NATIONAL ENGINEERING SERVICES PAKISTAN (PVT) LIMITED
NESPAK HOUSE: 1-C, Block-N, Model Town Extension, Lahore - 54700, Pakistan
ENVIRONMENTAL & PUBLIC HEALTH ENGINEERING DIVISION
Established in 1973

Ref: 4520/11/MU/01/3063

Date: March 16, 2026

DETAILED DESIGN AND CONSTRUCTION SUPERVISION/IMPLEMENTATION OF LOCAL AREA DEVELOPMENT PROGRAMME (LADP), PUBLIC HEALTH, LIVELIHOOD DEVELOPMENT AND DOWNSTREAM FISHERIES PLAN

2.5 MW MINI HYDROPOWER PROJECT AT DUBAIR KHWAR, LOWER KOHISTAN

GEOTECHNICAL INVESTIGATIONS

Invitation of Bids for Geotechnical Investigations (Field and Laboratory Works)

Dear Sir,

Bids (**Technical and Financial**) are invited through EPADS (in accordance with the **BOQ** and **qualification criteria** uploaded on EPADs) from drilling Contractors/Companies for carrying out the geotechnical investigations for the subject project.

The companies capable of carrying out subject work are requested to provide their Company's Profile and the following documents along with their bids:

1. PEC Registration Certificate
2. FBR & PRA Registration Certificates
3. List of Similar Projects completed during last three years
4. Financial Capability
5. Equipment Capability
6. Personnel Capability
7. Litigation History
8. HSE Policies

The work comprises; execution of boreholes up to 20 m depth below existing ground level (EGL), by straight rotary drilling / percussion boring method, core drilling in bedrock, excavation of test pits, performance of SPTs in boreholes, performance of field density tests in test pits, performance of field permeability tests, collection of disturbed/undisturbed soil samples, collection of rock core samples, collection of samples from rock quarries and fine aggregate sources, collection of water samples and laboratory testing of selected soil/rock/water samples. The field and laboratory work shall have to be completed according to the following time schedule:

Sr. No.	Minimum No. of Straight Rotary Drilling Rigs/ Percussion Sets Required	Time for Completion of Field Investigations	Time for Completion of Laboratory Testing	Total Time for Completion of Field & Laboratory Investigations
1	2	45 days	30 days	75 days

Telephone : +92-42-99090000, 99231925 Fax : +92-42-99231926, 99231950
P.O. Box : 1351 Lahore
E-mail : ephe@nespak.com.pk
Website : http://www.nespak.com.pk

Your bid shall be valid for a time period of ninety (90) days after the bid opening. **The work shall be executed under the instructions and full-time supervision of NESPAK engineers/geologists and the successful bidder shall mobilize to the site on three days' notice after issuance of Letter of Award/Acceptance.**

The coordinates and ground elevations of all the investigation points by total station shall have to be provided to NESPAK before completion of investigation at site by the Contractor. The approved laboratory, where testing is to be carried out, shall be pursued by the successful bidder for timely completion of the assigned laboratory testing. The successful bidder shall be responsible for providing the borehole, test pit and permeability logs, summary of laboratory test results and detailed laboratory test results to NESPAK, within the contract period. **A premium of up to 25 % will be admissible on the official rates of the laboratory (subject to quoted rate), selected for testing of samples. This premium has been allowed as compensation to the Contractor for making advance payment to the laboratory and later following-up for obtaining test results in time. The name of laboratory should be provided by the contractor for approval of the Engineer.**

The basis of payment shall be the actual work carried out and approved by the Engineer, as measured by the Contractor and certified by the Engineer and valued at the rate and prices as quoted by you in your bid. The stages of payment shall be as under:

First (1st) Payment	Upon completion of minimum 50 % field work and submission of an invoice.
Second (2nd) Payment	Upon completion of 100 % field work and submission of an invoice.
Final Payment	Upon completion of 100 % work and submission of an invoice.

The bidders shall submit a bid security amounting to Rs. 200,000/- before the bid submission deadline in the form of pay order or bank draft in favor of M/s NESPAK.

Your **most competitive** bids (**inclusive of all taxes**) in accordance with the BOQ and qualification criteria, must be submitted through EPADs by 1100 hours on or before April 07, 2026. Technical bids would be opened on the same day at 1130 hours after their receipt in the presence of those bidders who wish to be present.

