सत्यमेव जयते

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पत्रांकः– 12 दिनांकः– 02.04.2023

प्रेषकः

सदस्य सचिव,
राज्य स्तरीय पर्यावरण समाघात निर्धारण
प्राधिकरण (SEIAA), झारखण्ड।

सेवा में,

उपायुक्त,
जिला : गुमला।

विषय : गुमला जिला का बालू खनिज से संबंधित **DSR** के अनुमोदन के संबंध में।

प्रसंग : आपका कार्यालय का पत्रांक–230 / खनन, दि0–01.03.2023।

महाशय,

उपर्युक्त विषयक आपके कार्यालय के प्रासंगिक पत्र दिनांक 01.03.2023 द्वारा गुमला जिला का बालू खनिज से संबंधित DSR की एक प्रति अनुमोदन हेतु दिनांक 03.03.2023 को SEIAA कार्यालय में समर्पित किया गया।

तद्अनुसार SEAC, झारखण्ड की 102वीं बैठक दिनांक 21.03.2023 से दिनांक 25.03.2023 में Sri Rakesh Kumar Panna, Assistant Director, Geology, Ranchi की उपस्थिति में M/s Atmos Sustainable Solution Pvt. Ltd., Noida, U.P. consultant द्वारा दिनांक 21.03.2023 में SEAC के समक्ष Presentation दिया गया जिसमें DSR के Salient Features निम्नवत् बताये गये :–

1. The final DSR submitted is duly signed by all members of the Sub Divisional Committee and the Consultant. All the pages of the DSR are signed by the authorized officer of the Sub Divisional Committee.
2. The final DSR consists of the complete potential area and is demarcated as Potential Resource Area (PRA) / Sand Leases / Ghats as per Enforcement and Monitoring Guidelines for Sand Mining (EMGSM), 2020.
3. The replenishment study of pre & post monsoon period is included in final DSR.
4. The final DSR has been placed in the public domain for 01 (One) month from the 07.01.2023. As per the Sub Divisional Committee no comments / observations were obtained.
5. Demand and supply of the river bed material has been provided. The future demand for next 05 years is included in the final DSR.
6. The PRA / Sand Leases / Ghats have not been proposed on the confluence / meanders / concavities /active channels of the river.

7. Khata & Khasra numbers of the lease area certified by the concerned Circle Officer (CO) are incorporated in the final DSR.
8. The distance of PRA / Sand Leases / Ghats from the Forest / Wildlife Protected area / Birds Sanctuary/ Wildlife Sanctuary / National Park / Eco Sensitive Zone has been verified and certified by the concerned DFOs of the respective Territorial and Wildlife division.
9. A report detailing the presence of aquatic animal in the river in proximity of the proposed PRA / Sand Leases / Ghats is included in the final DSR.
10. The proposed PRA / Sand Leases / Ghats meet the siting criteria of State Pollution Control Board / SEIAA.
11. High resolution color satellite images of the proposed potential sand mining areas are included in final DSR.
12. Bulk density and specific gravity of sand sample data has been provided by NABL accredited laboratory.
13. Cluster and contiguous cluster formation as per EMGSM guidelines, 2020 has been included in the Annexures.
14. Mining is restricted to 3/4th of the river width and 60% of the mineable reserve.
15. Transportation routes for movement of sand are provided in the final DSR.
16. All the annexures as per EMGSM guidelines, 2020 are included in the final DSR.
17. An undertaking with reference to Point no. 9.3 of the EMGSM guidelines, 2020 regarding monitoring of mining near inter-district or inter-state boundary has been provided.
18. The representative of the Sub Divisional Committee along with the Consultants have affirmed that all the guidelines of EMGSM guidelines, 2020 / Hon'ble Apex Court in Civil Appeal no. 3661-3662/2020, Pawan Kumar vs State of Bihar & ors, Hon'ble NGT in O.A. no. 54/2022/EZ, Bhumi Adhigrahan Visthapan Avam Punarvas Kisan Samiti vs State of Jharkhand & ors have been followed in preparation of the final DSR.

SEAC द्वारा उपरोक्त तथ्यों के आलोक में सर्वसम्मति से आपके द्वारा समर्पित DSR को अनुमोदन हेतु SEIAA को अपनी अनुशंसा भेजी गयी।

SEAC की DSR Gumla को अनुमोदन हेतु भेजी गयी अनुशंसा के आलोक में SEIAA, झारखण्ड की 103वी बैठक दिनांक 01.04.2023 एवं दिनांक 02.04.2023 में विचार किया गया।

विचारोपरांत SEAC द्वारा की गयी अनुशंसा के आलोक में SEIAA द्वारा सर्वसम्मति से गुमला जिला का बालू खनिज से संबंधित DSR का अनुमोदन किया गया।

गुमला जिला का बालू खनिज से संबंधित अनुमोदित DSR की एक मूल प्रति अत्र–सह–संलग्न कर आपको अग्रेतर कार्रवाई हेतु भेजी जा रही है।

अनु० यथोक्त।

विश्वासभाजन,

03/04/2023

सदस्य सचिव,
राज्य स्तरीय पर्यावरण समाघात निर्धारण
प्राधिकरण (SEIAA), झारखण्ड।

DISTRICT SURVEY REPORT

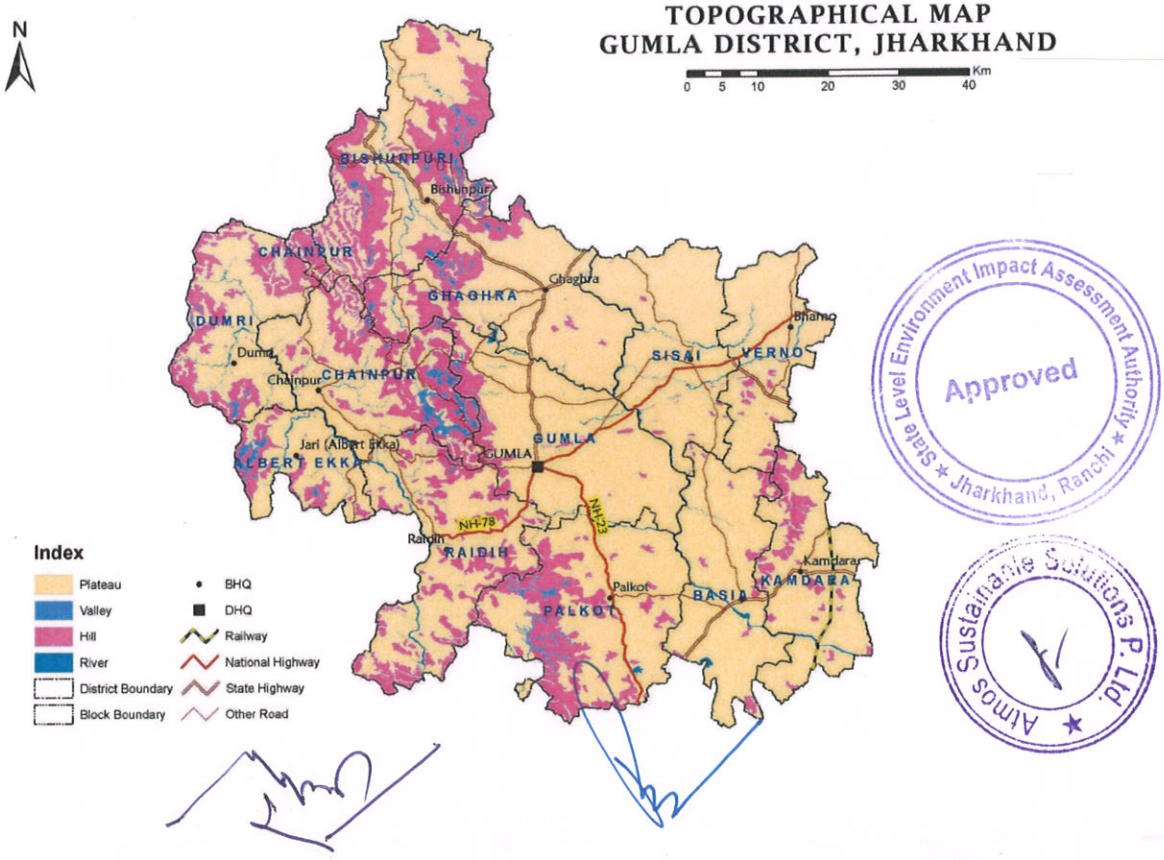
OF

RIVER BED SAND MINING WITH POTENTIAL AREA

FOR

GUMLA DISTRICT, JHARKHAND

As per Notification No. S.O.141 (E) New Delhi Dated 15th of January 2016, S.O.3611 (E) New Delhi Dated 25th of July 2018, Sustainable Sand Mining Guidelines, 2016 and Enforcement & Monitoring Guidelines for Sand Mining (EMGSM) January 2020, Issued by Ministry of Environment, Forest and Climate Change (MoEF & CC)



State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★
Approved
Atmos Sustainable Solutions P. Ltd.

PREPARED BY

ATMOS SUSTAINABLE SOLUTION PVT. LTD.

A-73, 3rd Floor, Sector-65, Noida, Uttar Pradesh-201301

QCI NABET Accreditation No.-NABET/EIA/2023/IA0063

CERTIFICATE

The District Survey Report (DSR), Gumla for sand mineral has been prepared in accordance with guideline issued by the Ministry of Environment, Forest & Climate Change (MoEF&CC), Government of India vide the notification S.O. 141(E) Dated 15th January, 2016 and the amended notification S.O. 3611(E) Dated 25th July, 2018.

This DSR for sand mineral which is a compendium of available mineral resources, geographical set up, environmental and ecological condition of the district and is based on survey made on the seriate sources of the different tehsils of the District and data various departments like Geology & Mining, Forests, Irrigation, Agriculture, Horticulture, Health Departments; published reports & websites. The DSR report of sand will be web hosted for one month in the District to invite any comments from the public.

It will no doubt, form the basis for application for environmental clearance, preparation of reports and appraisal of projects. The SEIAA and SEAC will scrutinize the applications and recommenced for environmental clearance of mining of minor minerals(sand) on the basis of this District Survey Report. As per guideline the Report will be updated once in every five years.

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Reviewed By:

01.03.23

Deputy Commissioner
Gumla
Date:

02/04/2023

Member
State Level Environment Impact Assessment Authority, Jharkhand

Approved By:

02/04/2023

Member Secretary
State Level Environment Impact Assessment Authority,
Ranchi, Jharkhand

Member Secretary
State Level Environment Impact Assessment Authority
Jharkhand

Chairman
State Level Environment Impact Assessment Authority, Jharkhand

SUB-DIVISIONAL COMMITTEE COMPRISING UNDER THE GUIDELINE OF MOEF & CC, NEW DELHI, 25TH JULY 2018	
Minor Irrigation Department Gumla	1-3-23 कार्यपालक अभियंता लघु सिंचाई प्रमंडल गुमला
State Pollution Control Board or Member Gumla	01/03/2023 Regional Officer J.S.P.C. Board Dhurwa, Ranchi-4
Assistant Director, Geology Gumla	01/03/23 सहायक निदेशक भूतत्व जिला भूतात्विक कार्यालय गुमला
District Mining Officer Gumla	District Mining Officer Gumla
Divisional Forest Officer Gumla	01/03/23 Divisional Forest Officer Gumla Forest Division
Sub-Divisional Magistrate Gumla	अनुमण्डल पदाधिकारी गुमला।
Deputy Commissioner Gumla	01.03.23 DEPUTY COMMISSIONER GUMLA

State Level Environment Impact Assessment Authority * Jharkhand, Ranchi *
Approved

PREFACE

The purpose and structure of District Survey Report has been discretely discussed under Para 7(iii) (a) and Annexure (x) of the notification issued by Ministry of Environment, Forest and Climate Change, Government of India on 15th January 2016 to which the Central Government makes the amendments by Notification dated 25 July 2018. The District Survey Report (DSR) is to be prepared in every district for each minor mineral. It will guide systematic and scientific utilization of natural resources, so that present and future generation may be benefitted at large. The purpose of District Survey Report (DSR) is identification of areas of aggradations or deposition where mining can be allowed; and identification of areas of erosion and proximity to infrastructural structures and installations where mining should be prohibited.

Atmos Sustainable Solutions Pvt Ltd in its endeavour to prepare the District Survey Report (DSR) comprising of secondary data published and endorsed by various departments and websites about geology of the area, mineral wealth details, details of lease and mining activity in the district and revenue of mineral along with the primary data collected from ground survey. This report also contains details of climatic conditions, topography and terrain, land form, forest, rivers, soil, agriculture, road, transportation, irrigation etc. The DSR would also help to calculate the Annual Rate of Replenishment Wherever Applicable and Allow Time for Replenishment.

Further, In Pursuance to The Order of Hon'ble Supreme Court Dated The 27th February, 2012 In I.A. No.12- 13 Of 2011 In Special Leave Petition (C) No.19628-19629 Of 2009, In The Matter Of Deepak Kumar Etc. Vs. State Of Haryana And Others Etc., Prior Environmental Clearance Has Now Become Mandatory For Mining Of Minor Minerals Irrespective Of The Area Of Mining Lease; And Also In View Of The Hon'ble National Green Tribunal, Order Dated The 13th January, 2015 In The Matter Regarding Sand Mining Has Directed For Making A Policy On Environmental Clearance For Mining Leases In Cluster For Minor Minerals, The Ministry Of Environment, Forest And Climate Change In Consultation With State Governments Has Prepared Guidelines On Sustainable Sand Mining Detailing The Provisions On Environmental Clearance For Cluster, Creation Of District Environment Impact Assessment Authority And Proper Monitoring Of Minor Mineral Mining Using Information Technology And Information Technology Enabled Services To Track The Mined Out Material From Source To Destination.

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OBJECTIVES

The Main objective of the preparation of District Survey Report (as per the Sustainable Sand Mining Guideline) is to ensure the following: -

1. Identification of areas of aggradations or deposition where mining can be allowed
2. Identification of areas of erosion and proximity to infrastructural structures and installations where mining should be prohibited and calculation of annual rate of replenishment and allowing time for replenishment after mining in that area.
3. Identification of mineral wealth in the district.

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18	EC Letter of Existing Sand Ghats
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DISTRICT SURVEY REPORT OF GUMLA DISTRICT

FOR

SAND MINING OR RIVER BED MINING

Prepared Under:

- Appendix –X of MoEF&CC, GoI Notification S.O. 141(E) dated 15.1.2016
- Sustainable Sand Mining Guidelines
- MoEFCC, GoI Notification S.O. 3611(E) dated 25.07.2018
- Sand Mining Framework -2018
- Enforcement & Monitoring Guidelines for Sand Mining by MoEF&CC-2020
- Jharkhand Minor Mineral Concession (Amendment) Rules 2020. The notification stated about the prevention of Illegal mining, transportation and storage of sand and guidelines for mining activity, safety barriers, mining depth and lease.

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DISTRICT SURVEY REPORT FOR RIVER BED SAND MINING

As per the Gazette Notification dated 15th January, 2016 of Ministry of Environment, Forest and Climate Change a joint survey has been carried out by the District Environment Impact Assessment Authority (DEIAA) with the assistance of Irrigation Department, Drainage Department, Forest Department, Mining Department and Revenue Department in the district for preparation of the District Survey Report.

The Ministry of Environment Forest & Climate Change formulated the Sustainable Sand Management Guidelines, 2016 which focuses on the Management of Sand Mining in the Country. But in the recent past, it has been observed that apart from management and systematic mining practices there is an urgent need to have a guideline for effective enforcement of regulatory provision and their monitoring.

Section 23 C of MMDR, Act 1957 empowered the State Government to make rules for preventing illegal mining, transportation and storage of minerals. But in the recent past, it has been observed that there was large number of illegal mining cases in the Country and in some cases, many of the officers lost their lives while executing their duties for curbing illegal mining incidence. The illegal and uncontrolled illegal mining leads to loss of revenue to the State and degradation of the environment.

India is developing at a faster pace and much technological advancement has already been taken place in the surveillance and remote monitoring in the field of mining. Thus, it is prudent to utilize the technological advancement for the effective monitoring of the mining activities particularly sand mining in the country.

Use of latest remote surveillance and IT services helps in effective monitoring of the sand mining activity in-country and also assist the government in controlling the illegal mining activity in the country. Thus, there is a need for an effective policy for monitoring of sand mining in the Country which can be enforced on the ground. These guidelines focus on the effective monitoring of the sand mining since from the identification of sand mineral sources to its dispatch and end-use by consumers and the general public. Further, the effective monitoring and enforcement require efforts from not only Government agencies but also by consumers and the general public.

It is the responsibility of every citizen of India to protect the environment and effective monitoring can only be possible when all the stakeholders' viz. Central Government, State Government,

Leaseholders/Mine Owners, Distributors, Dealers, Transporters and Consumers (bulk & retail) will contribute towards sustainable mining, and comply with all the statutory provisions. It is felt necessary to identify the minimum requirements across all geographical regions to have a uniform protocol for monitoring and enforcement of regulatory provision prescribed for sustainable sand and gravel mining.

This document will serve as a guideline for collection of critical information for enforcement of the regulatory provision(s) and also highlights the essential infrastructural requirements necessary for effective monitoring for Sustainable Sand Mining.

The document is prepared in consideration of various orders/directions issued by Hon'ble NGT in matters pertaining to illegal sand mining and also based on the reports submitted by expert committees and investigation teams.

Further, this document is supplemental to the existing "Sustainable Sand Mining Management Guideline-2016" (SSMG-2016), and these two guidelines viz. "Enforcement & Monitoring Guidelines for Sand Mining" (EMGSM-2020) and SSMG-2016 shall be read and implemented in sync with each other. In case, any ambiguity or variation between the provisions of both these document arises, the provision made in "Enforcement & Monitoring Guidelines for Sand Mining-2020 "shall prevail.

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CHAPTER -01
INTRODUCTION

1.1 Location and Geographical Area:

Gumla district of Jharkhand state is located in the western part of the state. It covers an area of about 5320.94 Sq. Km. This district was carved out of old Ranchi district under in 1984. The district is bounded in the north by the Lohardaga and Latehar districts, in the east by Ranchi district, in the south by Simdega district and in the west by the Chhatisgarh state. The district is situated between 220 42' 45" and 230 36' 30" N latitude and 840 02' 00" and 850 01' 00" E longitude. The district is covering Survey of India toposheet nos. 73 B/ 02, 03, 05, 06, 07, 09, 10, 11, 13, 14, 15, 73 F/ 01, 02 and 03. The Gumla district comes under the south Chhotanagpur division. As per census of 2011, the total population of the district is 1025213 persons. Population density of Gumla district for 2011 is 191 people per sq. km. There was change of 23.16 % in the population compared to population as per 2001. Average literacy rate of Gumla in 2011 were 65.73 compared to 50.94 of 2001 With regards to Sex Ratio in Gumla, it stood at 993 per 1000 male compared to 2001 census figure of 988.

1.2 Administrative Setup:

Administration of Gumla District is headed by Deputy Commissioner. Most of the departments have their divisional headquarter at the district headquarter. The district comes under the South Chhotanagpur Division. It has 1 sub – division i.e. Gumla Sadar sub – division. Further, the sub – division is devided into 11 blocks. 12th block as Albert Ekka (Jari) has been created during 2011 census. The sub – division is 12 blocks namely – Gumla, Dumri, Ghaghra, Bharno, Palkot, Bishunpur, Sisai, Kamdara, Chainpur, Raidih, Basia, Albert Ekka (Jari).

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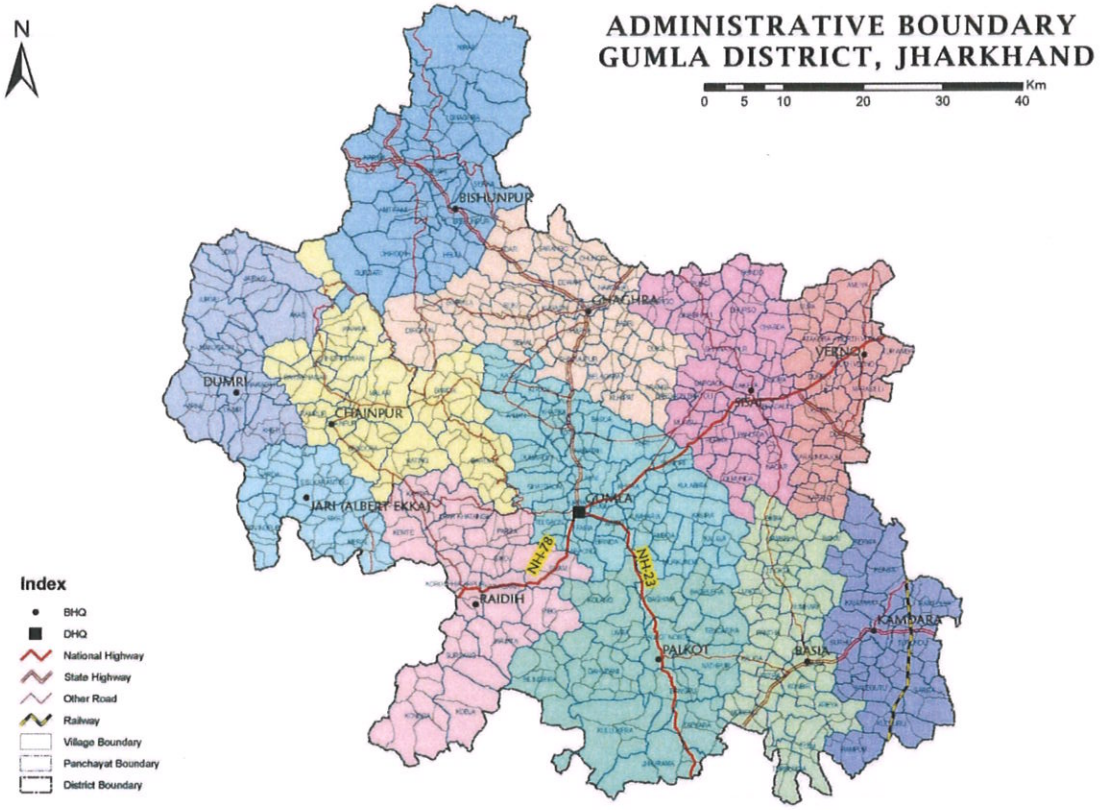

Figure no. 1.1: Administrative boundary of Gumla district

Source: Jharkhand Space Application Centre

Demographics: According to the 2011 census Gumla district has a population of 1,025,213, roughly equal to the nation of Cyprus or the US state of Montana. This gives it a ranking of 439rd in India (out of a total of 640). The district has a population density of 193 inhabitants per square kilometre (500/sq mi). Its population growth rate over the decade 2001-2011 was 23.21%. Gumla has a sex ratio of 993 females for every 1000 males, and a literacy rate of 66.92%. As of the 2011 Census of India, Gumla had a population of 1,025,213 which is 3.11% of total Jharkhand population. Out of total 1,025,656: 514,730 are males and 510,926 are female; this makes the sex ratio of Gumla 993, which better than India's sex ratio. Gumla has an average literacy rate of 66.92%. In Gumla, 15% of the population is under 6 years of age. 3.2% of the population are from Scheduled Castes, 68.9% are from Scheduled Tribes. 44.62% were followers of Sarna, 30.19% were Hindus, 19.75% Christians and 5.02% Muslims.

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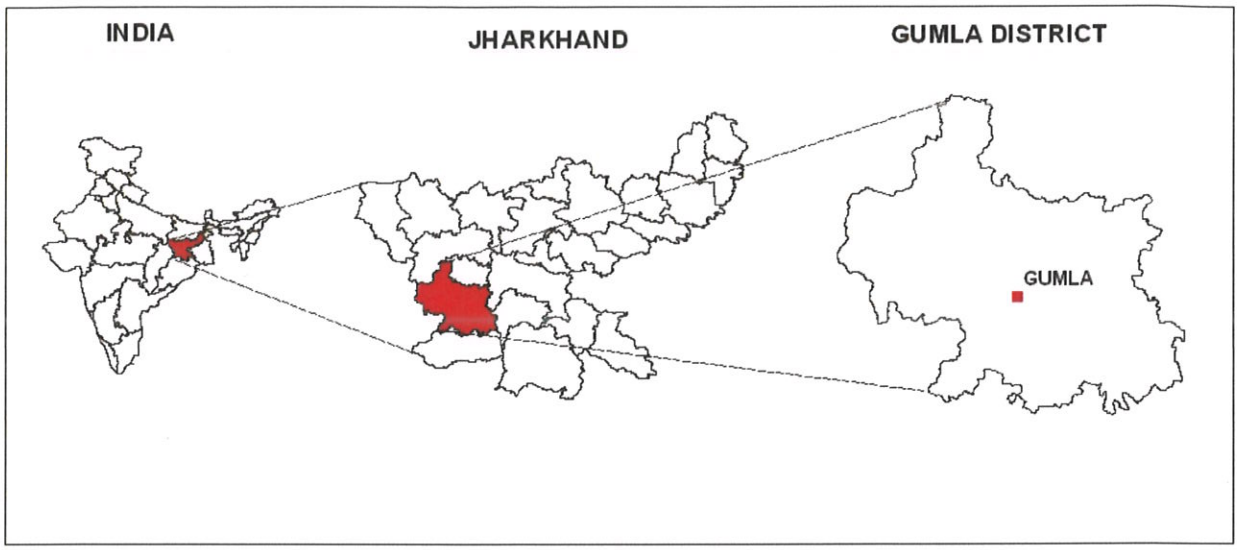

Figure no. 1.2: Location Index Map

Topography and Climate:

Topography of the district is highly undulating and there is existence of several rivers, and streams. Forests cover around 27 per cent of the total area of the district. The Chotanagpur plateau is a region of large physical inequalities and presents a rich panorama of topographical features. The general configuration of region varies from valley fills, pedeplains, to structural ridges. District is mainly a dissected upland of ancient crystalline rocks which covers the major parts of the district. Ground water availability in crystalline rocks is considered to be poor because of the absence of primary porosity which is essential for the free occurrence and movement of ground water. All the river channels in the area are covered with alluvial soil recent of origin deposited over consolidated rocks. Alluvial fills are also found in patches away from the river channels. Thickness of these fills depends upon the topographical control.

The climate of the area could be divided in to three district season. The winter commences from November and extends up to middle of March, December being the coldest month. The rainy season last up to middle of October. The area receives rain fall mainly by North-west monsoon during rainy season and from retreating monsoon during inter-monsoon period, which originates in the Bay of Bengal. The average annual rainfall varies between 1400-1600 mm. Rainfall is the only sources of replenishment of ground water in the district.

Drainage:

The district is forming two sub basins i.e. the Son sub – basin of Ganga basin and the Sankh sub basin of Brahmni basin. The south koel originates from a place called Piska near Ranchi and has its course traverses in the Ranchi, Gumla and Simdega districts. flows from north to south having

meandering coarse excavating even straight valleys in the western part of the areas whereas in the northern part south-koel meanders from west to east

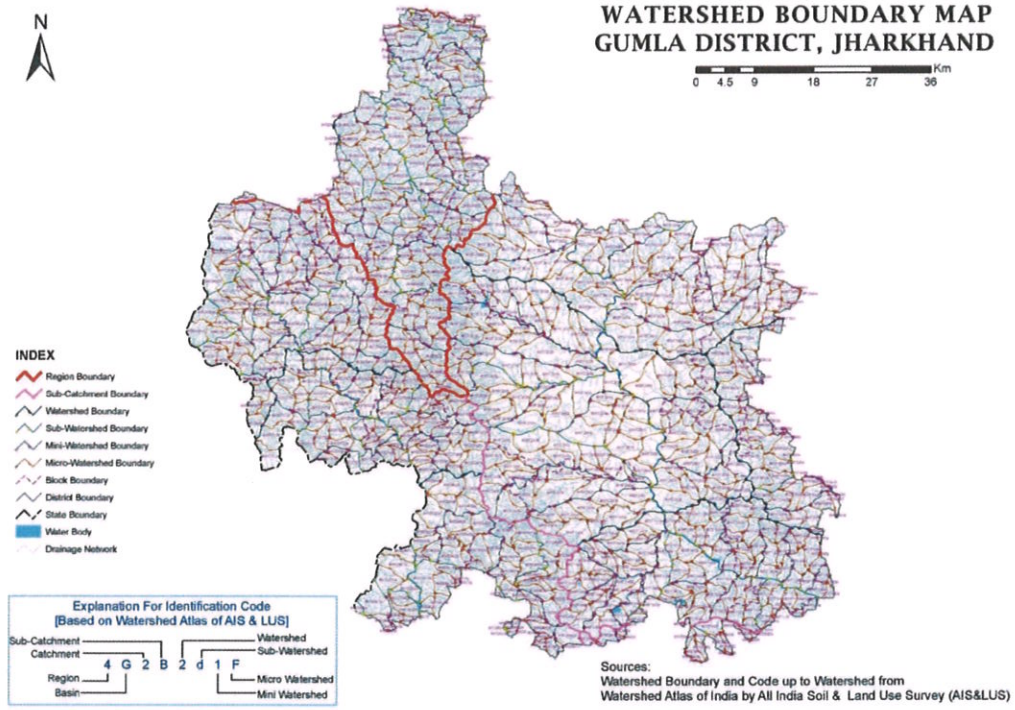

Figure no. 1.3: Watershed boundary map of gUMLA district

Source: Jharkhand Space Application Centre

1.3 Connectivity:

Gumla is connected to Ranchi and Simdega via NH – 43. It is connected via State Highways to Lohardaga, Latehar, Daltonganj and other major towns of the State. It is connected to the State of Chhattisgarh via NH-78.

Pokla railway station is the only Indian Railways station in the District of Gumla, the other stations in proximity being Bano, Govindpur Road, Tori, Latehar, Orga and Mccluskieganj. Pakra There is also a railway station of the same Gumla.

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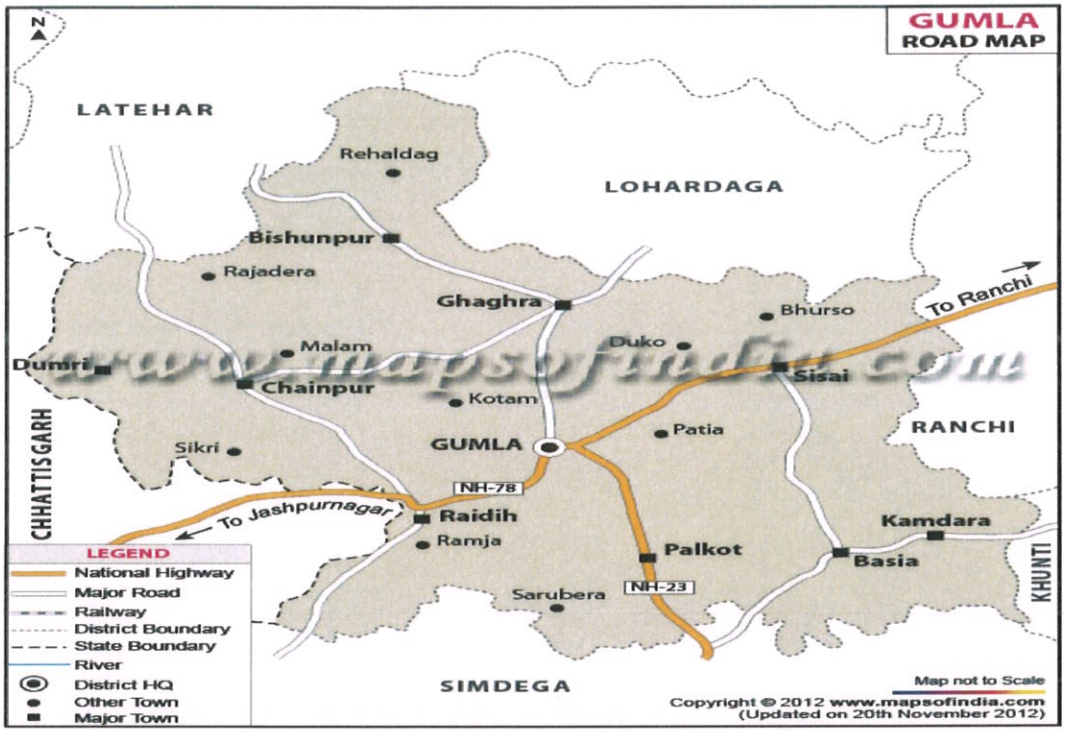
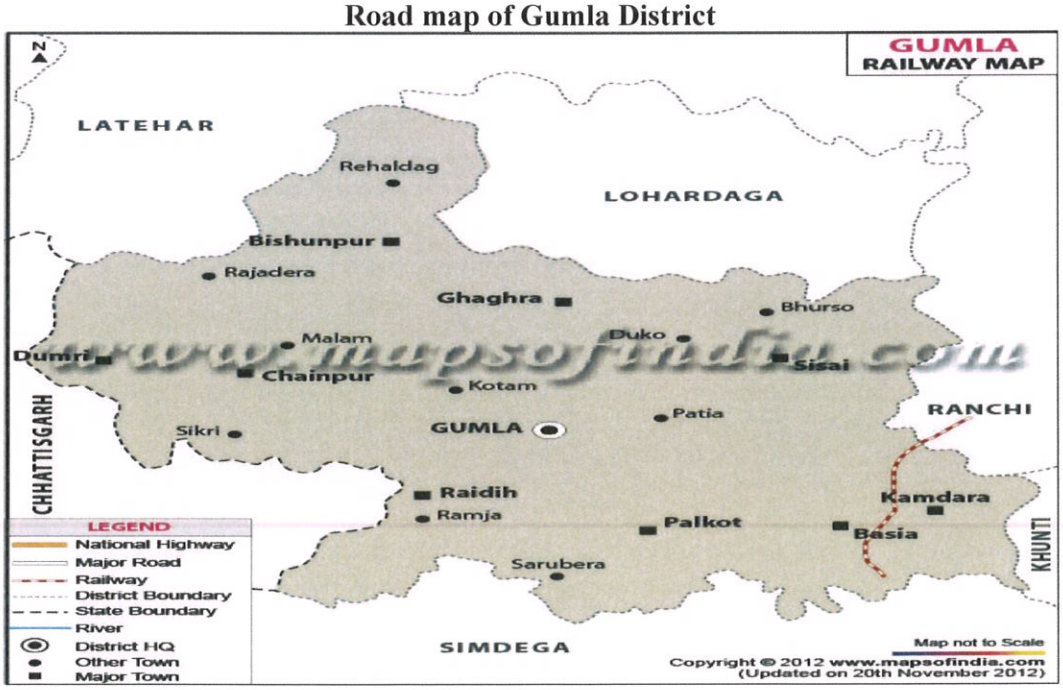
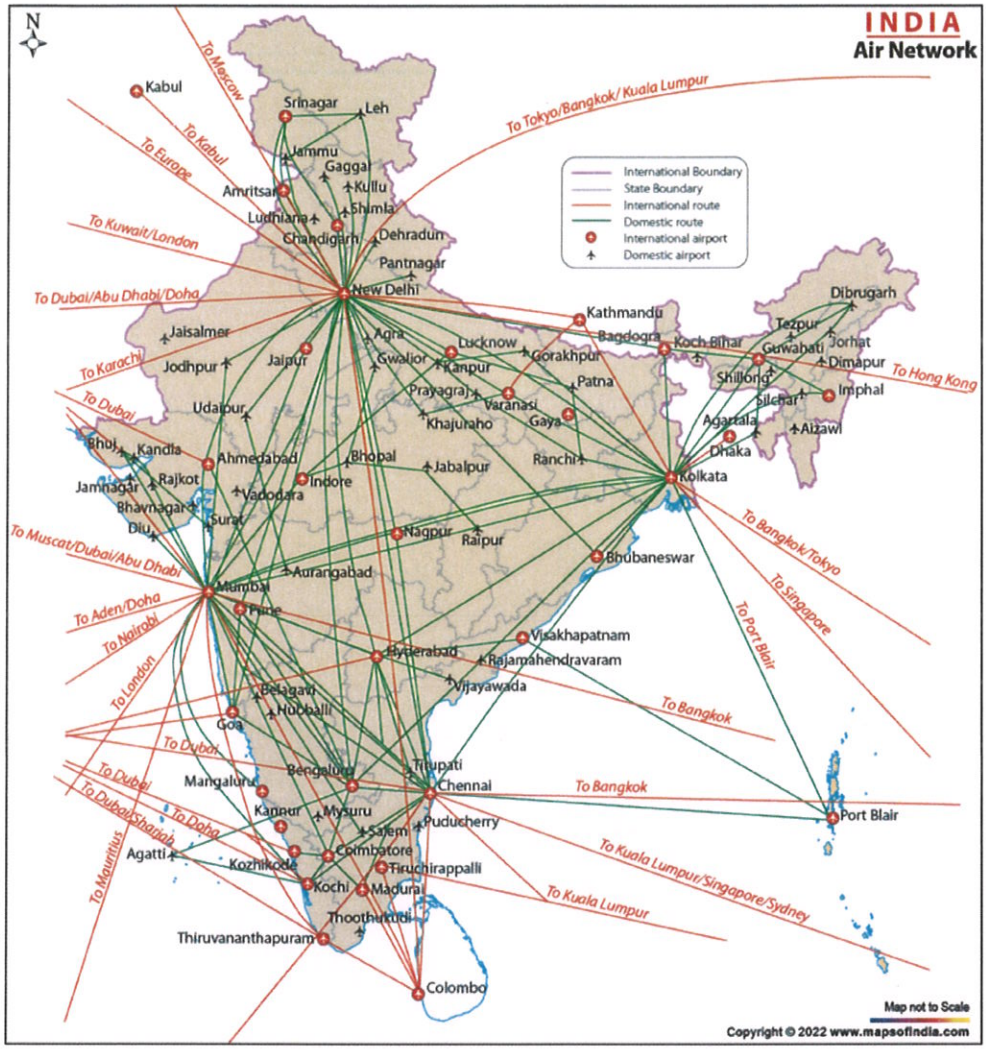


Road map of Gumla District



Railway map of Gumla District

Source: ***www.mapofindia.com***



Air Network of India

Source: www.mapofindia.com

CHAPTER- 02
OVERVIEW OF MINING ACTIVITY IN THE DISTRICT

General Information:

Gumla district of is located in the western part of the state. It covers an area of about 5320.94 Sq. Km. This district was carved out of old Ranchi in 1984. The district is bounded in the North by the Lohardaga and Latehar districts, in the East by Ranchi district, in the South by Simdega district and in the West by the Chhattisgarh state. Gumla is blessed with a beautiful landscape and consist of a number of plateaus, hills, rivers and a lush green forest cover within the territory. The district is situated between 22° 42' 45" and 23°36' 30" North latitude and 84°02' 00" and 85°01' 00" East longitude. The district is covering Survey of India Toposheet Nos. 73 B/ 02, 03, 05, 06, 07, 09, 10, 11, 13, 14, 15; 73 F/ 01, 02 and 03.

Approach to Sand Mining:

River sand mining is a common practice as habitation concentrates along the rivers and the mining locations are preferred near the markets or along the transportation route, for reducing the transportation cost. River sand mining can damage private and public properties as well as aquatic habitats. Excessive removal of sand may significantly distort the natural equilibrium of a stream channel.

Mainly three types of minor minerals constituents such as sand, stone and Bajri are required for any type of construction apart from other material like cement and steel.

In earlier times, the houses/buildings were constructed in form of small dwellings with walls made up of mud plaster, stone and interlocking provided with wooden frames and there were negligible commercial as well as developmental activities resulting in less demand of building material. However with the passage of time, new vistas of developmental activities were started. The quantity of minor minerals consumption in a particular area is a thermometer to assess the development of the area. Thus with the pace of development activities, the consumption of minor minerals also increased. As such the demand of minor minerals in the district has started an increasing trend. In order to meet the requirement of raw material for construction, the extraction of sand is being carried out exclusively from the river beds.

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Main Objectives of Sustainable Sand Mining:

To ensure that sand and gravel mining is done in environmentally sustainable and socially responsible manner.

To ensure availability of adequate quantity of aggregate in sustainable manner.

To improve the effectiveness of monitoring of mining and transportation of mined out material.

Ensure conservation of the river equilibrium and its natural environment by protection and restoration of the ecological system.

Avoid aggradations at the downstream reach especially those with hydraulic structures such as jetties, water intakes etc.

Ensure that the rivers are protected from bank and bed erosion beyond its stable profile.

No obstruction to the river flow, water transport and restoring the riparian rights and in stream habitats.

Avoid pollution of river water leading to water quality deterioration.

To prevent depletion of ground water reserves due to excessive draining out of ground water.

To prevent ground water pollution by prohibiting sand mining on fissures where it works as filter prior to ground water recharge.

To maintain the river equilibrium with the application of sediment transport principles in determining the locations, period and quantity to be extracted.

Streamlining and simplifying the process for grant of environmental clearance (EC) for sustainable mining.

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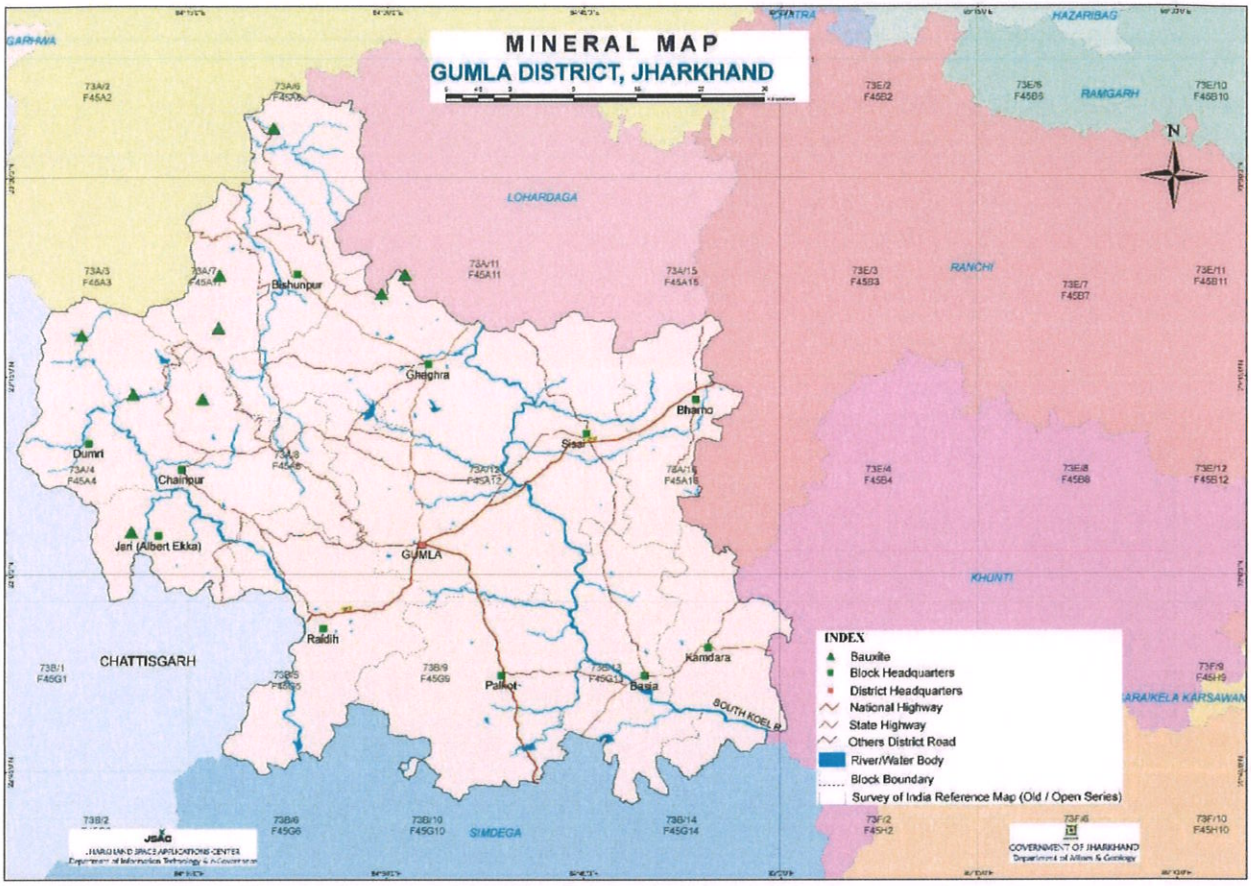

Mineral map

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CHAPTER- 03
GENERAL PROFILE OF THE DISTRICT

Gumla district of Jharkhand state is located in the western part of the state. It covers an area of about 5320.94 Sq. Km. This district was carved out of old Ranchi district under in 1984. The district is bounded in the north by the Lohardaga and Latehar districts, in the east by Ranchi district, in the south by Simdega district and in the west by the Chhatisgarh state. The district is situated between 220 42' 45" and 230 36' 30" N latitude and 840 02' 00" and 850 01' 00" E longitude. The district is covering Survey of India toposheet nos. 73 B/ 02, 03, 05, 06, 07, 09, 10, 11, 13, 14, 15, 73 F/ 01, 02 and 03. The Gumla district comes under the south Chhotanagpur division.

It has 1 sub – division i.e. Gumla Sadar sub – division. Further, the sub – division is devided into 11 blocks. 12th block as Albert Ekka (Jari) has been created during 2011 census. The sub – division is 12 blocks namely – Gumla, Dumri, Ghaghra, Bharno, Palkot, Bishunpur, Sisai, Kamdara, Chainpur, Raidih, Basia, Albert Ekka (Jari).

GENERAL INFORMATION OF GUMLA

District	Gumla
Headquarter	Gumla
No. of Sub Division	03
No. of Blocks	12
No. of Panchayats	159
No. of Villages	948
Area (Sq. Km.)	5,295.45
No. of Police Stations	14
Water Bodies	Shankh River South Koel River North Koel River
Toposheet	73A/3, 73A/4, 73A/6, 73A/7, 73A/8, 73A/11, 73A/12, 73A/15, 73A/16, 73B/1, 73B/5,73B/6, 73B/9, 73B/10, 73B/13, 73B/14 & 73F/1
Co-ordinate	22°42" to 23°37" N 84°01" to 85°01" E
Total Population	10,25,213
Male Population	5,14,390
Female Population	5,10,823
Percentage urban Population	65,081
Percentage Rural Population	91,60,132
Sex Ratio	993
Percentage Literacy **Male-** **Female-**	75.60% 55.90%

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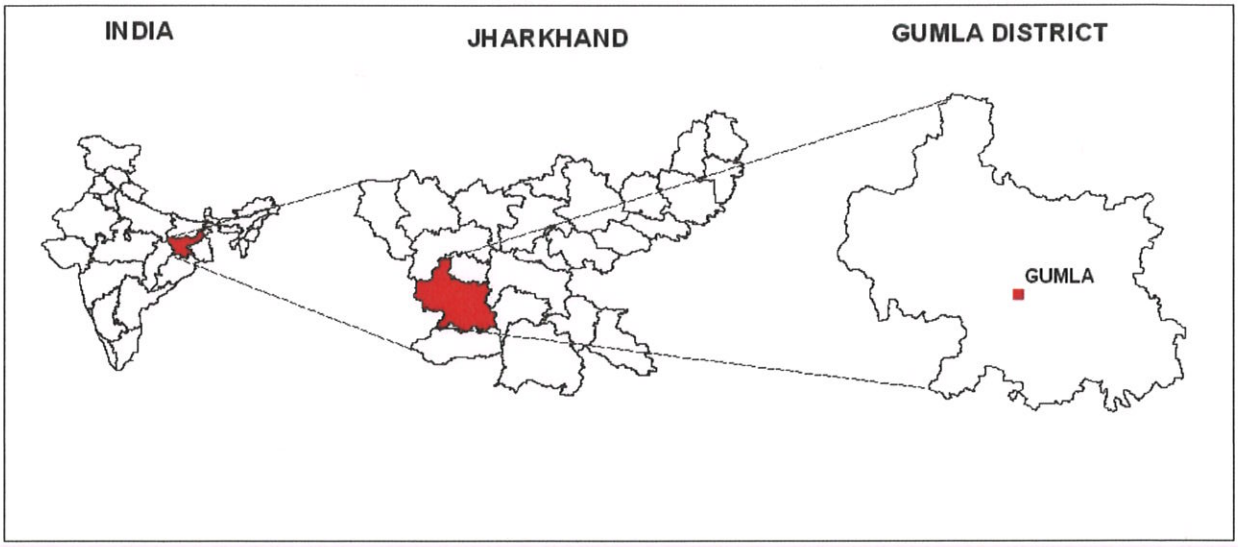
ST Population	7,06,754
SC Population	32,459
Total Workers	2,78,731
Total Male Worker	1,76,067
Total Female Worker	1,02,667
Total Main Workers	2,78,731
Total Male Main Workers	1,76,067
Total Female Main Workers	1,02,667
Total Marginal Worker	2,08,577
Total Male Marginal Worker	88,707
Total Female Marginal Worker	1,19,870
Total Non-Worker	2,49,616
Total Male Non-Worker	2,49,616
Total Female Non-Worker	2,88,089



Location map of Gumla District, Jharkhand

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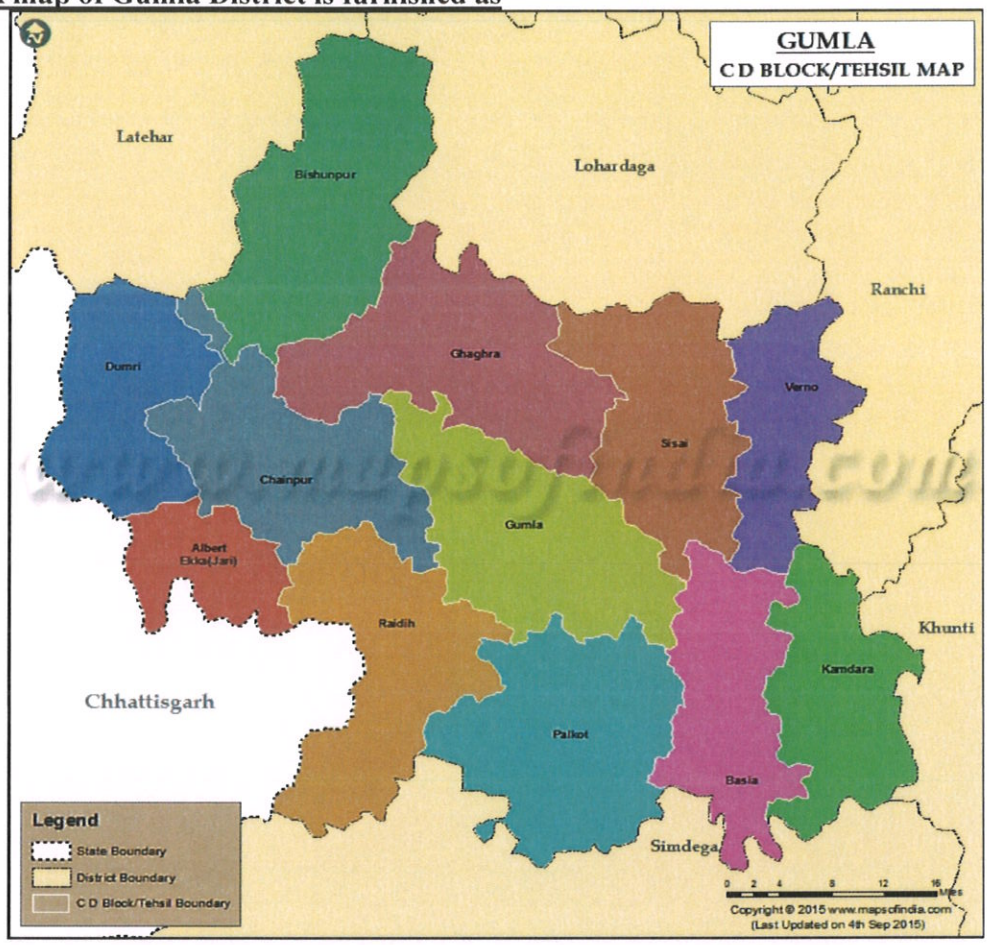
A Block map of Gumla District is furnished as



Block map of Gumla District, Jharkhand

a) Climate Condition

The Gumla district enjoys a healthy climate through out the year. Normal atmospheric temperature in the area often goes up to 42 c in summer and it goes down to about 4 c during winter.

The climate of the area could be divided in to three district season. The winter commences from November and extends of to middle of March, December being the coldest month. The winter season is characterized by heavy dew thick fog and cold wave. The rainy season last up to middle of October. The area is free from hot winds and dust storm. The monsoon sets in by the middle of June and continues till the middle of October. The area receives rain fall mainly by North-west monsoon during rainy season and from retreating monsoon during inter-monsoon period, which originates in the bay of Bengal. The average annual rainfall varies between 1400-1600 mm. Rainfall is the only sources of replenishment of ground water in the district.

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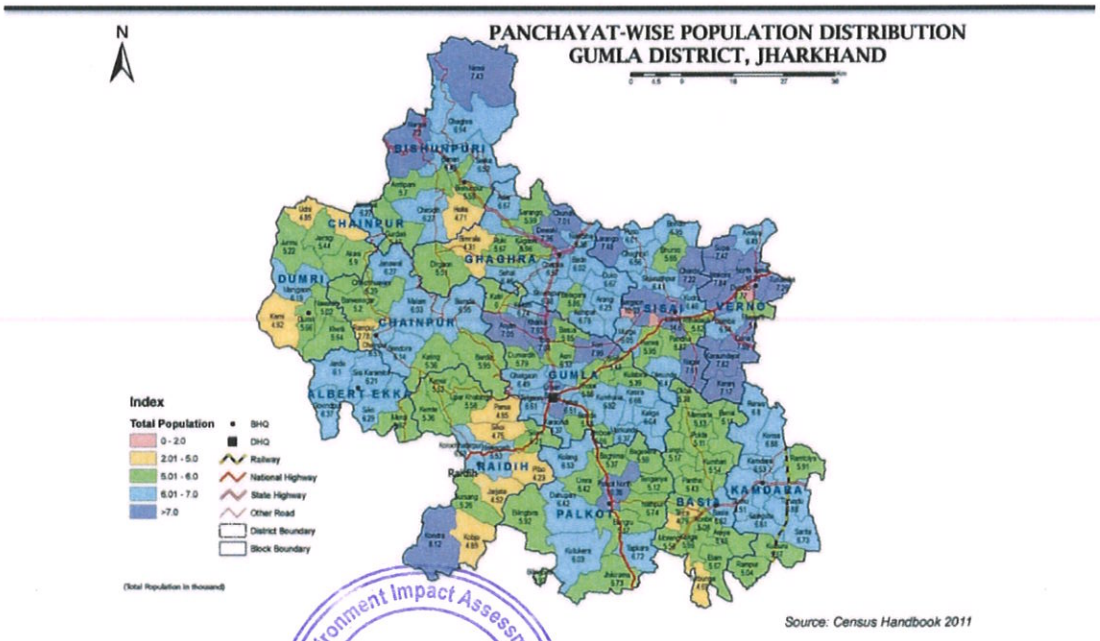
Details of rainfall data of five years (from 2016 to 2020) is furnished in Table No

Table No. 3.2: Details of rainfall data of five years (from 2016 to2020)

YEAR	JAN		FEB		MAR		APR		MAY		JUN	
	R/F	%DEP	R/F	%DEP	R/F	%DEP	R/F	%DEP	R/F	%DEP	R/F	%DEP
2016	21.4	-4	42.8	110	19.3	1	0.7	-97	79.9	70	139.0	-39
2017	0.0	-100	0.0	-100	0.0	-100	0.0	-100	16.3	-65	154.2	-33
2018	0.0	-100	5.9	-71	0.9	-95	24.6	-4	81.0	72	118.6	-48
2019	1.4	-91	13.2	-14	26.6	66	53.5	165	24.0	-50	99.3	-54
2020	29.5	92	10.3	-33	76.1	376	32.5	61	69.7	46	103.2	-53

JUL		AUG		SEPT		OCT		NOV		DEC	
R/F	%DEP	R/F	%DEP	R/F	%DEP	R/F	%DEP	R/F	%DEP	R/F	%DEP
487.2	31	303.1	-12	224.2	-11	50.7	-26	0.0	-100	0.0	-100
465.0	25	257.4	-25	168.6	-33	54.6	-20	3.7	-71	0.0	-100
394.6	6	193.4	-44	124.1	-51	10.7	-84	0.0	-100	16.3	87
218.1	-39	325.9	2	281.3	22	136.2	90	0.0	-100	18.1	130
143.8	-59	206.7	-35	110.3	-52	31.3	-56	6.1	-51	0.5	-94

Source: CRIS, Hydromet division



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b) Demography

As of the 2011 Census of India, Gumla had a population of 10,25,213 which is 3.11% of total Jharkhand population. Out of total 10,25,213: 5,14,390are males and 5,10,823are female; this makes the sex ratio of Gumla 993, which better than India's sex ratio. Gumla has an average literacy rate of 66.92%. In Gumla, 15% of the population is under 6 years of age. 3.2% of the population are from Scheduled Castes, 68.9% are from Scheduled Tribes. 44.62% were followers of Sarna, 30.19% were Hindus, 19.75% Christians and 5.02% Muslims.

Demography

No	Indicative	Population
1	Total Population	10,25,213
2	Man	5,14,390
3	Female	5,10,823
4	Rural	960132
5	Urban	65081
6	SC	3.2%
7	ST	68.9%
8	Sex Ratio	993
9	Population under 6 years of age	15%
11	Literacy rate	66.92% (Total)

Block wise population of the district

Sr. No.	Block	Area (Sq. km)	Rural population			Urban population		
			Male	Female	Total	Male	Female	Total
1	Chainpur	471.45	28397	28194	56591	--	--	--
2	Ghaghra	534.94	52853	52966	105819	4294	4286	8580
3	Dumri	581.95	24885	24249	49134	--	--	--
4	Gumla	540.29	78956	78163	157119	28961	27540	56501
5	Basia	399.03	40321	40410	80731	--	--	--

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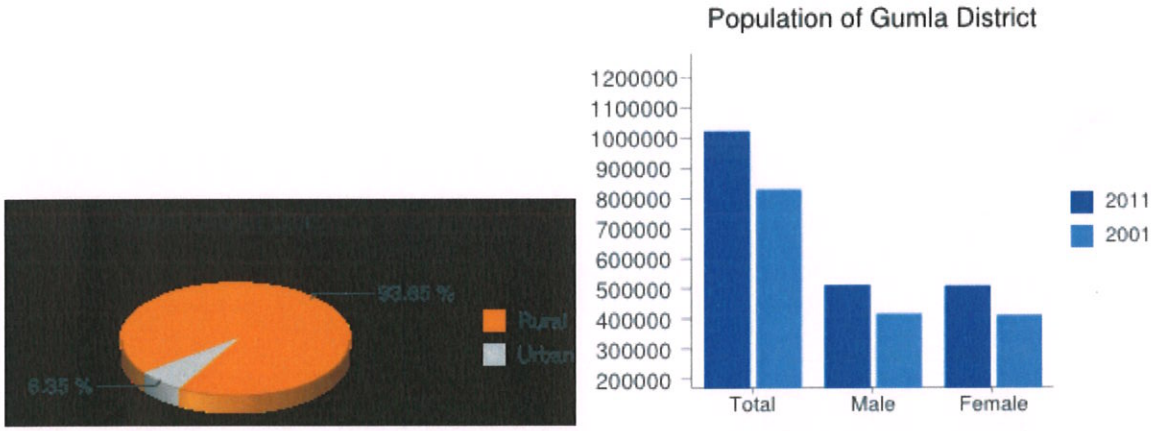
6	Palkot	579.02	40215	40644	80859	--	--	--
7	Raidih	514.13	35748	35695	71443	--	--	--
8	Kamdara	365.48	31686	32089	63775	--	--	--
9	Sisai	425.44	58427	58417	116844	--	--	--
10	Bharno	299.77	42355	42217	84572	--	--	--
11	Bishunpur	609.44	31506	30813	62319	--	--	--
12	Albert Ekka (Jari)	NA	15786	15140	30926	--	--	--
	Total	**5,320.94**	**481135**	**478997**	**960132**	**33255**	**31826**	**65081**



Pie Chart and graphical representation of population distribution of Gumla District

c) Cropping pattern

There are three main crop seasons viz. Kharif, Rabi and summer (garma). Major Kharif crops are rice, maize, bajra, vegetables, til etc. Aghani crops are also sown in the district. It is sown in the beginning of monsoon just like the Kharif crops, but the harvesting season is different. September-October is the harvesting season for Kharif whereas January–February is for the Aghani. Major crops grown in Rabi season are wheat, gram, mustard and pulses. Rice, maize, groundnut and vegetables are main summer crops.

d) Topography & Terrain

Topography of the district is highly undulating and there is existence of several rivers, and streams. Forests cover around 27 per cent of the total area of the district. The Chotanagpur plateau is a region of large physical inequalities and presents a rich panorama of topographical features. The general

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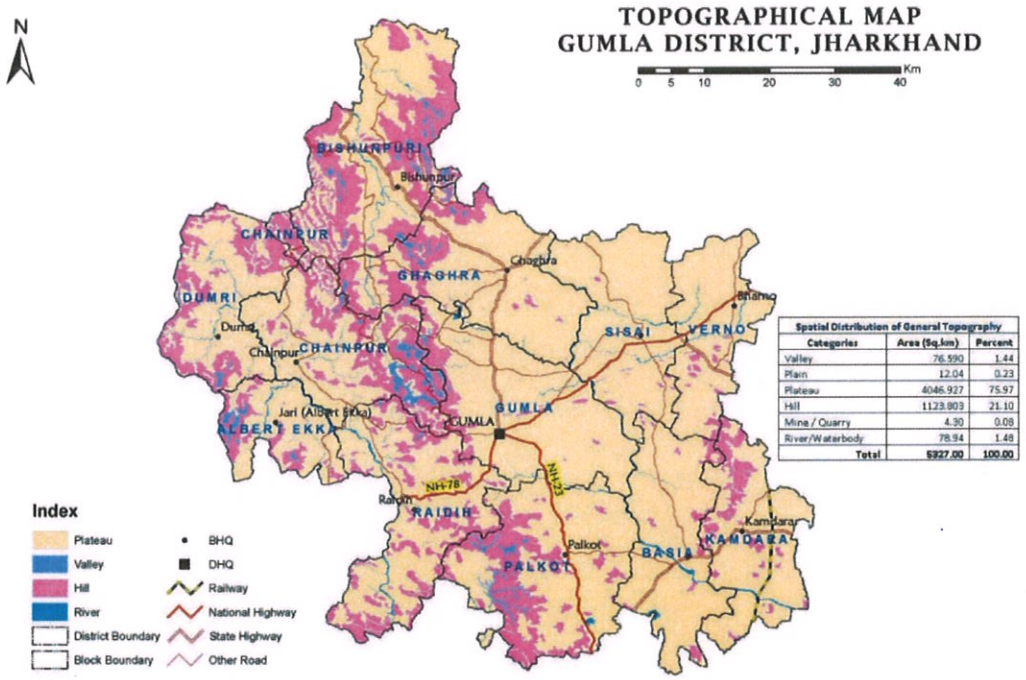
configuration of region varies from valley fills, pedeplains, to structural ridges. District is mainly a dissected upland of ancient crystalline rocks which covers the major parts of the district. Ground water availability in crystalline rocks is considered to be poor because of the absence of primary porosity which is essential for the free occurrence and movement of ground water. All the river channels in the area are covered with alluvial soil recent of origin deposited over consolidated rocks. Alluvial fills are also found in patches away from the river channels. Thickness of these fills depends upon the topographical control.



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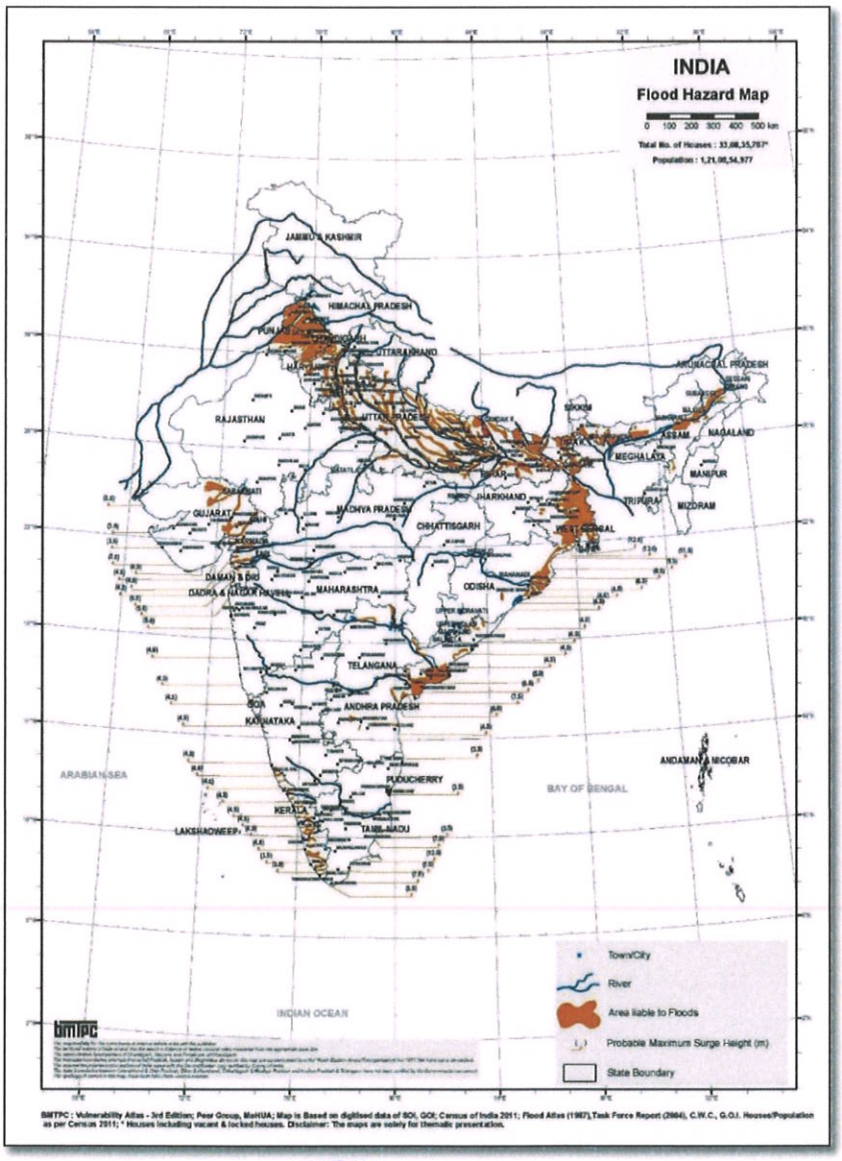
e) Floods in district:

The state of Jharkhand is predominantly a hilly state where the problem of flooding was rare till sometime back. However, the erosion of embankments spread of population and general disturbance in ecology and inability of identifying the catchment areas, the incidence of Flash floods have become frequent. The floods/ Flash Flood have occurred in the following 14 districts- Sahibganj, Godda, Pakur, East Singhbhum, West Singhbhum, Saraikela- kharsawan, Garhwa, Palamu, Chatra, Ramgarh, Bokaro, Dhanbad, Gumla, Simdega.



Source: BMPTC

Figure No. 3.4: Flood hazard map

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f) Seismicity

The state of Jharkhand falls in a region of low to high seismic hazard. As per the 2002 Bureau of Indian Standards (BIS) map, this state also falls in Zones II, III & IV. Historically, parts of this state have experienced seismic activity in the M5.0 range.

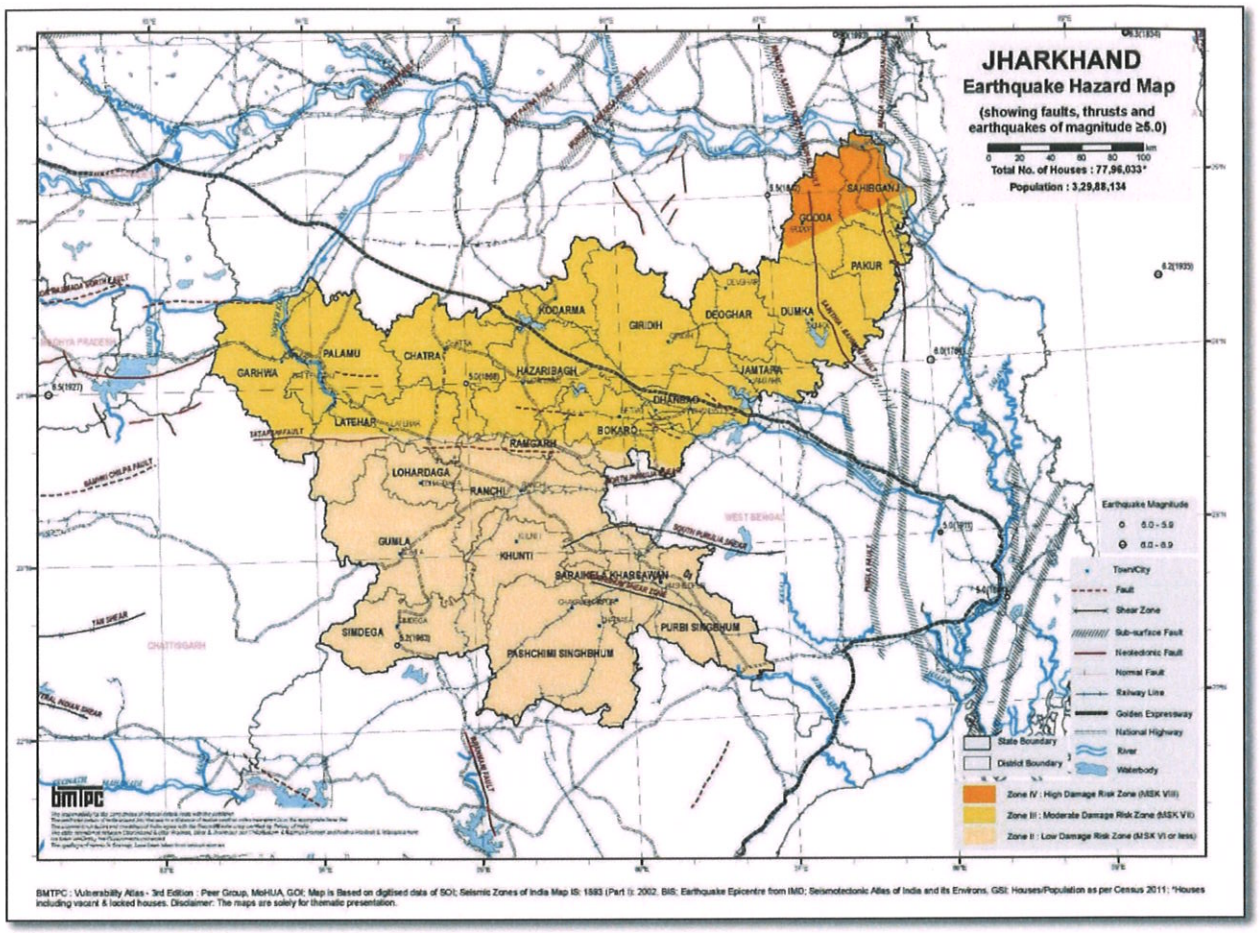

Figure No. 3.5: District Earthquake Map

g) Flora

Shrubs and bushes are seen occurring in patches mainly in hilly/rocky areas and stony wastes. Species like Accasia catechu (Khair), Zizyphys jujuba (Ber), Accasia arabica (Babul) etc, are commonly seen throughout the area. Some patches have been developed by Forest Department of Jharkhand state under afforestation programme. The Palkot sanctuary comprises Dry Deciduous Forests (Dry Peninsular Sal) bearing flora like Sal, Asan, Gamhar, Salai, Piar, Amla, Mahua, Kusum, and Mango. Important forest products are Saal seeds, Cocoon, Lac, Tendu leaves, Karanj, Chiraunji etc., The major trees are Sal, Bija, Gamhar, Jackfruit, Jamun, Mango, Bamboo, Neem etc.

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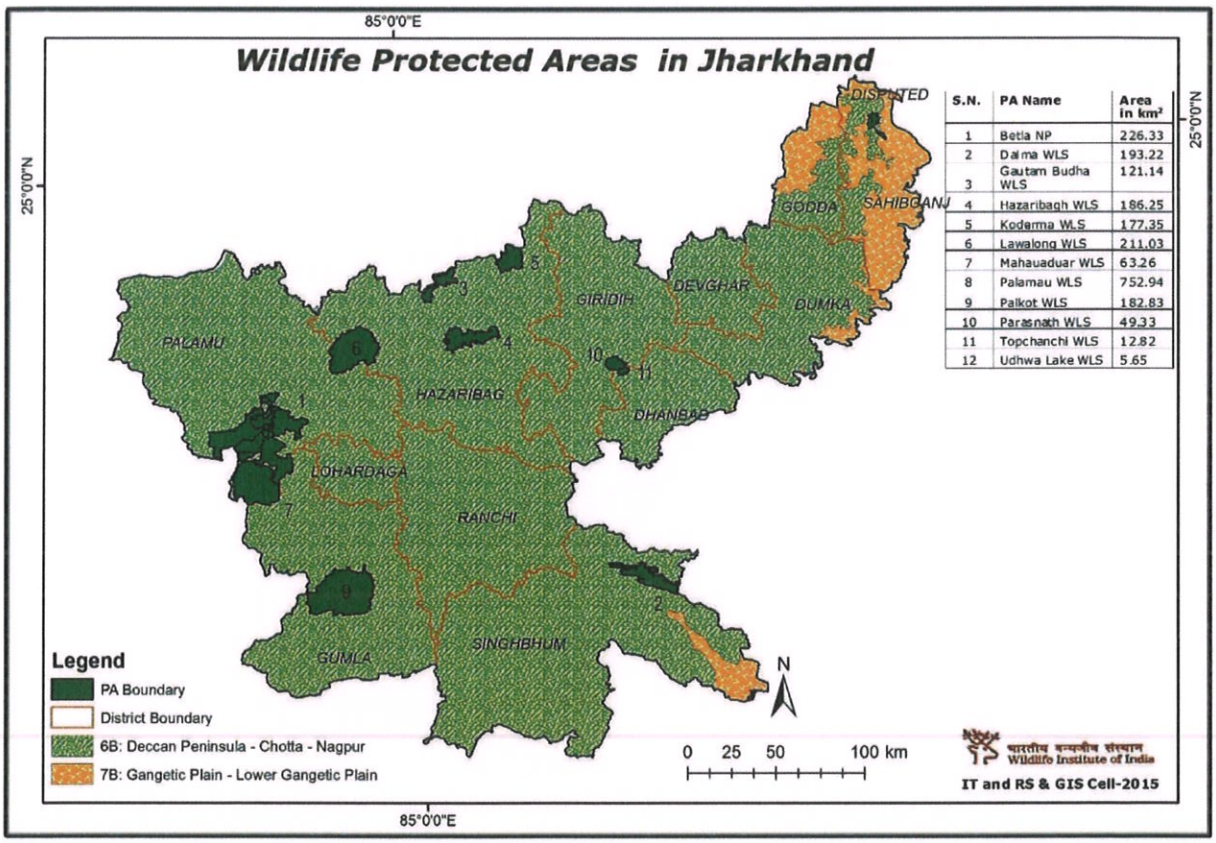
Fauna

The Palkot Wildlife Sanctuary falls within the district of Gumla and Simdega. It falls within the Gumla, Simdega and Raidih blocks and the National Highway 23 crosses and divides the sanctuary between two parts. The mammal fauna include leopard, sloth bear, jackal, monkey, porcupine, and hare. Birds here include jungle fowl, partridges, koel, parakeet, owl and pheasants. It is located in Deccan Peninsula Biogeography zone, in the Chhotanagpur plateau. Some of the most endangered species like sloth bear, rattle, python, pangolin, black necked crane are represented in the area. It also protects the rivers, streams against siltation by minimizing soil erosion.



S.N.	PA Name	Area in km²
1	Betla NP	226.33
2	Dalma WLS	193.22
3	Gautam Budha WLS	121.14
4	Hazaribagh WLS	186.25
5	Kodarma WLS	177.35
6	Lawalong WLS	211.03
7	Mahauaduar WLS	63.26
8	Palamau WLS	752.94
9	Palkot WLS	182.83
10	Parasnath WLS	49.33
11	Topchanchi WLS	12.82
12	Udhwa Lake WLS	5.65

Wildlife Protected area in Jharkhand District

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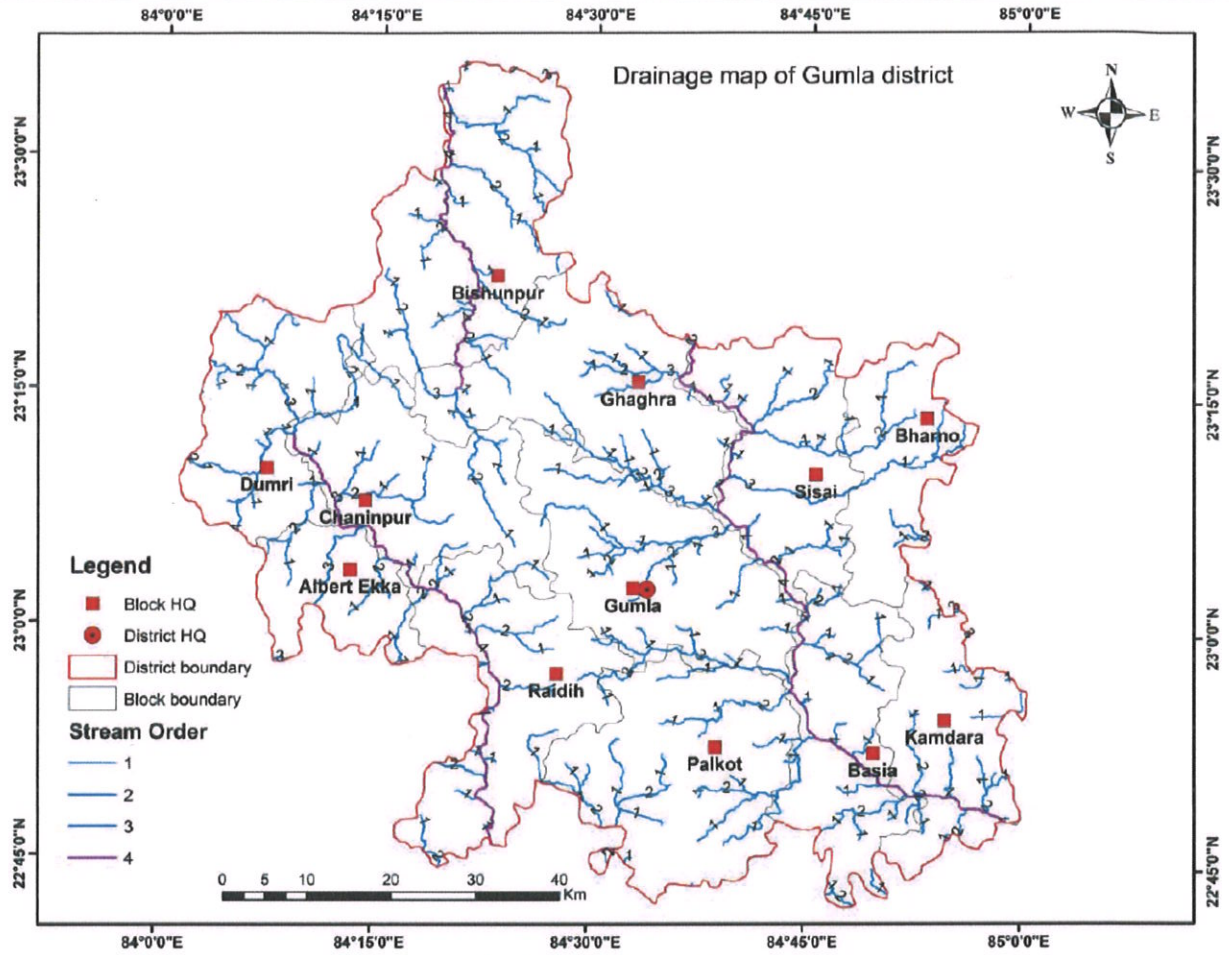
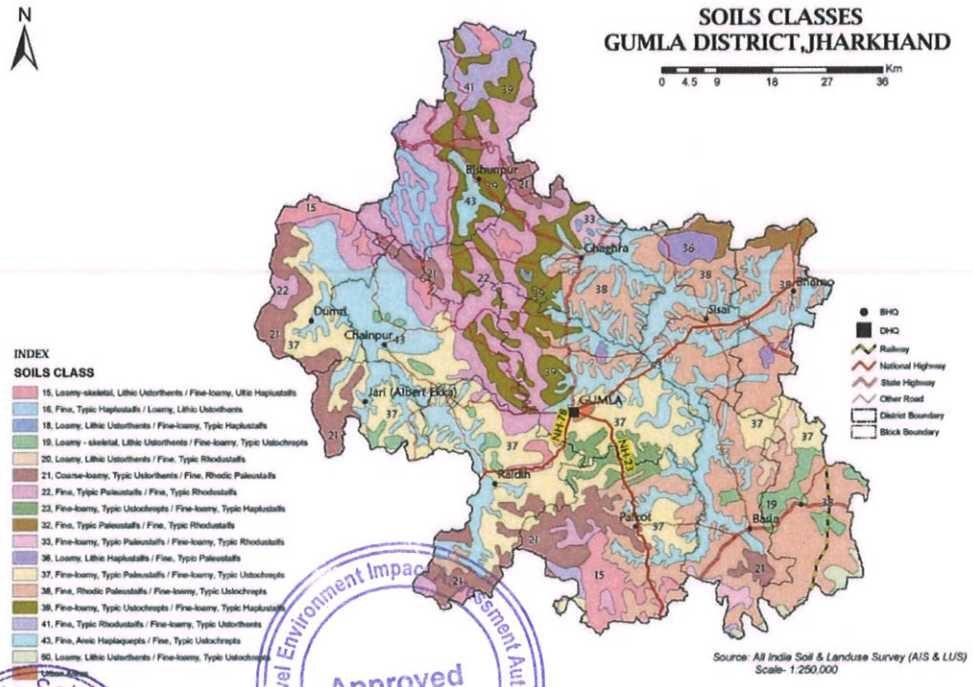


Figure – 5: Drainage Map of Gumla district



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CHAPTER- 04
GEOLOGY OF THE DISTRICT

In general The Gumla district forming South –Western part of the chotanagpur plateau is predominated by chotanagpur granite-gneiss of archean age, which forms the basement in the area. Patches of mica schist occurs within the granitic and gneissic bodies. Laterities of early tertiary are found to cap over granites and gneisses in highland areas. Recent to sub recent alluvial sediments are found to occur along present day river channel. Structurally & tectonically the archean complex have been affected by eastern ghat oroganic movement giving rise to the sets of major fractures and lineaments.

The generalized geological succession of the district is given below: -

Geological Formation	Age
Alluvium	Recent to sub-Recent
Laterite	Early Tertiary
----------Unconformity----------	
Schist and Phyllite Quartzites, Chotanagpur Granite and Granite Gneiss	Proterozoic to Archaean

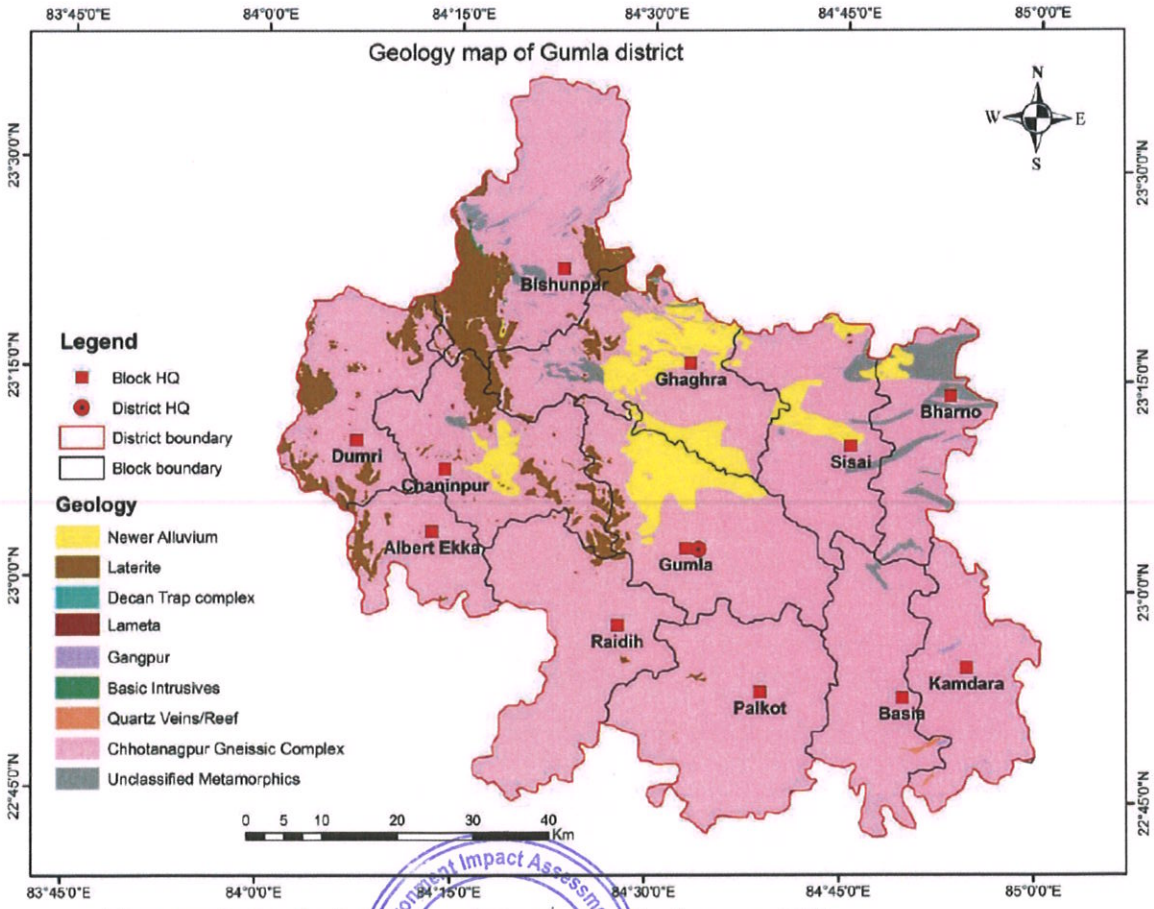

Figure – 6: Geological map of Gumla district (source GSI)

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CHOTANAGPUR GRANITES AND GRANITE-GNEISS

Major Part of the district is underlain by Chotanagpur granite-gneiss of Archean age which forms the basement rocks. It occurs as large batholithic mass. The granite-gneiss is foliated whereas granites are massive, but foliation is sometimes seen in granitic rocks also, both the rock unit have same mineral composition. The minerals are quartz, feldspar and biotite. The gneisses are banded showing prominent foliation. Pegmatitic veins are seen intruded all along the granitic terrain. They are emplaced in tensional fractures and often show chilling and alteration effect in the contact. The granites which generally stand out as hills and mounds with numerous heaped up boulders testifying to their highly jointed character.

MICA-HORNBLENDE SCHIST & PHYLITES

In a limited area exposure of mica hornblende schist and phyllites are seen which is generally composed of muscovite biotite, hornblende with feldspar and quartz. The mica hornblend schist show pronounced foliation in the form of well developed axial plane schistosity plane show parallel trend with the gneisses. The schistose rocks are folded.

LATERITES

Early tertiary laterites occur in the area over topographic highs of uplands. They do not have large areal extension and are localised in nature. They are porous, pitted, clay like rock with red, brown and grey colours, often mottled. Generally it has a hard protective cover of limonetic crust. It is composed mainly of hydrated oxides of iron and alumina.

