

Notice Inviting “Expression of Interest” (EOI) for Third Party Quality Control (QC) Services during Acquisition of 2D Seismic Data in un-appraised on land areas in Assam-Arakan Sedimentary Basin of India.

OIL INDIA LIMITED (OIL) has been entrusted by MoP&NG, Govt. of India to carry out Acquisition, Processing and Interpretation (API) of approximately 7408 LKM 2D Seismic data in un-appraised onshore areas falling in Assam-Arakan Basin covering states of North-East India namely Assam, Arunachal Pradesh, Mizoram, Tripura, Manipur and Nagaland.

The objective of this wide spaced 2D Seismic Survey for appraisal of unappraised areas of North East (NE) India is imaging of different geological horizons upto Basement & identification of Strati-structural including fractured basement prospects in the area.

OIL has already initiated action to outsource the 2D seismic Acquisition, Processing & Interpretation (A&PI) activities to reputed service providers in a scheduled time bound manner. Most of the areas are in forest covered mountains with steep elevations ranging from 100 – 2000 meters. These are *logistically difficult, technically challenging & geologically complex Thrust Fold areas*. Available fair weather working window in these areas is normally 5-6 months as compared to 8-10 months in other parts of the Country. The areas of operation have been broadly categorized as **Area - 1 and Area - 2** as detailed in **Figure - 1** below. Both the areas have been further sub-divided into Sectors on the basis of geographical and geological similarities. Based on reconnaissance surveys, logistics and other operational constraints, geographical and geological similarities the plan of Acquisition has been divided into three (3) campaigns in the areas of operation.

