DETAILED PROPOSAL REPORT FOR PRELIMINARY EXPLORATION (G-3 STAGE) FOR BAUXITE AND ASSOCIATED MINERALS IN KALAR VANDH AREA, KACHCHH DISTRICT, GUJARAT

PRELIMINARY EXPLORATION
(G-3 STAGE) NMEDT FUNDED

COMMODITY:

BAUXITE AND ASSOCIATED MINERALS

BY

April 27, 2026

VARDAN ENVIRONET LLP
PLOT NO 82A, SECTOR-5 IMT MANESAR, GURGAON, HARYANA.

Summary of the Block for G3 stage exploration

Table-1.1 Summary of the Kalar Vandh Bauxite Block of Kachchh Area, Kachchh District, Gujarat.

S. N.	Features	Details
	Block ID	----
	Current Exploration Agency	Vardan Environet LLP
	Previous Exploration Agency	Geological Survey of India, DMG Gujarat
	Previous stage Geological Report	1. Report on continuation of drilling for concealed bauxite at village kotadi, taluka mandvi, kutch. 2. Report on the pre-detailed mineral survey of a part of Mandvi and Abdasa talukas, Kutch district Gujarat state. 3. Appendix No.1, the Report on the Assessment of Bauxite deposits in Kutch dist., Gujarat state (1963-70) 4. Reconnaissance Survey for Lateritic Bauxite and Clay Around Asambiya Nana, Mandvi Talukas, Western Kachchh, Gujarat (Stage G-4)
	Commodity	Bauxite and Associated minerals
	Mineral Belt	Kalar Vandh Bauxite, Matanomadh Formation of Paleocene
	Completion Period with entire Time schedule to complete the project	12 Months
	Objective	The present exploration programme at G-3 stage has been formulated to fulfil the following objectives: i) Preparation of detailed Geological map at 1:2000 scale to demarcate various lithounits like Bauxite, laterite, basalt (deccan volcanics), shale, limestone, sandstone, clay etc. with their structural manifestation. ii) Collection of 30 bedrock/chip samples from bauxite/ aluminous Laterite bearing zones. iii) Topographical survey at 1:2000 scales will be carried out. iv) To establish the occurrence and depth continuity of bauxite zones, boreholes will be drilled as per MEMC norms: 9 boreholes(35m Each) in the central part at 200 m strike intervals within the already identified bauxite band by CGM Gujarat, and 12 boreholes(25m each) in the northern & southern part of the block at 800 m × 800 m spacing.

<table>
<tr><td></td><td></td><td>v) Two boreholes will be drilled up to the basement i.e. one borehole in the northern part & other situated in the southern part of the block.

vi) To assess the quality and the thickness of Bauxite horizons to delineate the Bauxite resources at G-3 (333) level in the block as per UNFC norms.

vii) Along with Bauxite, resources of Titanium, Gallium, Vanadium and Associated Minerals will also be accessed if encouraging values are encountered.

viii) To carry out exploration as per Minerals (Evidence of Mineral Contents) Rules, 2015, Mineral Auction Rule–2015 and MMDR Act–2015 as to facilitate the Government of Gujarat for auctioning of the Bauxite Block.</td></tr>
<tr><td></td><td>Whether the work will be carried out by the proposed agency or through outsourcing and details thereof. Components to be outsourced and name of the outsource agency</td><td>The detailed geological mapping (1:2,000 scale), pitting, trenching, location of boreholes, core logging, sampling and report writing will be carried out by Vardan Environet LLP. However, Vardan Environet LLP would outsource some specialized work viz.Topographic survey and petrographic work will be outsourced.

1. Chemical analysis and Petrological work will be outsourced as company has MOUs with Shiva analytic Lab, Bengaluru, SCS Enviro services, Jaipur, Radhey Testing Lab, Tundla and GSI chemical lab Western region, Jaipur, Rajasthan.
2. Drilling work will be outsourced to the lowest bidder.</td></tr>
<tr><td></td><td>Name/ Number of Geoscientists</td><td>Two numbers of Geoscientists will be involved for carrying out exploration work.</td></tr>
<tr><td></td><td>Expected Field days (Geology, Geophysics, Surveyor)
Geological Party Days</td><td>Geologist: 180 man days,
Total man days for surveyor- 60 man days</td></tr>
<tr><td>1.</td><td>Location</td><td></td></tr>
<tr><td></td><td>Latitude & Longitude</td><td>
<table>
<tr><th>Point No.</th><th>Longitude</th><th>Latitude</th></tr>
<tr><td>A</td><td>69°9'2.049"E</td><td>23°8'45.671"N</td></tr>
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<tr><td>E</td><td>69°10'3.163"E</td><td>23°6'58.876"N</td></tr>
<tr><td>F</td><td>69°9'29.416"E</td><td>23°6'53.937"N</td></tr>
<tr><td>G</td><td>69°9'16.864"E</td><td>23°7'55.463"N</td></tr>
<tr><td>H</td><td>69°9'51.843"E</td><td>23°7'55.325"N</td></tr>
<tr><td>I</td><td>69°9'51.501"E</td><td>23°8'4.405"N</td></tr>
<tr><td>J</td><td>69°9'11.545"E</td><td>23°8'13.471"N</td></tr>
</table>
</td></tr>
</table>

	Localities	Chiyasar, Taraf Manjali (OG),Bhitara
	Tehsil/ Taluk	Abdasa,Nakhatrana
	District	Kachchh
	State/UT	Gujarat
2.	**Area (hectares/ square km)**	
	Block Area	6.54 Sq.Km.
	Forest Area	Not Specified
	Government Land Area	Not Specified
	Private Land Area	Not Specified
3.	**Accessibility**	
	Nearest Rail Head	Bhuj Railway Station (70 Kms).
	Road	Gujarat SH-91 passes 4kms north from the block connecting Bhuj-Kothara-Naliya. NH-41 passes 21kms west from the block. The entire block area is well connected by motorable roads.
	Airport	Bhuj airport is around 72 kms from the block.
4.	**Hydrography**	
	Local Surface Drainage Pattern	The overall drainage pattern is dendritic, particularly over the Deccan volcanics. Coarse trellis to sub-trellis pattern, suggestive of structural control, is prominent in the sedimentary terrain. Trellis pattern is seen on the back slopes of basaltic cuestas. The drainage density and the drainage frequency is high in this area, but due to scanty rainfall these streams are ephemeral in nature and remains mostly dry throughout the year and act as flood channels during the monsoon. The drainage is controlled by both lithology and structures in the area.
	Rivers/ Streams	Kankawati, Naira and Vengdi rivers are the major rivers in the area. The rivers flow from NE to SW direction.
5.	**Climate**	
	Mean Annual Rainfall	The average annual rainfall ranges from 25 cm to 40 cm and is mostly received between July and September months.
	Temperatures	Minimum temperatures is around 5-7^{O}C (Nov-Jan) Maximum temperatures reach up to 42-45^{O}C(March-June)
6.	**Topography**	
	Toposheet Number	41E/04
	Morphology of the Area	The area under toposheet No, 41E/04 shows a high degree of physiographic variations with small hills and intermittent valleys. The hills are gentle and flat topped with fine grained massive basalt. The