RECENT ALLUVIUM

These are found to occurs as terrace deposits comprising of coarse sand and gravels mixed with sandy silt and silty clay with some pebbles of laterites and granite-gneiss.

STRUCTURAL FEATURES

Structurally and tectonically the archean complex of chotanagpur plateau is a product of satpura orogenic cycle having regional E-W strike which has giving rise to sets of major fractures and a series of synformal and antiformal structures. All pronounced vertical to subvertical gneissic foliation. The mica schist also show well developed foliation/schistosity in the form of axial plane. The trend of the foliation varies from E-W in the northern part of the district where as in the southern part it trends in ENE-WSW direction. Joints parallel to foliation are common in gneissic rocks where as sheet jointing are common in granites which generally stands out as hills and mounds with numerous heaped up boulders testying to their highly jointed character. Two sets of joints trending NW-SE and NNE- SSW are discrenable with steep dip of 50 to 88 in NE or SE direction near simdega. At many places it has been

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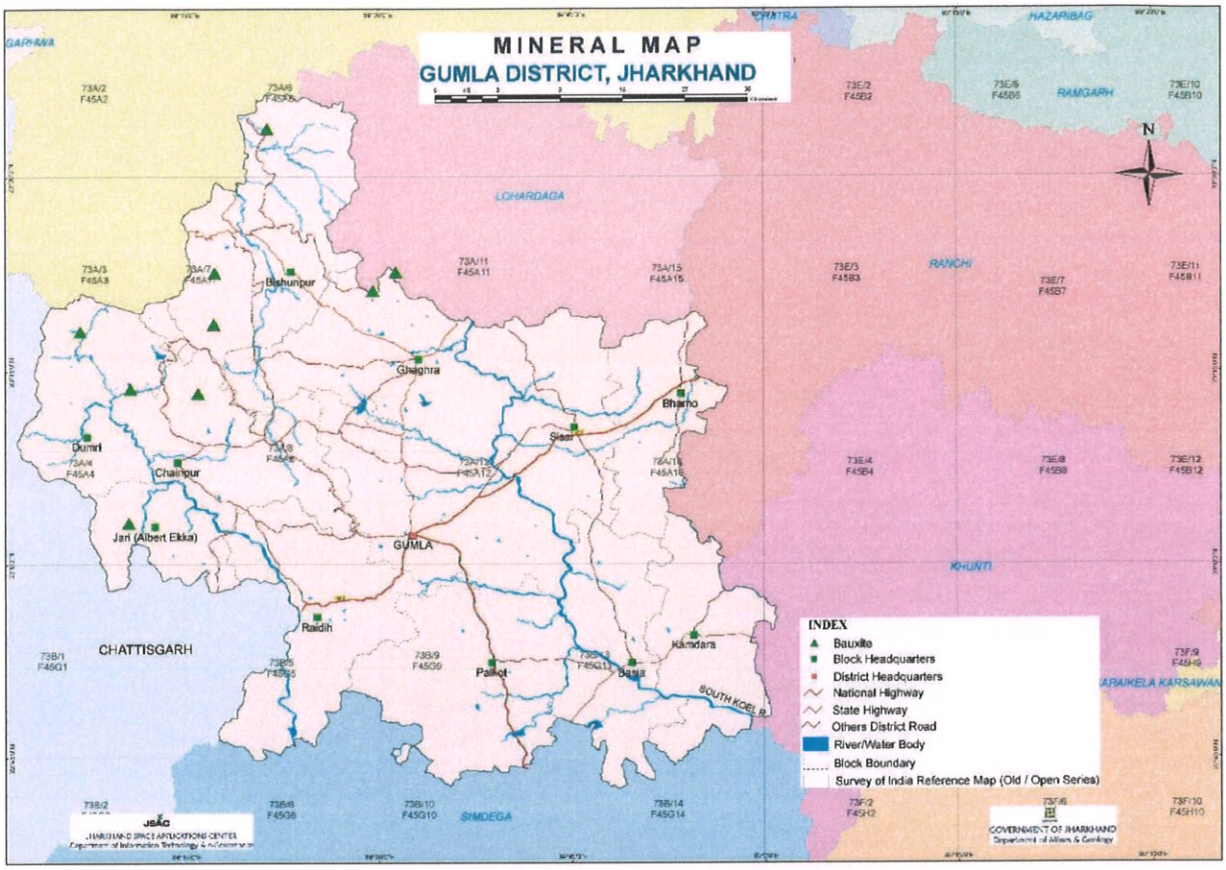
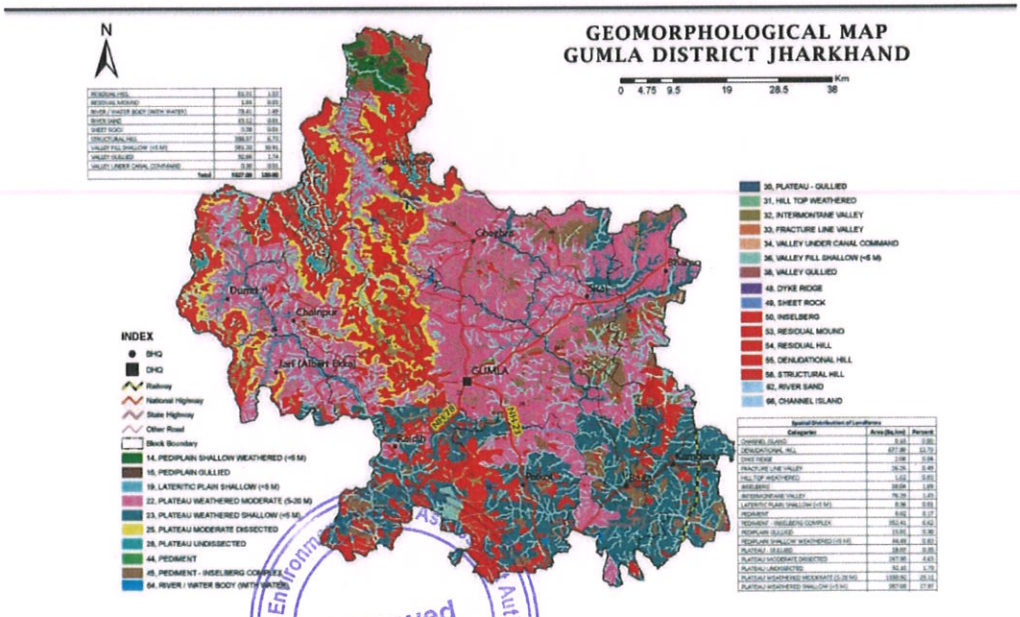
observed that the quartz-veins are off set by these structures. Significantly dykes are uncommon in the area. More or less these structures control the drainage of the area.



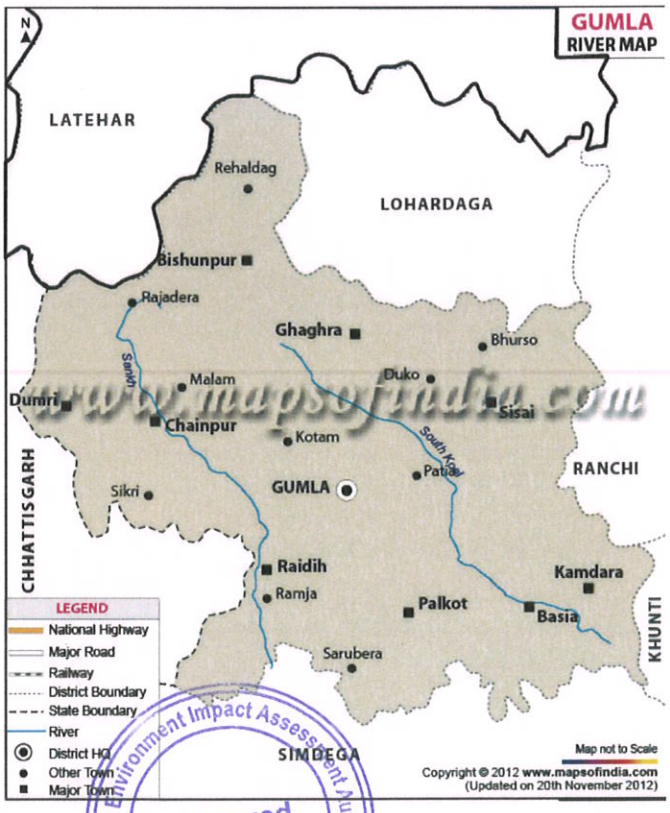
Mineral map of Gumla district



CHAPTER- 05
DRAINAGE OR IRRIGATION PATTERN

Gumla district covers the south - western part of Chhotanagpur plateau. The district is forming two sub basins i.e. the North Koel sub – basin of Ganga basin and the Sankh sub basin of Brahmni basin. The entire district is highly dissected by rivers of varying magnitudes, new drainage basins were formed when the region was elevated during recent past. The nucleous of the drainage area is located on an elevated tract for Ranchi plateau.

The south koel originates from a place called Piska near Ranchi and has its course traverses in the Ranchi, Gumla and Simdega districts. Several feeders of South Koel river have their source on the western side of the north – south up-wrap. It flows from north to south having meandering coarse excavating even straight valleys in the western part of the areas whereas in the northern part south-koel meanders from west to east. The entire catchment basin of the South- koel is wide and extensive which incorporates the most populous region. In the lower reaches of the river sand banks are formed due to large amount of silt brought down by the rivers Dendritic drainage pattern, a typical of hard rock terrain is developed over the area. However redial drainage pattern is developed locally in some areas where streams and tributaries emanated from the local mounds and raise ground. All these drainage is characterized by rapid surface run – off.



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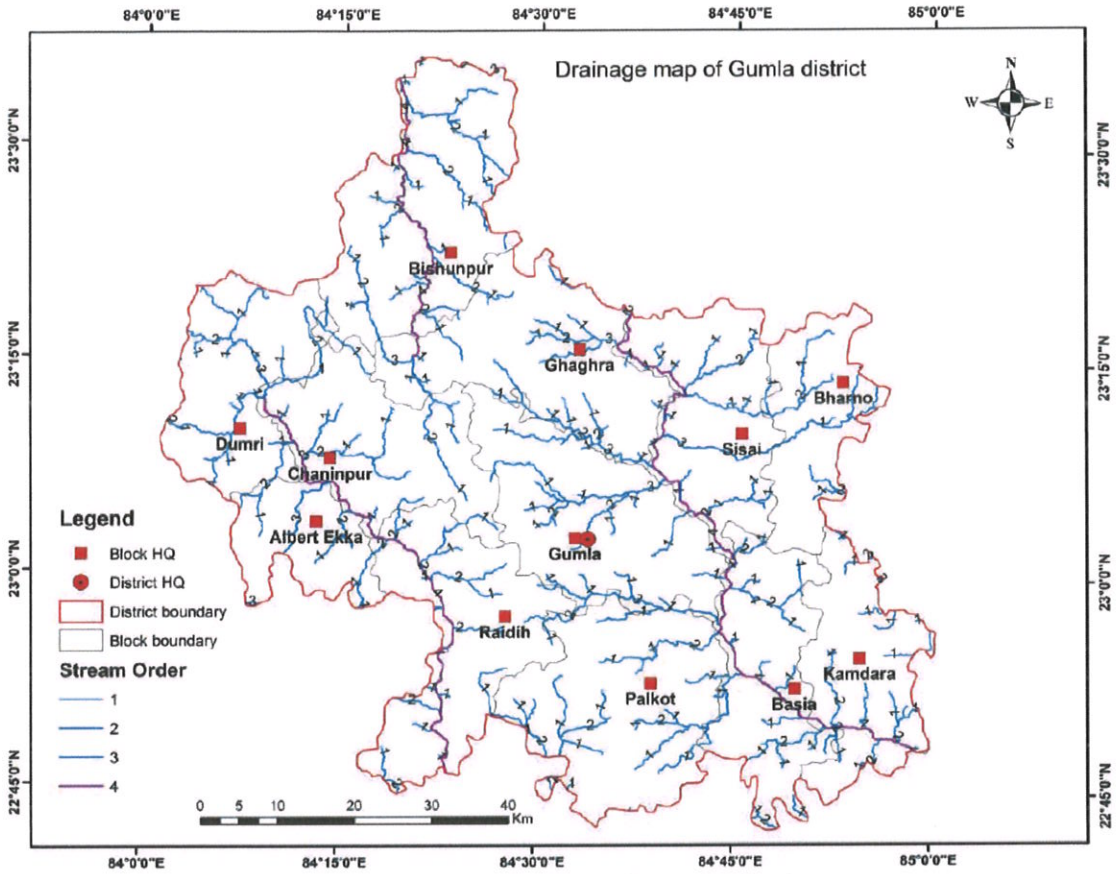

Figure – 5: Drainage Map of Gumla district

Agriculture and Irrigation Practices:

The local population of the district mostly depends on agriculture and forestry for their sustenance. The agriculture activity of the area is solely dependent upon the monsoon rainfall. Paddy is the main crop of the district. Wheat, Maize, Gram, Mustard oil Potato are other crops grown widely in Gumla and its adjoining areas. Irrigational facilities are not adequate in this district. The most common source is the dug well, but this is not a very dependable source of irrigation. The undulating nature of land makes it possible to store rain water by bunding. Apart from being dependent upon rains, these are by no means adequate. The result is that failure of rains invariably involves failure of crops except in small pockets. Minor irrigation structures like surface water, tanks and ponds are the other source for irrigation. Available source wise irrigation for the 2013-14 is given in table

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Table 5: Block wise number of irrigation structure of Gumla district (2013-14)

Sl. No	Block	Surface water			Ground water			Other sources
		Canal	Tank	LI	DW	STW	DTW	
1	Albert Ekka(Jari)			2	431	1	1	11
2	Basia				1314	5	1	0
3	Bharno			76	1082	1	0	0
4	Bishunpur			29	694	20	4	76
5	Chainpur			40	430			34
6	Dumari			24	217			16
7	Ghaghara			17	1486	5	1	46
8	Gumla			8	401	10	4	24
9	Kamdara			21	467	0		55
10	Palkot			7	500	2		55
11	Raidih			0	604	1		0
12	Sisai			12	887	1		77
				160	**6117**	**40**		**394**

Source: 5th MI Census of India

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CHAPTER- 06
LAND UTILIZATION PATTERN IN THE DISTRICT: FOREST, AGRICULTURE, HORTICULTURAL, MINING ETC.

Land use of the district consists of agriculture and forestry. The other land use categories like wasteland, non-agricultural lands, pasture lands, cultivable wastelands and fallow lands also occur in the district. Agriculture land is mainly plain land and varies from gentle slope to moderately steep slopes.

The land use statistics of Gumla district, in accordance with the nine-fold classification system maintained in the Revenue records is indicated in table below:

Land Use details of district

Particulars	Gumla	Jharkhand
1. Forest	15.06 %	29.2 %
2. Net sown area	29.02 %	22.7 %
3. Barren and unculturable waste	7.37 %	7.2 %
4. Non agricultural use	6.95 %	9.9 %
5. Orchards	1.75 %	
6. Pasture	0.05 %	2.5 %
7. Culturable wasteland	5.07 %	3.5 %
8. Current and other fallow	34.73 %	25.0 %

(Source: Fertilizer and Agriculture Statistics, Eastern Region (2003-2004)

a) Forest detail of the area

According to ISFR-2021 the State has a geographical area of 9,077 sq.km (including Gumla). The total recorded forest area (RFA) of the state 2,658 sq.km which is nearly 29.28 % of the geographical area of the state. Of the total recorded forest area, Very Dense Forest constitute 323 sq.m., Mod. Dense Forest 916 sq.m. and Open Forest 1,419 (ISFR-2019).

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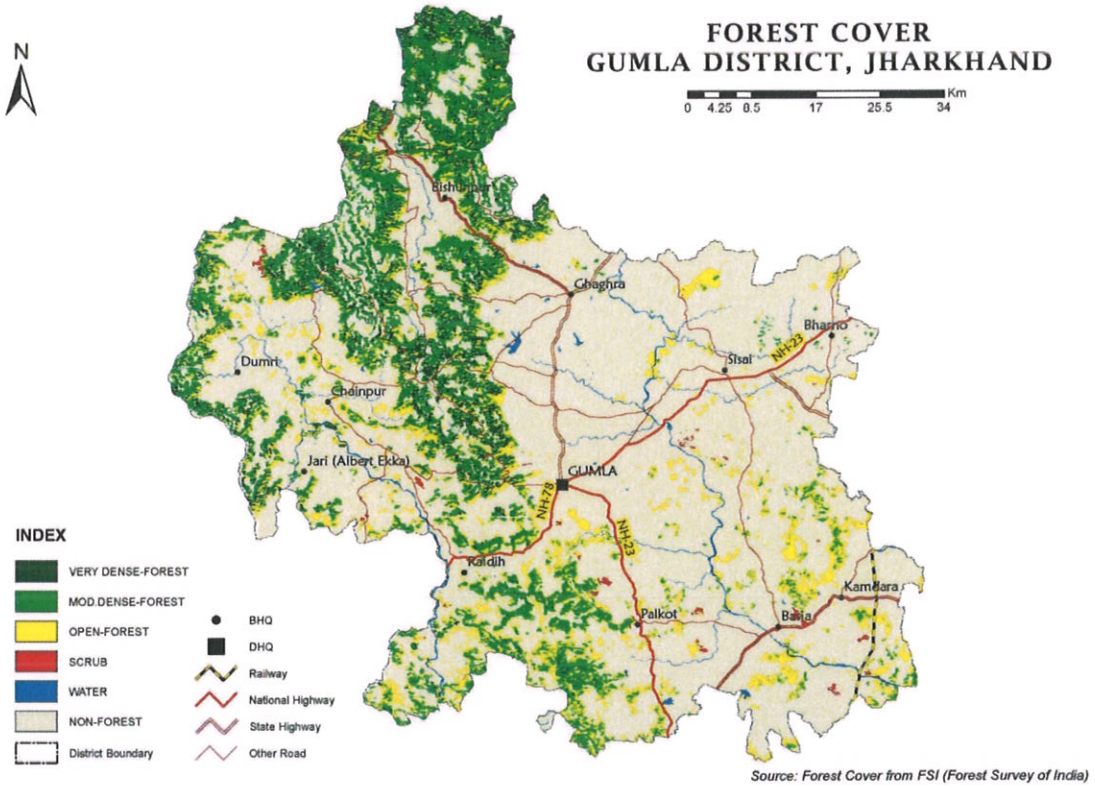

Forest cover map of District

b) Agriculture & Irrigation

Agriculture and forestry are the two main occupations of the local population in the district. But the land available for the cultivation is limited because of the hilly and rigged topography. The absence of proper and the assured source of the irrigation have impeded the growth of agriculture. Undulating topographic features characterize the district. The agricultural activity of the district is solely dependent upon the monsoon rainfall and the kharif crops mainly paddy is grown extensively. Irrigational facilities are not adequate in the district. Well is the most common source of irrigation, but this is not very dependable source. The major part of the district being rocky, it is difficult to dig deep dug wells. Where there exists facility for irrigation during Rabi season from the ponds and store water in small nalas, vegetable is the major crop grown in that area. The summer padi is grown in low lying areas in few places.

Table 6.2, Principal crops of the district:

SI. No.	Crop	Kharif	Rabi	Summer
1.	Cereal	Rice, Maize	Wheat	Summer rice
2.	Oil seed crop	Groundnut, Niger	Toria, Rai,	–

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			Mustard	
3.	Pulses crop	Blackgram, Pigeon pea,	Chickpea, pea, Field pea	–
4.	Vegetables	Ladys finger, Cowpea, Cucurubits etc.	Potato, Tomato, Brinjal, Chilli, Cauliflower cabbage etc.	Ladys finger, Cowpea, Cucurubits etc.
5.	Fruits crop	Papaya, Jackfruit, Mango, Custard apple, Black berry etc.	Papaya,Guava, Mahua	Jack fruit,

Table No. 6.3: Area, Production and Productivity of major crops cultivated in the district

S. No	Crop	Area (ha)	Production (Qtl)	Productivity (Qtl /ha)
1.	Cereals:			
	Rice	98,397	76,846	741
	Maize	3050	2094	687
	Finger millet			
	Wheat	2687	3613	1377
2.	Pulses:			
	Redgram	-	-	-
	Blackgram	3000	2700	900
	Kulthi	1200	3600	300
	Greengram	1800	9000	500
	Lentil	300	1800	600
	Pea	-	-	-
	Chickpea	3057	4233	1385

Source: DAO, Gumla

c) Mining

The mineral resources of Gumla have played a great role in industrialization, social and economic development of the district. Gumla is rich in minerals such as:

Major Minerals	• **Bauxite**
Minor minerals	• **Sand(River Bed)** • **Stone (Building Materials)** • **Granite Gneiss** • **Brick Kiln Soil Mining**

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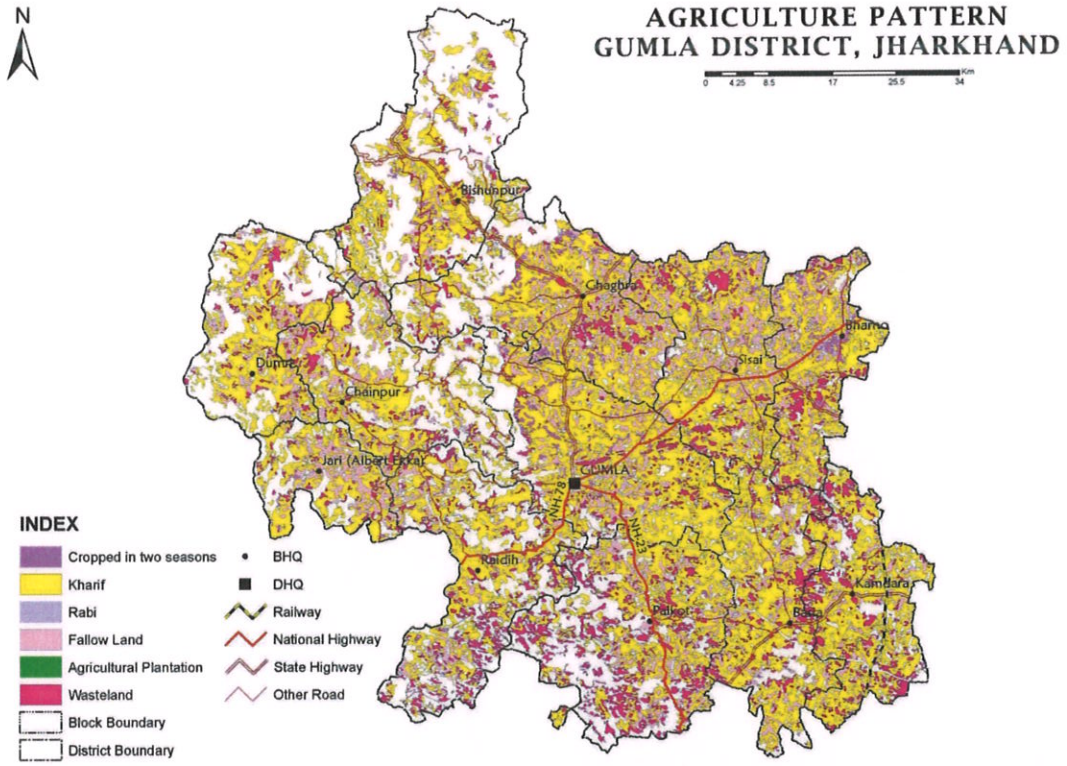
AGRICULTURE PATTERN IN GUMLA DISTRICT

The local population of the district mostly depends on agriculture and forestry for their sustenance. The agriculture activity of the area is solely dependent upon the monsoon rainfall. Paddy is the main crop of the district. Wheat, Maize, Gram, Mustard oil Potato are other crops grown widely in Gumla and its adjoining areas.



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CHAPTER- 07
SURFACE WATER AND GROUND WATER SCENARIO OF THE DISTRICT

Ground Water Scenario

Hydrogeology: - Gumla district is mainly a dissected upland of ancient crystalline rocks which covers the major parts of the district. Ground water availability in crystalline rocks is considered to be poor because of the absence of primary porosity which is essential for the free occurrence and movement of ground water. The secondary porosity in the form of fractures, fissures, joints etc. develop due to orogenic movements aided by weathering, making the crystalline rocks potential repository for the occurrence and movement of ground water. The ground water in the district is controlled primarily by the thickness of weathered zone, extent, size opennes and interconnection of fractures, geological and topographical setting. Major part of the district fractured and weathered crystalline hard rock form the aquifer. Ground water in the district characterized by the hard rocks is located in the weathered residuum in the shallow depth under unconfined condition and circulates through the under lying fracture system extending to deeper horizon under semi – confined to confined conditions.

Exploratory wells: To understand the sub – surface geology, identify the various water bearing horizons including their depth location and thickness and compute the hydraulic characteristics such as Transmissivity and Storativity of the aquifers, exploratory drilling programme was carried out under AAP 1977– 79 & 2006 - 07. There are 20 exploratory wells and 04 observtion wells were drilled in the district. The depth of exploratory wells ranges between 55.91 to 199.92 mbgl. The static water level of these exploratory wells varies from 4.75 magl to 8.21 mbgl. The Transmissivity value varies from 0.90 to 66.00 m2/ day.

Depth to water level: -

There are 15 National Hydrograph Stations (NHS) have been established by Central Ground Water Board for the study of behavior of the water level and their fluctuation.

Pre monsoon depth to water level: - On the basis of the depth to water level of the year 2012 (Table – 2), the pre monsoon depth to water level was monitored between 2.28 to 11.87 mbgl. Majority of the wells (85%) fall in the water level range of 5– 10 mbgl. About 10% wells fall in the water level range from 2 – 5 mbgl. Pre monsoon depth to water level map is shown in fig.-

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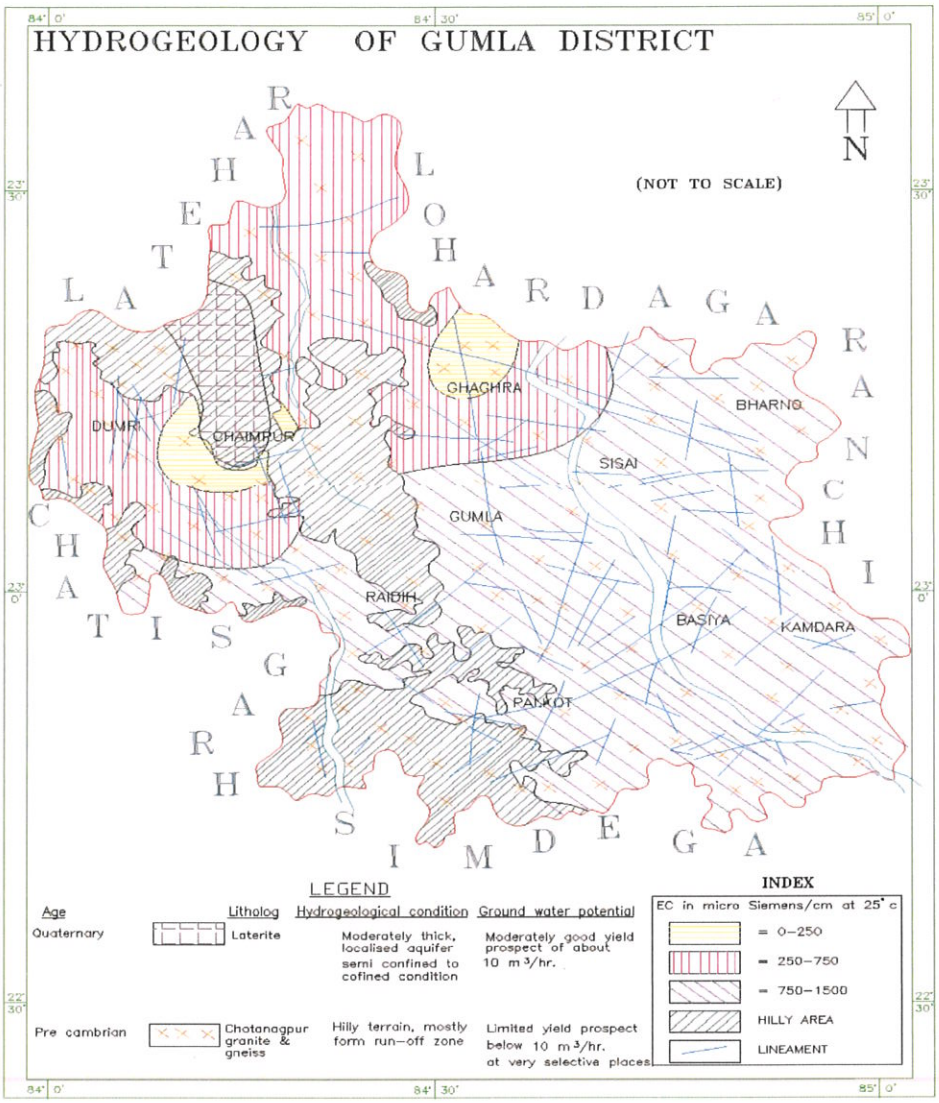
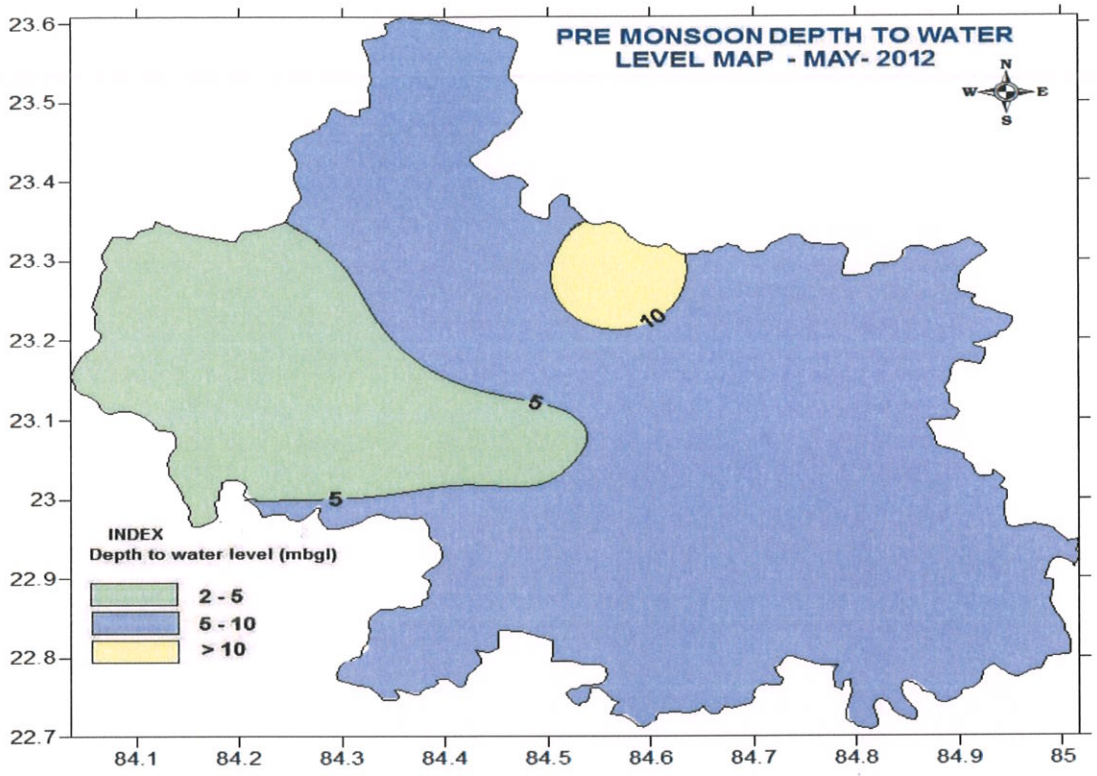
Post monsoon depth to water level: - The post monsoon depth to water level ranges between 3.10 to 6.25 mbgl. About 69% of the wells fall in the water level ranges between 2 – 5 mbgl and 31% of the wells fall in the depth to water level ranges between 5 -10 mbgl. Post monsoon depth to water level map is shown in figure

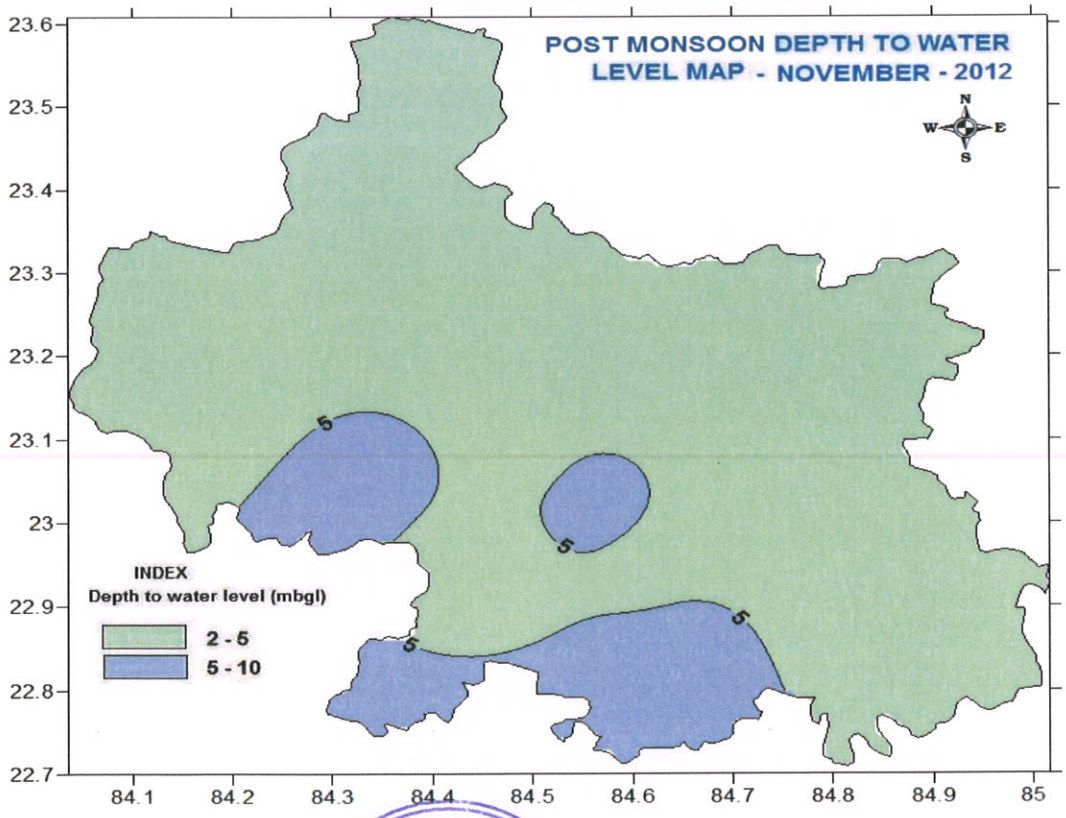


Hydrogeological map of district

Source: CGWB



Pre-Monsoon water level map



Post Monsoon water level map

Source: CGWB

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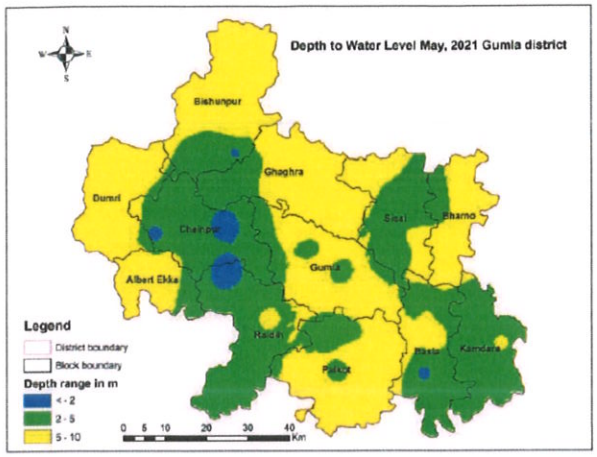

Figure – 09: Pre monsoon (May 2021) depth to water level map of Aquifer – I (shallow aquifer)

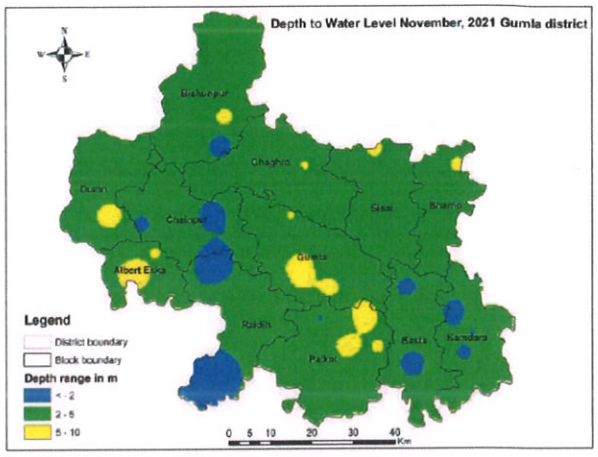

Figure – 10: Post monsoon (Nov. 2021) depth to water level map of Aquifer – I (shallow aquifer)

Ground Water Resources

Based on the recommendation of the Ground Water Estimation Committee – 1997 (GEC – 1997), Block wise the ground water resource assessment has been evaluated. The net annual ground water availability of the district is 36519.79 ham. The gross ground water draft for all uses of the district is 9540.64 ham. The net ground water availability for future irrigation development for the district is 26679.65 ham. All blocks of the district falling under "Safe" category. The stage of ground water development varies from 12.85% to 42% . Block wise stage of ground water development is shown in figure-

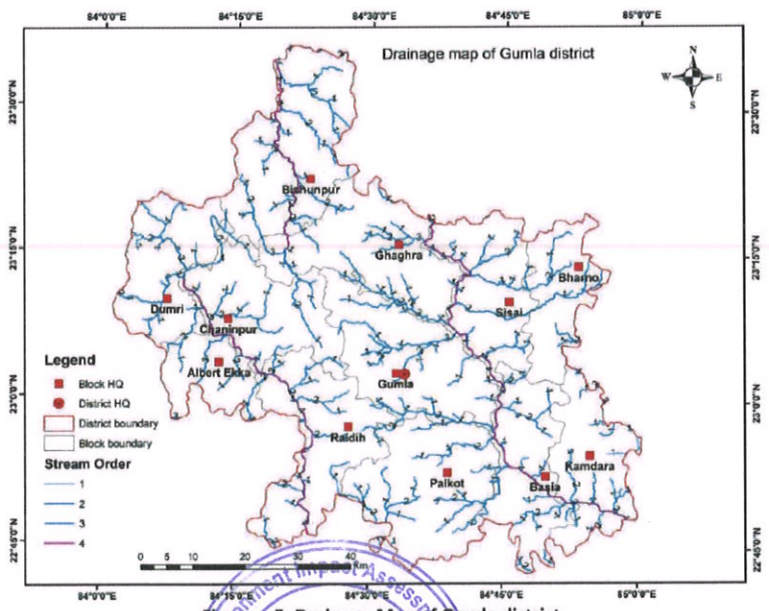

Figure – 5: Drainage Map of Gumla district

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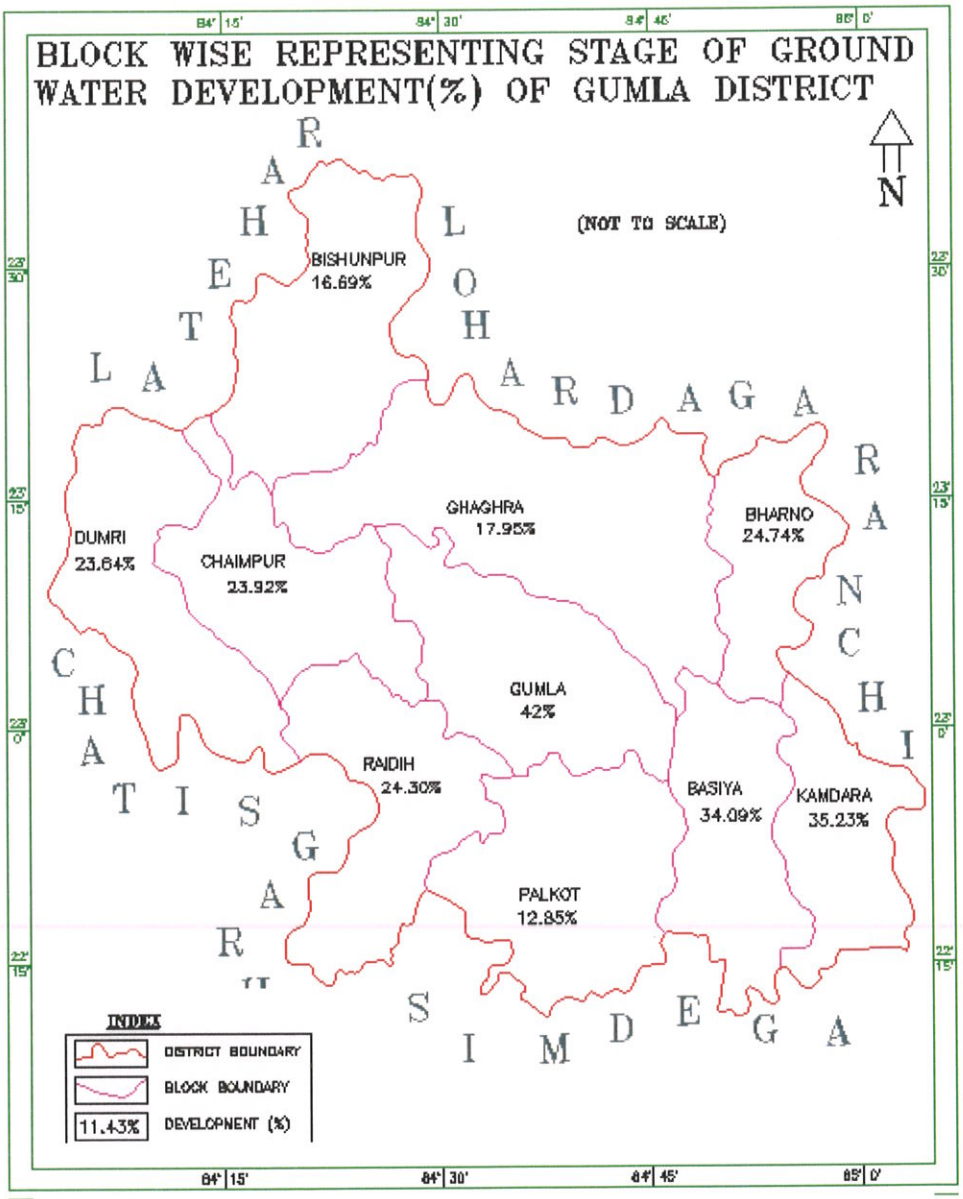
There is sufficient scope for shallow as wells deep bore wells. State Govt. Agency has been constructed a large number of bore wells to minimize the drinking water problem in the district. Central Ground Water Board has been drilled 20 exploratory bore wells and 4 observation bore wells in the district. The depth of bore wells ranges between 55.91 – 199.92 mbgl. The yield of bore wells ranges from 0.50 to 36.00 m3/hr. The Transmissivity value ranges from 0.90 to 66.00 m2/day.



CHAPTER- 08
RAINFALL OF THE DISTRICT AND CLIMATE CONDITION

The Gumla district enjoys a healthy climate through out the year. Normal atmospheric temperature in the area often goes up to 42 c in summer and it goes down to about 4 c during winter.

The climate of the area could be divided in to three district season. The winter commences from November and extends of to middle of March, December being the coldest month. The winter season is characterized by heavy dew thick fog and cold wave. The rainy season last up to middle of October. The area is free from hot winds and dust storm. The monsoon sets in by the middle of June and continues till the middle of October. The area receives rain fall mainly by North-west monsoon during rainy season and from retreating monsoon during inter-monsoon period, which originates in the bay of Bengal. The average annual rainfall varies between 1400-1600 mm. Rainfall is the only sources of replenishment of ground water in the district.

Details of rainfall data of five years (from 2016 to 2020) is furnished in Table below:

YEAR	JAN		FEB		MAR		APR		MAY		JUN	
	R/F	%DEP	R/F	%DEP	R/F	%DEP	R/F	%DEP	R/F	%DEP	R/F	%DEP
2016	21.4	-4	42.8	110	19.3	1	0.7	-97	79.9	70	139.0	-39
2017	0.0	-100	0.0	-100	0.0	-100	0.0	-100	16.3	-65	154.2	-33
2018	0.0	-100	5.9	-71	0.9	-95	24.6	-4	81.0	72	118.6	-48
2019	1.4	-91	13.2	-14	26.6	66	53.5	165	24.0	-50	99.3	-54
2020	29.5	92	10.3	-33	76.1	376	32.5	61	69.7	46	103.2	-53

JUL		AUG		SEPT		OCT		NOV		DEC	
R/F	%DEP	R/F	%DEP	R/F	%DEP	R/F	%DEP	R/F	%DEP	R/F	%DEP
487.2	31	303.1	-12	224.2	-11	50.7	-26	0.0	-100	0.0	-100
465.0	25	257.4	-25	168.6	-33	54.6	-20	3.7	-71	0.0	-100
394.6	6	193.4	-44	124.1	-51	10.7	-84	0.0	-100	16.3	87
218.1	-39	325.9	2	281.3	22	136.2	90	0.0	-100	18.1	130
143.8	-59	206.7	-35	110.3	-52	31.3	-56	6.1	-51	0.5	-94

Source: CRIS, Hydromet division

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CHAPTER- 09
THE LIST OF MINING LEASE IN THE DISTRICT WITH LOCATION, AREA AND PERIOD OF VALIDITY

Details of the mining leases in the District as per the following format: -

S. No.	Name of The Mineral	Name of the Lessee	Address & Contact No. of Lessee	Mining lease Grant Order No. &date	Area of Mining lease (ha)	Period of Mining lease (Initial)	Period of Mining lease (Initial)		Period of Mining lease (1st/2nd…renewal)	
							From	To	From	To
	Sand	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
1	sand	M/S J.S.M.D.C. LTD.	At-Khanij Nigam Bhawan, PO-Doranda, Ranchi, Jharkhand-834002	NA	4.10	NA	NA	NA	NA	NA
2	sand	M/S J.S.M.D.C. LTD.	At-Khanij Nigam Bhawan, PO-Doranda, Ranchi, Jharkhand-834002	NA	4	NA	NA	NA	NA	NA
3	sand	M/S J.S.M.D.C. LTD.	At-Khanij Nigam Bhawan, PO-Doranda, Ranchi, Jharkhand-834002	NA	4.80	NA	NA	NA	NA	NA

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Date of Commencement of Mining Operation	Status (Working/Non-Working/Temp. Working for dispatch etc.)	Captive/ Non- Captive	Obtained Environmental Clearance (Yes/No), If Yes Letter No with date of grant of EC.	Location of the Mining lease (Latitude & Longitude)	Method of Mining (Opencast/Underground)
11	12	13	14	15	16
NA	Working	Non-Captive	EC/SEIAA/2018-19/2111/2018/	22°59'12.11"N TO 22°59'10.56"N & 84°22'06.63"E TO 84°22'06.67"E	Opencast
NA	Working	Non-Captive	EC/SEIAA/2018-19/2110/2018/	23°10'21.49"N TO 23°10'19.84" N& 84°10'25.10"E TO 84°10'25.09"E	Opencast
NA	Working	Non-Captive	EC/SEIAA/2018-19/2118/2018/252 DATE-05/06/2019	23°18'21.55"N TO 23°18'20.81" N& 84°37'01.33"E TO 84°37'02.56"E	Opencast

Total Mineral Reserve available in the District;

S. No.	Name of The Mineral	Name of the Lessee	Address & Contact No. of Lessee	Letter of Intent Grant Order No. &date	Area of Mining lease to be allotted	Validity of LoI	Use (Captive/ Non-Captive)	Location of the Mining lease (Latitude & Longitude)
1	2	3	4	5	6	7	8	9
NA	NA	NA	NA	NA	NA	NA	NA	NA

**At Present time not any sand ghat operate in this District because hole lease has been expired.*

CHAPTER- 10
DETAILS OF ROYALTY OR REVENUE RECEIVED IN LAST THREE YERAS

S.No	Years	Royalty/Revenue (In Lakhs Rs.)
01	2022-2023	3,69,200.00
02	2021-2022	00.0
03	2020-2021	3,46,835.00
Total		**7,16,035.00**

*** Source:** ***Data received from District mining office, Gumla.***

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CHAPTER- 11
DETAILS OF PRODUCTION OF SAND OR BAJRI OR MINOR MINERALS IN LAST THREE YERAS

S.NO	YEAR	PRODUCTION OF SAND IN CFT
01	2022-2023 (Upto Feb)	286050
02	2021-2022	8321400
03	2020-2021	10252100
TOTAL		**18859550**

*** Source:** ***Data received from District mining office, Gumla.***

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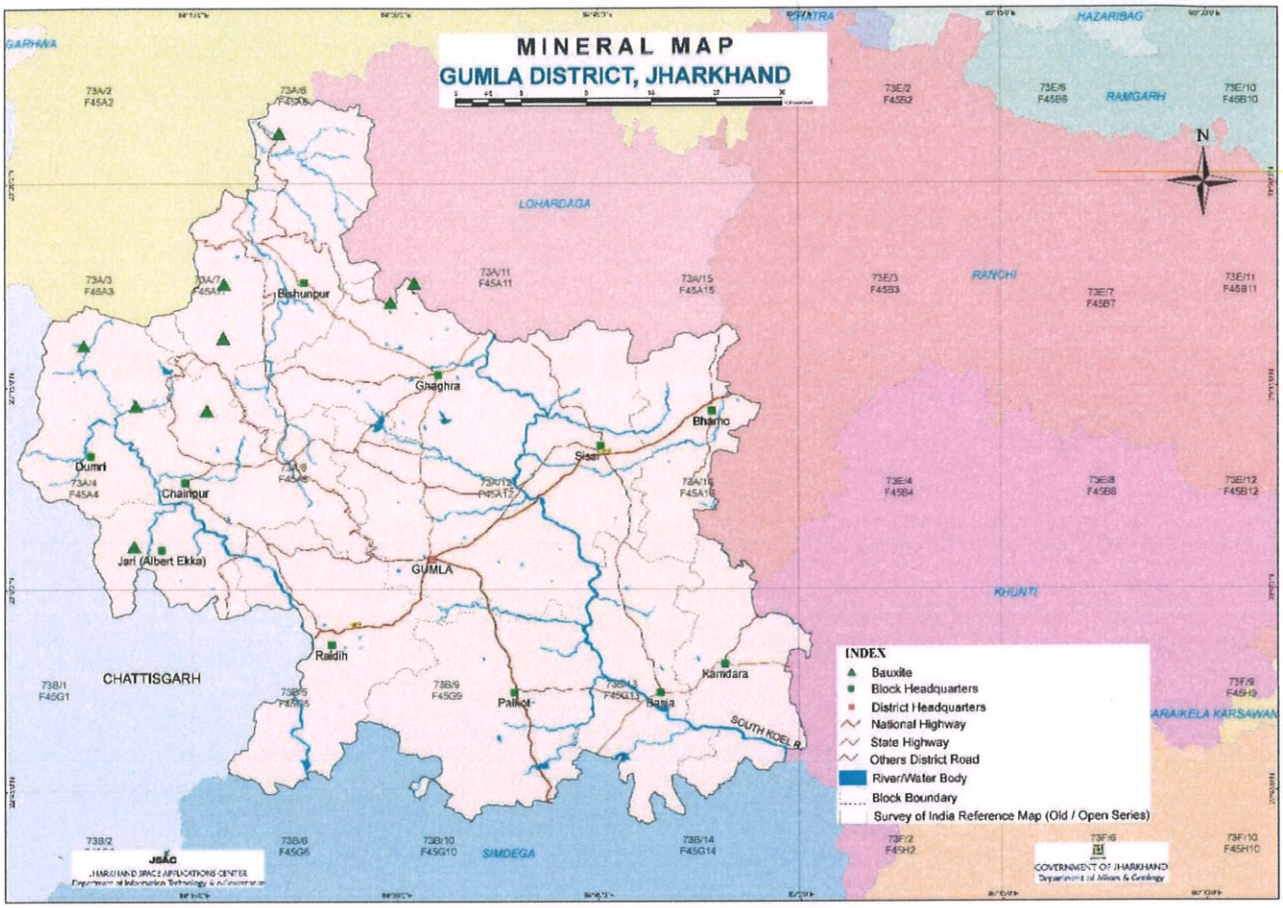
CHAPTER- 12
MINERAL MAP OF THE DISTRICT



Mineral map of the District

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CHAPTER- 13
LIST OF LETTERS OF INTENT HOLDERS (LOI) IN THE DISTRICT WITH ITS VALIDITY

S. No.	Name of The Mineral	Name of the Lessee	Address & Contact No. of LOI Holder	Letter of Intent Grant Order No. & Date	Area of Mining Lease to be allotted (ha)	Validity of LOI	Use (Captive/ Non-Captive)	Location of the Mining Lease (Latitude & Longitude)	
								N	E
	Sand	2	3	4	5	6		9	10
1	NA	NA	NA	NA	NA	NA		NA	NA
2									

- *Letter of intent not issued at this time and last years.*

CHAPTER- 14
TOTAL MINERAL RESERVE AVAILABLE IN THE DISTRICT

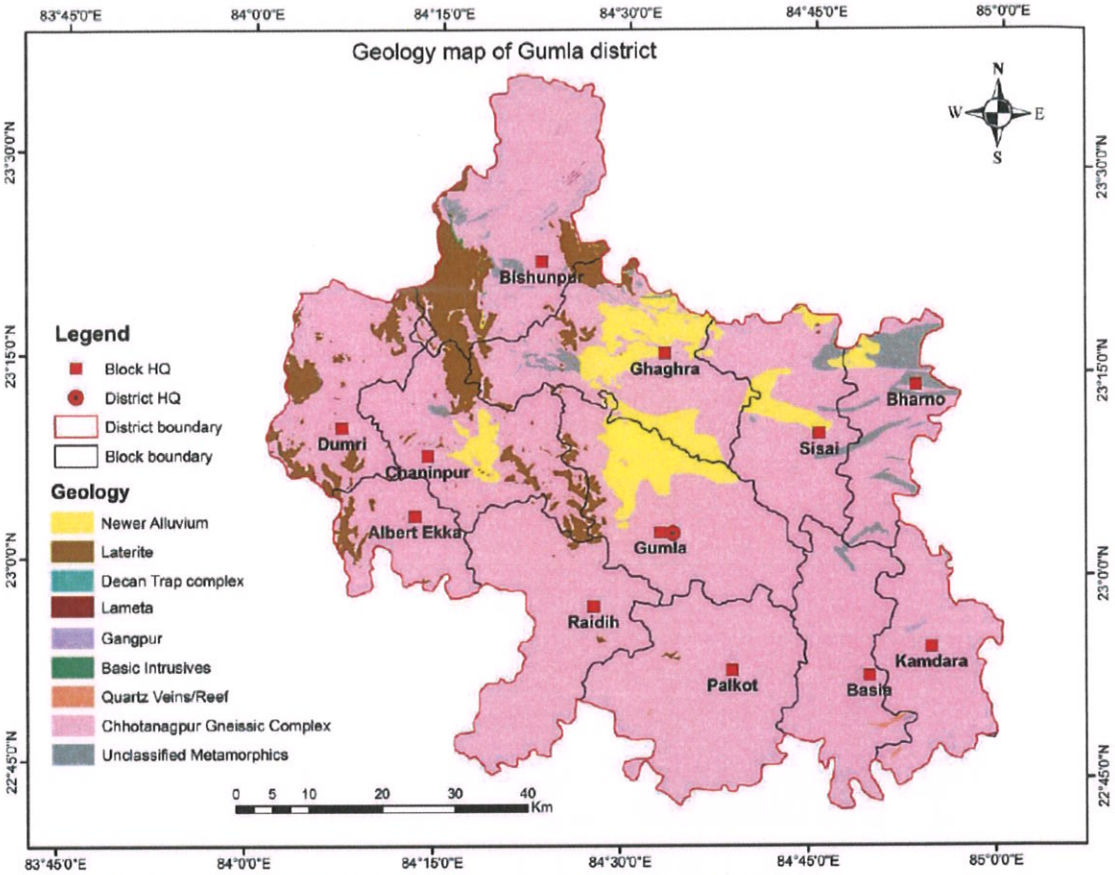

Figure – 6: Geological map of Gumla district (source GSI)

Symbol	Lithology	Hydrogeology	Yield Potential
	Alluvium	Thickness varies from few meters to 20m underlain by crystalline rocks. Groundwater occurs under phreatic conditions	Supports dugwells & shallow tubewells, yield varies from 1-5 m^3/hr
	Laterite	Moderately thick, porous, discontinuous,found as patches	Moderate, 5-10m^3/hr
	Chotanagpur Gneissic Complex	Groundwater restricted to weathered residuum/fractures(upto 200m),water table & semi-confined to confined conditions	Moderate to good yield prospecs, 5-40m^3/hr
	Unclassified Metamorphic	Groundwater restricted to weathered residuum/fractures,water table & semi-confined to confined conditions	Limited yield prospects, below 10m^3/hr

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CHAPTER- 15
QUALITY/GRADE OF MINERAL AVAILABLE IN THE DISTRICT

Jharkhand is known for its rich mineral resources. However, presences of important minerals are yet to be explored in the District. The main mineral resources found in the district are bauxite and river sands. Despite having potential natural resources and various raw materials for small, medium and major industries the sector very much under developed in Gumla district.

In Gumla District the important minerals like Bauxite and Laterite (Aluminium ore) are found in villages of Amtipani, Langdatanr, Chirodih, Narma, Bahagara and Gurdari of Bishunpur block, Lupungpat and Chota-Agiatu in Chainpur block and Harup, Serengdag and Jalim in Ghaghra block. Beside these china clay is also found in some part of the district. Other mining activities like stone crusher, Brick kiln and stone chip mining are also available in different parts of the district.

Chotanagpur Granites and Granite-gneiss

Major Part of the district is underlain by Chotanagpur granite-gneiss of Archean age which forms the basement rocks. It occurs as large batholithic mass. The granite-gneiss is foliated whereas granites are massive, but foliation is sometimes seen in granitic rocks also, both the rock unit have same mineral composition. The minerals are quartz, feldspar and biotite. The gneisses are banded showing prominent foliation. Pegmatitic veins are seen intruded all along the granitic terrain. They are emplaced in tensional fractures and often show chilling and alteration effect in the contact. The granites which generally stand out as hills and mounds with numerous heaped up boulders testifying to their highly jointed character.

Mica-Hornblende Schist & Phylites

In a limited area exposure of mica hornblende schist and phyllites are seen which is generally composed of muscovite biotite, hornblende with feldspar and quartz. The mica hornblend schist show pronounced foliation in the form of well developed axial plane schistosity plane show parallel trend with the gneisses. The schistose rocks are folded.

Laterites

Early tertiary laterites occur in the area over topographic highs of uplands. They do not have large areal extension and are localised in nature. They are porous, pitted, clay like rock with red, brown and grey colours, often mottled. Generally it has a hard protective cover of limonetic crust. It is composed mainly of hydrated oxides of iron and alumina.

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CHAPTER- 16
USE OF MINERALS

Bauxite: Bauxite does not have many uses as far as it is concerned. The only thing is that it holds great importance as being the primary ore of aluminium, and we know this metal is used in a lot of things. Apart from this let's look at some common uses of Bauxite.

1. Metallurgy
2. Industries
3. In building material and road aggregates
4. Other Uses

Gitti/ building stone: Aggregates – stone used for its strong physical properties – crushed and sorted into various sizes for use in concrete, coated with bitumen to make asphalt or used 'dry' as bulk fill in construction. Mostly used in roads, concrete and building products.

Murum: Murum is mostly used for construction purposes. Generally, it is deep brown or red in color. Moorum is used in plinth filling, road pavements, backfilling in trenches, footing pits etc. It is a suitable type of soil in the construction field, since it does not contain any organic matters and canbe compacted easily forming hard surfaces.

Ordinary Clay: Clay is used for making pottery, both utilitarian and decorative, and construction products, such as bricks, wall and floor tiles. Different types of **clay**, when used with different minerals and firing conditions, are used to produce earthenware, stoneware, and porcelain.

Ordinary sand: Sand is not for manufacturing concrete, but it is the ideal material for asphalt mix. It is commonly used to fix and level roads, and lay bedding for a variety of uses. This is in contrast with our three other main construction sand products, which are mainly used for building applications.

Quartz and Quartzite: The strong quartz hardness makes it more difficult than most other natural substances. It is therefore an excellent abrasive material. Used for sand blasting, scouring cleaners, grinding media, and grit for sanding and sawing, quartz sands and finely ground silica sand. In the manufacture of rubber, paint, and putty, quartz sand is used as filler. Carefully screened and cleaned quartz grains are used as filter media and granules for roofing. In the railroad and mining industries, quartz sands are used for traction. Quartzite is a decorative stone and may be used to cover walls, as roofing tiles, as flooring, and stairsteps. Its use for

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countertops in kitchens is expanding rapidly. It is harder and more resistant to stains than granite. Crushed quartzite is sometimes used in road construction

Shale: It has many commercial uses. It is a source material in the ceramics industry to make brick, tile, and pottery. Shale used to make pottery and building materials requires little processing besides crushing and mixing with water. Shale is crushed and heated with limestone to make cement for the construction industry.

Dolomite: Dolomite as a mineral has very few uses. However, dolostone has an enormous number of uses because it occurs in deposits that are large enough to mine.

The most common use for dolostone is in the construction industry. It is crushed and sized for use as a road base material, an aggregate in concrete and asphalt, railroad ballast, rip-rap, or fill. It is also calcined in the production of cement and cut into blocks of specific size known as "dimension stone."

Dolomite's reaction with acid also makes it useful. It is used for acid neutralization in the chemical industry, in stream restoration projects, and as a soil conditioner.

Dolomite is used as a source of magnesia (MgO), a feed additive for livestock, a sintering agent and flux in metal processing, and as an ingredient in the production of glass, bricks, and ceramics.

Dolomite serves as the host rock for many lead, zinc, and copper deposits. These deposits form when hot, acidic hydrothermal solutions move upward from depth through a fracture system that encounters a dolomitic rock unit. These solutions react with the dolomite, which causes a drop inpH that triggers the precipitation of metals from solution.

Dolomite also serves as an oil and gas reservoir rock. During the conversion of calcite to dolomite, a volume reduction occurs.

Laterite: Major and sub-base materials for the construction of most highways and walls of residential houses in tropical and sub-tropical countries of the world. Laterite is a building material which can be used in construction from flooring to roof construction. The rising construction cost and drive towards locally available material have fuelled a demand for this product in recent years. In laterite areas where a high level of culture once prevailed, ruins often disclose laterite used as a building stone. Open cisterns, sewers, headwalls, culverts, flagstones, quays, moles, and breakwa- ters of laterite have functioned successfully for hundreds of years and laterite is also used in ceramic industries.

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CHAPTER- 17
DEMAND AND SUPPLY OF THE MINERAL IN THE LAST THREE YEARS

River sand is used as raw material in construction of building and infrastructure project, the demand of sand is increasing day by day. The requirement for the mineral is always high in the nearby cities and towns. Therefore there is always a good demand of the mineral in the domestic market. Its demand in industrial area of Gumla and nearby areas is increasing very fast. During last five in Financial Year(F.Y)-2020-2021-**10252100cft**, F.Y-2021-2022-**8321400cft**, after that last one years F.Y-2022-2023-**286050cft,** There is no production of sand due to non-settlement of sand ghats.

To fulfill the demand in the district, the sand ghats proposed for production of sand.



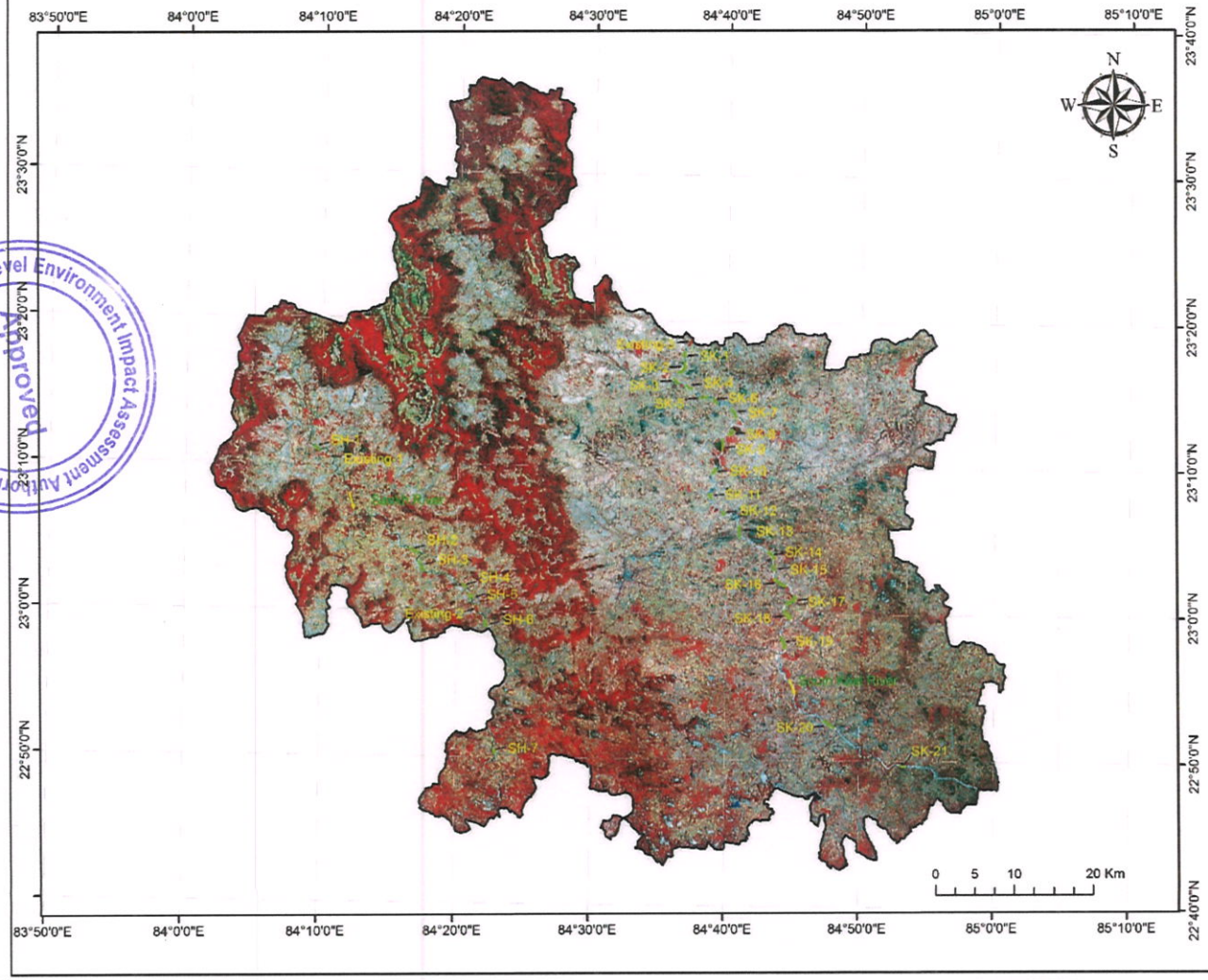




CHAPTER- 18
MINING LEASES MARKED ON THE MAP OF THE DISTRICT

GUMLA DISTRICT JHARKHAND STATE

False Colour Composite Map (FCC)
Pre Monsoon
Landsat 8 Data acquired on 26/04/2022



UIN	Area in Hectare (Ha)
1) SK-1	7.85
2) SK-2	24.00
3) SK-3	10.00
4) SK-4	5.90
5) SK-5	7.00
6) SK-6	8.80
7) SK-7	16.60
8) SK-8	16.22
9) SK-9	14.65
10) SK-10	17.00
11) SK-11	13.00
12) SK -12	9.30
13) SK -13	18.20
14) SK -14	21.20
15) SK -15	13.50
16) SK -16	27.00
17) SK -17	31.50
18) SK -18	31.00
19) SK -19	30.50
20) SK -20	18.70
21) SK -21	7.00
22) SH -1	10.00
23) SH -2	12.30
24) SH -3	16.00
25) SH -4	3.80
26) SH -5	16.00
27) SH -6	8.30
28) SH -7	4.05

Legend

- Shrub Area
- Waterbody
- Sankh River and South Koel River
- District Boundary
- Potential area of Sand
- Existing Sand Ghat
- River Flow Direction

Source:
Satellite Image Landsat8
USGS Earth Explorar

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CHAPTER- 19
RECOMMENDATION OF ENFORCEMENT & MONITORING GUIDELINES FOR SAND MINING BY MOEF&CC-2020

INTRODUCTION

India is developing at a faster pace and much technological advancement has already been taken place in the surveillance and remote monitoring in the field of mining. Thus, it is prudent to utilize the technological advancement for the effective monitoring of the mining activities particularly sand mining in the country.

Following a series of orders by the National Green Tribunal in 2018, the Ministry of Environment, Forests and Climate Change has for the first time released guidelines to monitor and check illegal sand mining in the country. The Enforcement and Monitoring (EM) Guidelines for Sand Mining 2020 released by the Ministry include directions to states to carry out river audits, put detailed survey reports of all mining areas online and in the public domain, conduct replenishment studies of river beds, constantly monitor mining with drones, aerial surveys, ground surveys and set up dedicated task forces at district levels. The guidelines also push for online sales and purchase of sand and other riverbed materials to make the process transparent. They propose night surveillance of mining activity through night-vision drones.

While the MoEF&CC has already put in place the Sustainable Sand Management Guidelines 2016, which focus on the management of sand mining in India, that there is an urgent need to have guidelines for effective enforcement of regulatory provisions and their monitoring.

BACKGROUND

The Mines and Minerals (Development and Regulation) Act, 1957 has empowered state governments to make rules to prevent illegal mining, transportation and storage of minerals. "But in the recent past, it has been observed that there were a large number of illegal mining cases in the country and in some cases, many of the officers lost their lives while executing their duties to curb illegal mining. Illegal and uncontrolled illegal mining leads to loss of revenue to the State and degradation of the environment. The enforcement guidelines focus on the "effective monitoring of sand mining from the identification of sand mineral sources to its dispatch and end-use by consumers and the general public and looks at a uniform protocol for the whole country".

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The need for replenishment study for river bed sand is also required in order to "nullify the adverse impacts arising due to excessive sand extraction". No riverbed mining will be allowed during the monsoon. In cases where rivers become district boundaries or state boundaries, the districts or states sharing the boundary shall constitute the combined task force for monitoring of mined materials, mining activity and participate in the preparation of District Survey Reports (DSR) by providing appropriate inputs.

The guidelines say the detailed survey needs to be carried out for quantification of minerals and the demand and supply of the riverbed material through market survey, including the future demand for the next five years.

The guidelines also push for the sale and purchase of sand and river bed material (RBM) online to make the process more transparent. "In order to curb illegal mining, it is very necessary that the general public is aware of the legal source of sand and RBM suppliers. It is suggested that the state government should develop an online portal for sale and purchase of sand and RBM. The state government will also decide the model of sale and the price of RBM. "It is suggested that the controlled price model is more effective in controlling illegal sand mining," the guidelines state.

This document will serve as a guideline for collection of critical information for enforcement of the regulatory provision(s) and also highlights the essential infrastructural requirements necessary for effective monitoring for Sustainable Sand Mining. The document is prepared in consideration of various orders/directions issued by Hon'ble NGT in matters pertaining to illegal sand mining and also based on the reports submitted by expert committees and investigation teams.

Further, this document is supplemental to the existing "Sustainable Sand Mining Management Guideline-2016" (SSMG-2016), and these two guidelines viz. "Enforcement & Monitoring Guidelines for Sand Mining" (EMGSM-2020) and SSMG-2016 shall be read and implemented in sync with each other. In case, any ambiguity or variation between the provisions of both these document arises, the provision made in "Enforcement & Monitoring Guidelines for Sand Mining-2020 "shall prevail.

OBJECTIVES OF GUIDELINE:

□Identification and quantification of Mineral Resource and its optimal utilization.

- To regulate the Sand & Gravel Mining in the Country since its identification to its final end-use by the consumers and the general public.
- Use of IT-enabled services & latest technologies for surveillance of the sand mining at each step.
- Reduction in demand & supply gaps.
- Setting up the procedure for replenishment study of Sand.
- Post Environmental Clearance Monitoring.
- Procedure for Environmental Audit.
- To control the instance of illegal mining.

SLIENT FEATURE OF THE GUIDELINE:

- District Survey Report: The guidelines provide the procedure to be followed for identifying areas where mining can be allowed or prohibited. It provides guidelines for preparing a district survey report, which includes: Preparing a report before granting a mining lease, and Defining mining and no mining zones based on certain environmental and social factors.
- Preventing Illegal Mining: The guidelines suggest that sites can be monitored remotely by using unmanned artificial vehicles or drones. Drones can also be used for quantity estimation and land use monitoring. Further, the guidelines propose night surveillance of mining activity through night-vision drones. The environmental damages incurred due to illegal mining will be assessed by a committee constituted by the District Administration.
- Environmental Clearance: Environmental Clearance for mining is given by regulatory authorities after considering the potential environmental impact. However, it has been observed that often the Letter of Intent (LoI) is granted for a location which is not feasible for environment-friendly mining. The guidelines provide that LoIs should be granted for those locations which have the least possibility of an impact on the environment and nearby habitation.

The guidelines also push for online sales and purchase of sand and other riverbed materials to make the process transparent.

There are some important key points of EM guild lines for sand mining 2020:

a) **Source to Destination Monitoring:**

- The new set of guidelines focuses on the effective monitoring of sand mining from the identification of sand mineral sources to its dispatch and end-use by consumers and the general public and look at a uniform protocol for the whole country.
- Constantly monitor mining with drones and night surveillance of mining activity through night-vision drones.

b) Audits:

- States to carry out river audits put detailed survey reports of all mining areas in the public domain.

c) Enforcement:

- It gives directions to states to set up dedicated task forces at district levels.
- In cases where rivers become district boundaries or state boundaries, the districts or states sharing the boundary shall constitute the combined task force for monitoring of mined materials, mining activity and participate in the preparation of District Survey Reports (DSR) by providing appropriate inputs.

d) Sustainability:

- Conduct replenishment study for river bed sand in order to nullify the adverse impacts arising due to excessive sand extraction.
- No riverbed mining will be allowed during the monsoon.

<u>Requirement for Monitoring & Enforcement</u>

Sustainable Sand Mining Management Guidelines (SSMMG) 2016 and past experience suggest that the sources of sand in India are through:

- River (riverbed and flood plain),
- Lakes and reservoirs,
- Agricultural fields,
- Coastal / marine sand,
- Palaeo-channels and
- Manufactured Sand (M-Sand).

PREPARATION OF DISTRICT SURVEY REPORT:

"Sustainable Sand Mining Guidelines, 2016" issued by MoEF&CC requires preparation of District Survey Report (DSR), which is an important initial step before grant of mining lease/LoI. The guidelines emphasize detailed procedure to be followed for the purpose of identification of areas of aggradation/ deposition where mining can be allowed and identification of areas of erosion and proximity to infrastructural structures and installation where mining should be prohibited. Calculation of annual rate of replenishment, allowing time for replenishment after mining, identification of ways of scientific and systematic mining; identifying measures for protection of environment and ecology and determining measures for protection of bank erosion, benchmark (BM) with respect to mean Sea Level (MSL) should be made essential in mining channel reaches (MCR) below which no mining shall be allowed.

Therefore, preparation of District Survey Report is a very important step and sustainable sand mining in any part of the country will depends on the quality of District Survey Report.

Considering the importance of district survey report, the Ministry of Environment Forest and climate change, after consultation with experts dealing with mining-related matters, formulated the following guidelines for the preparation of comprehensive District Survey Report for sand mining.

1)District Survey Report for sand mining shall be prepared before the auction/e-auction/grant of the mining lease/Letter of Intent (LoI) by Mining department or department dealing the mining activity in respective states.

2)The first step is to develop the inventory of the River Bed Material and Other sand sources in the District. In order to make the inventory of River Bed Material, a detailed survey of the district needs to be carried out, to identify the source of River Bed Material and alternative source of sand (M-Sand). The source will include rivers, de-siltation of reservoir/dams, Patta lands/Khatedari Land, M-sand etc.

3)District Survey Report is to be prepared in such a way that it not only identifies the mineral-bearing area but also define the mining and no mining zones considering various environmental and social factors.

4)Identification of the source of Sand & M-Sand. The sources may be from Rivers, Lakes, Ponds, Dams, De-silting locations, Patta land/Khtedari lands. The details in case of Rivers such

as [name, length of river, type (Perennial or Non-Perennial), Villages, Tehsil, District], in case of Lakes, Ponds, Dams, De-silting locations [Name, owned/maintained by (State Govt./PSU), area, Villages, Tehsil, District] in case of Patta land/Khtedari lands [Owner Name, Sy No, Area, Agricultural/Non-Agricultural, Villages, Tehsil, District], in case of M-Sand Plant [Owner Name, Sy No, Area, Quantity/Annum, Villages, Tehsil, District], needs to be recorded as per format given in Annexure-I.

5)Defining the sources of Sand/M-Sand in the district is the next step for identification of the potential area of deposition/aggradation wherein mining lease could be granted. Detailed survey needs to be carried out for quantification of minerals. The purpose of mining in the river bed is for channelization of rivers so as to avoid the possibility of flooding and tomaintain the flow of the rivers. For this, the entire river stretch needs to be surveyed and original ground level (OGL) to be recorded and area of aggradation/deposition needs to be ascertained by comparing the level difference between the outside riverbed OGL and water level. Once the area of aggradation/deposition is identified, then the quantity of River Bed Material available needs to be calculated. The next step is channelization of the river bed and for this central ¾th part of the river; width needs to be identified on a map. Out of the ¾th part area, where there is a deposition/aggradation of the material needs to be identified. The remaining ¼th area needs to be kept as no mining zone for the protection of banks. The specific gravity of the material also needs to be ascertained by analyzing the sample from a NABL accredited lab. Thus, the quantity of material available in metric ton needs to be calculated for mining and no mining zone.

6)The permanent boundary pillars need to be erected after identification of an area of aggradation and deposition outside the bank of the river at a safe location for future surveying. The distance between boundary pillars on each side of the bank shall not be more than 100 meters.

7)Identifying the mining and no mining zone shall follow with defining the area of sensitivity by ascertaining the distance of the mining area from the protected area, forest, bridges, important structures, habitation etc. and based on the sensitivity the area needs to be defined in sensitive and non-sensitive area.

8)Demand and supply of the Riverbed Material through market survey needs to be carried out. In addition to this future demand for the next 5 years also needs to be considered.

9)It is suggested that as far as possible the sensitive areas should be avoided for mining, unless local safety condition arises. Such deviation shall be temporary & shall not be a permanent feature.

10) The final area selected for the mining should be then divided into mining lease as per the requirement of State Government. It is suggested the mining lease area should be so selected as to cover the entire deposition area. Dividing a large area of deposition/aggradation into smaller mining leases should be avoided as it leads to loss of mineral and indirectly promote illegal mining.

11) Cluster situation shall be examined. A cluster is formed when one mining lease of homogenous mineral is within 500 meters of the other mining lease. In order to reduce the cluster formation mining lease size should be defined in such a way that distance between any two clusters preferably should not be less than 2.5 Km. Mining lease should be defined in such a way that the total area of the mining leases in a cluster should not be more than 10 Ha.

12) The number of a contiguous cluster needs to be ascertained. Contiguous cluster is formed when one cluster is at a distance of 2.5 Km from the other cluster.

13) The mining outside the riverbed on Patta land/Khatedari land be granted when there is possibility of replenishment of material. In case, there is no replenishment then mining lease shall only be granted when there is no riverbed mining possibility within 5 KM of thePatta land/Khatedari land. For government projects, mining could be allowed on Patta land/Khatedari land but the mining should only be done by the Government agency and material should not be used for sale in the open market. Cluster situation as mentioned in para k above is also applicable for the mining in Patta land/Khatedari land.

14) The State Government should define the transportation route from the mining lease considering the maximum production from the mines as at this stage the size of mining leases, their location, the quantity of mineral that can be mined safely etc. is available with the State Government. It is suggested that the transportation route should be selected in such a way that the movement of trucks/tippers/tractors from the villages having habitation should be avoided. The transportation route so selected should be verified by the State Government for its carrying capacity.

15) Potential site for mining having its impact on the forest, protected area, habitation, bridges etc, shall be avoided. For this, a sub-divisional committee may be formed which after the site

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visit shall decide its suitability for mining. The list of mining lease after the recommendation of the Committee needs to be defined in the following format given in as Annexure-II. The Sub-Divisional Committee after the site visit shall make a recommendation on the site for its suitability of mining and also records the reason for selecting the mining lease in the Patta land. The details regarding cluster and contiguous cluster needs to be provided as in Annexure-III. The details of the transportation need to be provided as in Annexure IV.

16) Public consultation-The Comments of the various stakeholders may be sought on the list of mining lease to be auctioned. The State Government shall give an advertisement in the local and national newspaper for seeking comments of the general public on the list of mining lease included in the DSR. The DSR should be placed in the public domain for at least one month from the date of publication of the advertisement for obtaining comments of the general public. The comments so received shall be placed before the sub-divisional committee for active consideration. The final list of sand mining areas [leases to be granted on riverbed & Patta land/Khatedari land, de-siltation location (ponds/lakes/dams), M-Sand Plants (alternate source of sand)] after the public hearing needs to be defined in the final DSR in the format as per Annexure-V. The details regarding cluster and contiguous cluster needs to be provided in Annexure-VI. The details of the transportation need to be provided in Annexure-VII.

No of Annexures	Details
Annexure –I	Details of Sand/ M-Sand Sources
Annexure –II	List of Potential Mining Leases (Existing & Proposed)
Annexure –III	Cluster & Contiguous Cluster details
Annexure –IV	Transportation Routes for individual leases and leases in Cluster
Annexure –V	Final List of Potential Mining Leases (Existing & Proposed)
Annexure –VI	Final List of Cluster & Contiguous Cluster
Annexure –VII	Final Transportation Routes for individual leases and leases in Cluster

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Compliance to Enforcement and Monitoring Guidelines for Sand Mining- 2020

ANNEXURE-I

a) Rivers:

River Name/M-Sand Plant	Total Stretch of River (in km)	Type of River (Perennial or Non-Perennial)
Sankh River	67.5	Perennial River
South Koel River	88	Perennial River

b) De-Siltation Location: (Lakes/Ponds/Dams etc.)

