PREPARATION OF CENTRAL ASIA REGIONAL ECONOMIC COOPERATION CORRIDORS 5 AND 6 (SALANG CORRIDOR) PROJECT

QUOTATION DOCUMENTS

FOR

ENVIRONMENTAL BASELINE SAMPLING AND TESTING (WATER, SOIL, AIR AND NOISE)

RFQ Ref No.: SMEC/MoT/SC-1/CS-07(A)/RFQ

December - 2019

FINANCIAL QUOTATION SUBMISSION FORM

[Location, Date]

To: Mr. Alexander Mackay
Team Leader, SMEC International
Preparation of Central Asia Regional Economic Cooperation Corridors 5 And 6 (Salang Corridor) Project
Karte Parwan
Parwan e du near Karimi Super store
PD# 4 House #2
Kabul, Afghanistan

Dear Sir:

We, the undersigned, offer to provide the Sub-Consultant services for environmental baseline sampling and testing (water, soil, air and noise), RFQ Ref No.: SMEC/MoT/SC-1/CS-07(A)/RFQ in accordance with your invitation for proposals dated ## November 2019. Our attached financial proposal in the form of a priced bill of quantities is for the sum of [Insert amount(s) in words and figures]. This amount is inclusive of contingency, local taxes and VAT. Our financial proposal shall be binding upon us subject to any modifications resulting from contract negotiations, up to expiration of the validity period of the proposal.

We also include all other information required to be submitted as noted in the quotation submission requirements of the Instructions to Bidders.

We understand you are not bound to accept any proposal you receive.

Yours sincerely,

Authorized Signature
[In full and initials]: _____

Name and Title of Signatory: _____

_____

Name of Firm: _____

_____

Address: _____

_____

_____

INSTRUCTIONS TO BIDDERS

FOR

ENVIRONMENTAL BASELINE SAMPLING AND TESTING (WATER, SOIL, AIR AND NOISE)

1. Invitation

Professional environmental sampling and testing organizations are invited to submit quotations for the work described in the attached documents. These comprise:

- Instructions to Bidders
- Description of Services
- Financial Bid Submission Form
- Bill of Quantities
- Draft Contract Agreement

2. Bid Submission Requirements

The following are required to be submitted in one envelope to form a conforming bid for any package.

- Financial Bid Submission Form including priced Bill of Quantities
- Work Program and Methodology
- Proposed staffing including CV of entire survey team
- Schedule of sampling and testing equipment proposed to be used
- Outline of sampling and testing methods
- Statement of relevant experience
- One sample report of relevant study completed in past 05 years

Prices are to be submitted in United States Dollars (USD),

Bids that omit any of these items may be considered as non-conforming and be subject to rejection.

The original of the bid documents plus two copies, including any specified supporting documents, are required.

2.1 Financial Bid Submission Form and Priced Bill of Quantities

The pro-forma Financial Bid Submission Form and the Bill of Quantities included with this Invitation for Quotation shall be completed legibly in indelible ink in the manner noted on those documents. Any alterations shall be initialled by an authorised representative of the bidder.

2.2 Proposed Work Program

The bidder shall submit with its proposal his Work Program (the Program) in the form of a Gantt (bar) chart showing how the Works will be executed within the timeframe given in relevant clause of the Terms of Reference.

2.3 Proposed Methodology

The bidder shall submit an outline of the methodology proposed to be used for the environmental baseline work including details.

The methodology shall address quality assurance as set out in ISO 2001 standard and how the accuracy of the completed survey will be assured and any calibration tasks

2.4 Proposed Staffing Including Curricula Vitae

The proposed team shall have relevant education certification including academic degrees from accredited universities.

Key members of the proposed team shall have at least seven years' experience in conducting environmental baseline surveys.

The nominated contact survey organisation person must have excellent written and spoken English.

2.5 Statement of Relevant Experience

Experience as a survey organisation operating for at least five years in Afghanistan.

Experience as a main contractor leading environmental baseline sub-contractors for at least one project of a similar nature and complexity equivalent to this Request for Quotation over the last five years. Evidence of this experience substantiated by a client's certificate of completion is required;

2.6 Evidence of Registration to Carry out Baseline Environmental Lab Tests Survey

The Company shall be legally registered with a core competency of Environmental Laboratory Testing in Afghanistan.

2.7 Evidence of Financial Capacity

The company should have $20k cash on hand. The financial statements of the company should be submitted along with the Quotation.