		ground level in the area is at about 100 m above MSL, and the maximum elevation is at 170 m.
7.	**Availability of baseline geoscience data**	
	Geological Map (1:50K/25K)	Included
	Geochemical Map	Available on NGDR
	Geophysical Map (Gravity & Magnetic Map)	Available on NGDR
8.	Justification for taking up G3 stage exploration	**Justification: -** • The Commissioner of Geology and Mining (CGM), Gujarat has carried out exploration in Kachchh basin for bauxite and identified several blocks for exploration of Bauxite based on their previous works. They published the information of these blocks in Gujarat's Mineral Wealth booklet. CGM, Gujarat (via official email dated 20/09/2025) sent Vardan Environet llp a NOC approval to take up exploration investigation in some blocks. The proposed Kalar Vandh Bauxite Block (G-3 stage) is one of them. • The lithology of the area includes Bauxite/Laterite associated with Deccan Trap Volcanics. The bauxites of Matanomadh formation have been formed by supergene alteration of the pyroclastic facies of Deccan basalts. It consists of ferruginous laterites which rests on the Deccan traps and, in turn, are covered by the Eocene Gypseous shale beds. • In this area, the bauxite deposits are associated with the laterites of the Matanomadh formation of rocks. The area nearby to north of this block is explored by CGM through pitting, trenching and drilling. The chemical analysis results show a good percentage of Al2O3, averaging 35.00% with SiO2 percentage of 4.50%. They reported a reserve of 1.07 m.t of bauxite in the area. A total 39 boreholes were drilled in and around the area which encountered a maximum 6m of bauxite. In the vicinity of this block, there are leases of bauxite and thus the block is proposed for G3 level exploration. • Geological mapping of Mesozoic and Tertiary rocks of Kachchh (FSP- 1981-82 & 1984-85) of the area reveals presence of Bauxite. The rocks belonging to the supra-trappean formation is represented by oolitic and pisolitic, at times conglomeratic (re worked) bauxite and laterites of varied colour along with ash/shale beds, lithomarge aluminous grit, felspathic sandstone and aluminous clays. The supra-trappean sediments form hard compact, low ridges and plateau above

		Deccan Trap Mesozoic rocks. It is suggested that in-situ lateritization and bauxitization of Deccan Traps and associated pyroclastic materials have resulted in the formation of this bauxite. • The lateritic bauxite is exposed on the surface without any overburden which is a favorable condition for mining, also the width of bauxite varying form 160 m to 700 m. The area has been taken up for G3 exploration. • The bauxite in the study area has formed by the in-situ alteration of underlying Deccan traps. Bauxite over basalt parent rock has higher titania compared to the bauxite from Khondalite-Charnockite. Based on that, prospecting of titania is also kept under the proposed exploration scheme.

Detailed description on the following titles to be made in the proposal.

1.**Block Summary:**

Physiography:

The study area is located in the Abdasa taluka, Kachchh district in the western region of Gujarat. The area under investigation is a western plain, these plains are mainly composed of recent alluvium, wind-blown sands covering the Tertiary strata. These plains gradually merge into mudflats of Rann of Kutch. The topography is mostly undulating, where major portion is gently flat barren fields. There is no major river in the area. The area is mostly drained by numerous streams and nallas which are seasonal in nature and mostly remain dry in summer.

Background Information:

The geology of the area includes Matanomadh formation which is reported to be bauxite bearing. CGM studied the area by means of pitting, trenching and drilling with an estimated resource of 12.19 MT. Chemical analysis of the bauxite from the proposed area shows Al2O3 (average 49.77%) and low SiO2 percentage (average 2.49 %). In the vicinity of the proposed block leases of bauxite exist which shows the potentiality of the block. Hence, G3 level of exploration is recommended by CGM, Gujarat.

A reconnaissance field work was conducted in nearest area by Vardan Environet llp in March 2026. It can be seen from the map that the Laterite-bearing Matanomadh Formation is exposed on the central fringe of the Block align in E-W direction. The aluminous laterites of Matanomadh Formation is expected to continue below the Gaj and Fulra Formations within the block area. Two grab samples were collected from the area.The sample is from already reported bauxite band which is situated western to eastern margin of the block. The aluminous Laterite sample analysed, 53.54% Al2O3 & 61.24% Al2O3. Soil Regolith of nearby area (TS 41 E/04) shows Al2 O3 value of 20%

Background Geology (regional and geology of the block):

Kachchh, located in western Gujarat, is renowned for its intricate geological history. The stratigraphy of Kutch mainly comprises rocks ranging in age from middle Jurassics to Recent. Major part of the Kutch mainland is occupied by the Mesozaic sediments and Deccan Trap rocks. Tertiary sediments occupy the coastal strips of the mainland bordering Mesozoic sediments and Deccan traps. The study area falls in the western part of Kutch mainland where Tertiary sequence is developed, and Tertiary rocks overlie unconformably the basaltic rocks belonging to Deccan traps. Lithologically, the proposed area comprises of Matanomadh Formation including Bauxite, laerite, Sandstone and different clays.

Lithology	Formation	Age
Soil and Alluvium		Recent to sub-recent
----------Unconformity----------		
Milliolite limestone		Pleistocene (?)
Marl, yellow limestone Grey to Reddish clay Carbonaceous clay	Gaj beds	Miocene
----------Unconformity----------		
Laterite/bauxite with associated Lithomarge and ferruginous clay	Supra Trappean	Lower Eocene
----------Unconformity----------		
Basaltic lava flows	Deccan traps	Upper cretaceous to lower Eocene.

Mineral potentiality within the proposed block based on geology:

In CGM report titled "Report on concealed bauxite in the area between jarjok and kharuva villages of abdasa taluka of kachchh district, gujarat state (field season 1977-78, 78-79 & 79-80)" by b.a.amin, & d.d.patel reported that the bauxite occurs in the form of pockets, capping the laterites of Supra-Trappean group. In situ lateritization and bauxitzation of Deccan Traps and associated pyroclastic materials have resulted in the formation of bauxite. Also, there are reworked bauxites which cap the in-situ bauxites. In the field, bauxite forms shinning fawn grey boulders which can be recognised very easily. Near Balachod, Kalar Vandh Bauxite and Nandra, extensive areas are strewn over with bauxite boulders.

CGM, Gujarat explored this area by means of drilling and the estimated resource for the region is 12.19 MT. Chemical analysis data of the bauxite shows high Al2O3 (average 52.05%) with low SiO2 percentage (average 4.33%).

Scope for proposed exploration:

The proposed work for G3 Exploration comprises detailed topographic and geologic mapping in 1: 2000 scale and drilling within the Kalar Vandh Bauxite Block (about 25 m depth for each borehole) over an area of 6.54 sq. km at 200m strike interval as per the MEMC guidelines for G3 level. 10 numbers of Pitting in the area is proposed and the locations shall be selected based on the drill core samples and geology observed in the drill core.