Financial bids would be opened after evaluation of Technical bids, at a time, date and venue announced and communicated to the technically responsive bidders in advance. However, the final decision to accept/reject any or all the bids as per PPRA rules solely lies with the undersigned. The bidding process and the execution of entire work shall be carried out in accordance with the terms and conditions of the General Bidding Documents for Geotechnical Investigations available at NESPAK website (www.nespak.com.pk).

for National Engineering Services Pakistan (Pvt.) Limited

(MUHAMMAD UMER)
Project Manager
E&PHE Division

2.5 MW MINI HYDEL PROJECT AT DUBAIR KHWAR, DISTRICT KOHISTAN LOWER, KP					
GEOTECHNICAL INVESTIGATIONS BILL OF QUANTITIES					
Sr. No	**Description**	**Unit**	**Qty**	**Rates (PKR)**	**Total Amount (PKR)**
A	**Field Investigation**				
A1	Mobilization and demobilization of straight rotary / heavy percussion drilling rig at site including shifting from one investigation point to another. No separate payment will be made for accessibilty to the site/ investigation points.	L.S	Job		
A2	Drilling of boreholes in overburden soils/Gravel soil up to a maximum depth of twenty five (25) meter by straight rotary / heavy percussion method including backfilling of boreholes to their original position. The scope of work shall also include logging of boreholes by a professional geologist / geotechnical engineer, labeling, preservation, transportation and photography of the soil samples.	L.M.	70		
A3	Drilling of boreholes in Rock (NX Size in General) up to a maximum depth of five (5) to ten (10) meter below rock strike level and backfilling of boreholes using cement/ sand/ bentonite slurry. The scope of work shall also include the logging of boreholes by a professional geologist / geotechnical engineer, preservation of core samples in core boxes, waxing of core samples, photography of rock cores and transportation of core samples to the laboratory.	L.M.	50		
A4	Performance of Standard Penetration Tests (SPTs) / Dutch Cone Penetration Tests (DCPTs) in boreholes (where possible) along with collection of SPT samples/core barrel samples at 1 m depth interval in general, or as specified by the Consultant Representative at site, including their labelling, packing, storage & transportation to an approved material testing laboratory.	No.	70		
A5	Collection of Undisturbed Samples (UDS) from boreholes, including their labeling, packing, storage & transportation to an approved laboratory.	No.	10		
A6	Collection of small disturbed soil samples from boreholes including their labelling, packing, storage & transportation to an approved testing laboratory.	No.	15		
A7	Performance of Permeability tests in boreholes.	No.	8		
A8	Performance of Water pressure tests with 3 to 5 m column in drilled holes.	No.	12		
A9	Excavation of test pits up to 3.0 m depth below ground level including backfilling of pits to original condition.	L.M.	48		
A10	Performance of insitu density tests in test pits by sand replacement method including sampling for moisture content determination, their labeling, packing, storage & transportation to an approved laboratory.	No.	32		
A11	Collection of Undisturbed Samples (Block Samples) from test pits, including their labeling, packing, storage & transportation to an approved laboratory.	No.	5		
A12	Collection of composite bulk samples from test pits including their labeling, packing, storage & transportation to an approved laboratory.	No.	20		
A13	Collection of water samples (if encountered) from boreholes/testpits including their labelling, packing, storage & transportation to an approved testing laboratory.	No.	3		
				Sub-Total (A)	

Establishment of coordinates and ground elevations of all the boreholes and testpits are included in the scope of work. The coordinates should be provided with reference to local bench marks established at site.

Preferred method of boring is straight rotary method.

Contractor will be responsible for arrangement of Personnel Protective Equipments (PPEs) such as safety helmets and jackets for NESPAK site supervisory / visiting staff.

All soil/rock samples must be labelled, stored and transported as per ASTM. The area ratio and clearance ratio of the thin walled tube, should be in strict compliance with relevant ASTM standard.

2.5 MW MINI HYDEL PROJECT AT DUBAIR KHWAR, DISTRICT KOHISTAN LOWER, KP					
GEOTECHNICAL INVESTIGATIONS BILL OF QUANTITIES					
Sr. No	**Description**	**Unit**	**Qty**	**Rates (PKR)**	**Total Amount (PKR)**
B	**Laboratory Testing**				
B1	Grain Size Analysis	Nos.	40		
B2	Hydrometer Analysis	Nos.	12		
B3	Atterberg Limits (LL,PL,PI)	Nos.	20		
B4	NMC (Natural Moisture Content) and Bulk Density Test	Nos.	15		
B5	Un-confined compression test (Soil)	Nos.	8		
B6	Un-confined compression test (Rock Core)	Nos.	20		
B7	Direct Shear Test (Drained)	Nos.	5		
B8	Specific Gravity Test	Nos.	5		
B9	Consolidation with Swell Potential Measurement Test	Nos.	2		
B10	Modified Proctor Compaction	Nos.	6		
B11	Sulphate, Chloride and Organic Content of Soil	Nos.	5		
B12	Complete chemical analysis of water samples i/e TDS, Cl, SO4 & pH	Nos.	3		
				Sub-Total (B)	
				TOTAL (A+B)	