3. Clarifications

Request for clarifications shall be made in writing not later than five business days before the due date for submission of bids. The clarifications must be addressed to Mr Hamed Haqesta at hamed.haqseta@smec.com

Any clarifications will be sent by email to all parties who have received the invitation to bid.

The original quotation plus two copies, including any specified supporting documents, are required.

4. Lodgement of Quotation

Quotations shall be addressed to:

Mr. Alexander Mackay
Team Leader
SMEC International
Karte Parwan
Parwan e du near Karimi Superstore
PD# 4 House #2
Kabul, Afghanistan

Unless otherwise advised in writing by Mr Alexander Mackay, the **closing date for Bids** is 2:00 pm on 29th December 2019. Late bids/offers will be rejected unopened.

The envelope or box containing a Quotation shall be marked clearly with the name and reference number of the RFQ as shown on the cover sheet of this request for quotations.

In addition to the hard copy submission and to assist with bid evaluation, bidders are requested to send after the Quotation closing date, a soft copy of the complete Bid including all attachments to the email addresses given below,

1. abdul.arya@smec.com
2. saira.tajdar@smec.com

5. Quotations Opening

Quotations will be opened at 2:00 pm on the stated closing date and the apparent prices announced at the opening. Quotations received after the closing date and time will not be opened and will be rejected.

6. Cancellation of Invitation for Quotation

SMEC reserves the right to cancel the invitation for Quotations at any time without assigning any reason whatsoever before the award of the Contract.

7. Quotation Validity

Quotation shall remain valid for 45 days from the due date for submission of quotation.

8. Quotation Evaluation Criteria

SMEC International on the basis of following criteria will evaluate quotations:

- Physical verification of equipment and laboratory before proposal evaluation.
- The Company shall be legally registered as a laboratory verified from NEPA and other relevant national and international bodies with a core competency in field sampling and lab testing.
- Project experience of a similar scale and over similar terrain for the past 5 years.
- The firm should be financially sound and must have $20k cash on hand. The bank statements are to be submitted.
- Experience as a main contractor-leading baseline lab testing survey sub-contractors for at least one project of a similar nature and complexity equivalent to this Request for Quotation (RFQ) over the last five years. Evidence of this experience substantiated by a client's certificate of completion is required.
- The proposed team shall have relevant education, experience, and certification including academic degrees from accredited universities.
- The team shall have at least seven (07) years' experience in conducting field sample collection and laboratory testing.
- Working knowledge of donor/government interactions, donor's practices, procedures, and technical assistance protocols.
- Excellent written & spoken English.

Quotations that do not conform with the bid submission requirements, or do not satisfactorily demonstrate any of adequate experience, team technical ability, access to appropriate and sufficient equipment, appropriate methodology and a realistic work program will be rejected as non-conforming.

The Employer will award the contract based on the technical and financial responsiveness of the companies. A proposal may not be considered, or may have reduced marks, if it deviates or provides reservations to the terms, conditions, and specifications in this RFQ. The Employer will evaluate and compare only the proposals determined to be substantially responsive.

9. Contract Award

SMEC reserves the right to reject the lowest or any Quotation or to not make any award at all.

The award of any contract may be subject to approval from the Ministry of Transport (MoT), Afghanistan.

The successful bidder will be advised in writing and unsuccessful bidders will be so advised once the successful bidder has signed the contract.

PREAMBLE TO BOQ

Measurement and Payment

The final Service Fee will be determined by actual quantities of work approved by The Consultant and the unit prices included in the Contract. The priced BOQ is to be used to determine the total fee for the project. Where no specific pay items are included for a particular item of work, the costs associated with that item of work are deemed to be included in the rates and prices generally for the Work under the Contract.
Tax and VAT will be deducted from each payment including the mobilisation advance as per rules of the Government of Afghanistan.

With the exception of the mobilisation advance payment, 10% retention will be deducted from all progress payments. The retention will be released after the Consultant has accepted the final report as being satisfactory.

No change in rate will be made on account of changes in quantities.

Contingency Sum expenditure shall only occur after written direction from the Consultant's authorised representative to proceed with such expenditure.

1. Pay Item P1 – Mobilisation

The Unit of Measurement is Item.

The schedule rate includes all supply and mobilisation to site of all personnel, materials, equipment, instruments, site inspection, testing and calibration and ancillary work for sampling and on-site measurements. This includes obtaining local agreements as to the positioning of monitoring equipment and the taking of samples.