Recommendations of G4 Stage Mineral Prospecting Report:

The available information provided by CGM Gujarat, and recommendation of CGM Gujarat for carrying out G3 level exploration as well as the information in the CGM literature suggests carrying out exploratory drilling to prove the quality and quantity in this area.

Objectives: The proposed G3 level mineral prospecting is planned for carrying out exploration of Bauxite & Associated mineralisation with significant values of other elements.

2.Previous Work:

The document titled "Report on concealed bauxite in the area between jarjok and kharuva villages of abdasa taluka of kachchh district, gujarat state (field season 1977-78, 78-79 & 79-80)," published by the Commissioner of Geology and Mining, Gujarat, mentions the exploration activities carried out by the CGM in this region. A total no of 39 borehole drilled nearby areas. Samples are recovered through drilling, and the estimated bauxite resource is 12.19 million tons in the entire region.

Chemical analysis of the bauxite indicates a high average aluminium oxide (Al2O3) content of 52.05%, accompanied by a low silicon dioxide (SiO2) percentage of 4.33%. Furthermore, satellite imagery analysis confirms the presence of laterite and bauxite in the region. Based on these findings, a G3 level of exploration is recommended to further assess and develop the bauxite resources.

3.a. Block description

Boundary Coordinates of Kalar Vandh Bauxite Block are given below.

Table-1. Boundary coordinates of Kalar Vandh Bauxite block, Gujarat.

Point No.	Longitude	Latitude
A	69°9'2.049"E	23°8'45.671"N
B	69°11'12.096"E	23°8'44.848"N
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b. Coordinates of Proposed Pit /Trench and Borehole Locations: Geographical coordinates of the proposed pit/trench and borehole locations will be planned after commencement of drilling work.

4.Planned Methodology:

a. Geological and topographical Mapping in 1:2000 scale. Reference points will be established within the mapping area by level transferring of SOI (Survey of India) benchmark point. The total area of 6.54 sq. km will be mapped on 1:2000 scale using DGPS survey method to bring out different geological and geomorphological units.

b.All the mapped units will be linked (geo-referenced) to the toposheet (41 E/04) pertaining to the area.

c.Core Drilling for Sub surface mineral content: A total of 9 boreholes (35 m each) planned to be drilled at 200 m strike intervals along the CGM Gujarat–delineated bauxite band, while 12 boreholes (25 m each) will be drilled in the remaining area at 800 m spacing, with sub-sampling carried out at 1 m intervals.

d.Piiting and trenching: 10 numbers of pits are proposed up to 4.0m below ground level will be carried out in the proposed block area. The pit/trench location will be selected based on the geology and mineralization in the area. Pitting shall be conducted concomitant to the drilling.

5.Feasibility Studies:

a. Geology: Geological mapping on 1:2000 scale and borehole locations up to 35m depth at 200m strike interval in laterite capping areas & 12no of borehole up to 25m depth in the remaining areas.10 number of pits will bring out the mineral potential of the area.

6.Nature, Quantum, and Target & Summary Expenditure:

A table containing the NQT is given in Annexure I.

7.Manpower Deployment

A table containing the manpower deployment table is given in chapter 9, Timeline.

8.Breakup Of Expenditure

The breakup expenditure for each phase is given in Annexure II.

9.TIME SCHEDULE/ACTION PLAN FOR PRELIMINARY EXPLORATION (G-3 STAGE) FOR BAUXITE AND ASSOCIATED MINERALS IN KALAR VANDH AREA, KACHCHH DISTRICT, GUJARAT, (6.54 Sq. Km.; Scheduled Timeline 12 months)

S.N.	Activities	Months												
		MONTH-1	MONTH-2	MONTH-3	MONTH-4	MONTH-5	REVIEW	MONTH-6	MONTH-7	MONTH-8	MONTH-9	MONTH-10	REVIEW	MONTH-11	MONTH-12
1	LITERATURE SURVEY														
2	DETAILED MAPPING														
3	PITTING/TRENCHING														
4	CORE DRILLING & ASSOCIATED WORKS														
5	SAMPLING														
6	LABORATORY STUDIES														
7	PETROGRAPHIC STUDIES														
8	PEER REVIEW														
9	REPORT WRITING & SUBMISSION OF FINAL REPORT														

References:

1. Report on concealed bauxite in the area between jarjok and kharuva villages of abdasa taluka of kachchh district, gujarat state (field season 1977-78, 78-79 & 79-80)

2. Report on investigation by drilling for bauxite in village of Nakhatrana and Abdasa Talukas Kutch district.

ANNEXURE -I

Preliminary Exploration (G-3 Stage) For Bauxite and Associated Minerals in Kalar Vandh Area, Kachchh District, Gujarat, 12 months, Review after 4 & 8 months.		
Sl. No.	**Nature of Components**	**Cost of Component**
1	Detailed Geological Mapping Other Geological	39,06,045.00
2	Pitting	5,32,960.00
3	Survey work- Outsource	15,03,840.00
4	Diamond Core Drilling & allied work- Outsource	43,75,500.00
5	Laboratory Studies including Physical & Petrological/mineragraphic Studies - Outsource	22,22,800.00
6	Reimbursement of cost in case of outsourced components of project work	8,10,214.00
7	Tendering Process Cost	2,50,822.90
8	Geological Report Preparation	2,50,000.00
9	Peer review charges	30,000.00
10	Preparation of Exploration Proposal	2,50,822.90
11	Total Cost Without GST	1,41,33,005
12	Provision for GST (18%)	25,43,940.86
16	Total Cost With GST	1,66,76,946
17	In Lakhs	166.77

ANNEXURE -II

Cost Estimate - Title: PRELIMINARY EXPLORATION (G-3 STAGE) FOR BAUXITE AND ASSOCIATED ELEMENTS IN KALAR VANDH AREA, KACHCHH DISTRICT, GUJARAT Area6.54sq. km, No. of BH:21, Borehole depth range- 20-30m; Schedule timeline- 12 months Review: After 5th & 10th Months]							
S. No.	Item of Work *	Unit *	Rates as per NMET SoC 2020-21		Estimated Cost of the Proposal		Remarks
			SoC-Item No. *	Rates as per SoC * (a)	Qty. (b)	Total Amount (Rs) (a*b)	
A	**Geological Mapping Other Geological Work & Surveying**						
1	Geological mapping, ((1:2,000 Scale)) & drilling work	Per Sq.Km.	1.1	18,300	6.45	1,18,035.00	
2	a. Charges for Geologist per day (Field) for geological mapping & trenching work, drilling work	day	12.1a	14,500	180	26,10,000.00	
3	2 labours/ party (As per rates of Central Labour Commissioner)	day	5.8	541	360	1,94,760.00	Amount will be reimbursed as per the notified rates by the Central Labour Commissioner or respective State Govt. whichever is higher.
4	c. Charges for Geologist per day (HQ)	day	1.2.1a	10,500	60	6,30,000.00	
5	Sampling party days-1 Samplers Labour charge not included	one sampler per day	1.2.1b	7,850	45	3,53,250.00	
	Sub Total- A					**39,06,045.00**	