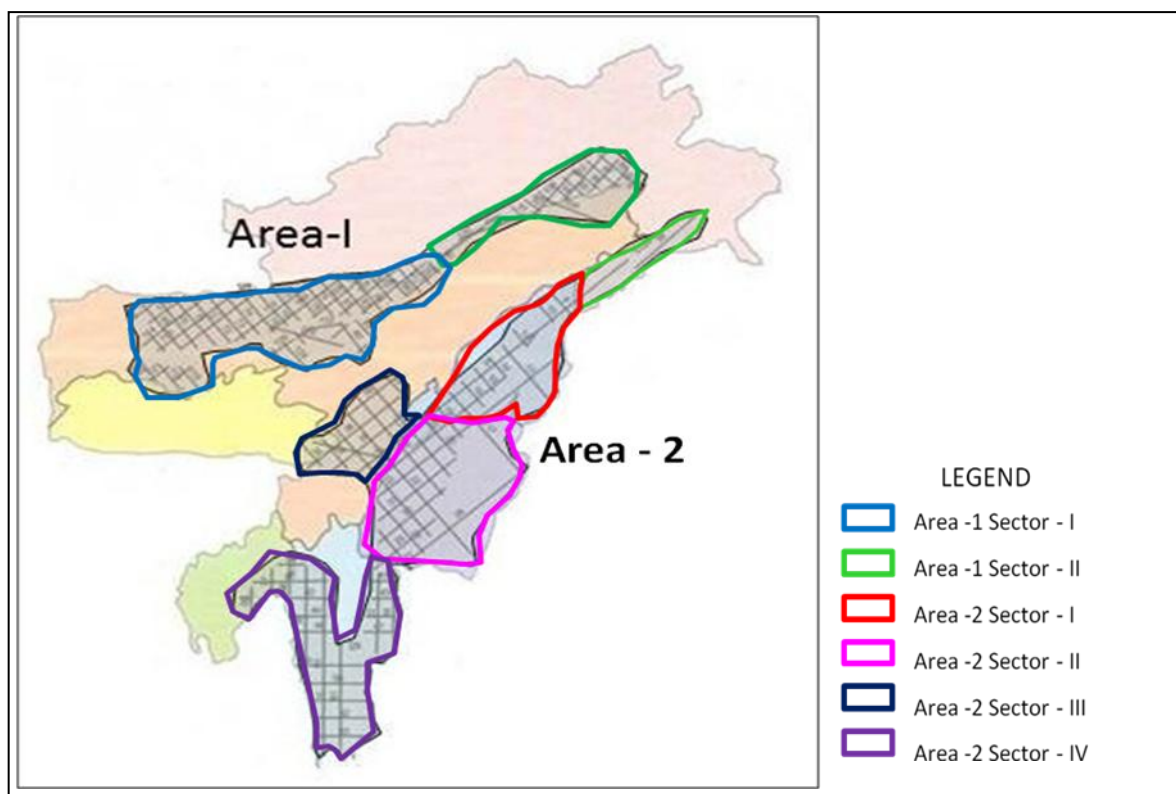


Figure 1: Map showing the assigned areas

Data acquisition is expected to commence from November 2016 and is planned to be completed by January 2020. The campaign wise details pertaining to quantum of work, number of seismic crews and QC personnel to be deployed and tentative period of data acquisition are provided in Annexure - I.

Maps showing planned 2D profiles in each area under individual Campaign along with individual Line Co-ordinates are provided in Annexure-2.

OIL seeks Expression of Interest ('EOI') under International Competitive Bidding ("ICB") process from globally reputed and experienced companies for hiring Third Party Quality Control (QC) Services during acquisition of 2D Seismic Data in these un-appraised onshore areas of Assam-Arakan Basin in North-East India. The Seismic Data Acquisition Service Provider Companies who have previously worked/currently working with OIL need not apply in response to this EOI.

It may please be noted that this is a business enquiry and it does not constitute any offer for the intended work. Moreover, this EOI should not be construed as right to have tender document or to be shortlisted for the tender.

Requirement: Broad requirements for a bidder are as follows:

- 1) Globally reputed and experienced companies who have expertise and experience in providing Third Party QC services during 2D/3D onshore seismic data acquisition using Explosive as source worldwide to various E&P operators/ National OIL Companies (NOC).
- 2) Bidder shall have adequate trained and experienced (in similar terrain condition) technical personnel, resources and capability to deploy and use necessary tools (application Software & requisite Hardware) suitable to undertake Third Party QC Services during 2D onshore Seismic data acquisition using Explosive as source efficiently and complete the same within scheduled timeframe.
- 3) Bidder shall complete mobilization and commence work within **three (3) weeks from issue of Letter of Award (LOA)** so as to start the work in respective sector as per Table1. **This will include visit of QC personnel to Duliajan for a minimum duration of three (3) working days for Project Appraisal Meeting (excluding travel period) prior to deployment at respective field sites. Similarly after completion of each field season the QC personnel shall visit Duliajan for a minimum duration of three (3) working days for Project Progress Briefing (excluding travel period). The bidder has to make all arrangements for Accommodation/ Fooding of their QC/QA personnel during their visit to Duliajan.**
- 4) **The Bidder shall deploy minimum two (2) numbers of QC/QA personnel per Seismic Data Acquisition crew deployed in each campaign respectively during the entire period of Data Acquisition under this contract. The bidder must ensure overlap of minimum two (2) working days during rotation of their QC personnel deployed in each crew. Bidder shall furnish tentative deployment schedule for their QC/QA personnel during the project execution.**
- 5) Bidders shall arrange on their own for all necessary clearances pertaining to deployments and use of their QC personnel and equipments, if required, as applicable for India and in respective operational area.

6) Bidder's QC personnel shall be conversant with various QC measures as stipulated in Service Contract (As issued by OIL for hiring of services for 2D Seismic Data Acquisition through outsourcing) of OIL for implementation of Quality Control (QC)/Quality Assurance (QA) including other applicable rules and regulations, HSE norms related to the activities of Seismic Data Acquisition.