Name of Reservoir/ Dams	Maintain/Controlled by State Govt./PSU etc.	Location	District	Tehsil	Village	Size(Ha)
Nil	Nil	Nil	Nil	Nil	Nil	Nil

c) Patta Lands/Khatedari Land:

Owner	Sy.No	Area(Ha)	District	Tehsil	Village	AgriculturalLand(Yes/No)
Nil	Nil	Nil	Nil	Nil	Nil	Nil

d) M-Sand Plants:

Plant Name	Owner	District	Tehsil	Village	Geo-location	QuantityTonnes/Annum
Nil	Nil	Nil	Nil	Nil	Nil	Nil

Note: *For inclusion of M-Sand Plant/Patta Land in DSR the plant/landowners need to submit the request to the Mining Department with complete details. Inclusion in DSR does not give them the right to operate the M-Sand Plant/Sand Mining lease.*

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ANNEXURE-II

LIST OF POTENTIAL MINING LEASES (EXISTING & PROPOSED)

S. No	UIN	River Name	Area Details		Area in (Ha)	Geo-coordinates	Whether Distance of Project Location from Reserved Forest /Protected Forest is 250m ?	Mining leases within 500 Meters (if yes cluster area)	Total excavation in Tonnes /Annum considering digging depth max As 3 meters	Mineral to be mined (Sand/ Bajri/RBM etc.)	Existing /Proposed
1.	SK01	South Koel Category-II	**1)MOUZA - LARANGO** THANA - SISAI, THANA NO. - 01, ANCHAL-SISAI DISTRICT - GUMLA, JHARKHAND PLOT NO. 4024(P), Toposheet No.-73A/11		4.62	**1)** 23°17'55.91"N 84°36'42.15"E **2)** 23°17'53.83"N 84°36'46.51"E **3)** 23°17'43.54"N 84°36'44.14"E **4)** 23°17'44.06"N 84°36'39.41"E	YES	No	16640	SAND	Proposed
2.	SK02	South Koel Category-II	**1)MOUZA - GUTUA** THANA - GHAGHRA, THANA NO. - 87, ANCHAL-GHAGHRA DISTRICT - GUMLA, JHARKHAND	211(P)- 4.75 ha 519(P)- 1.91 ha 897(P)- 4.90 ha **TOTAL- 11.56ha**	22.06	**1)** 23°17'8.79"N 84°36'43.51"E **2)** 23°17'8.56"N 84°36'46.96"E **3)** 23°16'41.83"N 84°36'44.70"E **4)** 23°16'27.38"N 84°36'15.56"E **5)** 23°16'30.75"N 84°36'13.91"E	YES	No	62183	SAND	Proposed

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			PLOT NO. 211 (P), 519(P)			**6)** 23°16'40.40"N 84°36'38.97"E					
			2)MOUZA - LARANGO THANA - SISAI, THANA NO. - 01, ANCHAL-SISAI DISTRICT - GUMLA, JHARKHAND PLOT NO. 925(P),	925(P)- 6.68 ha							
			3)MOUZA - SAHIJANA THANA - SISAI, THANA NO. - 02, ANCHAL-SISAI DISTRICT - GUMLA, JHARKHAND PLOT NO. 1(P), Toposheet No.-73A/11	1(P)- 3.82 ha							
8.	SK03	South Koel Category-II	**1)MOUZA - SAHIJANA** THANA - SISAI, THANA NO. - 02, ANCHAL-SISAI DISTRICT - GUMLA, JHARKHAND PLOT NO. 1117(P), 287(P)	1117(P)- 1.07 ha 287(P)- 3.27 ha 1(P)- 0.60 ha **TOTAL-4.94 ha**	10.00	**1)** 23°16'1.22"N 84°35'56.57"E **2)** 23°16'2.14"N 84°36'1.42"E **3)** 23°15'45.64"N 84°36'21.00"E **4)** 23°15'42.22"N 84°36'20.47"E	YES	NO	28296	SAND	Proposed
			2)MOUZA - DHOBNI THANA - GHAGHRA, THANA NO. - 103, ANCHAL-GHAGHRA DISTRICT - GUMLA, JHARKHAND PLOT NO. 1(P),	1(P)- 3.46 ha							

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			3)MOUZA - KOTRI THANA - GHAGHRA, THANA NO. - 92, ANCHAL-GHAGHRA DISTRICT - GUMLA, JHARKHAND PLOT NO. 52(P),	52(P)- 0.90 ha						
			4)MOUZA - GUTUA THANA - GHAGHRA, THANA NO. - 87, ANCHAL-GHAGHRA DISTRICT - GUMLA, JHARKHAND PLOT NO. 897(P), Toposheet No.- 73A/11	897(P)- 0.7 ha						
4.	SK04	South Koel Category-II	**1)MOUZA - DHOBNI** THANA - GHAGHRA, THANA NO. - 103, ANCHAL-GHAGHRA DISTRICT - GUMLA, JHARKHAND PLOT NO. 1(P)	1(P)- 3.73 ha	5.90	**1)** 23°15'36.94"N 84°36'55.69"E **2)** 23°15'21.77"N 84°37'22.87"E **3)** 23°15'20.33"N 84°37'21.93"E **4)** 23°15'34.76"N 84°36'53.92"E	YES	NO	27824	SAND	Proposed
			2)MOUZA - BADRI THANA - GHAGHRA, THANA NO. - 104, ANCHAL-GHAGHRA DISTRICT - GUMLA, JHARKHAND PLOT NO. 1648(P) & 1(P) Toposheet No.- 73A/12	1648(P)- 0.33 ha 1(P)- 1.84 ha **Total- 2.17 ha**						
5.	SK05	South Koel Category-II	**MAUZA-BARRI** THANA- SISAI THANA NO.- 04		7.00	**1)** 23°14'49.20"N 84°37'59.01"E **2)** 23°14'49.77"N 84°38'31.00"E **3)** 23°14'47.71"N 84°38'31.33"E	YES	NO	40559	SAND	Proposed

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			ANCHAL-SISAI DIST.- GUMLA PLOT NO.-678(P),1610(P) TOPOSHEET NO.- 73A/12			**4)** 23°14'47.33"N 84°37'57.41"E					
6.	SK06	South Koel Category-II	**MAUZA-CHEIGARI** THANA- GHAGHRA THANA NO.- 106 ANCHAL-GHAGHRA DIST.-GUMLA PLOT NO.-567(P) TOPOSHEET NO.- 73A/12		8.80	**1)** 23°14'42.91"N 84°38'55.44"E **2)** 23°14'44.11"N 84°38'57.93"E **3)** 23°14'21.04"N 84°39'16.99"E **4)** 23°14'19.24"N 84°39'14.91"E	YES	NO	51380	SAND	Proposed
7.	SK07	South Koel Category-II	**1)MOUZA - JALKA** THANA - SISAI, THANA NO. - 19, ANCHAL-SISAI DISTRICT - GUMLA, JHARKHAND PLOT NO. 1475(P) & 1(P)	1475(P)- 2.57 ha 1(P)- 5.68 ha **Total- 8.25 ha**	16.60	**1)** 23°14'0.65"N 84°40'13.54"E **2)** 23°14'1.00"N 84°40'18.36"E **3)** 23°13'28.07"N 84°40'40.41"E **4)** 23°13'26.06"N 84°40'36.37"E	Yes	NO	138305	SAND	Proposed
			2)MOUZA - DUKO THANA - GHAGHRA, THANA NO. - 108, ANCHAL-GHAGHRA DISTRICT - GUMLA, JHARKHAND PLOT NO. 902(P),	902(P)- 2.08 ha							
			3)MOUZA - SIKWAR THANA - GHAGHRA, THANA NO. - 107, ANCHAL-GHAGHRA DISTRICT - GUMLA, JHARKHAND PLOT NO. 463(P), TOPOSHEET NO.- 73A/12	463(P)- 6.27 ha							
8.	SK08	South Koel Category-II	**1)MOUZA-BARGAON** THANA- SISAI, THANA NO.-41, ANCHAL-SISAI DISTRICT-GUMLA, JHARKHAND PLOT NO.-1(P) & 6815(P)	1(P)- 2.15 ha 6815(p)- 5.99ha **Total- 8.14 ha**	16.22	**1)**23°12'37.42"N 84°40'20.15"E **2)** 23°12'38.58"N 84°40'24.46"E **3)** 23°12'23.35"N 84°40'24.65"E **4)** 23°12'15.57"N 84°40'5.89"E **5)** 23°12'20.31"N 84°40'0.60"E **6)** 23°12'22.74"N 84°40'18.31"E	NO	NO	149863	SAND	Proposed

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			2)MOUZA-DUKO THANA- GHAGHRA, THANA NO.-108, DISTRICT- GUMLA, JHARKHAND PLOT NO.-1669(P) & 1668(P) TOPOSHEET NO.- 73A/12	1669(P)- 4.8 ha 1668(P)- 3.28 ha **Total- 8.08 ha**							
9.	SK09	South Koel Category-II	**1)MOUZA-ARANGI** THANA- GHAGHRA, THANA NO.-118, ANCHAL-GHAGHRA DISTRICT-GUMLA, JHARKHAND PLOT NO.-1900(P) & 1901(P)	1900(P)- 4.32 ha 1901(P)- 3.75 ha **Total- 8.07 ha**	14.65	**1)** 23°11'56.02"N 84°39'41.15"E **2)** 23°11'57.34"N 84°39'37.52"E **3)** 23°11'31.38"N 84°39'36.02"E **4)** 23°11'7.74"N 84°39'36.05"E **5)** 23°11'7.78"N 84°39'39.75"E **6)** 23°11'24.29"N 84°39'39.55"E	NO	NO	135876	SAND	Proposed
			2)MOUZA-MUKUNDA THANA- SISAI, THANA NO.-4 ANCHAL-SISAI DISTRICT- GUMLA, JHARKHAND PLOT NO.-1(P) TOPOSHEET NO.- 73A/12	1(P)- 6.58 ha							
10.	SK10	South Koel Category-II	**1)MOUZA - KHAMBHIYA - I** THANA - GHAGHRA, THANA NO. - 120, ANCHAL-GHAGHRA DISTRICT - GUMLA, JHARKHAND PLOT NO. 1144(P)	1144(P)- 8.57 ha	17.00	**1)** 23° 9'35.03"N 84°38'51.79"E **2)** 23° 9'58.50"N 84°39'5.50"E **3)** 23° 9'53.79"N 84°39'15.14"E **4)** 23° 9'33.25"N 84°38'56.10"E	YES	NO	61231	SAND	Proposed
			2)MOUZA - MURMU THANA - SISAI, THANA NO. - 44, ANCHAL-SISAI DISTRICT - GUMLA, JHARKHAND PLOT NO. 102(P) Toposheet No.- 73A/12	102(P)- 8.43 ha							

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11.	SK11	South Koel Category-II	**MAUZA-KHAMBHIYA-II** THANA- GHAGHRA THANA NO.-120 ANCHAL-GHAGHRA DIST.-GUMLA PLOT NO.-2555, 2556 2557, 2558(P) & 2554 TOPOSHEET NO.- 73A/12		13.00	**1)** 23° 8'11.88"N 84°38'37.84"E **2)** 23° 8'9.95"N 84°38'49.08"E **3)** 23° 7'54.85"N 84°38'51.89"E **4)** 23° 7'53.14"N 84°38'44.03"E	YES	NO	104224	SAND	Proposed
12.	SK12	South Koel Category-II	**1)MOUZA - NAGPHENI** THANA - SISAI, THANA NO. - 51, ANCHAL-SISAI DISTRICT - GUMLA, JHARKHAND PLOT NO. 829(P)	829(P)- 4.37 ha	9.11	**1)** 23° 6'56.67"N 84°39'38.67"E **2)** 23° 7'0.69"N 84°39'43.69"E **3)** 23° 6'48.14"N 84°39'53.15"E **4)** 23° 6'44.32"N 84°39'47.38"E	YES	NO	79891	SAND	Proposed
			2)MOUZA - SILAPHARI THANA - GUMLA, THANA NO. - 79, ANCHAL-GUMLA DISTRICT - GUMLA, JHARKHAND PLOT NO. 361(P) Toposheet No.- 73A/12	361(P)- 4.74 ha							
13.	SK13	South Koel Category-II	**MAUZA-PORHA** THANA- SISAI THANA NO.- 52 ANCHAL-SISAI DIST.-GUMLA PLOT NO.-2(P) TOPOSHEET NO.- 73A/12		18.20	**1)** 23° 6'1.45"N 84°41'0.90"E **2)** 23° 5'19.62"N 84°41'2.29"E **3)** 23° 5'16.07"N 84°41'0.81"E **4)** 23° 6'0.44"N 84°40'54.48"E	YES	NO	62703	SAND	Proposed
14.	SK14	South Koel Category-II	**1)MOUZA - PATIA - I** THANA - GUMLA, THANA NO. - 103, ANCHAL-GUMLA DISTRICT - GUMLA, JHARKHAND PLOT NO. 2960(P) &2871(P)	2960(P)- 9.86 ha 2871(P)- 1.38 ha **Total- 11.24 ha**	20.54	**1)** 23° 4'15.66"N 84°43'5.60"E **2)** 23° 4'20.60"N 84°43'8.60"E **3)** 23° 4'8.05"N 84°43'24.62"E **4)** 23° 3'50.32"N 84°43'37.66"E **5)** 23° 3'46.97"N 84°43'31.55"E **6)** 23° 4'2.10"N 84°43'21.83"E	NO	NO	175025	SAND	Proposed

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			2)MOUZA - AMKULI THANA - SISAI, THANA NO. - 55, DISTRICT - GUMLA, JHARKHAND PLOT NO. 402(P) Toposheet No.- 73A/12	402(P)- 9.30 ha						
15.	SK15	South Koel Category-II	**1)MOUZA - PATIA - II** THANA - GUMLA, THANA NO. - 103, ANCHAL-GUMLA DISTRICT - GUMLA, JHARKHAND PLOT NO. 2952(P)	2952(P)- 6.00 ha	13.20	**1)** 23° 3'20.87"N 84°43'28.20"E **2)** 23° 3'21.54"N 84°43'34.36"E **3)** 23° 2'59.77"N 84°43'36.60"E **4)** 23° 2'59.02"N 84°43'29.74"E	NO	NO	111624	SAND	Proposed
			2)MOUZA - OLMUNDA THANA - SISAI, THANA NO. - 56, ANCHAL-SISAI DISTRICT - GUMLA, JHARKHAND PLOT NO. 1(P) Toposheet No.- 73A/12	1(P)- 7.20 ha						
16.	SK16	South Koel Category-II	**1)MOUZA - OLMUNDA** THANA - SISAI, THANA NO. - 56, ANCHAL-SISAI DISTRICT - GUMLA, JHARKHAND PLOT NO. 1738(P) & 1739(P)	1738(P)- 4.72ha 1739(P)- 9.84ha **Total- 14.56ha**	27.00	**1)** 23° 2'27.58"N 84°43'41.92"E **2)** 23° 2'2.80"N 84°44'27.98"E **3)** 23° 1'56.44"N 84°44'25.82"E **4)** 23° 2'25.27"N 84°43'34.69"E	NO	NO	460145	SAND	Proposed
			2)MOUZA - KOENJARA THANA - GUMLA, THANA NO. - 104, ANCHAL-GUMLA DISTRICT - GUMLA, JHARKHAND PLOT NO. 3233(P),	3233(P)- 3.79ha						

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			3)MOUZA - KELUGA THANA - GUMLA, THANA NO. - 105, ANCHAL-GUMLA DISTRICT - GUMLA, JHARKHAND PLOT NO. 309(P) & 1486(P), Toposheet No.- 73A/12	309(P)- 2.67ha 1486(P)-5.98ha **Total- 8.65ha**						
17.	SK17	South Koel Category-II	**1)MOUZA - KELUGA** THANA - GUMLA, THANA NO. - 105, ANCHAL-GUMLA DISTRICT - GUMLA, JHARKHAND PLOT NO. 1974(P)	1974(P)-15.34ha	31.50	**1)** 23° 1'16.99"N 84°45'3.12"E **2)** 23° 1'14.39"N 84°45'10.95"E **3)** 23° 0'53.23"N 84°44'57.96"E **4)** 23° 0'40.74"N 84°44'33.73"E 5) 23° 0'44.65"N 84°44'28.43"E 6) 23° 0'58.69"N 84°44'55.23"E	NO	NO	212115	SAND	Proposed
			2)MOUZA - TENGRA THANA - BASIA, THANA NO. - 159, ANCHAL-BASIA DISTRICT - GUMLA, JHARKHAND PLOT NO. 1869(P) & 1861(P), Toposheet No.- 73A/12	1869(P)-12.33ha 1861(P)-3.83ha **Total- 16.16**						
18.	SK18	South Koel Category-II	**1)MOUZA - BONGALOY** THANA - BASIA, THANA NO. - 158, ANCHAL-BASIA DISTRICT - GUMLA, JHARKHAND PLOT NO. 954(P),	954(P)- 16.00 ha	31.00	**1)** 23° 0'18.89"N 84°44'23.00"E **2)** 22°59'46.83"N 84°44'54.01"E **3)** 22°59'39.75"N 84°44'49.08"E **4)** 23° 0'9.58"N 84°44'23.75"E	YES	NO	233914	SAND	Proposed

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			2)MOUZA - KUTASI THANA - GUMLA, THANA NO. - 106, ANCHAL-GUMLA DISTRICT - GUMLA, JHARKHAND PLOT NO. 1001(P), Toposheet No.- 73A/12	1001(P)- 15.00 ha							
19.	SK19	South Koel Category-II	**1)MOUZA - KUTUA** THANA - GUMLA, THANA NO. - 113, ANCHAL-GUMLA DISTRICT - GUMLA, JHARKHAND PLOT NO. 2421(P) & 24	2421(P)- 5.51 ha 2414(P)- 10.14 ha **Total- 15.65 ha**	30.50	**1)** 22°58'23.36"N 84°44'6.05"E **2)** 22°58'25.16"N 84°44'12.22"E **3)** 22°57'41.04"N 84°44'29.63"E **4)** 22°57'39.40"N 84°44'22.63"E	No	NO	249319	SAND	Proposed
			2)MOUZA - LUNGTU THANA - BASIA, THANA NO. - 148, ANCHAL-BASIA DISTRICT - GUMLA, JHARKHAND PLOT NO. 1(P) Toposheet No.- 73A/12	1(P)- 14.85 ha							
20.	SK20	South Koel Category-II	**MAUZA-PANTHA** THANA NO.- 123 ANCHAL-BASIA DIST.-GUMLA PLOT NO.-1940(P) TOPOSHEET NO.- 73A/12		18.70	**1)** 22°52'47.63"N 84°47'24.72"E **2)** 22°52'19.14"N 84°48'9.67"E **3)** 22°52'15.50"N 84°48'7.97"E **4)** 22°52'42.73"N 84°47'20.15"E	NO	NO	102495	SAND	Proposed
21.	SK21	South Koel Category-II	**MAUZA-KANASKELI** THANA- BASIA THANA NO.- 31 ANCHAL-BASIA DIST.-GUMLA PLOT NO.-1291(P) TOPOSHEET NO.- 73A/12		7.00	**1)** 22°49'46.74"N 84°53'2.44"E **2)** 22°49'42.02"N 84°53'25.67"E **3)** 22°49'38.61"N 84°53'24.59"E **4)** 22°49'43.33"N 84°53'1.11"E	NO	NO	40559	SAND	Proposed
22.	SH01	Sankh Category-II	**MAUZA-HARADIPA** THANA NO.- 40 ANCHAL-CHAINPUR		10.00	**1)** 23°11'7.51"N 84° 9'26.81"E **2)** 23°11'10.99"N 84° 9'29.12"E **3)** 23°10'54.66"N 84° 9'52.97"E	YES	NO	21924	SAND	Proposed

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			DIST.-GUMLA PLOT NO.-1174(P) TOPOSHEET NO.- 73A/12			**4)** 23°10'51.06"N 84° 9'51.37"E					
23.	SH02	Sankh Category-II	**MAUZA-ASRO-I** THANA NO.- 165 ANCHAL-PARAMVEER ALBERT EKKA DIST.-GUMLA PLOT NO.-1176(P) TOPOSHEET NO.- 73A/12		12.30	**1)** 23° 4'15.22"N 84°16'31.91"E **2)** 23° 3'59.23"N 84°17'13.58"E **3)** 23° 3'56.31"N 84°17'12.85"E **4)** 23° 4'12.17"N 84°16'29.76"E	YES	NO	102870	SAND	Proposed
24.	SH03	Sankh Category-II	**1)MOUZA - ASRO -II** THANA - CHAINPUR, THANA NO. - 165, ANCHAL-PARAMVEER ALBERT EKKA DISTRICT - GUMLA, JHARKHAND PLOT NO. 1385(P),	1385(P)- 8.76 ha	16.00	**1)** 23° 3'20.53"N 84°17'12.00"E **2)** 23° 2'38.57"N 84°17'36.44"E **3)** 23° 2'37.17"N 84°17'33.73"E **4)** 23° 3'18.18"N 84°17'9.96"E	NO	NO	118214	SAND	Proposed
			2)MOUZA - PONDI THANA - CHAINPUR, THANA NO. - 164, ANCHAL-PARAMVEER ALBERT EKKA DISTRICT - GUMLA, JHARKHAND PLOT NO. 743(P) Toposheet No.- 73A/12	743(P)- 7.24 ha							
25.	SH04	Sankh Category-II	**MAUZA-KASIR-I** THANA NO.- 4 ANCHAL-RAIDIH DIST.-GUMLA PLOT NO.-4621(P), TOPOSHEET NO.- 73A/12		3.80	**1)** 23° 1'48.44"N 84°20'25.60"E **2)** 23° 1'36.40"N 84°20'47.21"E **3)** 23° 1'35.35"N 84°20'46.02"E **4)** 23° 1'46.97"N 84°20'24.92"E	NO	NO	15472	SAND	Proposed

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26.	SH05	Sankh Category-II	**1)MOUZA - KASIR-II** THANA - RAIDIH, THANA NO. - 4, ANCHAL-RAIDIH DISTRICT - GUMLA, JHARKHAND PLOT NO. 6605(P)	6605(P)- 8.35 ha	16.00	**1)** 23° 1'6.80"N 84°20'57.38"E **2)** 23° 1'8.87"N 84°21'8.11"E **3)** 23° 0'52.91"N 84°21'11.27"E **4)** 23° 0'49.65"N 84°21'3.25"E	YES	NO	131290	SAND	Proposed
			2)MOUZA - KEMTE THANA - RAIDIH, THANA NO. - 3, ANCHAL-RAIDIH DISTRICT - GUMLA, JHARKHAND PLOT NO. 3176(P) Toposheet No.- 73A/12	3176(P)- 7.65 ha							
27.	SH06	Sankh Category-II	**MAUZA-LATU** THANA- RAIDIH THANA NO.- 10 ANCHAL-RAIDIH DIST.-GUMLA PLOT NO.-4002(P), TOPOSHEET NO.- 73A/1		8.30	**1)** 23° 0'19.20"N 84°21'25.31"E **2)** 23° 0'19.84"N 84°21'28.50"E **3)** 22°59'56.08"N 84°21'34.75"E **4)** 22°59'54.22"N 84°21'31.91"E	YES	NO	41752	SAND	Proposed
28.	SH07	Sankh Category-II	**MAUZA-KOBJA** THANA-RAIDIH THANA NO.- 52 ANCHAL-RAIDIH DIST.-GUMLA PLOT NO.-5530(P) TOPOSHEET NO.- 73A/12		4.05	**1)** 22°50'32.89"N 84°22'50.20"E **2)** 22°50'33.59"N 84°22'52.98"E **3)** 22°50'13.32"N 84°22'59.63"E **4)** 22°50'12.90"N 84°22'57.14"E		NO	35517	SAND	Proposed
29.	EX01	Sankh Category-II	**MAUZA-KERADIH** THANA-RAIDIH THANA NO.- 11 ANCHAL-RAIDIH DIST.-GUMLA PLOT NO.-1896(P)		**4.10**	22°59'12.11"N TO 22°59'10.56"N 84°22'06.63"E TO 84°22'06.67"E		NO	36230CUM	SAND	Existing

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30	EX02	Sankh Category-II	**MAUZA-BIREE** THANA-DUMRI(CHAINPUR) THANA NO.- ANCHAL-DUMRI DIST.-GUMLA PLOT NO.-760(P)	**4.0**	23°10'21.49"N TO 23°10'19.84" N 84°10'25.10"E TO 84°10'25.09"E		NO	45494CUM	SAND	Existing
31	EX03	South Koel Category-II	**MAUZA-LARANGO** THANA-SISAI THANA NO.- 01 ANCHAL-SISAI DIST.-GUMLA PLOT NO.-01(P)	**4.80**	23°18'21.55"N TO 23°18'20.81" N 84°37'01.33"E TO 84°37'02.56"E		NO	35194CUM	SAND	Existing

***Regarding DSR sand not any comments received from Public.**

CATEGORY-I (GUMLA DISTRICT) (PROPOSED SAND MINING GHATS FOR PANCHAYAT)				
S.NO	**NAME OF RIVER**	**DETAILS**	**AREA IN (HA)**	**GEO-COORDINATE**
1	Banki river	**Mauza-** Dumbo **Block-** Berno **Thana No-**0083 **Plot No.-**3627(P), 2931(P) **Dist.-**Gumla	**1.31**	(A) 23°12'24.02"N 84°49'41.52"E (B) 23°12'23.75"N 84°49'42.85"E (C) 23°12'14.04"N 84°49'32.77"E (D) 23°12'13.14"N 84°49'32.77"E
2	Banki river	**Mauza-** Mahadewchegri **Block-** Verno **Thana No-**0084 **Plot No.-** 1978(P),169(P),1(P) **Dist.-**Gumla	**3.15**	(A) 23°12'48.35"N 84°49'56.59"E (B) 23°12'48.27"N 84°49'55.60"E (C) 23°13'19.65"N 84°50'19.65"E (D) 23°13'19.63"N 84°50'17.39"E
3	Parash River	**Mauza-** Marasilli **Block-** Verno **Thana No-** 0120 **Plot No.-** 1209(P)	**2.11**	(A) 23°10'36.96"N 84°52'34.13"E (B) 23°10'46.03"N 84°52'48.33"E (C) 23°10'45.13"N 84°52'48.70"E

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		Dist.-Gumla		(D) 23°10'36.38"N 84°52'34.91"E
4	Parash River	**Mauza-** Jura **Block-** Verno **Thana No-**0135 **Plot No.-**1(P),1405(P) **Dist.**-Gumla	**4.76**	(A) 23°10'23.44"N 84°49'46.29"E (B) 23°10'22.33"N 84°49'46.66"E (C) 23°10'10.06"N 84°49'14.72"E (D) 23°10'11.40"N 84°49'14.28"E
5	Kans River	**Mauza-** Burka **Block-** Sisai **Thana No-**0078 **Plot No.-**1(P),1405(P) **Dist.**-Gumla	**4.12**	(A) 23°11'41.33"N 84°47'06.56"E (B) 23°11'39.07"N 84°47'6.74"E (C) 23°11'32.09"N 84°46'39.67"E **(D)** 23°11'33.42"N 84°46'38.74"E
6	Kans River	**Mauza-** Bargaon **Block-** Sisai **Thana No-**0036 **Plot No.-**1485(P),2209(P) **Dist.**-Gumla	**3.97**	(A) 23°12'57.33"N 84°42'05.38"E (B) 23°12'58.89"N 84°42'07.22"E (C) 23°12'44.35"N 84°42'20.62"E (D) 23°12'42.97"N 84°42'21.01"E
7	Kans River	**Mauza-** Parrani **Block-** Sisai **Thana No-**0040 **Plot No.-**101(P),808(P) **Dist.**-Gumla	**0.99**	(A) 23°12'20.93"N 84°43'01.66"E (B) 23°12'23.35"N 84°43'5.10"E (C) 23°12'22.74"N 84°43'8.94"E (D) 23°12'20.87"N 84°43'7.69"E
8	Kans River	**Mauza-** Jaira **Block-** Sisai **Thana No-**0079 **Plot No.-**540(P),709(P) **Dist.**-Gumla	**4.79**	(A) 23°11'36.30"N 84°47'41.73"E (B) 23°11'37.78"N 84°47'43.52"E (C) 23°11'45.09"N 84°48'11.79"E (D) 23°11'42.87"N 84°48'12.36"E
9	Koel River	**Mauza-** Guram **Block-** Basia	**13.3**	(A) 22°51'09.59"N 84°49'17.10"E (B) 22°51'14.13"N 84°49'20.63"E

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		Thana No-0130 **Plot No.-**99(P),3258(P) **Dist.-**Gumla		(C) 22°51'01.69"N 84°49'49.15"E (D) 22°50'57.67"N 84°49'49.15"E
10	Basha River	**Mauza-** Dumri **Block-** Dumri **Thana No-**0052 **Plot No.-**2331(P),630(P) **Dist.-**Gumla	**8.87**	(A) 23°10'23.68"N 84°06'51.77"E (B) 23°10'25.60"N 84° 6'59.72"E (C) 23°10'38.98"N 84°07'00.25"E (D) 23°10'36.82"N 84° 6'52.58"E
11	Ariyan River	**Mauza-** Khatanga **Block-** Ghaghra **Thana No-**0088 **Plot No.-**552(P) **Dist.-**Gumla	**1.84**	(A) 23°16'47.62"N 84°35'13.27"E (B) 23°16'38.97"N 84°35'33.98"E (C) 23°16'38.15"N 84°35'33.95"E (D) 23°16'47.12"N 84°35'13.80"E
12	Marda River	**Mauza-** Semra **Block-** Palkot **Thana No-**0005 **Plot No.-**904(P),903(P) **Dist.-**Gumla	**3.67**	(A) 22°58'55.92"N 84°36'06.06"E (B) 22°58'41.10"N 84°36'36.07"E (C) 22°58'39.30"N 84°36'36.28"E (D) 22°58'54.78"N 84°36'05.21"E
13	Torpa River	**Mauza-** SATKHARI **Block-** Palkot **Thana No-** **Plot No.-**2680(P),2417(P) **Dist.-**Gumla	**3.86**	(A) 22°52'26.83"N 84°44'21.82"E (B) 22°52'25.53"N 84°44'22.95"E (C) 22°52'12.95"N 84°44'23.94"E (D) 22°52'11.78"N 84°44'22.10"E
14	Torpa River	**Mauza-** Petshera **Block-** Palkot **Thana No-**0045 **Plot No.-**3524(P) **Dist.-**Gumla	**1.17**	(A) 22°49'49.55"N 84°40'52.42"E (B) 22°49'48.30"N 84°40'52.74"E (C) 22°49'43.34"N 84°41'2.65"E (D) 22°49'42.57"N 84°41'1.93"E

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15	Koel River	**Mauza-** Banari **Block-** Bishunpur **Thana No-**0028 **Plot No.-**603(P),4060(P) **Dist.-**Gumla	**4.89**	(A) 23°25'29.78"N 84°19'30.74"E (B) 23°25'12.80"N 84°19'48.88"E (C) 23°25'12.80"N 84°19'46.41"E (D) 23°25'29.78"N 84°19'28.19"E
TOTAL			**62.8**	

1) PATTA LANDS/KHATEDARI LAND: (EXISTING & PROPOSED)

Owner	Sy.No/UIN	Area (In Ha)	District	Anchal/Circle	Village	Total Reserve (MT)	Total Mineral to be Mined (MT) 60%	Existing /Proposed
JSMDC	SK-01	4.62	Gumla	Sisai	Larango	27734	16640	Proposed
JSMDC	SK -02	22.06	Gumla	Ghaghra Sisai Sisai	Gutua, Larango, Sahijana	103638	62183	Proposed
JSMDC	SK -03	10.00	Gumla	Sisai Ghaghra Ghaghra Ghaghra	Sahijana, Dhobni, Kotri, Gutua	47160	28296	Proposed
JSMDC	SK -04	5.90	Gumla	Ghaghra Ghaghra	Dhobni, Badri	46374	27824	Proposed
JSMDC	SK -05	7.00	Gumla	Sisai	Barri	67599	40559	Proposed
JSMDC	SK -06	8.80	Gumla	Ghaghra	Cheigari	85633	51380	Proposed

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JSMDC	SK -07	16.60	Gumla	Sisai Ghaghra Ghaghra	Jalka, Duko, Sikwar	230508	138305	Proposed
JSMDC	SK -08	16.22	Gumla	Sisai Ghaghra	Bargaon, Duko,	249772	149863	Proposed
JSMDC	SK -09	14.65	Gumla	Ghaghra Sisai	Arangi, Mukunda	226460	135876	Proposed
JSMDC	SK -10	17.00	Gumla	Ghaghra Sisai	Khambhiya Murmu,	102051	61231	Proposed
JSMDC	SK -11	13.00	Gumla	Ghaghra	Khambhiya,	173706	104224	Proposed
JSMDC	SK -12	9.11	Gumla	Sisai Gumla	Nagpheni, Silaphari	133152	79891	Proposed
JSMDC	SK -13	18.20	Gumla	Sisai	Porha	104504	62703	Proposed
JSMDC	SK -14	20.54	Gumla	Gumla Sisai	Patia, Amkuli	291709	175025	Proposed
JSMDC	SK -15	13.20	Gumla	Gumla Sisai	Patia, Olmunda	186041	111624	Proposed
JSMDC	SK -16	27.00	Gumla	Sisai Gumla Gumla	Olmunda, Koenjara, Keluga	766908	460145	Proposed
JSMDC	SK -17	31.50	Gumla	Gumla Basia	Keluga, Tengra,	353525	212115	Proposed
JSMDC	SK -18	31.00	Gumla	Basia Gumla	Bongaloya Kutasi	389856	233914	Proposed
JSMDC	SK -19	30.50	Gumla	Gumla Basia	Kutua, Lungtu	415532	249319	Proposed

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JSMDC	SK -20	18.70	Gumla	Basia	Pantha	170825	102495	Proposed
JSMDC	SK -21	7.00	Gumla	Basia	Kanaskeli	67599	40559	Proposed
JSMDC	SH- 01	10.00	Gumla	Chainpur	Haradipa	36540	21924	Proposed
JSMDC	SH-02	12.30	Gumla	Paramveer Albert Ekka (Jari)	Asro	171450	102870	Proposed
JSMDC	SH-03	16.00	Gumla	Paramveer Albert Ekka (Jari)	Asro, & Pondi	197024	118214	Proposed
JSMDC	SH-04	3.80	Gumla	Raidih	Kasir	25787	15472	Proposed
JSMDC	SH-05	16.00	Gumla	Raidih	Kasir & Kemte	218816	131290	Proposed
JSMDC	SH-06	8.30	Gumla	Raidih	Latu	69587	41752	Proposed
JSMDC	SH-07	4.05	Gumla	Raidih	Kobja	59195	35517	Proposed
JSMDC	EX-01	4.10	Gumla	Raidih	Keradih	36230cum		Existing Ghat
JSMDC	EX-02	4.0	Gumla	Dumri	Biree	45494cum		Existing Ghat
JSMDC	EX-03	4.80	Gumla	Sisai	Larango	35194cum		Existing Ghat
Total Area Proposed		**413.05**				**5018685**	**3011210**	
Total Existing Area		**12.9**				**116918cum**		

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2) **De**-Siltation Location: (Lakes/Ponds/Dams etc.) (Existing & proposed)

Name of Reservoir/Dams	Maintain /Controlled by State Govt./PSU etc.	Location	District	Tehsil	Village	Size (Ha)	QuantityMT /Year	Existing /Proposed
NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL

3) M-Sand Plants :(existing & proposed)

Plant Name	Owner	District	Tehsil	Village	Geo-location	QuantityTonnes/Annum	Existing/Proposed
NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL

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ANNEXURE-III

CLUSTER & CONTIGUOUS CLUSTER DETAILS

1) Clusters:

River Name	Cluster No.	Lease No	Location (Riverbed /Patta Land)	Village	Area (in Ha)	Total Excavation (Ton)	Total Mineral Excavation (Ton)
South Koel	NA	NA	NA	NA	NA	NA	NA
Sankh River	NA	NA	NA	NA	NA	NA	NA

2) Contiguous Clusters:

River Name	Contiguous Cluster No.	Cluster No	Number of leases in the cluster	Location(Riverbed /Patta Land)	Distance between clusters	Village	Area of Cluster (Ha)	Total Mineral Excavation (Ton)
South Koel	NA	NA	NA	NA	NA	NA	NA	NA
Sankh River	NA	NA	NA	NA	NA	NA	NA	NA

ANNEXURE-IV

TRANSPORTATION ROUTES FOR INDIVIDUAL LEASES AND LEASES IN CLUSTER

Lease No	Transportation RouteNo	Number of tractors /day of lease	Number of tractor /day of all the lease on route	Length of Route in KM	Type of Road (Black Topped/ unpaved)	Recommend ation for road(Black Topped/ unpaved)	The roadwill be Constructed byGovt/ Lease Owner	Route Map & Location
SK-1	01	21	21	Detail Attached Below	Unpaved	Sprinkling will be done on unpaved road	Lease owner	Attached
SK -2	02	78	78	Detail Attached Below	Unpaved	Sprinkling will be done on unpaved road	Lease owner	Attached
SK -3	03	35	35	Detail Attached Below	Unpaved	Sprinkling will be done on unpaved road	Lease owner	Attached
SK -4	04	35	35	Detail Attached Below	Unpaved	Sprinkling will be done on unpaved road	Lease owner	Attached
SK -5	05	51	51	Detail Attached Below	Unpaved	Sprinkling will be done on unpaved road	Lease owner	Attached
SK -6	06	64	64	Detail Attached Below	Unpaved	Sprinkling will be done on unpaved road	Lease owner	Attached
SK -7		173	173	Detail Attached	Unpaved	Sprinkling will be done on unpaved road	Lease owner	Attached

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				Below				
SK -8	07	187	187	Detail Attached Below	Unpaved	Sprinkling will be done on unpaved road	Lease owner	Attached
SK -9	08	170	170	Detail Attached Below	Unpaved	Sprinkling will be done on unpaved road	Lease owner	Attached
SK -10	09	77	77	Detail Attached Below	Unpaved	Sprinkling will be done on unpaved road	Lease owner	Attached
SK -11	10	130	130	Detail Attached Below	Unpaved	Sprinkling will be done on unpaved road	Lease owner	Attached
SK -12	11	100	100	Detail Attached Below	Unpaved	Sprinkling will be done on unpaved road	Lease owner	Attached
SK -13	12	78	78	Detail Attached Below	Unpaved	Sprinkling will be done on unpaved road	Lease owner	Attached
SK -14	13	219	219	Detail Attached Below	Unpaved	Sprinkling will be done on unpaved road	Lease owner	Attached
SK -15	14	140	140	Detail Attached Below	Unpaved	Sprinkling will be done on unpaved road	Lease owner	Attached
SK -16	15	575	575	Detail Attached Below	Unpaved	Sprinkling will be done on unpaved road	Lease owner	Attached
SK -17	16	265	265	Detail Attached Below	Unpaved	Sprinkling will be done on unpaved road	Lease owner	Attached
SK -18	17	292	292	Detail Attached Below	Unpaved	Sprinkling will be done on unpaved road	Lease owner	Attached

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SK-19	18	312	312	Detail Attached Below	Unpaved	Sprinkling will be done on unpaved road	Lease owner	Attached
SK-20	19	128	128	Detail Attached Below	Unpaved	Sprinkling will be done on unpaved road	Lease owner	Attached
SK-21	20	51	51	Detail Attached Below	Unpaved	Sprinkling will be done on unpaved road	Lease owner	Attached
SH-1	21	27	27	Detail Attached Below	Unpaved	Sprinkling will be done on unpaved road	Lease owner	Attached
SH-2	22	129	129	Detail Attached Below	Unpaved	Sprinkling will be done on unpaved road	Lease owner	Attached
SH-3	23	148	148	Detail Attached Below	Unpaved	Sprinkling will be done on unpaved road	Lease owner	Attached
SH-4	24	19	19	Detail Attached Below	Unpaved	Sprinkling will be done on unpaved road	Lease owner	Attached
SH-5	25	164	164	Detail Attached Below	Unpaved	Sprinkling will be done on unpaved road	Lease owner	Attached
SH-6	26	52	52	Detail Attached Below	Unpaved	Sprinkling will be done on unpaved road	Lease owner	Attached
SH-7	27	44	44	Detail Attached Below	Unpaved	Sprinkling will be done on unpaved road	Lease owner	Attached

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Transportation Routes of sand Ghat from Village to MDR/SH/NH

UIN NO.	Distance	Village Name/Road Name
SK-1	Village road- 2.75 km	Larango- Gamhariya
	SH 143A	Kudu-Gumla Road
SK-2	Village road- 3.82 km	Gutua – Nawatoli -Khatanga
	SH 143A	Bhusar-Ghaghara Road, Kudu-Gumla Road
SK-3	Village road-5.89 km	Sahijana-Tangarsikwar-Ghaghra
	SH 143A	Bhusar-Ghaghara Road
SK-4	Village road- 6.22 km	Dhobni- Kotri –Baniyadih-
	MDR	Ghaghra-Ghoratangar road
SK-5	Village road- 4.10 km	Barri –Nawatoli (Barri)-Lohanjara
	MDR	Larango-Ghaghra Road
SK-6	Village road- 6.68 km	Cheigari-Khapiya- Tilsiri
	MDR	Sirkot- Arangi Road
SK-7	Village road- 2.98 km	Sikwar - Cheigari
	MDR	Sirkot- Arangi Road
SK-8	Village road- 5.97 km	Jinda - Kulangkeri
	MDR	Bargaon – Sisai road
SK-9	Village road- 5.57 km	Makunda- Bargaon
	MDR	Ghaghra- Bargaon – Sisai road
SK-10	Village road- 0.27 km	khambhiya
	MDR	Guniya – Arangi Road
SK-11	Village road- 1.31 km	Atariya
	MDR	Toto – Kamta- Sisai Road
SK-12	Village road- 1.85 km	Silaphari
	NH 43	Gumla – Khunti – Ranchi road
SK-13	Village road- 5.31 km	Porha – Ghaghra- Nagfeni
	NH 43	Gumla – Khunti – Ranchi road
SK-14	Village road- 9.31 km	Amkuli – Korekera- Nagar Siskari-Thethaitangar

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	MDR	Basia – Sisai Road
SK-15	Vllage road- 11.40 km	Koenjara –Kasira –Dihdhauli- Dherhauli
	MDR	Murkunda –Bargaon Road
SK-16	Vllage road- 6.10 km	Olmunda – Bataloya -Obka
	MDR	Basia Road
SK-17	Vllage road- 5.57 km	Tengra - Pakartokli
	MDR	Basia road
SK-18	Vllage road- 5 km	Tengra- Mamarla
	MDR	Basia –Gumla road
SK-19	Vllage road- 6.55 km	Jolo- Bantariya-Kiringloya-Pokta
	MDR	Basia road
SK-20	Vllage road- 1.73 km	Solangbira
	MDR	Tetra –Bhagidera road
SK-21	Vllage road- 13.70 km	Kanaskeli – Unchdih – Guram -Konbir
	SH	Khunti –Simdega Road
SH-01	Vllage road- 3.0 km	Baghmariya
	NH 143B	Dumri- Dumardanr Road
SH-02	Vllage road- 1.55 km	Bendora
	MDR	Chainpur – Kasir Road
SH-03	Vllage road-6.48 km	Pundi –Khursuta-Kasir
	MDR	Bendora –Masgaon Road
SH-04	Vllage road- 1.60 km	Kasir
	MDR	Chainpur – Masgaon Road
SH-05	Vllage road- 1.73 km	Kemte
	MDR	Kasir – Masgaon Road
SH-06	Vllage road- 3.10 km	Kemte
	MDR	Kitam – Latu Road
SH-07	Vllage road- 8.94 km	Kobja- Sursang

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	MDR	Gondlipani- Salkaia - Raidih Road

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ANNEXURE-V

FINAL LIST OF SAND GHAT/POTENTIAL AREA (EXISTING AND PROPOSED)

River Name	Lease Details	Name of Sand Ghat	Khata No. & Plot No.	Geo-Coordinates	Mining Leases within 500m (if yes Cluster area)	Area in Ha.	Dimenson of Sand Ghat (L x W x D) m	Sp. Gravity of Sand	Total Excavation in Cum	Total Excavation in Ton	Total Mining Area of 60% in Ton
South Koel River	**Mauza-** Larango Anchal-Sisai District-Gumla	Larango Sand Ghat	**Khata No.- 151** **Plot No.**-4024(P)	1)23°17'55.91"N 84°36'42.15"E 2)23°17'53.83"N 84°36'46.51"E 3)23°17'43.54"N 84°36'44.14"E 4)23°17'44.06"N 84°36'39.41"E	No	4.62	309.23 x 149.40 x 0.23	2.61	10626	27734	16640
South Koel River	**Mauza-** Gutua, Anchal-Ghaghra **Mauza-** Larango, Anchal- Sisai **Mauza-** Sahijana Anchal- Sisai District-Gumla	Gutua, Larango , Sahijana Sand Ghat	**Khata No.-60,** **Plot No.**-897(P), 211(P), 519(P) **Khata No.**-660, **Plot No.**-925(P) **Khata No.**-121 **Plot No.**-01(P)	1) 23°17'8.79"N 84°36'43.51"E 2) 23°17'8.56"N 84°36'46.96"E 3) 23°16'41.83"N 84°36'44.70"E 4) 23°16'27.38"N 84°36'15.56"E 5) 23°16'30.75"N 84°36'13.91"E 6) 23°16'40.40"N 84°36'38.97"E	No	22.06	1557.69 x 141.62 x 0.18	2.61	39708	103638	62183
South Koel River	**Mauza -** Sahijana, Anchal- Sisai **Mauza -**Dhobni, Anchal- Ghaghra **Mauza –** Kotri, Anchal- Ghaghra **Mauza –** Gutua Anchal- Ghaghra District-Gumla	Sahijana, Dhobni, Kotri, Gutua Sand Ghat	**Khata No.**-121 **Plot No.**-1117(P), 01(P), 287(P) **Khata No.**-71 **Plot No.**-01(P), **Khata No.**-34, **Plot No.**-52(P), **Khata No.**-60, **Plot No.**-897(P)	1) 23°16'1.22"N 84°35'56.57"E 2) 23°16'2.14"N 84°36'1.42"E 3) 23°15'45.64"N 84°36'21.00"E 4) 23°15'42.22"N 84°36'20.47"E	No	10.00	750.16 x 133.30 x 0.18	2.62	18000	47160	28296
South Koel River	**Mauza-** Dhobni, Anchal- Ghaghra **Mauza-** Badri, Anchal- Ghaghra District-Gumla	Dhobni, Badri Sand Ghat	**Khata No.**-71 **Plot No.**-01(P), **Khata No.**-101 **Plot No.**-01(P), 1648(P)	1) 23°15'36.94"N 84°36'55.69"E 2) 23°15'21.77"N 84°37'22.87"E 3) 23°15'20.33"N 84°37'21.93"E 4) 23°15'34.76"N 84°36'53.92"E	No	5.90	901.18 x 65.47 x 0.30	2.62	17700	46374	27824
South Koel River	**Mauza-** Barri Anchal- Sisai District-Gumla	Barri Sand Ghata	**Khata No.**-215, **Plot No.**-678(P), 1610(P)	1) 23°14'49.20"N 84°37'59.01"E 2) 23°14'49.77"N 84°38'31.00"E 3) 23°14'47.71"N 84°38'31.33"E 4) 23°14'47.33"N 84°37'57.41"E	No	7.00	942.57 x 74.27 x 0.37	2.61	25900	67599	40559

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South Koel River	**Mauza-** Cheigari Anchal- Ghaghra District-Gumla	Cheigari Sand Ghat	**Khata No.**-124 **Plot No.**-567(P)	1) 23°14'42.91"N 84°38'55.44"E 2) 23°14'44.11"N 84°38'57.93"E 3) 23°14'21.04"N 84°39'16.99"E 4) 23°14'19.24"N 84°39'14.91"E	No	8.80	959.63 x 91.70 x 0.37	2.63	32560	85633	51380
South Koel River	**Mauza-** Jalka, Anchal-Sisai **Mauza-** Duko, Anchal- Ghaghra **Mauza-** Sikwar Anchal- Ghaghra District-Gumla	Jalka, Duko, Sikwar Sand Ghat	**Khata No.**-109, **Plot No.**-01(P),1475(P) **Khata No.**-98 **Plot No.**-902(P) **Khata No.**-51 **Plot No.**-463(P)	1) 23°14'0.65"N 84°40'13.54"E 2) 23°14'1.00"N 84°40'18.36"E 3) 23°13'28.07"N 84°40'40.41"E 4) 23°13'26.06"N 84°40'36.37"E	No	16.60	1075.75 x 154.31 x 0.53	2.62	87980	230508	138305
South Koel River	**Mauza-** Bargaon Anchal- Sisai **Mauza-** Duko, Anchal- Ghaghra District-Gumla	Bargaon, Duko Sand Ghat	**Khata No.**-698, **Plot No.**-01(P), **Khata No.**-304, **Plot No.**-6815(P) **Khata No.**-98 **Plot No.**-1668(P), 1669(P)	1)23°12'37.42"N 84°40'20.15"E 2) 23°12'38.58"N 84°40'24.46"E 3) 23°12'23.35"N 84°40'24.65"E 4) 23°12'15.57"N 84°40'5.89"E 5) 23°12'20.31"N 84°40'0.60"E 6) 23°12'22.74"N 84°40'18.31"E	No	16.22	976.53 x 166.09 x 0.59	2.61	95698	249772	149863
South Koel River	**Mauza-** Arangi, Anchal- Ghaghra **Mauza-** Mukunda Anchal- Sisai District-Gumla	Arangi, Mukunda Sand Ghat	**Khata No.**-217 **Plot No.**-1900(P), 1901(P) **Khata No.**-128, **Plot No.**-01(P)	1) 23°11'56.02"N 84°39'41.15"E 2) 23°11'57.34"N 84°39'37.52"E 3) 23°11'31.38"N 84°39'36.02"E 4) 23°11'7.74"N 84°39'36.05"E 5) 23°11'7.78"N 84°39'39.75"E 6) 23°11'24.29"N 84°39'39.55"E	No	14.65	1050.86 x 139.41 x 0.59	2.62	86435	226460	135876
South Koel River	**Mauza-** Khambhiya –I, Anchal- Ghaghra **Mauza-** Murmu, Anchal- Sisai District-Gumla	Khambhiya-I, Murmu Sand Ghat	**Khata No.**-110 **Plot No.**-1144(P) **Khata No.**-192, **Plot No.**-102(P)	1) 23° 9'35.03"N 84°38'51.79"E 2) 23° 9'58.50"N 84°39'5.50"E 3) 23° 9'53.79"N 84°39'15.14"E 4) 23° 9'33.25"N 84°38'56.10"E	No	17.00	752.99 x 225.77 x 0.23	2.61	39100	102051	61231
South Koel River	**Mauza-** Khambhiya-ii Anchal- District-Gumla	Khambhiya-ii Sand Ghat	**Khata No.**-110 **Plot No.**-2554, 2555, 2556, 2557, 2558(P	1) 23° 8'11.88"N 84°38'37.84"E 2) 23° 8'9.95"N 84°38'49.08"E 3) 23° 7'54.85"N 84°38'51.89"E 4) 23° 7'53.14"N 84°38'44.03"E	No	13.00	532.86 x 243.97 x 0.51	2.62	66300	173706	104224
South Koel River	**Mauza-** Nagpheni, Anchal- Sisai **Mauza-** Silaphari Anchal- Gumla District-Gumla	Nagpheni, Silaphari Sand Ghat	**Khata No.**-82, **Plot No.**-829(P) **Khata No.**-138 **Plot No.**-361(P)	1) 23° 6'56.67"N 84°39'38.67"E 2) 23° 7'0.69"N 84°39'43.69"E 3) 23° 6'48.14"N 84°39'53.15"E 4) 23° 6'44.32"N 84°39'47.38"E	No	9.11	438.26x 212.20 x 0.56	2.61	51016	133152	79891
South Koel River	**Mauza-** Porha Anchal- District-Gumla	Porha Sand Ghat	**Khata No.**-211, **Plot No.**-02(P)	1) 23° 6'1.45"N 84°41'0.90"E 2) 23° 5'19.62"N 84°41'2.29"E 3) 23° 5'16.07"N 84°41'0.81"E 4) 23° 6'0.44"N 84°40'54.48"E	No	18.20	1238 x 146.94 x 0.22	2.61	40040	104504	62703

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South Koel River	**Mauza-** Patia-i, Anchal- Gumla **Mauza** -Amkuli Anchal- Sisai District-Gumla	Patia-I, Amkuli Sand Ghat	**Khata No.**-176 **Plot No.**-2952(P),2871(P) **Khata No.**-62, **Plot No.**-402(P)	1) 23° 4'15.66"N 84°43'5.60"E 2) 23° 4'20.60"N 84°43'8.60"E 3) 23° 4'8.05"N 84°43'24.62"E 4) 23° 3'50.32"N 84°43'37.66"E 5) 23° 3'46.97"N 84°43'31.55"E 6) 23° 4'2.10"N 84°43'21.83"E	No	20.54	1209.11 x 169.87 x 0.54	2.63	110916	291709	175025
South Koel River	**Mauza-** Patia-ii, Anchal- Gumla **Mauza-** Olmunda Anchal- Sisai District-Gumla	Patia-ii, Olmunda Sand Ghat	**Khata No.**-176 **Plot No.**-2952(P) **Khata No.**-142, **Plot No.**-01(P)	1) 23° 3'20.87"N 84°43'28.20"E 2) 23° 3'21.54"N 84°43'34.36"E 3) 23° 2'59.77"N 84°43'36.60"E 4) 23° 2'59.02"N 84°43'29.74"E	No	13.20	615.97 x 219.17 x 0.54	2.61	71280	186041	111624
South Koel River	**Mauza-** Olmunda, Anchal- Sisai **Mauza-** Koenjara, Anchal- Gumla **Mauza-** Keluga Anchal- Gumla District- Gumla	Olmunda, Koenjara, Keluga Sand Ghat	**Khata No.**-142, **Plot No.**-1738(P), 1739(P) **Khata No.**-287 **Plot No.**-3233(P) **Khata No.**-187 **Plot No.**-309(P), 1486(P)	1) 23° 2'27.58"N 84°43'41.92"E 2) 23° 2'2.80"N 84°44'27.98"E 3) 23° 1'56.44"N 84°44'25.82"E 4) 23° 2'25.27"N 84°43'34.69"E	No	27.00	1585.98 x 170.13 x 1.08	2.63	291600	766908	460145
South Koel River	**Mauza-** Keluga, Anchal- Gumla **Mauza-** Tengra Anchal- District- Gumla	Keluga, Tengra Sand Ghat	**Khata No.**-187 **Plot No.**-1974(P) **Khata No.**-73 **Plot No.**-1869(P), 1861(P)	**1)** 23° 1'16.99"N 84°45'3.12"E **2)** 23° 1'14.39"N 84°45'10.95"E **3)** 23° 0'53.23"N 84°44'57.96"E **4)** 23° 0'40.74"N 84°44'33.73"E 5) 23° 0'44.65"N 84°44'28.43"E 6) 23° 0'58.69"N 84°44'55.23"E	No	31.50	1541.51 x 204.35 x 0.43	2.61	135450	353525	212115
South Koel River	**Mauza-** Bongaloya, Anchal-Basia **Mauza-** Kutasi Anchal-Gumla District-Gumla	Bongaloya, Kutasi Sand Ghat	**Khata No.**-57 **Plot No.**-954(P) **Khata No.**-72 **Plot No.**-1001(P)	1) 23° 0'18.89"N 84°44'23.00"E 2) 22°59'46.83"N 84°44'54.01"E 3) 22°59'39.75"N 84°44'49.08"E 4) 23° 0'9.58"N 84°44'23.75"E	No	31.00	1086.42 x 285.34 x 0.48	2.62	148800	389856	233914
South Koel River	**Mauza-** Kutua, Anchal-Gumla **Mauza- Lungtu** Anchal-Basia District-Gumla	Kutua, Lungtu Sand Ghat	**Khata No.**-197 **Plot No.**-2421(P), 2414(P) **Khata No.**-89 **Plot No.**-01(P)	1) 22°58'23.36"N 84°44'6.05"E 2) 22°58'25.16"N 84°44'12.22"E 3) 22°57'41.04"N 84°44'29.63"E 4) 22°57'39.40"N 84°44'22.63"E	No	30.50	1261.52 x 241.77 x 0.52	2.62	158600	415532	249319
South Koel River	**Mauza- Pantha** Anchal-Basia District-Gumla	Pantha Sand Ghat	**Khata No.**-126 **Plot No.**-1940(P)	1) 22°52'47.63"N 84°47'24.72"E 2) 22°52'19.14"N 84°48'9.67"E 3) 22°52'15.50"N 84°48'7.97"E 4) 22°52'42.73"N 84°47'20.15"E	No	18.70	1300.07x 413.84 x 0.35	2.61	65450	170825	102495
South Koel River	**Mauza- Kanaskeli** Anchal-Basia	Kanaskeli Sand Ghat	**Khata No.**-153 **Plot No.**-1291(P)	1) 22°49'46.74"N 84°53'2.44"E 2) 22°49'42.02"N 84°53'25.67"E 3) 22°49'38.61"N 84°53'24.59"E	No	7.00	593.5 x 117.94 x 0.37	2.61	25900	67599	40559

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	District-Gumla			4) 22°49'43.33"N 84°53'1.11"E							
Sankh River	**Mauza-Haradipa** Anchal-Chainpur District-Gumla	Haradipa Sand Ghat	**Khata No.**-85 **Plot No.**-1174(P) ***(As per C.O. letter Plot No.- 1019)***	1) 23°11'7.51"N 84° 9'26.81"E 2) 23°11'10.99"N 84° 9'29.12"E 3) 23°10'54.66"N 84° 9'52.97"E 4) 23°10'51.06"N 84° 9'51.37"E	**No**	**10.00**	**860.91 x 116.16 x 0.14**	**2.61**	14000	36540	21924
Sankh River	**Mauza- Asro-i,** Anchal-Albert Ekka District-Gumla	Asro-I Sand Ghat	**Khata No.**-83 **Plot No.**-1176(P)	1) 23° 4'15.22"N 84°16'31.91"E 2) 23° 3'59.23"N 84°17'13.58"E 3) 23° 3'56.31"N 84°17'12.85"E 4) 23° 4'12.17"N 84°16'29.76"E	**No**	**12.30**	**1483.86 x 82.89 x 0.53**	**2.63**	65190	171450	102870
Sankh River	**Mauza- Asro-ii, & Pondi** Anchal-Albert Ekka District-Gumla	Asro-ii, Pondi Sand Ghat	**Khata No.**-83 **Plot No.**-1385(P) **Khata No.**-65 **Plot No.**-743(P)	1) 23° 3'20.53"N 84°17'12.00"E 2) 23° 2'38.57"N 84°17'36.44"E 3) 23° 2'37.17"N 84°17'33.73"E 4) 23° 3'18.18"N 84°17'9.96"E	**No**	**16.00**	**1481.01x 108.03 x 0.47**	**2.62**	75200	197024	118214
Sankh River	**Mauza- Kasir-i** Anchal-Raidih District-Gumla	Kasri-I Sand Ghat	**Khata No.**-376 **Plot No.**-4621(P)	1) 23° 1'48.44"N 84°20'25.60"E 2) 23° 1'36.40"N 84°20'47.21"E 3) 23° 1'35.35"N 84°20'46.02"E 4) 23° 1'46.97"N 84°20'24.92"E	**No**	**3.80**	**679.97 x55.88 x 0.26**	**2.61**	9880	25787	15472
Sankh River	**Mauza- Kasir-ii, Kemte** Anchal-Raidih District-Gumla	Kasir-ii, Kemte Sand Ghat	**Khata No.**-441 **Plot No.**-6605(P) **Khata No.**-135 **Plot No.**-3176(P)	1) 23° 1'6.80"N 84°20'57.38"E 2) 23° 1'8.87"N 84°21'8.11"E 3) 23° 0'52.91"N 84°21'11.27"E 4) 23° 0'49.65"N 84°21'3.25"E	**No**	**16.00**	**448.9x 356.43 x 0.52**	**2.63**	83200	218816	131290
Sankh River	**Mauza- Latu** Anchal-Raidih District-Gumla	Latu Sand Ghat	**Khata No.**-117 **Plot No.**-4002(P)	1) 23° 0'19.20"N 84°21'25.31"E 2) 23° 0'19.84"N 84°21'28.50"E 3) 22°59'56.08"N 84°21'34.75"E 4) 22°59'54.22"N 84°21'31.91"E	**No**	**8.30**	**931.2 x 89.13 x 0.32**	**2.62**	26560	69587	41752
Sankh River	**Mauza- Kobja** Anchal-Raidih District-Gumla	Kobja Sand Ghat	**Khata No.**-301 **Plot No.**- 5530(P) ***(As per C.O. letter Plot No.371/5530)***	1) 22°50'32.89"N 84°22'50.20"E 2) 22°50'33.59"N 84°22'52.98"E 3) 22°50'13.32"N 84°22'59.63"E 4) 22°50'12.90"N 84°22'57.14"E	**No**	**4.05**	**683.86 x 59.22 x 0.56**	**2.61**	22680	59195	35517
Sankh River	**Mauza- Keradih** Anchal-Raidih District-Gumla	Keradih Sand Mining	**Plot No-1896(P)**	22°59'12.11"N TO 22°59'10.56"N 84°22'06.63"E TO 84°22'06.67"E		**4.10**			36230	EC/SEIAA/2018-19/2111/2018/	
Sankh River	**Mauza- Biree** Anchal-Dumri District-Gumla	Biree Sand Mining	**Plot No.-760(P)**	23°10'21.49"N TO 23°10'19.84" N 84°10'25.10"E TO 84°10'25.09"E		**4.0**			45494	EC/SEIAA/2018-19/2110/2018/	
South Koel	**Mauza- Larango** Anchal-Sisai District-Gumla	Larango Sand Mining	**Plot No.- 01(P)**	23°18'21.55"N TO 23°18'20.81"N 84°37'01.33"E TO 84°37'02.56"E		**4.80**			35194	EC/SEIAA/2018-19/2118/2018/252 DATE-05/06/2019	
Total Proposed Area						**413.05**			**2032687**	**5018685**	**3011210**
Total area of Exisitng Sand Ghats						**12.90**			**116918 cum**		
Total Numbers of Ghat-28											

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Total Existing Ghats- 03

REPORT FROM CIRCLE OFFICER, DIVISIONAL FOREST OFFICER & WILD LIFE
NOC FROM DIFFERENT COMPETENT AUTHORITY

District	Anchal	Village/Mauza	Khata & Plot No	क्या अवेदित भूमि सर्वे खतियान यथा रजिस्टर II में जंगल झाडी के रूप में दर्ज है? (Yes or No)	Whether Distance of Project Location from Reserved Forest/Protected Forest is 250m?	Distance From WildLife/ESZ within 10km
Gumla SK01	Sisai	Larango	Khata No.-151, Plot No.-4024(P),	**No** Letter.No.-93(ii) Date-05.01.2023	Letter No.-270 Date- 02.02.2023	Letter No.-270 Date- 02.02.2023
Gumla SK02	Ghaghra	Gutua	Khata No.-60, Plot No.-897(P), 211(P), 519(P)	**No** Letter.No.-78/Ghaghra Date-25.01.2023 & Letter No.-79/Ghaghra Date-25.01.2023	Letter No.-270 Date- 02.02.2023	Letter No.-270 Date- 02.02.2023
	Sisai	Larango	Khata No.-660, Plot No.-925(P)	**No** Letter.No.-94(ii) Date-25.01.2023	Letter No.-270 Date- 02.02.2023	Letter No.-270 Date- 02.02.2023
	Sisai	Sahijana	Khata No.-121 Plot No.-01(P)	**No** Letter.No.-94(ii) Date-25.01.2023	Letter No.-270 Date- 02.02.2023	Letter No.-270 Date- 02.02.2023
Gumla	Sisai	Sahijana	Khata No.-121	**No**	Letter No.-270	Letter No.-270

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SK03			Plot No.-1117(P),01(P), 287(P)	Letter.No.-87(ii) Date-25.01.2023	Date- 02.02.2023	Date- 02.02.2023
	Ghaghra	Dhobni	Khata No.-71 Plot No.-01(P),	**No** Letter.No.-74/Ghaghra Date-25.01.2023	Letter No.-270 Date- 02.02.2023	Letter No.-270 Date- 02.02.2023
	Ghaghra	Kotri	Khata No.-34, Plot No.-52(P),	**No** Letter.No.-77/Ghaghra Date-25.01.2023	Letter No.-270 Date- 02.02.2023	Letter No.-270 Date- 02.02.2023
	Ghaghra	Gutua	Khata No.-60, Plot No.-897(P)	**No** Letter.No.-79/Ghaghra Date-25.01.2023	Letter No.-270 Date- 02.02.2023	Letter No.-270 Date- 02.02.2023
Gumla SK04	Ghaghra	Dhobni	Khata No.-71 Plot No.-01(P),	**No** Letter.No.-74/Ghaghra Date-25.01.2023	Letter No.-270 Date- 02.02.2023	Letter No.-270 Date- 02.02.2023
	Ghaghra	Badri	Khata No.-101 Plot No.-01(P), 1648(P)	**No** Letter.No.-70/Ghaghra Date-25.01.2023	Letter No.-270 Date- 02.02.2023	Letter No.-270 Date- 02.02.2023
Gumla SK05	Sisai	Barri	Khata No.-215, Plot No.-678(P), 1610(P)	**No** Letter.No.-91(ii) Date-25.01.2023	Letter No.-270 Date- 02.02.2023	Letter No.-270 Date- 02.02.2023
Gumla SK06	Ghaghra	Cheigari	Khata No.-124 Plot No.-567(P)	**No** Letter.No.-75/Ghaghra Date-25.01.2023	Letter No.-270 Date- 02.02.2023	Letter No.-270 Date- 02.02.2023
	Sisai	Jalka	Khata No.-109, Plot No.-01(P),1475(P)	**No** Letter.No.-86(ii) Date-25.01.2023	Letter No.-270 Date- 02.02.2023	Letter No.-270 Date- 02.02.2023
Gumla SK07	Ghaghra	Duko	Khata No.-98 Plot No.-902(P)	**No** Letter.No.-76/Ghaghra Date-25.01.2023	Letter No.-270 Date- 02.02.2023	Letter No.-270 Date- 02.02.2023
	Ghaghra	Sikwar	Khata No.-51 Plot No.-463(P)	**No** Letter.No.-76/Ghaghra	Letter No.-270 Date- 02.02.2023	Letter No.-270 Date- 02.02.2023

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				Date-25.01.2023		
Gumla SK08	Sisai	Bargaon	Khata No.-698, Plot No.-01(P), Khata No.-304, Plot No.-6815(P)	**No** Letter.No.-85(ii) Date-25.01.2023	Letter No.-270 Date- 02.02.2023	Letter No.-270 Date- 02.02.2023
	Ghaghra	Duko	Khata No.-98 Plot No.-1668(P), 1669(P)	**No** Letter.No.-68/Ghaghra Date-25.01.2023	Letter No.-270 Date- 02.02.2023	Letter No.-270 Date- 02.02.2023
Gumla SK09	Ghaghra	Arangi	Khata No.-217 Plot No.-1900(P), 1901(P)	**No** Letter.No.-71/Ghaghra Date-25.01.2023	Letter No.-270 Date- 02.02.2023	Letter No.-270 Date- 02.02.2023
	Sisai	Mukunda	Khata No.-128, Plot No.-01(P)	**No** Letter.No.-92(ii) Date-25.01.2023	Letter No.-270 Date- 02.02.2023	Letter No.-270 Date- 02.02.2023
Gumla SK10	Ghaghra	Khambhiya-I	Khata No.-110 Plot No.-1144(P)	**No** Letter.No.-73/Ghaghra Date-25.01.2023	Letter No.-270 Date- 02.02.2023	Letter No.-270 Date- 02.02.2023
	Sisai	Murmu (Murgu as per C.O. letter)	Khata No.-192, Plot No.-102(P)	**No** Letter.No.-89(ii) Date-25.01.2023	Letter No.-270 Date- 02.02.2023	Letter No.-270 Date- 02.02.2023
Gumla SK11	Ghaghra	Khambhiya-ii	Khata No.-110 Plot No.-2554, 2555, 2556, 2557, 2558(P)	**No** Letter.No.-72/Ghaghra Date-25.01.2023	Letter No.-270 Date- 02.02.2023	Letter No.-270 Date- 02.02.2023
Gumla SK12	Sisai	Nagpheni	Khata No.-82, Plot No.-829(P)	**No** Letter.No.-88(ii) Date-25.01.2023	Letter No.-270 Date- 02.02.2023	Letter No.-270 Date- 02.02.2023
Gumla SK13	Gumla	Silaphari	Khata No.-138 Plot No.-361(P)	**No** Letter.No.-135 Date-03.02.2023	Letter No.-270 Date- 02.02.2023	Letter No.-270 Date- 02.02.2023
Gumla	Sisai	Porha	Khata No.-211, Plot No.-02(P)	**No** Letter.No.-90(ii) Date-25.01.2023	Letter No.-270 Date- 02.02.2023	Letter No.-270 Date- 02.02.2023
Gumla	Gumla	Patia-i	Khata No.-176	**No**	Letter No.-270	Letter No.-270

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SK14			Plot No.-2960(P), 2871(P)	Letter.No.-133 Date-03.02.2023	Date- 02.02.2023	Date- 02.02.2023
	Sisai	Amkuli	Khata No.-62, Plot No.-402(P)	**No** Letter.No.-84(ii) Date-25.01.2023	Letter No.-270 Date- 02.02.2023	Letter No.-270 Date- 02.02.2023
Gumla SK15	Gumla	Patia-ii	Khata No.-176 Plot No.-2952(P)	**No** Letter.No.-134 Date-03.02.2023	Letter No.-270 Date- 02.02.2023	Letter No.-270 Date- 02.02.2023
	Sisai	Olmunda	Khata No.-142, Plot No.-01(P)	**No** Letter.No.-83(ii) Date-25.01.2023	Letter No.-270 Date- 02.02.2023	Letter No.-270 Date- 02.02.2023
Gumla SK16	Sisai	Olmunda	Khata No.-142, Plot No.-1738(P), 1739(P)	**No** Letter.No.-83(ii) Date-25.01.2023	Letter No.-270 Date- 02.02.2023	Letter No.-270 Date- 02.02.2023
	Gumla	Koenjara	Khata No.-287 Plot No.-3233(P)	**No** Letter.No.-137 Date-03.02.2023	Letter No.-270 Date- 02.02.2023	Letter No.-270 Date- 02.02.2023
	Gumla	Keluga	Khata No.-187 Plot No.-309(P), 1486(P)	**No** Letter.No.-138 Date-03.02.2023	Letter No.-270 Date- 02.02.2023	Letter No.-270 Date- 02.02.2023
Gumla SK17	Gumla	Keluga	Khata No.-187 Plot No.-1974(P) ***As per C.O. letter 0.26 Ha.***	**No** Letter.No.-138 Date-03.02.2023	Letter No.-270 Date- 02.02.2023	Letter No.-270 Date- 02.02.2023
	Basia	Tengara	Khata No.-73 Plot No.-1869(P), 1861(P)	**No** Letter.No.-60/रा Date-01.02.2023	Letter No.-270 Date- 02.02.2023	Letter No.-270 Date- 02.02.2023
Gumla Sk18	Basia	Bongaloya	Khata No.-57 Plot No.-954(P)	**No** Letter.No.-60/रा Date-01.02.2023	Letter No.-270 Date- 02.02.2023	Letter No.-270 Date- 02.02.2023
	Gumla	Kutasi	Khata No.-72 Plot No.-1001(P)	**No** Letter.No.-139	Letter No.-270 Date- 02.02.2023	Letter No.-270 Date- 02.02.2023

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				Date-03.02.2023		
Gumla Sk19	Gumla	Kutua	Khata No.-197 Plot No.-2421(P), 2414(P)	**No** Letter.No.-136 Date-03.02.2023	Letter No.-270 Date- 02.02.2023	Letter No.-270 Date- 02.02.2023
	Basia	Lungtu	Khata No.-89 Plot No.-01(P)	**No** Letter.No.-60/रा Date-01.02.2023	Letter No.-270 Date- 02.02.2023	Letter No.-270 Date- 02.02.2023
Gumla Sk20	Basia	Pantha	Khata No.-126 Plot No.-1940(P)	**No** Letter.No.-60/रा Date-01.02.2023	Letter No.-270 Date- 02.02.2023	Letter No.-270 Date- 02.02.2023
Gumla Sk21	Basia	Kanaskeli	Khata No.-153 Plot No.-1291(P)	**No** Letter.No.-60/रा Date-01.02.2023	Letter No.-270 Date- 02.02.2023	Letter No.-270 Date- 02.02.2023
Gumla SH01	Chainpur	Haradipa	Khata No.-85 Plot No.-1174(P), ***(As per CO letter Plot No.-1019)***	**No** Letter.No.-87 Date-02.02.2023	Letter No.-270 Date- 02.02.2023	Letter No.-270 Date- 02.02.2023
Gumla SH02	Paramveer Albert Ekka (Jari)	Asro-i	Khata No.-83 Plot No.-1176(P)	**No** Letter.No.-34(ii) Date-10.02.2023	Letter No.-270 Date- 02.02.2023	Letter No.-270 Date- 02.02.2023
Gumla SH03	Paramveer Albert Ekka (Jari)	Asro-ii	Khata No.-83 Plot No.-1385(P)	**No** Letter.No.-34(ii) Date-10.02.2023	Letter No.-270 Date- 02.02.2023	Letter No.-270 Date- 02.02.2023
	Paramveer Albert Ekka (Jari)	Pondi	Khata No.-65 Plot No.-743(P)	**No** Letter.No.-34(ii) Date-10.02.2023	Letter No.-270 Date- 02.02.2023	Letter No.-270 Date- 02.02.2023
Gumla SH04	Raidih	Kasir-i	Khata No.-376 Plot No.-4621(P)	**No** Letter.No.-24(रा) Date-17.01.2023	Letter No.-270 Date- 02.02.2023	Letter No.-270 Date- 02.02.2023
Gumla SH05	Raidih	Kasir-ii	Khata No.-441 Plot No.-6605(P)	**No** Letter.No.-24(रा) Date-17.01.2023	Letter No.-270 Date- 02.02.2023	Letter No.-270 Date- 02.02.2023

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	Raidih	Kemte	Khata No.-135 Plot No.-3176(P)	**No** Letter.No.-24(रा) Date-17.01.2023	Letter No.-270 Date- 02.02.2023	Letter No.-270 Date- 02.02.2023
Gumla SH06	Raidih	Latu	Khata No.-117 Plot No.-4002(P)	**No** Letter.No.-24(रा) Date-17.01.2023	Letter No.-270 Date- 02.02.2023	Letter No.-270 Date- 02.02.2023
Gumla SH07	Raidih	Kobja	Khata No.-301 Plot No.-5530(P) ***(As per CO letter Plot No.-371/5530)***	**No** Letter.No.-24(रा) Date-17.01.2023	Falls under Ranchi zone Awaited	

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GOOGLE IMAGE OF POTENTIAL AREA OF GUMLA DISTRICT

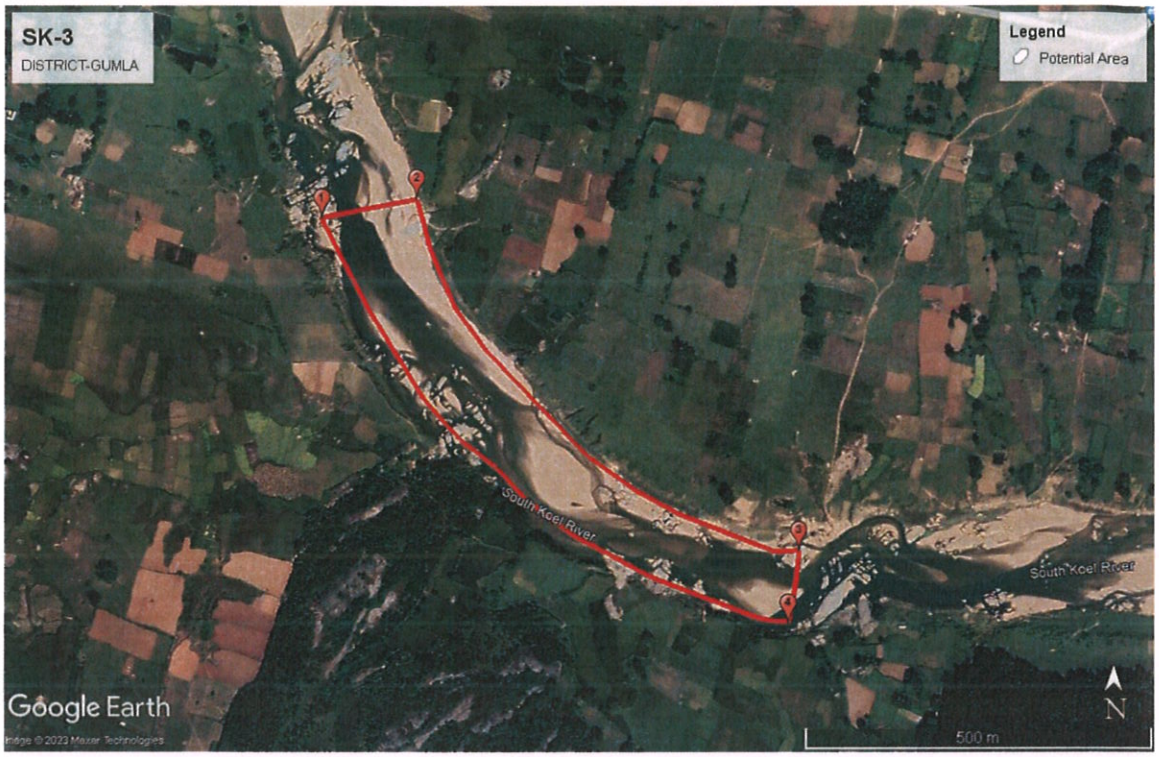
LEASE 1



LEASE 2



LEASE 3



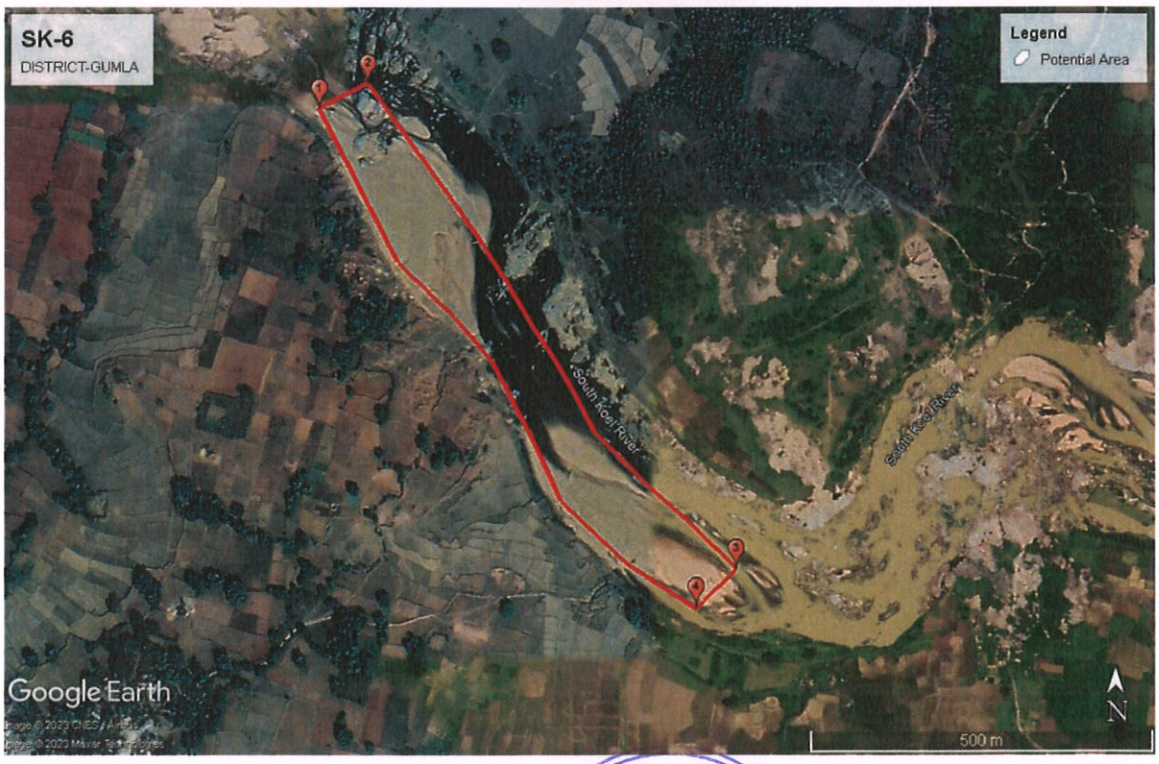
LEASE4



LEASE 5



LEASE 6



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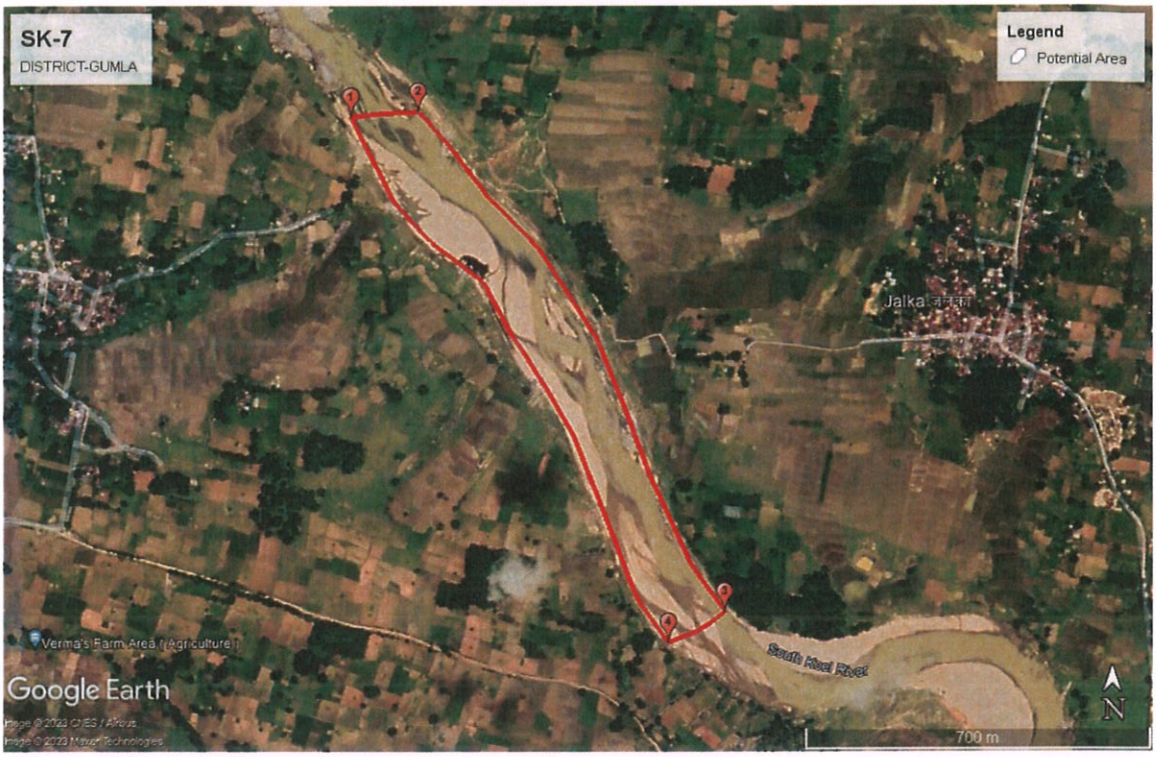
LEASE 7



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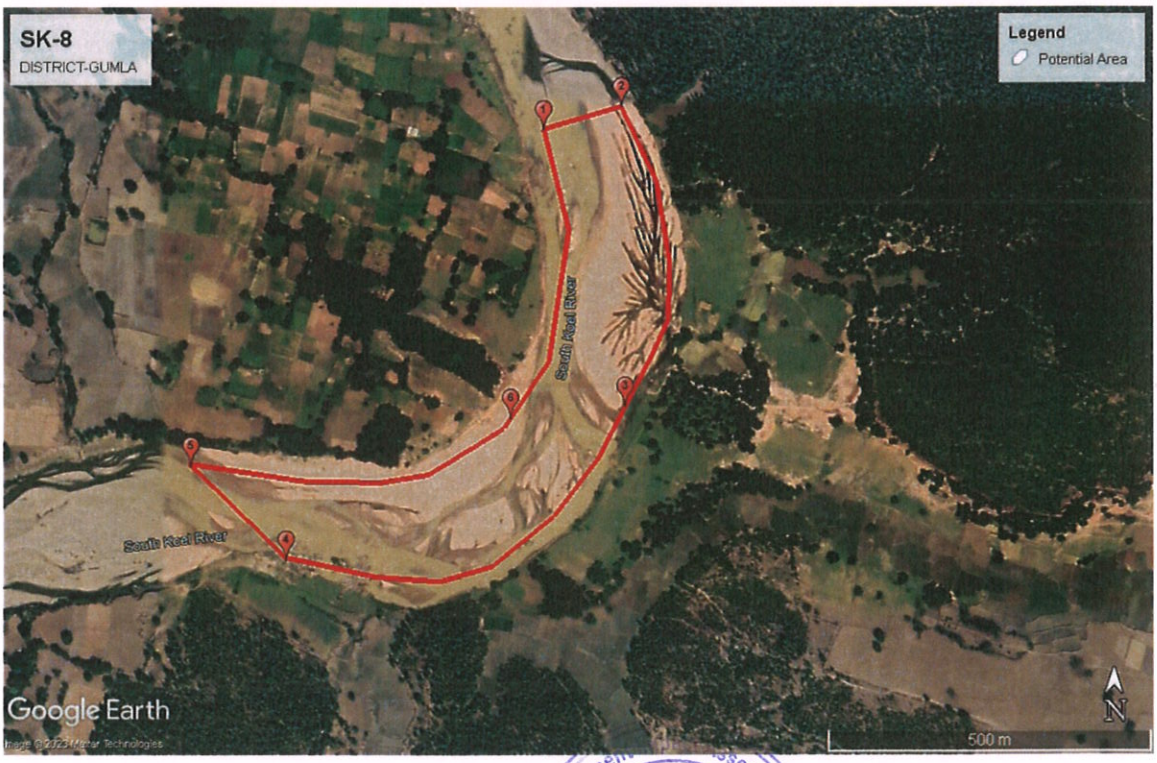

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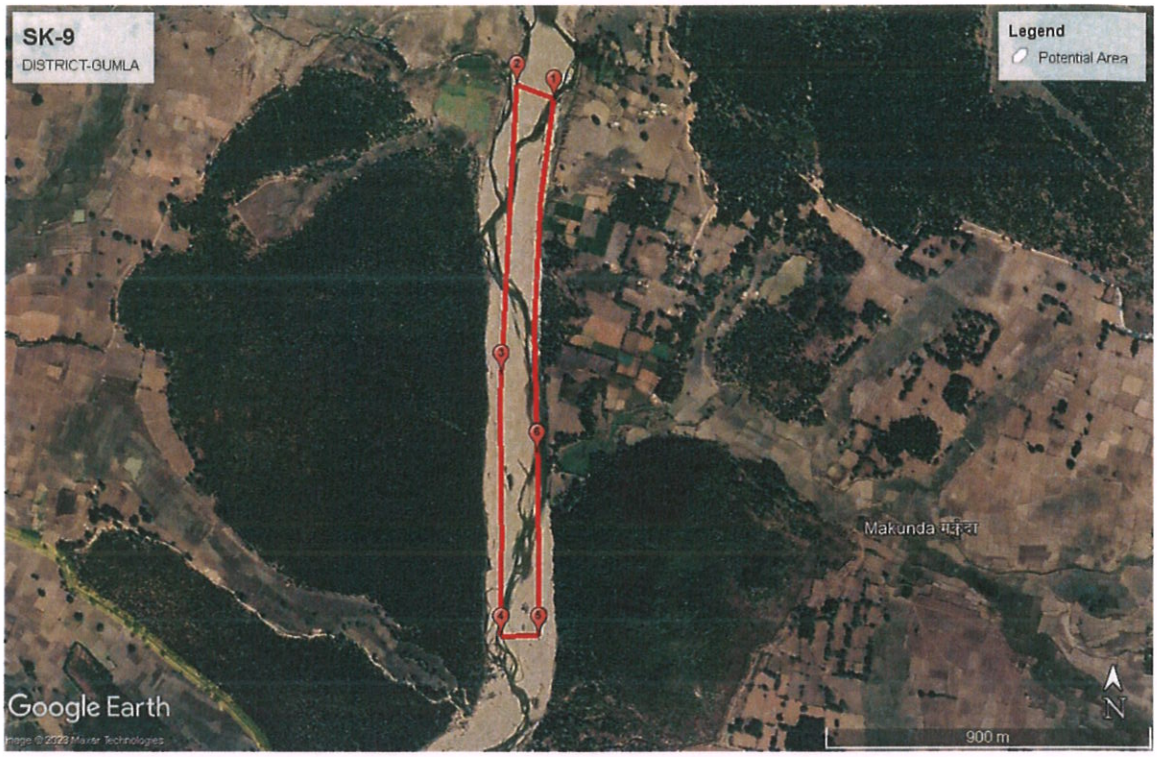

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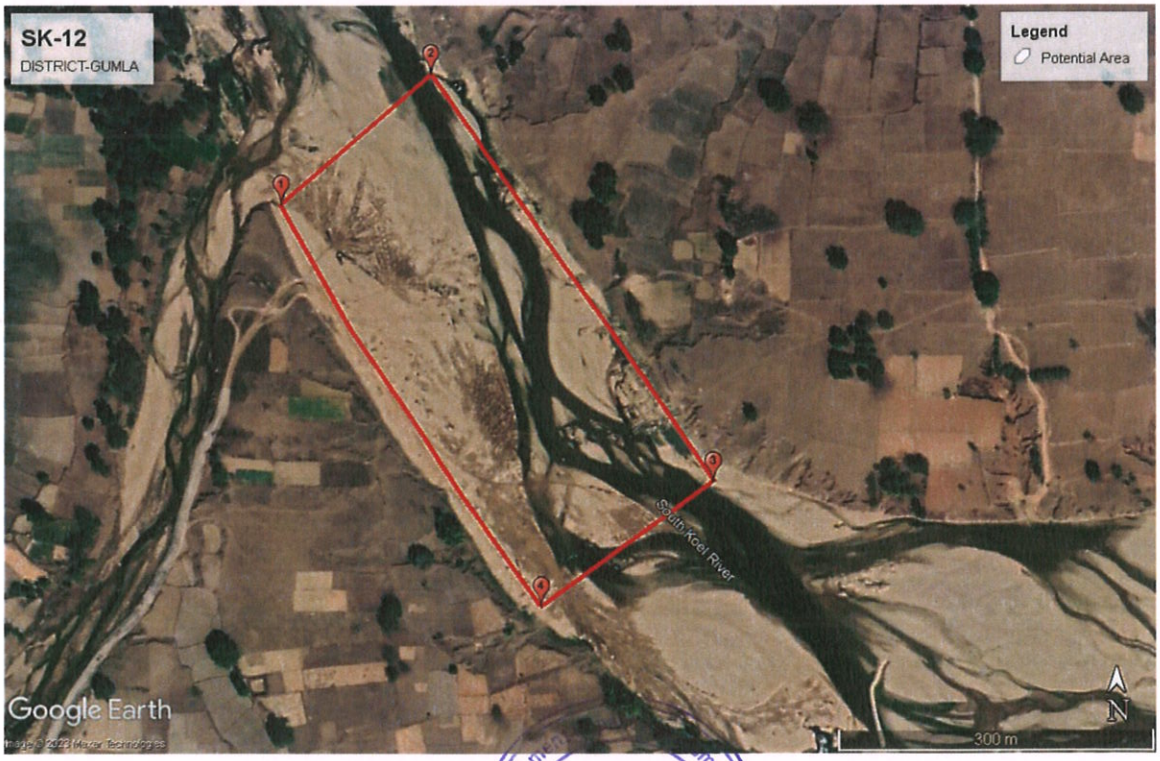