Payment of the Pay Item P1 will be made as follows:

After signing of contract and supply of required Mobilisation Advance Security / Bank Guarantee in a form acceptable to The Consultant – 100% of Pay Item P1.

2. Pay Item P2 – Water Sampling and Testing

2.1. Pay Item P2.1 – Surface Water Sampling

The Unit of Measurement is number of surface water samples collected and delivered to the testing laboratory.

The schedule rate must include supply of all equipment and containers for taking of surface water samples, supply and use of appropriate means of preserving samples and transport to the testing laboratory in a condition and time suitable for testing.

2.2. Pay Item P2.2 - Water Quality Testing

The Unit of Measurement is number of water samples tested.

The schedule rate must include supply of all equipment, instruments and their calibration, reagents required for testing of samples in the laboratory and where applicable, the determination of water sample characteristics on-site as part of the suite of required water tests as specified.

3. Pay Item P3 - Soil Sampling and Testing

The Unit of Measurement is number of soil samples collected and tested.

The schedule rate must include supply of all equipment and containers for taking of soil samples, supply and use of appropriate means of preserving samples and transport to the testing laboratory in

a condition and time suitable for testing followed by the testing as specified. This includes supply of reagents, testing equipment, instruments and their calibration.

4. Pay Item P4 - Air Quality Monitoring

The Unit of Measurement is number of sites monitored.

The schedule rate must include supply of all equipment and instruments and their calibration to monitor air quality as specified. This includes: obtaining approval from the relevant persons to install the monitoring equipment, supply of power and security for the protection of the equipment from damage howsoever caused, preservation and transport to laboratory and testing in the laboratory if required.

5. Pay Item P5 – Noise Monitoring

The Unit of Measurement is number of sites monitored.

The schedule rate must include supply of all equipment and instruments and their calibration to monitor noise levels as specified. This includes obtaining approval from the relevant persons to install the monitoring equipment, supply of power and security for the protection of the equipment from damage howsoever caused.

6. Pay Item P6 – Reporting

6.1. Pay Item P6.1 – Draft Report

The Unit of Measurement is Item.

6.2. Pay Item P6.2 – Final Report

The Unit of Measurement is Item.

The schedule rate must include the amendment of the draft report to address satisfactorily The Consultant's comments, printing, binding and delivery to The Consultant of the specified number of copies of the final report in the required format/s.

BILL OF QUANTITIES

Water, Soil, Air & Noise Testing

#	Description	Unit	Qty.	Rate (USD)	Amount (USD)	TOTAL (USD)
P1	Mobilisation	Item	1			
P2	Water Sampling and Testing					
P2.1	Surface Water Sampling	No. of samples	20			
P2.2	Water Quality Testing	No. of samples	20			
P3	Soil Sampling and Testing	No. of samples	10			
P4	Air Quality Monitoring	No of sites.	10			
P5	Noise Monitoring	No. of sites	20			
P6	Reporting					
P6.1	Draft Report	Item	1			
P6.2	Final Report	Item	1			
					Total	
		Add Tax and VAT:				
		Total:				
		In words:				
		Contingency:				**USD 5,000**
		Grand Total:				

Notes:

1. **No. = number**
2. **Use of contingency expenditure will require SMEC's prior approval and SMEC may also need to obtain Ministry of Transport approval to such expenditure.**

Signature:	*[insert signature of authorised representative of the Bidder]*
Name:	*[insert full name of signatory with National ID]*
In the capacity of:	*[insert designation of signatory]*
Name of Company	*[insert company name with full address]*
Duly authorised to sign the Bid for and on behalf of the Bidder	

DESCRIPTION OF SERVICES REQUIRED FOR

ENVIRONMENTAL BASELINE SAMPLING AND TESTING

(WATER, SOIL, AIR AND NOISE)

1. Introduction and Project Description

This description of services addresses on site monitoring and sampling as well as collection of samples for subsequent laboratory testing in order to assess baseline environmental conditions along the Salang Corridor for the purposes of environmental impact assessment.

Within Afghanistan, one of the few viable land routes linking the south, including the capital of Kabul with the north is through the Salang Tunnel and its associated connecting roads; collectively known as the Salang Corridor. The Salang Corridors forms a key section of Central Asia Regional Economic Cooperation (CAREC) Corridors 5 and 6 that traverse Afghanistan. At present the Salang Corridor is the only route that allows the year round north-south passage of goods and people across the Hindu Kush mountain range. Given the lack of alternative routes, the vast majority of goods shipped to Kabul from the north traverse the Salang Corridor. The project addressed by these TOR is the upgrading of the Salang Corridor between Jabal-ul-Seraj and Khinjan on Highway AH 76 in north-eastern Afghanistan.