7) The principle responsibility of bidder is to ensure Quality Control by enforcing proper QC measures during field execution of the seismic data acquisition as per 'Scope of Work' defined in service contract issued by OIL. Moreover, the bidder shall perform daily monitoring and quality assurance through analysis and quality control of Navigation Data, Raw data through to Processed data for ensuring precision in positioning and quality of acquired raw and processed output. The broad responsibility of the QC personnel deployed by the bidder shall be:

- **Pre-Planning of Seismic data Acquisition:** To supervise survey planning for 2D seismic data acquisition in order to meet the timelines of the project. Check the advanced plan for requisite recovery shots prepared by acquisition contractor, checking of alternate shooting plan provided by Acquisition contractor in case shooting needs to be carried out in offset, deviated or crooked line in lieu of Pre-planned straight lines as per 'Scope of Work'.
- **Field Equipment Audits:** The deployed personal shall be competent to perform technical audits, testing and calibration of equipment at regular interval as per agreed time schedule.
- **Geodetic Survey:** The deployed personal shall supervise topographic survey including GPS modelling / Implantation Survey Data QC as per industry standard recording formats/data management systems. The QC personnel must ensure all QC measures during Survey as stipulated in contract with the Acquisition Contractor.
- **Experimental Survey :** To supervise the results of Experimental Survey for finalization of acquisition parameters (Shot Hole Depth, Charge Size) within the scope of work to the acquisition contractor.
- **Uphole/ LVL analysis:** To ensure quality of Uphole & LVL data, their analysis and interpretation for computing source, receiver statics model along each profile and for the entire area.
- **Post Acquisition QC:** The deputed personal shall also carry out Acceptance/ Rejection of regular production as per the contract with the Acquisition Contractor. This shall include geometry verification and remedial measures at the field to ensure integrity of the seismic and positioning data from the very beginning of the processing flow.
- **HSE in Field Operation:** The deputed personal shall also ensure strict compliance of all applicable HSE norms as per IAGC and E&P Forum guidelines and Indian Explosives Act and Rules during Seismic Data Acquisition. They shall carry out periodical safety audit and also inform OIL occurrence of any event/ violation of HSE norms during field executions which adversely affect the work/project execution.
- **Data Management & Reporting:** Acceptance of Daily Progress Report prepared by Acquisition Contractor as per 'Scope of Work'. To check all Final deliverables as specified by OIL in Contract Document for each crew of respective area. To check Explosive/Detonator

consumption statement as per PESO guidelines and proper implementation of HSE measures during field operation. The bidder shall provide daily report through e-mail to OIL's representative. The bidder shall also provide comprehensive Quality Control report in both soft/hard copies at the end of each field season for respective Campaigns to OIL.

8) **The Office/Work Space, Accommodation/ Fooding, Internet / Telephone connectivity, Local Travel of QA/QC expert shall be arranged by OIL during stay at respective Field Site Base Camp. OIL shall also arrange for Local Travel of QA/QC expert during stay at Duliajan. However, bidder has to arrange for to and fro travel of their QC personnel from Home Base to Duliajan/nearest airport of respective Field Site Base Camp/intermediate journey from Duliajan to nearest airport of respective Field Site Base Camp.**

9) **The nearest airports from the respective Field Site Base Camps are as below:**

Campaign	Sector	Area	Airport
1	Area-1/Sector I	Assam & Arunachal Pradesh	Guwahati/ Dibrugarh/Jorhat
2	Area-1/Sector II	Arunachal Pradesh & Assam	Dibrugarh/Jorhat
2	Area-2/Sector IV	Mizoram/Tripura	Aizwal/Agartala
3	Area-2/Sector II	Manipur	Imphal
3	Area-2 / Sector - III	North Cachar Hills/Karbi Anglong	Guwahati/ Dibrugarh/ Jorhat

SUBMISSION OF EOI

Interested bidders having expertise and experience in providing Third Party QC services during 2D/3D data acquisition are invited to submit their EOI. EOI response should accompany the following information/documents:

- Documentary evidence to demonstrate bidder's track record of delivering third party QC services to clients during 2D/3D seismic data acquisition using explosive as a source for a minimum of 10 years. The bidders need to furnish experience details as per tabular format provided below.

Sl. No.	Contract No.	Contract Period		Client	Country/ Location	Type of Survey/ Volume Of Work	Terrain Conditions / Range of Elevation Profile	Equip. Used	Energy Source Used
		From	To						

N.B: The Bidder needs to provide the complete Scope of Work with blank Price Bid Format and Completion Certificate issued by client against the executed Contracts as mentioned in the above table.