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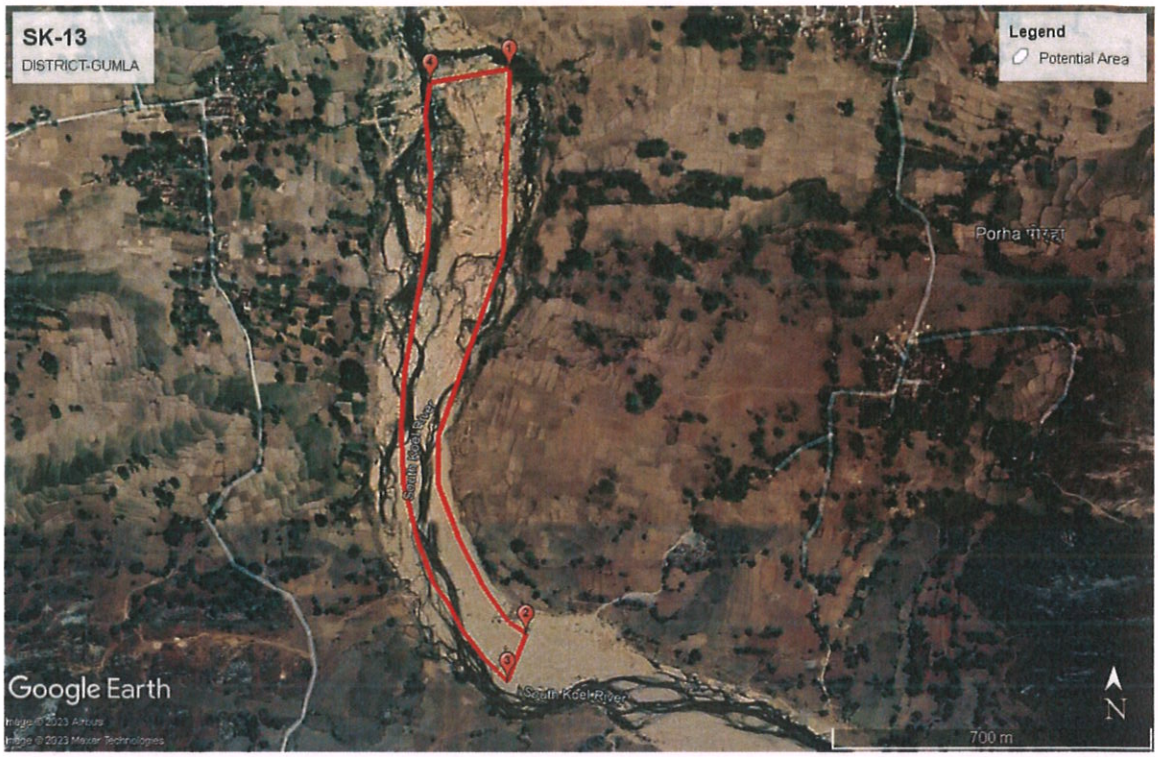

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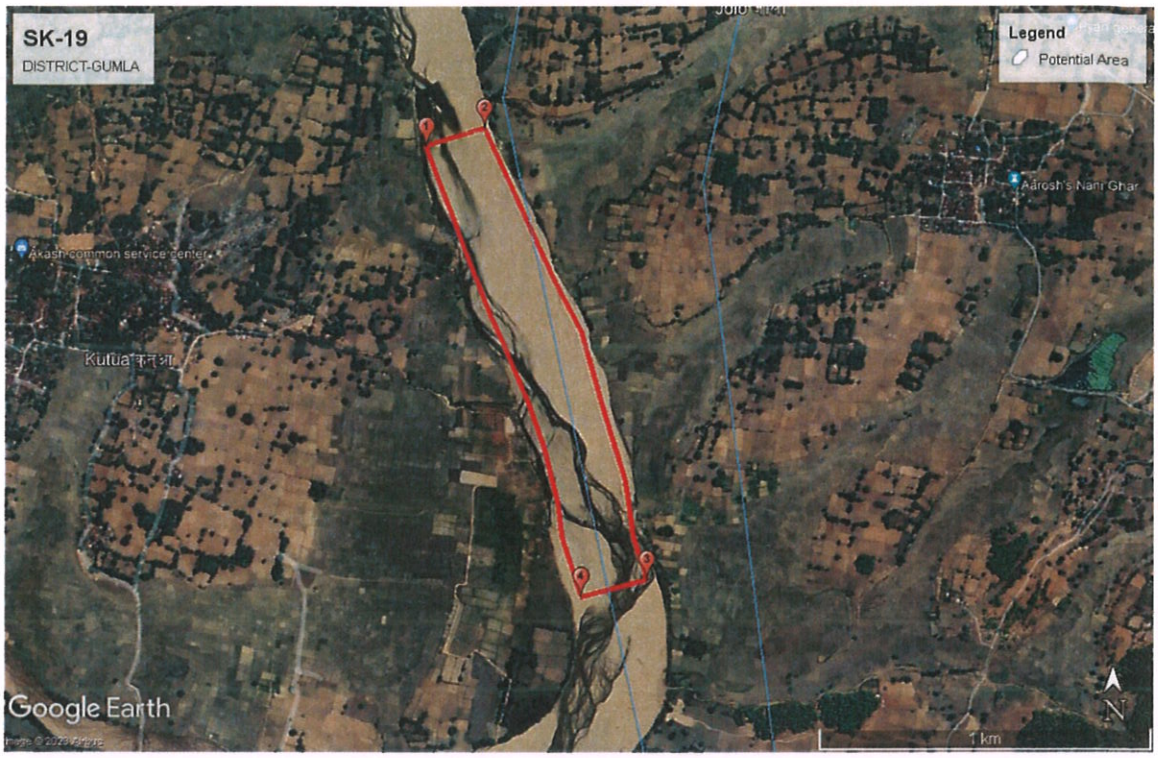

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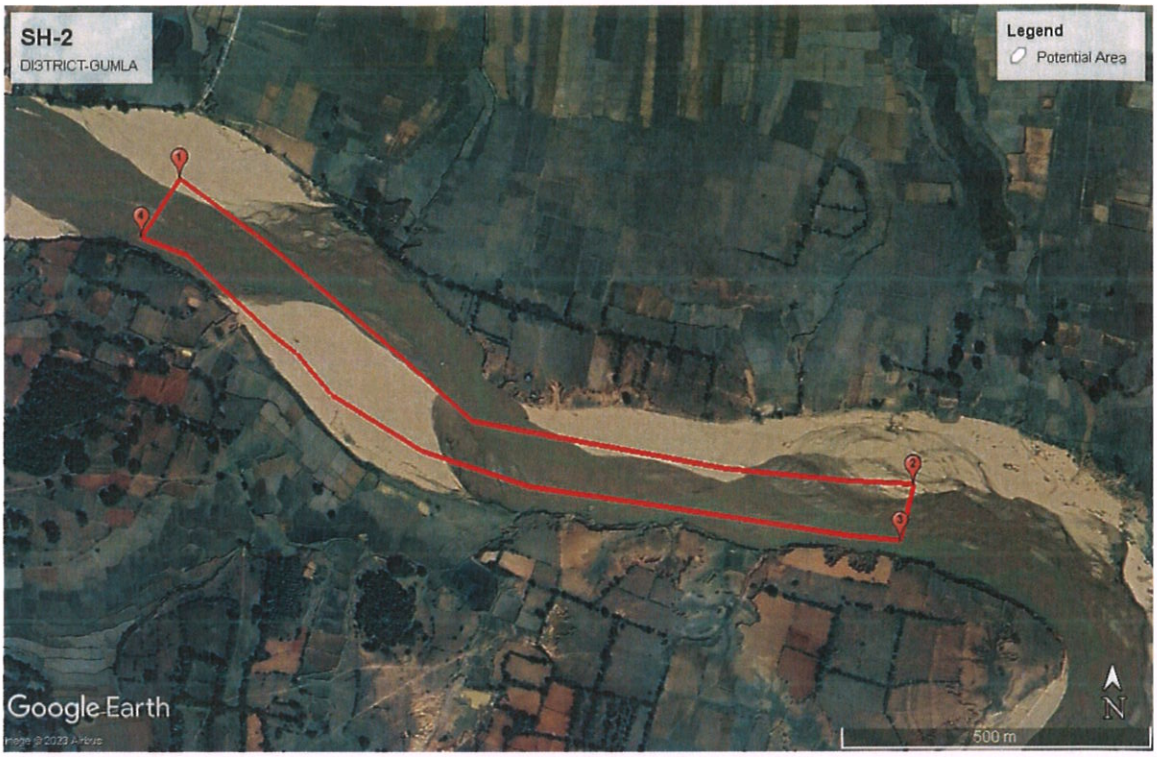

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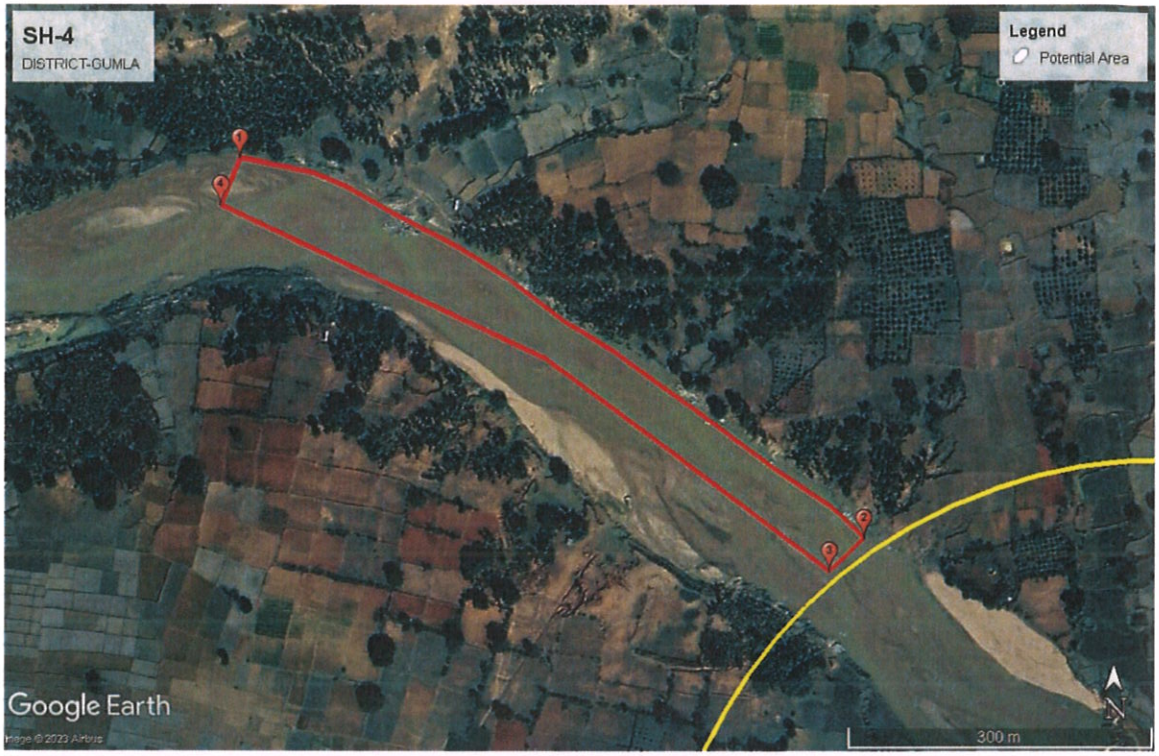

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CATEGORY-I
GOOGLE MAP OF GUMLA DISTRICT

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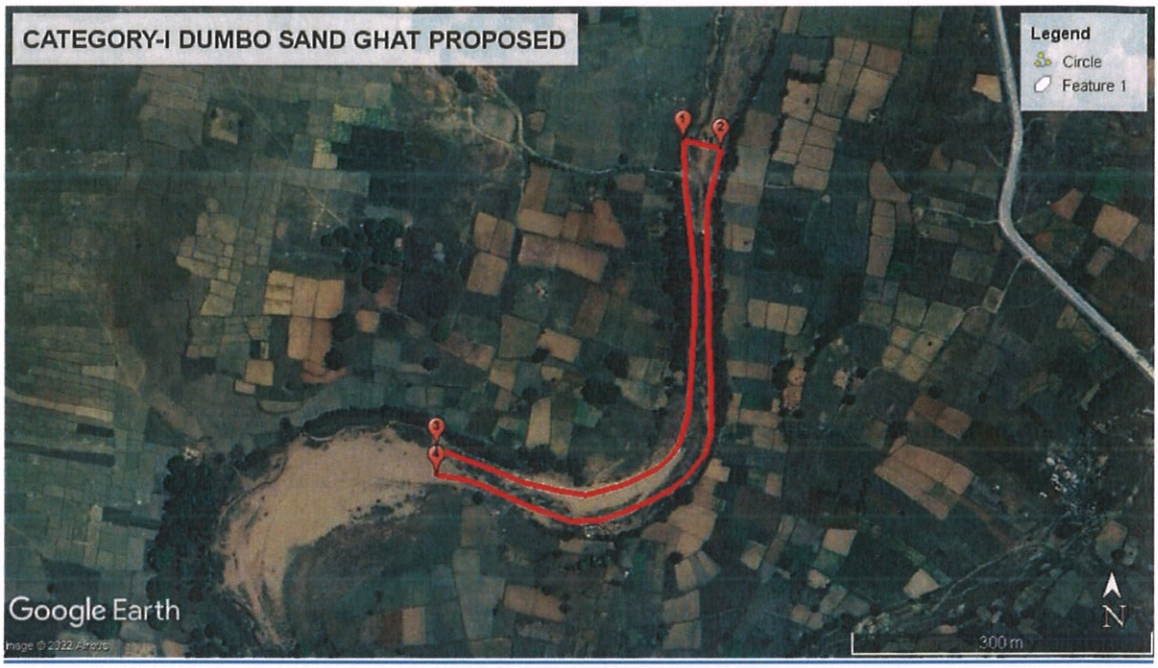

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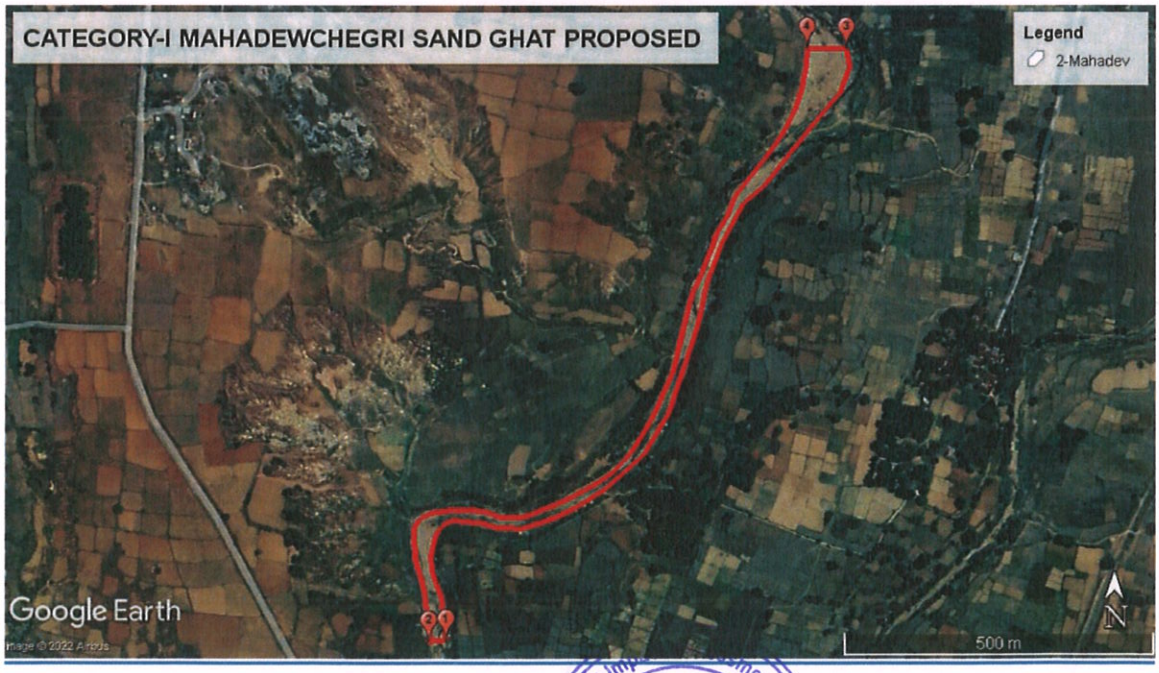

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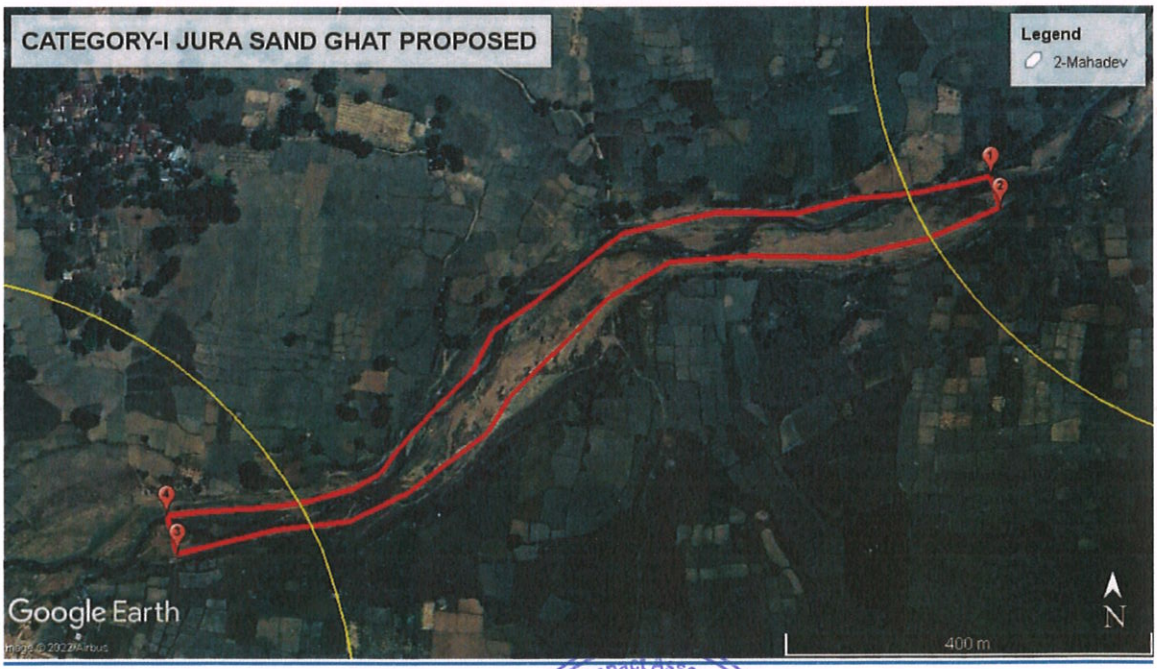

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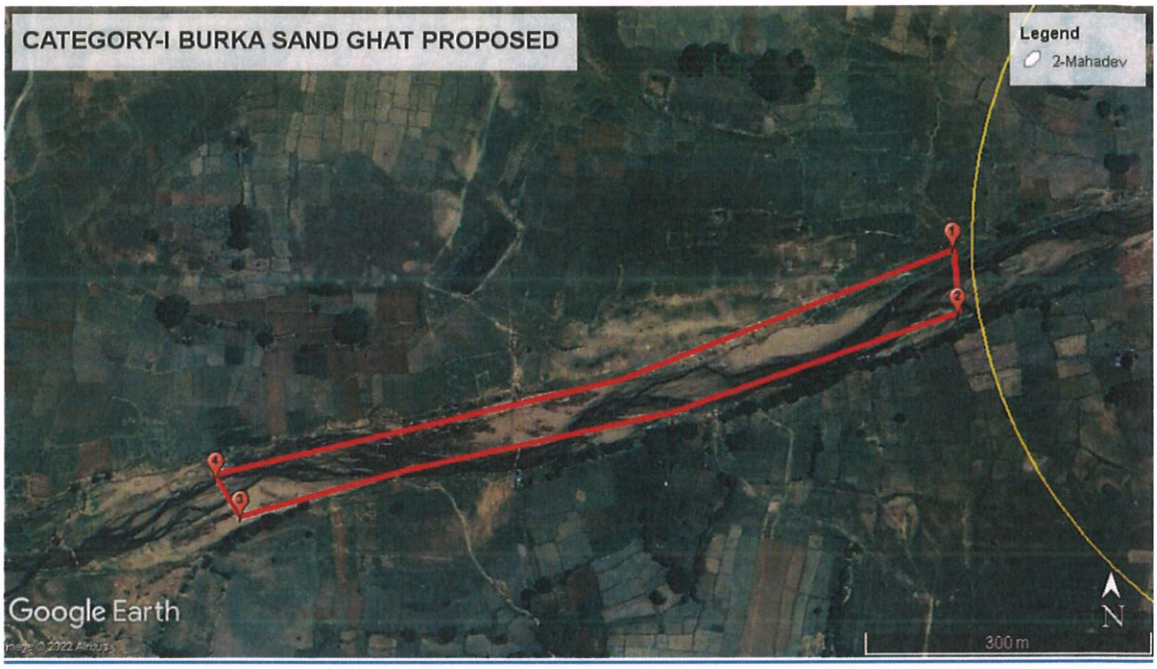

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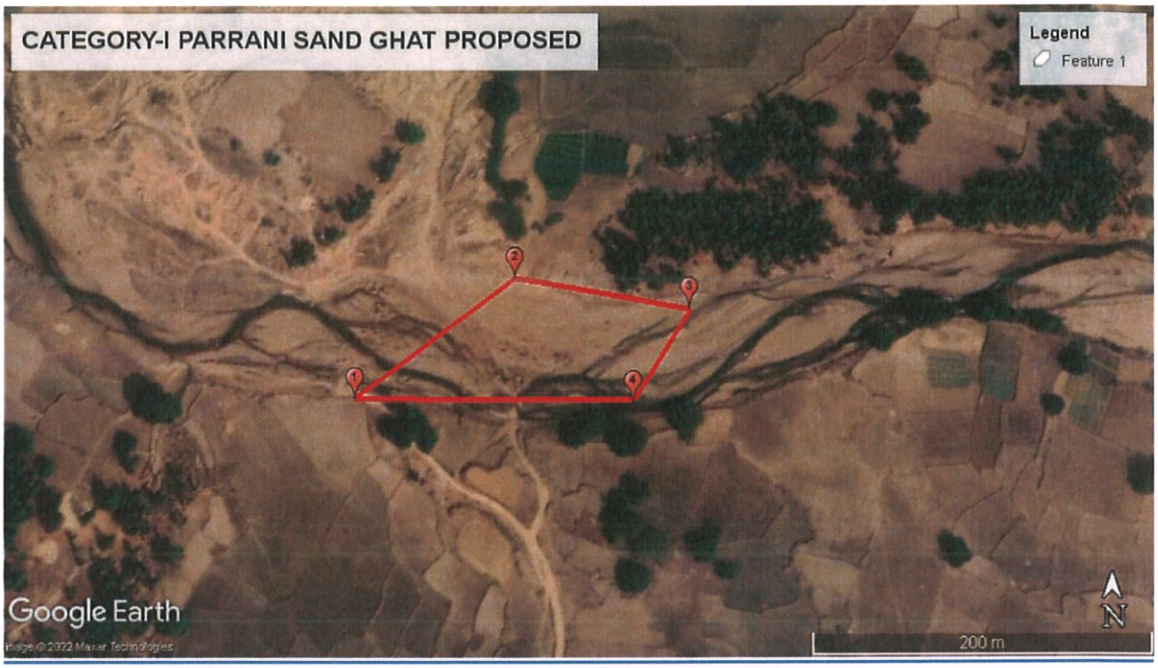

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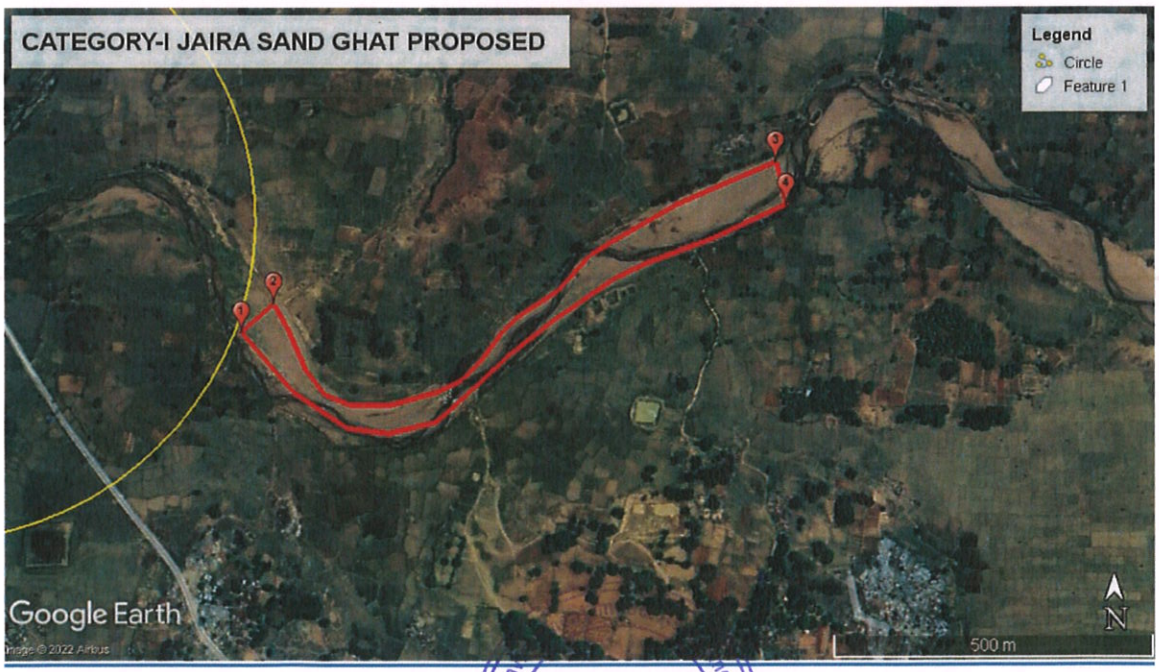

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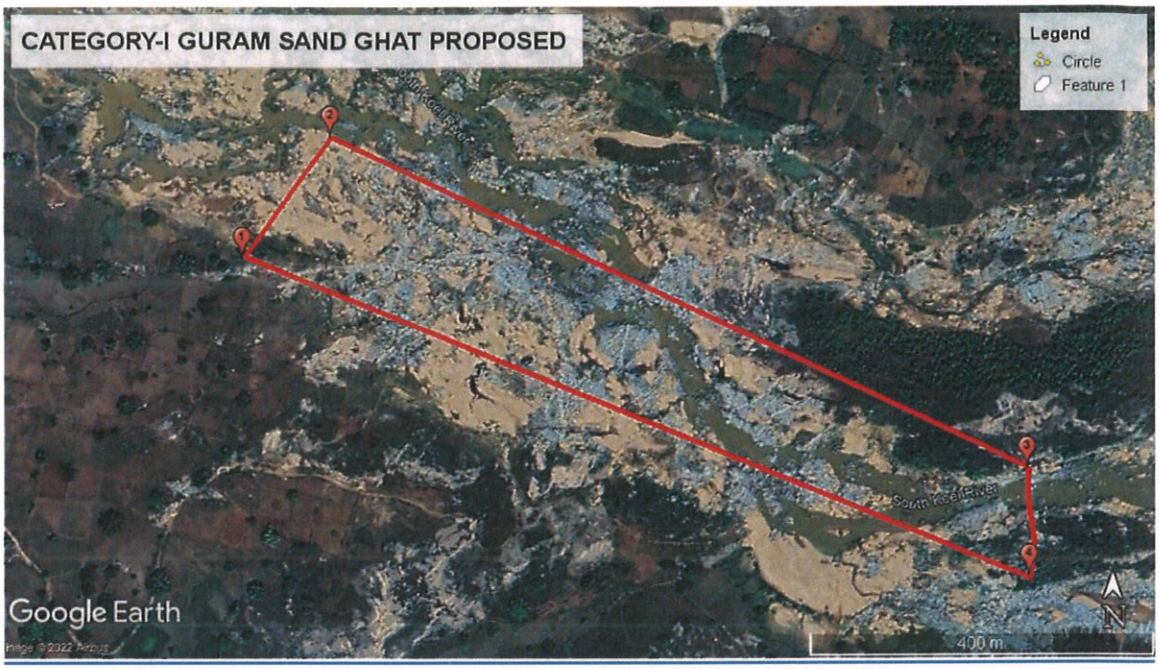

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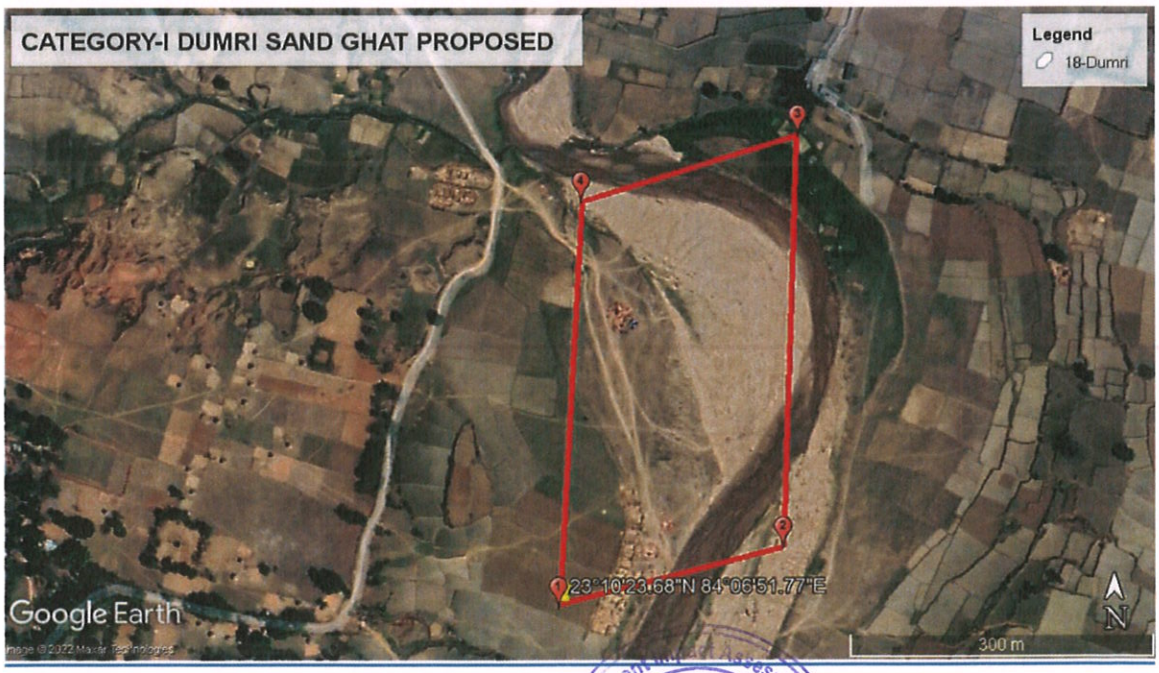

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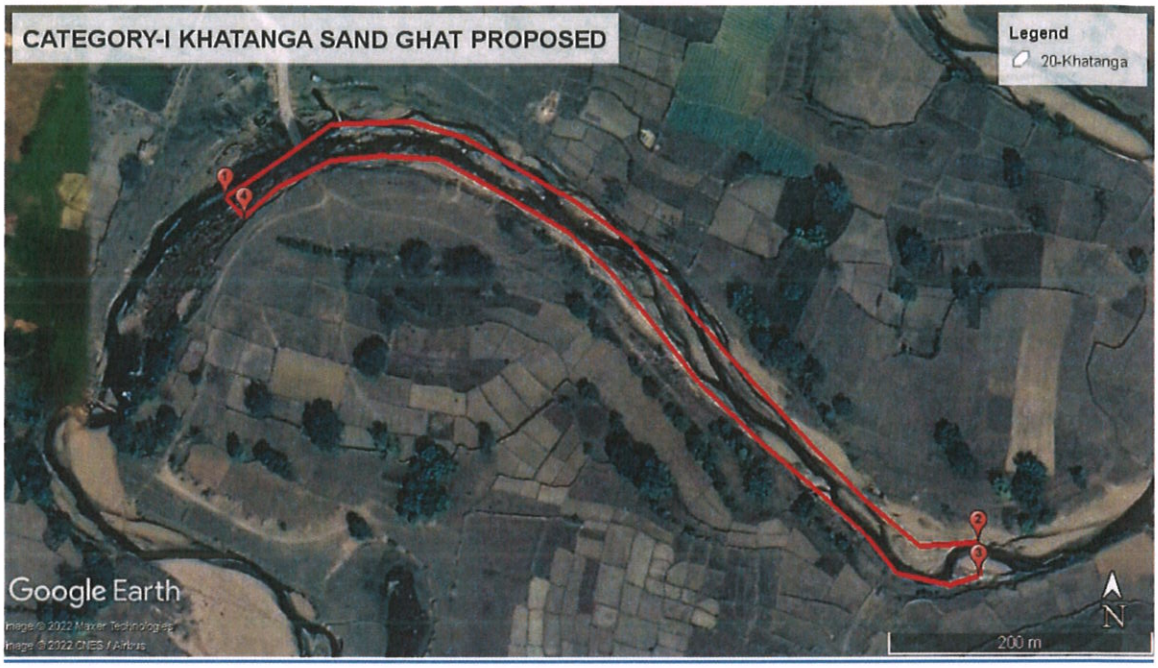

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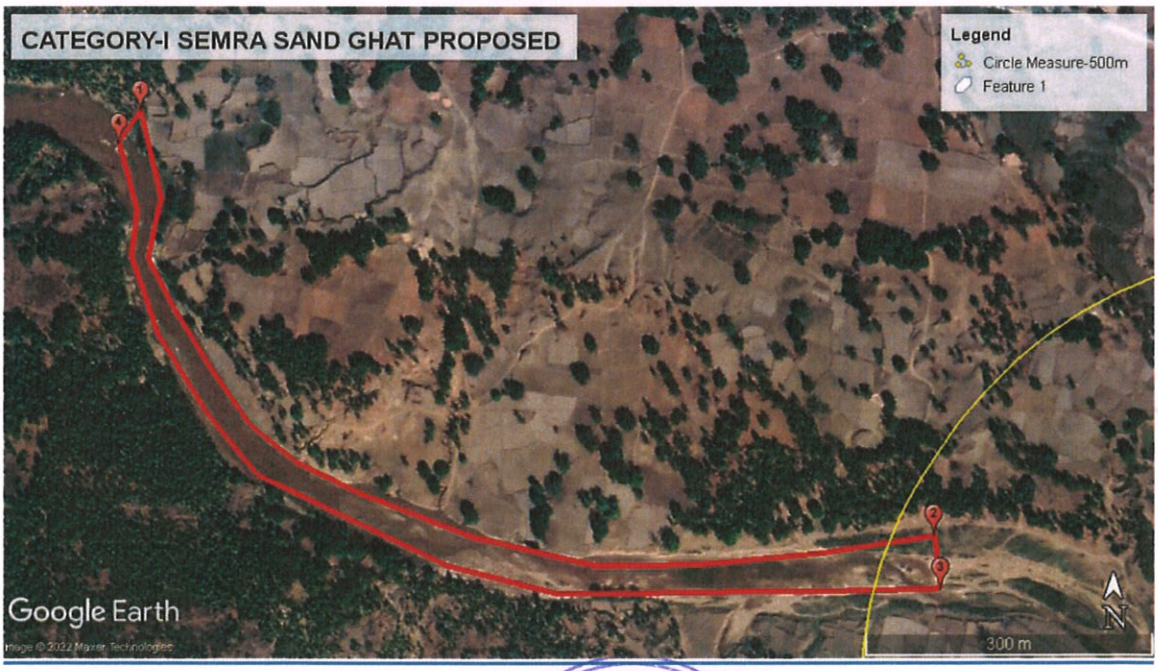

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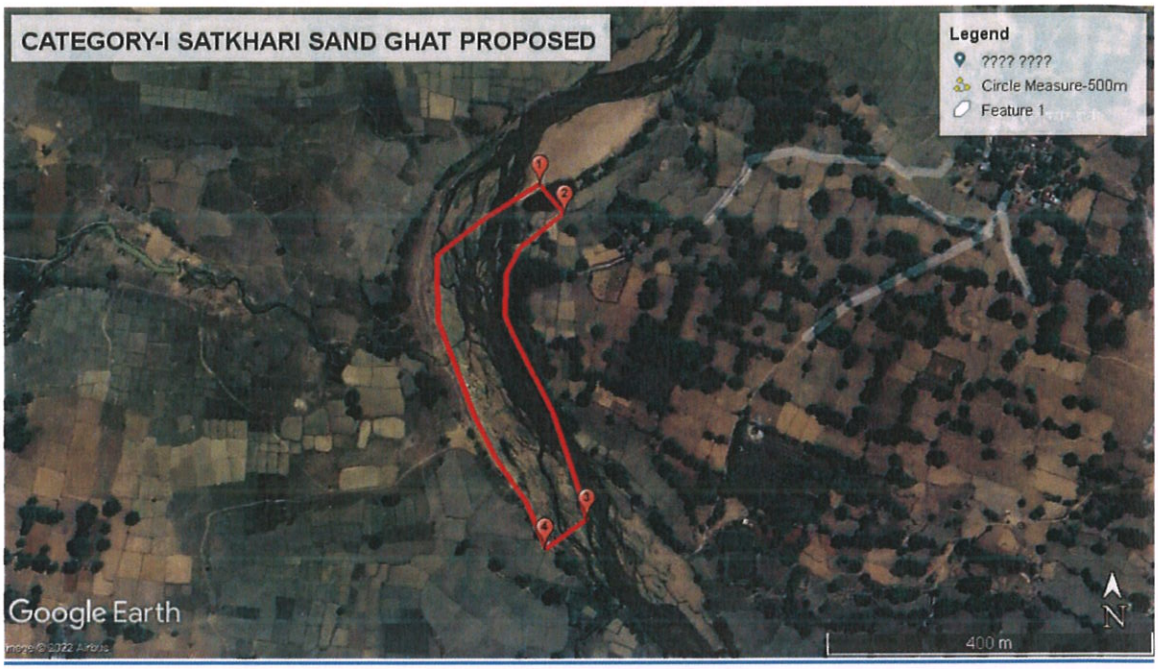

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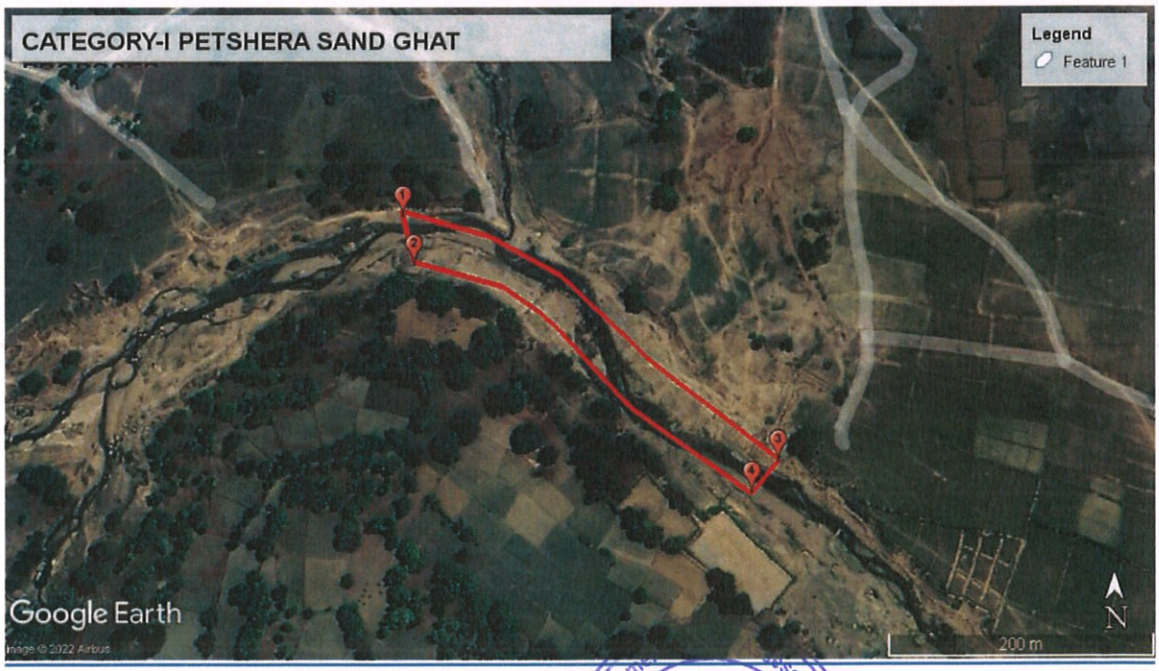

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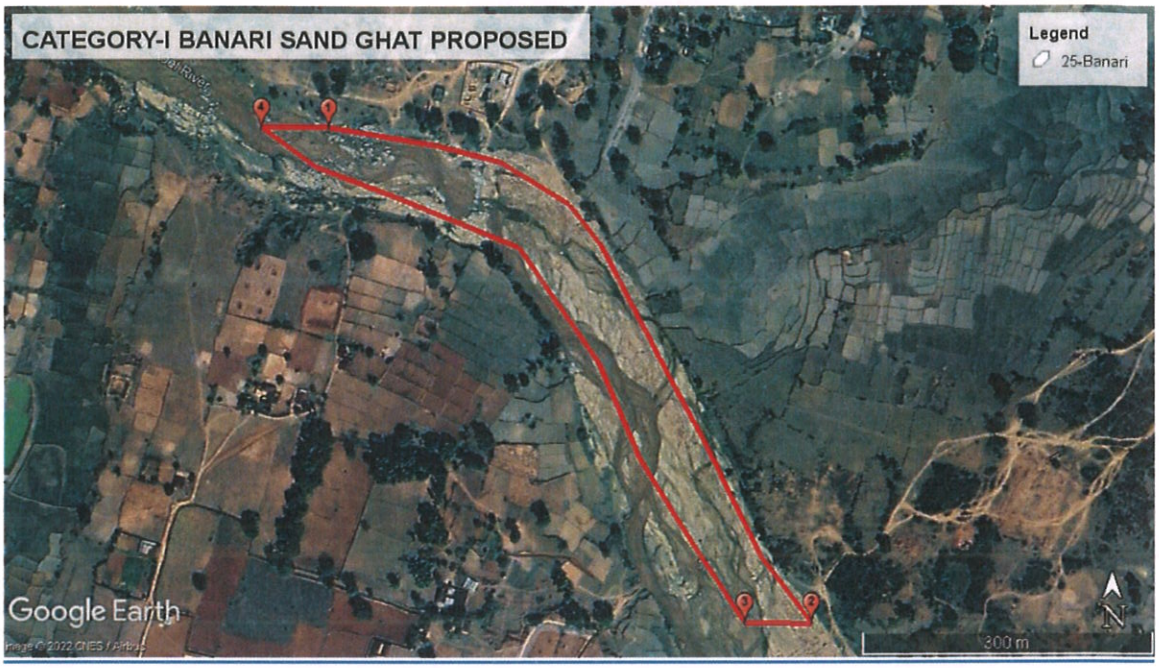
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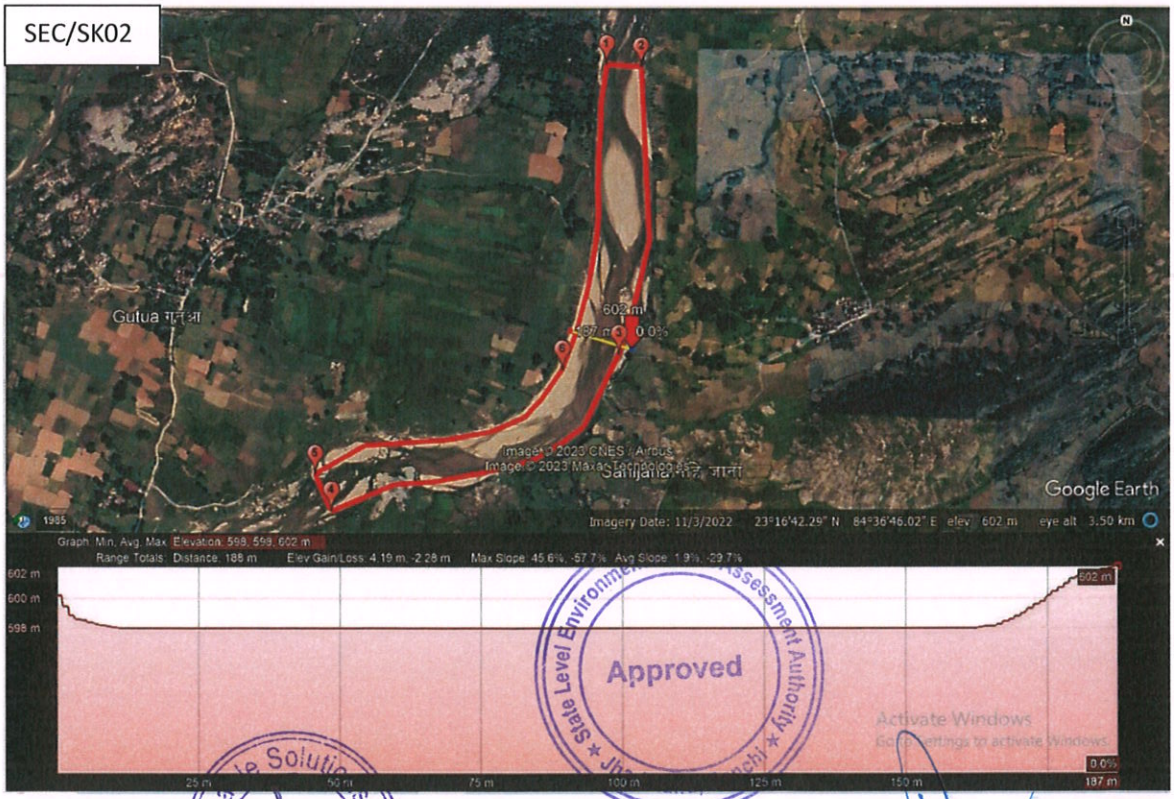
CROSS SECTION OF SOUTH KOEL & SANKH RIVER OF GUMLA DISTIRICT

SEC/SK01



SEC/SK02



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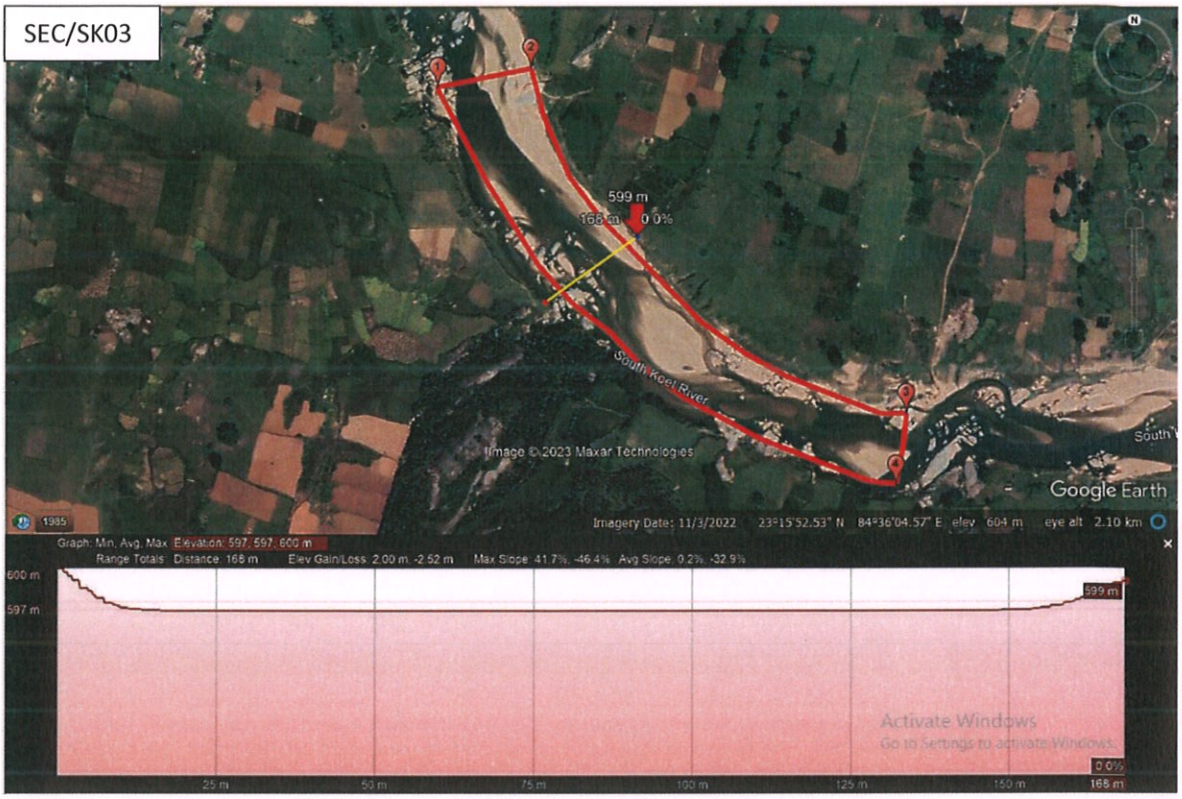

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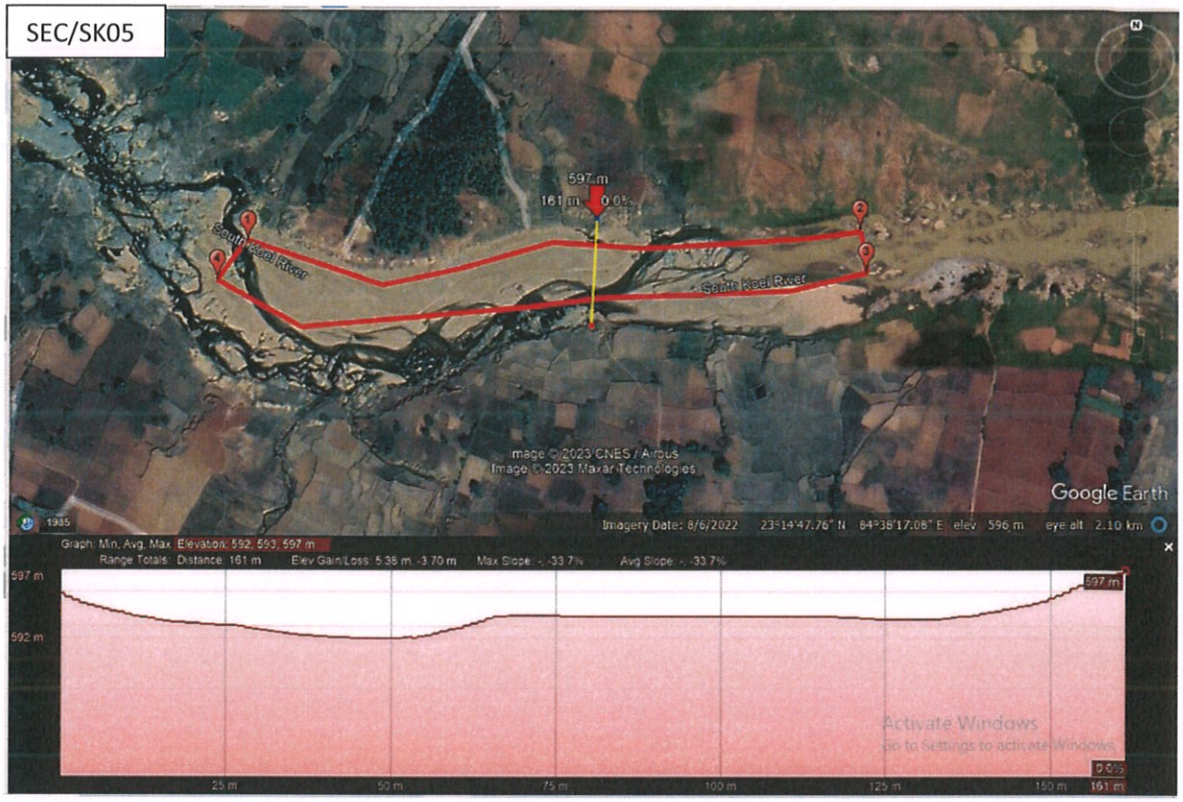
SEC/SK05



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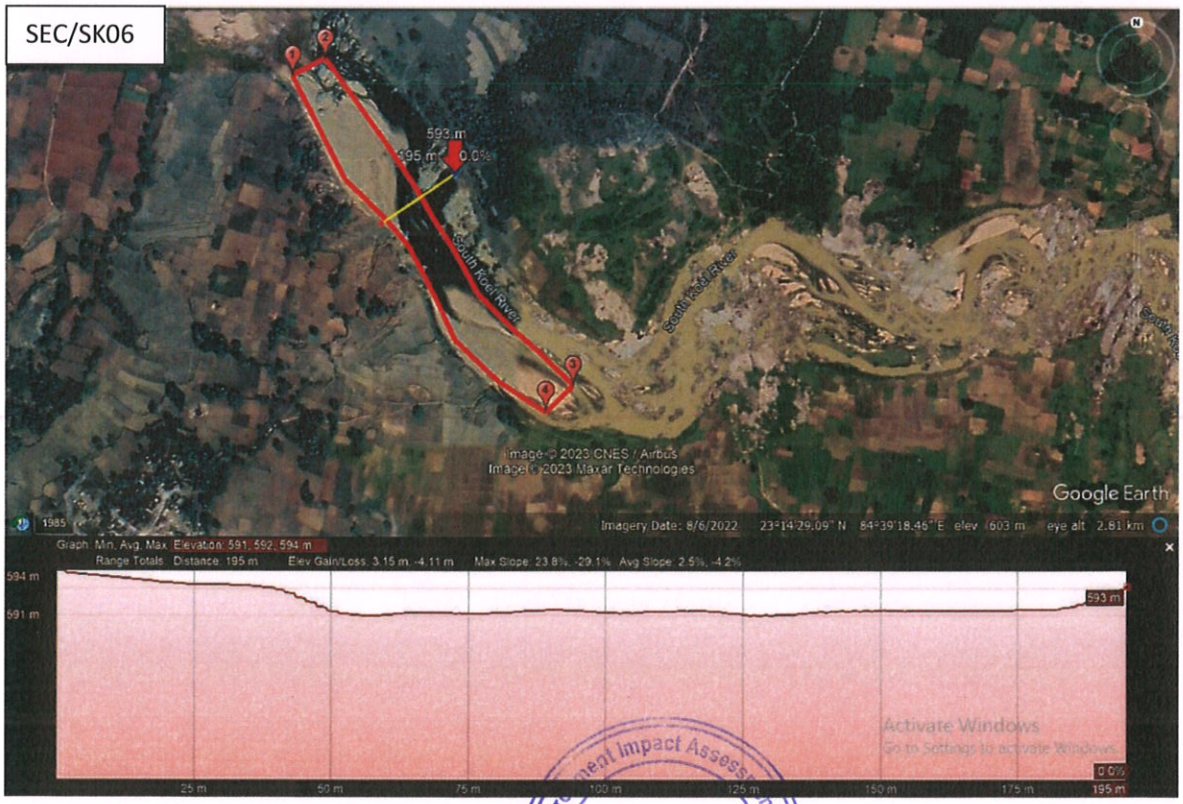

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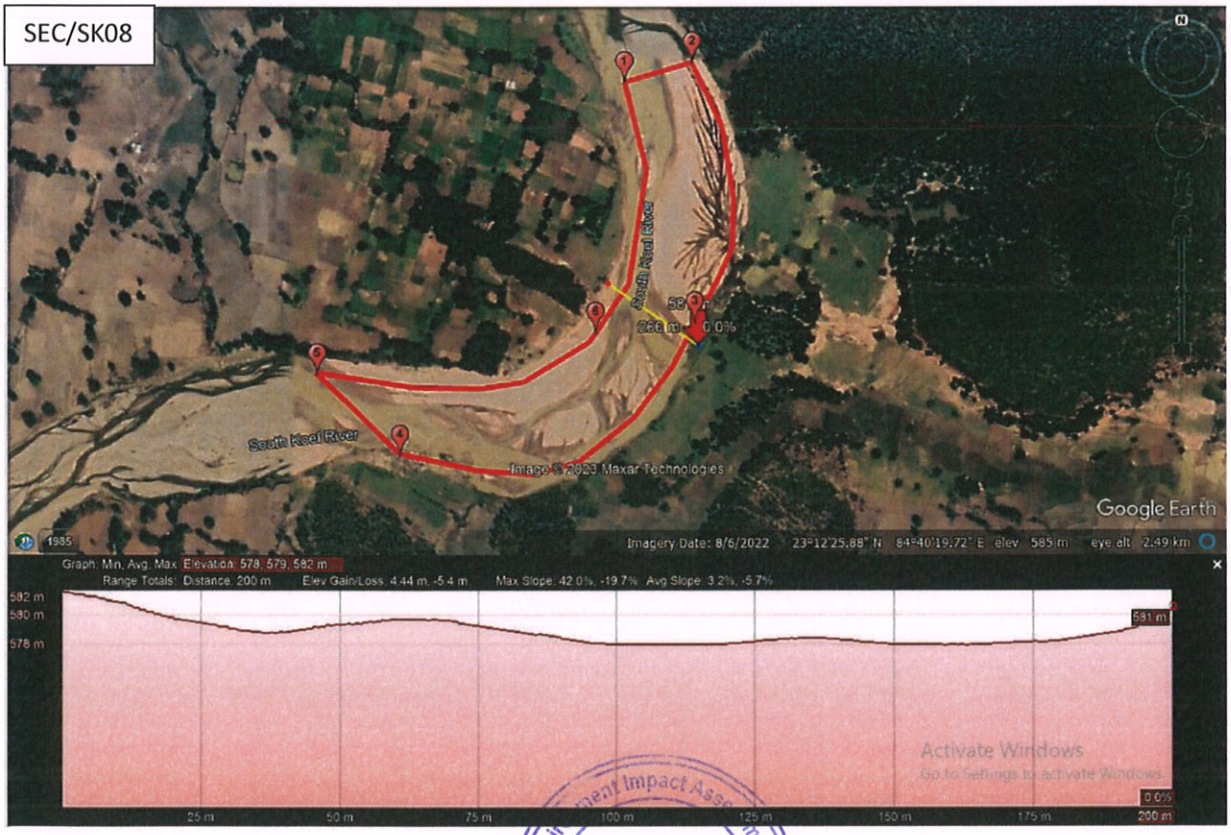
SEC/SK07



SEC/SK08



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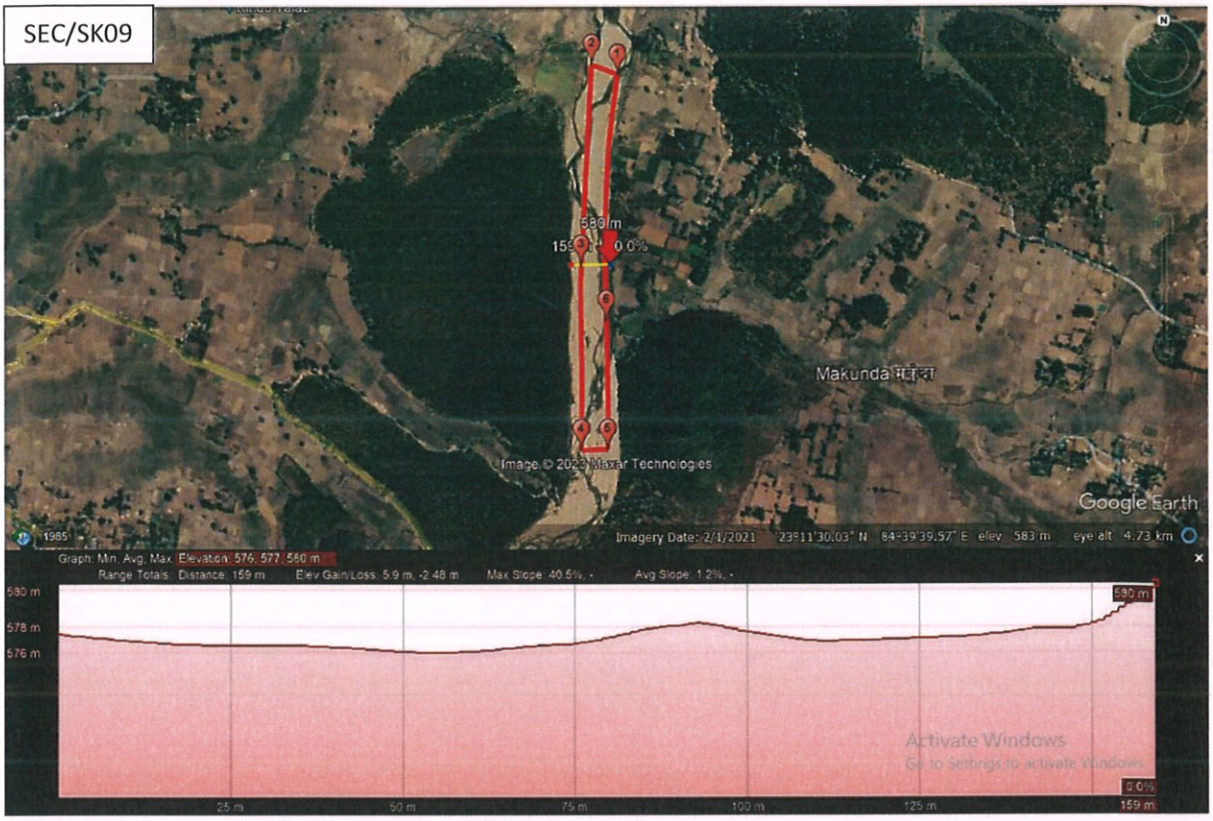

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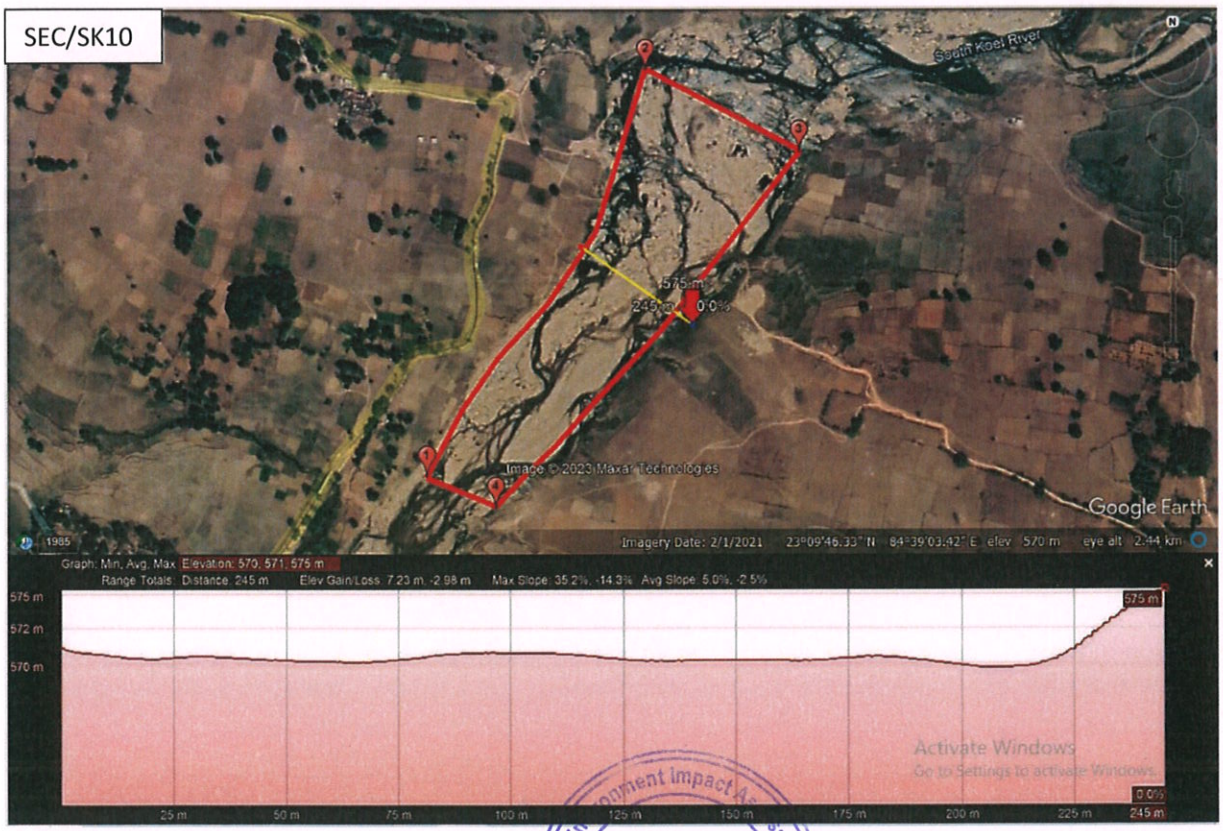

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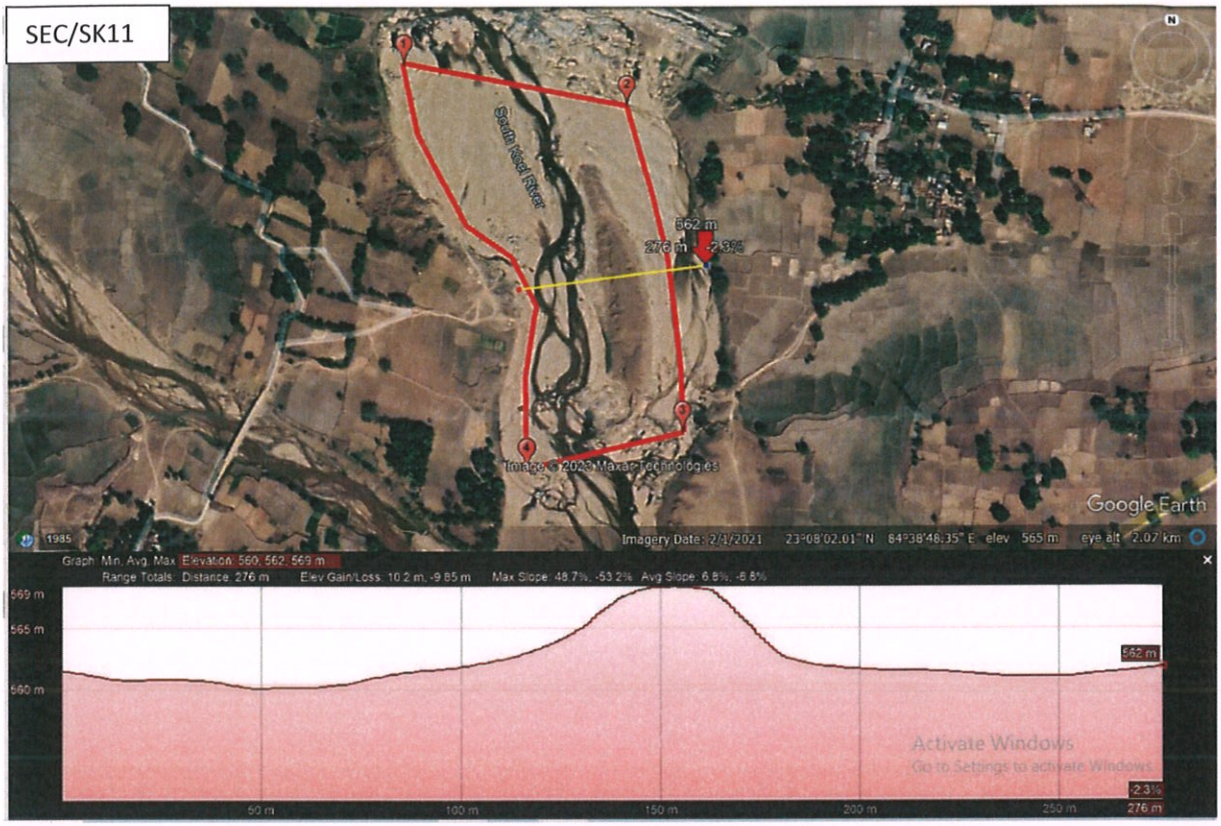

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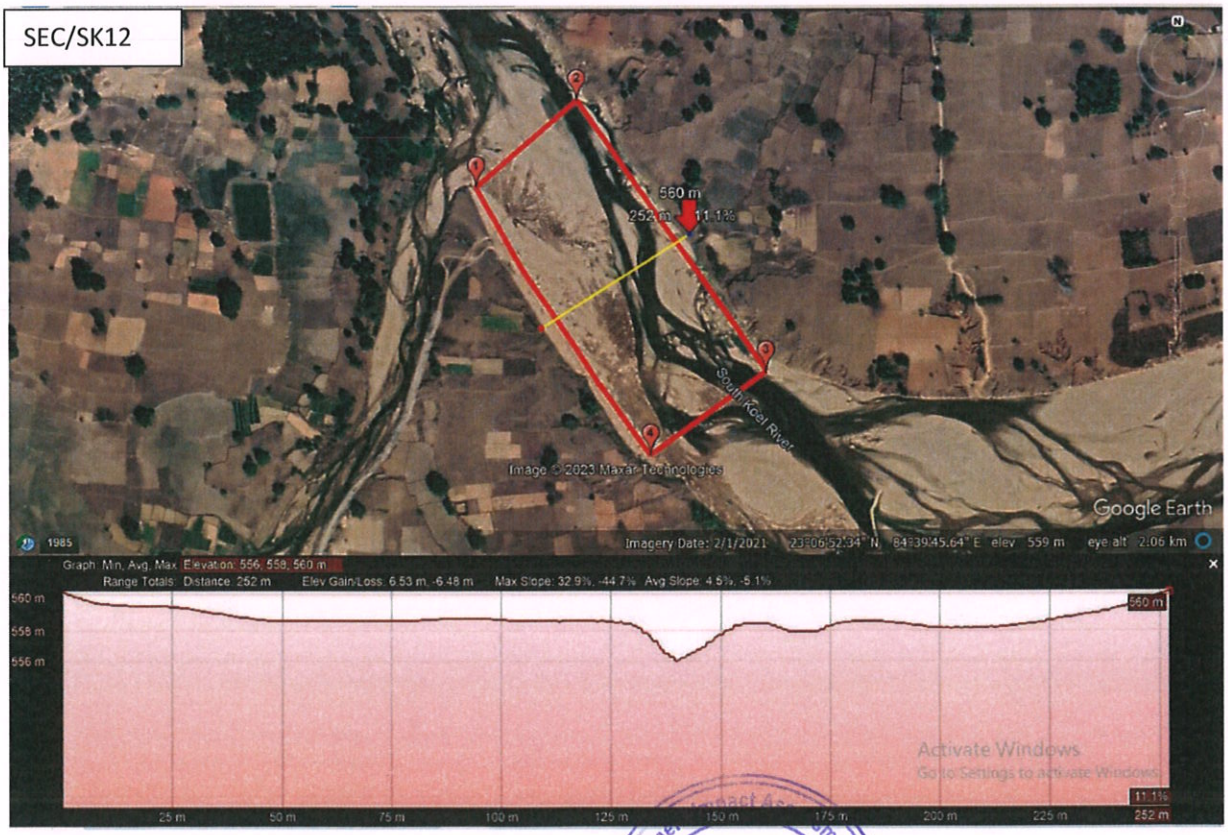

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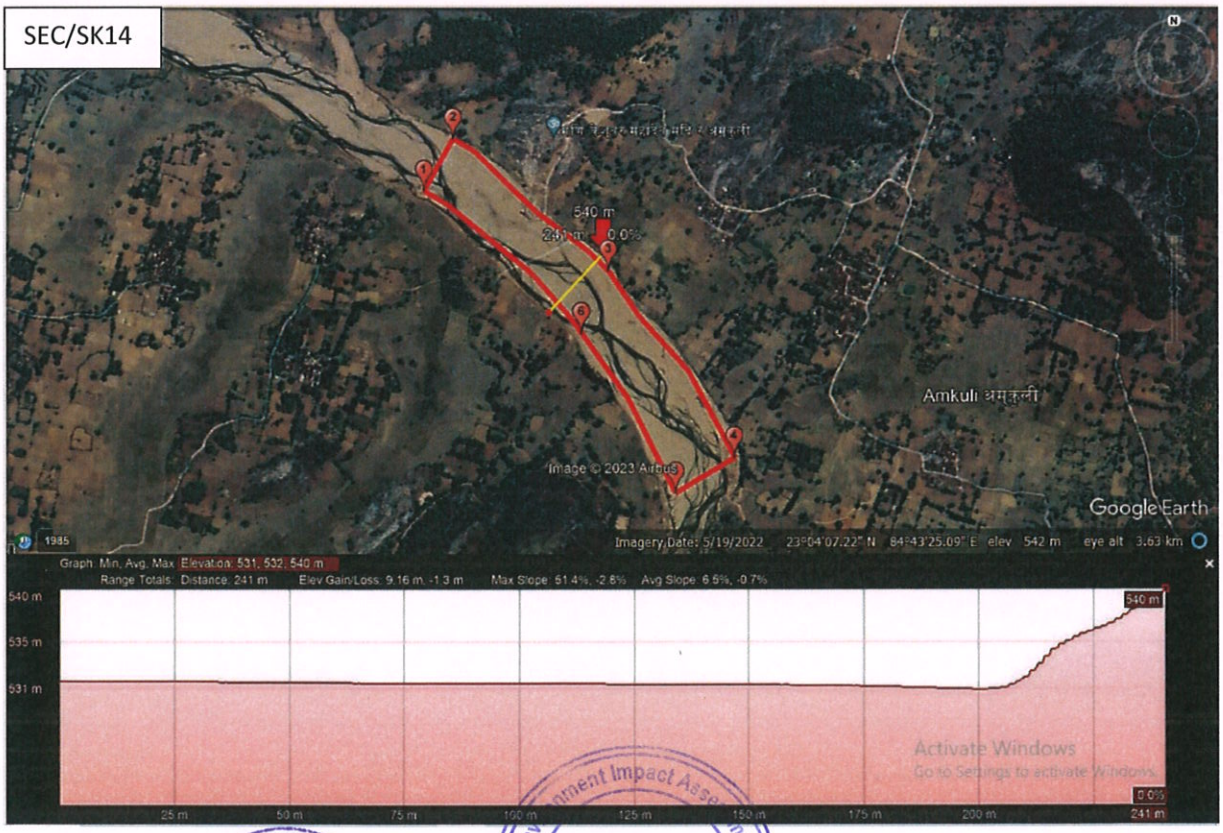

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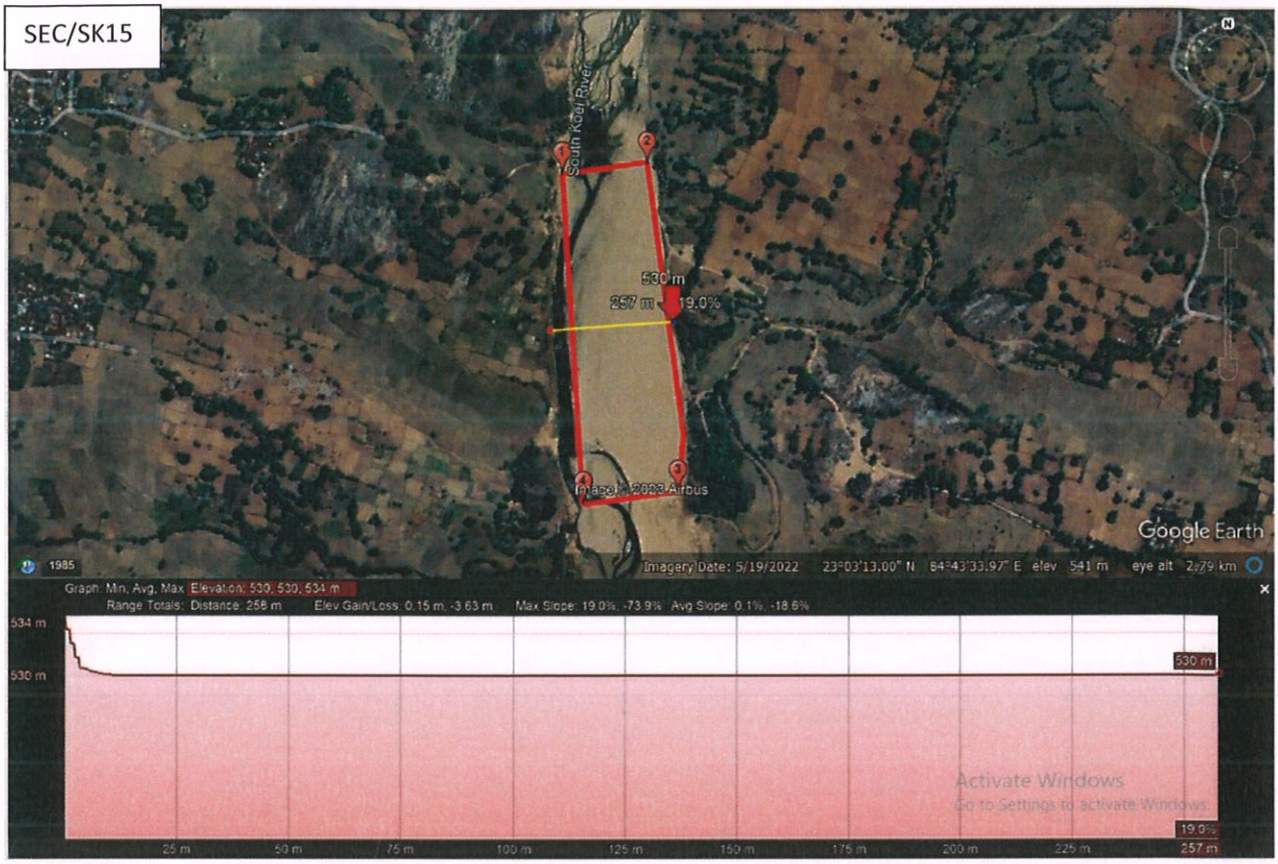

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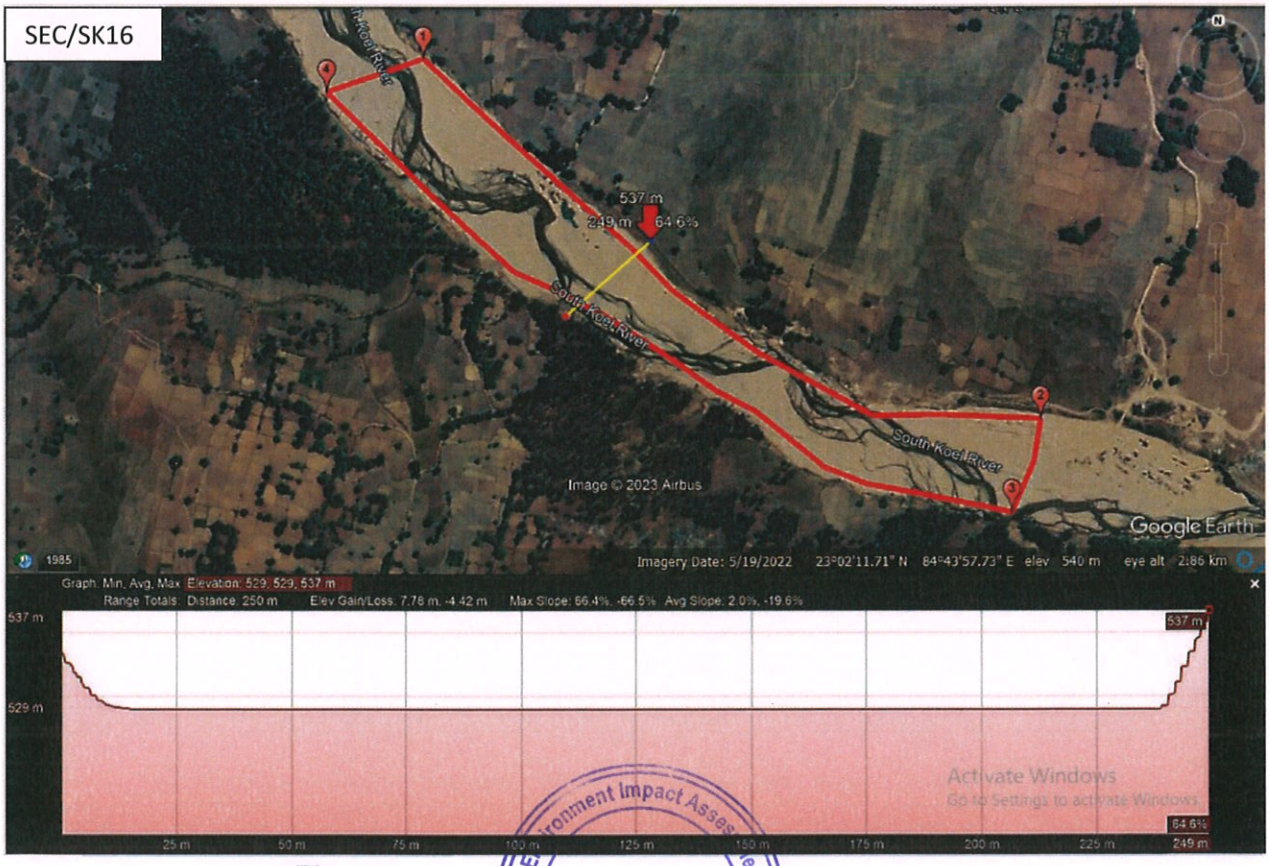

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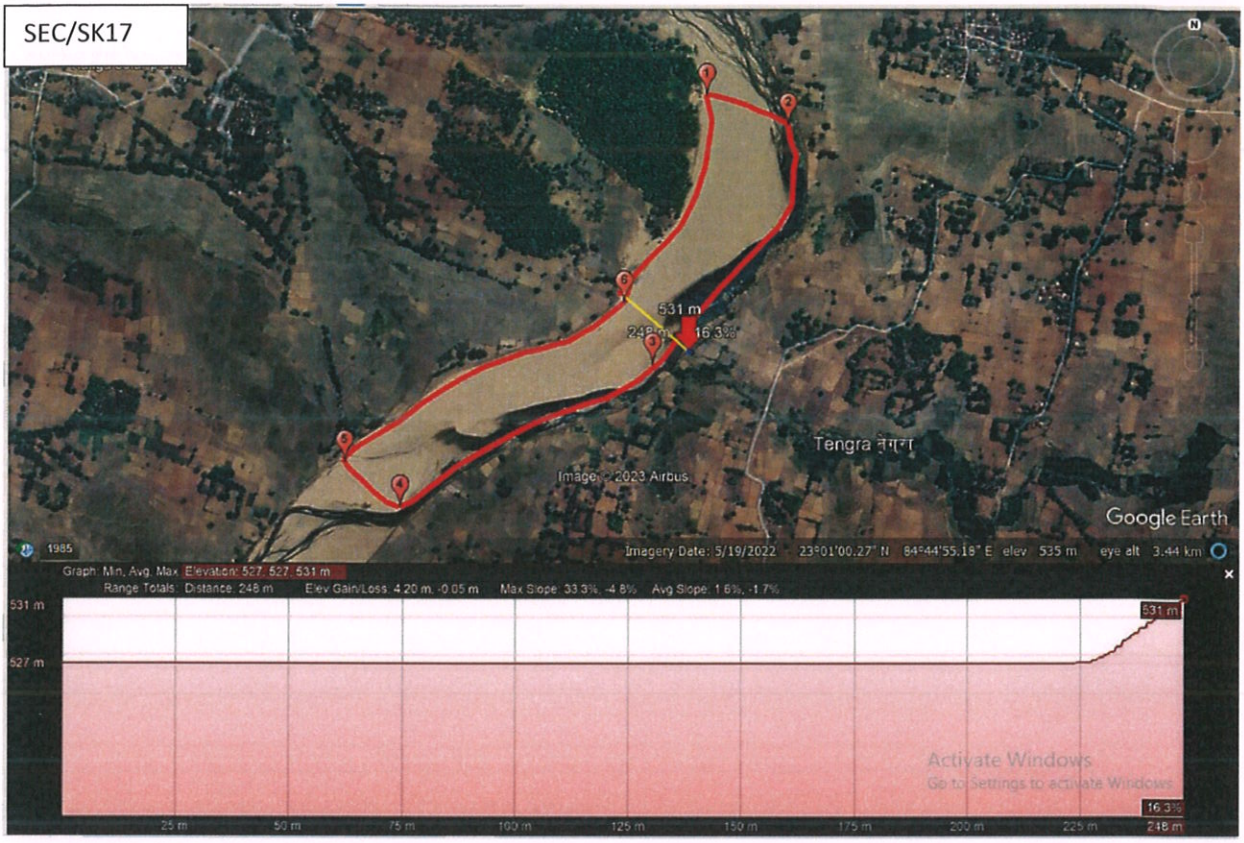

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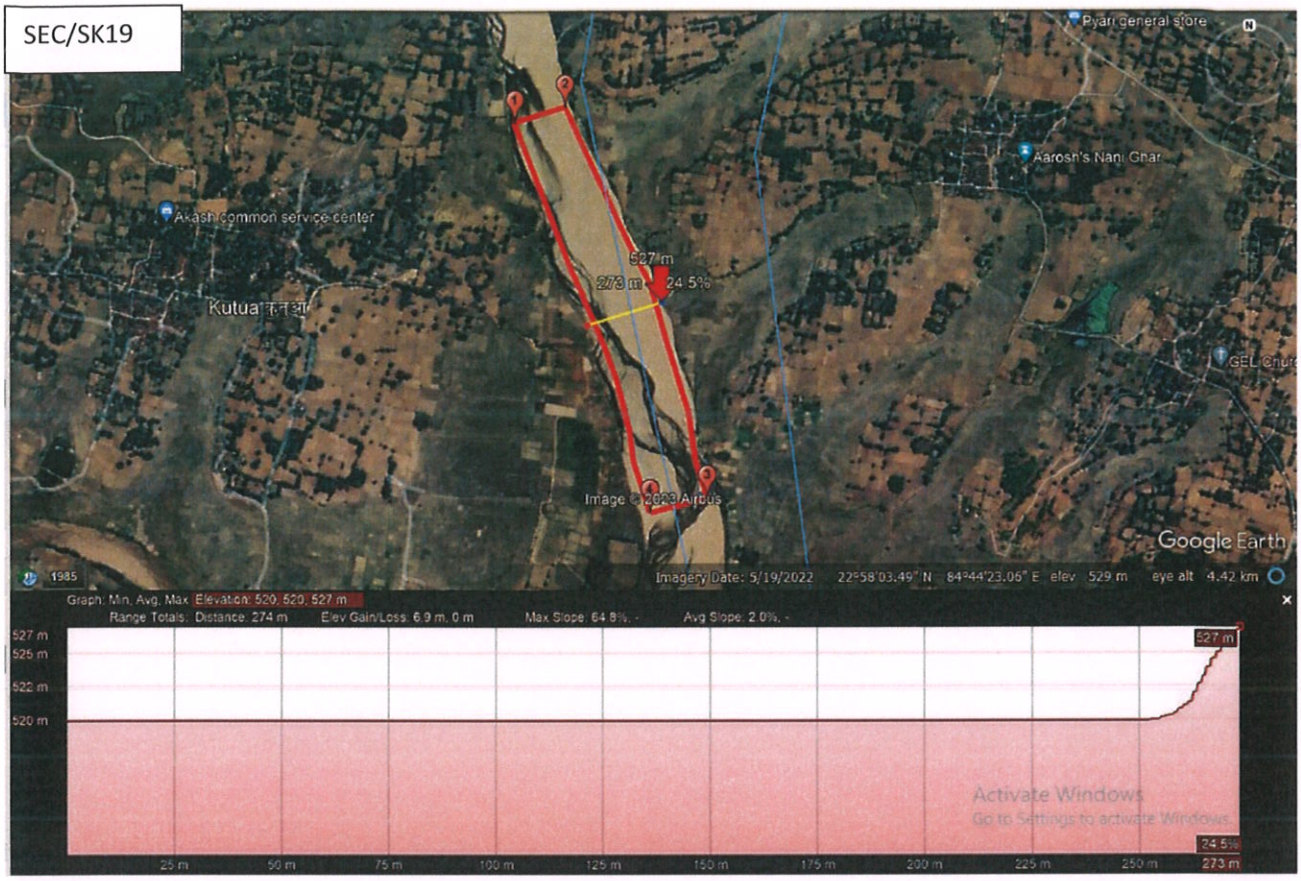