Option 2 shown in Figure 1 is the option selected for corridor upgrading works and is the subject of this environmental baseline monitoring. For environmental impact assessment purposes. This option generally follows the existing highway corridor but involves construction of a longer tunnel at an elevation approximately 200 m below that of the existing tunnel. The project's area of influence (AoI) is one kilometre at both sides of the proposed road and tunnel and the environmental baseline study is to be conducted in the area of influence.

2. Sampling and Testing Objectives

The objectives of the baseline environmental monitoring, sampling and testing are:

- assess ambient air quality along the corridor
- determine physical and chemical soil properties including characteristics along the corridor
- determine physical and chemical characteristics of surface waters including rivers and springs
- evaluate the ambient noise level along the corridor.

The above objectives are to be achieved by a combination of on-site measurements, field sampling and subsequent laboratory analysis and reporting.

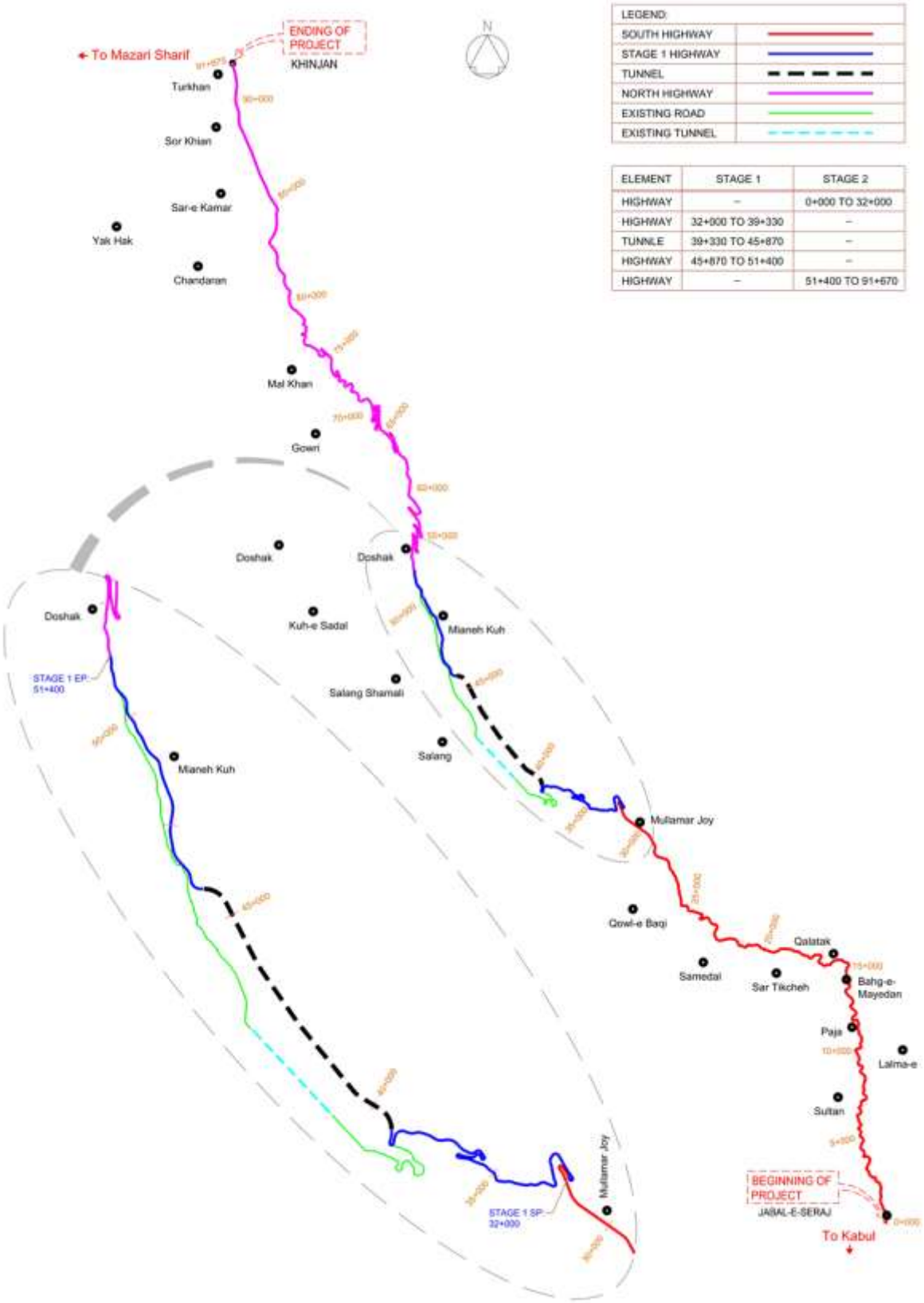

Figure 1: Salang Corridor

3. Field Work

The fieldwork will be undertaken at locations within the Salang Corridor agreed in consultation with SMEC. The intention is for the selected sampling locations to provide a representative overview of environmental conditions along the full length between Jabal-ul-Seraj and Khinjan Thus, the sampling locations will be spread between those two locations.

Where available, a SMEC representative will be accompany the Sub-Consultant during field investigations for collection of samples to monitor the procedures used and to confirm that these are consistent with the approved methodology and standards.

All field investigations, sampling and testing shall be undertaken in accordance with recognised international test methods.

The scope of work for the field investigation/sampling and any subsequent laboratory tests will comprise the following:

3.1. Water

Collection of samples and physical, chemical and biological analysis. Water samples are to be collected from surface water. Samples are to be stored and preserved in accordance with US EPA guidelines for the period between sampling and testing.

3.2. Soil

Collection and testing of soil samples from locations representative of the different soil types in the corridor.

3.3. Air

Collection and analysis of air samples along the route including at both ends of and inside the existing tunnel, locations of traffic congestion and selected other location to ascertain general background air quality.

3.4. Noise

Recording of noise close to and within the tunnel, identified sensitive receptors and at some more remote locations to ascertain general background noise levels.