- ii. **Bidder's personnel should have a minimum of 10 years of industry experience and 5 years of experience in the capacity of a third party QC for onshore 2D/3D Seismic Data Acquisition having supervised minimum three (3) projects using explosive as source.** The Bidder shall furnish Bio Data of QA/QC personnel mentioning details of work-experience of individual key personnel he intends to deploy per crew under each individual Campaign/Area taking into consideration the tentative planned time line for Campaign wise 2D Seismic Data Acquisition under this project is provided as **Annexure-1.**
- iii. Details of necessary tools (application Software & requisite Hardware) likely to be deployed for Third Party QC services for individual Acquisition Campaign as per Table 1.
- iv. Documentary evidence in support of sound financial standing like audited financial reports of last three (3) years.
- v. Details of HSE policies, procedures and statistics covering last 5 years.
- vi. Details of 'Scope of Work' proposed for Third Party QC services for individual Acquisition Campaign as per Table 1.
- vii. Budgetary quote (Campaign/Area-wise) for Third Party QC services as per format given at Annexure-3.
- viii. Bidders should demonstrate that daily QC tasks and reporting will be automated and standardised across all seismic operations in respective campaigns.
- ix. Document with detailed flow chart pertaining to planned activities by QC personnel during various stages of field execution.
- x. Bidders shall propose a software package(s) that will automate and standardise the daily duties of the third party QCs.
- xi. Any other information that will demonstrate the Contractor's competence/capability in providing Third Party QC Service during onshore 2D/3D Seismic Data Acquisition.

Interested bidders, who fulfil the specifics above, should submit their response by post/fax/ email /courier within 20 days from the date of notification. The hard copy in a sealed cover with the superscription "Expression of Interest (EOI) for 2D seismic data API in unapprised on land areas" along with supporting documents should reach within 10 days after above period at following address:

DGM (Geophysics)
GEOPHYSICA DEPARTMENT
OIL INDIA LIMITED
PO: DULIAJAN - 786602,
ASSAM, INDIA
Fax No. 91-374-2804754
Email: hgp@oilindia.in
Project Email: oilunapprised@gmail.com

Note: a. The offer(s) may also be uploaded in Parties' FTP server/File sharing website (portal) and the link(s) may be provided to us at our e-mail within above specified period.

b. OIL reserves the right to (a) accept or reject any/all EOIs submitted by parties and (b) cancel the process at any time without any liability and assigning any reason thereof.

ANNEXURE-I (Page 1 of 2)

Campaign	Block	Sector (Quantum)	Operating Months/ No. of Crews	No. of QC person per Crew/ Total No. of QC person in the Campaign	Duration of Stay at Camp			
					Nov '16 to May '17	Nov '17 to May '18	Nov '18 to May '19	Nov '19 to Mar '20
Campaign-1	Area-1 / Sector - I	Assam & Arunachal Pradesh (2360 LKM)	15/3	2/6	210 Mandays	210 Mandays		
Campaign-2	Area-1 / Sector - II	Arunachal Pradesh & Assam (870 LKM)	14/2	2/4	120 Mandays	210 Mandays	90 Mandays	
	Area-2 / Sector - IV	Mizoram & Tripura (1763 LKM)	21/2	2/4	120 Mandays	210 Mandays	210 Mandays	90 Mandays
Campaign-3	Area-2 / Sector -II	Manipur (870 LKM)	14/2	2/4	60 Mandays	210 Mandays	150 Mandays	
	Area-2 / Sector -III	Assam (North Cachar Hills & Karbi Anglong) (875 LKM)	14/2	2/4	60 Mandays	210 Mandays	150 Mandays	
Total			11 Crews	22 QC Personnel	(210*6)+ (120*4)+ (120*4)+ (60*4)+ (60*4)+ =2700 Mandays	(210*6)+ (210*4)+ (210*4)+ (210*4)+ (210*4)+ (210*4)+ =4620 Mandays	(90*4)+ (210*4)+ (150*4)+ (150*4) =2400 Mandays	(90*4) =360 Mandays

Table-1: Planned crew deployment and tentative period of data acquisition

Note:

- i. It may be noted that initiative for acquisition, processing and interpretation of 670 LKM proposed 2D Seismic profiles falling in the state of Nagaland i.e. Sector-I of Area-2 will be planned after receiving in-principle approval from Govt. of Nagaland.**
- ii. The Operating Months for Data Acquisition in a particular field season are generally from November to May whereas June to October is considered as Monsoon Break in the operational area.**
- iii. The Bidder needs to deploy Six (6) nos. of QC/QA personnel against three (3) crews for a total Mandays of 2520 for Campaign 1.**
- iv. The Bidder needs to deploy Four (4) nos. of QC/QA personnel against two (2) crews for a total Mandays of 4200 for Campaign 2.**
- v. The Bidder needs to deploy Four (4) nos. of QC/QA personnel against two (2) crews for a total Mandays of 3360 for Campaign 3.**
- vi. The duration of stay at Camp in terms of Mandays has been computed based on Maximum working days per operating Months.**

ANNEXURE-I (Page 2 of 2)

Timeline for Acquisition of 7408 LKM Seismic Data

Colour codes:

Contracting for Acquisition

Data Acquisition in Filed

Activity		2016		2017			2018			2019			2020
		June to October	Nov & Dec	January to May	June to October	Nov & Dec	January to May	June to October	Nov & Dec	January to May	June to October	Nov & Dec	January to March
Campaign-1	Acquisition Contract Campaign-1	Contract awarded											
	Data Acquisition Sector-I of Area-1												
Campaign-2	Acquisition Contract Campaign-2												
	Data Acquisition Sector-II of Area-1												
	Data Acquisition Sector-IV of Area-2												
Campaign-3	Acquisition Contract Campaign-3												
	Data Acquisition Sector-II of Area-2												
	Data Acquisition Sector-III of Area-2												

Note: Timeline for Acquisition of 670 LKM falling in the state of Nagaland i.e. Sector-I of Area-2 has not been considered in the above chart.

CAMPAIGN-1

Figure-1: Area of operation with proposed 2D profiles covering parts of North and South Bank of river Brahmaputra in Assam and part of Arunachal Pradesh.