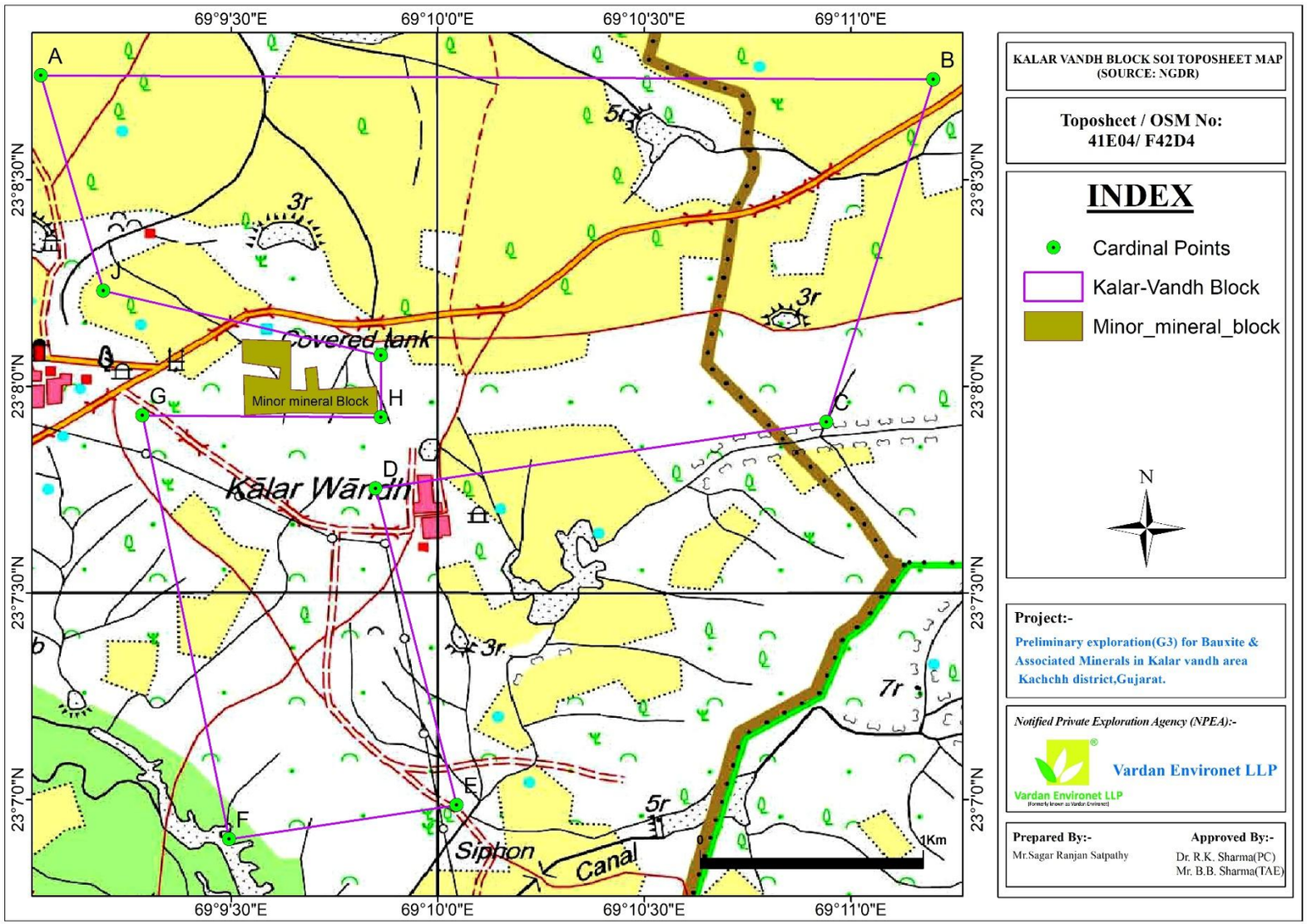
B	**Survey work (1:2,000 Scale)-Outsource**						
1	DGPS Survey for BH fixation & RL determination	Per Point of observation	1.3.2	24,000	31	7,44,000.00	21BH+10Cardinal point
2	Survey Party Days for topographical contour survey	day	1.3.1	10,500	60	6,30,000.00	Area :6. 54sq.Km, 1:2000Scale
3	4 labours/ party (As per rates of Central Labour Commissioner)	day	5.8	541	240	1,29,840.00	Amount will be reimbursed as per the notified rates by the Central Labour Commissioner or respective State Govt. whichever is higher.
	Sub-Total B					**15,03,840.00**	
C	**Trenching/Pitting**						
1	Pitting(Bwtween 2m to 5m Depth)	per cu.m	2.1.3	6,662	80	5,32,960.00	1(Length)x2(Width)x4(Depth)x10(No of pit),
	Sub Total C					**5,32,960.00**	
D	**DRILLING - Outsource**						
1	Drilling - HQ up to 400m (Soft Rock)	Per m	2.2.1.1 c	5,500	630	34,65,000.00	(12BH X 25m each)+(9BHx35m each)
2	Drill core Preservation	Per m	5.3	1,590	150	2,38,500.00	
3	Land / Crop Compansation (in case the BH falls in agricultural Land)	per BH	5.6	30,000	21	6,30,000.00	Non-forest Area
4	Construction of concrete Pillar (12"x12"x30")	per borehole	2.2.7	2,000	21	42,000.00	
	Sub Total D					**43,75,500.00**	
E	**LABORATORY STUDIES-Outsource**						
E.1	**Chemical Analysis**						
	Primary & Check samples for Bauxite BRS/Chip/Channel/Trench/BH samples) Major Oxide Analysis						
1	Estimation of major oxides (WD-XRF) - (Oxides+ Trace-24 Elements)	Per Sample	4.1.17 a	4,200	370	15,54,000.00	BRS-27+PIT-80+Trench-50+Drill core-150+Geochemical line(21 line)-63

