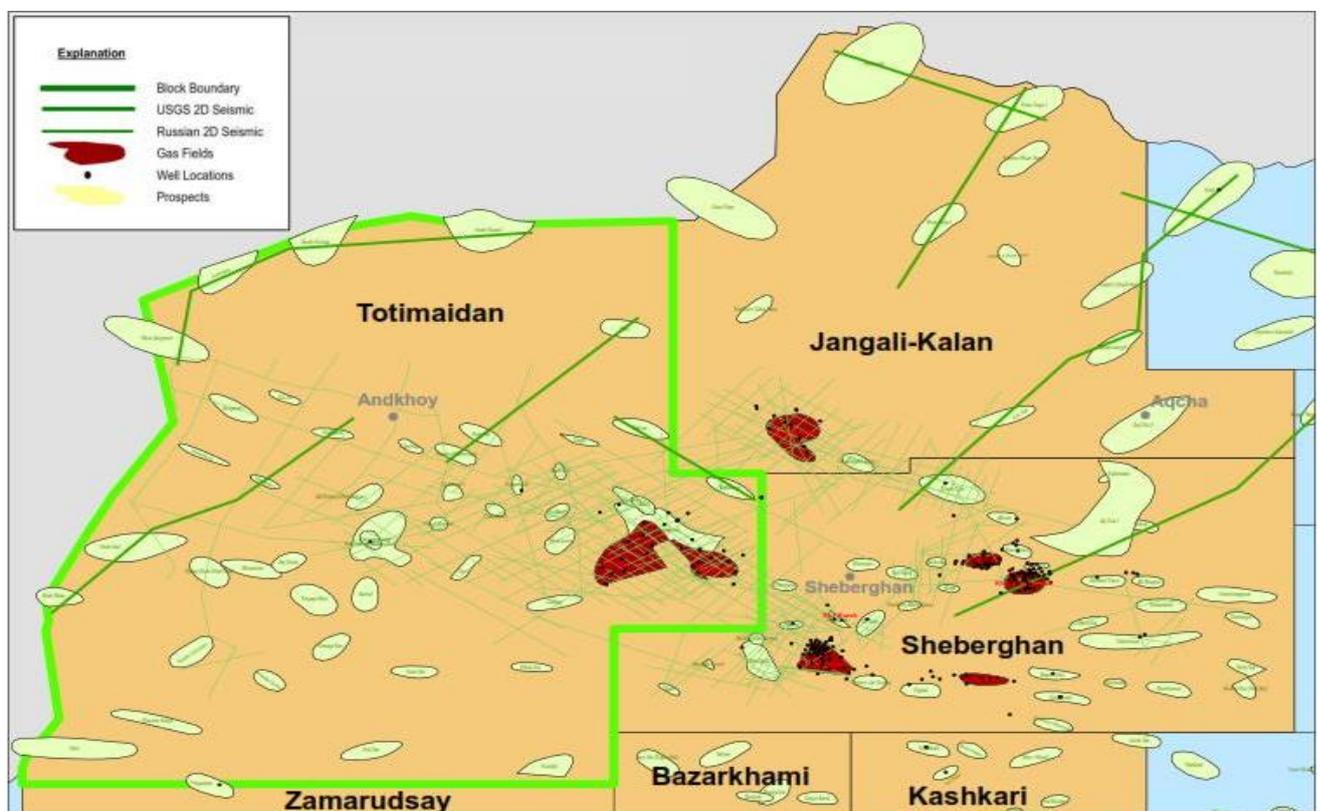
The fields are State-owned and controlled by the Ministry of Mines and Petroleum (MoMP). The general field locations are shown on the area map in Figure 1.

- The seven fields in question 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. However, there are more recent well test reports in English for four wells in the Yatimtaq field and four wells in the Gerquduq field as a result of a 2013 re-entry program.
- Natural gas from the fields is sour (containing high concentrations of H₂S and CO₂) 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 to be constructed 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.

- AEAI will issue a Request for Proposal (RFP) 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 those internationally accepted concepts and standards, if the available data is sufficient.
- 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 long months of efforts by AEAI, reinforced by USAID, to obtain the cooperation of MoMP in data collection needed for reserve estimates for the seven fields.

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



3 ACHIEVEMENTS/ACTIVITIES

- On October 7, 2016, submitted, at USAID's request, a status summary of each SGGA task, including the data evaluation and reserve estimation task for seven agreed gas fields in the Sheberghan area. Also, submitted to USAID the SGGA projected schedule for completion of each task.
- Completed organization of the voluminaous data collected on the seven gas fields for which reserve estimates will be sought. Also prepared a brief preliminary draft description of the documents to be made available to the short-listed international engineering firms to which the RFP will be sent in order for them to develop a cost and time proposal for data evaluation and reserve estimation.
- On October 28, in response to a request from USAID to try to compress the schedule for completion of data evaluation and reserve estimates for the seven gas fields, SGGA submitted to USAID a revised schedule in narrative form and as an Excel chart, which reflected a tightened schedule, and also submitted an even shorter estimated schedule if additional funding could be made available for the work. These schedules were then converted to MS Project files and submitted to USAID on October 29.

4 MEETINGS AND PROGRESS

- On October 4, 2015, SGGA representatives met with new USAID Mission Director, Mr. Herbie Smith, and other USAID personnel to brief the director on the status of SGGA tasks and recommendations, including progress on the data collection effort and the data evaluation and reserve estimation task.
- On October 25, 2015, met with USAID personnel led by John Cardenas, Deputy Mission Director, to update them on the progress and status of the well drilling and rehabilitation program, and the data evaluation and reserve estimation task.

5 CHALLENGES

- Organizing and describing the Russian documents (which constitute the bulk of the available data) has proven to be a challenging and very time consuming process, but is nearing completion.

6 PLANS FOR NEXT MONTH

- Finalize the descriptions of the documents collected.
- Issue the RFP in early November.