4. Testing

All field and laboratory tests works should be carried out as per relevant standards of National Environmental Protection Agency (NEPA), Afghanistan and, if Afghanistan standards are not available, those of the United States Environmental Protection Agency. Further the relevant internationally recognized standard will be proposed by the Sub-Consultant that will be reviewed and approved by SMEC's environment team. SMEC environmental specialist prior to field investigations will verify the laboratory and equipment as per approved standard.

The following analyses are to be undertaken:

4.1. Water

Physical, chemical and biological analysis of surface water from the samples collected during field investigations. Tests are required for:

- Physical Water Quality
  - color
  - temperature,
  - pH,
  - turbidity (NTU)

- Chemical Water Quality
  - COD,
  - Salt Content,
  - total suspended solids,
  - total dissolved solids,
  - hardness,
  - dissolved oxygen,
  - specific conductivity,
  - major ions (calcium, magnesium, sodium, Sulphides and Sulphates, carbonate, bicarbonate and chloride),
  - nutrients (nitrate-nitrogen, ammonium-nitrogen, phosphate-phosphorus, potassium),
  - metals (aluminum, arsenic, copper, chromium and manganese)
- Microbiological
  - BOD5,
  - total coliforms,
  - E-coli,
  - Faecal streptococci

4.2. Soils

Physical and chemical analysis of soil characteristics with description of basic characteristics of soil fertility i.e.

- Chemical Analysis
  - water pH;
  - Mehlich buffer lime requirement;
  - phosphorus, potassium, magnesium and calcium by the Mehlich 3 (ICP) test;
  - Mehlich 3 zinc, copper and Sulphur;
  - Total Nitrogen (combustion);
  - nitrate nitrogen;
  - ammonium nitrogen;
  - organic matter
  - soluble salts,
- Soil characteristics
  - soil texture (topsoil and subsoil),
  - consistency,
  - moisture retention,
  - infiltration/permeability
  - soil moisture
  - chemical composition (micro and macro nutrients)

4.3. Air

Air quality testing for CO, SO2, NO2, O3, PM10 and PM2.5 is to be carried out at locations agreed jointly between the Sub-Consultant and SMEC.

Monitoring is to be conducted continuously for 24 hours at each selected location.

4.4. Noise

Noise monitoring in areas subject to traffic noise is to be conducted continuously for 24 hours at each selected location. The meter should be located at a height of between 1.2 and 1.5 m above ground level, at least 3 m away from reflecting surfaces such as walls or buildings and generally not

subject to effects such as conversations and rustling leaves. Noise shall be measured as the LAeq in 15-minute sampling periods. The meter also should record values for LA1 and LA90.