2	External (10%) Check samples	Per Sample		4,200	37	1,55,400.00	
3	ICPMS (sequential technique) for 14 REE elements + 9 Trace elements	Per Sample	4.1.15	7,400	30	2,22,000.00	BRS-5+PIT-10+Drill core-15
4	determination of Trihydrate Alumina (THA-140 C)	Per Sample	4.1.19 b	5,000	10	50,000.00	Drill core-10
5	determination of Monohydrate Alumina (MHA-240 C)	Per Sample	4.1.19c	5,000	10	50,000.00	Drill core-10
6	determination of Reactive Silica	Per Sample	4.1.19 d	5,000	10	50,000.00	Drill core-10
7	Avaliable Alumina (TAA)	Per Sample	4.1.19f	5,000	10	50,000.00	Drill core-10
E.2	**Physical,Petrological, Mineralogical Studies**						
1	Preparation of polished thin section	Nos	4.3.1	500	2	1,000.00	
2	Preparation of polish section	Nos	4.3.2	800	3	2,400.00	
3	Complete petrographic/Mineragraphic study report	Nos	4.3.4	2,800	5	14,000.00	
4	Specific gravity Studies	Nos	4.8.1	2,500	10	25,000.00	For Resource Evaluation
5	XRD Studies	Nos	4.5.2a	4,900	10	49,000.00	
	Sub Total E					**22,22,800.00**	
	Total A to E					**1,25,41,145.00**	(Approved Project Cost)
F	**Reimbursement of cost in case of outsourced components of project work (Technical Supervision Cost)**	**Lumpsum**	6			**8,10,214.00**	10% of outsourcing cost subject to maximum of 20 lakh & combined cost of component & technical supervision should not exceed per unit cost as per
G	**Tendering Process Cost**	**One time in case of outsourced component**	5.9			**2,50,822.90**	2% of the Cost or Rs. 5.0 Lakhs whichever is less

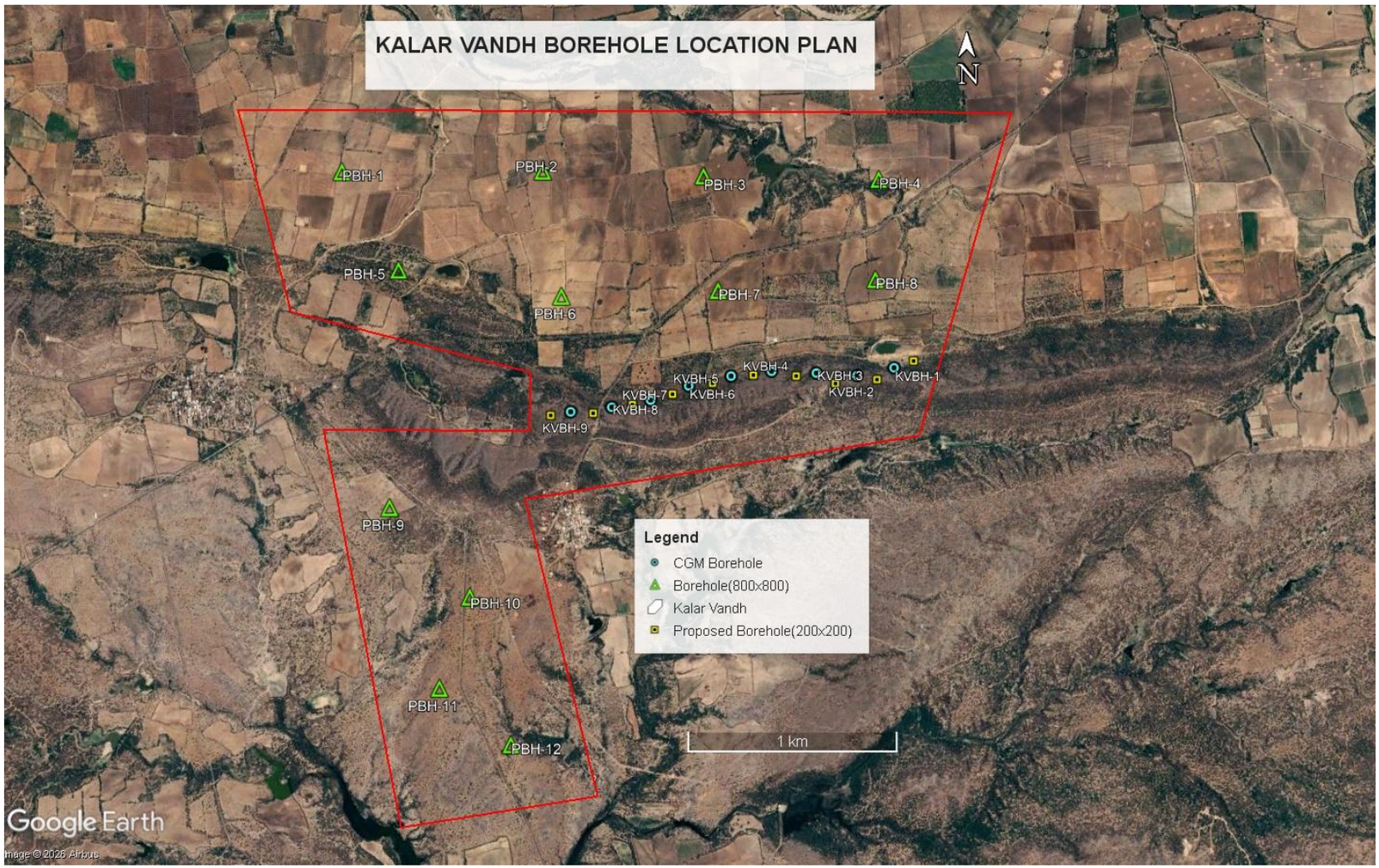
		s of project work					
H	**Geological Report Preparation**	**5 Hard copies with a soft copy**	**5.2(iii)**	2,50,000	**1**	**2,50,000.00**	
I	**Peer review Charges**	**As per EC decision**		30,000	**1**	**30,000.00**	
J	**Preparation of Exploration Proposal (5 Hard copies with a soft copy)**	**5 Hard copies with a soft copy**	**5.1**	2% of the Cost or Rs. 5.0 Lakhs whichever is less		**2,50,822.90**	
K	**Total Estimated Cost without GST**					**1,41,33,005**	
L	**Provision for GST (18% of J)**					**25,43,940.86**	GST will be reimburse as per actual and as per notified prescribed rate
M	**Total Estimated Cost with GST**					**1,66,76,946**	
				or Say Rs. In Lakhs		**166.77**	
Note :							
1	**Strict adherence to the Ministry of Finance's and GFR guidelines is mandatory. Every transaction must adhere to GFR rule 21.**						
2	**In case of delay/non- performance, the appropriate action will be taken by competent authority against delinquent agency as per prevailing govt. of India rules/guidelines on procurement.**						
3	**If any part of the project is outsourced, the amount will be reimbursed as per the Paragraph 3 of NMET SoC and Item no. 6 of NMET SoC. In case of execusion of the project by NEA on its own, a Certifiate regarding non outsourcing of any component/project is required.**						
4	**Necessary efforts should be made to minimize any adverse impact on the environment during exploration activities.**						
5	**Any item of work not mentioned above shall be added as per SoC.**						

*	**SoC Item No, Unit and Rate for each item of work must be as mentioned in the SoC.**