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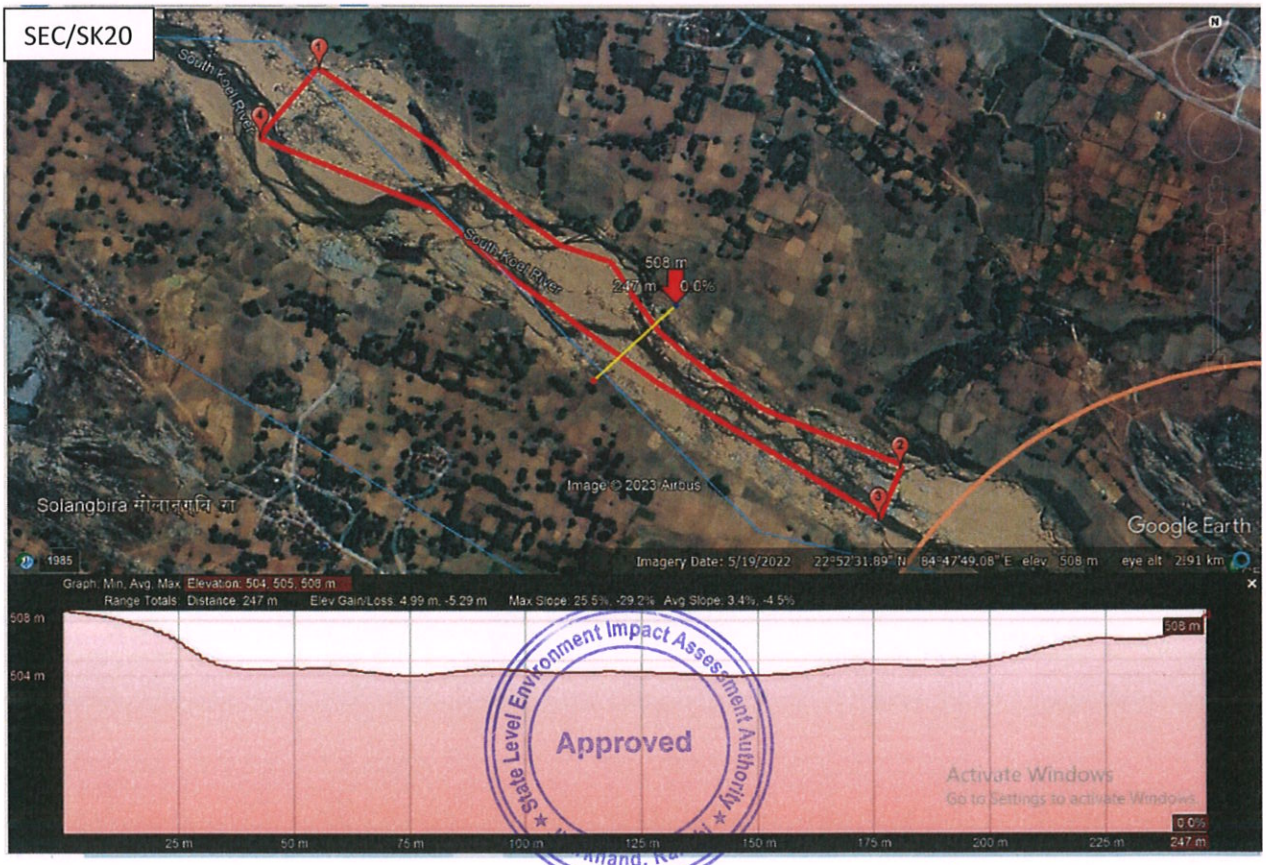

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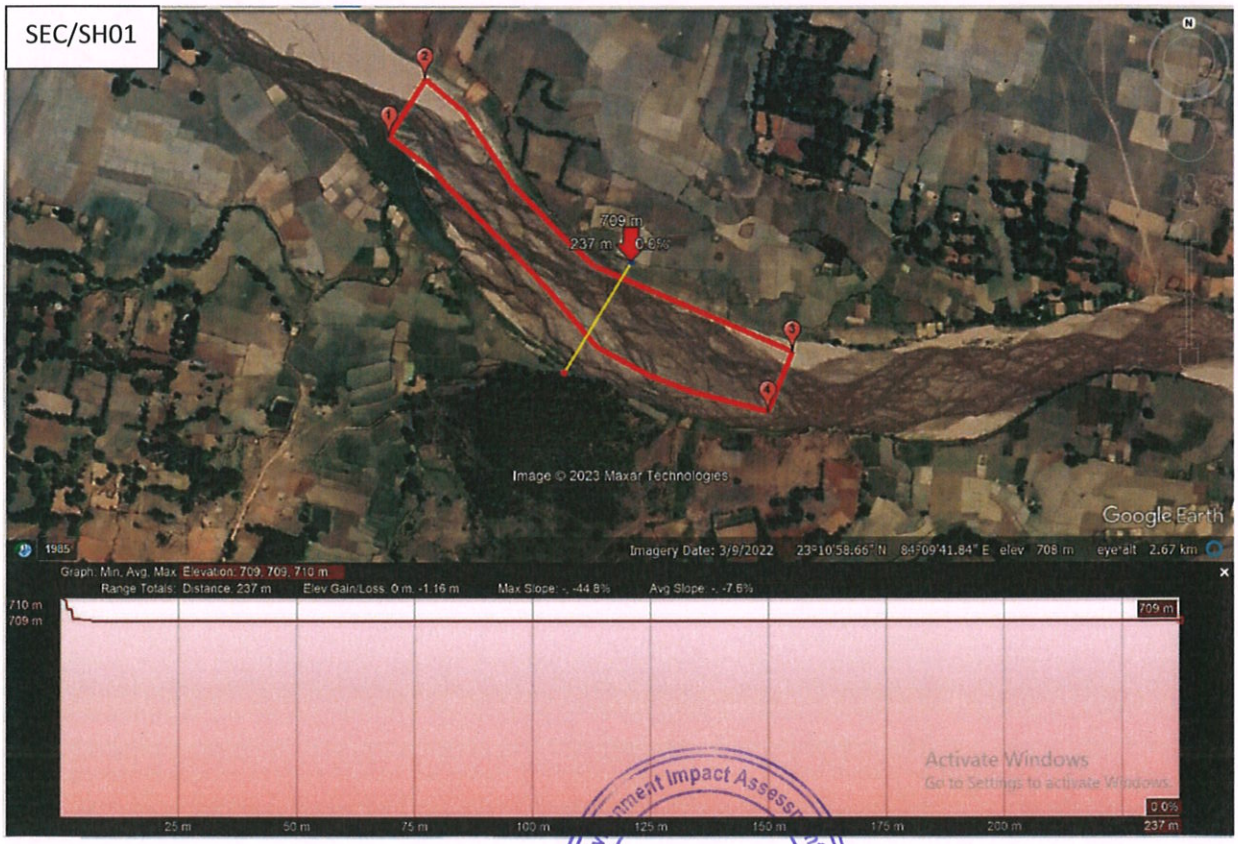
SEC/SK21



SEC/SH01



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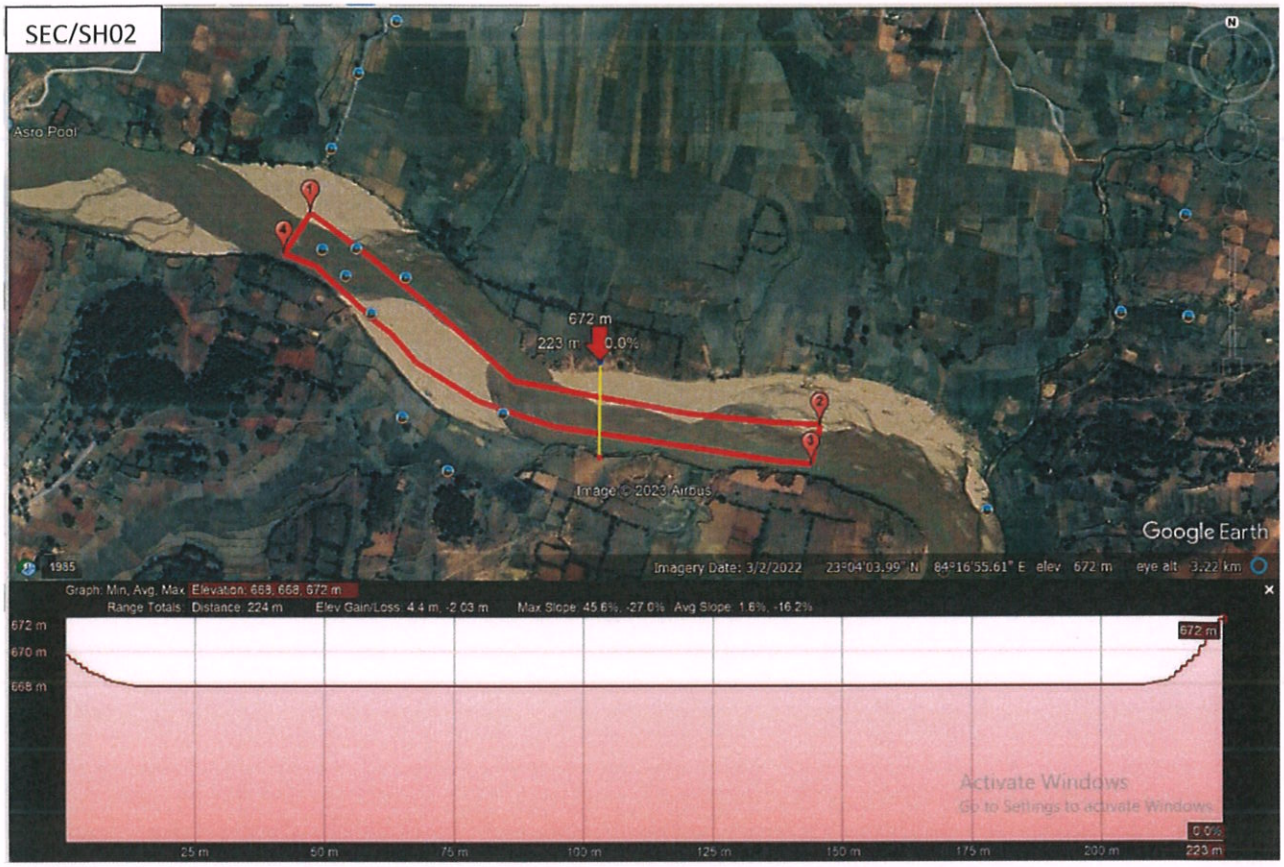
SEC/SH02



SEC/SH03



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SEC/SH04



SEC/SH05



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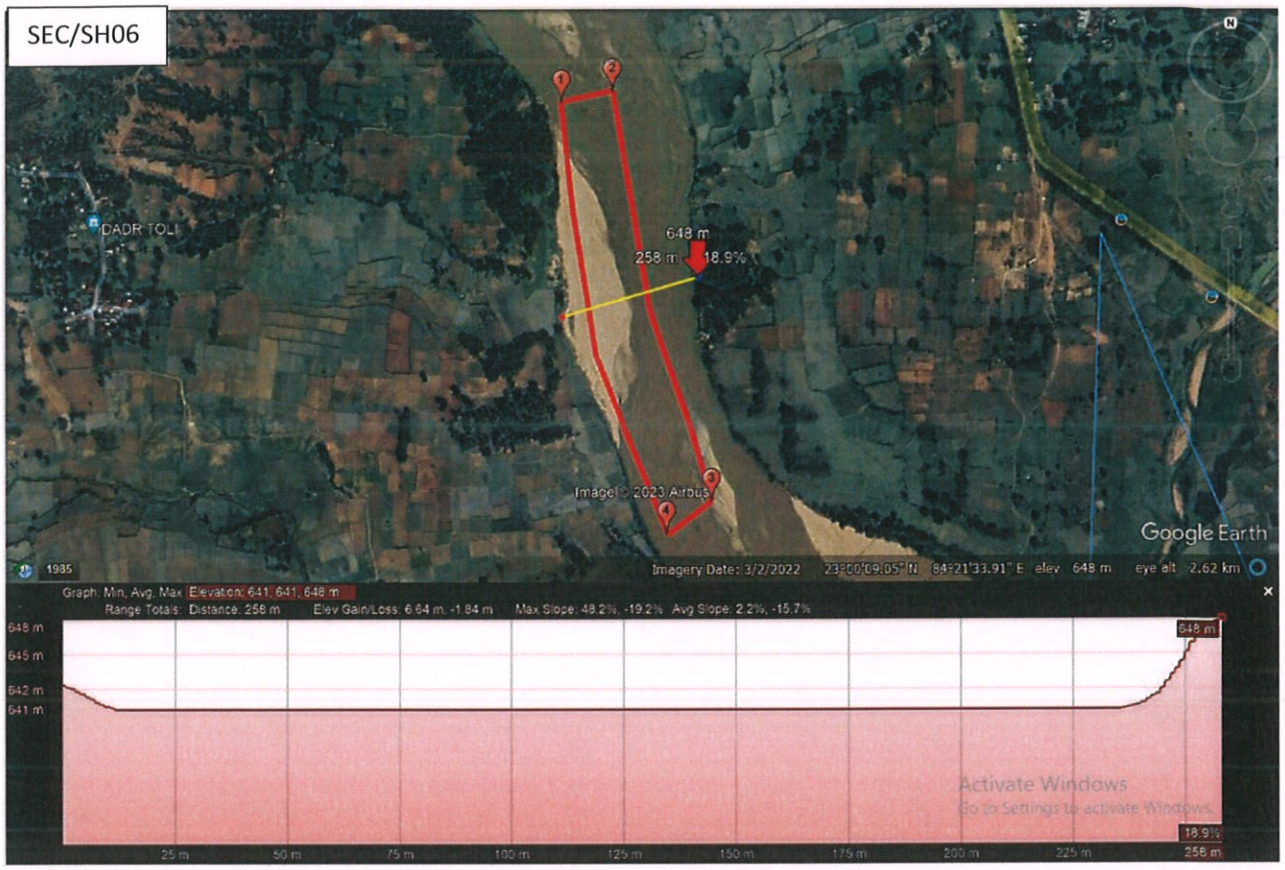
SEC/SH06



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CHAPTER- 20
PROCESS OF DEPOSITION OF SEDIMENTS IN THE RIVERS OF THE DISTRICT

Sediment refers to the conglomerate of materials, organic and inorganic, that can be carried away by water, wind or ice. While the term is often used to indicate soil-based, mineral matter (e.g. clay, silt and sand), decomposing organic substances and inorganic biogenic material are also considered sediment. Most mineral sediment comes from erosion and weathering, while organic sediment is typically detritus and decomposing material such as algae. Sediment particles come in different sizes and can be inorganic or organic in origin. These particulates are typically small, with clay defined as particles less than 0.00195 mm in diameter, and coarse sand reaching up only to 1.5 mm in diameter. However, during a flood or other high flow event, even large rocks can be classified as sediment as they are carried downstream. Sediment is a naturally occurring element in many bodies of water, though it can be influenced by anthropogenic factors.

In an aquatic environment, sediment can either be suspended (floating in the water column) or bedded (settled on the bottom of a body of water). In other words, waterflow tries to scour its surface whenever it flows in the channel. Silt or gravels even larger boulders are detached from its bed or banks. The moving water sweeps these detached particles in downstream along its flow. Silting and scouring is not very uncommon and must be avoided by proper designs. It reduces supply level of water. The channel section gets reduced by silt and reduces discharging capacity. Sediments seriously threaten various projects due to silt carried out by rivers up to point of interceptions. Sediment is also threatening denudation of forests. Sediment is a major obstruction on the flow line. It shortens longevity of channel. It causes soil erosion. Therefore data base must beneeded for policy making and planning.

The mineral potential is calculated based on field investigation and geology of the catchment area of the river/ streams. As per the policy of the State and location, depth of minable mineral is defined. The area for removal of mineral in a river or stream can be decided depending on geomorphology and other factors, it can be 50% to 60% of the area of a particular river/stream, e.g. in river mineral constituents like sand up to a depth of three meter are considered as resource mineral. Other constituents like clay and silt are excluded as waste while calculating the mineral potential of particular river/ stream.

The specific gravity of each mineral constituent is different. The percent of mineral constituent like boulder, river Bajri, and sand also varies for different river and streams.

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While calculating the mineral potential, the percentage of each mineral constituent is taken as 25-30% for sand and 5- 10% for silt and clay.

The quantum of deposition varies from stream to stream depending upon factors like catchment lithology, discharge, river profile and geomorphology of the river course. There are certain geo- morphological features developed in the river beds such as channel bar, point bar etc where annual deposition is more even two to three meters.

PROCESS OF DEPOSITION:

Sediment is a naturally occurring material that is broken down by processes of weathering and erosion, and is subsequently transported by the action of wind, water and/or by the force of gravity acting on the particles. Sediments are most often transported by water. Sediment is transported based on the strength of the flow that carries it and its own size, volume, density, and shape. Stronger flows will increase the lift and drag on the particle, causing it to rise, while larger or denser particles will be more likely to fall through the flow.

Deposition is the processes where material being transported by a river is deposited. Deposition occurs when a river loses energy. This can be when a river enters a shallow area (this could be when it floods and comes into contact with the flood plain) or towards its mouth where it meets another body of water.

Deposition is the geological process in which sediments, soil and rocks are added to a landform or land mass. Wind, ice, and water, as well as sediment flowing via gravity, transport previously eroded sediment, which, at the loss of enough kinetic energy in the fluid, is deposited, building up layers of sediment.

Rivers flood on a regular basis. The area over which they flood is known as the floodplain and this often coincides with regions where meanders form. Meanders support the formation of flood plainsthrough lateral erosion.

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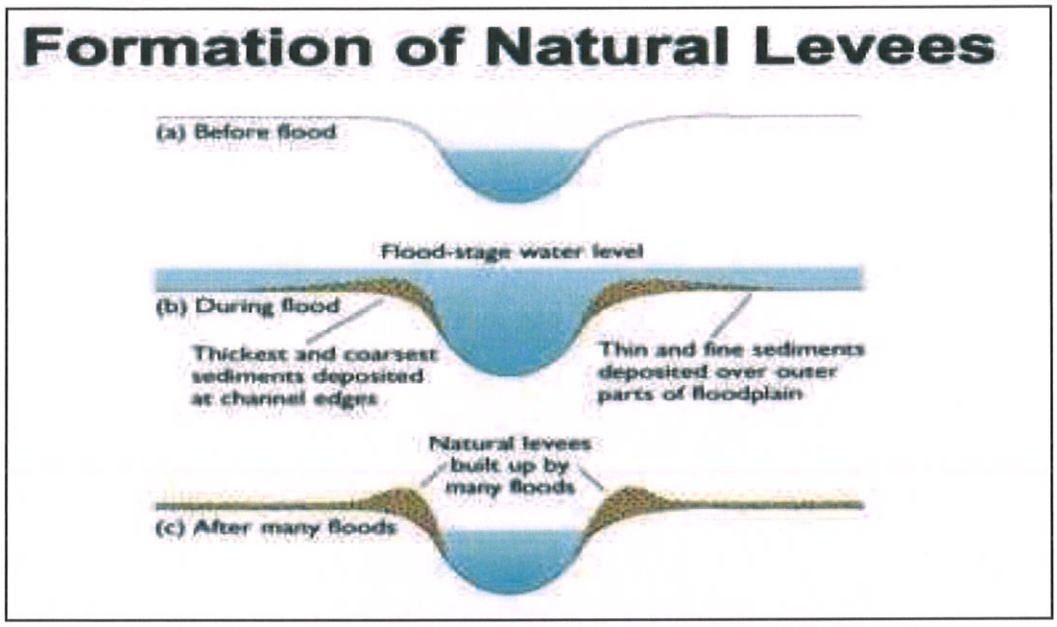
When river floods the velocity of water slows. As the result of this the river's capacity to transport material is reduced and deposition occurs. This deposition leaves a layer of sediment across the whole floodplain. After a series of floods, layers of sediment form along the floodplain.



Formation of Natural Levees Due to Floods

MODES OF SEDIMENT TRANSPORT:

The sediment load of a river is transported in various ways although these distinctions are to some extent arbitrary and not always very practical in the sense that not all of the components can be separated in practice:

- ✓ Dissolved load
- ✓ Suspended load
- ✓ Intermittent suspension (saltation) load
- ✓ Wash load
- ✓ Bed load

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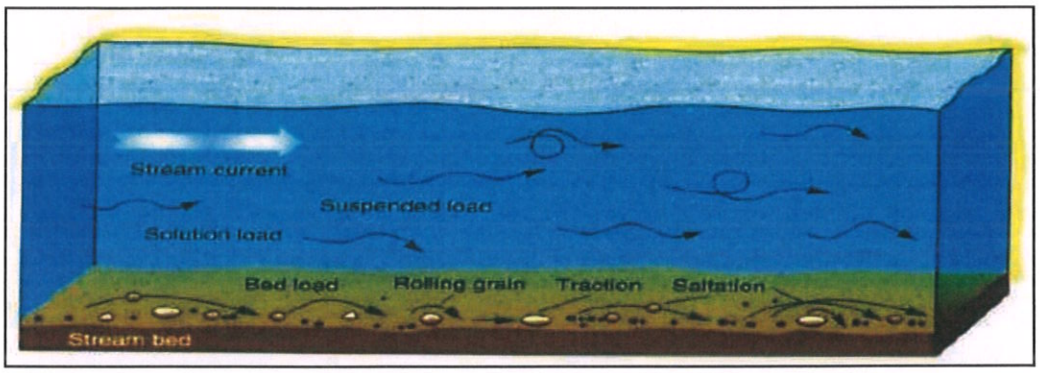
Methods of sediments transport in stream



The sand deposits being an integral part of the dynamic river system to which it belongs. Therefore, as a part of natural cycle, the monsoon flow of every river carries with it replenishment of silt and washed out soil and clay from upstream areas in the catchment. This silt shall be removed during the sieving of sand before it is loaded into truck/tipper/trailer to carry to the consumers.

Sand mining is critical to infrastructure development around the globe. Sand is an essential minor mineral used extensively across the country as a useful construction constituent and variety of other uses in sports, agriculture, glass making (a form of sand with high silica content) etc. The rivers are the most important source of Sand. It acts as source of transportation and deposition of sand etc.

Annual Replenishment Of Mineral In River Bed Area / Sedimentation:

The deposition in a river bed is more pronounced during rainy season although the quantum of deposition varies from stream to stream depending upon numbers of factors such as catchment, lithology, discharge, river profile and geomorphology of the river course where annual deposition is one meter, but it is noticed that during flood season whole of the pit so excavated is completely filled up and as such the excavated area is replenished with new harvest of minerals.

In order to calculate the mineral deposits in the stream beds, the mineral constituents have been categorized as clay, silt, sand, Bajri and boulder. However, during present calculation, the waste material i.e. silt which varies from 10 to 20% in different streams has also been included in the total production. Further, the Survey of India Topo-Sheets has been used as base map to know the extent of river course. The mineral reserves have been calculated only upto 1.2meter depth although there are some portions in the river beds such as channel bars, point bars and central islands where the annual deposition is raising the level of river bed thus causing shifting of the rivers towards banks resulting in to cutting of banks and at such

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locations, removal of this material upto the bed level is essential to control the river flow in its central part to check the bank cutting. While calculating the mineral potentials, the mineral deposits lying in the sub-tributaries of that particular stream/river has not been taken into consideration. Since these mineral deposits are adding annually.

Sedimentation is generally considered by geologists in terms of the textures, structures, and fossil content of the deposits lay down in different geographic and geomorphic environments. The factors which affect the "Computation of Sediment":

- Geomorphology & Drainage Pattern: The following geomorphic units plays importantrole:
  - Structural Plain
  - Structural Hill
  - Structural Ridge
  - Denudation Ridge & Valley
  - Plain & Plateau
  - Highly Dissected pediment
  - Undissected pediment
- Distribution of Basin Area River wise
- Drainage System/Pattern of the area, Rainfall & Climate: Year wise Rainfall data

REPLENISHMENT STUDY:

The need for replenishment study for river bed sand is required in order to nullify the adverse impacts arising due to excess sand extraction. Mining within or near riverbed has a direct impact on the stream's physical characteristics, such as channel geometry, bed elevation, substratum composition and stability, in-stream roughness of the bed, flow velocity, discharge capacity, sediment transport capacity, turbidity, temperature etc. Alteration or modification of the above attributes may cause an impact on the ecological equilibrium of the riverside regime, disturbance in channel configuration and flow-paths. This may also cause an adverse impact on in stream biota and riparian habitats.

The effects of sediment replenishment are investigated for cross section bed deposition, flow velocity, grain size distribution, water quality and organisms.

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METHODOLOGY ADOPTED FOR REPLENISHMENT STUDY:

The methodology adopted for the study is an integrated approach involving:

1) Field data collection followed by cross section survey over the sections of fixed intervals along the river showing river bed material (RBM) with present elevations.

2) Remote sensing was used for identification of watershed area relevant to the mine lease along the river at different coordinates.

3) Estimation of catchment yield and bed load transport: The catchment yield has been computed using the Strange's runoff method for the runoff coefficient & Dandy - Bolton Equation for sediment yield of river. Peak flood discharge for the study area by various methods like Dickens, Jarvis, and Rational formula at 25, 50 and 100 years return period.

ESTIMATION OF CATCHMENT YIELD:

The replenishment estimation is based on a theoretical empirical formula with the estimation of bed load transport comprising of analytical models to calculate the replenishment estimation. Catchment yield is computed using different standard empirical formulas relevant to the geographical and channel attributes.

CLIMATES

There is no IMD meteorological station near the study area, the nearest stations being at Ranchi, which are about 70 km from center of the study area. However, the climatic conditions are not much different than recorded at Ranchi.

Date Taken from CRIS(Customized Rainfall Information System)

STRANGE'S RUN-OFF:

Strange's Monsoon runoff curves for runoff coefficient. Peak flood discharge for the study area can be calculated by using Dickens, Jarvis and Rational formula at 25, 50 and 100 years return period. The estimation of bed load transport using Ackers and White Equation is made. For estimation of surface run off coefficient, we considered a particular value of peak rainfall.

The dependability has been calculated on the basis of last 16 years rainfall, where water availability has been considered for arriving at 50% dependability.

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In absence of non-availability, peak storm water has been estimated as under:

Rainfall Data (Arranged in Descending Order, Mentioning Serial Number /Order Number m) of each Year's Rainfall

Sr. No. i.e Order Number (m)	Rainfall in Descending Order (in mm)
1	1725.2
2	1487.0
3	1480.0
4	1408.1
5	1350.0
6	1284.5
7	1272.7
8	**1260.9**
9	1257.9
10	1221.7
11	1213.3
12	1210.2
13	1188.8
14	1155.8
15	1011.4
16	998.20

Table 20.2: Calculation of Order Number (m)

	Rainfall Dependability Percentage
	p=50%
m=	N x p/100
	N= 16, p = 50
m=	**8**

Here,

m = Order number

N = the available rainfall data of the past N years is first of all arranged in the descending order ofmagnitude.

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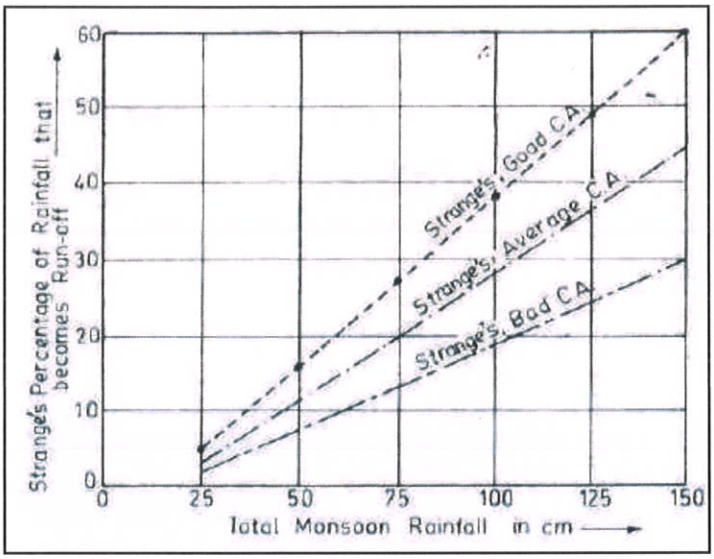
p = Dependability percentage

The rainfall value tabulated above in Table, the **Order No. 8** has the values of 1260.9 mm. So, P50% = 126.09cm

Average value of Strange's Run off percentage is calculated from Strange's monsoon rainfall- runoff curves considering the catchment area as good and the Runoff % for the area is:

Runoff % at 50% dependability of rainfall = 49%



Strange's Monsoon Rainfall-runoff Curves

DANDY - BOLTON EQUATION

Dandy Bolton formula is often used to calculate the sedimentation yield. It provide a quick, rough approximation of mean sediment yields on a regional basis for preliminary watershed planning. Computed sediment yields normally would be low for highly erosive areas and high for well stabilized drainage basins with high plant density because the equations are derived from average values. The equations express the general relationships between sediment yield, runoff, and drainage area. Many variables influence sediment yield from a drainage basin. They include climate, drainage area, soils, geology, topography, vegetation and land use. The effect of any of these variables may vary greatly from one geographic location to another, and the relative importance of controlling factors often varies within a given land resource area.

Runoff data are translated to inches per year per unit area and sediment deposition data to tons per year per square mile of net drainage area. Net drainage area is defined as the

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sediment-contributing area and normally excluded areas above upstream reservoirs or other structures that were effective sediment traps.

Combined effect of drainage area and run off on sediment yield

Dandy- Bolton determined the combined influence of runoff and drainage area on sediment yield to compute the sediment yield. They developed two equations i.e. for run off less than 2 inch and for run off more than 2 inch, which are given below:-

For run off less than 2 inches

(Q < 2 in) S=1280*(Q) 0.46 *[1.43-0.26 Log(A)]F

For run off more than 2 inches

(Q > 2 in): S= 1958*(e -0.055*Q)*[1.43-0.26 Log (A)]

Where: S = Sediment yield (M. tons/sq miles/yr)

Q = Mean Annual runoff (mm)

A = Net drainage area in sq. km

S.No	Factors		Probable Replenishment
	South Koel River		
i	Catchment Area (sq. km)	8.51 sq. km	58.17 Metric tons / sq. km /year 495.01 M. ton/year
ii	Mean Annual Runoff	1260.9 mm	
	Sediment yield formula (Q > 2 in): S= 1958(e -0.055*Q)*[1.43-0.26 Log (A)]: here: Q = Mean Annual runoff (mm)= 1260.9 A = Catchment Area= 8.51 sq. km Sediment yield S= (Metric tons / sq. km /year)		
	Sankh River		
i	Catchment Area (sq. km)	2.95 sq. km	63.54 Metric tons / sq. km /year 187.44 M. ton/year
ii	Mean Annual Runoff	1260.9 mm	
	Sediment yield formula (Q > 2 in): S= 1958(e -0.055*Q)*[1.43-0.26 Log (A)]: here: Q = Mean Annual runoff (mm)= 1260.9 A = Catchment Area= 2.95 sq. km Sediment yield S= (Metric tons / sq. km /year)		

Source:- Calculation of sediment yield by the Dandy-Bolton formula
ponce.sdsu.edu/onlinedendybolton.php

Sediment Yield of the River

River	Mean Annual Run-off (mm)	Catchment Area (Sq. km)	Sediment Yield (M. tons / sq. km /year)
South Koel River	1260.9mm	8.51	58.17
Sankh River		2.95	63.54
Total		11.46	121.71

Volume Estimation of Replenished Material for Respective Potential Area:

Physical Survey of Study Areas: Field Survey has been done by going through following stages given below which includes data acquisition related to elevation profiles for particular sandghats with the help of DGPS Survey, Garmi eTrex 10 GPS and meter stick for the collection of data releted to elevation and measurement of depth for specific locations, respectively. The surface plan with sections has been made with the help of E-Survey CAD, GIS, Global Mapper and AutoCAD softwares. The cross-section surveys have been done across the river at the places on 10x10 m grid ground levels are given in **Annexure.**

Following stages are given below on temporal basis for field survey:

1) **Primary Data Collection:** Although, field data collection is an integral part of DSR. The pre-monsoon data has been collected from District Mining Office, Gumla and same has been validated from satellite imaginary map.

RIVER NAME: SOUTH KOEL RIVER		
UIN SAND BAR CODE	*AREA IN SQM*	*AVG. INITIAL LEVEL IN AMSL*
GUM_SK_PRE_01	436191	606.67
GUM_SK_PRE_02	303895	604.65
GUM_SK_PRE_03	182989	602.73
GUM_SK_PRE_04	130915	600.48
GUM_SK_PRE_05	353944	594.46
GUM_SK_PRE_06	401561	585.92
GUM_SK_PRE_07	991809	581.91
GUM_SK_PRE_08	171530	576.81
GUM_SK_PRE_09	239108	572.45
GUM_SK_PRE_10	358060	562.33
GUM_SK_PRE_11	368111	559.27
GUM_SK_PRE_12	275138	544.34
GUM_SK_PRE_13	191302	543.16
GUM_SK_PRE_14	609548	539.24
GUM_SK_PRE_15	439045	537.74
GUM_SK_PRE_16	168870	536.15
GUM_SK_PRE_17	422470	532.95
GUM_SK_PRE_18	411294	530.50
GUM_SK_PRE_19	139941	528.08
GUM_SK_PRE_20	481602	527.35
GUM_SK_PRE_21	286820	524.04

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GUM_SK_PRE_22	147559	516.67
GUM_SK_PRE_23	188992	513.85
GUM_SK_PRE_24	367965	506.48
GUM_SK_PRE_25	225519	466.92
GUM_SK_PRE_26	210920	465.94

RIVER NAME: SANKH RIVER		
UIN SAND BAR CODE	***AREA IN SQM***	***AVG. INITIAL LEVEL IN AMSL***
GUM_SH_PRE_01	69654	717.78
GUM_SH_PRE_02	169499	707.79
GUM_SH_PRE_03	182100	704.38
GUM_SH_PRE_04	42522	703.36
GUM_SH_PRE_05	71970	689.02
GUM_SH_PRE_06	147040	675.01
GUM_SH_PRE_07	212580	669.17
GUM_SH_PRE_08	427862	666.28
GUM_SH_PRE_09	355630	661.10
GUM_SH_PRE_10	105732	650.21
GUM_SH_PRE_11	295121	646.88
GUM_SH_PRE_12	201760	643.18
GUM_SH_PRE_13	285776	640.74
GUM_SH_PRE_14	234160	632.79
GUM_SH_PRE_15	150641	616.37

2) *The second survey is at the time of closing of mines for monsoon season, this survey provides the quantity of the material excavated before the offset of monsoon* ***(As per MOEFF & CC 2020).*** Second survey had been done in Novemeber-2022 to January-2023 with the help of DGPS and used in different software such as E-Survey, Auto Cad, Remote Sensing.

RIVER NAME: SOUTH KOEL RIVER		
UIN SAND BAR CODE	***AREA IN SQM***	***AVG. INITIAL LEVEL IN AMSL***
GUM_SK_PRE_01	436193	606.9
GUM_SK_PRE_02	303899	604.83
GUM_SK_PRE_03	182991	602.91
GUM_SK_PRE_04	130917	600.78
GUM_SK_PRE_05	353946	594.83
GUM_SK_PRE_06	401564	586.45
GUM_SK_PRE_07	991812	582.5
GUM_SK_PRE_08	171534	577.39
GUM_SK_PRE_09	239111	572.68
GUM_SK_PRE_10	358063	562.84
GUM_SK_PRE_11	368114	559.83
GUM_SK_PRE_12	275140	544.56
GUM_SK_PRE_13	191306	543.65
GUM_SK_PRE_14	609551	539.78
GUM_SK_PRE_15	439048	538.82
GUM_SK_PRE_16	168873	536.58

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GUM_SK_PRE_17	422473	533.38
GUM_SK_PRE_18	411297	530.98
GUM_SK_PRE_19	139945	529.14
GUM_SK_PRE_20	481607	527.87
GUM_SK_PRE_21	286822	525.09
GUM_SK_PRE_22	147562	517.71
GUM_SK_PRE_23	188995	514.88
GUM_SK_PRE_24	367969	506.83
GUM_SK_PRE_25	225521	467.85
GUM_SK_PRE_26	210922	466.31

RIVER NAME: SANKH RIVER		
UIN SAND BAR CODE	***AREA IN SQM***	***AVG. INITIAL LEVEL IN AMSL***
GUM_SH_PRE_01	69659	718.06
GUM_SH_PRE_02	169501	707.93
GUM_SH_PRE_03	182101	705.02
GUM_SH_PRE_04	42527	704.06
GUM_SH_PRE_05	71972	689.71
GUM_SH_PRE_06	147042	675.61
GUM_SH_PRE_07	212583	669.84
GUM_SH_PRE_08	427865	666.81
GUM_SH_PRE_09	355631	661.57
GUM_SH_PRE_10	105736	650.47
GUM_SH_PRE_11	295125	647.40
GUM_SH_PRE_12	201763	643.50
GUM_SH_PRE_13	285779	641.39
GUM_SH_PRE_14	234162	633.30
GUM_SH_PRE_15	150645	616.93

3) *The third survey needs to be carried out after the monsoon period to know the quantum of material deposited/replenished in the mining lease.*

Third survey have not completed so the third survey of sand ghat will be done April-2023

4) *The fourth survey at the end of March to know the quantity of material excavated during the financialyear.*

Fourth survey have not completed so the fourth survey of sand ghat will be done March-2024

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Comparision between Avg. Residual Level and Avg. Increased Level

Comparison between Initial Level and After Erosion Increased Level

Sand Bar Code	AMSL Observed (Pre monsoon)	AMSL Observed (Post monsoon)
SOUTH KOEL RIVER		
GUM_SK_PRE_01	606.67	606.9
GUM_SK_PRE_02	604.65	604.83
GUM_SK_PRE_03	602.73	602.91
GUM_SK_PRE_04	600.48	600.78
GUM_SK_PRE_05	594.46	594.83
GUM_SK_PRE_06	585.92	586.45
GUM_SK_PRE_07	581.91	582.5
GUM_SK_PRE_08	576.81	577.39
GUM_SK_PRE_09	572.45	572.68
GUM_SK_PRE_10	562.33	562.84
GUM_SK_PRE_11	559.27	559.83
GUM_SK_PRE_12	544.34	544.56
GUM_SK_PRE_13	543.16	543.65
GUM_SK_PRE_14	539.24	539.78
GUM_SK_PRE_15	537.74	538.82
GUM_SK_PRE_16	536.15	536.58
GUM_SK_PRE_17	532.95	533.38
GUM_SK_PRE_18	530.50	530.98
GUM_SK_PRE_19	528.08	529.14
GUM_SK_PRE_20	527.35	527.87
GUM_SK_PRE_21	524.04	525.09
GUM_SK_PRE_22	516.67	517.71
GUM_SK_PRE_23	513.85	514.88
GUM_SK_PRE_24	506.48	506.83
GUM_SK_PRE_25	466.92	467.85
GUM_SK_PRE_26	465.94	466.31
SANKH RIVER		
GUM_SH_PRE_01	717.78	718.06
GUM_SH_PRE_02	707.79	707.93
GUM_SH_PRE_03	704.38	705.02
GUM_SH_PRE_04	703.36	704.06
GUM_SH_PRE_05	689.02	689.71
GUM_SH_PRE_06	675.01	675.61
GUM_SH_PRE_07	669.17	669.84
GUM_SH_PRE_08	666.28	666.81
GUM_SH_PRE_09	661.10	661.57
GUM_SH_PRE_10	650.21	650.47
GUM_SH_PRE_11	646.88	647.40
GUM_SH_PRE_12	643.18	643.50
GUM_SH_PRE_13	640.74	641.39
GUM_SH_PRE_14	632.79	633.30

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GUM_SH_PRE_15	616.37	616.93

ZONE WISE DETAILS OF GUMLA DISTRICT

NAME OF RIVER	UIN OF SAND BAR	GEO-COORDINATE	AREA IN HA
SUBARNAREKHA RIVER	GUM_SK_ZONE_01	X- 23°17'23.26"N Y- 84°36'48.05"E Z-607	43.6
		X- 23°17'22.25"N Y- 84°36'50.95"E Z-609M	
		X- 23°18'42.57"N Y- 84°37'19.71"E Z-611M	
		X- 23°18'47.37"N Y- 84°37'12.02"E Z-607M	
SUBARNAREKHA RIVER	GUM_SK_ZONE_02	X- 23°16'29.09"N Y-86°23'52.19"E Z-605M	30.40
		X- 23°16'25.23"N Y- 84°36'12.21"E Z-605M	
		X- 23°17'15.17"N Y- 84°36'43.52"E Z-607M	
		X- 23°17'13.45"N Y- 84°36'47.62"E Z-605M	
SUBARNAREKHA RIVER	GUM_SK_ZONE_03	X- 23°15'46.74"N Y- 84°36'24.20"E Z-604M	18.03
		X- 23°15'42.63"N Y- 84°36'22.60"E Z-604 M	
		X- 23°16'17.08"N T- 84°35'59.66"E Z-605M	
		X- 23°16'18.30"N Y- 84°35'57.09"E Z-605M	
SUBARNAREKHA RIVER	GUM_SK_ZONE_04	X- 23°15'20.61"N Y- 84°37'28.27"E Z- 601M	13.00
		X- 23°15'16.23"N Y- 84°37'25.89"E Z-601M	
		X- 23°15'37.38"N Y- 84°36'55.53"E Z-602M	
		X- 23°15'34.87"N Y- 84°36'53.30"E Z-603M	
SUBARNAREKHA RIVER	GUM_SK_ZONE_05	X- 23°14'46.10"N Y- 84°37'56.09"E Z-597M	35.40
		X- 23°14'49.90"N	

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		Y- 84°37'59.08"E Z-598M	
		X- 23°14'22.18"N Y- 84°39'18.31"E Z-593M	
		X- 23°14'18.45"N Y- 84°39'15.80"E Z-596M	
SUBARNAREKHA RIVER	GUM_SK_ZONE_06	X- 23°12'56.76"N Y- 84°41'13.18"E Z-585M	40.42
		X- 23°12'57.17"N Y- 84°41'7.32"E Z-588M	
		X- 23°14'2.26"N Y- 84°40'17.47"E Z-590M	
		X- 23°14'0.86"N Y- 84°40'13.20"E Z-589M	
SUBARNAREKHA RIVER	GUM_SK_ZONE_07	X- 23°12'48.60"N Y- 84°41'7.66"E Z-585M	99.20
		X- 23°12'54.89"N Y- 84°41'6.04"E Z-588M	
		X- 23°10'52.69"N Y- 84°39'32.01"E Z-581M	
		X- 23°10'55.38"N Y- 84°39'26.37"E Z-580M	
SUBARNAREKHA RIVER	GUM_SK_ZONE_08	X- 23°10'48.41"N Y- 84°39'20.05"E Z-579M	17.20
		X- 23°10'44.71"N Y- 84°39'24.93"E Z-581M	
		X- 23° 9'58.74"N Y- 84°39'24.37"E Z-576M	
		X- 23°10'1.60"N Y- 84°39'21.58"E Z-578M	
SUBARNAREKHA RIVER	GUM_SK_ZONE_09	X- 23° 9'24.02"N Y- 84°38'51.85"E Z-574M	23.90
		X- 23° 9'25.76"N Y- 84°38'45.60"E Z-574M	
		X- 23° 9'58.96"N Y- 84°39'5.21"E Z-574M	
		X- 23° 9'53.88"N Y- 84°39'15.50"E Z-574M	
SUBARNAREKHA RIVER	GUM_SK_ZONE_10	X- 23° 8'9.94"N Y- 84°38'50.57"E Z-565M	35.80
		X- 23° 8'12.15"N Y- 84°38'37.42"E Z-565M	

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		X- 23° 7'28.52"N Y- 84°39'11.09"E Z-563M	
		X- 23° 7'23.99"N Y- 84°39'7.54"E Z-564M	
SUBARNAREKHA RIVER	GUM_SK_ZONE_11	X- 23° 7'1.00"N Y- 84°39'43.67"E Z-562M	36.80
		X- 23° 6'57.05"N Y- 84°39'38.30"E Z-561M	
		X- 23° 6'50.62"N Y- 84°40'44.89"E Z-560M	
		X- 23° 6'45.45"N Y- 84°40'39.76"E Z-560M	
SUBARNAREKHA RIVER	GUM_SK_ZONE_12	X- 23° 6'1.57"N Y- 84°41'1.19"E Z-546M	27.50
		X- 23° 6'0.33"N Y- 84°40'53.91"E Z-545M	
		X- 23° 5'18.91"N Y- 84°41'8.52"E Z-546M	
		X- 23° 5'13.94"N Y- 84°41'2.14"E Z-545M	
SUBARNAREKHA RIVER	GUM_SK_ZONE_13	X- 23° 5'4.01"N Y- 84°41'41.42"E Z-547M	19.10
		X- 23° 5'1.89"N Y- 84°41'36.10"E Z-545M	
		X- 23° 4'40.20"N Y- 84°42'20.66"E Z-544M	
		X- 23° 4'37.13"N Y- 84°42'15.31"E Z-543M	
SUBARNAREKHA RIVER	GUM_SK_ZONE_14	X- 23° 4'20.74"N Y- 84°43'7.87"E Z-543M	61.00
		X- 23° 4'15.95"N Y- 84°43'4.86"E Z-541M	
		X- 23° 2'43.49"N Y- 84°43'39.15"E Z-542M	
		X- 23° 2'44.15"N Y- 84°43'31.63"E Z-540M	
SUBARNAREKHA RIVER	GUM_SK_ZONE_15	X- 23° 2'41.87"N Y- 84°43'36.99"E Z-541M	43.90
		X- 23° 2'42.47"N Y- 84°43'31.77"E Z-541M	
		X- 23° 2'1.01"N Y- 84°44'34.75"E	

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		Z-539M X- 23° 1'55.72"N Y- 84°44'33.67"E Z-541	
SUBARNAREKHA RIVER	GUM_SK_ZONE_16	X- 23° 1'54.69"N Y- 84°44'47.77"E Z-538M X- 23° 1'52.10"N Y- 84°44'43.76"E Z-538M X- 23° 1'29.57"N Y- 84°45'0.15"E Z-537M X- 23° 1'26.99"N Y- 84°44'55.71"E Z-536M	16.90
SUBARNAREKHA RIVER	GUM_SK_ZONE_17	X- 23° 1'17.79"N Y- 84°45'2.92"E Z-540M X- 23° 1'15.26"N Y- 84°45'10.78"E Z-536M X- 23° 0'36.19"N Y- 84°44'19.63"E Z-534M X- 23° 0'33.65"N Y- 84°44'27.55"E Z-533M	42.20
SUBARNAREKHA RIVER	GUM_SK_ZONE_18	X- 23° 0'19.77"N Y- 84°44'22.39"E Z-533M X- 23° 0'15.09"N Y- 84°44'17.60"E Z-533 X- 22°59'43.49"N Y- 84°44'56.65"E Z-532M X- 22°59'37.47"N Y- 84°44'50.67"E Z-532M	41.10
SUBARNAREKHA RIVER	GUM_SK_ZONE_19	X- 22°59'10.29"N Y- 84°44'20.97"E Z-530M X- 22°59'7.52"N Y- 84°44'24.54"E Z-529M X- 22°58'46.15"N Y- 84°44'8.91"E Z-529M X- 22°58'47.39"N Y- 84°44'4.01"E Z-529M	14.00
	GUM_SK_ZONE_20	X- 22°58'43.37"N Y- 84°44'8.92"E Z-529M X- 22°58'45.18"N Y- 84°44'3.71"E Z-529M X- 22°57'40.35"N Y- 84°44'30.53"E Z-529M X- 22°57'37.88"N	48.20

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		Y- 84°44'22.21"E Z-528M	
SUBARNAREKHA RIVER	GUM_SK_ZONE_21	X- 22°57'11.08"N Y- 84°44'3.66"E Z-527M	28.70
		X- 22°57'15.93"N Y- 84°43'58.74"E Z-528M	
		X- 22°56'49.10"N Y- 84°44'5.79"E Z-526M	
		X- 22°56'45.51"N Y- 84°44'1.25"E Z-525M	
SUBARNAREKHA RIVER	GUM_SK_ZONE_22	X- 22°56'2.40"N Y- 84°44'19.42"E Z-520M	14.80
		X- 22°55'57.49"N Y- 84°44'15.90"E Z-519M	
		X- 22°55'39.12"N Y- 84°44'31.71"E Z-519M	
		X- 22°55'38.85"N Y- 84°44'26.18"E Z-519M	
SUBARNAREKHA RIVER	GUM_SK_ZONE_23	X- 22°53'38.34"N Y- 84°45'25.82"E Z-517M	18.90
		X- 22°53'34.41"N Y- 84°45'21.62"E Z-519M	
		X- 22°53'16.39"N Y- 84°45'46.37"E Z-515M	
		X- 22°53'21.09"N Y- 84°45'46.41"E Z-515M	
SUBARNAREKHA RIVER	GUM_SK_ZONE_24	X- 22°52'12.97"N Y- 84°48'21.75"E Z-506M	36.80
		X- 22°52'9.37"N Y- 84°48'18.40"E Z-507M	
		X- 22°52'48.04"N Y- 84°47'24.03"E Z-511M	
		X- 22°52'42.65"N Y- 84°47'19.30"E Z-510M	
SUBARNAREKHA RIVER	GUM_SK_ZONE_25	X- 22°49'53.44"N Y- 84°51'52.33"E Z-468M	22.60
		X- 22°49'50.35"N Y- 84°51'47.24"E Z-469M	
		X- 22°49'36.04"N Y- 84°52'21.22"E Z-468M	
		X- 22°49'30.93"N Y- 84°52'19.61"E Z-472M	

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SUBARNAREKHA RIVER	GUM_SK_ZONE_26	X- 22°49'50.12"N Y- 84°52'49.55"E Z-467M	21.00
		X- 22°49'45.53"N Y- 84°52'49.51"E Z-468M	
		X- 22°49'44.38"N Y- 84°53'27.84"E Z-468M	
		X- 22°49'38.32"N Y- 84°53'25.42"E Z-466M	
SANKH RIVER	GUM_SH_ZONE_01	X- 23°12'35.00"N Y- 84° 7'51.90"E Z-721M	6.97
		X- 23°12'33.75"N Y- 84° 7'53.24"E Z-721M	
		X- 23°12'30.83"N Y- 84° 8'16.78"E Z-716M	
		X- 23°12'28.75"N Y- 84° 8'13.98"E Z-718M	
SANKH RIVER	GUM_SH_ZONE_02	X- 23°11'12.04"N Y- 84° 9'24.99"E Z-713M	17.00
		X- 23°11'9.78"N Y- 84° 9'23.06"E Z-711M	
		X- 23°10'54.61"N Y- 84° 9'53.52"E Z-711M	
		X- 23°10'50.04"N Y- 84° 9'52.48"E Z-709M	
SANKH RIVER	GUM_SH_ZONE_03	X-23°10'41.94"N Y- 84°10'19.80"E Z-707M	18.20
		X- 23°10'39.15"N Y- 84°10'21.43"E Z-708M	
		X- 23°10'24.75"N Y-84°10'35.87"E Z-707M	
		X-23°10'20.76"N Y- 84°10'33.53"E Z-708M	
SANKH RIVER	GUM_SH_ZONE_04	X- 23°10'19.05"N Y- 84°10'53.03"E Z-706M	4.25
		X- 23°10'18.06"N Y- 84°10'50.84"E Z-706M	
		X- 23° 9'58.79"N Y- 84°10'51.05"E Z-705M	
		X- 23° 9'59.49"N Y- 84°10'49.02"E Z-705M	
SANKH RIVER	GUM_SH_ZONE_05	X- 23° 6'47.82"N Y- 84°12'28.19"E	7.20

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		Z-691M	
		X- 23° 6'48.08"N Y- 84°12'26.44"E Z-693M	
		X- 23° 6'22.32"N Y- 84°12'40.15"E Z-690M	
		X- 23° 6'18.80"N Y- 84°12'40.50"E Z-691M	
SANKH RIVER	GUM_SH_ZONE_06	X- 23° 5'59.95"N Y- 84°14'55.43"E Z-677M	14.70
		X- 23° 6'1.63"N Y- 84°14'52.35"E Z-680M	
		X- 23° 5'31.69"N Y- 84°15'0.94"E Z-678M	
		X- 23° 5'31.84"N Y- 84°14'56.43"E Z-679M	
SANKH RIVER	GUM_SH_ZONE_07	X- 23° 4'48.91"N Y- 84°15'45.89"E Z-672M	21.30
		X- 23° 4'48.36"N Y- 84°15'41.60"E Z-675M	
		X- 23° 4'22.13"N Y- 84°16'4.61"E Z-670M	
		X- 23° 4'17.09"N Y- 84°15'59.40"E Z-670M	
SANKH RIVER	GUM_SH_ZONE_08	X- 23° 4'21.39"N Y- 84°16'9.36"E Z-670M	42.80
		X- 23° 4'16.22"N Y- 84°16'8.52"E Z-669M	
		X- 23° 3'56.79"N Y- 84°17'25.07"E Z-666M	
		X- 23° 3'52.30"N Y- 84°17'21.90"E Z-665M	
SANKH RIVER	GUM_SH_ZONE_09	X- 23° 3'29.68"N Y- 84°17'8.48"E Z-664M	35.60
		X- 23° 3'30.15"N Y- 84°17'5.27"E Z-664M	
		X- 23° 2'38.33"N Y- 84°17'38.50"E Z-660M	
		X- 23° 2'36.27"N Y- 84°17'34.16"E Z-661M	
SANKH RIVER	GUM_SH_ZONE_10	X- 23° 1'48.42"N Y- 84°20'24.49"E Z-656M	10.60
		X- 23° 1'45.52"N	

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		Y- 84°20'24.35"E Z-652M	
		X- 23° 1'31.46"N Y- 84°20'54.86"E Z-650M	
		X- 23° 1'27.92"N Y- 84°20'51.61"E Z-649M	
SANKH RIVER	GUM_SH_ZONE_11	X- 23° 1'22.84"N Y- 84°21'0.34"E Z-650M	29.50
		X- 23° 1'21.60"N Y- 84°20'56.33"E Z-650M	
		X- 23° 0'51.18"N Y- 84°21'11.74"E Z-647M	
		X- 23° 0'48.41"N Y- 84°21'4.52"E Z-647M	
SANKH RIVER	GUM_SH_ZONE_12	X- 23° 0'27.33"N Y- 84°21'25.71"E Z-647M	20.20
		X- 23° 0'24.57"N Y- 84°21'20.72"E Z-646M	
		X- 22°59'52.23"N Y- 84°21'42.19"E Z-643M	
		X- 22°59'48.84"N Y- 84°21'40.30"E Z-645M	
SANKH RIVER	GUM_SH_ZONE_13	X- 22°59'31.94"N Y- 84°22'8.05"E Z-643M	28.60
		X- 22°59'30.44"N Y- 84°22'3.69"E Z-643M	
		X- 22°58'44.78"N Y- 84°22'31.77"E Z-641M	
		X- 22°58'41.43"N Y- 84°22'27.87"E Z-642M	
SANKH RIVER	GUM_SH_ZONE_14	X- 22°56'17.11"N Y- 84°23'48.58"E Z-635M	23.40
		X- 22°56'15.90"N Y- 84°23'42.88"E Z-634M	
		X- 22°55'27.17"N Y- 84°23'45.62"E Z-634M	
		X- 22°55'30.45"N Y- 84°23'41.16"E Z-634M	
SANKH RIVER	GUM_SH_ZONE_15	X- 22°50'34.95"N Y- 84°22'53.16"E Z-619M	15.00
		X- 22°50'34.02"N Y- 84°22'48.23"E Z-618M	

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		X- 22°50'2.45"N Y- 84°23'1.85"E Z-618M	
		X- 22°50'2.56"N Y- 84°22'57.55"E Z- 619M	
TOTAL NO. OF ZONE			**41**
TOTAL AREA OF ZONE IN HA.			**1145.77**

NO MINING ZONE DETAILS OF GUMLA DISTRICT WITH BRIDGE NAME AND GEO-COORDINATES

NO MINING ZONE DETAILS OF GUMLA				
SI. NO.	**RIVER NAME**	**BRIDGE NAME/NEAREST VILLAGE**	**GEO-CORDINATES**	**AREA IN HA.**
1	SOUTH KOEL RIVER	LARANGO RD. BRIDGE	1. 23°18'24.33"N 84°37'0.80"E 2. 23°18'20.84"N 84°37'6.40"E 3. 23°17'54.70"N 84°36'47.69"E 4. 23°17'57.33"N 84°36'42.71"E	16.47
2	SOUTH KOEL RIVER	SAHIJANA BRIDGE	1. 23°16'29.81"N 84°36'11.28"E 2. 23°16'25.97"N 84°36'14.44"E 3. 23°16'2.31"N 84°36'1.48"E 4. 23°16'2.45"N 84°35'55.30"E	14.21
3	SOUTH KOEL RIVER	KOEL BRIDGE ARANGI	1. 23°11'20.88"N 84°39'34.30"E 2. 23°11'18.21"N 84°39'40.96"E 3. 23°10'18.23"N 84°39'31.26"E 4. 23°10'17.63"N 84°39'26.60"E	34.7

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4	SOUTH KOEL RIVER	CHOTA ATARIA BRIDGE	1. 23° 7'51.02"N 84°38'42.83"E 2. 23° 7'54.13"N 84°38'52.23"E 3. 23° 7'30.90"N 84°39'8.82"E 4. 23° 7'25.72"N 84°39'4.27"E	21.57
5	SOUTH KOEL RIVER	SIMDEGA-GUMLA-RANCHI RD. BRIDGE	1. 23° 6'48.55"N 84°39'53.47"E 2. 23° 6'33.62"N 84°40'58.70"E 3. 23° 6'21.33"N 84°40'44.67"E 4. 23° 6'39.18"N 84°39'55.37"E	63.72
6	SOUTH KOEL RIVER	OLMUNDA BRIDGE	1. 23° 2'57.96"N 84°43'29.24"E 2. 23° 2'59.16"N 84°43'37.13"E 3. 23° 2'27.97"N 84°43'41.59"E 4. 23° 2'27.13"N 84°43'32.83"E	24.48
7	SOUTH KOEL RIVER	JOLO BRIDGE	1. 22°59'1.04"N 84°44'11.60"E. 2. 22°58'55.74"N 84°44'20.05"E 3. 22°58'30.52"N 84°44'11.51"E 4. 22°58'29.97"N 84°44'4.51"E	24.37
8	SOUTH KOEL RIVER	KHUNTI - SIMDEGA RD. BRIDGE	1. 22°52'11.68"N 84°48'10.00"E 2. 22°52'18.37"N 84°48'16.45"E 3. 22°51'31.21"N 84°49'6.83"E 4. 22°51'23.79"N 84°48'56.58"E	52.4
9	SANKH RIVER	BALAGHAT BRIDGE	1. 22°49'37.48"N 84°53'45.76"E 2. 22°49'44.53"N 84°53'46.30"E 3. 22°49'40.79"N 84°54'55.35"E 4. 22°49'32.56"N 84°54'54.81"E	56.8

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10	SANKH RIVER	ASRO POOL	1. 23° 4'27.18"N 84°15'50.12"E 2. 23° 4'19.52"N 84°16'22.78"E 3. 23° 4'12.18"N 84°16'20.62"E 4. 23° 4'19.26"N 84°15'48.06"E	21.41
11	SANKH RIVER	KHURSUTA BRIDGE	1. 23° 2'31.93"N 84°18'8.08"E 2. 23° 2'39.07"N 84°18'10.25"E 3. 23° 2'34.81"N 84°18'42.31"E 4. 23° 2'29.23"N 84°18'42.80"E	21.32
12	SANKH RIVER	TETARDANR BRIDGE	1. 23° 1'33.75"N 84°20'44.99"E 2. 23° 1'36.37"N 84°20'48.50"E 3. 23° 1'10.38"N 84°21'9.37"E 4. 23° 1'6.93"N 84°20'56.82"E	22.14
13	SOUTH KOEL RIVER	BARRI BRIDGE	1. 22°58'48.12"N 84°22'15.90"E 2. 22°58'53.21"N 84°22'20.43"E 3. 22°58'32.41"N 84°22'46.20"E 4. 22°58'26.89"N 84°22'39.79"E	18.82
14	SOUTH KOEL RIVER	SAITANGAR RD BRIDGE	1. 22°56'46.86"N 84°23'23.97"E 2. 22°56'51.22"N 84°23'32.95"E 3. 22°55'48.44"N 84°23'49.78"E 4. 22°55'48.46"N 84°23'39.46"E	55.88
15	SOUTH KOEL RIVER	BALAKHTANGS BRIDGE	1. 23°18'24.33"N 84°37'0.75"E 2. 23°18'20.77"N 84°37'6.41"E 3. 23°17'54.54"N 84°36'47.77"E 4. 23°17'57.26"N 84°36'42.69"E	55.89

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1. Drainage system with description of main rivers

S. No.	Name of the River	Area drained (Sq. km)	% Area drained in the District
1	Chhinda River	5.02	0.133
2	Deo Nadi	6.53	0.173
3	Girma River	2.10	0.056
4	Halwai Nala	0.69	0.018
5	Khalijor River	2.29	0.061
6	South Koel River	3.50	0.093
7	Lombai River	1.07	0.028
8	Lurgi River	1.12	0.030
9	Palamara River	2.45	0.065
10	Sankh River	14.07	0.373

Source – JASAC, Ranchi

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2. Salient Features of Important Rivers and Streams:

S. No.	Name of the River or Stream	Total Length in the District (in Km)	Place of origin	Altitude at Origin
1	Chhinda River	44.16	Near Gondtoli, Simdega District	400 m
2	Deo Nadi	71.11	-	-
3	Girma River	21.84	Jaspur District, Chhattisgarh	-
4	Halwai Nala	7.08	Near Nawatoli, PF Area, Simdega District	500 m-600 m
5	Khalijor River	30.42	Near Bhaismara, Simdega District	440 m
6	South Koel River	33.52	Near Nagri, Ranchi District	720 m
7	Lombai River	14.60	Near Gondtoli, Simdega District	400 m
8	Lurgi River	14.81	-	-
9	Palamara River	27.31	-	-
10	Sankh River	74.35	Lupungpat village, Gumla District	1000 m

Source – JASAC, Ranchi

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Estimated Executable Quantity as per Replenishment Study
The executable quantity of River Bed Material (RBM) has been estimated on the basis of data collected from various field surveys which includes premonsoon and post-monsoon period.

Annual Deposition of Executable River Bed Material (RBM)

SOUTH KOEL RIVER OF GUMA DISTRICT											
PRE MONSOON(APRIL-2022)					POST MONSOON(NOV-DEC2022)						
S.NO	UIN SAND BAR	AMSL	AREA IN SQM	VOLUME IN CUM	UIN SAND BAR	AMSL	AREA IN SQM	AREA IN HA.	THICKNESS OF SAND IN MTR	VOLUME IN CUM	RATE OF REPLENISHMENT %
1	GUM_SK_PRE_01	606.67	436191	63405	GUM_SK_POS_01	606.9	436193	43.62	0.23	100324	58.23
2	GUM_SK_PRE_02	604.65	303895	37416	GUM_SK_POS_02	604.8	303899	30.39	0.18	54702	46.20
3	GUM_SK_PRE_03	602.73	182989	22233	GUM_SK_POS_03	602.9	182991	18.30	0.18	32938	48.15
4	GUM_SK_PRE_04	600.48	130915	24547	GUM_SK_POS_04	600.8	130917	13.09	0.30	39275	60.00
5	GUM_SK_PRE_05	594.46	353944	80278	GUM_SK_POS_05	594.8	353946	35.39	0.37	130960	63.13
6	GUM_SK_PRE_06	585.92	401561	121312	GUM_SK_POS_06	586.5	401564	40.16	0.53	212829	75.44
7	GUM_SK_PRE_07	581.91	991809	328280	GUM_SK_POS_07	582.5	991812	99.18	0.59	585169	78.25
8	GUM_SK_PRE_08	576.81	171530	56411	GUM_SK_POS_08	577.4	171534	17.15	0.58	99490	76.37
9	GUM_SK_PRE_09	572.45	239108	37067	GUM_SK_POS_09	572.7	239111	23.91	0.23	54996	48.37
10	GUM_SK_PRE_10	562.33	358060	109750	GUM_SK_POS_10	562.8	358063	35.81	0.51	182612	66.39
11	GUM_SK_PRE_11	559.27	368111	121625	GUM_SK_POS_11	559.8	368114	36.81	0.56	206144	69.49
12	GUM_SK_PRE_12	544.34	275138	42795	GUM_SK_POS_12	544.6	275140	27.51	0.22	60531	41.44

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13	GUM_SK_PRE_13	543.16	191302	58587	GUM_SK_POS_13	543.7	191306	19.13	0.49	93740	60.00
14	GUM_SK_PRE_14	539.24	609548	196507	GUM_SK_POS_14	539.8	609551	60.96	0.54	329158	67.50
15	GUM_SK_PRE_15	537.74	439045	249889	GUM_SK_POS_15	538.8	439048	43.90	1.08	474172	89.75
16	GUM_SK_PRE_16	536.15	168870	44804	GUM_SK_POS_16	536.6	168873	16.89	0.43	72615	62.07
17	GUM_SK_PRE_17	532.95	422470	109906	GUM_SK_POS_17	533.4	422473	42.25	0.43	181663	65.29
18	GUM_SK_PRE_18	530.50	411294	117269	GUM_SK_POS_18	531	411297	41.13	0.48	197423	68.35
19	GUM_SK_PRE_19	528.08	139941	78769	GUM_SK_POS_19	529.1	139945	13.99	1.06	148342	88.32
20	GUM_SK_PRE_20	527.35	481602	155270	GUM_SK_POS_20	527.9	481607	48.16	0.52	250436	61.29
21	GUM_SK_PRE_21	524.04	286820	160821	GUM_SK_POS_21	525.1	286822	28.68	1.05	301163	87.27
22	GUM_SK_PRE_22	516.67	147559	82410	GUM_SK_POS_22	517.7	147562	14.76	1.04	153464	86.22
23	GUM_SK_PRE_23	513.85	188992	106676	GUM_SK_POS_23	514.9	188995	18.90	1.03	194665	82.48
24	GUM_SK_PRE_24	506.48	367965	80493	GUM_SK_POS_24	506.8	367969	36.80	0.35	128789	60.00
25	GUM_SK_PRE_25	466.92	225519	116193	GUM_SK_POS_25	467.9	225521	22.55	0.93	209735	80.51
26	GUM_SK_PRE_26	465.94	210920	48386	GUM_SK_POS_26	466.3	210922	21.09	0.37	78041	61.29
				2651099			**8505175**	**850.52**		**4573375**	

SANKH RIVER OF GUMLA DISTRICT	
PRE MONSOON(APRIL-2022)	**POST MONSOON(NOV-DEC2022)**

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S.NO	UIN SAND BAR	AMSL	AREA IN SQM	VOLUME IN CUM	UIN SAND BAR	AMSL	AREA IN SQM	AREA IN HA.	THICKNESS OF SAND IN MTR	VOLUME IN CUM	RATE OF REPLENISHMENT %
1	GUM_SH_PRE_01	717.78	69654	13166	GUM_SK_POS_01	718.06	69659	6.97	0.28	19505	48.15
2	GUM_SH_PRE_02	707.79	169499	17276	GUM_SK_POS_02	707.93	169501	16.95	0.14	23730	37.36
3	GUM_SH_PRE_03	704.38	182100	69344	GUM_SK_POS_03	705.02	182101	18.21	0.64	116545	68.07
4	GUM_SH_PRE_04	703.36	42522	16879	GUM_SK_POS_04	704.06	42527	4.25	0.70	29769	76.37
5	GUM_SH_PRE_05	689.02	71970	28456	GUM_SK_POS_05	689.71	71972	7.20	0.69	49661	74.52
6	GUM_SH_PRE_06	675.01	147040	52759	GUM_SK_POS_06	675.61	147042	14.70	0.60	88225	67.22
7	GUM_SH_PRE_07	669.17	212580	82610	GUM_SK_POS_07	669.84	212583	21.26	0.67	142431	72.41
8	GUM_SH_PRE_08	666.28	427862	140596	GUM_SK_POS_08	666.81	427865	42.79	0.53	226768	61.29
9	GUM_SH_PRE_09	661.10	355630	104467	GUM_SK_POS_09	661.57	355631	35.56	0.47	167147	60.00
10	GUM_SH_PRE_10	650.21	105732	17704	GUM_SK_POS_10	650.47	105736	10.57	0.26	27491	55.28
11	GUM_SH_PRE_11	646.88	295121	94534	GUM_SK_POS_11	647.40	295125	29.51	0.52	153465	62.34
12	GUM_SH_PRE_12	643.18	201760	41321	GUM_SK_POS_12	643.50	201763	20.18	0.32	64564	56.25
13	GUM_SH_PRE_13	640.74	285776	109596	GUM_SK_POS_13	641.39	285779	28.58	0.65	185756	69.49
14	GUM_SH_PRE_14	632.79	234160	73206	GUM_SK_POS_14	633.30	234162	23.42	0.51	119423	63.13
15	GUM_SH_PRE_15	616.37	150641	50617	GUM_SK_POS_15	616.93	150645	15.06	0.56	84361	66.67
				295.20			**2952091**	**295.21**		**1498840**	

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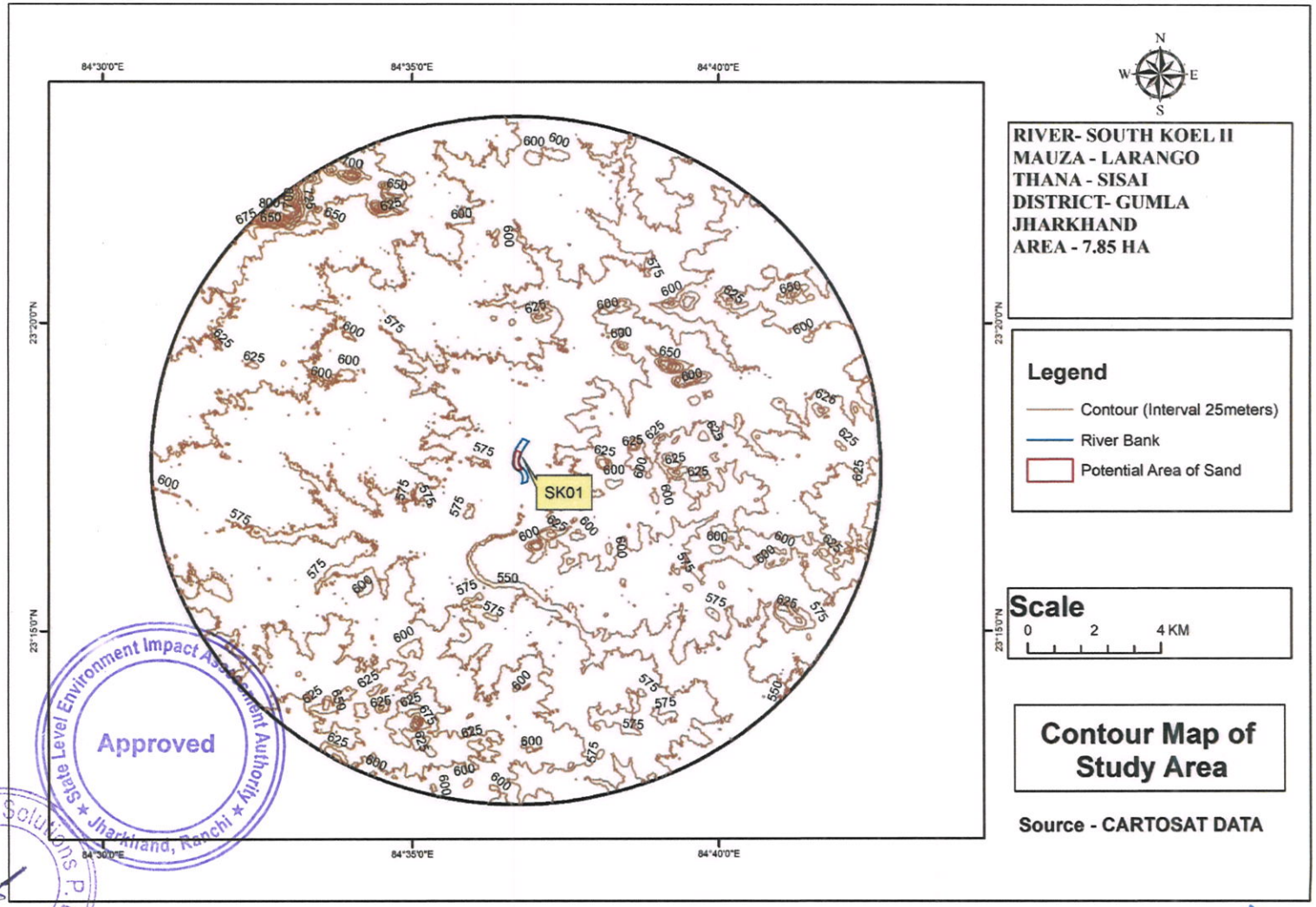
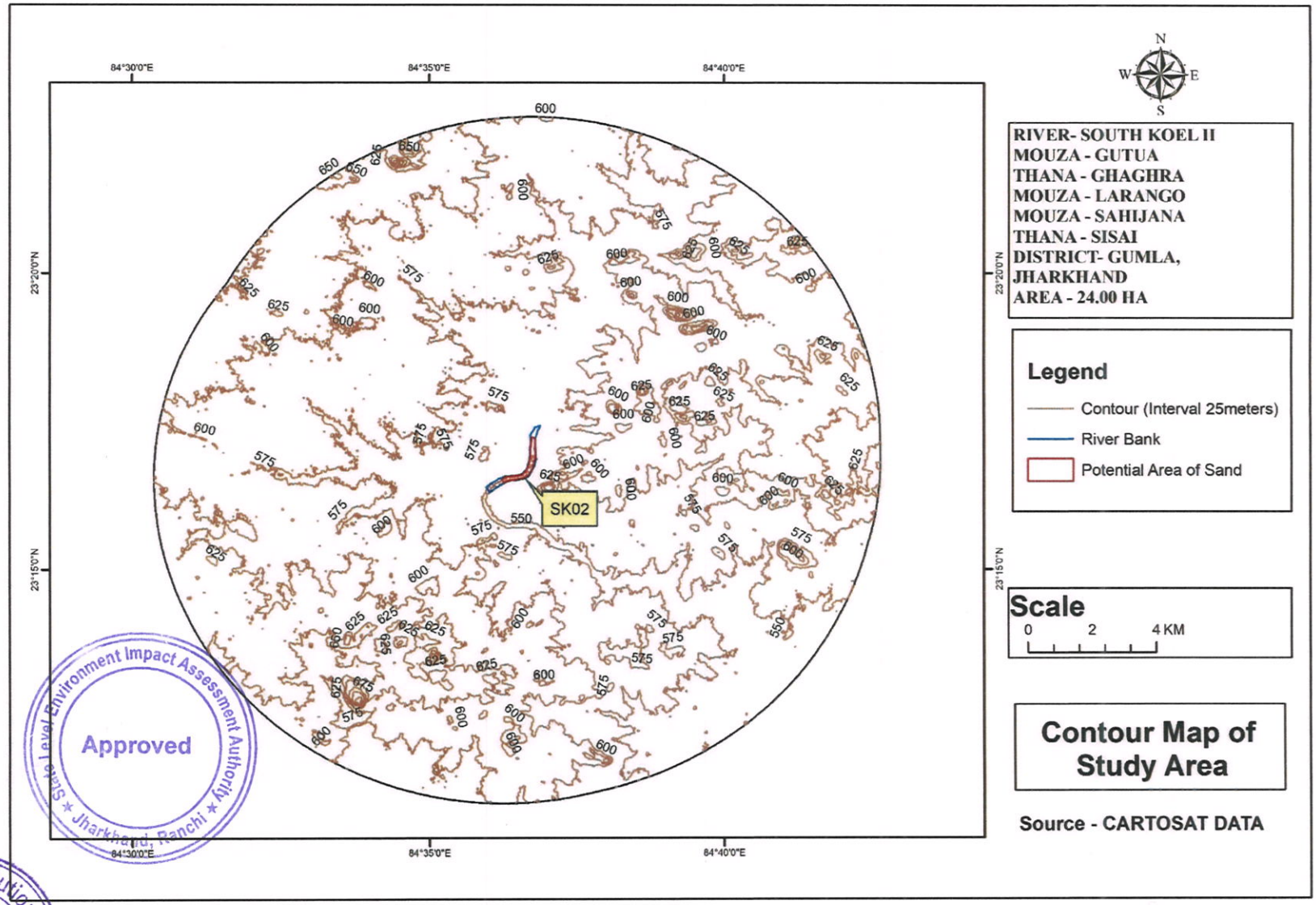
CONTOUR MAP OF PROPOSED POTENTIAL AREA OF SAND DEPOSIT



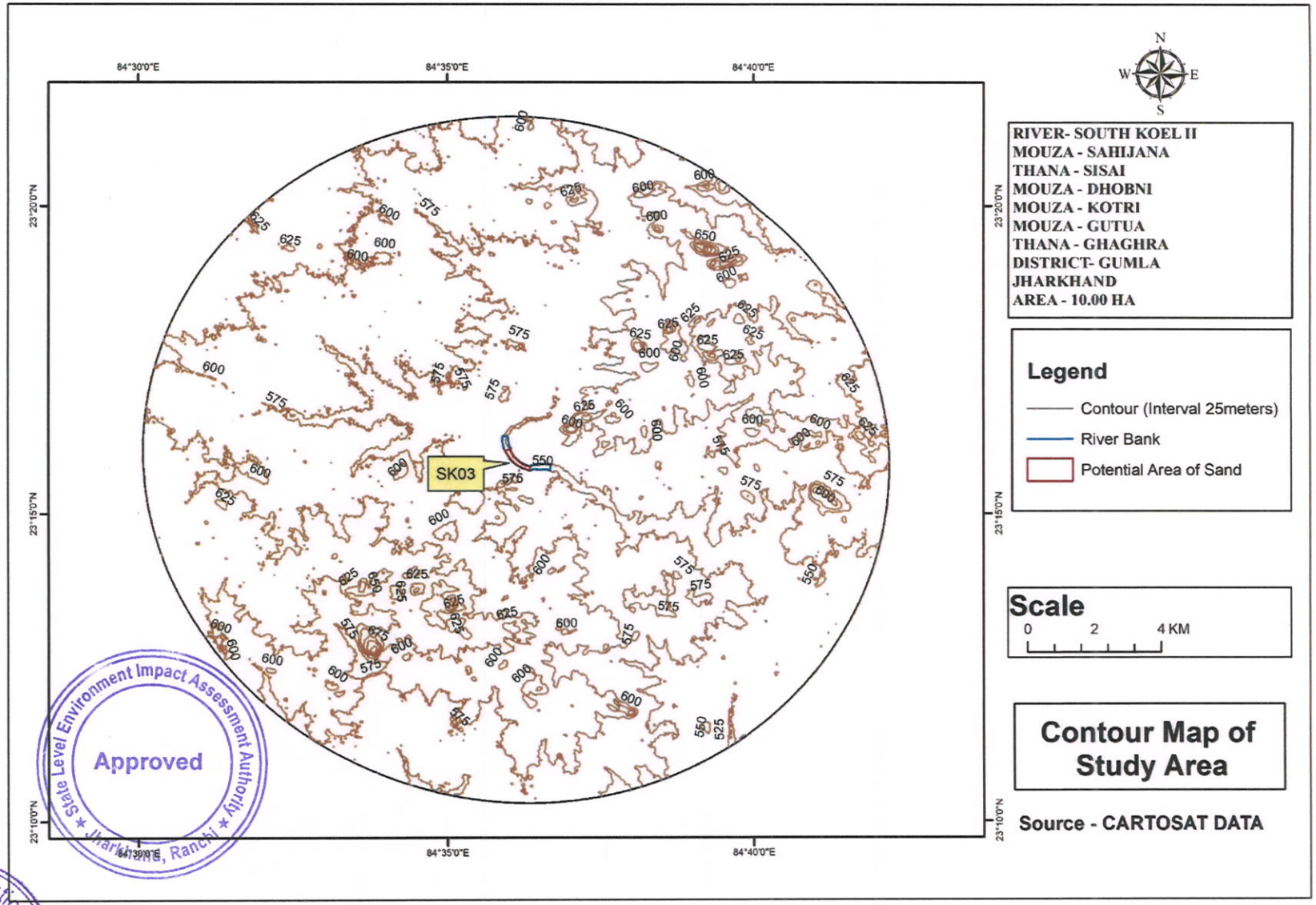
Approved

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★

Atmos Sustainable Solutions P. Ltd.

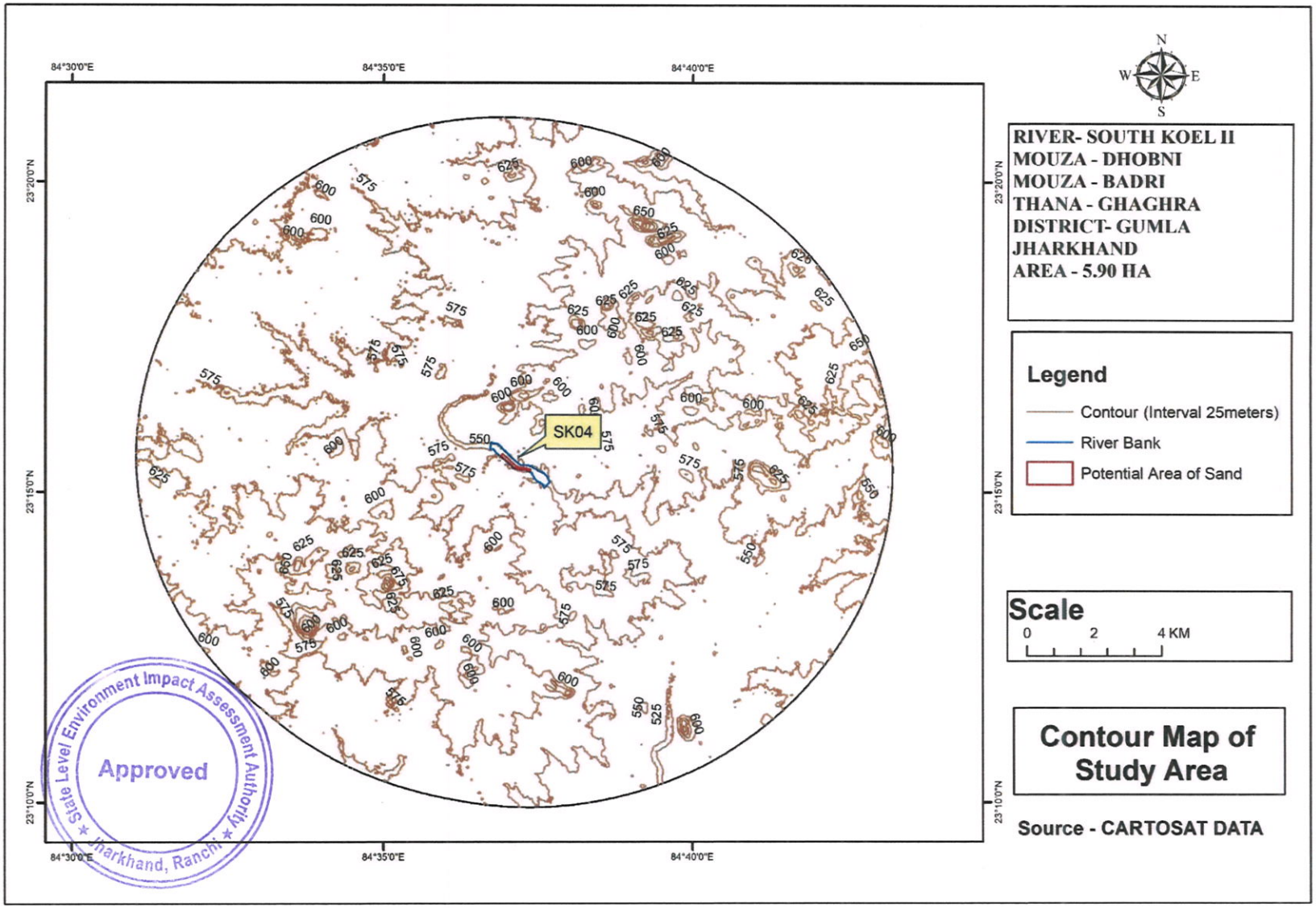


State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★
Approved
Rumbs Sustainable Solutions P. Ltd.