DETAILED DESIGN AND CONSTRUCTION SUPERVISION/IMPLEMENTATION OF LOCAL AREA DEVELOPMENT PROGRAMME (LADP), PUBLIC HEALTH, LIVELIHOOD DEVELOPMENT AND DOWNSTREAM FISHERIES PLAN

2.5 MW MINI HYDROPOWER PROJECT AT DUBAIR KHWAR, LOWER KOHISTAN

GEOTECHNICAL INVESTIGATIONS

1. Qualification Criteria

Qualification will be based on the criteria given in the following paras regarding the Applicant's experience, personnel and equipment capabilities, financial position and litigation history, as demonstrated by the Applicant's responses in the Forms attached as Annex-A to this Document. The Employer reserves the right to waive minor deviations, if these do not materially affect the capability of an Applicant to perform the contract by the Applicant.

Experience and resources of the Company intended to be employed as sub-contractor shall not be taken into account in determining the Applicant's compliance with the qualifying criteria. However, for joint venture, collective experience, resources and financial soundness of all partners shall be considered.

1.1 General Information

The Applicant shall provide general information of his firm as per the format specified in the Application Form A-1 attached in Annex-A.

1.2 Experience of the Firm

The Applicant shall meet the following minimum criteria:

1) Successful experience as contractor in the execution of at least five (5) projects involving bulk of geotechnical investigations within the last three (03) years. This experience should specifically be of geotechnical investigations of similar nature. The Applicant will supply information as per the format specified in the Application Form A-2 attached in Annex-A.

1.3 Eligibility Based on Past Performance with NESPAK

Firms that have previously undertaken geotechnical investigation assignments for NESPAK and have received an unsatisfactory performance certificate within the past six (06) months shall be disqualified.

1.4 Personnel Capabilities

The Applicant must have in his employment, suitably qualified and experience personnel to fulfill the positions tabulated below. The Applicant will supply information as per the format specified in the Application Form A-3 attached in Annex-A.

Sr. No.	Position	Qualification*	No.	Minimum Experience (Years)
1	Technical Manager	B.Sc. Civil Engg.	1	5
2	Site Geologist/ Supervisor / Engineer	B.Sc. Geology/ B.Sc. Civil Engg. / B.Sc. Geological Engg.	2	2

Sr. No.	Position	Qualification*	No.	Minimum Experience (Years)
3	HSE Supervisor	HSE Certification course	1	1
4	Driller	Literate	2	3
5	Skilled Labor	-	As Required	-

1.5 Equipment Capabilities

The Applicant should own or have assured access to the following key items of equipment in full working order, and must demonstrate that, based on known commitments, these will be available for deployment on the proposed works.

Sr. No.	Equipment Type & Characteristics	Minimum Number Required
1	Straight Rotary Drilling rig complete in all respects including drilling rods, bits, mud pumps etc. along with at least one stand-by rig. The equipment shall be sufficient to complete the investigations within the time schedule	2
2	Percussion Boring Set (>250 mm diameter), complete in all respects including tripod, chisel / bit etc.	2
3	Casing sets having various diameters for all types of boring at least 15 m in length with casing bits	2
4	Core barrels (single tube & double tube) including coring and casing bits	2 each
5	Standard penetration test equipment complete in all respects including all rods, split spoon sampler, hammer and containers etc.	2
6	Shelby/Denison/Pitcher samplers	2 each
7	UDS tubes & Split Spoon Samplers	As Required
8	Hydraulic jacks with all accessories for the extraction of casings	1
9	Electrically operated sounder for groundwater level measurement	1
10	Test pit excavation equipment complete in all aspects	As required
11	Field density test apparatus complete in all respect as per relevant ASTM standard	As required
12	Field Permeability test apparatus complete in all respect as per relevant standard	As required
13	Wooden box for the preservation of undisturbed soil samples and rock cores	As required
14	Transport for mobilization of equipment	As required

The Applicant will supply information as per the format specified in the Application Form A-4 attached in Annex-A.

1.6 Financial Capabilities

The Applicant shall meet the following minimum criteria:

1) Annual turnover, which is also termed as income from contracting for procurement of geotechnical investigations and is defined as billing for works completed during the last three (3) years of at least Rs. 15 million. Documentary proofs of the same shall be submitted in the form of letter of awards, completion certificates, etc.