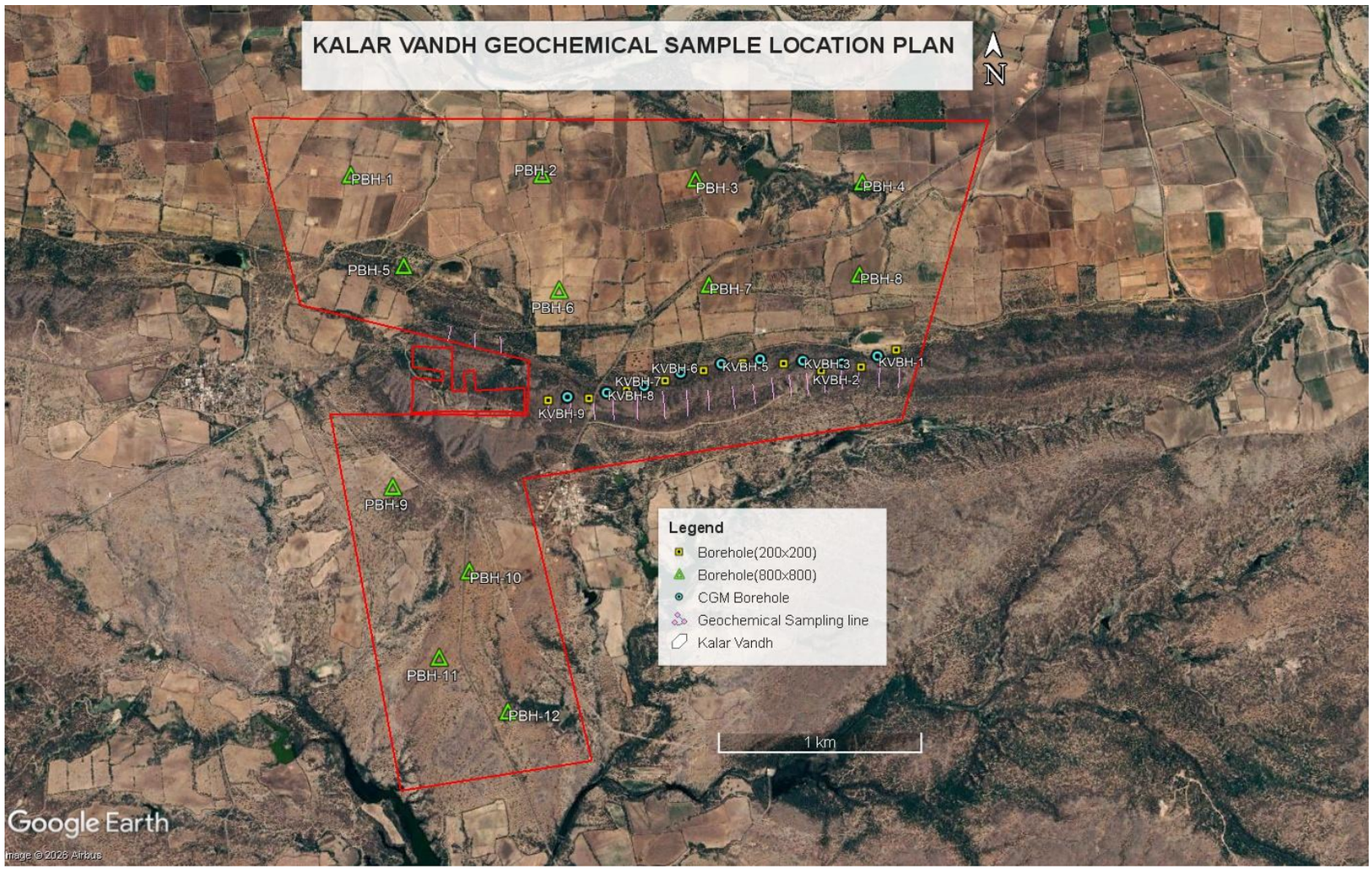
1. LOCATION MAP OF THE KALAR VANDH BLOCK ON TOPOSHEET No.41E/04.


69°9'30"E
69°10'0"E
69°10'30"E
69°11'0"E
23°8'30"N
23°8'0"N
23°7'30"N
23°7'0"N
A
B
C
D
E
F
G
H
J
Covered tank
Minor mineral Block
Kālar Wārdh
Siphon
Canal
3r
5r
7r
1Km
KALAR VANDH BLOCK SOI TOPOSHEET MAP
(SOURCE: NGDR)
Toposheet / OSM No:
41E04/ F42D4
INDEX
Cardinal Points
Kalar-Vandh Block
Minor_mineral_block
N
Project:-
Preliminary exploration(G3) for Bauxite & Associated Minerals in Kalar vandh area Kachchh district,Gujarat.
Notified Private Exploration Agency (NPEA):-
Vardan Environet LLP
Prepared By:-
Mr.Sagar Ranjan Satpathy
Approved By:-
Dr. R.K. Sharma(PC)
Mr. B.B. Sharma(TAE)

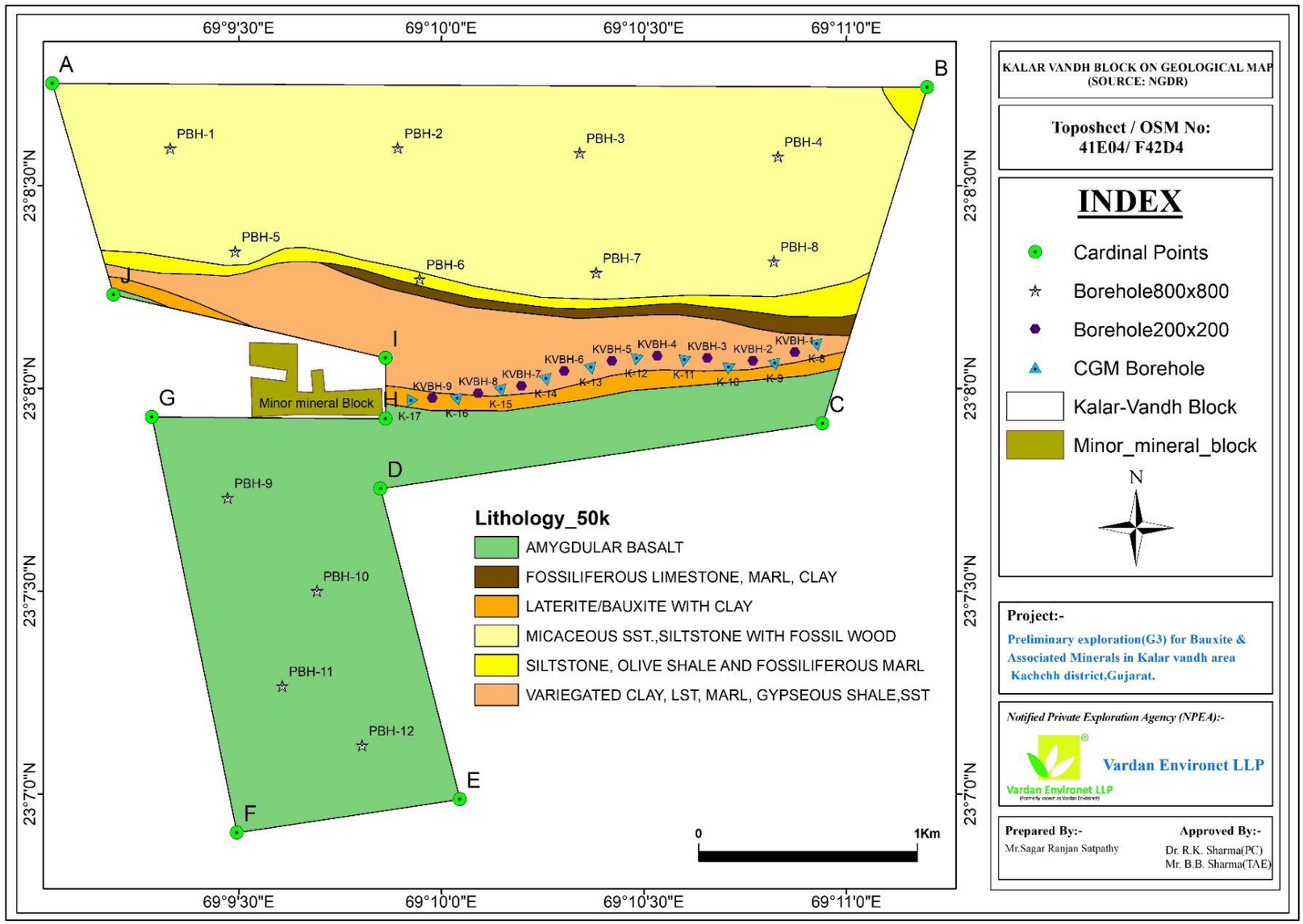
2. LOCATION MAP OF THE KALAR VANDH BLOCK GOOGLE EARTH WITH BOREHOLE PLAN.