State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★ Approved

Sustainable Solutions P. Ltd.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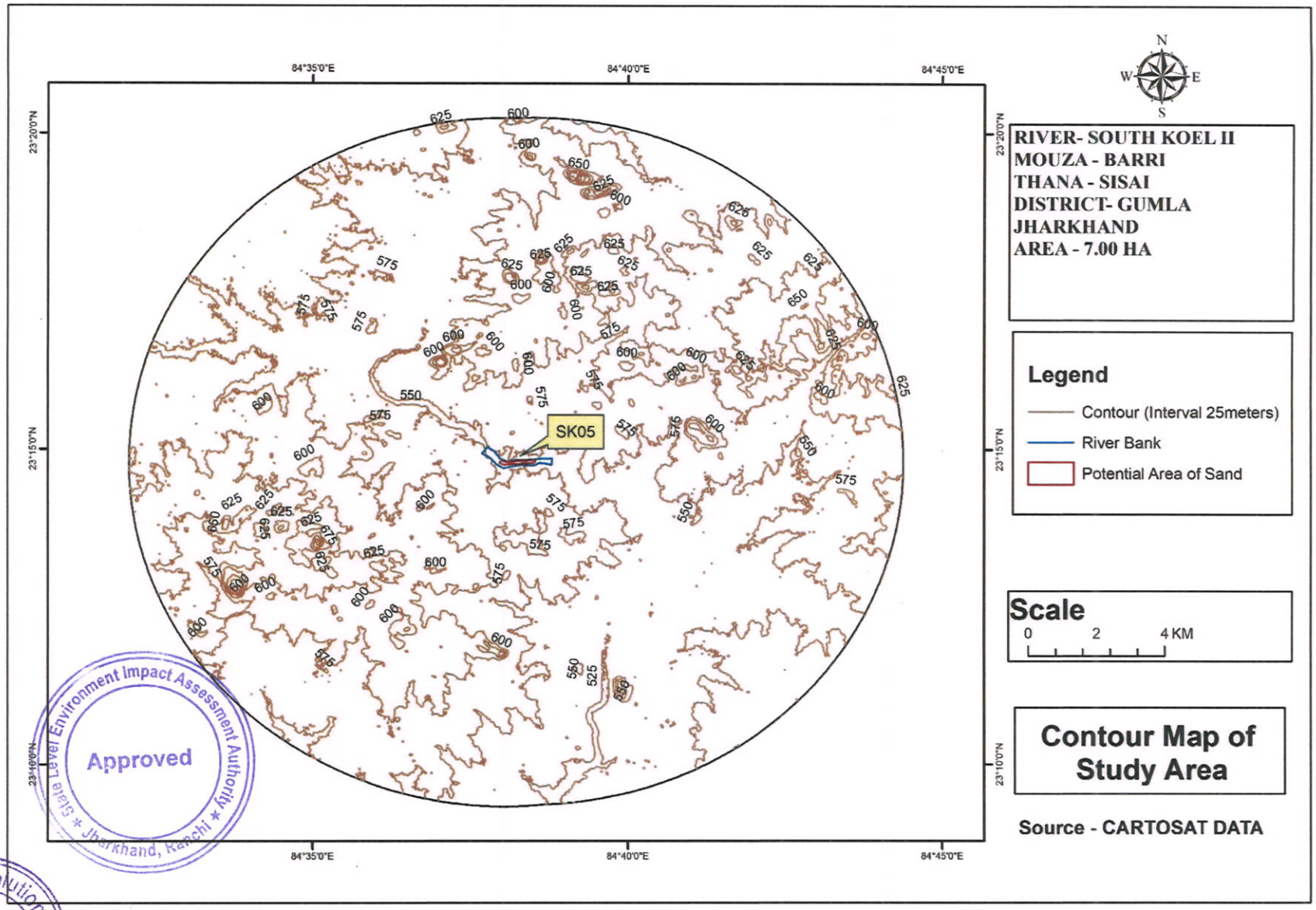
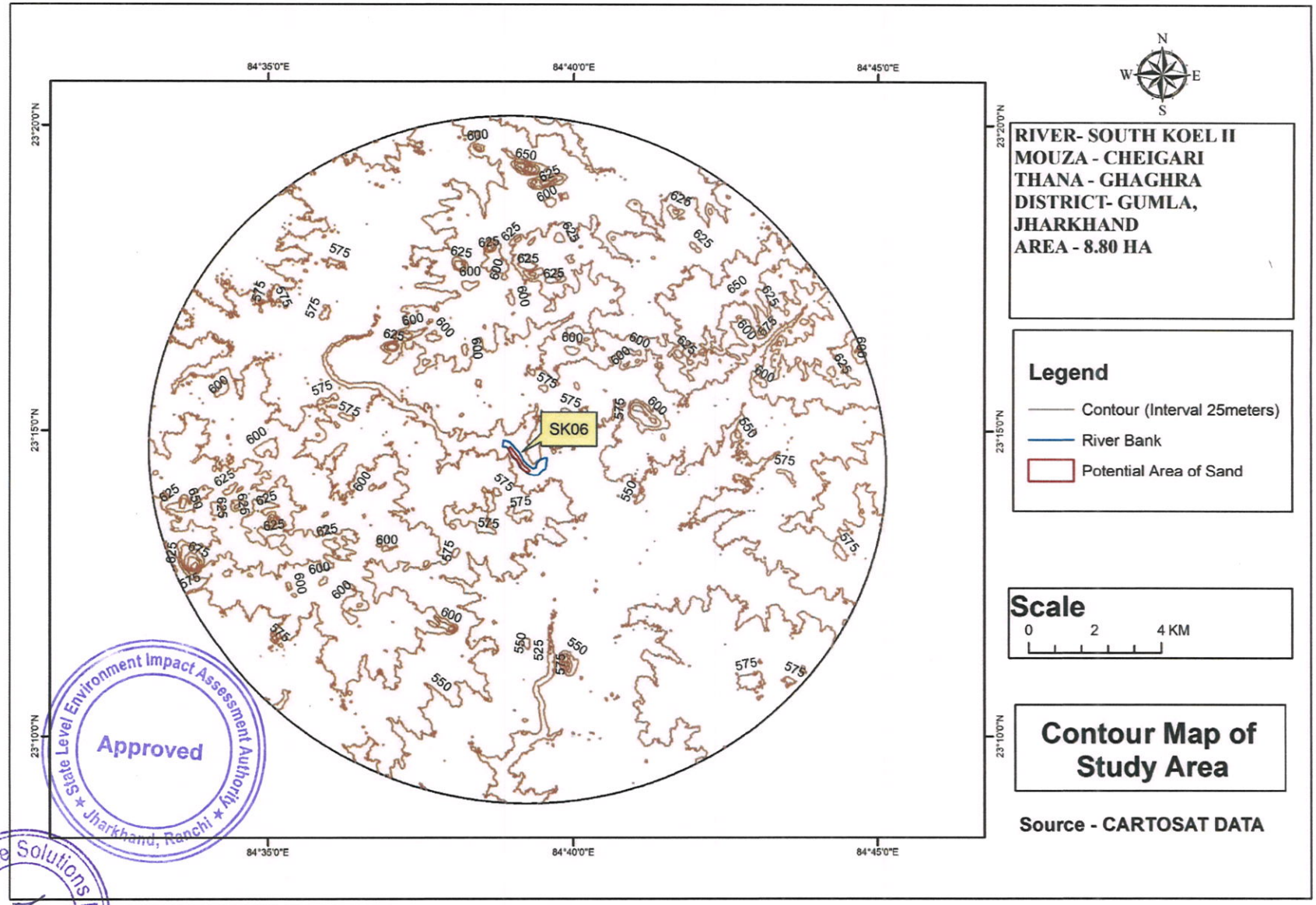
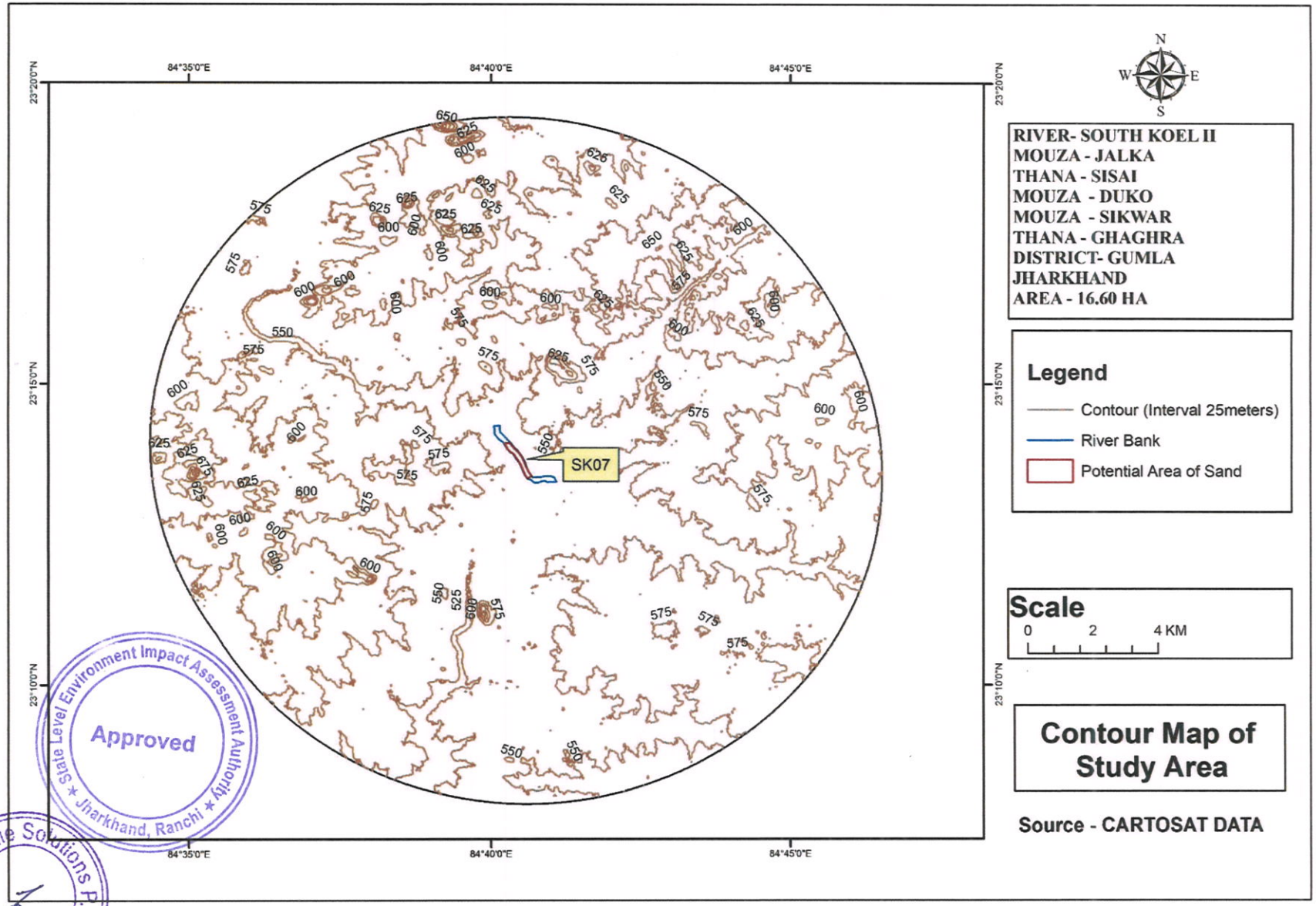
N
W
E
S
RIVER- SOUTH KOEL II
MOUZA - DHOBNI
MOUZA - BADRI
THANA - GHAGHRA
DISTRICT- GUMLA
JHARKHAND
AREA - 5.90 HA
Legend
Contour (Interval 25meters)
River Bank
Potential Area of Sand
Scale
0 2 4 KM
Contour Map of Study Area
Source - CARTOSAT DATA
State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi



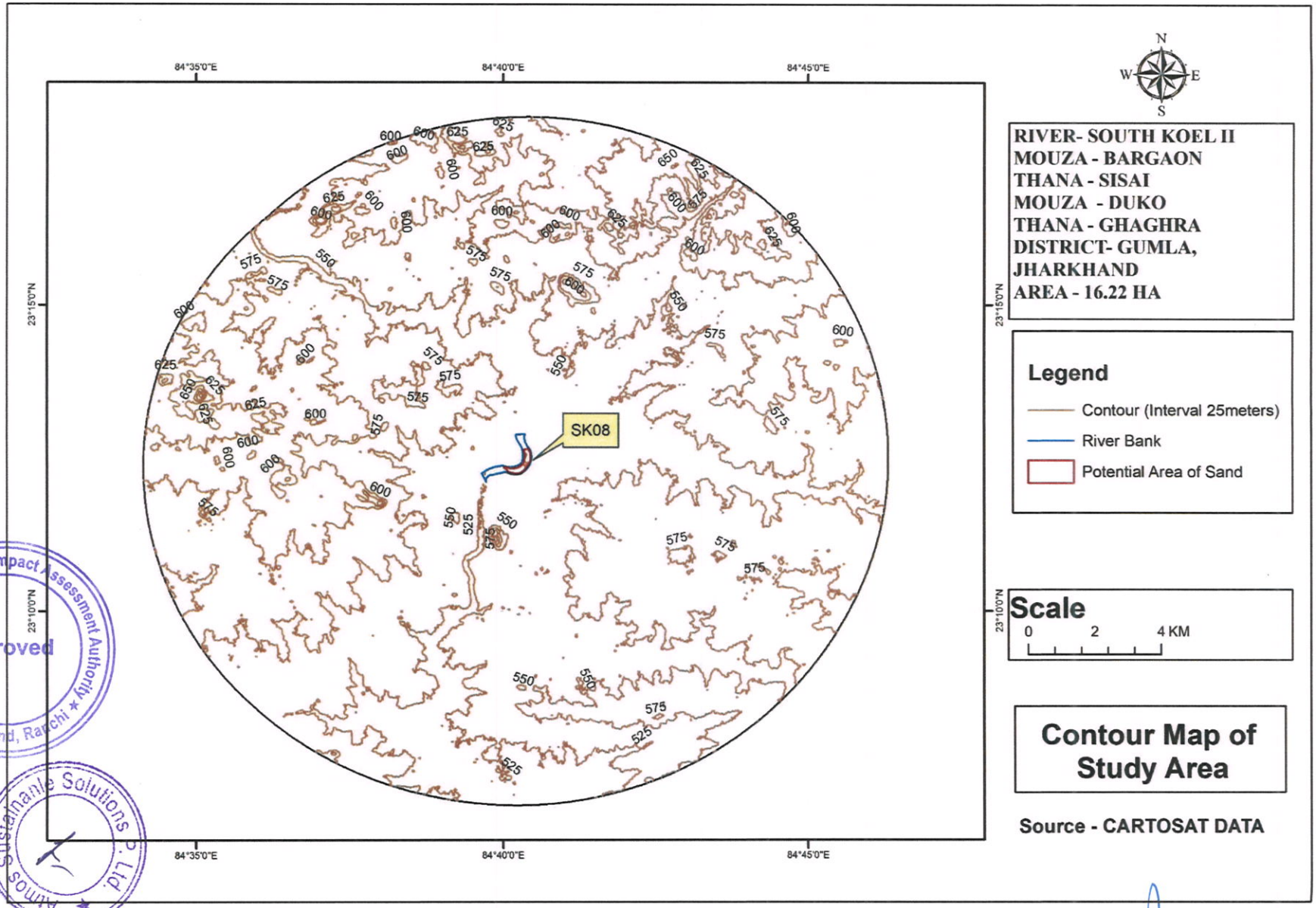
State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★
Approved
Atmos Sustainable Solutions P. Ltd.



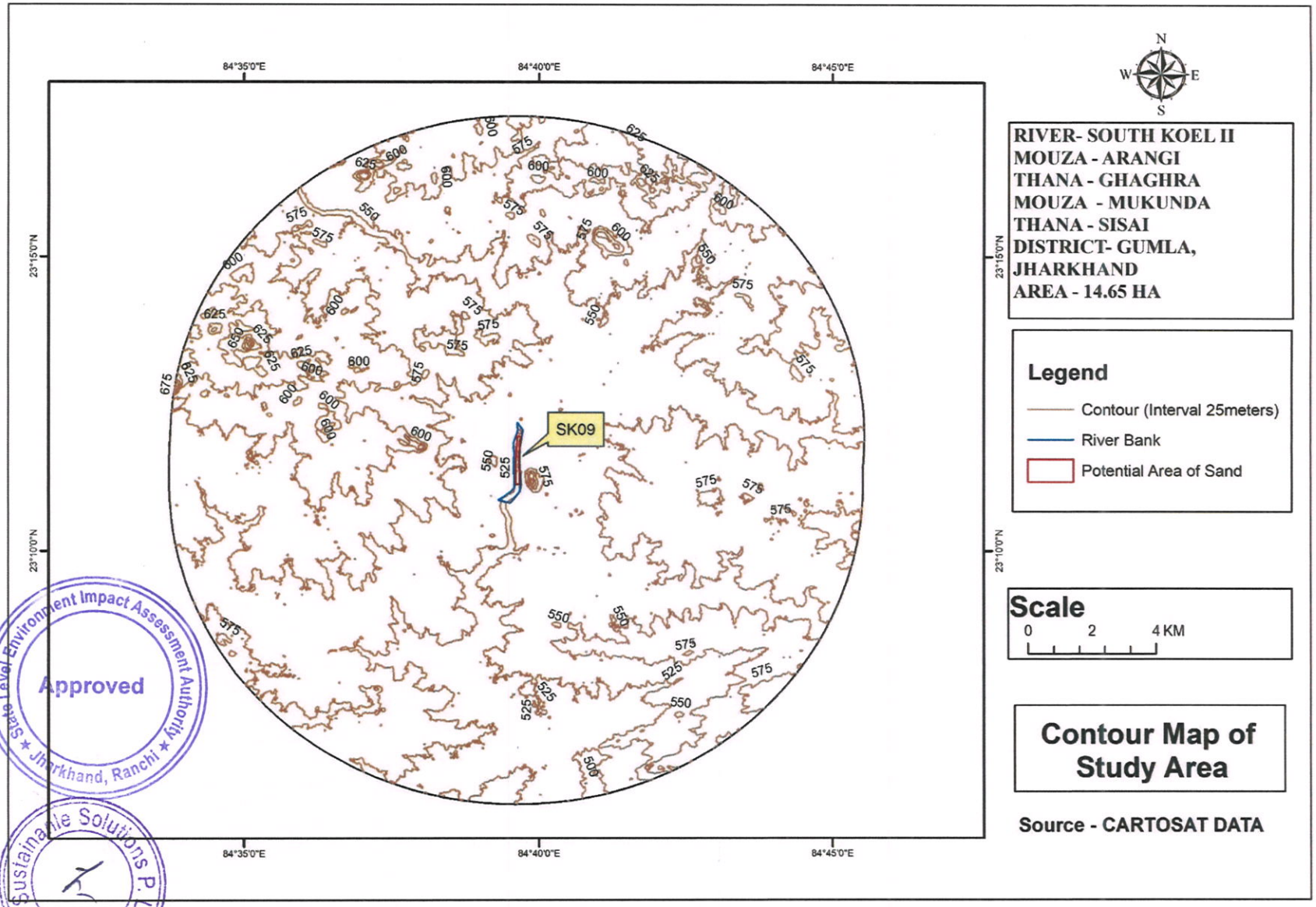
State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★
Approved
Atmos Sustainable Solutions P. Ltd.



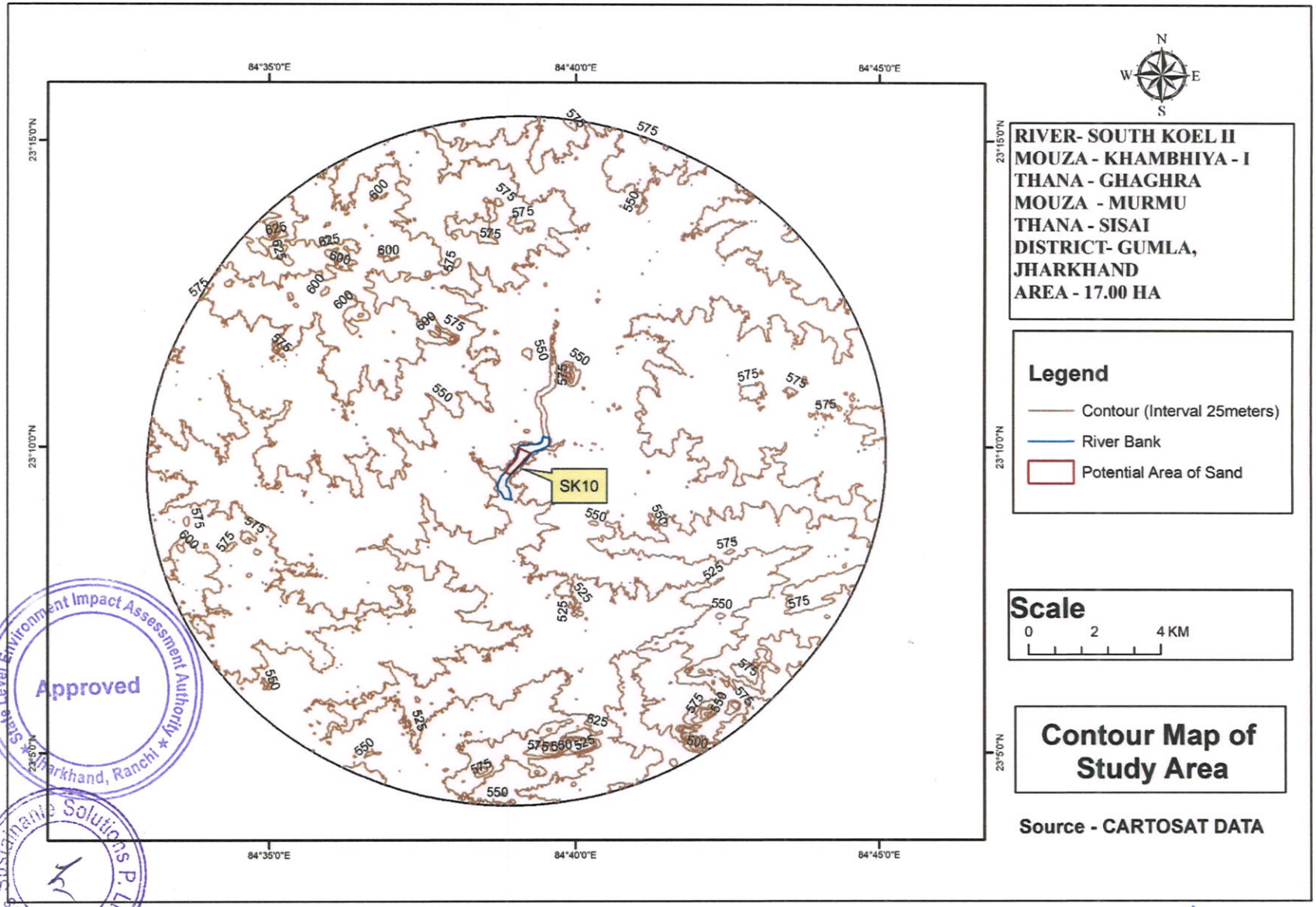
State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi
Atmos Sustainable Solutions Pvt. Ltd.



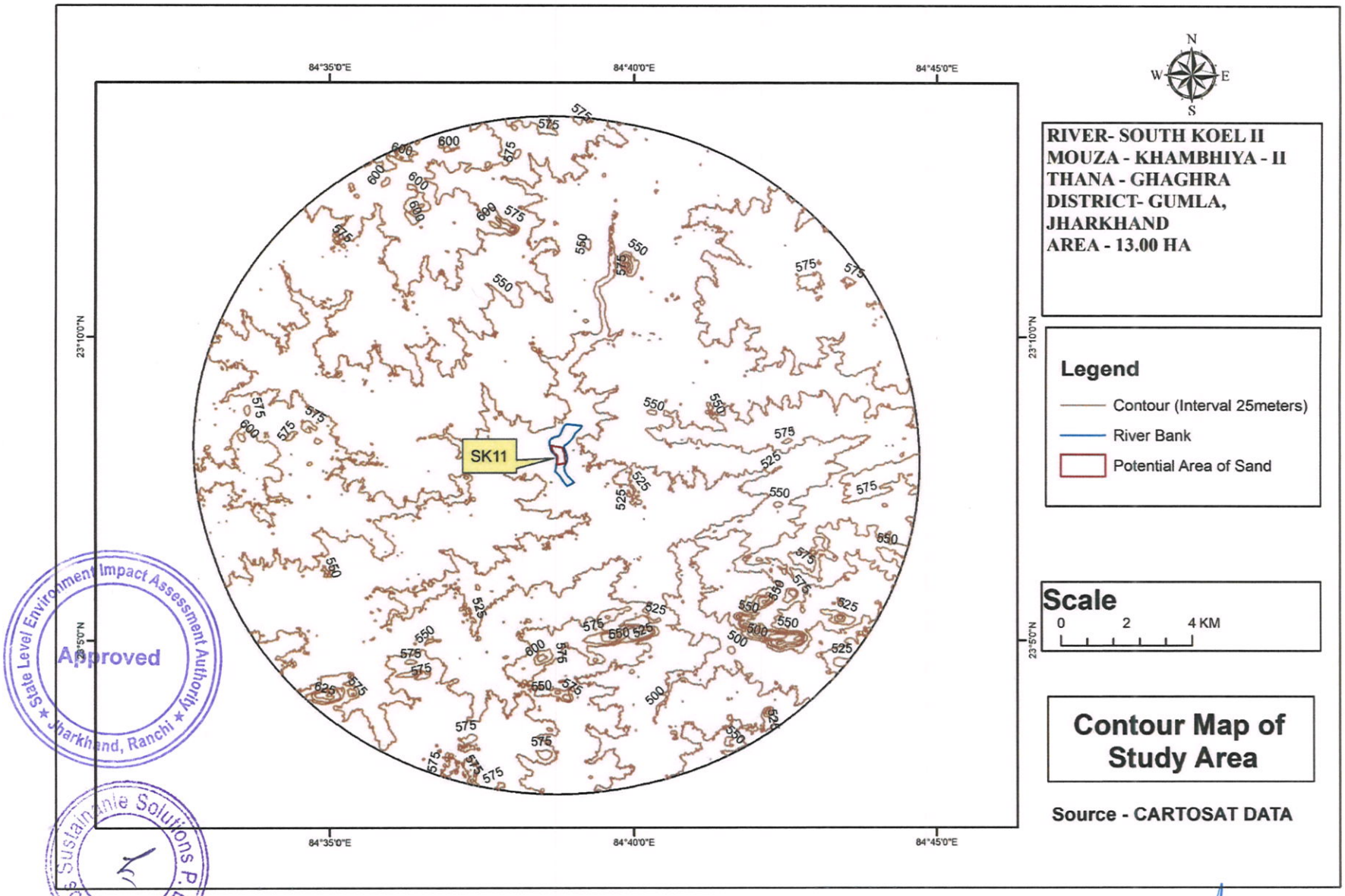
State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★ Approved
Amos Sustainable Solutions Pvt. Ltd.



State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★
Approved
Atmos Sustainable Solutions Pvt. Ltd.



State Level Environment Impact Assessment Authority Jharkhand, Ranchi
Approved
Atmos Sustainable Solutions P. Ltd.



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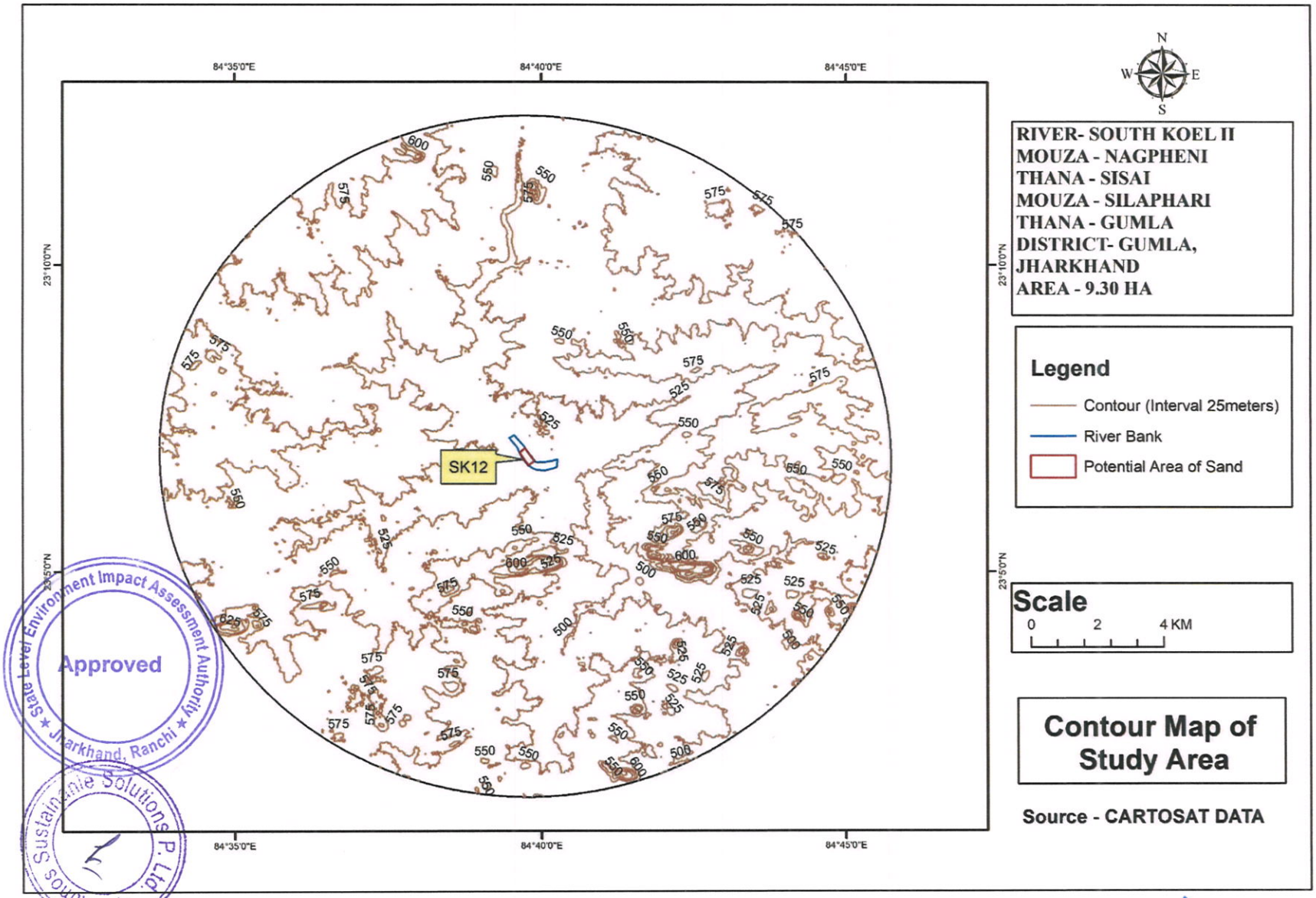

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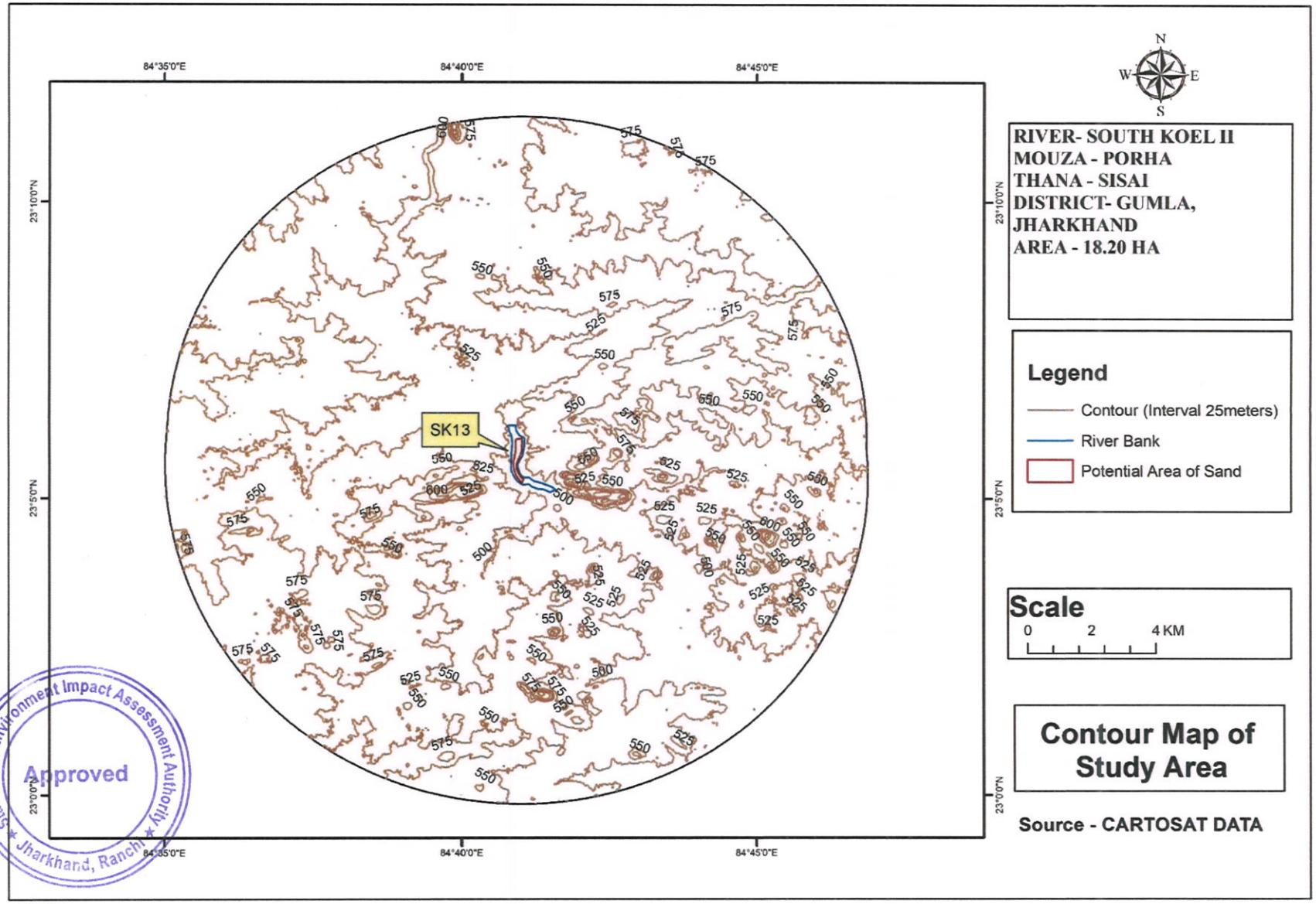
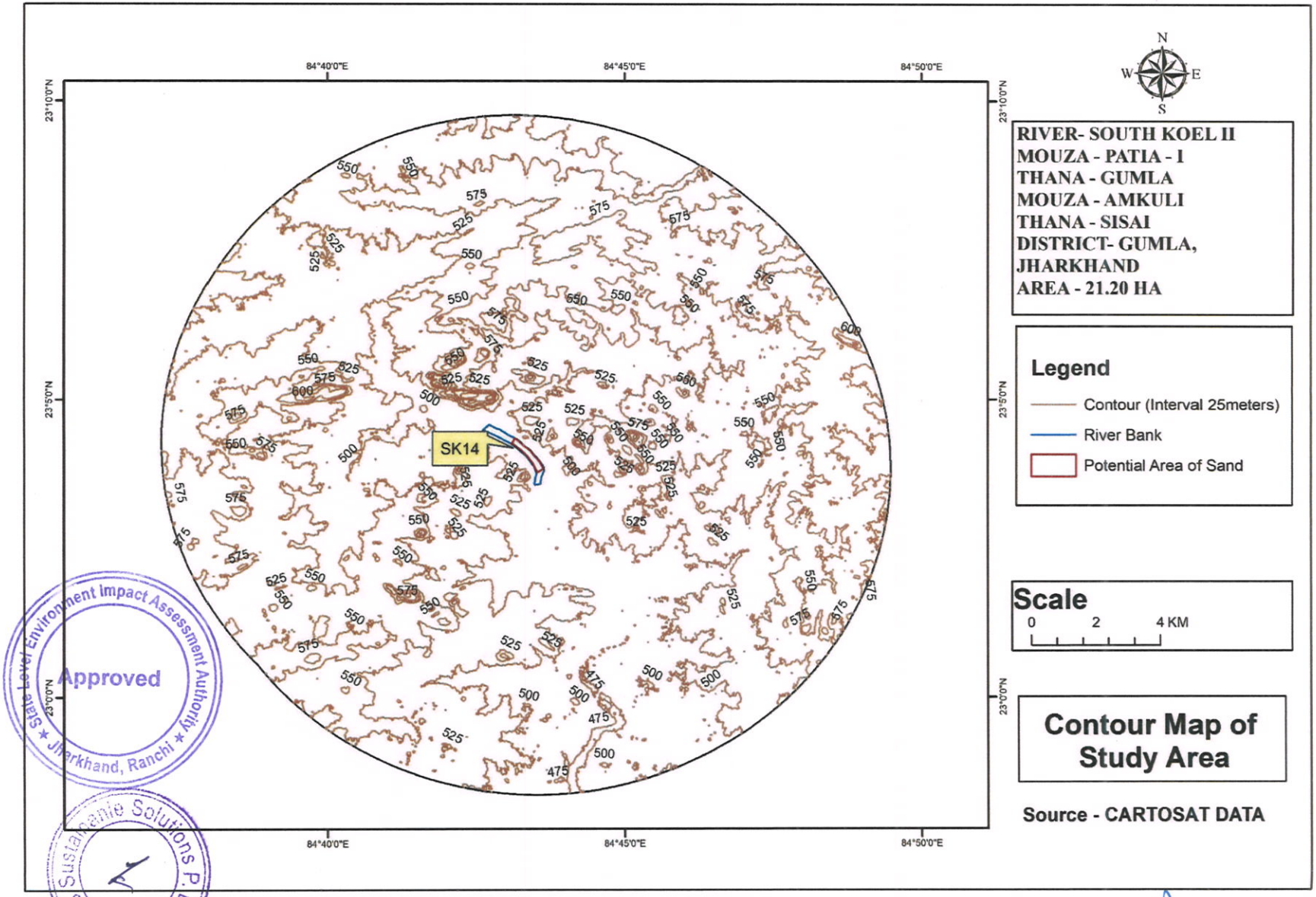


State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

Atmos Sustainable Solutions Ltd.



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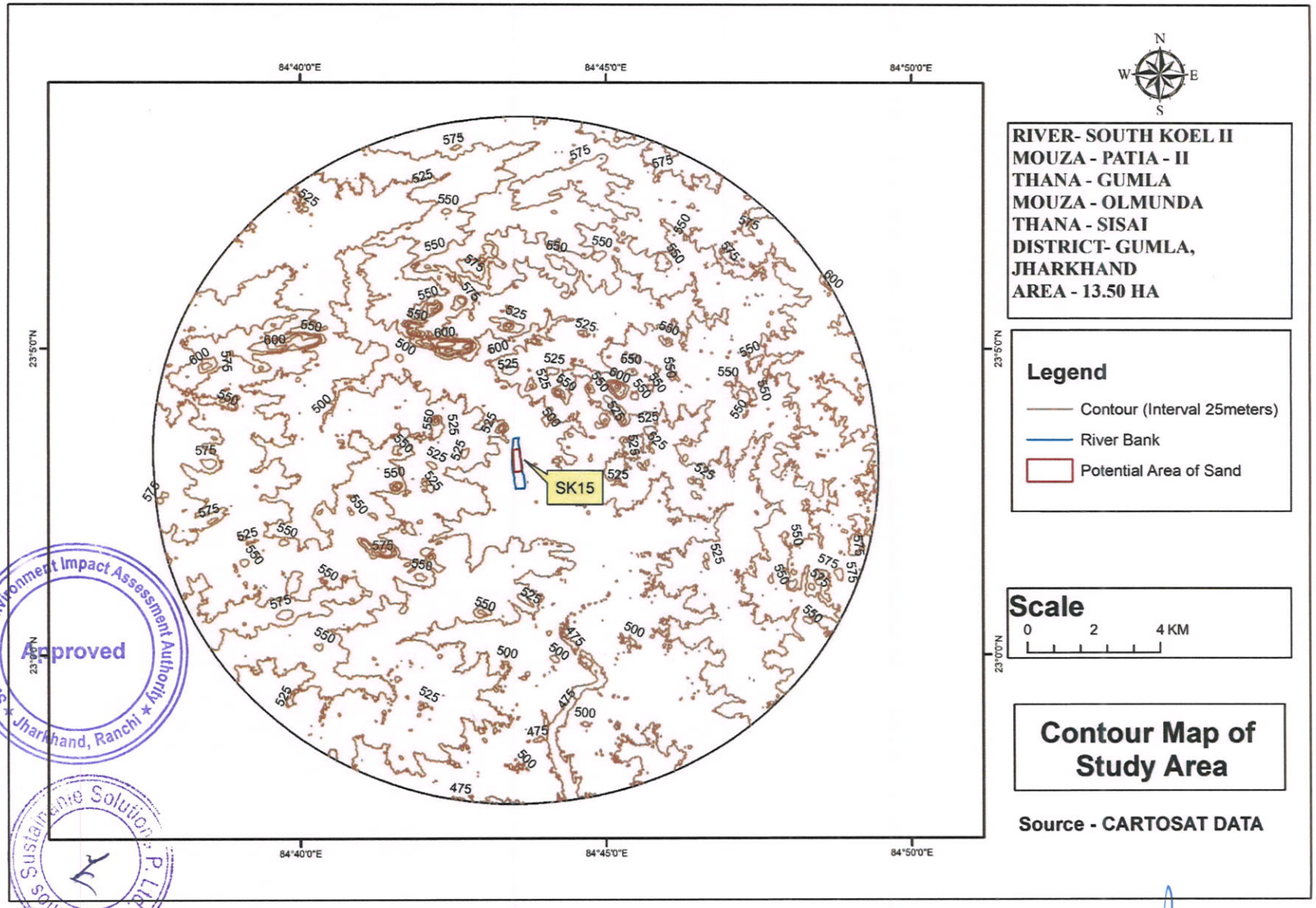
Atmos Sustainable Solutions P. Ltd.



State Level Environment Impact Assessment Authority
Approved
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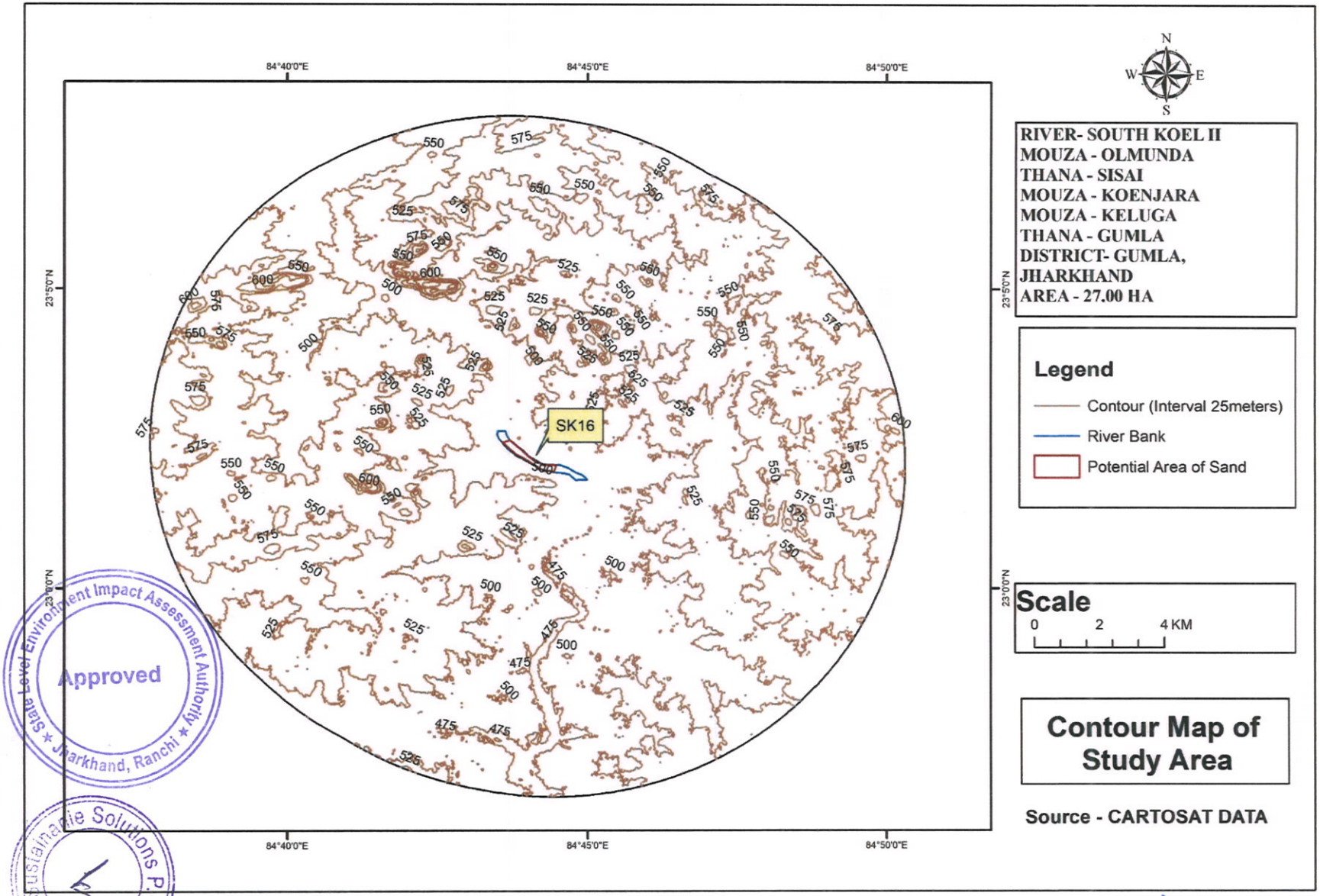
Atmos Sustainable Solutions Pvt. Ltd.



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Approved
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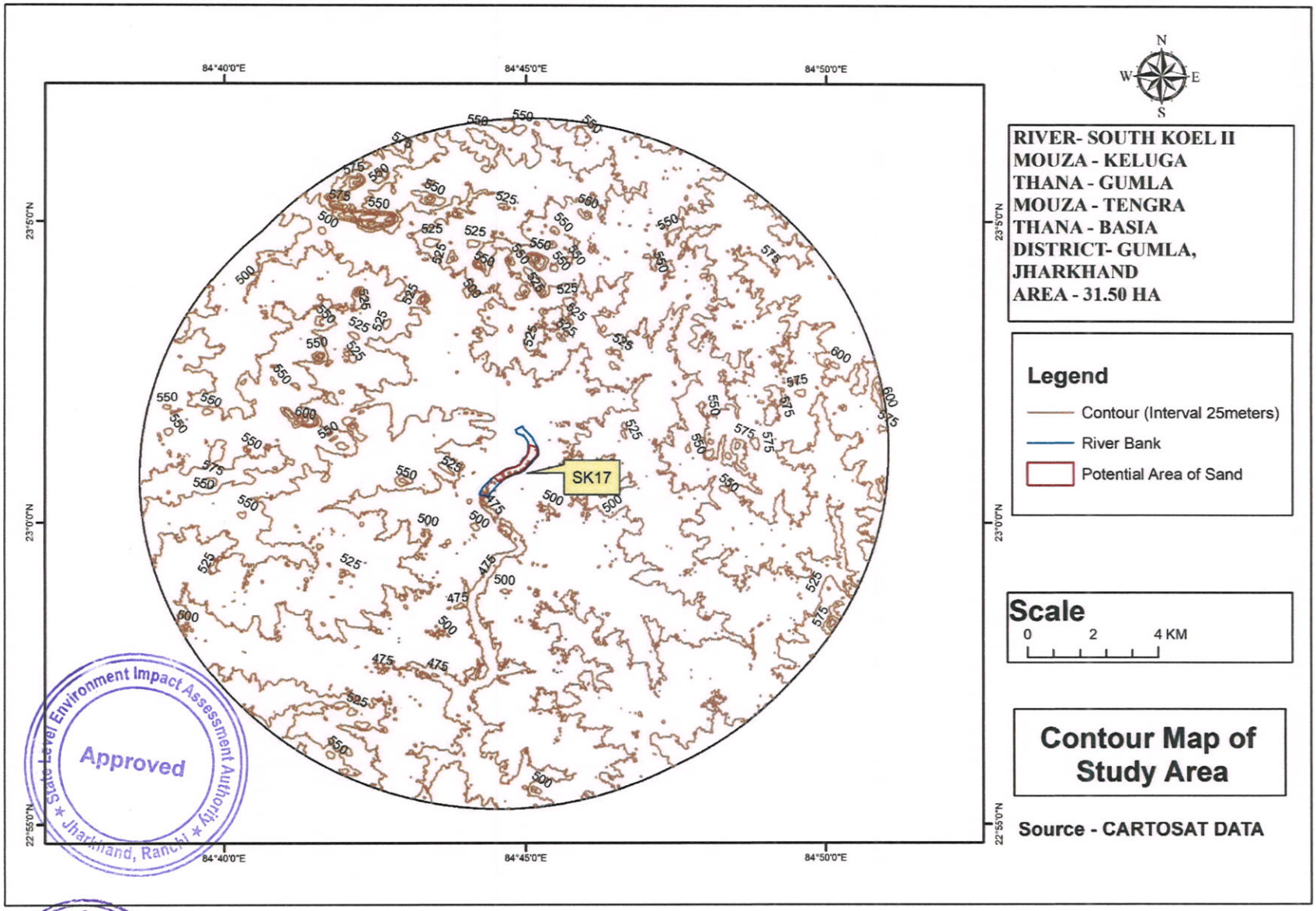
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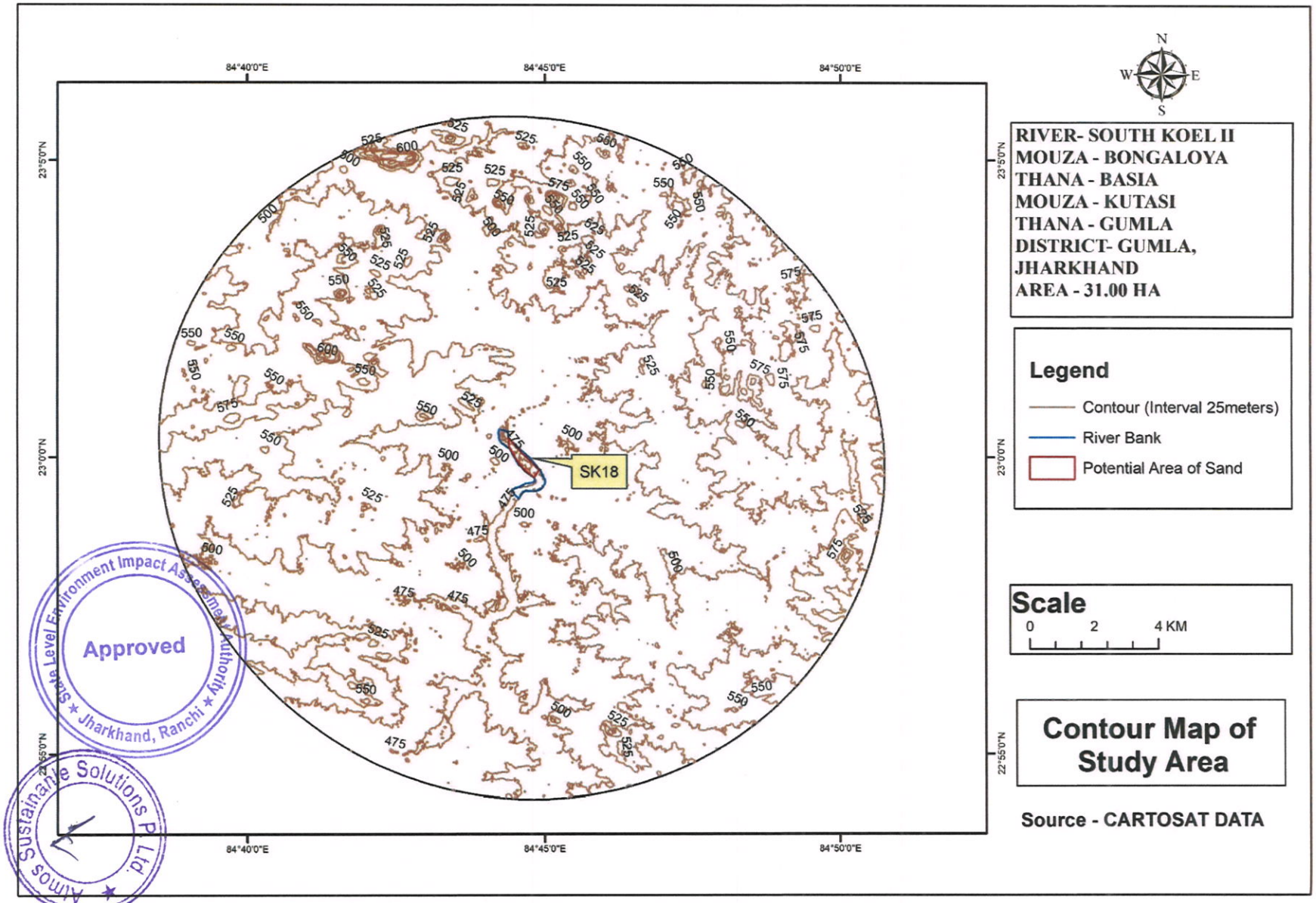
SK17
N
W
E
S
RIVER- SOUTH KOEL II
MOUZA - KELUGA
THANA - GUMLA
MOUZA - TENGRA
THANA - BASIA
DISTRICT- GUMLA,
JHARKHAND
AREA - 31.50 HA
Legend
Contour (Interval 25meters)
River Bank
Potential Area of Sand
Scale
0 2 4 KM
Contour Map of Study Area
Source - CARTOSAT DATA
State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi
Atmos Sustainable Solutions Pvt. Ltd.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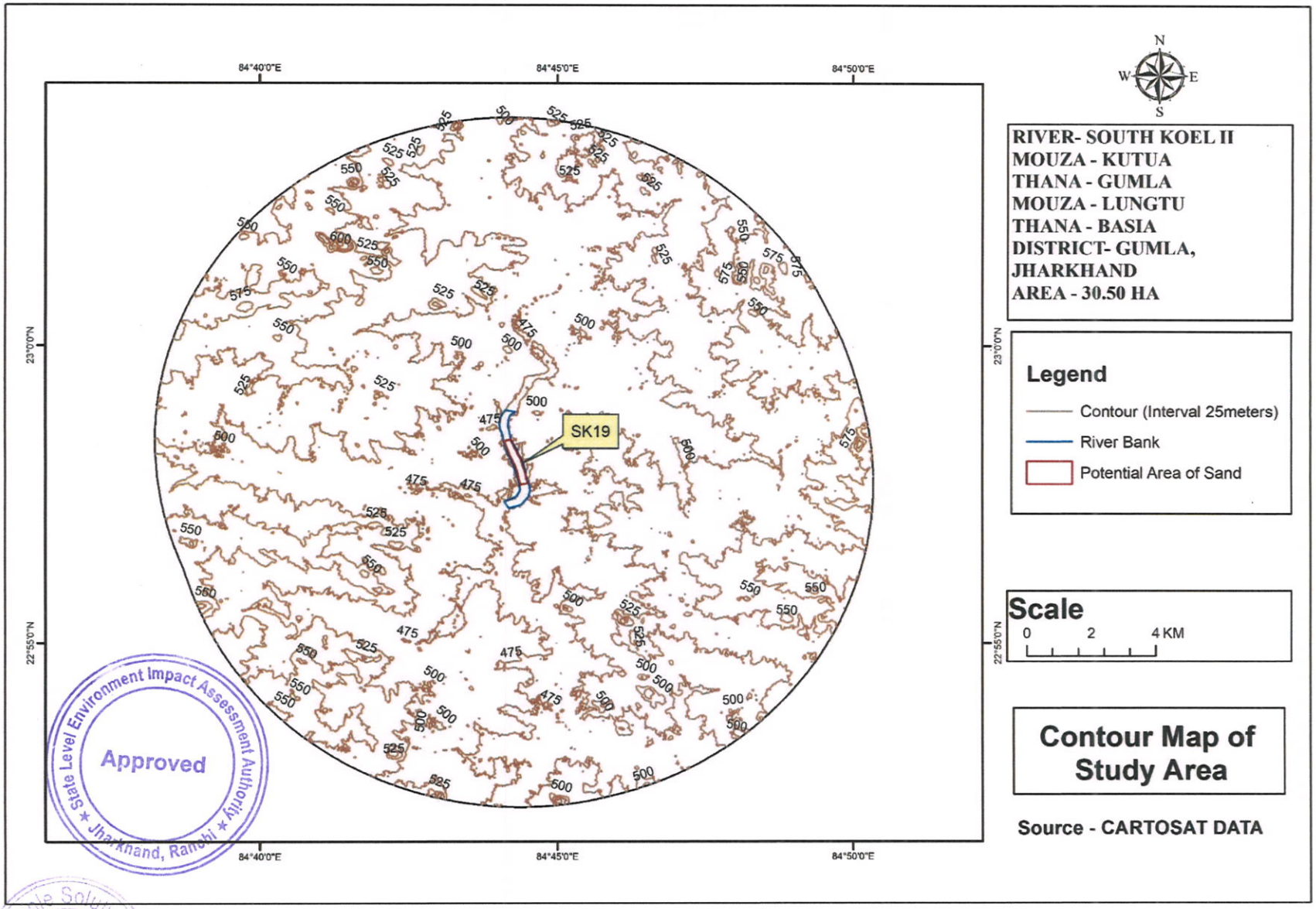
S
RIVER- SOUTH KOEL II
MOUZA - BONGALOYA
THANA - BASIA
MOUZA - KUTASI
THANA - GUMLA
DISTRICT- GUMLA,
JHARKHAND
AREA - 31.00 HA
Legend
Contour (Interval 25meters)
River Bank
Potential Area of Sand
Scale
0 2 4 KM
Contour Map of Study Area
Source - CARTOSAT DATA
Approved
State Level Environment Impact Assessment Authority
Jharkhand, Ranchi
Atmos Sustainable Solutions Pvt. Ltd.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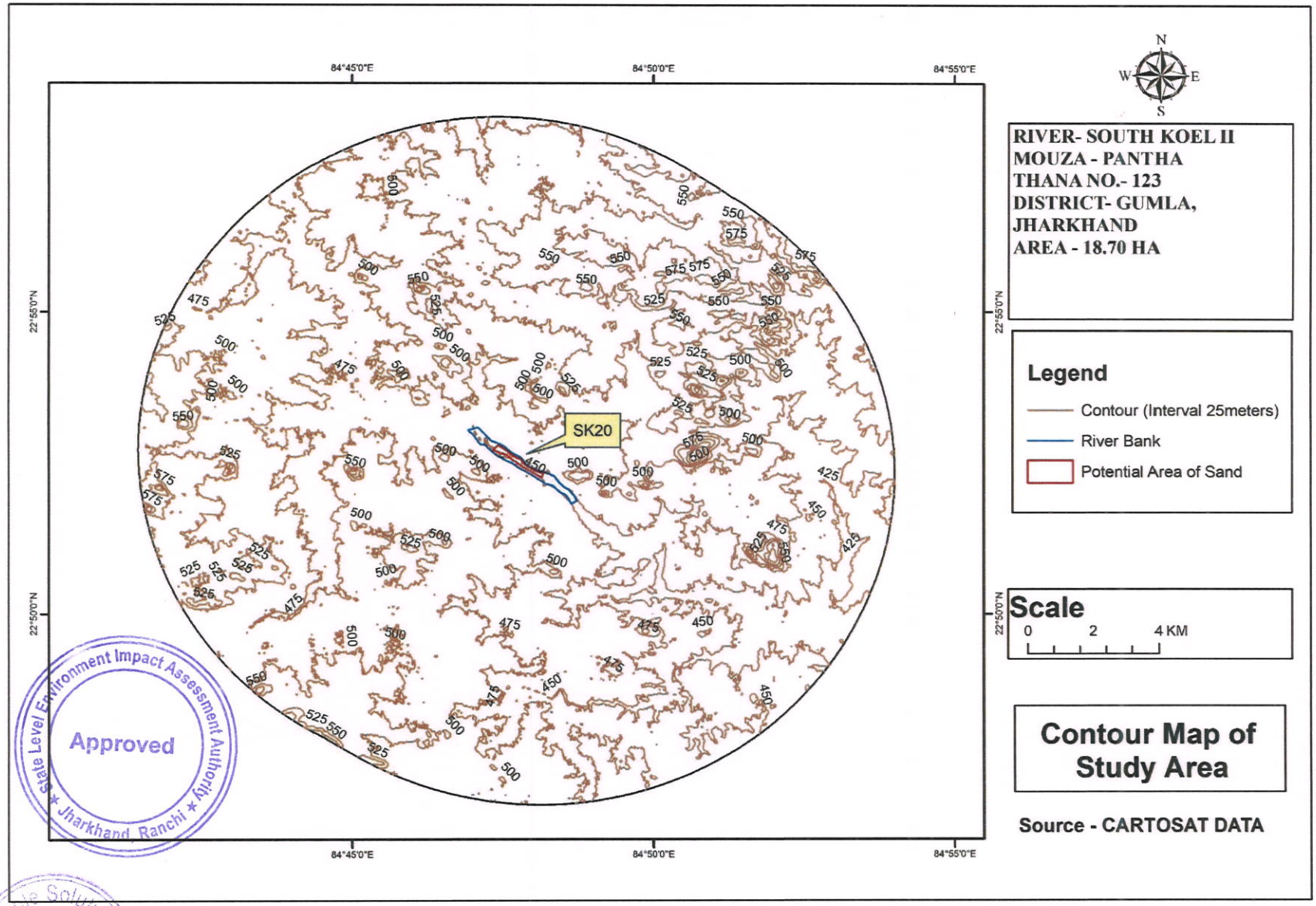
SK19
RIVER- SOUTH KOEL II
MOUZA - KUTUA
THANA - GUMLA
MOUZA - LUNGTU
THANA - BASIA
DISTRICT- GUMLA,
JHARKHAND
AREA - 30.50 HA
Legend
Contour (Interval 25meters)
River Bank
Potential Area of Sand
Scale
0 2 4 KM
Contour Map of Study Area
Source - CARTOSAT DATA
State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi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SK20
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W
RIVER- SOUTH KOEL II
MOUZA - PANTHA
THANA NO.- 123
DISTRICT- GUMLA,
JHARKHAND
AREA - 18.70 HA
Legend
Contour (Interval 25meters)
River Bank
Potential Area of Sand
Scale
0 2 4 KM
Contour Map of Study Area
Source - CARTOSAT DATA
State Level Environment Impact Assessment Authority
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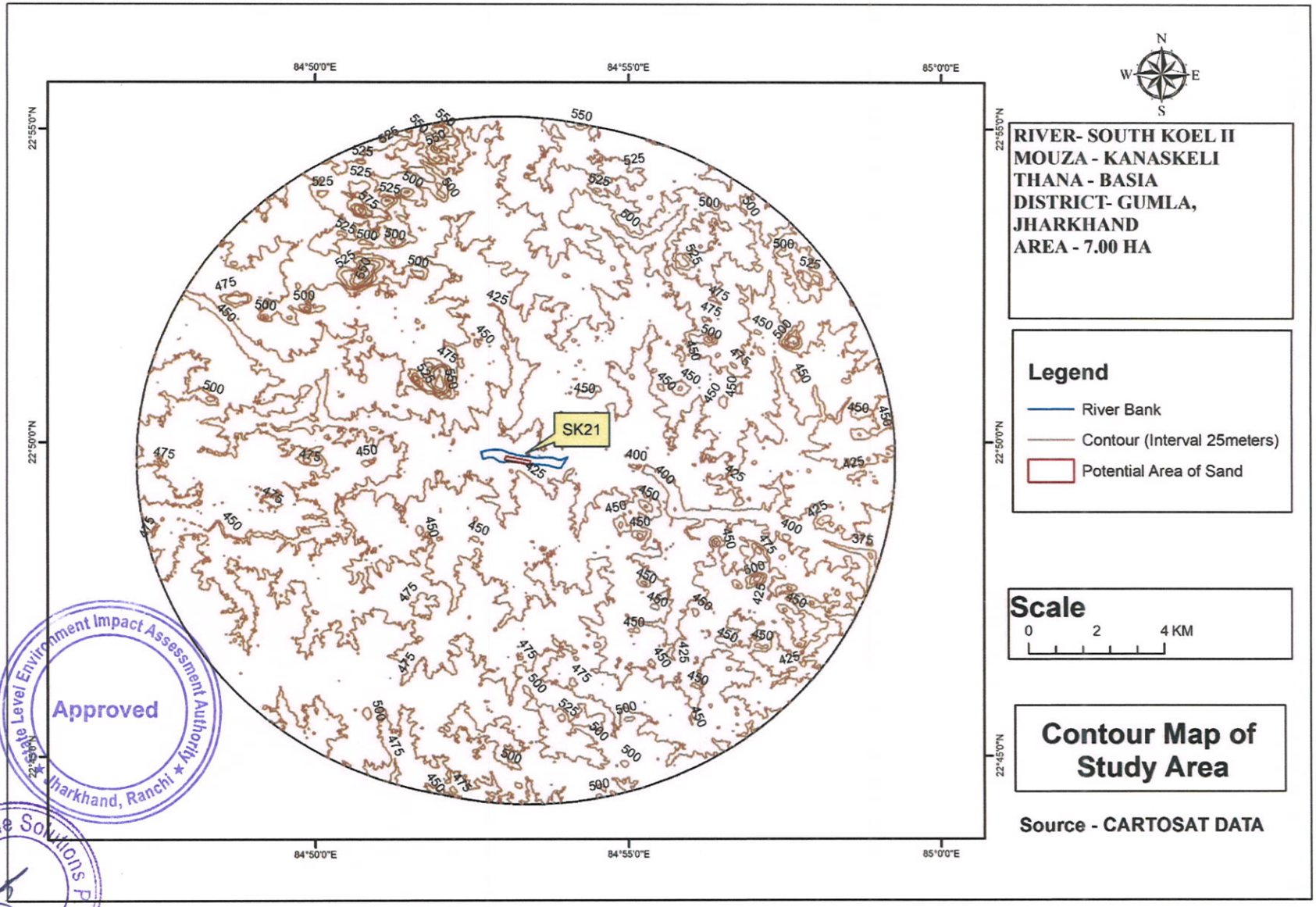
Jharkhand, Ranchi



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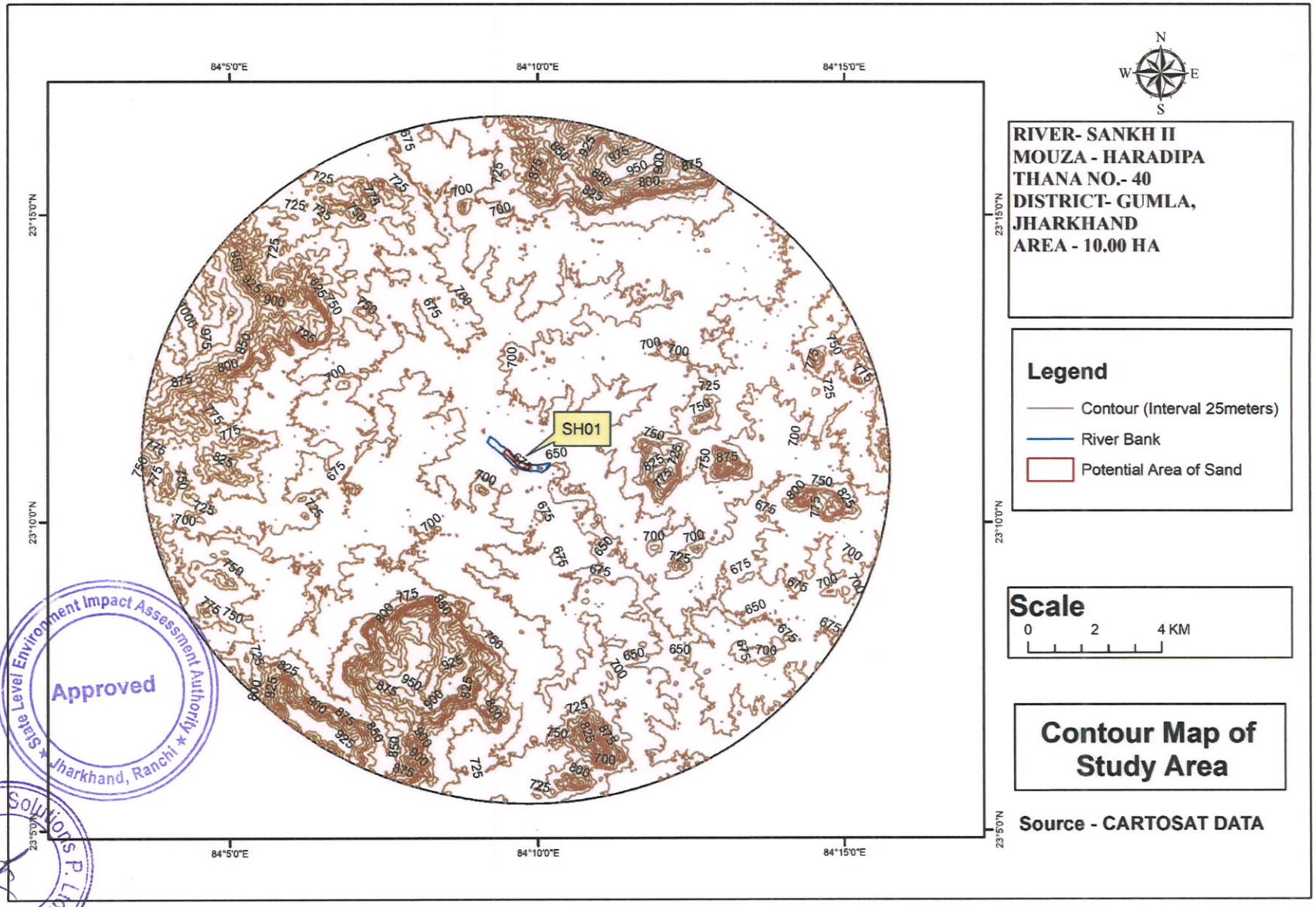
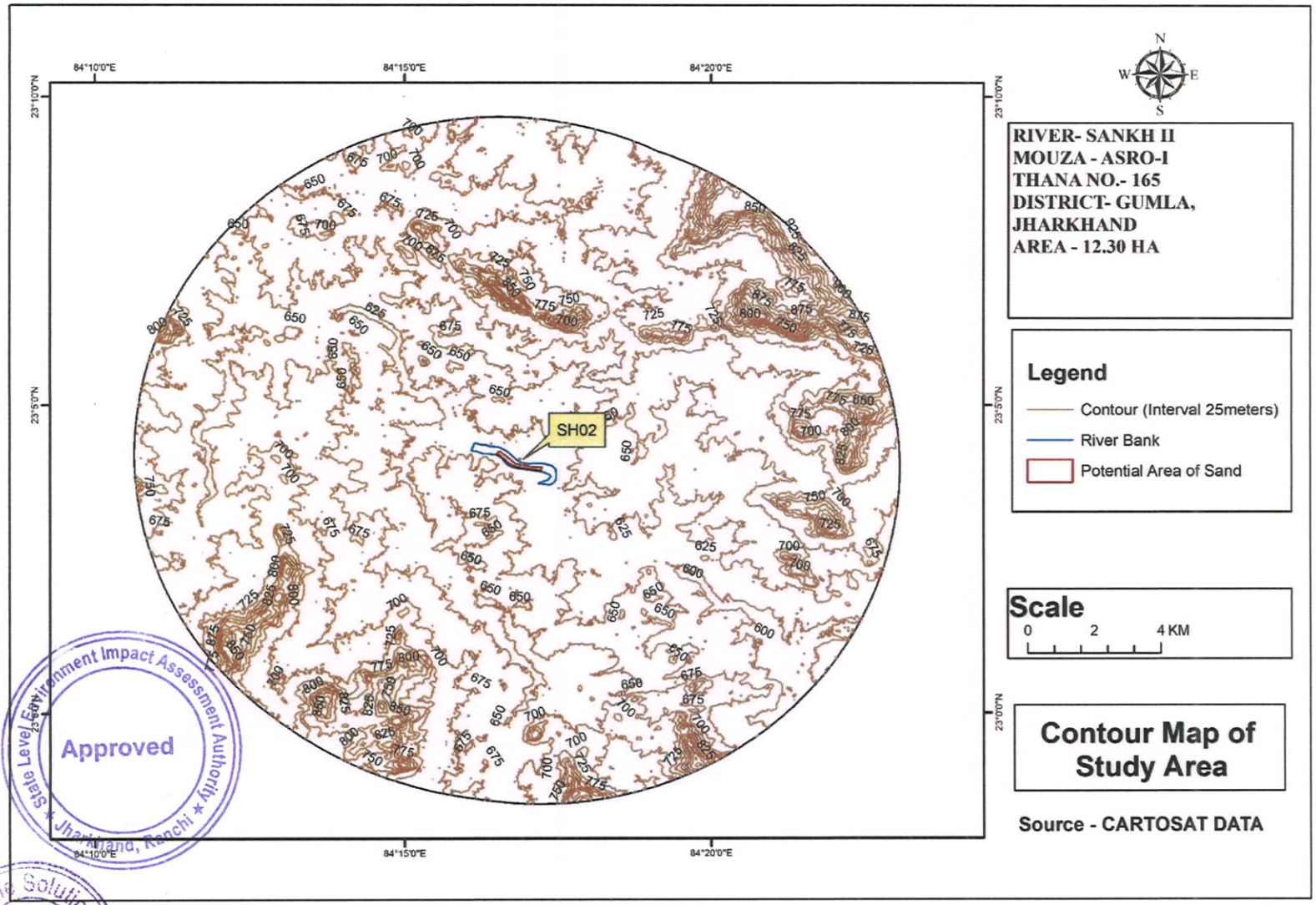


State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★ Approved

Atmos Sustainable Solutions Pvt. Ltd.



State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★
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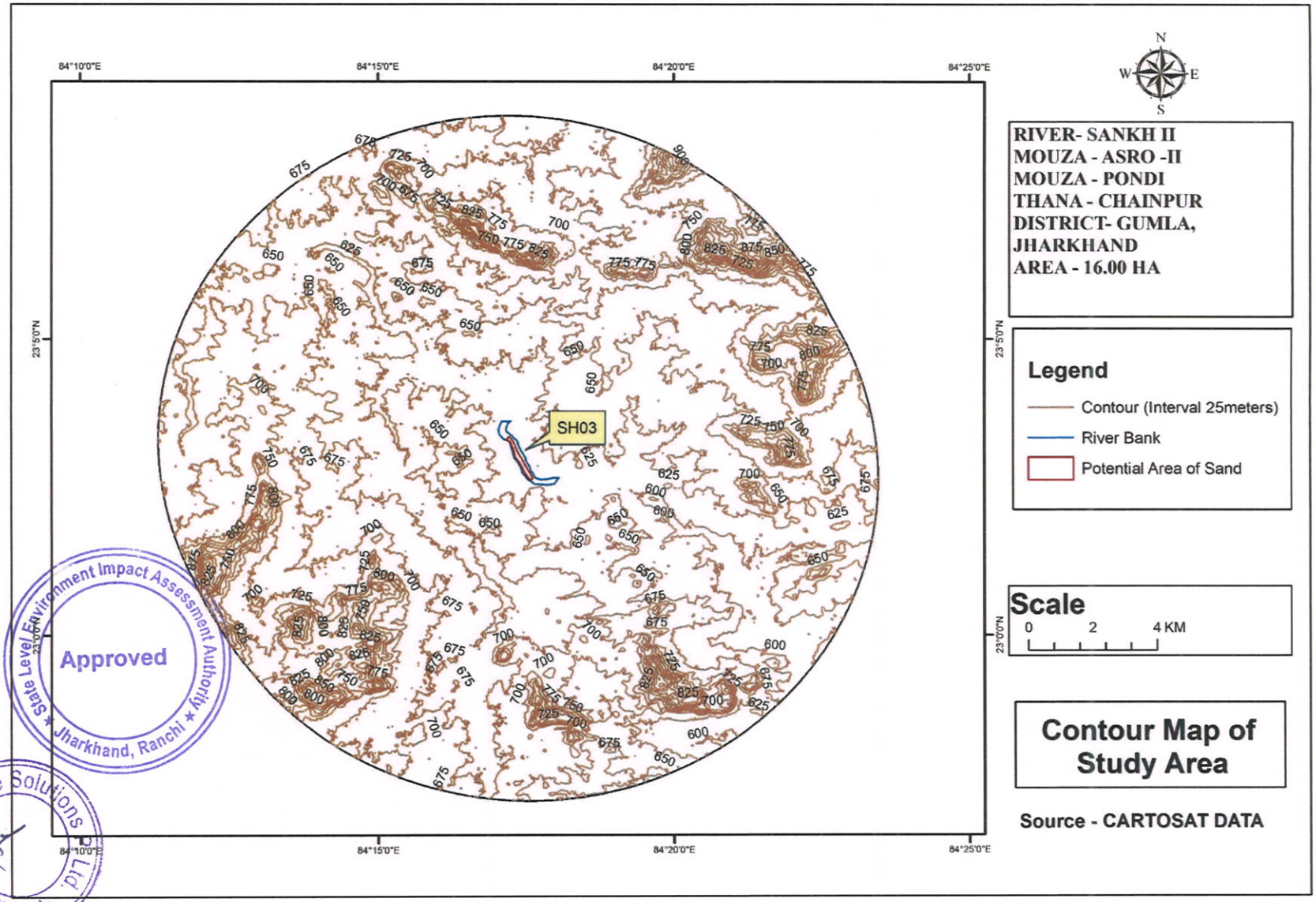
Amos Sustainable Solutions P. Ltd.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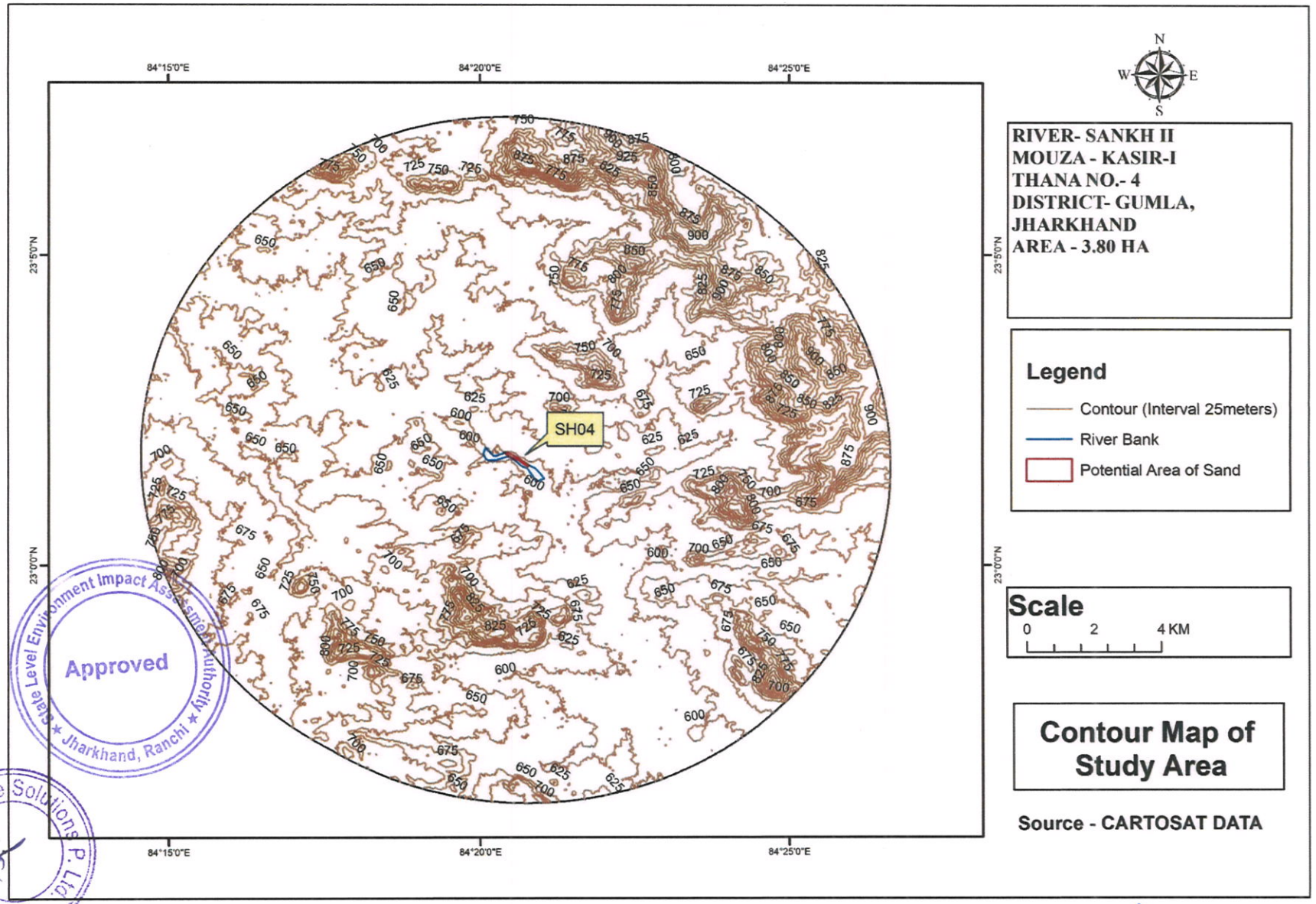
W
E
S
SH03
RIVER- SANKH II
MOUZA - ASRO -II
MOUZA - PONDI
THANA - CHAINPUR
DISTRICT- GUMLA,
JHARKHAND
AREA - 16.00 HA
Legend
Contour (Interval 25meters)
River Bank
Potential Area of Sand
Scale
0 2 4 KM
Contour Map of Study Area
Source - CARTOSAT DATA
State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi
Atmos Sustainable Solutions Pvt. Ltd.