The Applicant shall also provide evidence of financial health such as bank account statements, available line of credits, etc., to show the soundness of the Applicant's financial position for procurement of geotechnical investigations works. The Applicant will provide annual turnover of the geotechnical investigation works carried out by him during the last three years. The Applicant will supply annual turnover information as per the format specified in the Application Form A-5 attached in Annex-A.

1.7 Litigation History

The Applicant should provide accurate information on any litigation or arbitration resulting from Contracts completed or under execution over the last three (03) years. The Applicant will supply information as per the format specified in the Application Form A-6 attached in Annex-A. A consistent/ overwhelming history of litigation against the Applicant may result in rejection of the application. In case an Applicant claims Nil litigation, he shall submit the same statement on the letter head of his company.

1.8 Application of Health, Safety and Environmental Standards

The Applicant should provide the HSE Policies and supporting documentary evidence for the following:

i) First Aid Box
ii) Personnel Protective Equipments (PPEs)
iii) Standard Operating Procedures (SOPs)
iv) Health, Safety and Environmental (HSE) Policies
v) HSE staff

The Applicant will supply information as per the format specified in the Application Form A-7 attached in Annex-A.

Application Form A-2 **Page___ of____Pages**

Experience of the Firm

Name of Applicant: _____

Sr. No.	Name of Project	Value of Geotech Contract* (Pak Rs.)	Contract Duration

Attach copy of Letter of Awards / Project Completion Certificates for any five (5) latest projects involving bulk of geotechnical investigations within the last three (03) years.

Application Form A-3 **Page___ of ____Pages**

Personnel Capabilities

Name of Applicant: _____

Sr. No.	Name of Person	Qualification	Designation/ Position*	Total Experience

Attach CVs of the Key Staff Members.

Application Form A-4

Page___ of ____Pages

Equipment Capabilities

Name of Applicant: _____

Sr. No.	Equipment Description	Capacity	Number of Equipment	Working Condition a) Very good b) Good c) Satisfactory	Current Location

Application Form A-5 **Page___ of ____Pages**

Financial Capabilities

Name of Applicant: _____

Year	Annual Turnover (in PKR)
2023 – 2024	
2022 – 2023	
2021 – 2022	

Note: Financial soundness certificate from the bank(s) as specified in section 1.6 must be provided by the Applicant

Application Form A-6 **Page___ of ____Pages**

Litigation History

Name of Applicant: _____

Year	Award for or against Applicant	Name of Client, cause of litigation, and matter in dispute	Disputed amount (current value Pak Rs. or equivalent)

Health, Safety and Environmental (HSE) Policies Personal Protective Equipment (PPE) and Standard Operating Procedures (SOP) of the Contractor

Name of Applicant: _____

The Applicant should provide the following policies/supporting documentary evidence as required in Para 1.8.

A. HSE Policies

Please attach HSE Policies

B. Details of PPE Available with the Contractor

Sr. No.	Type of PPE	Total Number

C. Details of SOPs of the Contractor

Please attach the copies of SOPs

GEOTECHNICAL INVESTIGATION PLAN FOR 2.5MW DUBAIR MINI HYDEL PROJECT

Coordinates in Table-1 as follows:

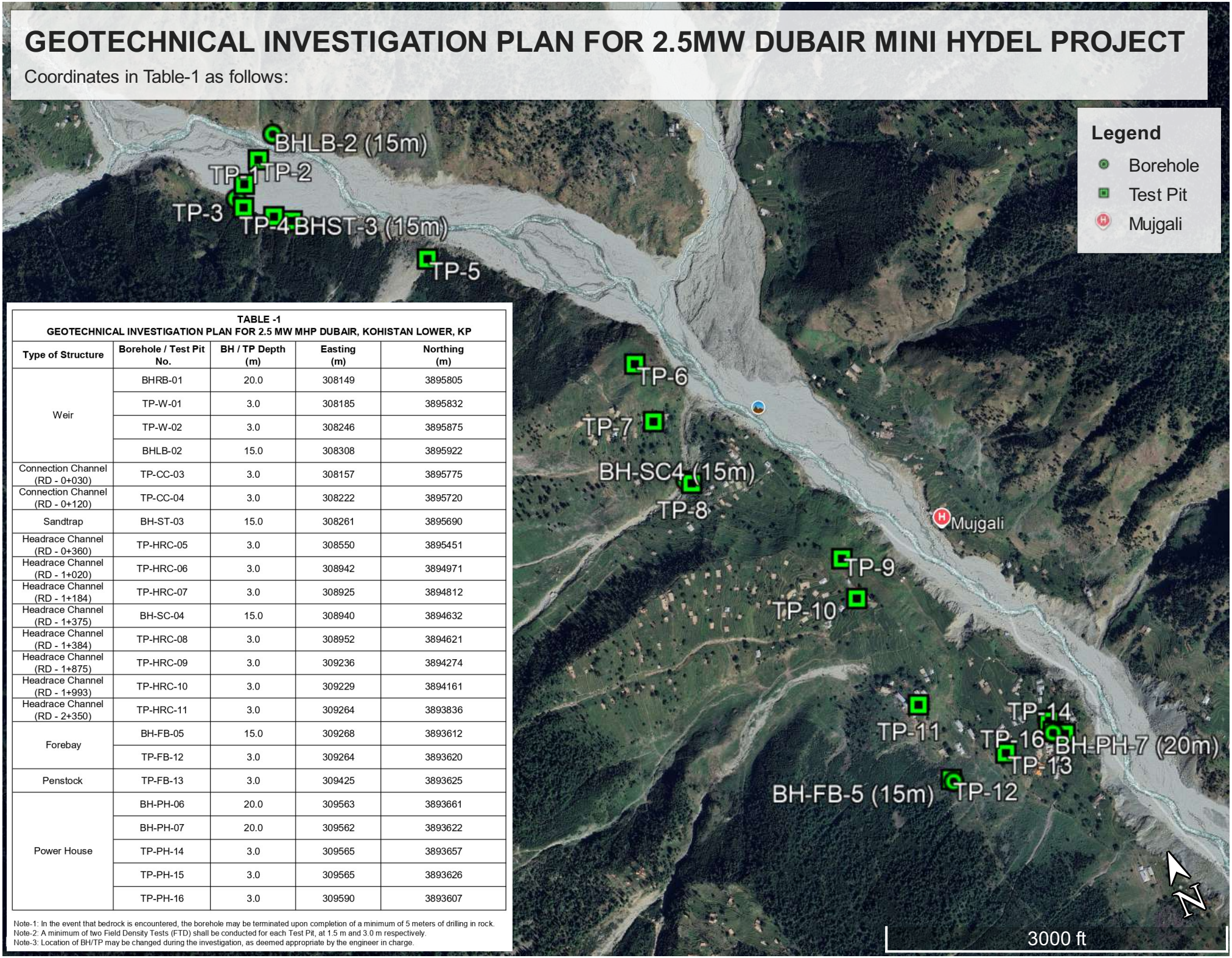

TABLE -1
GEOTECHNICAL INVESTIGATION PLAN FOR 2.5 MW MHP DUBAIR, KOHISTAN LOWER, KP

Type of Structure	Borehole / Test Pit No.	BH / TP Depth (m)	Easting (m)	Northing (m)
Weir	BHRB-01	20.0	308149	3895805
	TP-W-01	3.0	308185	3895832
	TP-W-02	3.0	308246	3895875
	BHLB-02	15.0	308308	3895922
Connection Channel (RD - 0+030)	TP-CC-03	3.0	308157	3895775
Connection Channel (RD - 0+120)	TP-CC-04	3.0	308222	3895720
Sandtrap	BH-ST-03	15.0	308261	3895690
Headrace Channel (RD - 0+360)	TP-HRC-05	3.0	308550	3895451
Headrace Channel (RD - 1+020)	TP-HRC-06	3.0	308942	3894971
Headrace Channel (RD - 1+184)	TP-HRC-07	3.0	308925	3894812
Headrace Channel (RD - 1+375)	BH-SC-04	15.0	308940	3894632
Headrace Channel (RD - 1+384)	TP-HRC-08	3.0	308952	3894621
Headrace Channel (RD - 1+875)	TP-HRC-09	3.0	309236	3894274
Headrace Channel (RD - 1+993)	TP-HRC-10	3.0	309229	3894161
Headrace Channel (RD - 2+350)	TP-HRC-11	3.0	309264	3893836
Forebay	BH-FB-05	15.0	309268	3893612
	TP-FB-12	3.0	309264	3893620
Penstock	TP-FB-13	3.0	309425	3893625
Power House	BH-PH-06	20.0	309563	3893661
	BH-PH-07	20.0	309562	3893622
	TP-PH-14	3.0	309565	3893657
	TP-PH-15	3.0	309565	3893626
	TP-PH-16	3.0	309590	3893607

Note-1: In the event that bedrock is encountered, the borehole may be terminated upon completion of a minimum of 5 meters of drilling in rock.
Note-2: A minimum of two Field Density Tests (FTD) shall be conducted for each Test Pit, at 1.5 m and 3.0 m respectively.
Note-3: Location of BH/TP may be changed during the investigation, as deemed appropriate by the engineer in charge.