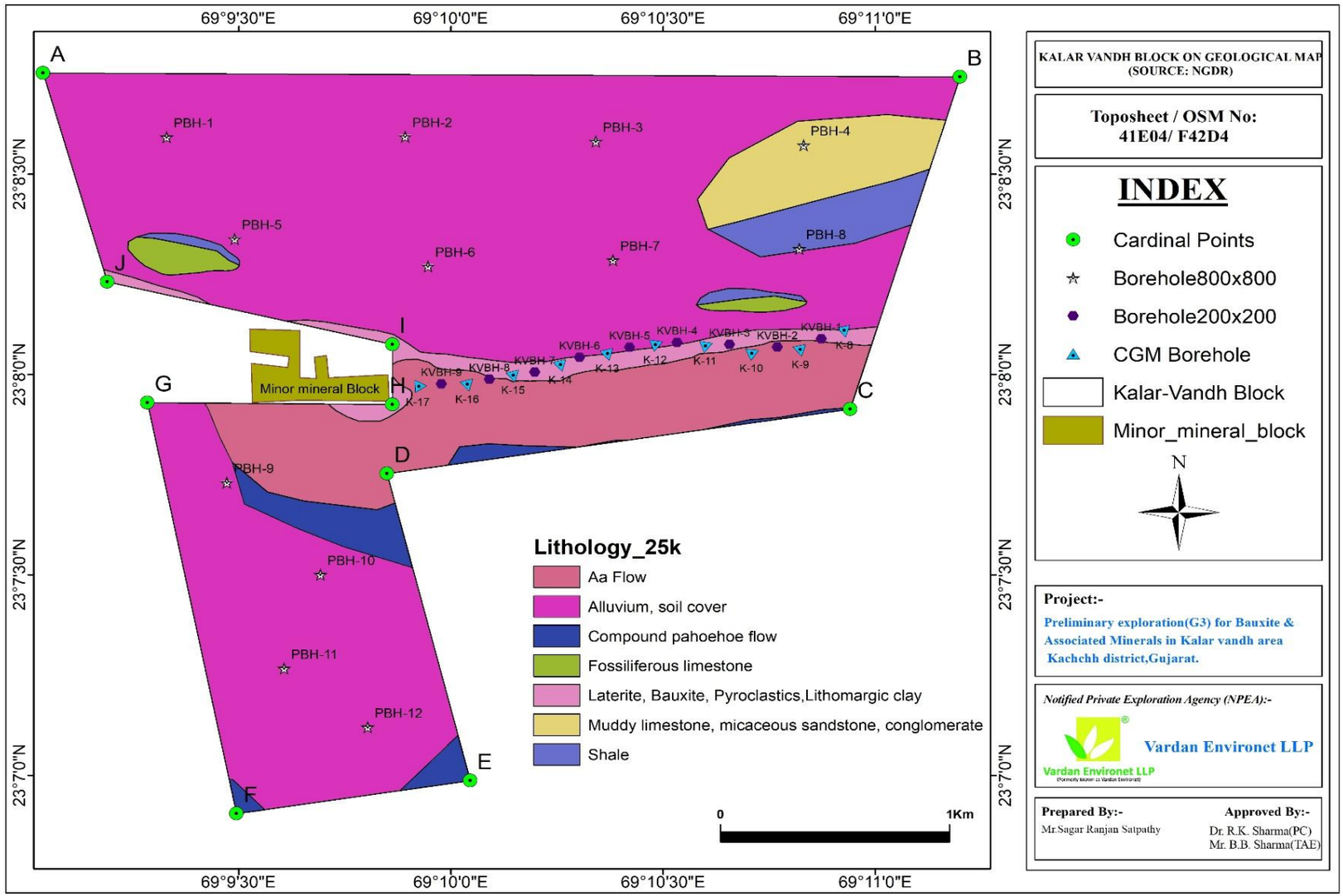
3. LOCATION MAP OF THE KALAR VANDH BLOCK GOOGLE EARTH WITH GEOCHEMICAL LINE.