Noise monitoring is not to be undertaken during periods of rainfall or high wind.

At locations unaffected by traffic noise, background noise levels may be taken for a period of 15 minutes.

4.5. Calibration

All testing and monitoring equipment shall be calibrated prior to use for the baseline monitoring and certificates of such calibration provided to SMEC. Further calibration shall be undertaken as per manufacturer's recommendations. Such recommendations shall be provided to SMEC.

5. Investigation Sites

The sampling and monitoring locations will be spread approximately uniformly between Jabal- ul-Seraj and Khinjan. Exact locations of the monitoring and the sample collection locations will be agreed between SMEC and the Sub-Contractor prior to the commencement of fieldwork. The indicative investigation sites are set out in Table 1:

Table 1 - Proposed Locations for Sample Collection:

Locations for sampling the Soil, Noise and Air								
S/N	Water		Soil		Air		Noise	
	Northing	Easting	Northing	Easting	Northing	Easting	Northing	Easting
1	35.96161	69.13156	35.72218	69.13572	35.71769	69.13563	35.12264	69.23252
2	35.22422	69.21353	35.17548	69.42691	35.83317	69.13478	35.16590	69.64418
3	35.23099	69.20828	35.21552	69.02246	35.93067	69.13102	35.164439	69.65631
4	35.23561	69.17952	35.30388	69. 05909	35.94938	69.13714	35.142891	69.94649
5	35.14130	69.95601	35.34857	69.01632	35.134932	69.12232	35.14660	69.11784
6	35.16396	69.71217	35.33343	69.03242	35.16590	69.64418	35.134932	69.12232
7	35.30342	69.06123	35.36063	68.54958	35.131682	69.12465	35.131682	69.12465
8	35.23678	69.16921	35.25097	68.59392	35.28353	68.57241	35.104761	69.13178
9	35.17520	69.54750	35.29778	69.09653	35.30111	68.55516	35.103077	69.13167
10	35.25550	68.59193	35.31266	68.55259	35.36125	68.54599	35.94938	69.13714
11	35.26175	68.59180					35.71769	69.13563
12	35.29356	38.56217					35.83317	69.13478
13	35.31308	68.55151					35.93067	69.13102
14	35.32161	68.55279					35.16173	69.72289

15	35.54166	68.92511					35.28353	68.57241
16	35.35206	68.54124					35.29562	68.56795
17	35.5055	68.93079					35.30111	68.55516
18	35.19424	69.28046					35.36125	68.54599
19	35.18564	69.15441					35.52416	68.9242
20	35.15361	69.88891					35.36063	68.54958

Note: The sampling locations may increase or decrease as required.

6. Duration of Assignment

All key activities of the assignment that are mentioned in this description of services including field investigations, sampling, laboratory testing, report submission and any other required task by SMEC as per ToR shall be undertaken within duration of **one month** and the bidder shall submit the timeline / Gantt chart to deliver all milestones including revised reports to SMEC with the total duration of one month from the date of signing of contract.

7. Report

7.1. Content

The findings shall be documented in a final report including,

- photographs of site activities (date-stamped)
- maps of sampling and measurement locations including GPS co-ordinates
- summary of each of the test methods used for analysis
- summary of the testing equipment used and its calibration status
- complete laboratory test reports for all testing of water, soil, air and noise testing as per the mentioned parameters in the description of services
- write-up of quality assurance procedures used

The report shall summarize the findings and compare results obtained with NEPA / US EPA standards for comparable locations. In the case of water sources used for drinking water supplies, the comparisons shall be against potable water standards. Comment shall be made on the suitability of tested water sources for use in construction

Where polluted water sources are identified by testing, the report shall comment on the nature of the pollution its significance and likely source/s.

7.2. Report Format

The hard copy report shall be in bound A4 format. Soft copy shall be provided in both native file and pdf format on neatly labelled optical disc.

7.3. Report Submission Requirements

Draft Report

Within three weeks of completion of the field work the Sub-Consultant shall provide to SMEC for review two hard copies and one CD (native file format and pdf) of the draft report.

Final Report

Within two weeks of receiving SMEC's comments, the Sub-Consultant shall provide to SMEC three hard copies and two CDs (native file format and pdf) of the report amended to address SMEC's comments.