CAMPAIGN-2

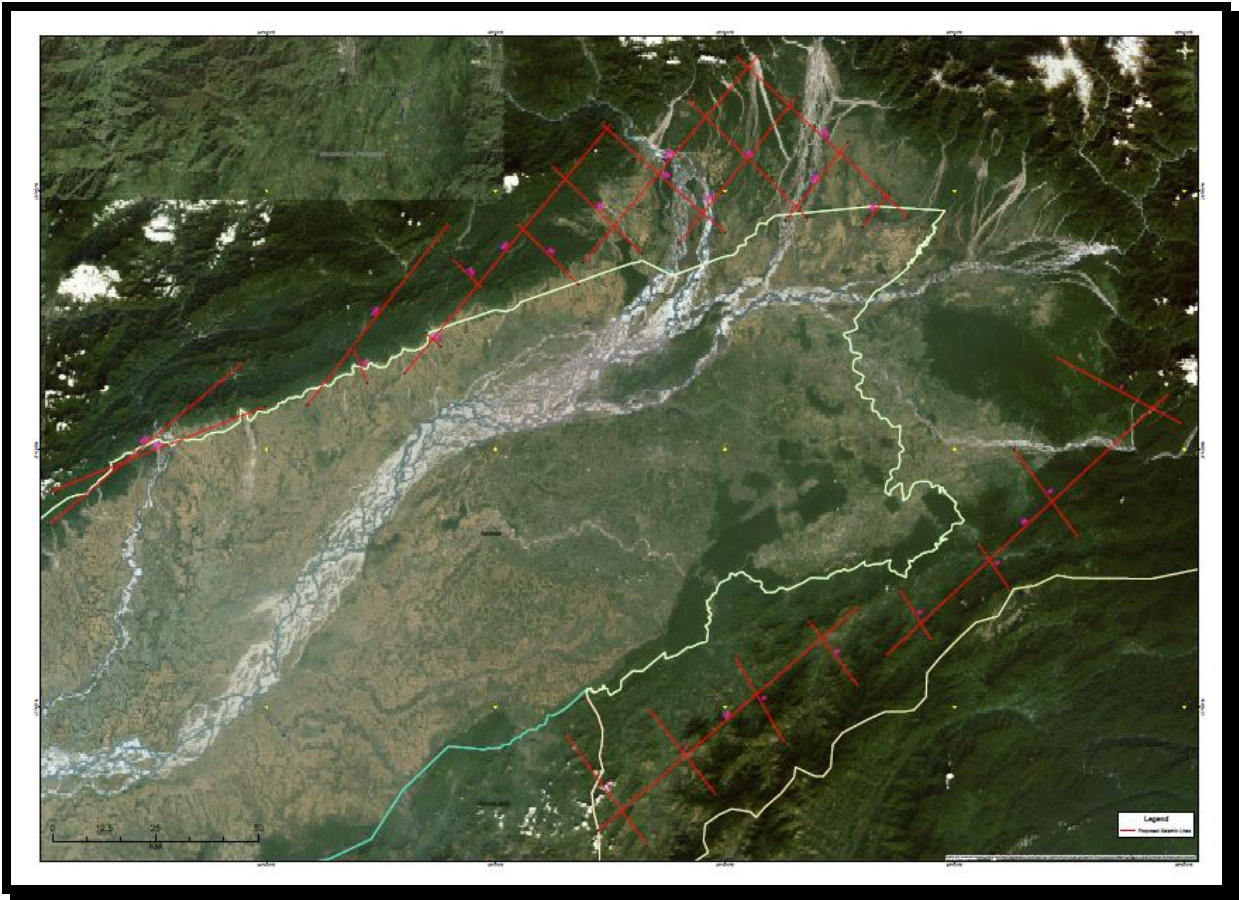


Figure-2: Map of Operation area with proposed 2D profiles covering Arunachal Pradesh and Assam (North and South Bank of Brahmaputra River i.e. Area-1).



Figure-3: Map of Operation area with proposed 2D profiles covering Mizoram and Tripura i.e. Area-2.