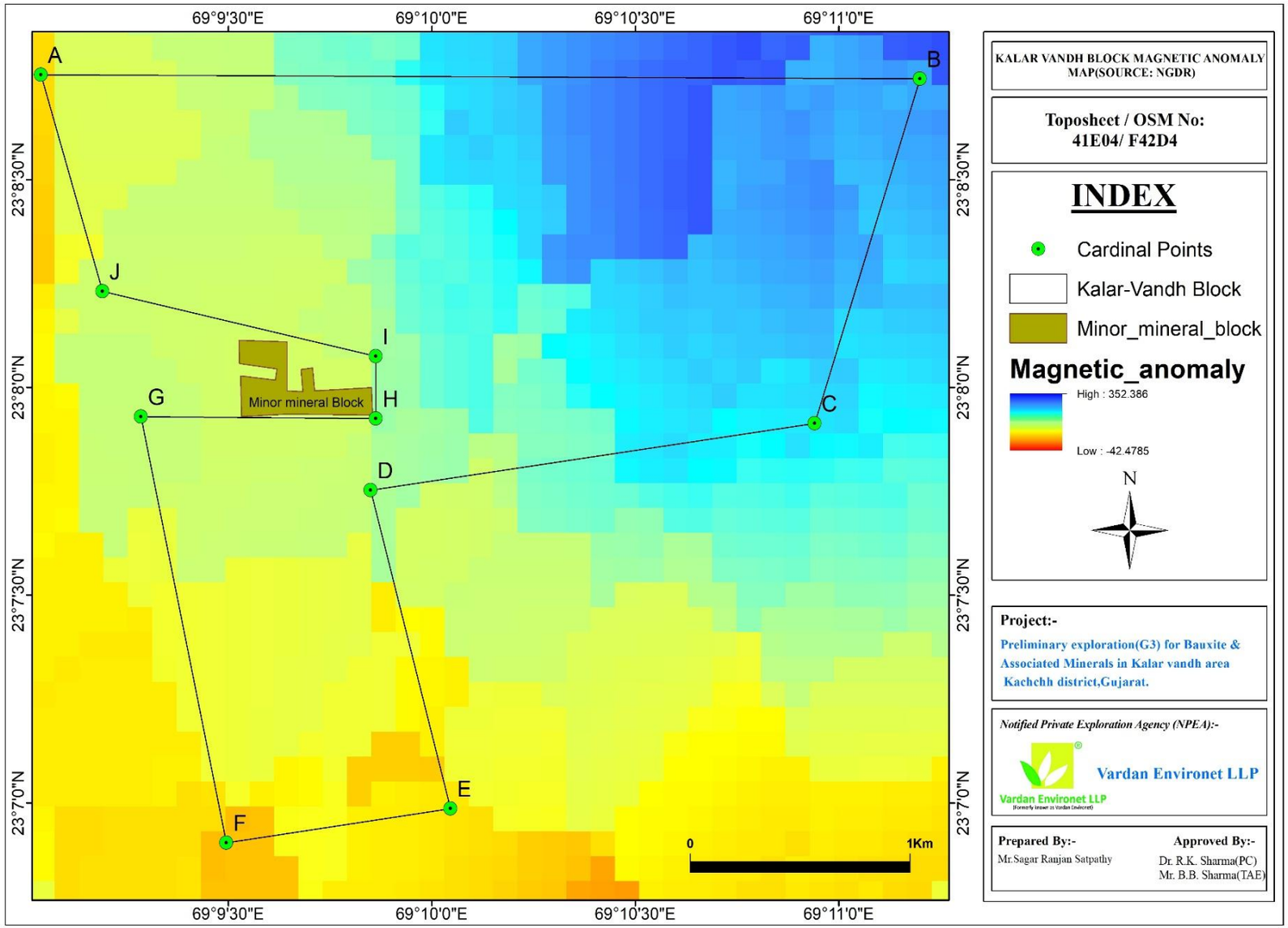
4. GEOLOGICAL MAP OF THE KALAR VANDH BLOCK WITH BOREHOLE PLAN (1:50K)



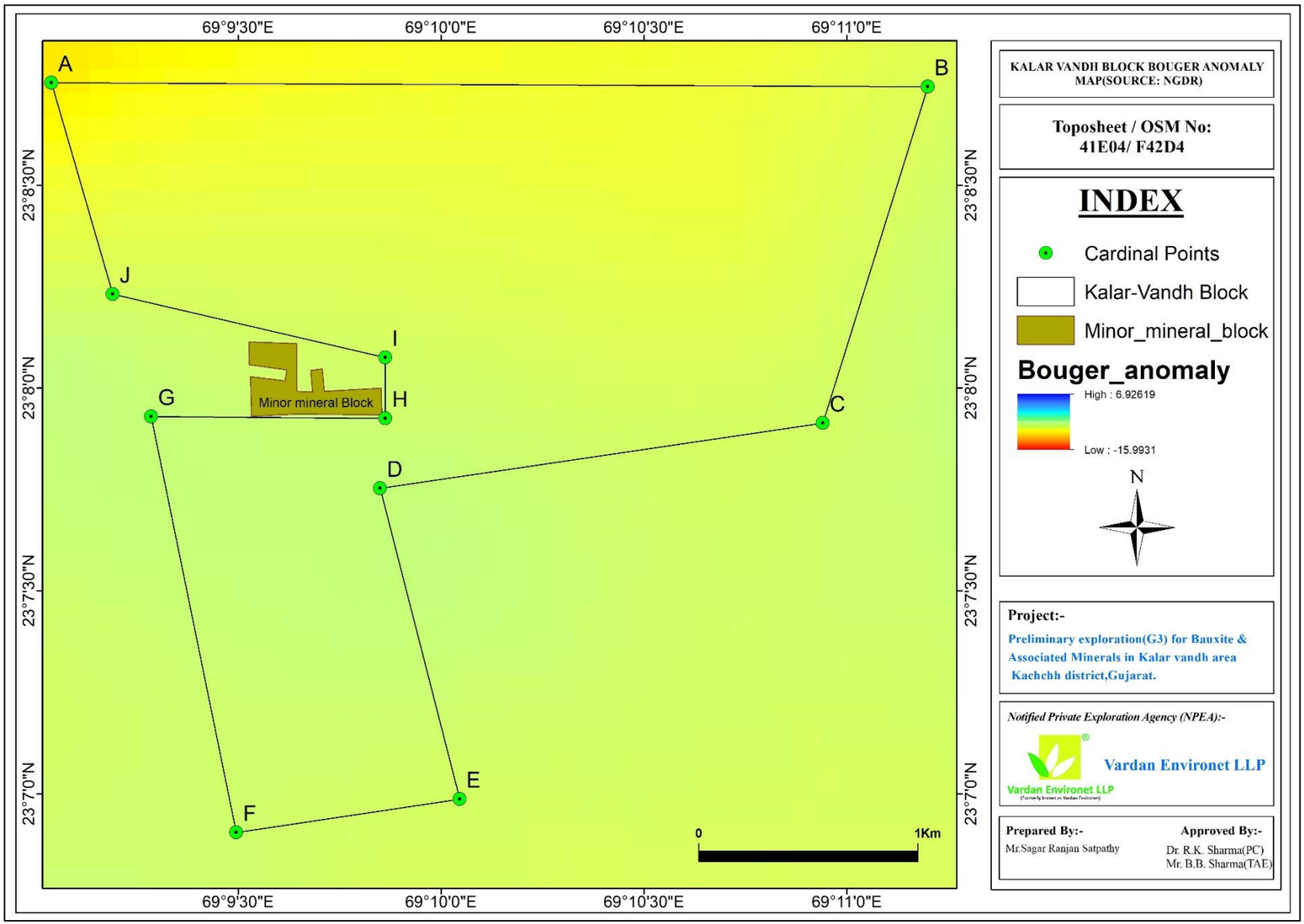
5. GEOLOGICAL MAP OF THE KALAR VANDH BLOCK WITH BOREHOLE PLAN (1:25K)



6. GROUND GEOPHYSICAL MAP/S (NGPM) KALAR VANDH BLOCK



7. GROUND GEOPHYSICAL MAP/S (NGPM) KALAR VANDH BLOCK



8. GEOCHEMICAL MAP (NGCM) KALAR VANDH BLOCK