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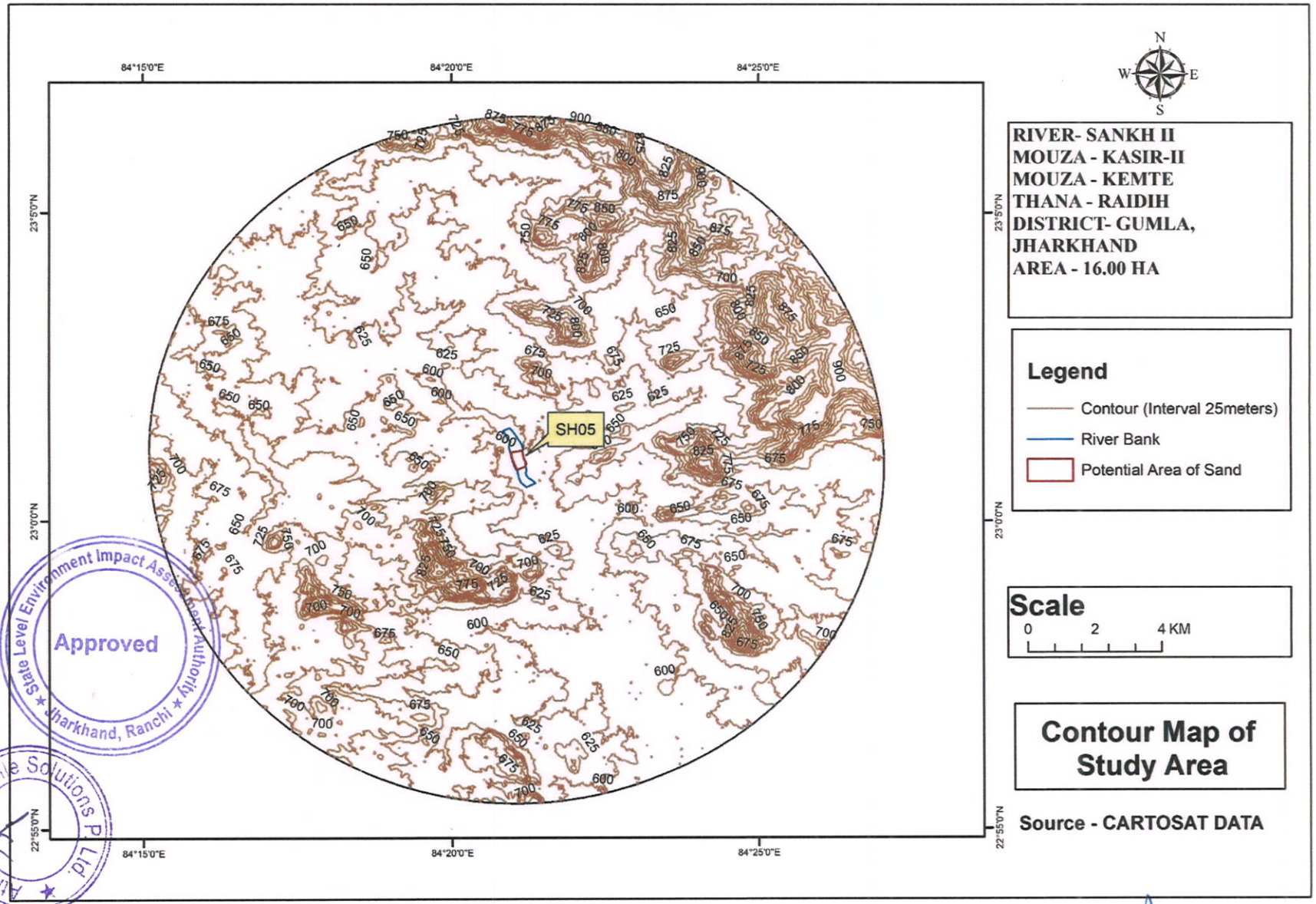
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SH05
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MOUZA - KASIR-II
MOUZA - KEMTE
THANA - RAIDIH
DISTRICT- GUMLA,
JHARKHAND
AREA - 16.00 HA
Legend
Contour (Interval 25meters)
River Bank
Potential Area of Sand
Scale
0 2 4 KM
Contour Map of Study Area
Source - CARTOSAT DATA
State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi
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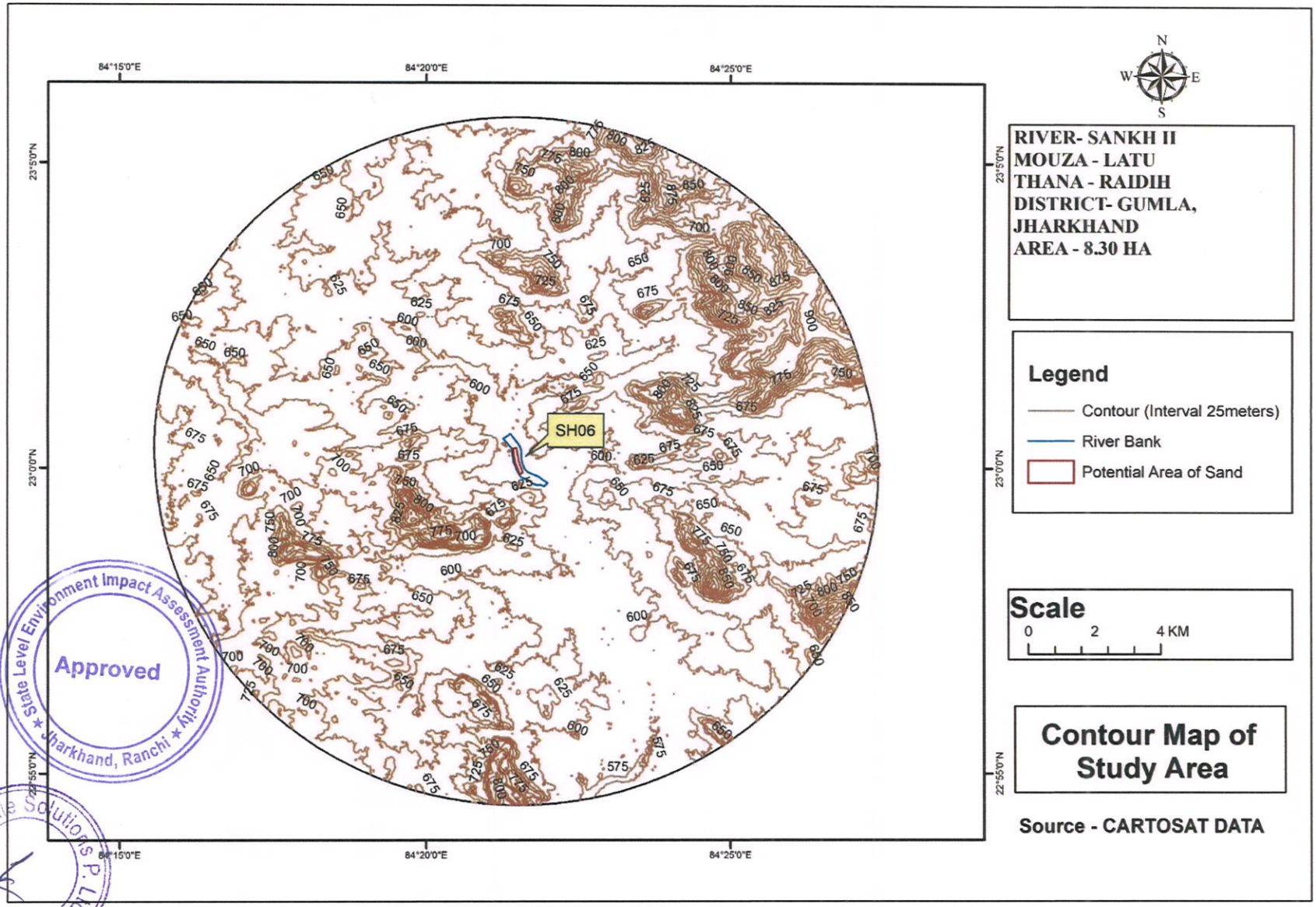

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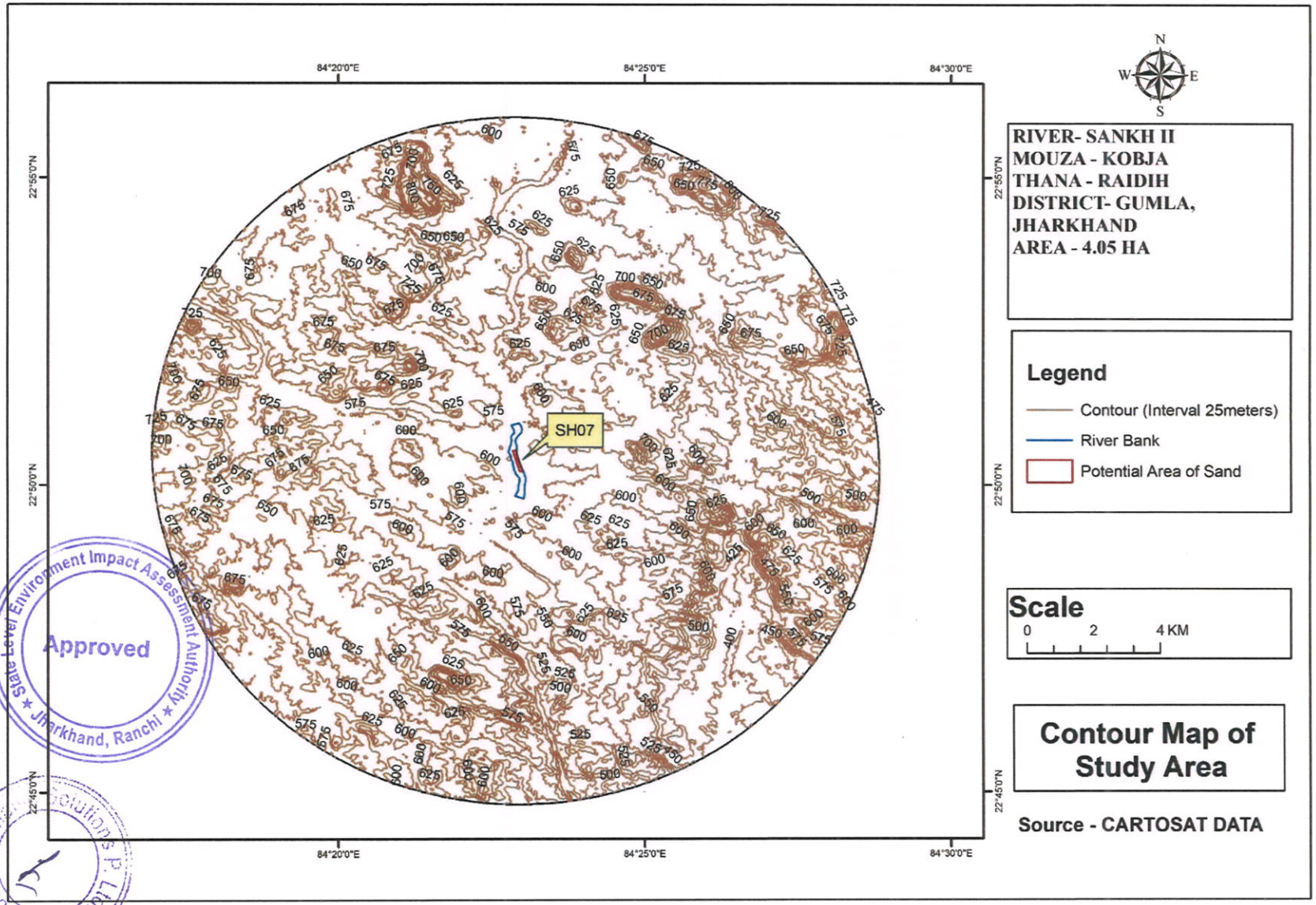
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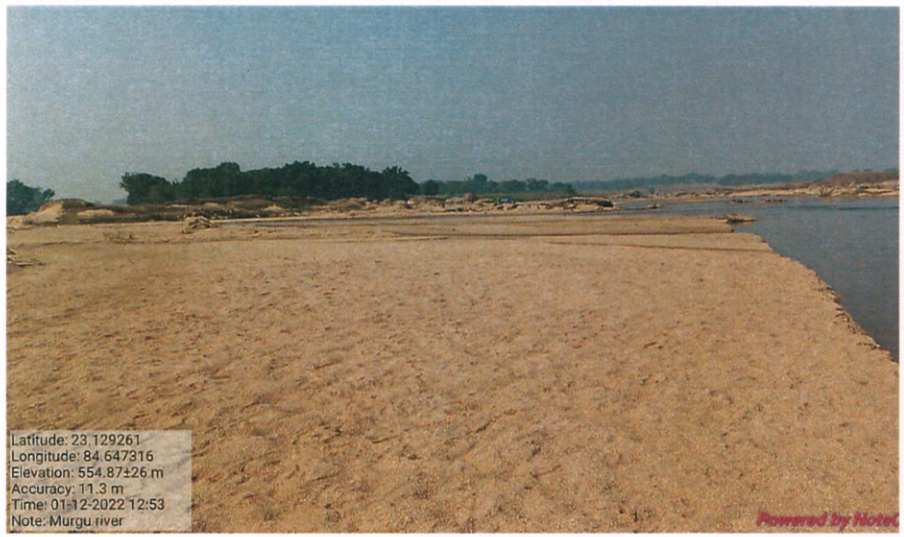
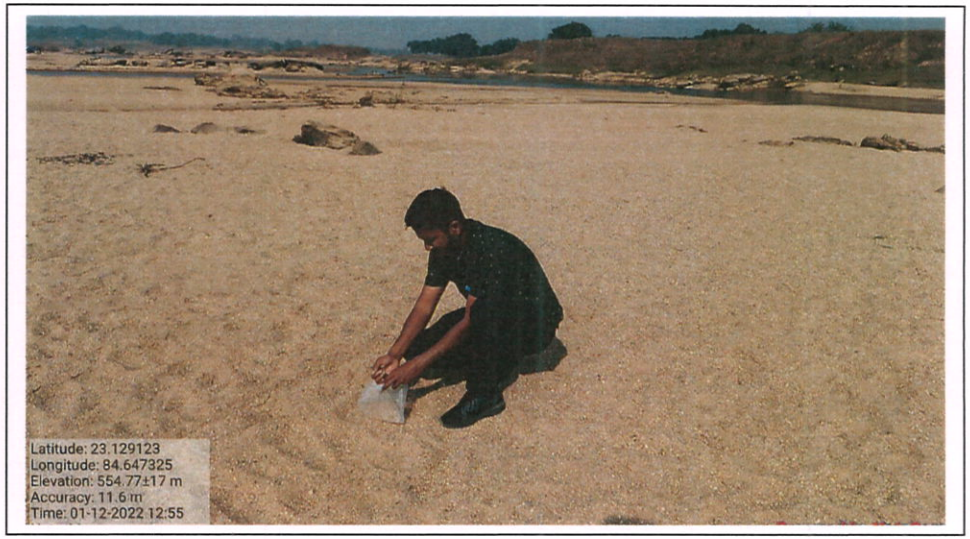
N
W
E
S
SH07
RIVER- SANKH II
MOUZA - KOBJA
THANA - RAIDIH
DISTRICT- GUMLA,
JHARKHAND
AREA - 4.05 HA
Legend
Contour (Interval 25meters)
River Bank
Potential Area of Sand
Scale
0 2 4 KM
Contour Map of Study Area
Source - CARTOSAT DATA
Approved
State Level Environment Impact Assessment Authority
Jharkhand, Ranchi

SITE SURVEY OF SAND GHATS WITH DGPS









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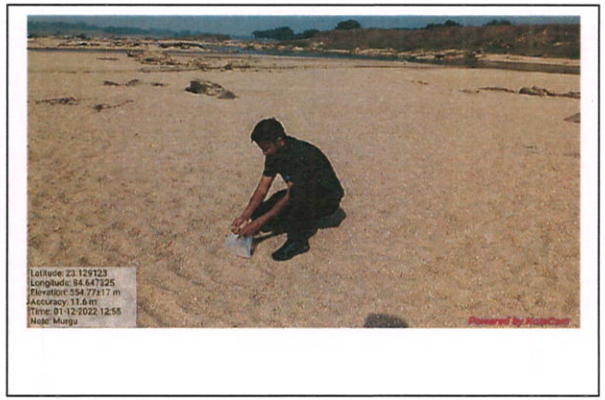
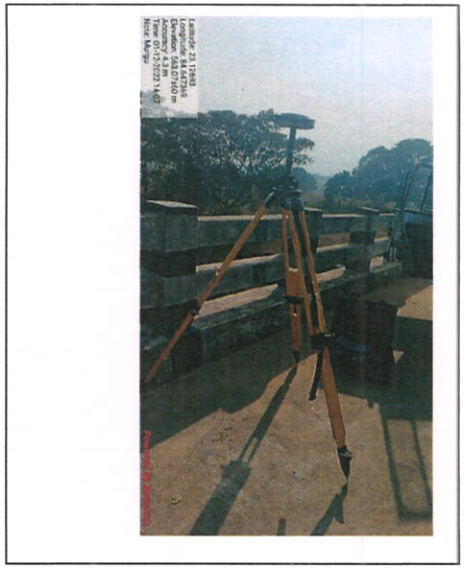
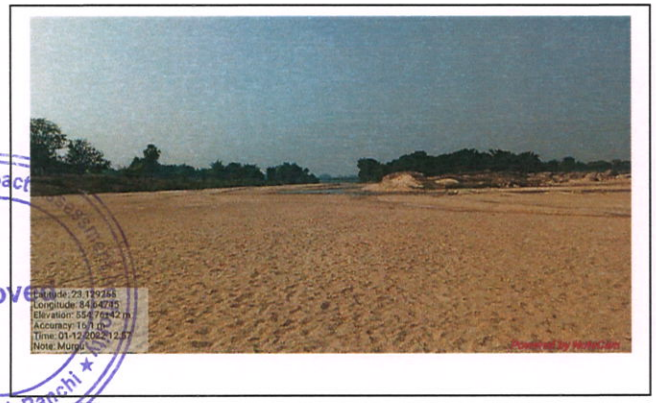
SITE PHOTOGRAPS













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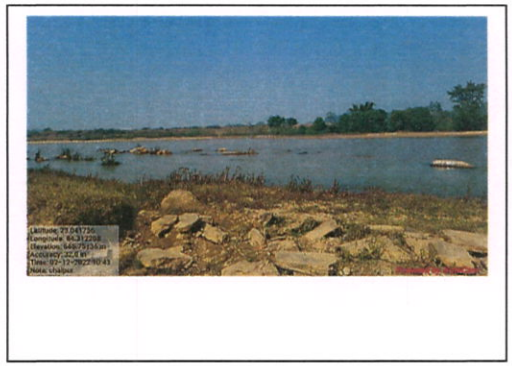
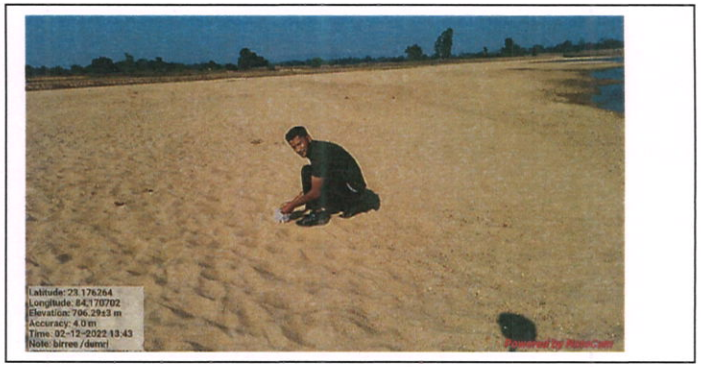
Time: 02-12-2022 10:49
Note: chaipur

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Time: 02-12-2022 13:40
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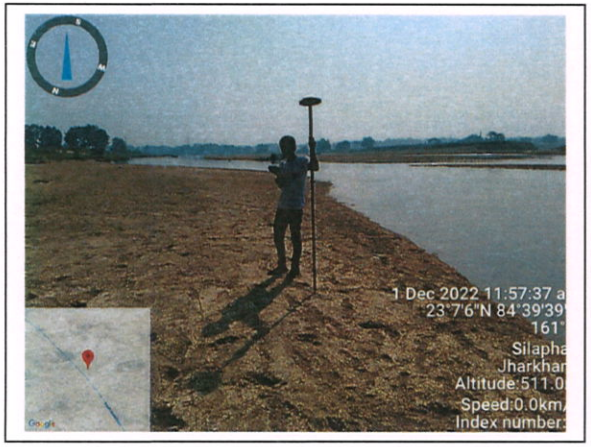
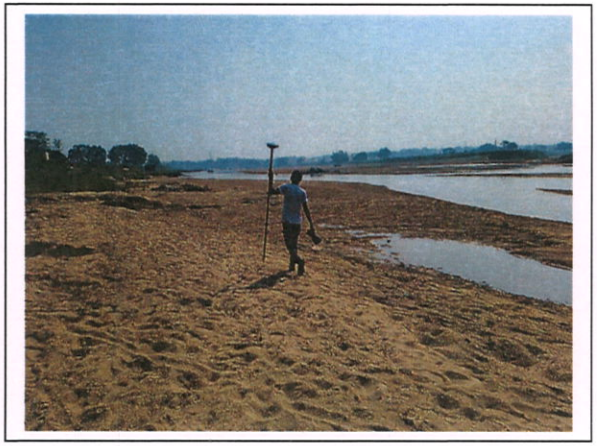
Approved





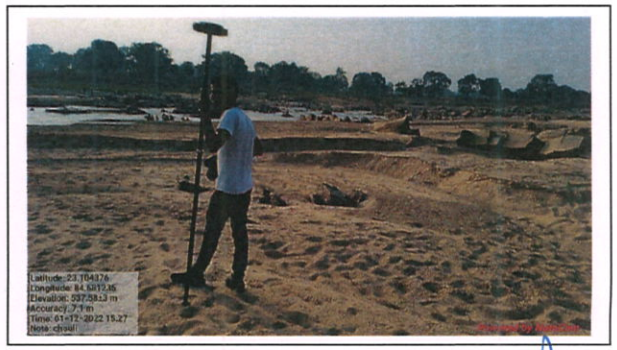












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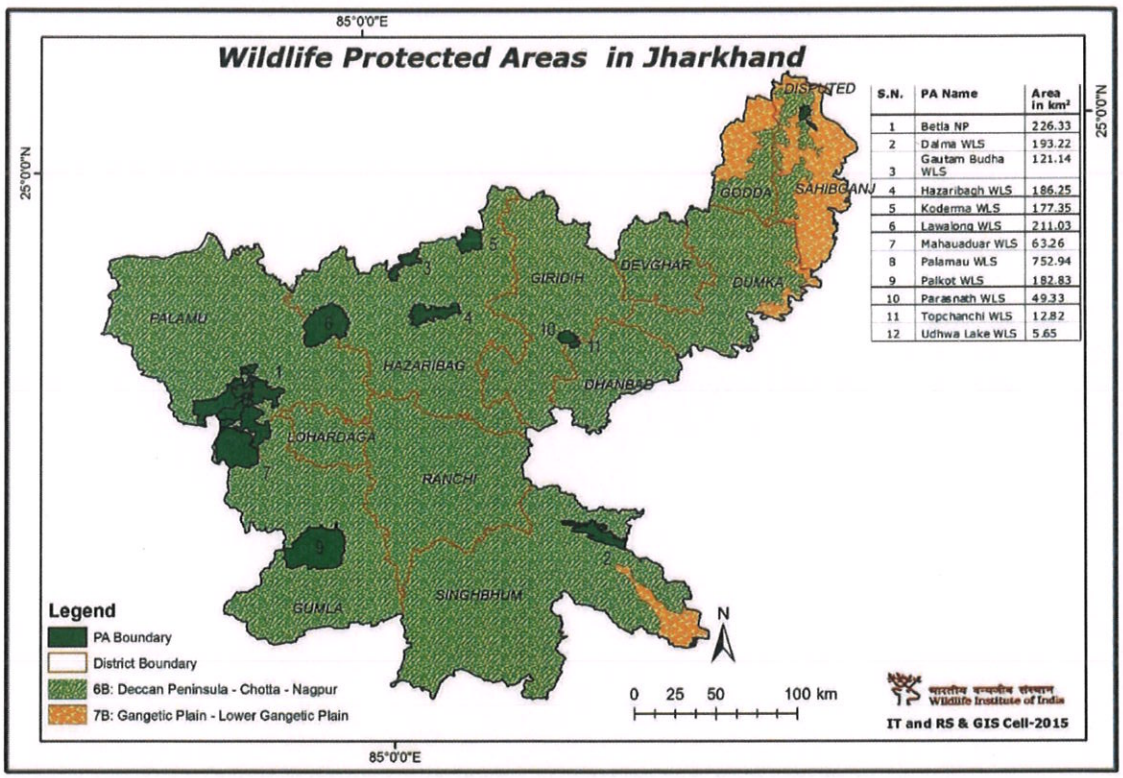
CHAPTER- 21
DETAILS OF ECO-SENSITIVE AREA, IF ANY, IN THE DISTRICT

The Palkot Wildlife Sanctuary falls within the district of Gumla and Simdega. It falls within the Gumla, Simdega and Raidih blocks and the National Highway 23 crosses and divides the sanctuary between two parts. The mammal fauna include leopard, sloth bear, jackal, monkey, porcupine, and hare. Birds here include jungle fowl, partridges, koel, parakeet, owl and pheasants. It is located in Deccan Peninsula Biogeography zone, in the Chhotanagpur plateau. Some of the most endangered species like sloth bear, rattle, python, pangolin, black necked crane are represented in the area. It also protects the rivers, streams against siltation by minimizing soil erosion.



Wildlife Protected area in Jharkhand

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CHAPTER- 22
IMPACT ON THE ENVIROMENT

(Air, Water, Noise, Soil, Flora & Fauna etc.) Due to mining activity

Impact on Environment due to mining activities varies based on the quantum of production rate proposed. The different activities involved before & during mining are narrated below, which helps to assess the impact on environment.

Population growth, economic development and environmental degradation are interlinked with each-other. The high growth in population speeds-up economic activities. Meanwhile, it also deteriorates environment as for the high level of economic development, plenty of natural resources are exploited. Similarly, mining activities have considerable impacts on environment.

Change in flow pattern of river due to river bed mining is one of the significant impacts arising out of sand mining & there may be increase in flow velocity of river. Mining may also cause change in surface water quality and ground water quality.

Air pollution, due to dust from the mines, is a common environmental problem in mines and quarries especially open cast operations. Mining activities are normally associated with different types of pollution. Air pollution is regarded as the most notable one, where particulate matter (dust) are generated and found in the surrounding areas of such activities. Particles with aerodynamic diameters of less than 50μm (termed Total Suspended Particulate matter, or TSP) can become suspended in the atmosphere, and those with aerodynamic diameters of less than 10μm termed PM10 (inhalable particles) can be transported over long distances, and enter the human respiratory system.

Noise pollution is associated with many types of equipment used in mining operations & during transportation. Loud sound disturbed the vegetable nearby the area. It also affects stability of infrastructures, buildings, and homes of people living near to these working sites. In this regard, noise pollution may include noise from vehicle engines, loading and unloading of sand into tippers and other sources.

Sand mining operations impact the environment in several ways, and water pollution is a major concern in such operations. For instance quarry dust can change the chemistry of water resources by dissolving in them, it can also settle in water bodies and cause pollution. Furthermore, these operations disrupt the existing movement of surface water and aquatic life near or downstream from a quarry site.

The pollution potential of the proposed project, it is possible impacts on the surrounding

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environment during pre-operational and operational phases and the necessary management actions proposed for control and abatement of pollution are furnished here under.

Impact on some component of the environment is as below:

Air environment:

Although mining does not cause any direct change in air environment, transportation etc. In sand mining operations, the source of air pollution may cause deterioration of air quality due to the fugitive dust emission during excavation, loading-unloading operations and transportation. Loading and unloading of mineral would be associated with the fugitive emission in the active area whereas fugitive emission during transportation would affect the areas/villages situated adjacent to road side. Another source of air pollution would be emission from the trucks/tractor/other vehicles to be used for transportation of soil.

Water environment:

As far as impact on surface water is concerned, during mining and transportation, there are chances of contamination of surface water resources (pond, well etc.) with dust or by other means. As sand mining is on bed of river, there may adverse impact on flow pattern, surface hydrology and ground water regime. The labourers working in sand mining come from neighboring districts and colonies in the surrounding areas with inadequate facilities for waste disposal.

Noise environment:

As far as noise pollution is concerned, blasting is considered the major source of noise Pollution but in sand mining there is no provision of blasting. The Machinery used in mining of sand mineral creates sound and vibrates. As well as vehicles used for transport, loading-unloading of mineral etc. put impact on noise environment. Noise level in the working environment should be compared with the standards prescribed by Central Pollution.

Flora and Fauna:

The sand mining may lead to Short-term disturbance in habitats of wildlife populations from noise (impacts usually local and short-term) & to the local aquatic habitats. From the last few years the mining rate has increased several times. It results in the loss of biodiversity of both flora and fauna and physiographic features of the concerned region.

CHAPTER- 23
REMEDIAL MEASURES TO MITIGATE THE IMPACT OF THE MINING ON THE ENVIRONMENT

AIR ENVIRONMENT:

MITIGATION MEASURES

a) For Fugitive Dust Emission:

- All trucks should be covered by tarpaulin sheet to prevent dust emission.
- Water spraying should be there in haul road, crusher and mining area.
- Dust extractor should be used to reduce dust generation.
- Plantation will be carried out on approach roads.

b) For Vehicular Emission

- Overloading of trucks and trolleys should be prevented.
- Vehicular emission can pose serious health hazard. During the earth mining extraction, tractor/truck should be used for transportation. Tractor/truck comprises of diesel engine produce particles are dangerously fine of PM10 & PM2.5. It is well known fact that combustion of diesel generates small particulate matter, nitrogen oxides and sulphur dioxide.
- Ultra low sulphur diesel should be used in vehicle. CPCB prescribed emission Standards for the vehicle would be followed.
- Monitoring of dust fall at land located nearby the mining area.
- Deploying PUC certified vehicles to reduce their noise emission.

1.1 WATER ENVIRONMENT: -

MITIGATION MEASURES

- No diversion will be done. There will not be any adverse impact on flow pattern, surface hydrology and ground water regime.
- Safeguards will be adopted against health risks on account of breeding of vectors in the water bodies created due to excavation.
- Laborers should not be allowed to through trashes in water bodies.
- Utmost care should be taken to minimize or control oil spills or leakage from vehicles used for soil transportation.
- Water Quality Monitoring for the, ground water should be carried out seasonally to ensure that the water quality is not affected by the project activities.
- Safety barrier zone will be left from both sides of river, which will minimize the chances of bank failure

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- The contractor should adhere all guidelines and rules for proper and scientific method of mining during the period of extracting of minerals that the project activities should not have any adverse effect on the physical components of the environment including recharge of ground waters or water quality.

1.2 LAND ENVIRONMENT:

MITIGATION MEASURES

- Foreign materials like polythene bag, jute bag and useless articles should not be allowed to remain/spill on the land, or no pits/pockets should be allowed to be filled with such material.
- Mining should not exceed beyond the agreed extraction depth.
- Quantities will be strictly limited so that sand accumulation rates are sufficient to avoid extended impacts on channel morphology.
- Loss of habitat is minimized because the river bed mining will be carried only in dry bed which will not disturb the riverine ecosystem

1.3 NOISE ENVIRONMENT:

MITIGATION MEASURES

- Well maintained vehicles should be used in order to reduce the noise during movement of vehicles.
- Regular and proper maintenance of transportation vehicles (trucks, tractor etc.) should be ensured.
- Proper and timely maintenance of machineries.
- The noise levels from all these sources are periodical and restricted to particular operation.

1.4 FLORA AND FAUNA:

MITIGATION MEASURES

- Sediment and erosion control by planting native trees and shrubs to stabilize degraded farming land.
- Regular monitoring of plants and animals on site.
- Establishing and maintaining habitat corridors.
- Stabilize all slopes, re-vegetating with native species to reduce/avoid erosion.

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CHAPTER- 24
RECLAMATION OF MINED OUR AREA

(Best practice already implemented in the district, requirements as per rules and regulation, proposed reclamation plan).

It is river bed sand mining the volume of sand extracted in each year will be re-deposited in subsequent years during rainy season.

This DSR are prepared of sand mining from river bed mining (RBM) the mineral will be extract from RBM. It is a drift deposit of sand every year sand replenished by flood and rainy session. This is natural phenomena reclamation of exhaust area.

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CHAPTER- 25
RISK ASSESSMENT AND DISASTER MANAGEMENT PLAN

Risk analysis is the systematic study of risks encountered during various stages of mining operation. Risk analysis seek to identify the risks involved in mining operations, to understand how and when they arise, and estimate the impact (financial or otherwise) of adverse outcomes. The sand mining operation in the district is mainly done manually.

IDENTIFICATION OF RISK DUE TO RIVER SAND MINING:

There is no land degradation due to mining activities as mining is done only on river bed dry surface. There will be no OB or waste generation as the sand is exposed in the river bed and is completely sealable. There will be neither any stacking of soil nor creation of OB dumps. The mining activity will be carried out up to a maximum depth of 3m below the surface level. So, there is no chance of slope failure, bench failure in the mines. However, there are some identified risk in the mining activity which are as below:

1. Accident during sand loading and transportation
2. Inundation/ Flooding
3. Quick Sand Condition

Mitigation measures

Measures to prevent accidents during loading and transportation:

- During the loading truck would be brought to a lower level so that the loadingoperation suits to the ergonomic condition of the workers.
- The workers will be provided with gloves and safety shoes during loading.
- Opening of the side covers of the truck should be done carefully and withwarning to prevent injury to the loaders.
- Mining Operations will be takes place during daylight only.
- The truck will be covered with tarpaulin and maintained to prevent any spillage.
- To avoid danger while reversing the trackless vehicles especially at the embankment and tipping points, all areas for reversing of Lorries should be made man free as far as possible.
- All transportation within the main working will be carried out directly under the supervision and control of the management.
- Overloading should not be permitted and the maximum permissible speed limit should be ensured.
- There will be regular maintenance of the trucks and the drivers will have valid driving license.

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MEASURES TO PREVENT INCIDENTS DURING INUNDATION/ FLOODING:

- To minimize the risk of flooding/ inundation following measures will be undertaken
- Mining will be completely closed during the monsoon months.
- Proper weather information particularly on rain should be kept during the operational period of mines so that precautionary measures will be undertaken.

Measures for mitigation to quick sand condition:

- Quick sand zone and deep water zone will be clearly demarcated and all themines workers will made aware of the location.
- Mining will be done strictly as per the approved mining plan.

DISASTER MANAGEMENT PLAN:

As the depth of mining will be maximum of 3m below the surface level considering local condition, the risk related to mining activity is much less. The mining operation will be carried out under the supervision experienced and qualified Mines Manager having Certificate of Competency to manage the mines granted by DGMS. All the provisions of Mines Act 1952, MMR 1961 and Mines Rules 1955 and other laws applicable to mine will strictly be complied. During heavy rainfall and during the monsoon season the mining activities will be closed. Proper coordination with Irrigation Department should be maintained so that at the time of releasing water, if any, from the dam suitable warning/information is given in advance. Special attention and requisite precautions shall be taken while working in areas of geological weakness like existence of slip, fault etc. The mining site will be supplied with first-aid facilities and the entire mines worker will have access to that.

UTILIZATION OF SAND :

The most prolific user of sand is the construction industry where it is almost vital for almost every aspect of a building project. Sand is used in everything from cement and concrete to plastering, roofing, grouting and paint. It's even used to help defend buildings from flooding when its in sandbags. So it's pretty safe to say that if it wasn't for sand you're house probably wouldn't be standing. From beds to flood plains to coastlines- we can find the sand at almost everywhere. The robustness of sand has played a significant role in everyday life. We use sand practically every other day.

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In the real world, there are a lot of situations where we can find uses of sand. Followings are the common sand uses.

- We can use sand to filter water; it works like an abrasive.
- We can use sand to give a grip to our painting or wall art by combining 2 cups of paint with a ¾ cup of sand.
- People make sandpaper by gluing sand to a paper.
- While bunging metal, we can mix sand with clay binder for frameworks used in the foundries.
- Sand can be used for cleaning up oil leak or any spill by dredging sand on that spill. The material will form clumps by soaking up, and we can quickly clean the mess.
- Sand can be used as a road base which is a protective layer underneath all roads
- Industrial sand is used to make glass, as foundry sand and as abrasive sand.
- One creative usage of sand is serving as a candle holder. We can try putting some sand before pouring tea light or any candle in a glass. It holds the candle still and refrain the candle from rolling by giving it an excellent decoration.
- Adds texture and aesthetic appeal to space.
- Sand is mostly pure to handle, promptly available and economically wise.
- We can make children's sandpit to keep the play areas safer. It is quite inexpensive as well.
- We use sand in aquariums, fabricating artificial fringing reefs, and in human-made beaches
- Sandy soils are ideal for growing crops, fruits and vegetables like watermelon, peaches, peanuts, etc.
- Sand can light a path by filling mason jars with sand and tea light which is another inexpensive way to make a walkway glow.
- We can keep a small scuttle of sand near a charcoal grill for inundating flare-ups.
- Sand can be used for cleaning narrow neck receptacle by putting a little sand and warm soapy water in the container.
- We can keep an item steady which needs repairing by using sand. Burying the broken pieces under sand grains helps to hold the elements together while gluing.
- Sand helps to improve resistance (and thus traffic safety) in icy or snowy conditions.
- We need sand in the beaches where tides, storms or any form of preconceived changes to the shoreline crumble the first sand.

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- Sand containing silica is used for making glass in the automobile and food industry-even household products for the kitchen.
- Sand is a strong strand which is used for plaster, mortar, concrete, and asphalt.
- The usual bricks formulated of clay only is way weaker and lesser in weight than blocks made of clay mixed with sand.

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CHAPTER- 26
DETAILS OF THE OCCUPATIONAL HEALTH ISSUES IN THE DISTRICT

(Last five-years data of number of patients of silicosis & Tuberculosis is also needs to be submitted).

Occupational Health Hazard and Remedial Measures:

Occupational injuries cause major health problems that all developed, developing, and underdeveloped nations worldwide are facing. The majority of the workforce is deprived of occupational health services. The estimated economic loss due to work-related injuries and diseases is equivalent to 4% of the world's gross national product. The impact is much higher in developing countries. According to Leigh et al, 100 million occupational injuries occur throughout the world each year. Mine workers are subjected to a number of subtly harmful risks to health and safety, such as a high concentration of mechanical equipment in a confined space. As a result, mine workers are often exposed to a high risk of work-related musculoskeletal injuries, according to the US Bureau of Labor Statistics. A large number of laborers in India work in the stone crushing and mining industries. Mining is a tedious physical work, and involves exposure to colloidal silica and particulate matter. Workers are more prone to dental injuries due to a limited working area. Due to the tedious working schedule, workers develop the habit of alcohol consumption and tobacco use, which leads to deterioration of their oral health. Most of the mine workers are malnourished, have ill health, and suffer from physical impairments due to accidents at mining areas. According to the Mines and Geology Department, the Government of Rajasthan, the average life expectancy of a mine worker is 49 years. This is 10 years less than the life expectancy of workers who work outside the mines. In the workplace, workers are exposed to biological, chemical, and physical agents, which can result in adverse effects ranging from simple discomfort and irritation to debilitating occupational diseases such as lung fibrosis, neuropathy, deafness, organ damage, lung diseases (such as silicosis, tuberculosis, silicotuberculosis, and asthma), and cancers of various sites. The persons employed in the mines are exposed to a number of hazards at work which adversely affect their health. Some of the important ones are dust, noise, heat, humidity, vibration etc. In recent times, there has been increasing awareness among mining industry and the workers about occupational diseases such as Coal Worker's Pneumoconiosis, Silicosis, Manganese Poisoning, Hearing Impairment etc. caused by exposure to health hazards at work. Almost all occupational diseases are known to cause permanent disablement and there is no effective treatment. However, most of the occupational diseases can be District Survey Report of Gumla District for Minor Mineral prevented by adopting proper occupational health

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measures and engineering control on airborne dust at workplace. Following diseases have been notified as the diseases connected with mining operations for the purpose of sub-section (1) of Section 25 of the Mines Act, 1952: S.R.O. 1306 dated the 21st July, 1952 1. Silicosis 2. Pneumoconiosis S.R. O. 2521 dated the 26th June, 1986 Cancer of lung or the stomach or the pleura and peritoneum (i.e. mesothelioma) 25 S.O. 399(E) dated 21st February, 2011 1. Noise Induced Hearing Loss 2. Contact Dermatitis caused by direct contact with chemical. 3. Pathological manifestations due to radium or radioactive substances System of Detection of Occupational Diseases in Mines In order to detect occupational diseases the industry is required to conduct medical examinations and health surveillance of workers as per the provisions of Mines Act. The present efforts of mines management are concentrated on detection of silicosis, Pneumoconiosis and other notified diseases. Very little attention is paid to other occupational diseases. The essential features of health surveillance programme required to be carried out in mines are: (a) Initial Medical Examination of persons to be employed in mines. (b) Periodic Medical Examination once every five years. General physical examination, chest radiographs, lung function tests and audiometry. (c) Classification of chest radiographs of workers as per ILO Classification. (d) Medical examination within one year of superannuation. (e) Evaluation of all cases of suspected pneumoconiosis by Pneumoconiosis Medical Board. (f) Maintenance of medical records till the person is in service and 10 years thereafter. The cases of silicosis detected during health surveillance programme are referred to Pneumoconiosis Medical Board of the mining companies for evaluation and certification. If certified, the case is notified to the enforcement authority and evaluated for disability and payment of compensation. Many cases of silicosis and other pneumoconiosis go undetected and a large number of cases of silicosis are misdiagnosed due to lack of training of medical professionals.

Gumla is one of the prime industrial area in Jharkhand with robust heath care facilities can handle any emergency situation. The hospitals located here have good network of ambulance services to provide safe and secure transport of the patients to the hospital. They are well maintained and are equipped with all necessary instruments to give first aid to the patients. There are many government and private hospitals and nursing homes in the city. Sadar hospital, City Nursing Home, Nidan Nursing Home are some of the famous hospitals in the city.

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Medical facilities at Gumla district

Medical facilities:	No.'s
Hospitals (Allopathic & Others)	2
Dispensaries	2
Health Centres	2
Family Welfare Center	1
Maternity and Child Welfare Center	8
Maternity Homes	1

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CHAPTER- 27
PLANTATION AND GREEN BELT DEVELOPMENT IN RESPECT OF LEASES ALREADY GRANTED IN THE DISTRICT

The basic approach to green belt / plant growth in the lease area is to provide an esthetic look, reduce fugitive pollution, and monitor noise effect, etc.

Green Belt will be developed based on the following principles:

- Protect natural or semi-natural environments;
- Improve air quality within urban areas;
- Protect the unique character of rural communities that might otherwise be absorbed by expanding suburbs.
- Plants that grow fast should be preferred
- Preference for high canopy covers plants with local varieties
- Perennial and evergreen plants should be preferred
- Plants having a high Air Pollution Tolerance Index (APTI) should be preferred.

The green belt has many benefits for people:

- Walking, camping, and biking areas close to the cities and towns.
- Contiguous habitat network for wild plants, animals and wildlife.
- Cleaner air and water.
- Better land use of areas within the bordering cities.

Greenbelt Development & Plantation Programme:

- Plantation should be developed at 2 m x 2 m spacing, the rate of survival should be aimed at 80% by regular watering & fencing to keep plants safe from animal grazing. Local species will be planted in consultation with local horticulturist. Diseased plants should be replaced by planting new saplings.
- Recommendation for Green Belt Development
- It is strongly recommended to create greenbelt around the project site or in case lease failed the authority should take proper action to stop mining operation or revoke mining permission with necessary action.

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CHAPTER- 28
CONCLUSION

The District Survey Report of sand will be granted for producing sand material for making road and building. This is a part of Govt. of India's policy to develop maximum infrastructure facility in India. This making of road will generate direct and indirect employment to the local people.

The lease owner will undertake mining activity as per the mining plan and Environment Clearance with proper taking care of environmental aspects i.e. without disturbing the ambient condition.

The determined values of various methods as adopted for replenishment study gives a comparable value and in all cases the values are found to be much more as compared to the capping limit (60%) as suggested in the Enforcement & Monitoring Guidelines for Sand Mining (EMGSM) January 2020, Issued by Ministry of Environment, Forest and Climate Change (MoEF & CC) 2020.

It is suggested to have a periodical review under the guidance of SEIAA & SEAC Committee along with field data acquisition during pre and post monsoon periods to record the seasonal variance of the sedimentation rate on annual basis and update this DSR in case of any abnormal findings.

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ANNEXURE-01

CIRCLE OFFICER



SH-02 & SH 03

कार्यालय अंचल अधिकारी, परमवीर अल्बर्ट एक्का जारी।

प्रेषक,

अंचल अधिकारी
परमवीर अल्बर्ट एक्का जारी।

पत्रांक 34(ii)
दिनांक 10/02/23

सेवा में,

जिला खनन पदाधिकारी,
गुमला।

विषयः— DSR(Sand) में चिन्हित बालूघाटों से संबंधित प्रतिवेदन भेजने के संबंध में।

प्रसंगः— भवदीय पत्रांक 118 / एम0 दिनांक 22.01.2023

महाशय,

उपर्युक्त विषयक प्रसांगिक पत्र के संबंध में कहना है कि मौजा असरो OSH2 एवं OSH3 अंचल कार्यालय परमवीर अल्बर्ट एक्का, जारी के बालू घाट खतियान 1996–97 की विवरणी निम्न है:—

मौजा	खाता नं0	प्लॉट नं0	रकवा	किस्म
असरो(OSH2)	83	1176	12.30 हे0(कुल 38.0 एकड़ में से 30.39 एकड़)	आनावाद विहार सरकार
असरो(OSH3)	83	1385	8.76 हे0(कुल 48.50 एकड़ में से 21.64 एकड़)	आनावाद बिहार सरकार
घोड़ी(OSH3)	65	743	7.24 हे0(कुल 32.0 एकड़ में से 17.89 एकड़)	आनावाद बिहार सरकार

उपरोक्त पत्रांक के प्रसंग बालू घाट की पर्यावरणीय सहमति के लिए SEAC, Jharkahnd द्वारा DSR(sand) के अनुमोदन के कम में वर्णित बालू घाटों से संबंधित बिन्दुवार प्रतिवेदनः—

क0	निर्धारित बिन्दु	प्रतिवेदन(हाँ / नहीं)
1	क्या आवेदित भूमि की कोटि सर्वे खतियान तथा रजिस्टर–II में जंगल झाड़ी के रूप में दर्ज हैं?	नहीं
2	क्या 500 मीटर की दूरी के अन्दर कोई मावन बसाहट(Habitation) स्थित हैं?	नहीं
3	क्या 500 मीटर की दूरी के अन्दर कोई जलीय निकाय (Dam/Reservoir) स्थित हैं?	नहीं
4	क्या 500 मीटर की दूरी के अन्दर कोई नदी (River) स्थित हैं?	नहीं
5	क्या 500 मीटर की दूरी के अन्दर कोई शौक्षणिक संस्थान (Educational Institude) स्थित हैं?	नहीं
6	क्या 500 मीटर की दूरी के अन्दर कोई चिकित्सालय (Hospital) स्थित हैं?	नहीं
7	क्या 10 कि0मी0 की परिधि में अंतर्राराज्यीय (Interstate) सीमा हैं?	नहीं

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8	क्या 500 मीटर की दूरी के अन्दर कोई राष्ट्रीय धरोहर/पुरातत्वीय (Monuments?Archaeological) महत्व के स्थल स्थित हैं?	नहीं

उपर्युक्त विषय के संबंध में सादर अनुरोध है कि उक्त बालू घाट की सत्यापित मानचित्र एवं अंचल निरीक्षक के जॉच प्रतिवेदन इस पत्र के संलग्न कर आवश्यक कार्रवाई हेतू भेजी जा रही हैं:–

सादर समर्पित।

अनुलग्नंक:– 1. राजस्व उपनिरीक्षक का जांच प्रतिवेदन संलग्न।

2. भवदीय द्वारा भेजी गयी सत्यापित मानचित्र।

विश्वासभाजन,

10/02/23

अंचल अधिकारी

परमवीर अल्बर्ट एक्का जयंती

(गुमला)

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Approved

सेवा में

अंचल अधिकारी
प. अ. ए. जारी

विषय :- DSR (Sand) में चिह्नित बालूघाटों से संबंधित प्रतिवेदन के उपलब्ध कराने के संबंध में जाँच प्रतिवेदन

महाशय,
उपर्युक्त विषय के संबंध में राजस्व कागजात से मिलान एवं स्थानीय जाँच किया जो निम्न प्रकार है- Dolot NO- 1176, 1385, 743

(1) क्या आवेदित भूमि की कोटि सर्वे खतियान तथा रजिस्टर-II में जंगल झाड़ी के रूप में दर्ज है? नहीं

(2) क्या 500 मीटर की दूरी के अन्दर भावन बसाहट स्थित है? नहीं

(3) क्या 500 मीटर की दूरी के अन्दर कोई जलीय निकाय स्थित है? नहीं

(4) क्या 500 मीटर की दूरी के अन्दर कोई नदी स्थित है? नहीं

(5) क्या 500 मीटर की दूरी के अन्दर कोई शैक्षणिक संस्थान स्थित है? नहीं

(6) क्या 500 मीटर की दूरी के अन्दर कोई चिकित्सालय स्थित है नहीं

(7) क्या 10 कि. मी. की परिधि में अंतर्राज्यीय सीमा है नहीं

(8) क्या 500 मीटर की दूरी के अन्दर कोई राष्ट्रीय धरोहर / पुरातत्वीय महत्व के स्थल स्थित है नहीं

अतः प्रतिवेदन आवश्यक कार्रवाई हेतु समर्पित

विश्वासभाजन
विजय उरांव
हल्का - 18 & 19
9/02/023

अंचल अधिकारी
परमवीर अल्बर्ट एक्का जारी
(गुमला)

9/02/023
प्र. अं. नि.

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

SH-01

SH-01

कार्यालय, अंचल अधिकारी, चैनपुर (गुमला)

(EMAIL ID- cochainpur@gmail.com)

पत्रांक– 87
दिनांक– 02/02/2023

प्रेषक,

अंचल अधिकारी,
चैनपुर (गुमला)

सेवा में,

जिला खनन पदाधिकारी,
गुमला

विषय :– DSR (Sand) में चिन्हित हर्राडीपा बालूघाट की स्थलीय जांच प्रतिवेदन के संबंध में।

प्रसंग :– भवदीय पत्रांक– 42/एम0, दिनांक– 06.01.2023, इस कार्यालय के पत्रांक– 36 दिनांक– 19.01.2023 एवं पत्रांक– 60 दिनांक– 28.01.2023

महाशय,

उपर्युक्त विषयक प्रासंगिक पत्र के संदर्भ में कहना है कि मौजा– हर्राडीपा, अंचल– चैनपुर के बालुघाट खतियान 1995–96 में प्लॉट नं0– 1174, रकबा– 10 हेक्टर अंकित है यह नये सर्वे से है, चैनपुर अंचल में प्रचलन पर नहीं है। इसके लिए चैनपुर अंचल अनाधिकृत है। ऐसी परिस्थिति में संबंधित राजस्व उप निरीक्षक एवं अंचल अमीन के स्थल जांच के आधार पर आर0 एस0 खतियान 1932 के अनुसार उसी भू–भाग का खाता नं0– 85, प्लॉट नं0– 1019, रकबा– 10 हेक्टर (कुल दर्ज 52 एकड़ में से 24.71 एकड़) किस्म गैरमजरूआ खास है। बालूघाट का पर्यावरणीय सहमति के लिए SEAC, Jharkhand द्वारा DSR (Sand) के अनुमोदन के क्रम में वर्णित बालुघाट से संबंधित निम्न विन्दुओं पर प्रतिवेदन निम्नवत है :–

क0	निर्धारित विन्दु	प्रतिवेदन (हॉ/नहीं)	अभ्युक्ति
1	2	3	4
1	क्या आवेदित भूमि की कोटि सर्वे खतियान यथा रजिस्टर– में जंगल–झाड़ी के रूप में दर्ज है ?	नहीं	
2	क्या 500 मीटर की दूरी के अन्दर कोई मावन बसाहट (Habitation) स्थित है ?	नहीं	
3	क्या 500 मीटर की दूरी के अन्दर कोई जलीय निकाय (Dam/Reservoir) स्थित है ?	नहीं	
4	क्या 500 मीटर की दूरी के अन्दर कोई नदी (River) स्थित है ?	नहीं	
5	क्या 500 मीटर की दूरी के अन्दर कोई शैक्षणिक संस्थान (Educational Institute) स्थित है ?	नहीं	
6	क्या 500 मीटर की दूरी के अन्दर कोई चिकित्सालय (Hospital) स्थित है ?	नहीं	
7	क्या 10 किलो मीटर की परिधि में अंतर्राराज्यीय (Enteerstate) सीमा है ?	नहीं	
8	क्या 500 मीटर की दूरी के अन्दर कोई राष्ट्रीय धरोहर/पुरातत्वीय (Monumentts/Archaeological) महत्व के स्थल स्थित है ?	नहीं	

उपर्युक्त विषय के संबंध में सादर अनुरोध है कि उक्त बालुघाट की सत्यापित नक्सा एवं अंचल निरीक्षक, चैनपुर का जांच प्रतिवेदन इस पत्र के साथ संलग्न कर आवश्यक कार्रवाई हेतु भेजी जा रही है।

कृपया प्रतिवेदन की प्राप्ति स्वीकार की जाय।

संलग्न :–

1. अंचल निरीक्षक के स्थल जांच प्रतिवेदन
2. आर0 एस0 1932 के नक्सा
3. भवदीय द्वारा भेजी गई नक्सा

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★ Approved

विश्वासभाजन

02/02/2023

अंचल अधिकारी,
चैनपुर (गुमला)

2/2/2023

सेवा में,

अंचल अधिकारी
चैनपुर, गुमला

विषय – DSR (Sand) में चिह्नित बाबूघाट से संबंधित प्रतिवेदन के संबंध में।

महोदय,

उपर्युक्त विषय के संबंध में कहना है कि आर० एस० खतियान में मौजा खाता प्लॉट रकबा दर्ज जमीन हर्राडीपा 40 पु०-1019 52.00 मे० नदी न०-1174 10 Hectare

आर० एस० खतियान में गैरमजरूआ खास दर्ज है। DSR (Sand) में चिह्नित बाबूघाट से संबंधित प्लॉट न० 1174(P) अंकित है हर्राडीपा नक्शा के सीट न० 2 1995-96 अंकित है।

आर० एस० खतियान, नक्शा के प्लॉट संख्या एवं नया नक्शा 1995-96 के प्लॉट में भिन्नता पायी गई।

बालूघाटों की पर्यावरणीय सहमति के लिए SEAC, Jharkhand द्वारा DSR (Sand) के अनुमोदन के क्रम में वर्णित बालूघाटों से संबंधित बिन्दुओं का प्रतिवेदन निम्नलिखित है —

1. आवेदित भूमि की कोटि सर्वे खतियान यथा रजिस्टर II में जंगल झाड़ी के रूप में नहीं है।
2. 500 मीटर की दूरी के अन्दर कोई मानव बसाहट (Habitation) स्थित नहीं है।
3. 500 मीटर की दूरी के अन्दर कोई जलीय निकाय (Dam/Reservoir) स्थित नहीं है।
4. 500 मीटर की

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

6/2/23

कार्यालय अंचल अधिकारी, बसिया(गुमला)

पत्रांकः– 60/270
दिनांकः–01.02.2023

प्रेषक,

अंचल अधिकारी
बसिया।

सेवा में,

जिला खनन पदाधिकारी
गुमला।

विषयः– DSR (Sand) में चिन्हित बालूघाटों से संबंधित प्रतिवेदन का प्रेषण।
प्रसंगः– भवदीय कार्यालय का पत्रांक 37/एम0 दिनांक– 06/01/2023

महाशय,

उपर्युक्त प्रासंगिक विषयक बसिया अंचल अंतर्गत मौजा– कनसकेली,टेंगरा, बोंगालोया, लुगंटू एवं पंथा बालू घाटो से संबंधित पत्र में वर्णित बिन्दूओं पर जाँच प्रतिवेदन अग्रेतर कार्रवाई हेतु भेजी जा रहीं है।

कृपया प्राप्ति स्वीकार की जाय।

विश्वासभाजन,

1/2/23

अंचल अधिकारी
1.2.23 बसिया।

अनुलग्नक– मौजा

1. कनसकेली स्थित बालू घाट।
2. टेंगरा
3. बोंगालोया
4. लुंगटू
5. पंथा

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Approved

SK-20

जाँच प्रतिवेदन

मौजा– पंथा, खाता सं0– 126, प्लॉट सं0– 1940, रकबा– 65.00 ए0, किस्म– नदी ।

क0सं0	निर्धारित बिन्दू	प्रतिवेदन हाँ/नहीं
1	क्या आवेदित भूमि की कोटि सर्वे खतियान तथा रजिस्टर–II में जंगल झाड़ी के रुप में दर्ज है?	नहीं है।
2	क्या 500 मीटर की दूरी के अन्दर कोई मानव बसाहट स्थित है?	नहीं है।
3	क्या 500 मीटर की दूरी के अन्दर कोई जलीय निकाय स्थित है?	नहीं
4	क्या 500 मीटर की दूरी के अन्दर कोई नदी स्थित है ?	स्वंय नदी है।
5	क्या 500 मीटर की दूरी के अन्दर कोई शैक्षणिक संस्थान स्थित है?	नहीं है।
6	क्या 500 मीटर की दूरी के अन्दर कोई चिकित्सालय संस्थान स्थित है?	नहीं है।
7	क्या 10कि0मी0 की परिधि में अंतर्राराज्यीय सीमा स्थित है?	नहीं है।
8	क्या 500 मीटर की दूरी के अन्दर कोई राष्ट्रीय धरोहर/ पुरातत्वीय महत्व के स्थल स्थित है?	नहीं है।

रा0उप–निरीक्षक
11/01/23

अंचल निरीक्षक
11/01/23

अंचल अधिकारी
बसिया।
11/1/23

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

सेवा में,
अंचल अधिकारी बसिया

विषय:- DSR(Sand) में चिह्नित बालूघाटों का जाँच प्रतिवेदन

प्रसंग - जिला भूतात्विक कार्यालय गुमला के 03 दिनांक 5-1-2023

महाशय,

उपर्युक्त विषयक प्रसंगिक पत्र के माध्यम से सहायक निदेशक भूतत्व गुमला द्वारा बालू खनिज का DSR(Sand) से संबंधित चिह्नित बालूघाटों का मानचित्र (Cadustral map) एवं GPS Co-ordinate की विवरणी उपलब्ध कराया गया है। उल्लेखनीय है कि बालूघाटों की पर्यावरणीय सहमति के लिए SEAC Jharkhand द्वारा DSR(Sand) के अनुमोदन के क्रम में वर्णित बालूघाटों से संबंधित निम्न बिन्दुओं पर भवदीय स्तर से प्रतिवेदन की अपेक्षा की जा रही है —

क्रम	मौजा	खाता	प्लॉट	रम्बा	किस्म
	पंथा	126	1940	65.00	नदी

निर्धारित बिन्दु

1. क्या आवेदित भूमि की जोरि सर्वे खतियान यथा रजिस्टर-1 में जंगल झाड़ी के रूप में दर्ज है — नहीं
2. क्या 500 मीटर की दूरी के अन्दर कोई मालवाबसाहर स्थित है — नहीं
3. क्या 500 मीटर की दूरी के अन्दर कोई जलीय निकाय स्थित है - नहीं
4. क्या 500 मीटर की दूरी के अन्दर कोई नदी स्थित है → स्वयं नदी है।
5. क्या 500 मीटर की दूरी के अन्दर कोई शैक्षणिक संस्थान स्थित है — नहीं।
6. क्या 500 मीटर की दूरी के अन्दर कोई चिकित्सालय स्थित है - नहीं
7. क्या 10 कि०मी० की परिधि में अन्तर्राष्ट्रीय सीमा है - नहीं।
8. क्या 500 मीटर की दूरी के अन्दर कोई राष्ट्रीय धरोहर/पुरातत्वीय महत्व के स्थल स्थित है — नहीं।

अतः जाँच प्रतिवेदन प्रेषित।

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

SK-21

जाँच प्रतिवेदन

मौजा– कोनसकेली, खाता सं0– 153, प्लॉट सं0– 1291, रकबा– 35.50 ए0, किस्म– नदी ।

क0सं0	निर्धारित बिन्दू	प्रतिवेदन हाँ/नहीं
1	क्या आवेदित भूमि की कोटि सर्वे खतियान तथा रजिस्टर–II में जंगल झाड़ी के रुप में दर्ज है?	नहीं
2	क्या 500 मीटर की दूरी के अन्दर कोई मानव बसाहट स्थित है?	नहीं
3	क्या 500 मीटर की दूरी के अन्दर कोई जलीय निकाय स्थित है?	नहीं
4	क्या 500 मीटर की दूरी के अन्दर कोई नदी स्थित है ?	स्वंय नदी
5	क्या 500 मीटर की दूरी के अन्दर कोई शैक्षणिक संस्थान स्थित है?	नहीं
6	क्या 500 मीटर की दूरी के अन्दर कोई चिकित्सालय संस्थान स्थित है?	नहीं
7	क्या 10 कि0मी0 की परिधि में अंतर्राराज्यीय सीमा स्थित है?	नहीं
8	क्या 500 मीटर की दूरी के अन्दर कोई राष्ट्रीय धरोहर/ पुरातत्वीय महत्व के स्थल स्थित है?	नहीं

राo उपo–निरीक्षक

अंचल निरीक्षक

अंचल अधिकारी
बसिया।

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

सेवा में,

अंचल अधिकारी,
बसिया।

विषय :- DSR (Sand) में चिह्नित बालूघाटों से संबंधित प्रतिवेदन के संबंध में।

प्रसंग — जिला-भूतात्विक कार्यालय, गुमला के 03 दिनांक 05-01-2023

महाशय, उपर्युक्त विषय प्रसांगिक पत्र के माध्यम से सहायक निदेशक, भूतत्व, गुमला द्वारा बालू खनिज का DSR (Sand) से संबंधित चिह्नित बालूघाटों का मानचित्र (Cadastral Map एवं GPS Co-ordinate) का विवरण उपलब्ध कराया गया है। उल्लेखनीय है कि बालूघाटों की पर्यावरणीय सहमति के लिए SEAC, Jharkhand द्वारा DSR (Sand) के अनुमोदन के रूप में वर्णित बालूघाटों से संबंधित निम्न बिन्दुओं पर अंकदीय स्तर से प्रतिवेदन की अपेक्षा की जा रही है।

निर्धारित बिन्दु	प्रतिवेदन हाँ/नहीं
1. क्या आवेदित भूमि की कोटि सर्वे खतियान तथा रजिस्टर II में जंगल झाड़ी के रूप में दर्ज है?	नहीं
2. क्या 500 मीटर की दूरी के अन्दर कोई मानव Habitation स्थित है?	नहीं,
3. क्या 500 मीटर की दूरी के अन्दर कोई जलीय निकाय (Dam/Reservoir) स्थित है?	नहीं,
4. क्या 500 मीटर की दूरी के अन्दर कोई नदी स्थित है?	नहीं एक है
5. क्या 500 मीटर की दूरी के अन्दर कोई शैक्षणिक संस्थान स्थित है।	नहीं,
6. क्या 500 मीटर की दूरी के अन्दर कोई चिकित्सालय स्थित है	नहीं,
7. क्या 10 कि०मी० के परिधि में अंतरराज्यीय सीमा है?	नहीं,
8. क्या 500 मीटर की दूरी के अन्दर कोई राष्ट्रीय धरोहर/पुरातत्वीय महत्व के स्थल स्थित है?	नहीं,

अतः आवेदित किए जाने वाले कोटि के दो हस्तांतरित मानचित्र संलग्न है।

अतः सहायक के पास जाँच प्रतिवेदन सादिर

सम्मिलित।

31-01-023
P.S.
H-No-X

मौजा - कोनसकेली
खाता - 153
प्लॉट - ~~1291~~ 1291
रकबा - 36.50 एकड़
दर्जा - बड़ी कोइलनदी

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

31/01/23
G.

SIC-19

जाँच प्रतिवेदन

मौजा– लुंगटू खाता सं0– 89, प्लॉट सं0– 01 रकबा– 38.00 ए0, किस्म– नदी ।

क0सं0	निर्धारित बिन्दू	प्रतिवेदन हाँ/नहीं
1	क्या आवेदित भूमि की कोटि सर्वे खतियान तथा रजिस्टर–II में जंगल झाड़ी के रुप में दर्ज है?	नहीं
2	क्या 500 मीटर की दूरी के अन्दर कोई मानव बसाहट स्थित है?	नहीं
3	क्या 500 मीटर की दूरी के अन्दर कोई जलीय निकाय स्थित है?	हाँ
4	क्या 500 मीटर की दूरी के अन्दर कोई नदी स्थित है ?	स्वंय नदी
5	क्या 500 मीटर की दूरी के अन्दर कोई शैक्षणिक संस्थान स्थित है?	नहीं
6	क्या 500 मीटर की दूरी के अन्दर कोई चिकित्सालय संस्थान स्थित है?	नहीं
7	क्या 10 कि0मी0 की परिधि में अंतर्राराज्यीय सीमा स्थित है?	नहीं
8	क्या 500 मीटर की दूरी के अन्दर कोई राष्ट्रीय धरोहर/ पुरातत्वीय महत्व के स्थल स्थित है?	नहीं

राउप निरीक्षक

अंचल निरीक्षक

अंचल अधिकारी
बसिया।

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★
Approved

सेवा में,

अंचल - अधिकारी

अमिया

विषय - DSR (Sand) में सिन्हित बालुघाटों से संबंधित जांचप्रतिवेदन

प्रसंग - जिला भूगतिवि अर्थालय गुमला के 03 दिनांक 06-01-2023

महाशय,

उपर्युक्त विषयक प्रसंगित पत्र के माध्यम से सहायक निदेशक खनन गुमला द्वारा बालु खनिज का DSR (Sand) के संबंधित सिन्हित बालुघाटों का मानचित्र (Cadastral map) एवं GPS Co-ordinates की विवरणी उपलब्ध कराया गया है उल्लेखनीय है कि बालुघाटों की पर्यावरणीय सहमति के लिए SEAC Jharkhand द्वारा DSR (Sand) के अद्यतीकरण के क्रम में वर्णित बालुघाटों से संबंधित मौजा डुंगरी खाता 89 प्लॉट 1 रकबा 38.00 ई० का निम्न बिन्दुओं पर भौकीय स्तर से प्रतिवेदन की अपेक्षा की गई है, जो निम्नवत है -

① आवेदित भूमि की कोटि सर्वे खतियान में जंगल-झाड़ी दर्ज नहीं है
② 500 मीटर की परिधि के अंदर कोई मानव आवास स्थित नहीं है
③ आवेदित भूमि वनभूमि नहीं है, एवं जलीय निकाय स्थित है
④ आवेदित भूमि वनभूमि नहीं है
⑤ 500 मीटर की परिधि में कोई शैक्षणिक संस्थान स्थित नहीं है
⑥ 500 मीटर की परिधि में कोई चिकित्सालय स्थित नहीं है
⑦ 10 कि०मी० की परिधि में अंतरराज्यीय सीमा नहीं है
⑧ 500 मीटर के परिधि के अंदर कोई राष्ट्रीय धरोहर/पुरातत्वीय महत्व के स्थल स्थित नहीं है

अतः जांचप्रतिवेदन महोदय के पास समर्पित।

[illegible] 2023

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

SK-17

जाँच प्रतिवेदन

मौजा– टेंगरा, खाता सं0– 73, प्लॉट सं0– 1869, 1861 रकबा– ए0, किस्म– नदी ।

क्र0सं0	निर्धारित बिन्दू	प्रतिवेदन हाँ/नहीं
1	क्या आवेदित भूमि की कोटि सर्वे खतियान तथा रजिस्टर–II में जंगल झाड़ी के रुप में दर्ज है?	नहीं
2	क्या 500 मीटर की दूरी के अन्दर कोई मानव बसाहट स्थित है?	नहीं
3	क्या 500 मीटर की दूरी के अन्दर कोई जलीय निकाय स्थित है?	हाँ
4	क्या 500 मीटर की दूरी के अन्दर कोई नदी स्थित है ?	स्वंय नदी
5	क्या 500 मीटर की दूरी के अन्दर कोई शैक्षणिक संस्थान स्थित है?	नहीं
6	क्या 500 मीटर की दूरी के अन्दर कोई चिकित्सालय संस्थान स्थित है?	नहीं
7	क्या 10 कि0मी0 की परिधि में अंतर्राज्यीय सीमा स्थित है?	नहीं
8	क्या 500 मीटर की दूरी के अन्दर कोई राष्ट्रीय धरोहर/ पुरातत्वीय महत्व के स्थल स्थित है?	नहीं

रा0उप–निरीक्षक

अंचल निरीक्षक

अंचल अधिकारी
बसिया।

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

सेवा में,

अंचल - अधिकारी

भसिया

विषय ~~प्रसंग~~ DSR (Sand) में चिन्हित बालुघाटों से संबंधित जांचप्रतिवेदन

प्रसंग - जिला भूतात्विक कार्यालय गुमला के 03 दिनांक 05-1-20:

महाशय,

उपर्युक्त विषयक प्रसांगिक पत्र के माध्यम से सहायक निदेशक भुतत्व गुमला द्वारा बालु खनिज का DSR (Sand) से संबंधित चिन्हित बालुघाटों का मानचित्र (Cadastral map) एवं GPS Co-ordinate की विवरणी उपलब्ध कराया गया है उल्लेखनीय है, कि बालुघाटों की पर्यावरणीय सहमति के लिए SEA Jharkhand द्वारा ~~बालु~~ DSR (Sand) के अनुमोदन के क्रम में वर्णित बालुघाटों से संबंधित मौजा टेंगरा खाता 73 प्लाट 1869 1861 का निम्न बिन्दुओं पर अवदीय स्तर से प्रतिवेदन की अपेक्षा की जा रही है जो निम्नवत है:

1. आवेदित भूमि की कोटि सर्वे खतियान यथा रजिस्टर II में जंगल झाड़ी दर्ज नहीं है।
2. 500 मीटर की दूरी अन्दर कोई मानव बसाहट स्थित नहीं है।
3. आवेदित भूमि स्वयं नदी है, एवं जलीय निकाय स्थित है।
4. आवेदित भूमि स्वयं नदी है।
5. 500 मीटर की दूरी के अन्दर कोई भैक्षणिक संस्थान स्थित नहीं है।
6. 500 मीटर की दूरी के अन्दर कोई चिकित्सालय स्थित नहीं है।
7. 10 कि. मी. की परिधि में अंतराज्यीय सीमा नहीं है।
8. 500 मीटर की दूरी के अन्दर कोई राष्ट्रीय धरोहर/ पुरातत्वीय महत्व के स्थल स्थित नहीं है।

अतः जांचप्रतिवेदन महाशय के पास समर्पित।

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

SK-18

जाँच प्रतिवेदन

मौजा– बोंगालोया, खाता सं0– 57, प्लॉट सं0– 954, रकबा– 46.00 ए0, किस्म– नदी ।

क0सं0	निर्धारित बिन्दू	प्रतिवेदन हाँ/नहीं
1	क्या आवेदित भूमि की कोटि सर्वे खतियान तथा रजिस्टर–II में जंगल झाड़ी के रुप में दर्ज है?	नहीं
2	क्या 500 मीटर की दूरी के अन्दर कोई मानव बसाहट स्थित है?	नहीं
3	क्या 500 मीटर की दूरी के अन्दर कोई जलीय निकाय स्थित है?	हाँ
4	क्या 500 मीटर की दूरी के अन्दर कोई नदी स्थित है ?	स्वंय नदी
5	क्या 500 मीटर की दूरी के अन्दर कोई शैक्षणिक संस्थान स्थित है?	नहीं
6	क्या 500 मीटर की दूरी के अन्दर कोई चिकित्सालय संस्थान स्थित है?	नहीं
7	क्या 10 कि0मी0 की परिधि में अंतर्राराज्यीय सीमा स्थित है?	नहीं
8	क्या 500 मीटर की दूरी के अन्दर कोई राष्ट्रीय धरोहर/ पुरातत्वीय महत्व के स्थल स्थित है?	नहीं

राo उपo निरीक्षक

अंचल निरीक्षक

अंचल अधिकारी
बसिया।

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

सेवा में,
अंचल अधिकारी
बसिया

विषय:- DSR (Sand) में चिन्हित बालुघाटों से संबंधित जाँचप्रतिवेदन

प्रसंग - जिला भूतात्विक कार्यालय गुमला के 03 दिनांक 05-01-2023

महाभय,

उपर्युक्त विषयक प्रसांगिक पत्र के माध्यम से सहायक निदेशक, भूतत्व गुमला द्वारा बालु खनिज का DSR (Sand) से संबंधित चिन्हित बालुघाटों का मानचित्र (Cadustral Map) एवं GPS co-rodinate की विवरणी उपलब्ध कराया गया है। उल्लेखनीय है कि बालुघाटों की पर्यावरणीय सहमति के लिए SEAC, Jharkhand द्वारा DSR (Sand) के अनुमोदन के क्रम में वर्णित बालुघाटों से संबंधित मौजा बोंगालोया खाता 57 प्लॉट 954 कुल रकबा 46.00 रु० गैरमजरुआ खास किस्म नदी का निम्न बिन्दुओं पर अवदीय स्तर से प्रतिवेदन की अपेक्षा की जा रही है, जो निम्नवत है —

(1) आवेदित भूमि की कोटि सर्वे खतियान यथा रजिस्टर II में जंगल झाड़ी के रूप में दर्ज नहीं है।

(2) 500 मीटर की दूरी के अन्दर कोई मानव बसाहट स्थित नहीं है।

(3) आवेदित भूमि स्वयं नदी है एवं जलीय निकाय स्थित है।

(4) आवेदित भूमि स्वयं नदी है।

(5) 500 मीटर की दूरी के अन्दर कोई ~~भैक्षणिक~~ भैक्षणिक संस्थान स्थित नहीं है।

(6) 500 मीटर की दूरी के अन्दर कोई चिकित्सालय स्थित नहीं है।

(7) 10 कि. मी. की परिधि में अंतराज्यीय सीमा नहीं है।

(8) 500 मीटर की दूरी के अन्दर कोई राष्ट्रीय धरोहर / पुरातत्वीय (Monuments/ Archaeological) महत्व के स्थल स्थित नहीं है।

अतः जाँचप्रतिवेदन महाभय के पास समर्पित।

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

SK-17

कार्यालय अंचल अधिकारी, गुमला (सदर)।

पत्रांक 138
दिनांक 02.02.2023

प्रेषक,

अंचल अधिकारी,
गुमला (सदर)।

सेवा में,

जिला खनन पदाधिकारी,
गुमला।

विषयः– DSR (Sand) में चिन्हित बालूघाटों से संबंधित प्रतिवेदन उपलब्ध कराने के संबंध में।

प्रसंग :– भवदीय पत्रांक 36/एम0, दिनांक 06.01.2023

महाशय,

उपर्युक्त विषयक गुमला जिलान्तर्गत मौजा– कलिगा, थाना सं0–105 के खाता सं0 187 प्लॉट नं0– 309, 1486 एवं 1974 रकबा क्रमशः 8.28 ए0, 41.00 ए0 एवं 0.65 एकड़ भूमि जो सर्वे खतियान में गैरमजरूआ खास किस्म जमीन नदी दर्ज है, बालूघाट से संबंधित बिन्दुवार जाँच प्रतिवेदन निम्नालिखित हैः–

क्रम	भूमि का बिन्दु	प्रतिवेदन	अभ्युक्ति
1	क्या आवेदित भूमि की कोटि सर्वे खतियान यथा रजिस्टर–II में जंगल झाड़ी के रूप में दर्ज है?	नहीं	
2	क्या 500 मीटर की दूरी के अन्दर कोई मानव बसाहट है या नहीं?	नहीं	
3	क्या 500 मीटर की दूरी के अन्दर कोई जलीय निकाय है या नहीं?	नहीं	
4	क्या 500 मीटर की दूरी के अन्दर कोई नदी स्थित है या नहीं?	नहीं	
5	क्या 500 मीटर की दूरी के अन्दर कोई शैक्षणिक संस्थान है या नहीं?	नहीं	
6	क्या 500 मीटर की दूरी के अन्दर कोई चिकित्यालय स्थित है या नहीं?	नहीं	
7	क्या 10 कि0 मीटर की दूरी के अन्दर कोई अन्तर्राजीय सीमा है या नहीं?	नहीं	
8	क्या 500 मीटर की दूरी के अन्दर कोई राष्ट्रीय धरोहर/पुरातत्वीय महत्व के स्थल हैं या नहीं?	नहीं	

विश्वासभाजन

2/02/2023

अंचल अधिकारी,
गुमला।

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

सेवा में,

अंचल अधिकारी, गुमला

विषय :- DSR (Sand) में चिन्हित बालू घाटों से संबंधित जाँच प्रतिवेदन।

महाशय,

प्राप्त निर्देश के आलोक में मौजा कलिंगा थाना नं० 105 थाना गुमला के खाता नं० 187 प्लाट नं० 309, 1486, 1974 रकबा क्रमशः 8.28 एकड़, 41.00 एकड़ एवं सर्वे खतियान में गैरमजरुवा खास किस्म जमीन नदी दर्ज है, से संबंधित 8 सूत्री बिन्दुओं का जाँच प्रतिवेदन निम्न प्रकार है :-

	निर्धारित बिन्दु	हाँ/नहीं
1	क्या आवेदित भूमि की कोटि सर्वे खतियान यथा रजिस्टर II में जंगल झाड़ी के रूप में दर्ज है ?	नहीं
2	क्या 500 मीटर की दूरी के अन्दर कोई मानव बसावट (Habitation) स्थित है ?	नहीं
3	क्या 500 मीटर के दूरी के अंदर कोई जलीय निकाय (DAM, Reservoir) स्थित है ?	नहीं
4	क्या 500 मीटर की दूरी के अंदर कोई नदी है ?	नहीं
5	क्या 500 मीटर की दूरी के अंदर कोई शैक्षणिक संस्थान (Educational Institute) स्थित है ?	नहीं
6	क्या 500 मीटर की दूरी के अंदर कोई चिकित्सालय (Hospital) स्थित है ?	नहीं
7	क्या 10 K.M. की परिधि में अन्तर राज्यीय (Interstate) सीमा है ?	नहीं
8	क्या 500 मीटर की दूरी के अंदर कोई राष्ट्रीय धरोहर पुरातत्वीय (Monuments, Archaeological) महत्व के स्थल है ?	नहीं

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

SIK-12

कार्यालय अंचल अधिकारी, गुमला (सदर)।

पत्रांक 135
दिनांक 03.02.2023

प्रेषक,

अंचल अधिकारी,
गुमला (सदर)।

सेवा में,

जिला खनन पदाधिकारी,
गुमला।

विषयः– DSR (Sand) में चिन्हित बालूघाटों से संबंधित प्रतिवेदन उपलब्ध कराने के संबंध में।

प्रसंग :– भवदीय पत्रांक 36/एम0, दिनांक 06.01.2023

महाशय,

उपर्युक्त विषयक गुमला जिलान्तर्गत मौजा– सिलाफरी, थाना सं0– 79 के खाता सं0 138 प्लॉट नं0– 361 रकबा 19.00 एकड़ भूमि जो सर्वे खतियान में गैरमजरूआ खास किस्म जमीन नदी दर्ज है, बालूघाट से संबंधित बिन्दुवार जाँच प्रतिवेदन निम्नालिखित हैः–

क्रम	भूमि का बिन्दु	प्रतिवेदन	अभ्युक्ति
1	क्या आवेदित भूमि की कोटि सर्वे खतियान यथा रजिस्टर–II में जंगल झाड़ी के रूप में दर्ज है?	नहीं	
2	क्या 500 मीटर की दूरी के अन्दर कोई मानव बसाहट है या नहीं?	नहीं	
3	क्या 500 मीटर की दूरी के अन्दर कोई जलीय निकाय है या नहीं?	नहीं	
4	क्या 500 मीटर की दूरी के अन्दर कोई नदी स्थित है या नहीं?	नहीं	
5	क्या 500 मीटर की दूरी के अन्दर कोई शैक्षणिक संस्थान है या नहीं?	नहीं	
6	क्या 500 मीटर की दूरी के अन्दर कोई चिकित्यालय स्थित है या नहीं?	नहीं	
7	क्या 10 कि0 मीटर की दूरी के अन्दर कोई अन्तर्राजीय सीमा है या नहीं?	नहीं	
8	क्या 500 मीटर की दूरी के अन्दर कोई राष्ट्रीय धरोहर/पुरातत्वीय महत्व के स्थल हैं या नहीं?	नहीं	

विश्वासभाजन

03/02/2023

अंचल अधिकारी,
गुमला।

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★
Approved

मे,

अंचल अधिकारी गुमला

विषय :- DSR (Sand) में चिन्हित बालू घाटों से संबंधित जाँच प्रतिवेदन।

महाशय,

प्राप्त निर्देश के आलोक में मौजा सिलापारी थाना न० 79 थाना गुमला के खाता न० 138 प्लाट न० 361 रकबा क्रमशः 19-00 जो सर्वे खतियान में गैरमजुरवा खास किस्म जमीन नदी दर्ज है, से संबंधित 8 सूत्री बिन्दुओं का जाँच प्रतिवेदन निम्न प्रकार है :-

क्र	निर्धारित बिन्दु	हां/न
1	क्या आवेदित भूमि की कोटि सर्वे खतियान यथा रजि० II में जंगल झाड़ी के रूप में दर्ज है ?	नहीं
2	क्या 500 मीटर की दूरी के अन्दर कोई मानव बसाहट (Habitation) स्थित है ?	नहीं
3	क्या 500 मीटर के दूरी के अंदर कोई जलीय निकाय (DAM / Reservoir) स्थित है ?	नहीं
4	क्या 500 मीटर की दूरी के अंदर कोई नदी है ?	नहीं
5	क्या 500 मीटर की दूरी के अंदर कोई शैक्षणिक संस्थान (Educational Institute) स्थित है ?	नहीं
6	क्या 500 मीटर की दूरी के अंदर कोई (Hospital) स्थित है ?	नहीं
7	क्या 10 K.M की परीधि में अन्तर राज्यीय (Interstate) सीमा है ?	नहीं
8	क्या 500 मीटर की दूरी के अंदर कोई राष्ट्रीय धरोधर पुरातत्वीय (Monuments / Archaeological) महत्व के स्थल है ?	नहीं

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

SK-15

कार्यालय अंचल अधिकारी, गुमला (सदर)।

पत्रांक ...134...
दिनांक ...03-02-2023...