CAMPAIGN-3

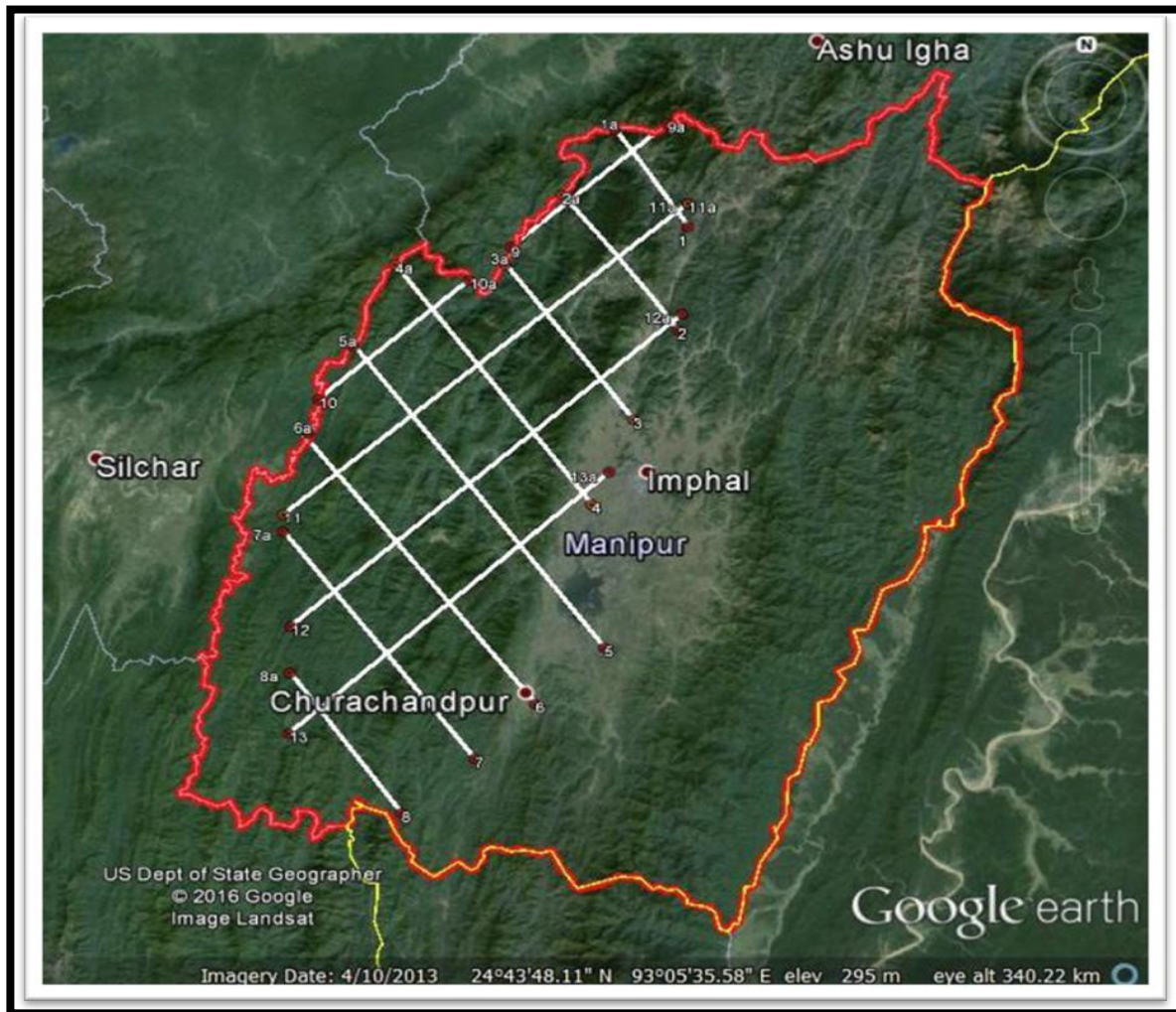


Figure-4: Map of Operation area with proposed 2D profiles covering Manipur i.e. Area-1.

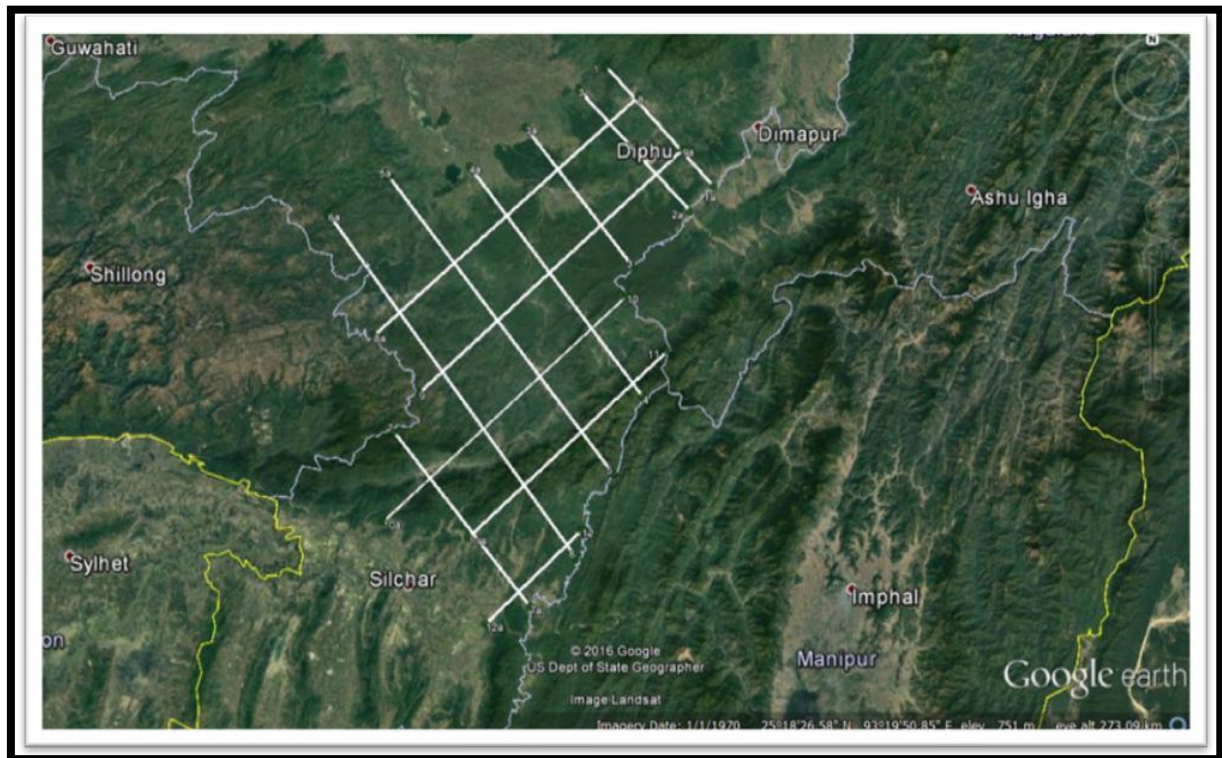


Figure-5: Map of Operation area with proposed 2D profiles covering North Cachar Hills-Karbi Anglong i.e. Area-2.

FORMAT FOR BUDGETARY QUOTE
(PER CAMPAIGN BASIS)
FOR THIRD PARTY QC SERVICES

Campaign:				
Description of Services	Unit of Measurement	Quantity	Unit Rate in (INR/USD)	Total Rate in (INR/USD)
A. Mobilization Charges	Lump sum	1		
B. Demobilization Charges	Lump sum	1		
C. Quality Assurance (QA)/Quality Control (QC) Services including deployment and use of Manpower, resources and necessary tools (application Software & requisite Hardware)	Man Days	<u>Campaign 1</u>		
		Crew-1- 840		
		Crew-2- 840		
		Crew-3- 840		
		<u>Campaign 2</u>		
		Crew-1- 1050		
		Crew-2- 1050		
		Crew-3- 1050		
		Crew-4- 1050		
		<u>Campaign 3</u>		
		Crew-1- 840		
		Crew-2- 840		
		Crew-3- 840		
		Crew-4- 840		
D. Report Printed/Bound	Copy	3		
E. Any Other Charges				
F. TOTAL (A+B+C+D+E)				
G. SERVICE TAX @15% on F				
H. TOTAL INCLUDING SERVICE TAX (F+G)				

Note:

- 1. The Day rate of QA/QC expert shall commence from the Day the expert leaves from Home Base and cease when the Expert returns Home Base (Home Base-Home Base Day Rate).**
- 2. The duration of stay at camp for QC/QA personnel to be deployed by bidder has been computed for each Campaign in terms of Mandays. The bidder needs to quote separately for each campaign accordingly.**

- 3. The Bidder shall provide necessary adequate Computing Equipment and Software, consumables for use of QA/QC expert to carry out Quality Assurance (QA)/Quality Control (QC) Service and submission of Daily/Final project report to OIL.**
- 4. The Office/Work Space, Accommodation/ Fooding, Internet / Telephone connectivity, Local Travel of QA/QC expert shall be arranged by OIL during stay at respective Field Site Base Camp. OIL shall also arrange for Local Travel of QA/QC expert during stay at Duliajan. However, bidder has to arrange for to and fro travel of their QC personnel from Home Base to Duliajan/nearest airport of respective Field Site Base Camp/intermediate journey from Duliajan to nearest airport of respective Field Site Base Camp.**
- 5. The bidder has to make all arrangements for Accommodation/ Fooding of their QC/QA personnel during their visit to Duliajan.**
- 6. The QA/QC expert shall provide digital report free of cost to OIL.**
- 7. The sum of Mobilisation & Demobilisation charges (A+B) should not exceed 2% of the Total at (F) above.**
- 8. The above quoted rates should be inclusive of all the taxes applicable including but not limited to corporate tax, Personnel Tax and other statutory levies.**
- 9. The budgetary quotations is being sought for budgetary purposes only i.e., to assess the market and project viability. It may be noted that the award of work will be made subsequently after invitation of bids through e-tendering as per laid down procedures/guidelines of OIL.**
- 10. OIL shall enter into a separate Data Confidentiality agreement with the successful bidder prior to execution of the contract.**