प्रेषक,

अंचल अधिकारी,
गुमला (सदर)।

सेवा में,

जिला खनन पदाधिकारी,
गुमला।

विषयः– DSR (Sand) में चिन्हित बालूघाटों से संबंधित प्रतिवेदन उपलब्ध कराने के संबंध में।

प्रसंग :– भवदीय पत्रांक 36/एम0, दिनांक 06.01.2023

महाशय,

उपर्युक्त विषयक गुमला जिलान्तर्गत मौजा– पतिया, थाना सं0– 103 के खाता सं0 176 प्लॉट नं0– 2952, रकबा 17.00 एकड़ भूमि जो सर्वे खतियान में गैरमजरूआ खास किस्म जमीन नदी दर्ज है, बालूघाट से संबंधित बिन्दुवार जाँच प्रतिवेदन निम्नालिखित हैः–

क्रम	भूमि का बिन्दु	प्रतिवेदन	अभ्युक्ति
1	क्या आवेदित भूमि की कोटि सर्वे खतियान यथा रजिस्टर–II में जंगल झाड़ी के रूप में दर्ज है?	नहीं	
2	क्या 500 मीटर की दूरी के अन्दर कोई मानव बसाहट है या नहीं?	नहीं	
3	क्या 500 मीटर की दूरी के अन्दर कोई जलीय निकाय है या नहीं?	नहीं	
4	क्या 500 मीटर की दूरी के अन्दर कोई नदी स्थित है या नहीं?	नहीं	
5	क्या 500 मीटर की दूरी के अन्दर कोई शैक्षणिक संस्थान है या नहीं?	नहीं	
6	क्या 500 मीटर की दूरी के अन्दर कोई चिकित्यालय स्थित है या नहीं?	नहीं	
7	क्या 10 कि0 मीटर की दूरी के अन्दर कोई अन्तर्राजीय सीमा है या नहीं?	नहीं	
8	क्या 500 मीटर की दूरी के अन्दर कोई राष्ट्रीय धरोहर/पुरातत्वीय महत्व के स्थल हैं या नहीं?	नहीं	

विश्वासभाजन

03/02/2023

अंचल अधिकारी,
गुमला।

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★
Approved

सेवा में,
अंचल अधिकारी गुमला

विषय :- DSR (sand) में चिन्हित बालू घाटों से संबंधित जाँच प्रतिवेदन।

महाशय,

प्राप्त निर्देश के आलोक में मौजा पलिया थाना नं० 103 थाना गुमला के खाता नं० 176 प्लाट नं० 2952 रकबा क्रमशः 17.00 जो सर्वे खतियान में गैरमजरुवा खास किस्म जमीन नदी दर्ज है, से संबंधित 8 सूत्री बिन्दुओं का जाँच प्रतिवेदन निम्न प्रकार है :-

क्र	निर्धारित बिन्दु	हाँ/
1	क्या आवेदित भूमि की कोटि सर्वे खतियान यथा रजि० II में जंगल झाड़ के रूप में दर्ज है ?	नहीं
2	क्या 500 मीटर की दूरी के अन्दर कोई मानव बसावट (Habitation) स्थित है ?	नहीं
3	क्या 500 मीटर के दूरी के अंदर कोई जलीय निकाय (DAM / Reservoir) स्थित है ?	नहीं
4	क्या 500 मीटर की दूरी के अंदर कोई नदी है ?	नहीं
5	क्या 500 मीटर की दूरी के अंदर कोई शैक्षणिक संस्थान (Educational Institute) स्थित है ?	नहीं
6	क्या 500 मीटर की दूरी के अंदर कोई (Hospital) स्थित है ?	
7	क्या 10 K.M. की परिधि में अन्तर राज्यीय (Interstate) सीमा है ?	नहीं
8	क्या 500 मीटर की दूरी के अंदर कोई राष्ट्रीय धरोहर पुरातत्वीय (Monuments / Archaeological महत्व के स्थल है ?	नहीं

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

SK-14

कार्यालय अंचल अधिकारी, गुमला (सदर)।

पत्रांक 133
दिनांक 02.02.2023

प्रेषक,

अंचल अधिकारी,
गुमला (सदर)।

सेवा में,

जिला खनन पदाधिकारी,
गुमला।

विषयः– DSR (Sand) में चिन्हित बालूघाटों से संबंधित प्रतिवेदन उपलब्ध कराने के संबंध में।

प्रसंग :– भवदीय पत्रांक 36/एम0, दिनांक 06.01.2023

महाशय,

उपर्युक्त विषयक गुमला जिलान्तर्गत मौजा– पतिया, थाना सं0– 103 के खाता सं0 176 प्लॉट नं0– 2966, 2871 रकबा क्रमशः 30.00 ए0 एवं 18.00 एकड़ भूमि जो सर्वे खतियान में गैरमजरूआ खास किस्म जमीन नदी दर्ज है, बालूघाट से संबंधित बिन्दुवार जाँच प्रतिवेदन निम्नालिखित हैः–

क्रम	भूमि का बिन्दु	प्रतिवेदन	अभ्युक्ति
1	क्या आवेदित भूमि की कोटि सर्वे खतियान यथा रजिस्टर–II में जंगल झाड़ी के रूप में दर्ज है?	नहीं	
2	क्या 500 मीटर की दूरी के अन्दर कोई मानव बसाहट है या नहीं?	नहीं	
3	क्या 500 मीटर की दूरी के अन्दर कोई जलीय निकाय है या नहीं?	नहीं	
4	क्या 500 मीटर की दूरी के अन्दर कोई नदी स्थित है या नहीं?	नहीं	
5	क्या 500 मीटर की दूरी के अन्दर कोई शैक्षणिक संस्थान है या नहीं?	नहीं	
6	क्या 500 मीटर की दूरी के अन्दर कोई चिकित्यालय स्थित है या नहीं?	नहीं	
7	क्या 10 कि0 मीटर की दूरी के अन्दर कोई अन्तर्राजीय सीमा है या नहीं?	नहीं	
8	क्या 500 मीटर की दूरी के अन्दर कोई राष्ट्रीय धरोहर/पुरातत्वीय महत्व के स्थल हैं या नहीं?	नहीं	

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★
Approved

विश्वासभाजन

02/02/2023

अंचल अधिकारी,
गुमला।

मे,
अंचल अधिकारी गुमला

विषय :- DSR (Sand) में चिन्हित बालू घाटों से संबंधित जाँच प्रतिवेदन।

महाशय,

प्राप्त निर्देश के आलोक में मौजा पतिया थाना नं० 103 थाना गुमला के खाता नं० 176 लाट नं० 2966, 2871 रकबा क्रमशः 30-00, 18-00 जो सर्वे खतियान में गैरमजरुवा खास किस्म जमीन नदी दर्ज है से संबंधित 8 सूत्री बिन्दुओं का जाँच प्रतिवेदन निम्न प्रकार है :-

क्र०	निर्धारित बिन्दु	हां/नहीं
	क्या आवेदित भूमि की कोटि सर्वे खतियान यथा रजिष्टर II में जंगल झाड़ के रूप में दर्ज है ?	नहीं
2	क्या 500 मीटर की दूरी के अन्दर कोई मानव बसावट (Habitation) स्थित है ?	नहीं
3	क्या 500 मीटर के दूरी के अंदर कोई जलीय निकाय (DAM / Reservoir) स्थित है ?	नहीं
4	क्या 500 मीटर की दूरी के अंदर कोई नदी है ?	नहीं
5	क्या 500 मीटर की दूरी के अंदर कोई शैक्षणिक संस्थान (Educational Institute) स्थित है ?	नहीं
6	क्या 500 मीटर की दूरी के अंदर कोई (Hospital) स्थित है ?	नहीं
7	क्या 10 K.M. की परीधि में अन्तर राज्यीय (Interstate) सीमा है ?	नहीं
8	क्या 500 मीटर की दूरी के अंदर कोई राष्ट्रीय धरोहर पुरातत्वीय (Monuments / Archaeological) महत्व का स्थल है ?	नहीं

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

SK-18

कार्यालय अंचल अधिकारी, गुमला (सदर)।

पत्रांक 139
दिनांक 02.02.2023

प्रेषक,

अंचल अधिकारी,
गुमला (सदर)।

सेवा में,

जिला खनन पदाधिकारी,
गुमला।

विषयः– DSR (Sand) में चिन्हित बालूघाटों से संबंधित प्रतिवेदन उपलब्ध कराने के संबंध में।

प्रसंग :– भवदीय पत्रांक 36/एम0, दिनांक 06.01.2023

महाशय,

उपर्युक्त विषयक गुमला जिलान्तर्गत मौजा– कुटासी, थाना सं0–106 के खाता सं0 72 प्लॉट नं0– 1001, रकबा ..... एकड़ भूमि जो सर्वे खतियान में गैरमजरूआ खास किस्म जमीन नदी दर्ज है, बालूघाट से संबंधित बिन्दुवार जाँच प्रतिवेदन निम्नालिखित हैः–

क्रम	भूमि का बिन्दु	प्रतिवेदन	अभ्युक्ति
1	क्या आवेदित भूमि की कोटि सर्वे खतियान यथा रजिस्टर–II में जंगल झाड़ी के रूप में दर्ज है?	नहीं	
2	क्या 500 मीटर की दूरी के अन्दर कोई मानव बसाहट है या नहीं?	हाँ	
3	क्या 500 मीटर की दूरी के अन्दर कोई जलीय निकाय है या नहीं?	नहीं	
4	क्या 500 मीटर की दूरी के अन्दर कोई नदी स्थित है या नहीं?	नहीं	
5	क्या 500 मीटर की दूरी के अन्दर कोई शैक्षणिक संस्थान है या नहीं?	नहीं	
6	क्या 500 मीटर की दूरी के अन्दर कोई चिकित्यालय स्थित है या नहीं?	नहीं	
7	क्या 10 कि0 मीटर की दूरी के अन्दर कोई अन्तर्राजीय सीमा है या नहीं?	नहीं	
8	क्या 500 मीटर की दूरी के अन्दर कोई राष्ट्रीय धरोहर/पुरातत्वीय महत्व के स्थल हैं या नहीं?	नहीं	

विश्वासभाजन
02/02/2023
अंचल अधिकारी,
गुमला।

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

प्रेषक,

अंचल अधिकारी, कुमला

विषय :- DSR (Sand) में चिन्हित बालू घाटों से संबंधित जाँच प्रतिवेदन।

महाशय,

प्राप्त निर्देश के आलोक में मौजा कुटाली थाना नं० 106 थाना कुमला के खाता नं० 72 लाट नं० 1001 रकबा क्रमशः — जो सर्वे खतियान में गैरमजरुवा खास किस्म जमीन नदी दर्ज है, से संबंधित 8 सूत्री बिन्दुओं का जाँच प्रतिवेदन निम्न प्रकार है :-

क्र	निर्धारित बिन्दु	हाँ/नहीं
1	क्या आवेदित भूमि की कोटि सर्वे खतियान यथा रजि० II में जंगल झाड़ के रूप में दर्ज है ?	नहीं
2	क्या 500 मीटर की दूरी के अन्दर कोई मानव बसावट (Habitation) स्थित है ?	हाँ
3	क्या 500 मीटर के दूरी के अंदर कोई जलीय निकाय (DAM / Reservoir) स्थित है ?	नहीं
4	क्या 500 मीटर की दूरी के अंदर कोई नदी है ?	नहीं
5	क्या 500 मीटर की दूरी के अंदर कोई शैक्षणिक संस्थान (Educational Institute) स्थित है ?	नहीं
6	क्या 500 मीटर की दूरी के अंदर कोई चिकित्सालय (Hospital) स्थित है ?	नहीं
7	क्या 10 K.M. की परिधि में अन्तर राज्यीय (Interstate) सीमा है ?	नहीं
8	क्या 500 मीटर की दूरी के अंदर कोई राष्ट्रीय धरोहर पुरातत्वीय (Monuments / Archaeological) महत्व के स्थल है ?	नहीं

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

SK-16

कार्यालय अंचल अधिकारी, गुमला (सदर)।

पत्रांक ...137.....
दिनांक ...03.02.2023

प्रेषक,

अंचल अधिकारी,
गुमला (सदर)।

सेवा में,

जिला खनन पदाधिकारी,
गुमला।

विषयः– DSR (Sand) में चिन्हित बालूघाटों से संबंधित प्रतिवेदन उपलब्ध कराने के संबंध में।

प्रसंग :– भवदीय पत्रांक 36/एम0, दिनांक 06.01.2023

महाशय,

उपर्युक्त विषयक गुमला जिलान्तर्गत मौजा– कोयंजारा, थाना सं0– 104 के खाता सं0 287 प्लॉट नं0– 3233 रकबा 14.00 एकड़ भूमि जो सर्वे खतियान में गैरमजरूआ खास किस्म जमीन नदी दर्ज है, बालूघाट से संबंधित बिन्दुवार जाँच प्रतिवेदन निम्नालिखित हैः–

क्रम	भूमि का बिन्दु	प्रतिवेदन	अभ्युक्ति
1	क्या आवेदित भूमि की कोटि सर्वे खतियान यथा रजिस्टर–II में जंगल झाड़ी के रूप में दर्ज है?	नहीं	
2	क्या 500 मीटर की दूरी के अन्दर कोई मानव बसाहट है या नहीं?	नहीं	
3	क्या 500 मीटर की दूरी के अन्दर कोई जलीय निकाय है या नहीं?	नहीं	
4	क्या 500 मीटर की दूरी के अन्दर कोई नदी स्थित है या नहीं?	नहीं	
5	क्या 500 मीटर की दूरी के अन्दर कोई शैक्षणिक संस्थान है या नहीं?	नहीं	
6	क्या 500 मीटर की दूरी के अन्दर कोई चिकित्यालय स्थित है या नहीं?	नहीं	
7	क्या 10 कि0 मीटर की दूरी के अन्दर कोई अन्तर्राजीय सीमा है या नहीं?	नहीं	
8	क्या 500 मीटर की दूरी के अन्दर कोई राष्ट्रीय धरोहर/पुरातत्वीय महत्व के स्थल हैं या नहीं?	नहीं	

विश्वासभाजन

03/02/2023

अंचल अधिकारी,
अंचल अधिकारी
गुमला सदर

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★
Approved

मे,
अंचल अधिकारी गुमला

विषय :- DSR (Sand) में चिन्हित बालू घाटों से संबंधित जाँच प्रतिवेदन।

महाशय,

प्राप्त निर्देश के आलोक में मौजा जोपजरा थाना नं० 104 थाना गुमला के खाता नं० 287 लाट नं० 3233 रकबा क्रमशः 14-00 एकड़ जो सर्वे खतियान में गैरमजरुवा खास किस्म जमीन नदी दर्ज है से संबंधित 8 सूत्री बिन्दुओं का जाँच प्रतिवेदन निम्न प्रकार है :-

क्र	निर्धारित बिन्दु	हां/नहीं
1	क्या आवेदित भूमि की कोटि सर्वे खतियान यथा रजिष्टर II में जोन आउ के रूप में दर्ज है ?	नहीं
2	क्या 500 मीटर की दूरी के अन्दर कोई मानव बसावट (Habitation) स्थित है ?	नहीं
3	क्या 500 मीटर के दूरी के अंदर कोई जलीय निकाय (DAM / Reservoir) स्थित है ?	नहीं
4	क्या 500 मीटर की दूरी के अंदर कोई नदी है ?	नहीं
5	क्या 500 मीटर की दूरी के अंदर कोई शैक्षणिक संस्थान (Educational Institute) स्थित है ?	नहीं
6	क्या 500 मीटर की दूरी के अंदर कोई (Hospital) स्थित है ?	नहीं
7	क्या 10 K.M. की परीधि में अन्तर राज्यीय (Interstate) सीमा है ?	नहीं
8	क्या 500 मीटर की दूरी के अंदर कोई राष्ट्रीय धरोहर पुरातत्वीय (Monuments / Archaeological) महत्व के स्थल है	नहीं

Approved
State Level Environment Impact Assessment Authority
Jharkhand, Ranchi

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कार्यालय अंचल अधिकारी, गुमला (सदर)।

पत्रांक 136
दिनांक 03.02.2023

प्रेषक,

अंचल अधिकारी,
गुमला (सदर)।

सेवा में,

जिला खनन पदाधिकारी,
गुमला।

विषयः– DSR (Sand) में चिन्हित बालूघाटों से संबंधित प्रतिवेदन उपलब्ध कराने के संबंध में।

प्रसंग :– भवदीय पत्रांक 36/एम0, दिनांक 06.01.2023

महाशय,

उपर्युक्त विषयक गुमला जिलान्तर्गत मौजा– कुटवाँ, थाना सं0–113 के खाता सं0 197 प्लॉट नं0–2421, 2414 रकबा14.34 एवं 62.00 एकड़ भूमि जो सर्वे खतियान में गैरमजरूआ खास किस्म जमीन नदी दर्ज है, बालूघाट से संबंधित बिन्दुवार जाँच प्रतिवेदन निम्नालिखित हैः–

क्रम	भूमि का बिन्दु	प्रतिवेदन	अभ्युक्ति
1	क्या आवेदित भूमि की कोटि सर्वे खतियान यथा रजिस्टर–II में जंगल झाड़ी के रूप में दर्ज है?	नहीं	
2	क्या 500 मीटर की दूरी के अन्दर कोई मानव बसाहट है या नहीं?	नहीं	
3	क्या 500 मीटर की दूरी के अन्दर कोई जलीय निकाय है या नहीं?	नहीं	
4	क्या 500 मीटर की दूरी के अन्दर कोई नदी स्थित है या नहीं?	नहीं	
5	क्या 500 मीटर की दूरी के अन्दर कोई शैक्षणिक संस्थान है या नहीं?	नहीं	
6	क्या 500 मीटर की दूरी के अन्दर कोई चिकित्यालय स्थित है या नहीं?	नहीं	
7	क्या 10 कि0 मीटर की दूरी के अन्दर कोई अन्तर्राजीय सीमा है या नहीं?	नहीं	
8	क्या 500 मीटर की दूरी के अन्दर कोई राष्ट्रीय धरोहर/पुरातत्वीय महत्व के स्थल हैं या नहीं?	नहीं	

विश्वासभाजन

03/02/2023

अंचल अधिकारी,
गुमला।

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★ Approved

मे,
अंचल अधिकारी गुमला

विषय :- DSR (Sand) में चिन्हित बालू घाटों से संबंधित जाँच प्रतिवेदन।

महाशय,

प्राप्त निर्देश के आलोक में मौजा कुरुवा थाना नं० 113 थाना गुमला के खाता नं० 197 (ला० नं० 2421, 2414 रकबा क्रमशः 14.35 एवं 62.00 ए० जो सर्वे खतियान में गैरमजरुवा खास किस्म जमीन नदी दर्ज है, से संबंधित 8 सूत्री बिन्दुओं का जाँच प्रतिवेदन निम्न प्रकार है :-

सं	निर्धारित बिन्दु	हां/नहीं
1	क्या आवेदित भूमि की कोटि सर्वे खतियान यथा रजिस्टर II में जंगल झाड़ के रूप में दर्ज है ?	नहीं
2	क्या 500 मीटर की दूरी के अन्दर कोई मानव बसावट (Habitation) स्थित है ?	नहीं
3	क्या 500 मीटर के दूरी के अंदर कोई जलीय निकाय (DAM / Reservoir) स्थित है ?	नहीं
4	क्या 500 मीटर की दूरी के अंदर कोई नदी है ?	नहीं
5	क्या 500 मीटर की दूरी के अंदर कोई शैक्षणिक संस्थान (Educational Institute) स्थित है ?	नहीं
6	क्या 500 मीटर की दूरी के अंदर कोई चिकित्सालय (Hospital) स्थित है ?	नहीं
7	क्या 10 K.M. की परिधि में अन्तर राज्यीय (Interstate) सीमा है ?	नहीं
8	क्या 500 मीटर की दूरी के अंदर कोई राष्ट्रीय धरोहर पुरातत्वीय (Monuments / Archaeological) महत्व के स्थल है ?	नहीं

2.0

State Level Environmental Impact Assessment Authority
Approved
Jharkhand, Ranchi

पत्रांकः– ....78..../घाघरा

कार्यालय अंचल अधिकारी, घाघरा (गुमला)

coghaghra2016@gmail.com

प्रेषक,

अंचल अधिकारी
घाघरा।

सेवा में

जिला खनन पदाधिकारी
गुमला।

दिनांक :25/जनवरी/2023

विषयः– DSR (SAND) में चिन्हित मौजा गुटवा के बालुघाटों के संबंध में जॉच प्रतिवेदन ।
प्रसंगः– भवदीय पत्रांक 39/एम0 दिनांक– 06.01.2023 ।

महाशय,

उपर्युक्त विषयक प्रसंगाधीन पत्र के संबंध में राजस्व उप नि0 एवं अंचल निरीक्षक घाघरा से जॉच प्रतिवेदन प्राप्त है उन्होने प्रतिवेदित किया है कि राजस्व अभिलेखों तथा स्थल जॉच के आधार पर मौजा – गुटवा में बालुघाट, R.S खतियान के अनुसार खाता सं0–60 प्लॉट नं0– 716 P (हाल सर्वे के अनुसार प्लॉट सं0– 897 P) रकबा–1.60 एकड़ गैर मजरूआ मालिक किस्म नदी दर्ज है, जिसका जॉच प्रतिवेदन निम्न है:–

क्रम	निर्धारित बिन्दु	प्रतिवेदन (हॉ/ नहीं)
1	क्या आवेदित भूमि की कोटि सर्वे खतियान तथा रजिस्टर–II में जंगल झाडी के रूप में दर्ज है ?	नहीं
2	क्या 500 मीटर की दुरी के अन्दर कोई मानव बसावट है ?	नहीं
3	क्या 500 मीटर की दुरी के अन्दर कोई जलीय निकाय स्थित है ?	नहीं
4	क्या 500 मीटर की दुरी अन्दर कोई शौक्षणिक संस्थान स्थित है ?	नहीं
5	क्या 500 मीटर की दुरी अन्दर कोई नदी स्थित है ?	नहीं
6	क्या 500 मीटर की दुरी अन्दर कोई चिकित्सालय स्थित है ?	नहीं
7	क्या 10 कि0मी0 की परिधि में अंतर्राराज्यीय सीमा है?	नहीं
8	क्या 500 मिटर की दुरी के अन्दर कोई राष्ट्रीय धरोहर /पुरातत्वीय महत्व के स्थल स्थित है ?	नहीं

राजस्व उप नि0 एवं अंचल नि0 का जॉच प्रतिवेदन इस पत्र के साथ संलग्न कर अग्रेतर कारवाई हेतु भेजी जा रही है।

अनुलग्नक :– यथोक्त।

विश्वासभाजन



अंचल अधिकारी
घाघरा।

NIT

SK02

अंचल अधिकारी,
घाघरा।

विषय :– **DSR (Sand) में चिन्हित बालूघाटों के संबंध में जाँच प्रतिवेदन।**

प्रसंग :– **जिला खनन कार्यालय, गुमला के पत्रांक– 39/एम0 दिनांक– 06.01.2023**

महाशय,

उपर्युक्त विषयक प्रसांगिक पत्र के संबंध में राजस्व अभिलेखों तथा स्थल जाँच के आधार पर मौजा– गुटआ में बालूघाट, R.S खतियान के अनुसार खाता सं0– 60, प्लॉट नं0– 735P, 377P एवं 716P हाल सर्वे के अनुसार प्लॉट सं0– 211(P), 519(P) एवं 897(P), रकबा– 28.55 एकड़ गैर मजरूआ मालिक किस्म नदी दर्ज है, जिसका जाँच प्रतिवेदन निम्न है :–

क्र0सं0	निर्धारित बिन्दु	प्रतिवेदन (हाँ / नहीं)
1.	क्या आवेदित भूमि की कोटि सर्वे खतियान तथा रजिस्टर– II में जंगल झाड़ी के रूप में दर्ज है?	नहीं
2.	क्या 500 मीटर की दूरी के अन्दर कोई मानव बसावट है?	नहीं
3.	क्या 500 मीटर की दूरी के अन्दर कोई जलीय निकाय स्थित है?	नहीं
4.	क्या 500 मीटर की दूरी के अन्दर कोई शैक्षणिक संस्थान स्थित है?	नहीं
5.	क्या 500 मीटर की दूरी के अन्दर कोई नदी स्थित है?	नहीं
6.	क्या 500 मीटर की दूरी के अन्दर कोई चिकित्सालय स्थित है?	नहीं
7.	क्या 10 कि0मी0 की परिधि में अंतर्राराज्यीय सीमा है?	नहीं
8.	क्या 500 मीटर की दूरी के अन्दर कोई राष्ट्रीय धरोहर/पुरातत्वीय महत्व के स्थल स्थित है?	नहीं

अतः जाँच प्रतिवेदन सादर सूचनार्थ समर्पित।

25.01.23
RSI + CI

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

पत्रांकः– 77 / घाघरा

SH-3

कार्यालय अंचल अधिकारी, घाघरा (गुमला)

coghaghra2016@gmail.com

प्रेषक,

अंचल अधिकारी
घाघरा।

सेवा में

जिला खनन पदाधिकारी
गुमला।

दिनांक : 25 / जनवरी / 2023

विषयः– DSR (SAND) में चिन्हित मौजा कोतरी के बालुघाटों के संबंध में जॉच प्रतिवेदन ।
प्रसंगः– भवदीय पत्रांक 39 / एम0 दिनांक– 06.01.2023 ।

महाशय,

उपर्युक्त विषयक प्रसंगाधीन पत्र के संबंध में राजस्व उप नि0 एवं अंचल निरीक्षक घाघरा से जॉच प्रतिवेदन प्राप्त है उन्होने प्रतिवेदित किया है कि राजस्व अभिलेखों तथा स्थल जॉच के आधार पर मौजा – कोतरी में बालुघाट, R.S खतियान के अनुसार खाता सं0–34 प्लॉट नं0– [redacted] (हाल सर्वे के अनुसार प्लॉट सं0– 52P) रकबा–2.20 एकड़ गैर मजरूआ मालिक किस्म नदी दर्ज है, जिसका जॉच प्रतिवेदन निम्न है:–

क्रम	निर्धारित बिन्दु	प्रतिवेदन (हॉ / नहीं)
1	क्या आवेदित भूमि की कोटि सर्वे खतियान तथा रजिस्टर–II में जंगल झाडी के रूप में दर्ज है ?	नहीं
2	क्या 500 मीटर की दुरी के अन्दर कोई मानव बसावट है ?	नहीं
3	क्या 500 मीटर की दुरी के अन्दर कोई जलीय निकाय स्थित है ?	नहीं
4	क्या 500 मीटर की दुरी अन्दर कोई शौक्षणिक संस्थान स्थित है ?	नहीं
5	क्या 500 मीटर की दुरी अन्दर कोई नदी स्थित है ?	नहीं
6	क्या 500 मीटर की दुरी अन्दर कोई चिकित्सालय स्थित है ?	नहीं
7	क्या 10 कि0मी0 की परिधि में अंतर्राराज्यीय सीमा है ?	नहीं
8	क्या 500 मिटर की दुरी के अन्दर कोई राष्ट्रीय धरोहर /पुरातत्वीय महत्व के स्थल स्थित है ?	नहीं

राजस्व उप नि0 एवं अंचल नि0 का जॉच प्रतिवेदन इस पत्र के साथ संलग्न कर अग्रेतर कारवाई हेतु भेजी जा रही है।

अनुलग्नक :– यथोक्त।

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★
Approved

विश्वासभाजन

अंचल अधिकारी
घाघरा।

SK 3

अंचल अधिकारी,
घाघरा।

विषय :– **DSR (Sand) में चिन्हित बालूघाटों के संबंध में जाँच प्रतिवेदन।**

प्रसंग :– **जिला खनन कार्यालय, गुमला के पत्रांक– 39/एम0 दिनांक– 06.01.2023**

महाशय,

उपर्युक्त विषयक प्रसांगिक पत्र के संबंध में राजस्व अभिलेखों तथा स्थल जाँच के आधार पर मौजा– कोतरी में बालूघाट, R.S खतियान के अनुसार खाता सं0– 34, प्लॉट नं0– हाल सर्वे के अनुसार प्लॉट सं0– 52(P), रकबा– 2.20 ए0, एकड़ गैर मजरूआ मालिक किस्म नदी दर्ज है, जिसका जाँच प्रतिवेदन निम्न है :–

क्र0सं0	निर्धारित बिन्दु	प्रतिवेदन (हाँ / नहीं)
1.	क्या आवेदित भूमि की कोटि सर्वे खतियान तथा रजिस्टर– II में जंगल झाड़ी के रूप में दर्ज है?	नहीं
2.	क्या 500 मीटर की दूरी के अन्दर कोई मानव बसावट है?	नहीं
3.	क्या 500 मीटर की दूरी के अन्दर कोई जलीय निकाय स्थित है?	नहीं
4.	क्या 500 मीटर की दूरी के अन्दर कोई शैक्षणिक संस्थान स्थित है?	नहीं
5.	क्या 500 मीटर की दूरी के अन्दर कोई नदी स्थित है?	नहीं
6.	क्या 500 मीटर की दूरी के अन्दर कोई चिकित्सालय स्थित है?	नहीं
7.	क्या 10 कि0मी0 की परिधि में अंतर्राज्यीय सीमा है?	नहीं
8.	क्या 500 मीटर की दूरी के अन्दर कोई राष्ट्रीय धरोहर/पुरातत्वीय महत्व के स्थल स्थित है?	नहीं

अतः जाँच प्रतिवेदन सादर सूचनार्थ समर्पित।

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

SR3

पत्रांकः– ...74..../ घाघरा

कार्यालय अंचल अधिकारी, घाघरा (गुमला)

coghaghra2016@gmail.com

प्रेषक,

अंचल अधिकारी
घाघरा।

सेवा में

जिला खनन पदाधिकारी
गुमला।

दिनांक : 25 / जनवरी / 2023

विषयः– DSR (SAND) में चिन्हित मौजा धोबनी के बालुघाटों के संबंध में जॉच प्रतिवेदन ।
प्रसंगः– भवदीय पत्रांक 39 / एम0 दिनांक– 06.01.2023 ।

महाशय,

उपर्युक्त विषयक प्रसंगाधीन पत्र के संबंध में राजस्व उप नि0 एवं अंचल निरीक्षक घाघरा से जॉच प्रतिवेदन प्राप्त है उन्होने प्रतिवेदित किया है कि राजस्व अभिलेखों तथा स्थल जॉच के आधार पर मौजा – धोबनी में बालुघाट, R.S खतियान के अनुसार खाता सं0–71 प्लॉट नं0–01 (हाल सर्वे के अनुसार प्लॉट सं0–01) रकबा–08.56 एकड़ गैर मजरूआ मालिक किस्म नदी दर्ज है, जिसका जॉच प्रतिवेदन निम्न हैः–

क्रम	निर्धारित बिन्दु	प्रतिवेदन (हॉ / नहीं)
1	क्या आवेदित भूमि की कोटि सर्वे खतियान तथा रजिस्टर–II में जंगल झाडी के रूप में दर्ज है ?	नहीं
2	क्या 500 मीटर की दुरी के अन्दर कोई मानव बसावट है ?	नहीं
3	क्या 500 मीटर की दुरी के अन्दर कोई जलीय निकाय स्थित है ?	नहीं
4	क्या 500 मीटर की दुरी अन्दर कोई शौक्षणिक संस्थान स्थित है ?	नहीं
5	क्या 500 मीटर की दुरी अन्दर कोई नदी स्थित है ?	नहीं
6	क्या 500 मीटर की दुरी अन्दर कोई चिकित्सालय स्थित है ?	नहीं
7	क्या 10 कि0मी0 की परिधि में अंतर्राराज्यीय सीमा है ?	नहीं
8	क्या 500 मिटर की दुरी के अन्दर कोई राष्ट्रीय धरोहर / पुरातत्वीय महत्व के स्थल स्थित है ?	नहीं

राजस्व उप नि0 एवं अंचल नि0 का जॉच प्रतिवेदन इस पत्र के साथ संलग्न कर अग्रेतर कारवाई हेतु भेजी जा रही है।

अनुलग्नक :– यथोक्त।

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★
Approved

विश्वासभाजन
25/01/23
अंचल अधिकारी
घाघरा।

SIC04.

अंचल अधिकारी,
घाघरा।

विषय :– **DSR (Sand) में चिन्हित बालूघाटों के संबंध में जाँच प्रतिवेदन।**

प्रसंग :– जिला खनन कार्यालय, गुमला के पत्रांक– **39/एम0** दिनांक– **06.01.2023**

महाशय,

उपर्युक्त विषयक प्रसांगिक पत्र के संबंध में राजस्व अभिलेखों तथा स्थल जाँच के आधार पर मौजा– धोबनी में बालूघाट, R.S खतियान के अनुसार खाता सं0– 71, प्लॉट नं0– हाल सर्वे के अनुसार प्लॉट सं0– 01, रकबा– 8.56 एकड़ गैर मजरूआ मालिक किस्म नदी दर्ज है, जिसका जाँच प्रतिवेदन निम्न है :–

क्र0सं0	निर्धारित बिन्दु	प्रतिवेदन (हाँ / नहीं)
1.	क्या आवेदित भूमि की कोटि सर्वे खतियान तथा रजिस्टर– II में जंगल झाड़ी के रूप में दर्ज है?	नहीं
2.	क्या 500 मीटर की दूरी के अन्दर कोई मानव बसावट है?	नहीं
3.	क्या 500 मीटर की दूरी के अन्दर कोई जलीय निकाय स्थित है?	नहीं
4.	क्या 500 मीटर की दूरी के अन्दर कोई शैक्षणिक संस्थान स्थित है?	नहीं
5.	क्या 500 मीटर की दूरी के अन्दर कोई नदी स्थित है?	नहीं
6.	क्या 500 मीटर की दूरी के अन्दर कोई चिकित्सालय स्थित है?	नहीं
7.	क्या 10 कि0मी0 की परिधि में अंतर्राराज्यीय सीमा है?	नहीं
8.	क्या 500 मीटर की दूरी के अन्दर कोई राष्ट्रीय धरोहर/पुरातत्वीय महत्व के स्थल स्थित है?	नहीं

अतः जाँच प्रतिवेदन सादर सूचनार्थ समर्पित।

12/1/23

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

पत्रांकः– ...75..../ घाघरा

कार्यालय अंचल अधिकारी, घाघरा (गुमला)

coghaghra2016@gmail.com

प्रेषक,

अंचल अधिकारी
घाघरा।

सेवा में

जिला खनन पदाधिकारी
गुमला।

दिनांक : 25 /जनवरी/2023

विषयः– DSR (SAND) में चिन्हित मौजा धोबनी के बालुघाटों के संबंध में जॉच प्रतिवेदन ।
प्रसंगः– भवदीय पत्रांक 39/एम0 दिनाक– 06.01.2023 ।

महाशय,

उपर्युक्त विषयक प्रसंगाधीन पत्र के संबंध में राजस्व उप नि0 एवं अंचल निरीक्षक घाघरा से जॉच प्रतिवेदन प्राप्त है उन्होने प्रतिवेदित किया है कि राजस्व अभिलेखों तथा स्थल जॉच के आधार पर मौजा – धोबनी में बालुघाट, R.S खतियान के अनुसार खाता सं0–71 प्लॉट नं0–01 (प्लॉट सं0–01 हाल सर्वे के अनुसार) रकबा–08.06 एकड़ गैर मजरूआ मालिक किस्म नदी दर्ज है, जिसका जॉच प्रतिवेदन निम्न हैः–

क्रम	निर्धारित बिन्दु	प्रतिवेदन (हॉ/ नहीं)
1	क्या आवेदित भूमि की कोटि सर्वे खतियान तथा रजिस्टर–II में जंगल झाड़ी के रूप में दर्ज है ?	नहीं
2	क्या 500 मीटर की दुरी के अन्दर कोई मानव बसावट है ?	नहीं
3	क्या 500 मीटर की दुरी के अन्दर कोई जलीय निकाय स्थित है ?	नहीं
4	क्या 500 मीटर की दुरी अन्दर कोई शौक्षणिक संस्थान स्थित है ?	नही
5	क्या 500 मीटर की दुरी अन्दर कोई नदी स्थित है ?	नहीं
6	क्या 500 मीटर की दुरी अन्दर कोई चिकित्सालय स्थित है ?	नहीं
7	क्या 10 कि0मी0 की परिधि में अंतर्राज्यीय सीमा है ?	नही
8	क्या 500 मिटर की दुरी के अन्दर कोई राष्ट्रीय धरोहर /पुरातत्वीय महत्व के स्थल स्थित है ?	नहीं

राजस्व उप नि0 एवं अंचल नि0 का जॉच प्रतिवेदन इस पत्र के साथ संलग्न कर अग्रेतर कारवाई हेतु भेजी जा रही है।

अनुलग्नक :– यथोक्त।

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

विश्वासभाजन

अंचल अधिकारी
घाघरा।

SP-4

पत्रांकः– ...70..... / घाघरा

कार्यालय अंचल अधिकारी, घाघरा (गुमला)

coghaghra2016@gmail.com

प्रेषक,

अंचल अधिकारी
घाघरा।

सेवा में

जिला खनन पदाधिकारी
गुमला।

दिनांक : 25 / जनवरी / 2023

विषयः– DSR (SAND) में चिन्हित मौजा बदरी के बालुघाटों के संबंध में जॉच प्रतिवेदन ।
प्रसंगः– भवदीय पत्रांक 39 / एम0 दिनांक– 06.01.2023 ।

महाशय,

उपर्युक्त विषयक प्रसंगाधीन पत्र के संबंध में राजस्व उप नि0 एवं अंचल निरीक्षक घाघरा से जॉच प्रतिवेदन प्राप्त है उन्होने प्रतिवेदित किया है कि राजस्व अभिलेखों तथा स्थल जॉच के आधार पर मौजा – बदरी में बालुघाट, R.S खतियान के अनुसार खाता स0–101 प्लॉट नं0–01 (हाल सर्वे के अनुसार प्लॉट स0–1648) रकबा– 5.35 एकड़ गैर मजरूआ मालिक किस्म नदी दर्ज है, जिसका जॉच प्रतिवेदन निम्न हैः–

क्रम	निर्धारित बिन्दु	प्रतिवेदन (हॉ / नहीं)
1	क्या आवेदित भूमि की कोटि सर्वे खतियान तथा रजिस्टर– II में जंगल झाडी के रूप में दर्ज है ?	नहीं
2	क्या 500 मीटर की दुरी के अन्दर कोई मानव बसावट है ?	नहीं
3	क्या 500 मीटर की दुरी के अन्दर कोई जलीय निकाय स्थित है ?	नहीं
4	क्या 500 मीटर की दुरी अन्दर कोई शौक्षणिक संस्थान स्थित है ?	नहीं
5	क्या 500 मीटर की दुरी अन्दर कोई नदी स्थित है ?	नहीं
6	क्या 500 मीटर की दुरी अन्दर कोई चिकित्सालय स्थित है ?	नहीं
7	क्या 10 कि0मी0 की परिधि में अतर्राज्यीय सीमा है ?	नहीं
8	क्या 500 मिटर की दुरी के अन्दर कोई राष्ट्रीय धरोहर / पुरातत्वीय महत्व के स्थल स्थित है ?	नहीं

राजस्व उप नि0 एवं अंचल नि0 का जॉच प्रतिवेदन इस पत्र के साथ संलग्न कर अग्रेतर कारवाई हेतु भेजी जा रही है।

अनुलग्नक :– यथोक्त।

State Level Environment Impact Assessment Authority * Jharkhand, Ranchi *
Approved

विश्वासभाजन

अंचल अधिकारी

SK-02

पत्रांकः— ...79...../ घाघरा

कार्यालय अंचल अधिकारी, घाघरा (गुमला)

coghaghra2016@gmail.com

प्रेषक,

अंचल अधिकारी
घाघरा।

सेवा में

जिला खनन पदाधिकारी
गुमला।

दिनांक : 25 / जनवरी / 2023

विषयः— DSR (SAND) में चिन्हित मौजा गुटवा के बालुघाटों के संबंध में जॉच प्रतिवेदन ।
प्रसंगः— भवदीय पत्रांक 39 / एम0 दिनांक— 06.01.2023 ।

महाशय,

उपर्युक्त विषयक प्रसंगाधीन पत्र के संबंध में राजस्व उप नि0 एवं अंचल निरीक्षक घाघरा से जॉच प्रतिवेदन प्राप्त है उन्होने प्रतिवेदित किया है कि राजस्व अभिलेखों तथा स्थल जॉच के आधार पर मौजा – गुटवा में बालुघाट, R.S खतियान के अनुसार खाता सं0–60 प्लॉट नं0– 735P, 377 P ,716 P (हाल सर्वे के अनुसार प्लॉट सं0– 211P,519P,897P) रकबा–28.55 एकड़ गैर मजरूआ मालिक किस्म नदी दर्ज है, जिसका जॉच प्रतिवेदन निम्न है:—

क्रम	निर्धारित बिन्दु	प्रतिवेदन (हॉ / नहीं)
1	क्या आवेदित भूमि की कोटि सर्वे खतियान तथा रजिस्टर–II में जंगल झाडी के रूप में दर्ज है ?	नहीं
2	क्या 500 मीटर की दुरी के अन्दर कोई मानव बसावट है ?	नहीं
3	क्या 500 मीटर की दुरी के अन्दर कोई जलीय निकाय स्थित है ?	नहीं
4	क्या 500 मीटर की दुरी अन्दर कोई शौक्षणिक संस्थान स्थित है ?	नहीं
5	क्या 500 मीटर की दुरी अन्दर कोई नदी स्थित है ?	हॉ
6	क्या 500 मीटर की दुरी अन्दर कोई चिकित्सालय स्थित है ?	नहीं
7	क्या 10 कि0मी0 की परिधि में अंतर्राराज्यीय सीमा है ?	नहीं
8	क्या 500 मिटर की दुरी के अन्दर कोई राष्ट्रीय धरोहर /पुरातत्वीय महत्व के स्थल स्थित है ?	नहीं

राजस्व उप नि0 एवं अंचल नि0 का जॉच प्रतिवेदन इस पत्र के साथ संलग्न कर अग्रेतर कारवाई हेतु भेजी जा रही है।

अनुलग्नक :— यथोक्त।

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★ Approved

विश्वासभाजन

25/01/23

अंचल अधिकारी
घाघरा।

NIT

SK-03

सेवा में,

अंचल अधिकारी,
घाघरा।

विषय :– **DSR (Sand) में चिन्हित बालूघाटों के संबंध में जाँच प्रतिवेदन।**

प्रसंग :– जिला खनन कार्यालय, गुमला के पत्रांक– **39/एम0** दिनांक– **06.01.2023**

महाशय,

उपर्युक्त विषयक प्रसांगिक पत्र के संबंध में राजस्व अभिलेखों तथा स्थल जाँच के आधार पर मौजा– गुटवा (2) में बालूघाट, R.S खतियान के अनुसार खाता सं0– 60, प्लॉट नं0– 716(P) , 897(P), रकबा– 1.60 एकड़ गैर मजरूआ मालिक किस्म नदी दर्ज है, जिसका जाँच प्रतिवेदन निम्न है :–

क्र0सं0	निर्धारित बिन्दु	प्रतिवेदन (हाँ / नहीं)
1.	क्या आवेदित भूमि की कोटि सर्वे खतियान तथा रजिस्टर– II में जंगल झाड़ी के रूप में दर्ज है?	नहीं
2.	क्या 500 मीटर की दूरी के अन्दर कोई मानव बसावट है?	नहीं
3.	क्या 500 मीटर की दूरी के अन्दर कोई जलीय निकाय स्थित है?	नहीं
4.	क्या 500 मीटर की दूरी के अन्दर कोई शैक्षणिक संस्थान स्थित है?	नहीं
5.	क्या 500 मीटर की दूरी के अन्दर कोई नदी स्थित है?	नहीं
6.	क्या 500 मीटर की दूरी के अन्दर कोई चिकित्सालय स्थित है?	नहीं
7.	क्या 10 कि0मी0 की परिधि में अंतर्राराज्यीय सीमा है?	नहीं
8.	क्या 500 मीटर की दूरी के अन्दर कोई राष्ट्रीय धरोहर/पुरातत्वीय महत्व के स्थल स्थित है?	नहीं

अतः जाँच प्रतिवेदन सादर सूचनार्थ समर्पित।

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★
Approved

19/1/23

घाघरा

पत्रांकः– 76 /घाघरा

कार्यालय अंचल अधिकारी, घाघरा (गुमला)

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प्रेषक,

अंचल अधिकारी
घाघरा।

सेवा में

जिला खनन पदाधिकारी
गुमला।

दिनांक : 25 /जनवरी/2023

विषयः– DSR (SAND) में चिन्हित मौजा सिकवार एवं मौजा डुको के बालुघाटों के संबंध में जॉच प्रतिवेदन ।
प्रसंगः– भवदीय पत्रांक 39/एम0 दिनांक– 06.01.2023 ।

महाशय,

उपर्युक्त विषयक प्रसंगाधीन पत्र के संबंध में राजस्व उप नि0 एवं अंचल निरीक्षक घाघरा से जॉच प्रतिवेदन प्राप्त है उन्होने प्रतिवेदित किया है कि राजस्व अभिलेखों तथा स्थल जॉच के आधार पर मौजा – सिकवार में बालुघाट, RS खतियान के अनुसार खाता सं0–51 प्लॉट नं0–[redacted] (हाल सर्वे के अनुसार प्लॉट सं0– 463) रकबा–19.17 एकड़ मौजा डुको खाता सं0–98 प्लॉट नं0– (हाल सर्वे के अनुसार प्लॉट सं0– 902) रकबा–5.18 एकड गैर मजरूआ मालिक किस्म नदी दर्ज है, जिसका जॉच प्रतिवेदन निम्न हैः–

क्रम	निर्धारित बिन्दु	प्रतिवेदन (हॉ/ नहीं)
1	क्या आवेदित भूमि की कोटि सर्वे खतियान तथा रजिस्टर–II में जंगल झाडी के रूप में दर्ज है ?	नहीं
2	क्या 500 मीटर की दुरी के अन्दर कोई मानव बसावट है ?	नहीं
3	क्या 500 मीटर की दुरी के अन्दर कोई जलीय निकाय स्थित है ?	नहीं
4	क्या 500 मीटर की दुरी अन्दर कोई शौक्षणिक संस्थान स्थित है ?	नहीं
5	क्या 500 मीटर की दुरी अन्दर कोई नदी स्थित है ?	नहीं
6	क्या 500 मीटर की दुरी अन्दर कोई चिकित्सालय स्थित है ?	नहीं
7	क्या 10 कि0मी0 की परिधि में अंतर्राराज्यीय सीमा है ?	नहीं
8	क्या 500 मिटर की दुरी के अन्दर कोई राष्ट्रीय धरोहर /पुरातत्वीय महत्व के स्थल स्थित है ?	नहीं

राजस्व उप नि0 एवं अंचल नि0 का जॉच प्रतिवेदन इस पत्र के साथ संलग्न कर अग्रेतर कारवाई हेतु भेजी जा रही है।

अनुलग्नक :– यथोक्त।

विश्वासभाजन

अंचल अधिकारी
घाघरा

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★
Approved

NIT

5107

अंचल अधिकारी,
घाघरा।

विषय :– **DSR (Sand)** में चिन्हित बालूघाटों के संबंध में जाँच प्रतिवेदन।

प्रसंग :– जिला खनन कार्यालय, गुमला के पत्रांक– **39/एम0** दिनांक– **06.01.2023**

महाशय,

उपर्युक्त विषयक प्रसांगिक पत्र के संबंध में राजस्व अभिलेखों तथा स्थल जाँच के आधार पर मौजा– सिकवार में बालूघाट, R.S खतियान के अनुसार खाता सं0– 51, प्लॉट नं0– हाल सर्वे के अनुसार प्लॉट सं0– 463, रकबा– 19.17 एकड़ गैर मजरूआ मालिक किस्म नदी दर्ज है, जिसका जाँच प्रतिवेदन निम्न है :–

क्र0सं0	निर्धारित बिन्दु	प्रतिवेदन (हाँ / नहीं)
1.	क्या आवेदित भूमि की कोटि सर्वे खतियान तथा रजिस्टर– II में जंगल झाड़ी के रूप में दर्ज है?	नहीं
2.	क्या 500 मीटर की दूरी के अन्दर कोई मानव बसावट है?	नहीं
3.	क्या 500 मीटर की दूरी के अन्दर कोई जलीय निकाय स्थित है?	नहीं
4.	क्या 500 मीटर की दूरी के अन्दर कोई शैक्षणिक संस्थान स्थित है?	नहीं
5.	क्या 500 मीटर की दूरी के अन्दर कोई नदी स्थित है?	नहीं
6.	क्या 500 मीटर की दूरी के अन्दर कोई चिकित्सालय स्थित है?	नहीं
7.	क्या 10 कि0मी0 की परिधि में अंतर्राराज्यीय सीमा है?	नहीं
8.	क्या 500 मीटर की दूरी के अन्दर कोई राष्ट्रीय धरोहर/पुरातत्वीय महत्व के स्थल स्थित है?	नहीं

अतः जाँच प्रतिवेदन सादर सूचनार्थ समर्पित।

2/1/23

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

वा में,

अंचल अधिकारी,
घाघरा।

विषय :– **DSR (Sand) में चिन्हित बालूघाटों के संबंध में जाँच प्रतिवेदन।**

प्रसंग :– **जिला खनन कार्यालय, गुमला के पत्रांक– 39/एम0 दिनांक– 06.01.2023**

महाशय,

उपर्युक्त विषयक प्रसांगिक पत्र के संबंध में राजस्व अभिलेखों तथा स्थल जाँच के आधार पर मौजा– डुको में बालूघाट, R.S खतियान के अनुसार खाता सं0– 98, प्लॉट नं0– 902(हाल सर्वे के अनुसार) , रकबा– 5.18 एकड़ गैर मजरूआ मालिक किस्म नदी दर्ज है, जिसका जाँच प्रतिवेदन निम्न है :–

क्र0सं0	निर्धारित बिन्दु	प्रतिवेदन (हाँ / नहीं)
1.	क्या आवेदित भूमि की कोटि सर्वे खतियान तथा रजिस्टर– II में जंगल झाड़ी के रूप में दर्ज है?	नहीं
2.	क्या 500 मीटर की दूरी के अन्दर कोई मानव बसावट है?	नहीं
3.	क्या 500 मीटर की दूरी के अन्दर कोई जलीय निकाय स्थित है?	नहीं
4.	क्या 500 मीटर की दूरी के अन्दर कोई शैक्षणिक संस्थान स्थित है?	नहीं
5.	क्या 500 मीटर की दूरी के अन्दर कोई नदी स्थित है?	नहीं
6.	क्या 500 मीटर की दूरी के अन्दर कोई चिकित्सालय स्थित है?	नहीं
7.	क्या 10 कि0मी0 की परिधि में अंतर्राराज्यीय सीमा है?	नहीं
8.	क्या 500 मीटर की दूरी के अन्दर कोई राष्ट्रीय धरोहर/पुरातत्वीय महत्व के स्थल स्थित है?	नहीं

अतः जाँच प्रतिवेदन सादर सूचनार्थ समर्पित।

7/1/23

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

SK-10

पत्रांकः– 73 /घाघरा

कार्यालय अंचल अधिकारी, घाघरा (गुमला)

coghaghra2016@gmail.com

प्रेषक,

अंचल अधिकारी
घाघरा।

सेवा में

जिला खनन पदाधिकारी
गुमला।

दिनांक : 25 /जनवरी/2023

विषयः– DSR (SAND) में चिन्हित मौजा खम्भिया के बालुघाटों के संबंध में जॉच प्रतिवेदन ।
प्रसंगः– भवदीय पत्रांक 39/एम0 दिनांक– 06.01.2023 ।

महाशय,

उपर्युक्त विषयक प्रसंगाधीन पत्र के संबंध में राजस्व उप नि0 एवं अंचल निरीक्षक घाघरा से जॉच प्रतिवेदन प्राप्त है उन्होने प्रतिवेदित किया है कि राजस्व अभिलेखों तथा स्थल जॉच के आधार पर मौजा – खम्भिया में बालुघाट, R.S खतियान के अनुसार खाता सं0–110 प्लॉट नं0–हाल सर्वे के अनुसार –1144 रकबा– 25.78 एकड गैर मजरूआ मालिक किस्म नदी दर्ज है, जिसका जॉच प्रतिवेदन निम्न हैः–

क्रम	निर्धारित बिन्दु	प्रतिवेदन (हॉ/ नहीं)
1	क्या आवेदित भूमि की कोटि सर्वे खतियान तथा रजिस्टर–II में जंगल झाडी के रूप में दर्ज है ?	नहीं
2	क्या 500 मीटर की दुरी के अन्दर कोई मानव बसावट है ?	हॉ
3	क्या 500 मीटर की दुरी के अन्दर कोई जलीय निकाय स्थित है ?	नहीं
4	क्या 500 मीटर की दुरी अन्दर कोई शौक्षणिक संस्थान स्थित है ?	नही
5	क्या 500 मीटर की दुरी अन्दर कोई नदी स्थित है ?	नही
6	क्या 500 मीटर की दुरी अन्दर कोई विकित्सालय स्थित है ?	नहीं
7	क्या 10 कि0मी0 की परिधि में अंतर्राराज्यीय सीमा है ?	नहीं
8	क्या 500 मिटर की दुरी के अन्दर कोई राष्ट्रीय धरोहर /पुरातत्वीय महत्व के स्थल स्थित है ?	नहीं

राजस्व उप नि0 एवं अंचल नि0 का जॉच प्रतिवेदन इस पत्र के साथ संलग्न कर अग्रेतर कारवाई हेतु भेजी जा रही है।

अनुलग्नक :– यथोक्त।

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★ Approved

विश्वासभाजन

अंचल अधिकारी
घाघरा।

SK-06

पत्रांकः— 75 /घाघरा

कार्यालय अंचल अधिकारी, घाघरा (गुमला)

coghaghra2016@gmail.com

प्रेषक,

अंचल अधिकारी
घाघरा।

सेवा में

जिला खनन पदाधिकारी
गुमला।

दिनांक : 25 /जनवरी/2023

विषयः— DSR (SAND) में चिन्हित मौजा चेगरी के बालुघाटों के संबंध में जॉच प्रतिवेदन ।
प्रसंगः— भवदीय पत्रांक 39/एम0 दिनांक— 06.01.2023 ।

महाशय,

उपर्युक्त विषयक प्रसंगाधीन पत्र के संबंध में राजस्व उप नि0 एवं अंचल निरीक्षक घाघरा से जॉच प्रतिवेदन प्राप्त है उन्होने प्रतिवेदित कियां है कि राजस्व अभिलेखों तथा स्थल जॉच के आधार पर मौजा — चेगरी में बालुघाट, R.S खतियान के अनुसार खाता सं0—124 प्लॉट नं0—570 (प्लॉट सं0—567 हाल सर्वे के अनुसार) रकबा—21.73 एकड़ गैर मजरूआ मालिक किस्म नदी दर्ज है, जिसका जॉच प्रतिवेदन निम्न हैः—

क्रम	निर्धारित बिन्दु	प्रतिवेदन (हॉ/ नहीं)
1	क्या आवेदित भूमि की कोटि सर्वे खतियान तथा रजिस्टर—II में जंगल झाड़ी के रूप में दर्ज है ?	नहीं
2	क्या 500 मीटर की दुरी के अन्दर कोई मानव बसावट है ?	नही
3	क्या 500 मीटर की दुरी के अन्दर कोई जलीय निकाय स्थित है ?	नहीं
4	क्या 500 मीटर की दुरी अन्दर कोई शौक्षणिक संस्थान स्थित है ?	नहीं
5	क्या 500 मीटर की दुरी अन्दर कोई नदी स्थित है ?	नहीं
6	क्या 500 मीटर की दुरी अन्दर कोई चिकित्सालय स्थित है ?	नहीं
7	क्या 10 कि0मी0 की परिधि में अंतर्राराज्यीय सीमा है ?	नहीं
8	क्या 500 मिटर की दुरी के अन्दर कोई राष्ट्रीय धरोहर /पुरातत्वीय महत्व के स्थल स्थित है ?	नहीं

राजस्व उप नि0 एवं अंचल नि0 का जॉच प्रतिवेदन इस पत्र के साथ संलग्न कर अग्रेतर कारवाई हेतु भेजी जा रही है।

अनुलग्नक :— यथोक्त।

State Level Environment Impact Assessment Authority * Jharkhand, Ranchi * Approved

विश्वासभाजन

अंचल अधिकारी
घाघरा।

SK08

पत्रांकः– ..68...../ घाघरा

कार्यालय अंचल अधिकारी, घाघरा (गुमला)

coghaghra2016@gmail.com

प्रेषक,

अंचल अधिकारी
घाघरा।

सेवा में

जिला खनन पदाधिकारी
गुमला।

दिनांक :25/ जनवरी / 2023

विषयः– DSR (SAND) में चिन्हित मौजा डूको के बालुघाटों के संबंध में जॉच प्रतिवेदन ।
प्रसंगः– भवदीय पत्रांक 39 / एम0 दिनांक– 06.01.2023 ।

महाशय,

उपर्युक्त विषयक प्रसंगाधीन पत्र के संबंध में राजस्व उप नि0 एवं अंचल निरीक्षक घाघरा से जॉच प्रतिवेदन प्राप्त है उन्होने प्रतिवेदित किया है कि राजस्व अभिलेखों तथा स्थल जॉच के आधार पर मौजा – डूकों (2) में बालुघाट, R.S खतियान के अनुसार खाता सं0–98 प्लॉट नं0–1668, 1669 (हाल सर्वे के अनुसार) रकबा– 19.74 एकड़ गैर मजरूआ मालिक किस्म नदी दर्ज है, जिसका जॉच प्रतिवेदन निम्न हैः–

क्रम	निर्धारित बिन्दु	प्रतिवेदन (हॉ / नहीं)
1	क्या आवेदित भूमि की कोटि सर्वे खतियान तथा रजिस्टर–II में जंगल झाडी के रूप में दर्ज है ?	नहीं
2	क्या 500 मीटर की दुरी के अन्दर कोई मानव बसावट है ?	नहीं
3	क्या 500 मीटर की दुरी के अन्दर कोई जलीय निकाय स्थित है ?	नहीं
4	क्या 500 मीटर की दुरी अन्दर कोई शैक्षणिक संस्थान स्थित है ?	नहीं
5	क्या 500 मीटर की दुरी अन्दर कोई नदी स्थित है ?	नहीं
6	क्या 500 मीटर की दुरी अन्दर कोई चिकित्सालय स्थित है ?	नहीं
7	क्या 10 कि0मी0 की परिधि में अंतर्राराज्यीय सीमा है ?	नहीं
8	क्या 500 मिटर की दुरी के अन्दर कोई राष्ट्रीय धरोहर /पुरातत्वीय महत्व के स्थल स्थित है ?	नहीं

राजस्व उप नि0 एवं अंचल नि0 का जॉच प्रतिवेदन इस पत्र के साथ संलग्न कर अग्रेतर कारवाई हेतु भेजी जा रही है।

अनुलग्नक :– यथोक्त।

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

विश्वासभाजन

25/1/23

अंचल अधिकारी

SK-11

पत्रांकः— ...72..... / घाघरा

कार्यालय अंचल अधिकारी, घाघरा (गुमला)

coghaghra2016@gmail.com

प्रेषक,

अंचल अधिकारी
घाघरा।

सेवा में

जिला खनन पदाधिकारी
गुमला।

दिनांक : 25 / जनवरी / 2023

विषयः— DSR (SAND) में चिन्हित मौजा खम्भिया के बालुघाटों के संबंध में जॉच प्रतिवेदन ।
प्रसंगः— भवदीय पत्रांक 39 / एम0 दिनांक— 06.01.2023 ।

महाशय,

उपर्युक्त विषयक प्रसंगाधीन पत्र के संबंध में राजस्व उप नि0 एवं अंचल निरीक्षक घाघरा से जॉच प्रतिवेदन प्राप्त है उन्होने प्रतिवेदित किया है कि राजस्व अभिलेखों तथा स्थल जॉच के आधार पर मौजा — खम्भिया में बालुघाट, R.S खतियान के अनुसार खाता सं0—110 प्लॉट नं0—हाल सर्वे के अनुसार —2555,2556, 2557 ,2558 एवं 2554 रकबा— 32.11 एकड़ गैर मजरूआ मालिक किस्म नदी दर्ज है, जिसका जॉच प्रतिवेदन निम्न है:—

क्रम	निर्धारित बिन्दु	प्रतिवेदन (हॉ / नहीं)
1	क्या आवेदित भूमि की कोटि सर्वे खतियान तथा रजिस्टर—II मे जंगल झाडी के रूप में दर्ज है ?	नही
2	क्या 500 मीटर की दुरी के अन्दर कोई मानव बसावट है ?	नहीं
3	क्या 500 मीटर की दुरी के अन्दर कोई जलीय निकाय स्थित है ?	नहीं
4	क्या 500 मीटर की दुरी अन्दर कोई शौक्षणिक संस्थान स्थित है ?	नहीं
5	क्या 500 मीटर की दुरी अन्दर कोई नदी स्थित है ?	नहीं
6	क्या 500 मीटर की दुरी अन्दर कोई विकित्सालय स्थित है ?	नहीं
7	क्या 10 कि0मी0 की परिधि में अंतर्राज्यीय सीमा है ?	नहीं
8	क्या 500 मिटर की दुरी के अन्दर कोई राष्ट्रीय धरोहर /पुरातत्वीय महत्व के स्थल स्थित है ?	नहीं

राजस्व उप नि0 एवं अंचल नि0 का जॉच प्रतिवेदन इस पत्र के साथ संलग्न कर अग्रेतर कारवाई हेतु भेजी जा रही है।

अनुलग्नक :— यथोक्त।

State Level Environment Impact Assessment Authority * Jharkhand, Ranchi * Approved

विश्वासभाजन

अंचल अधिकारी
घाघरा।

पत्रांकः— ...71..... / घाघरा

कार्यालय अंचल अधिकारी, घाघरा (गुमला)

coghaghra2016@gmail.com

प्रेषक,

अंचल अधिकारी
घाघरा।

सेवा में

जिला खनन पदाधिकारी
गुमला।

दिनांक : 25 / जनवरी / 2023

विषयः— DSR (SAND) में चिन्हित मौजा अरंगी के बालुघाटों के संबंध में जॉच प्रतिवेदन ।
प्रसंगः— भवदीय पत्रांक 39 / एम0 दिनांक— 06.01.2023 ।

महाशय,

उपर्युक्त विषयक प्रसंगाधीन पत्र के संबंध में राजस्व उप नि0 एवं अंचल निरीक्षक घाघरा से जॉच प्रतिवेदन प्राप्त है उन्होने प्रतिवेदित किया है कि राजस्व अभिलेखों तथा स्थल जॉच के आधार पर मौजा – अरगी में बालुघाट, R.S खतियान के अनुसार खाता स0—217 प्लॉट न0—हाल सर्वे के अनुसार –1900,1901 रकबा— 22.59 एकड गैर मजरूआ मालिक किस्म नदी दर्ज है, जिसका जॉच प्रतिवेदन निम्न हैः—

क्रम	निर्धारित बिन्दु	प्रतिवेदन (हॉ / नहीं)
1	क्या आवेदित भूमि की कोटि सर्वे खतियान तथा रजिस्टर—II मे जंगल झाडी के रूप में दर्ज है ?	नहीं
2	क्या 500 मीटर की दुरी के अन्दर कोई मानव बसावट है ?	नहीं
3	क्या 500 मीटर की दुरी के अन्दर कोई जलीय निकाय स्थित है ?	नहीं
4	क्या 500 मीटर की दुरी अन्दर कोई शौक्षणिक संस्थान स्थित है ?	नहीं
5	क्या 500 मीटर की दुरी अन्दर कोई नदी स्थित है ?	नहीं
6	क्या 500 मीटर की दुरी अन्दर कोई चिकित्सालय स्थित है ?	नहीं
7	क्या 10 कि0मी0 की परिधि में अंतर्राराज्यीय सीमा है ?	नहीं
8	क्या 500 मिटर की दुरी के अन्दर कोई राष्ट्रीय धरोहर / पुरातत्वीय महत्व के स्थल स्थित है ?	नहीं

राजस्व उप नि0 एवं अंचल नि0 का जॉच प्रतिवेदन इस पत्र के साथ संलग्न कर अग्रेतर कारवाई हेतु भेजी जा रही है।

अनुलग्नक :— यथोक्त।

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

विश्वासभाजन

अंचल अधिकारी
घाघरा।

SK ①

कार्यालय अंचल अधिकारी, सिसई।

Email – cosisai123@gmail.com

पत्रांक 93 (i)
दिनांक 25/01/2023

प्रेषक,

अंचल अधिकारी,
सिसई।

सेवा में,

जिला खनन पदाधिकारी,
गुमला।

विषय :– DSR (Sand) में चिन्हित बालूघाटों से संबंधित प्रतिवेदन उपलब्ध कराने के संबंध में।
प्रसंग :– भवदीय के पत्रांक 40 / एम0, दिनांक 06.01.2023

महाशय,

उपर्युक्त विषयक प्रसंगाधीन पत्र के आलोक में संबंधित राजस्व उप निरीक्षक एवं अंचल निरीक्षक द्वारा राजस्व कागजातों से जाँच किया गया। प्रतिवेदनानुसार लरंगो के खाता सं0 – 151, प्लॉट सं0 – 4024, रकबा – 11.40 ए0 भूमि का बिन्दुवार प्रतिवेदन निम्नवत है :–

क्र0	निर्धारित बिन्दु	प्रतिवेदन (हाँ / नही)
1	क्या आवेदित भूमि की कोटि सर्वे खतियान यथा रजिस्टर – II में जंगल–झाड़ी के रूप में दर्ज है ?	नही
2	क्या 500 मीटर की दूरी के अन्दर कोई मानव बसाहट (Habitaion) स्थित है ?	नही
3	क्या 500 मीटर की दूरी के अन्दर कोई जलीय निकाय (Dam/Reservoir) स्थित है ?	नही
4	क्या 500 मीटर की दूरी के अन्दर कोई नदी (River) स्थित है ?	नही
5	क्या 500 मीटर की दूरी के अन्दर कोई शैक्षणिक संस्थान (Educational Insitute) स्थित है ?	नही
6	क्या 500 मीटर की दूरी के अन्दर कोई चिकित्सालय (Hospital) स्थित है ?	नही
7	क्या 10 कि0मी0 की परिधि में अन्तर्राराज्यीय (Interstate) सीमा है ?	नही
8	क्या 500 मीटर की दूरी के अन्दर कोई राष्ट्रीय धरोहर / पुरातत्वीय (Monuments/Archaeological) महत्त्व के स्थल स्थित है ?	नही

अतः प्रतिवेदन अग्रेत्तर कार्रवाई हेतु भवदीय को समर्पित।

अनुलग्नक :– यथोक्त।

विश्वासभाजन

25/01/23

अंचल अधिकारी,
सिसई।

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi
25/01/23

सेवा में

अंचलाधिकारी सिसई

विषय - DSR (Sand) में चिह्नित बालु घाट से संबंधित प्रतिवेदन

प्रसंग - जिला खनन पदाधिकारी गुमला के पत्रांक 40/एम०/दिनांक 6/01/

महाशय,

उपर्युक्त विषयक प्रसंगाधीन पत्र के आलोक में मौजा लंरगो खाता सं 151 प्लॉट सं 4024 रकबा 11.40 ए०, मौजा सहिजाना के खाता 121 प्लॉट सं 01 रकबा 1.50 ए०, प्लॉट सं 1117 रकबा 2.80 ए० एवं प्लॉ सं० 287 रकबा 8.56 ए०, तथा मौजा बर्री के खाता सं 215 प्लॉट सं 678 रकबा 10.40 ए० एवं प्लॉट सं 1610 रकबा 7.29 ए० एवं मौजा लंरगो अन्तर्गत खाता सं 660 प्लॉट सं 925 रकबा 16.52 ए० तथा मौजा सहि अन्तर्गत खाता सं 121 प्लॉट सं 01 रकबा 9.43 ए० से संबंधित भू का बिन्दुवार प्रतिवेदन निम्नप्रकार है:—

क्र० सं	बिन्दुवार प्रतिवेदन	प्रतिवेदन
1.	क्या आवेदित भूमि ..... जंगल झाड़ी के रूप में दर्ज है?	— नहीं
2.	क्या 500 मीटर ..... जलीय निकाय स्थित है?	— नहीं
3.	क्या 500 मीटर ..... मानव बसाईट स्थित है?	— नहीं
4.	क्या 500 मीटर ..... नदी स्थित है?	—
5.	क्या 500 मीटर ..... शैक्षणिक संस्थान स्थित है?	— नहीं
6.	क्या 500 मीटर ..... चिकित्सालय स्थित है?	— नहीं
7.	क्या 10 कि० मी० ..... अन्तराज्यीय सीमा है?	— नहीं
8.	क्या 500 मीटर ..... महत्व के स्थल स्थित है?	— नहीं

अतः जांच प्रतिवेदन अग्रेतर कार्रवाई हेतु कार्यालय को समर्पित

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

आपका विश्वासी

मरियानुस टोप्पो
रा० उप० नि०

SK (2)

कार्यालय अंचल अधिकारी, सिसई।

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पत्रांक 94(i')
दिनांक 25/01/2023

प्रेषक,

अंचल अधिकारी,
सिसई।

सेवा में,

जिला खनन पदाधिकारी,
गुमला।

विषय :– DSR (Sand) में चिन्हित बालूघाटों से संबंधित प्रतिवेदन उपलब्ध कराने के संबंध में।
प्रसंग :– भवदीय के पत्रांक 40 / एम0, दिनांक 06.01.2023

महाशय,

उपर्युक्त विषयक प्रसंगाधीन पत्र के आलोक में संबंधित राजस्व उप निरीक्षक एवं अंचल निरीक्षक द्वारा राजस्व कागजातों से जाँच किया गया। प्रतिवेदनानुसार मौजा – लरंगो के खाता सं0 – 660, प्लॉट सं0 – 925, रकबा – 16.52 ए0 एवं मौजा सहिजाना के खाता सं0 – 121, प्लॉट सं0 – 01, रकबा – 9.43 ए0 भूमि का बिन्दुवार प्रतिवेदन निम्नवत है :–

क्र0	निर्धारित बिन्दु	प्रतिवेदन (हाँ / नही)
1	क्या आवेदित भूमि की कोटि सर्वे खतियान यथा रजिस्टर – II में जंगल–झाड़ी के रूप में दर्ज है ?	नहीं
2	क्या 500 मीटर की दूरी के अन्दर कोई मानव बसाहट (Habitaion) स्थित है ?	नहीं
3	क्या 500 मीटर की दूरी के अन्दर कोई जलीय निकाय (Dam/Reservoir) स्थित है ?	नहीं
4	क्या 500 मीटर की दूरी के अन्दर कोई नदी (River) स्थित है ?	नहीं
5	क्या 500 मीटर की दूरी के अन्दर कोई शैक्षणिक संस्थान (Educational Insitute) स्थित है ?	नहीं
6	क्या 500 मीटर की दूरी के अन्दर कोई चिकित्सालय (Hospital) स्थित है ?	नही
7	क्या 10 कि0मी0 की परिधि में अन्तर्राराज्यीय (Interstate) सीमा है ?	नहीं
8	क्या 500 मीटर की दूरी के अन्दर कोई राष्ट्रीय धरोहर / पुरातत्वीय (Monuments/Archaeological) महत्त्व के स्थल स्थित है ?	नहीं

अतः प्रतिवेदन अग्रेत्तर कार्रवाई हेतु भवदीय को समर्पित।

अनुलग्नक :– यथोक्त।

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★ Approved

विश्वासभाजन

25/01/23
अंचल अधिकारी,
25/01/23 सिसई।

सेवा में

अंचलाधिकारी सिसई

विषय - DSR (Sand) में चिह्नित बालु घाट से संबंधित प्रतिवेद

प्रसंग - जिला खनन पदाधिकारी गुमला के पत्रांक 40/एम०/दिनांक 6/

महाशय,

उपर्युक्त विषयक प्रसंगाधीन पत्र के आलोक में मौजा लंरगे खाता सं 151 प्लॉट सं 4024 रकबा 11.40 ए०, मौजा सदिजाना के खा 121 प्लॉट सं. 01 रकबा 1.50 ए०, प्लॉट सं 1117 रकबा 2.80 ए० एवं प सं. 287 रकबा 8.56 ए०, तथा मौजा बर्री के खाता सं 215 प्लॉट सं-6 रकबा 10.40 ए० एवं प्लॉट सं. 1610 रकबा 7.29 ए० एवं मौजा लं अन्तर्गत खाता सं 660 प्लॉट सं 925 रकबा 16.52 ए० तथा मौजा स अन्तर्गत खाता सं 121 प्लॉट सं. 01 रकबा 9.43 ए० से संबंधित का बिन्दुवार प्रतिवेदन निम्नप्रकार है:—

क्र० सं	बिन्दुवार प्रतिवेदन	प्रतिवेद
1.	क्या आवेदित भूमि ..... जंगल झाड़ी के रूप में दर्ज है?	— न
2.	क्या 500 मीटर ..... जलीय निकाय स्थित है?	— न
3.	क्या 500 मीटर ..... मानव बसाईट स्थित है?	— नहीं
4.	क्या 500 मीटर ..... नदी स्थित है?	—
5.	क्या 500 मीटर ..... शैक्षणिक संस्थान स्थित है?	— नहीं
6.	क्या 500 मीटर ..... चिकित्सालय स्थित है?	— नहीं
7.	क्या 10 कि० मी० ..... अन्तराज्यीय सीमा है?	— न
8.	क्या 500 मीटर ..... महत्व के स्थल स्थित है?	— न

अतः जाँच प्रतिवेदन अग्रेतर कार्रवाई हेतु कार्यालय को सम

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

आपका विश्वासी

मरियानुस टोप्पो
रा० उप० नि०

SK-3

कार्यालय अंचल अधिकारी, सिसई।

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पत्रांक 87 (ii)
दिनांक 25/01/2023

प्रेषक,

अंचल अधिकारी,
सिसई।

सेवा में,

जिला खनन पदाधिकारी,
गुमला।

विषय :– DSR (Sand) में चिन्हित बालूघाटों से संबंधित प्रतिवेदन उपलब्ध कराने के संबंध में।
प्रसंग :– भवदीय के पत्रांक 40 / एम0, दिनांक 06.01.2023

महाशय,

उपर्युक्त विषयक प्रसंगाधीन पत्र के आलोक में संबंधित राजस्व उप निरीक्षक एवं अंचल निरीक्षक द्वारा राजस्व कागजातों से जाँच किया गया। प्रतिवेदनानुसार मौजा सहिजाना के खाता सं0 – 121, प्लॉट सं0 – 1117, रकबा – 2.80 ए0, प्लॉट सं0 – 01, रकबा – 9.43 ए0 एवं प्लॉट सं0 – 287, रकबा – 8.56 ए0 भूमि का बिन्दुवार प्रतिवेदन निम्नवत है :–

क्र0	निर्धारित बिन्दु	प्रतिवेदन (हाँ / नही)
1	क्या आवेदित भूमि की कोटि सर्वे खतियान यथा रजिस्टर – II में जंगल–झाड़ी के रूप में दर्ज है ?	नही
2	क्या 500 मीटर की दूरी के अन्दर कोई मानव बसाहट (Habitaion) स्थित है ?	नही
3	क्या 500 मीटर की दूरी के अन्दर कोई जलीय निकाय (Dam/Reservoir) स्थित है ?	नही
4	क्या 500 मीटर की दूरी के अन्दर कोई नदी (River) स्थित है ?	नही
5	क्या 500 मीटर की दूरी के अन्दर कोई शैक्षणिक संस्थान (Educational Insitute) स्थित है ?	नही
6	क्या 500 मीटर की दूरी के अन्दर कोई चिकित्सालय (Hospital) स्थित है ?	नही
7	क्या 10 कि0मी0 की परिधि में अन्तर्राराज्यीय (Interstate) सीमा है ?	नही
8	क्या 500 मीटर की दूरी के अन्दर कोई राष्ट्रीय धरोहर / पुरातत्वीय (Monuments/Archaeological) महत्त्व के स्थल स्थित है ?	नही

अतः प्रतिवेदन अग्रेत्तर कार्रवाई हेतु भवदीय को समर्पित।

अनुलग्नक :– यथोक्त।

विश्वासभाजन

25/01/23
अंचल अधिकारी,
सिसई।

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★
Approved
25/01/23

सेवा में,

अंचलाधिकारी सिसई

विषय - DSR (Sand) में चिह्नित बालु घाट से संबंधित प्रतिवेदन-

प्रसंग - जिला खनन पदाधिकारी गुमला के पत्रांक 40/एम०/दिनांक 6/01/2

महाशय,

उपर्युक्त विषयक प्रसंगाधीन पत्र के आलोक में मौजा लंरगो के खाता सं 151 प्लॉट सं 4024 रकबा 11.40 ए०, मौजा साहिजाना के खाता सं 121 प्लॉट सं 01 रकबा 1.50 ए०, प्लॉट सं 1117 रकबा 2.80 ए० एवं प्लॉट सं० 207 रकबा 8.56 ए०, तथा मौजा बरी के खाता सं 215 प्लॉट सं 678 रकबा 10.40 ए० एवं प्लॉट सं. 1610 रकबा 7.29 ए० एवं मौजा लंरगो अन्तर्गत खाता सं 660 प्लॉट सं 925 रकबा 16.52 ए० तथा मौजा साहिजा अन्तर्गत खाता सं 121 प्लॉट सं० 01 रकबा 9.43 ए० सं सम्बन्धित भूमि का बिन्दुवार प्रतिवेदन निम्नप्रकार है :—

क्र० सं	बिन्दुवार प्रतिवेदन	प्रतिवेदन
1.	क्या आवेदित भूमि ..... जंगल झाड़ी के रूप में दर्ज है?	नहीं
2.	क्या 500 मीटर ..... जलीय निकाय स्थित है?	नहीं
3.	क्या 500 मीटर ..... मानव बसाईट स्थित है?	नहीं
4.	क्या 500 मीटर ..... नदी स्थित है?	—
5.	क्या 500 मीटर ..... ऐतिहासिक संस्थान स्थित है?	नहीं
6.	क्या 500 मीटर ..... चिकित्सालय स्थित है?	नहीं
7.	क्या 10 कि० मी० ..... अन्तर्राज्यीय सीमा है?	नहीं
8.	क्या 500 मीटर ..... महत्व के स्थल स्थित है?	नहीं

अतः जाँच प्रतिवेदन आगेतर कार्रवाई हेतु कार्यालय को समर्पित

State Level Environment Impact Assessment Authority * Jharkhand, Ranchi * Approved

आपका विश्वासी

मरियानुस टोप्पो।

रा० ख० नि०

कार्यालय अंचल अधिकारी, सिसई।

SK-5

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पत्रांक 91 (;;)
दिनांक 25/01/2023

प्रेषक,

अंचल अधिकारी,
सिसई।

सेवा में,

जिला खनन पदाधिकारी,
गुमला।

विषय :– DSR (Sand) में चिन्हित बालूघाटों से संबंधित प्रतिवेदन उपलब्ध कराने के संबंध में।
प्रसंग :– भवदीय के पत्रांक 40 / एम0, दिनांक 06.01.2023

महाशय,

उपर्युक्त विषयक प्रसंगाधीन पत्र के आलोक में संबंधित राजस्व उप निरीक्षक एवं अंचल निरीक्षक द्वारा राजस्व कागजातों से जाँच किया गया। प्रतिवेदनानुसार मौजा – बर्री के खाता सं0 – 215, प्लॉट सं0 – 678, रकबा – 10.40 ए0 एवं प्लॉट सं0 – 1610, रकबा – 7.29 ए0 भूमि का बिन्दुवार प्रतिवेदन निम्नवत है :–

क्र0	निर्धारित बिन्दु	प्रतिवेदन (हाँ / नही)
1	क्या आवेदित भूमि की कोटि सर्वे खतियान यथा रजिस्टर – II में जंगल–झाड़ी के रूप में दर्ज है ?	नही
2	क्या 500 मीटर की दूरी के अन्दर कोई मानव बसाहट (Habitaion) स्थित है ?	नही
3	क्या 500 मीटर की दूरी के अन्दर कोई जलीय निकाय (Dam/Reservoir) स्थित है ?	नही
4	क्या 500 मीटर की दूरी के अन्दर कोई नदी (River) स्थित है ?	नही
5	क्या 500 मीटर की दूरी के अन्दर कोई शैक्षणिक संस्थान (Educational Insitute) स्थित है ?	नही
6	क्या 500 मीटर की दूरी के अन्दर कोई चिकित्सालय (Hospital) स्थित है ?	नही
7	क्या 10 कि0मी0 की परिधि में अन्तर्राराज्यीय (Interstate) सीमा है ?	नही
8	क्या 500 मीटर की दूरी के अन्दर कोई राष्ट्रीय धरोहर / पुरातत्वीय (Monuments/Archaeological) महत्त्व के स्थल स्थित है ?	नही

अतः प्रतिवेदन अग्रेत्तर कार्रवाई हेतु भवदीय को समर्पित।

अनुलग्नक :– यथोक्त।

विश्वासभाजन

25/01/23
अंचल अधिकारी,
सिसई।

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★
Approved
25/01/23

सेवा में

अंचलाधिकारी सिसई

विषय - DSR (Sand) में चिह्नित बालु घाट से संबंधित प्रतिवे

प्रसंग - जिला खनन पदाधिकारी गुमला के पत्रांक 40/एम०/दिनांक 6

महाशय,

उपर्युक्त विषयक प्रसंगाधीन पत्र के आलोक में मौजा लंर खाता सं 151 प्लॉट सं 4024 रकबा 11.40 ए०, मौजा सहिजाना के खा 121 प्लॉट सं 01 रकबा 1.50 ए०, प्लॉट सं 1117 रकबा 2.80 ए० एवं प सं० 287 रकबा 8.56 ए०, तथा मौजा बरी के खाता सं 215 प्लॉट सं-6 रकबा 10.40 ए० एवं प्लॉट सं 1610 रकबा 7.29 ए० एवं मौजा लंर अन्तर्गत खाता सं 660 प्लॉट सं 925 रकबा 16.52 ए० तथा मौजा स अन्तर्गत खाता सं 121 प्लॉट सं 01 रकबा 9.43 ए० से संबंधित का बिन्दुवार प्रतिवेदन निम्नप्रकार है:—

क्र० सं	बिन्दुवार प्रतिवेदन	प्रतिवेदन
1.	क्या आवेदित भूमि ..... जंगल झाड़ी के रूप में दर्ज है?	— नहीं
2.	क्या 500 मीटर ..... जलीय निकाय स्थित है?	— नहीं
3.	क्या 500 मीटर ..... मानव बसाईट स्थित है?	— नहीं
4.	क्या 500 मीटर ..... नदी स्थित है?	—
5.	क्या 500 मीटर ..... शैक्षणिक संस्थान स्थित है?	— नहीं
6.	क्या 500 मीटर ..... चिकित्सालय स्थित है?	— नहीं
7.	क्या 10 कि० मी० ..... अन्तराज्यीय सीमा है?	— नहीं
8.	क्या 500 मीटर ..... महत्व के स्थल स्थित है?	— नहीं

अतः जांच प्रतिवेदन अग्रेतर कार्रवाई हेतु कार्यालय को समर्पित

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

आपका विश्वासी

मरियानुस टोप्पो

SK-7

कार्यालय अंचल अधिकारी, सिसई।

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पत्रांक 86(i)
दिनांक 25/01/2023

प्रेषक,

अंचल अधिकारी,
सिसई।

सेवा में,

जिला खनन पदाधिकारी,
गुमला।

विषय :– DSR (Sand) में चिन्हित बालूघाटों से संबंधित प्रतिवेदन उपलब्ध कराने के संबंध में।
प्रसंग :– भवदीय के पत्रांक 40/एम0, दिनांक 06.01.2023

महाशय,

उपर्युक्त विषयक प्रसंगाधीन पत्र के आलोक में संबंधित राजस्व उप निरीक्षक एवं अंचल निरीक्षक द्वारा राजस्व कागजातों से जाँच किया गया। प्रतिवेदनानुसार मौजा – जलका के खाता सं0 – 109, प्लॉट सं0 – 01, रकबा – 13.42 एकड़ एवं प्लॉट सं0 – 1475, रकबा – 6.78 ए0 भूमि का बिन्दुवार प्रतिवेदन निम्नवत है :–

क्र0	निर्धारित बिन्दु	प्रतिवेदन (हाँ/नही)
1	क्या आवेदित भूमि की कोटि सर्वे खतियान यथा रजिस्टर – II में जंगल–झाड़ी के रूप में दर्ज है ?	नही
2	क्या 500 मीटर की दूरी के अन्दर कोई मानव बसाहट (Habitaion) स्थित है ?	नही
3	क्या 500 मीटर की दूरी के अन्दर कोई जलीय निकाय (Dam/Reservoir) स्थित है ?	नही
4	क्या 500 मीटर की दूरी के अन्दर कोई नदी (River) स्थित है ?	नही
5	क्या 500 मीटर की दूरी के अन्दर कोई शैक्षणिक संस्थान (Educational Insitute) स्थित है ?	नही
6	क्या 500 मीटर की दूरी के अन्दर कोई चिकित्सालय (Hospital) स्थित है ?	नही
7	क्या 10 कि0मी0 की परिधि में अन्तर्राराज्यीय (Interstate) सीमा है ?	नही
8	क्या 500 मीटर की दूरी के अन्दर कोई राष्ट्रीय धरोहर/पुरातत्वीय (Monuments/Archaeological) महत्त्व के स्थल स्थित है ?	नही

अतः प्रतिवेदन अग्रेत्तर कार्रवाई हेतु भवदीय को समर्पित।

अनुलग्नक :– यथोक्त।

State Level Environment Impact Assessment Authority * Jharkhand, Ranchi *
Approved
25/01/23

विश्वासभाजन

25/01/23
अंचल अधिकारी,
सिसई।

सेवा में,
अंचल अधिकारी
सिसई

विषय :- DSR (Sand) में निहित बालू घाट से संबंधित प्रतिवेदन

प्रसंग :- जिला खनन पदाधिकारी, गुमला के पत्रांक 40/एम० दिनांक 6/1/2023

महाशय,
उपर्युक्त विषयक, प्रसंगाधिन पत्र के आलोक में पौजा- जलका के खाता नं० 109 घाट सं० 01 रकबा 13.42 एकड़ एवं घाट नं० 1475 रकबा 06.78 एकड़ जमीन से संबंधित भूमि का बिन्दुवार प्रतिवेदन निम्नवत है :-

निर्धारित बिन्दु

1) क्या आवेदित भूमि ..... जंगल झाड़ी के रूप में दर्ज है? — नहीं।
2) क्या 500 मीटर ..... मानव बसाइट स्थित है? — नहीं।
3) क्या 500 मीटर ..... जलीय निकाय स्थित है? — नहीं।
4) क्या 500 मीटर ..... नदी स्थित है? — नहीं।
5) क्या 500 मीटर ..... शैक्षणिक संस्थान स्थित है? — नहीं।
6) क्या 500 मीटर ..... चिकित्सालय स्थित है? — नहीं।
7) क्या 10 कि० मीटर ..... अन्तर्राष्ट्रीय सीमा स्थित है? — नहीं।
8) क्या 500 मीटर ..... महत्व के स्थल स्थित है? — नहीं।

अतः आँच प्रतिवेदन श्रीमान को समर्पित।

विश्वास भाजन
बन्दरू उराँव
रा० उ० नि०
हल्का सं० III
दिनांक .....

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

12.1.23

SK-8

कार्यालय अंचल अधिकारी, सिसई।

Email – cosisai123@gmail.com

पत्रांक 85 (ii)
दिनांक 25/01/2023

प्रेषक,

अंचल अधिकारी,
सिसई।

सेवा में,

जिला खनन पदाधिकारी,
गुमला।

विषय :– DSR (Sand) में चिन्हित बालूघाटों से संबंधित प्रतिवेदन उपलब्ध कराने के संबंध में।
प्रसंग :– भवदीय के पत्रांक 40 / एम0, दिनांक 06.01.2023

महाशय,

उपर्युक्त विषयक प्रसंगाधीन पत्र के आलोक में संबंधित राजस्व उप निरीक्षक एवं अंचल निरीक्षक द्वारा राजस्व कागजातों से जाँच किया गया। प्रतिवेदनानुसार मौजा – बरगांव के खाता सं0 – 698, प्लॉट सं0 – 1, रकबा – 5.79 ए0 एवं खाता सं0 – 304, प्लॉट सं0 – 6815, रकबा – 15.70 ए0 भूमि का बिन्दुवार प्रतिवेदन निम्नवत है :–

क्र0	निर्धारित बिन्दु	प्रतिवेदन (हाँ / नही)
1	क्या आवेदित भूमि की कोटि सर्वे खतियान यथा रजिस्टर – II में जंगल–झाड़ी के रूप में दर्ज है ?	नही
2	क्या 500 मीटर की दूरी के अन्दर कोई मानव बसाहट (Habitaion) स्थित है ?	नही
3	क्या 500 मीटर की दूरी के अन्दर कोई जलीय निकाय (Dam/Reservoir) स्थित है ?	नही
4	क्या 500 मीटर की दूरी के अन्दर कोई नदी (River) स्थित है ?	नही
5	क्या 500 मीटर की दूरी के अन्दर कोई शैक्षणिक संस्थान (Educational Insitute) स्थित है ?	नही
6	क्या 500 मीटर की दूरी के अन्दर कोई चिकित्सालय (Hospital) स्थित है ?	नही
7	क्या 10 कि0मी0 की परिधि में अन्तर्राराज्यीय (Interstate) सीमा है ?	नही
8	क्या 500 मीटर की दूरी के अन्दर कोई राष्ट्रीय धरोहर / पुरातत्वीय (Monuments/Archaeological) महत्त्व के स्थल स्थित है ?	नही

अतः प्रतिवेदन अग्रेत्तर कार्रवाई हेतु भवदीय को समर्पित।

अनुलग्नक :– यथोक्त।

State Level Environment Impact Assessment Authority * Jharkhand, Ranchi * Approved

विश्वासभाजन

25/01/23
अंचल अधिकारी,
सिसई।
25/01/23

सेवा में,

अंचल अधिकारी
सिसई।

विषय: DSR (Sand) में चिन्हित बालू घाटों से संबंधित प्रतिवेदन।

प्रसंग: जिला खनन पदाधिकारी, गुमला के पत्रांक - 40/एम० दिनांक - 6/1/2023

महाशय,

उपर्युक्त विषयक प्रसंगाधीन पत्र के आलोक में मौजा - बरगाँव के खाता सं० - 698 प्लॉट सं० - 1, रकबा - 5.79 ए०, खाता सं० - 304, प्लॉट सं० - 6815 रकबा - 15.70 ए० तथा मौजा - मकुन्दा, खाता सं० - 128, प्लॉट सं० - 1, रकबा - 17.15 एम. से संबंधित भूमि का बिन्दुवार प्रतिवेदन निम्नवत् है -

क्रम	निर्धारित बिन्दु	प्रतिवेदन
1.	क्या आवेदित भूमि ---- जंगल झाड़ी के रूप में दर्ज है? -	नहीं।
2.	क्या 500 मीटर ---- मानव बसाहट स्थित है?	नहीं।
3.	क्या 500 मीटर ---- जलीय निकाय स्थित है? -	नहीं।
4.	क्या 500 मीटर ---- नदी स्थित है? -	नहीं।
5.	क्या 500 मीटर ---- शैक्षणिक संस्थान स्थित है? -	नहीं।
6.	क्या 500 मीटर ---- चिकित्सालय स्थित है -	नहीं।
7.	क्या 10 कि० मीटर ---- अंतर्राराज्यीय सीमा है? -	नहीं।
8.	क्या 500 मी० ---- महत्व के स्थल स्थित है -	नहीं।

अतः प्रतिवेदन श्रीमान् को समर्पित।

आपका विश्वासी
ब्रजेश कुमार सिंह
राज 30 कि०
टाल सं० - IV
दिनांक - 12/1/23

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi



SK-9

कार्यालय अंचल अधिकारी, सिसई।

Email – cosisai123@gmail.com

पत्रांक ...92(i)...
दिनांक ...25/01/202...

प्रेषक,

अंचल अधिकारी,
सिसई।

सेवा में,

जिला खनन पदाधिकारी,
गुमला।

विषय :– DSR (Sand) में चिन्हित बालूघाटों से संबंधित प्रतिवेदन उपलब्ध कराने के संबंध में।
प्रसंग :– भवदीय के पत्रांक 40 / एम0, दिनांक 06.01.2023
महाशय,

उपर्युक्त विषयक प्रसंगाधीन पत्र के आलोक में संबंधित राजस्व उप निरीक्षक एवं अंचल निरीक्षक द्वारा राजस्व कागजातों से जाँच किया गया। प्रतिवेदनानुसार मौजा – मकुन्दा के खाता सं0 – 128, प्लॉट सं0 – 1, रकबा – 17.15 ए0 भूमि का बिन्दुवार प्रतिवेदन निम्नवत है :–

क्र0	निर्धारित बिन्दु	प्रतिवेदन (हाँ / नही)
1	क्या आवेदित भूमि की कोटि सर्वे खतियान यथा रजिस्टर – II में जंगल–झाड़ी के रूप में दर्ज है ?	नही
2	क्या 500 मीटर की दूरी के अन्दर कोई मानव बसाहट (Habitaion) स्थित है ?	नही
3	क्या 500 मीटर की दूरी के अन्दर कोई जलीय निकाय (Dam/Reservoir) स्थित है ?	नही
4	क्या 500 मीटर की दूरी के अन्दर कोई नदी (River) स्थित है ?	नही
5	क्या 500 मीटर की दूरी के अन्दर कोई शैक्षणिक संस्थान (Educational Insitute) स्थित है ?	नही
6	क्या 500 मीटर की दूरी के अन्दर कोई चिकित्सालय (Hospital) स्थित है ?	नही
7	क्या 10 कि0मी0 की परिधि में अन्तर्राराज्यीय (Interstate) सीमा है ?	नही
8	क्या 500 मीटर की दूरी के अन्दर कोई राष्ट्रीय धरोहर / पुरातत्वीय (Monuments/Archaeological) महत्त्व के स्थल स्थित है ?	नही

अतः प्रतिवेदन अग्रेत्तर कार्रवाई हेतु भवदीय को समर्पित।

अनुलग्नक :– यथोक्त।

विश्वासभाजन

25/01/23
अंचल अधिकारी,
सिसई।

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★
Approved
29/01/23

सेवा में,

अंचल अधिकारी
सिसई।

विषय: DSR (Sand) में चिन्हित बालूघाटों से संबंधित प्रतिवेदन।
प्रसंग: जिला खनन पदाधिकारी, गुमला के पत्रांक - 40/एम० दिनांक - 6/1/2023

महाशय,

उपर्युक्त विषयक प्रसंगाधीन पत्र के आलोक में मौजा - बरगाँव के खाता सं० - 698 प्लॉट सं० - 1, रकबा - 5.79 ए०, खाता सं० - 304, प्लॉट सं० - 6815 रकबा - 15.70 ए० तथा मौजा - मकुन्दा, खाता सं० - 128, प्लॉट सं० - 1, रकबा - 17.15 एम. से संबंधित भूमि का बिन्दुवार प्रतिवेदन निम्नवत् है -

क्रम	निर्धारित बिन्दु	प्रतिवेदन
1.	क्या आवेदित भूमि ---- जंगल झाड़ी के रूप में दर्ज है? -	नहीं।
2.	क्या 500 मीटर ---- मानव बसाहट स्थित है?	नहीं।
3.	क्या 500 मीटर ---- जलीय निकाय स्थित है? -	नहीं।
4.	क्या 500 मीटर ---- नदी स्थित है? -	नहीं।
5.	क्या 500 मीटर ---- शैक्षणिक संस्थान स्थित है? -	नहीं।
6.	क्या 500 मीटर ---- चिकित्सालय स्थित है -	नहीं।
7.	क्या 10 कि० मीटर ---- अंतर्राराज्यीय सीमा है? -	नहीं।
8.	क्या 500 मी० ---- महत्व के स्थल स्थित है -	नहीं

अतः प्रतिवेदन श्री मान् को समर्पित।

आपका विश्वासी
ब्रजेश कुमार।
रा० उ० वि०
टाका सं० -
दिनांक - 12/1

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

12/1/23

SK-10

SK-10

कार्यालय अंचल अधिकारी, सिसई।

Email – cosisai123@gmail.com

पत्रांक 89 (ii)
दिनांक 25/01/2023

प्रेषक,

अंचल अधिकारी,
सिसई।

सेवा में,

जिला खनन पदाधिकारी,
गुमला।

विषय :– DSR (Sand) में चिन्हित बालूघाटों से संबंधित प्रतिवेदन उपलब्ध कराने के संबंध में।
प्रसंग :– भवदीय के पत्रांक 40 / एम0, दिनांक 06.01.2023

महाशय,

उपर्युक्त विषयक प्रसंगाधीन पत्र के आलोक में संबंधित राजस्व उप निरीक्षक एवं अंचल निरीक्षक द्वारा राजस्व कागजातों से जाँच किया गया। प्रतिवेदनानुसार मौजा I – मुर्गू के खाता सं0 – 192, प्लॉट सं0 – 102, रकबा – 26.40 ए0 भूमि का बिन्दुवार प्रतिवेदन निम्नवत है :–

क्र0	निर्धारित बिन्दु	प्रतिवेदन (हाँ / नही)
1	क्या आवेदित भूमि की कोटि सर्वे खतियान यथा रजिस्टर – II में जंगल–झाड़ी के रूप में दर्ज है ?	नही
2	क्या 500 मीटर की दूरी के अन्दर कोई मानव बसाहट (Habitaion) स्थित है ?	नही
3	क्या 500 मीटर की दूरी के अन्दर कोई जलीय निकाय (Dam/Reservoir) स्थित है ?	नही
4	क्या 500 मीटर की दूरी के अन्दर कोई नदी (River) स्थित है ?	नही
5	क्या 500 मीटर की दूरी के अन्दर कोई शैक्षणिक संस्थान (Educational Insitute) स्थित है ?	नही
6	क्या 500 मीटर की दूरी के अन्दर कोई चिकित्सालय (Hospital) स्थित है ?	नही
7	क्या 10 कि0मी0 की परिधि में अन्तर्राज्यीय (Interstate) सीमा है ?	नही
8	क्या 500 मीटर की दूरी के अन्दर कोई राष्ट्रीय धरोहर / पुरातत्वीय (Monuments/Archaeological) महत्त्व के स्थल स्थित है ?	नही

अतः प्रतिवेदन अग्रेत्तर कार्रवाई हेतु भवदीय को समर्पित।

अनुलग्नक :– यथोक्त।

विश्वासभाजन

25/01/23
अंचल अधिकारी,
सिसई।

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi
25/01/23

...वा मे,

अंचल अधिकारी सिसई

विषय- DSR (Sand) मे चिह्नित बालु घाट से सम्बंधित प्रति...

प्रसंग- जिला खनन पदाधिकारी गुमला के पत्रांक 40/एम/दिनांक 06/01...

महाशय,

उपर्युक्त विषयक प्रसंगाधीन पत्र के आलोक मे मौजा पोढा के 211 प्लाट सं. 02 रकबा 46.03 एकड़ वो मौजा मुरगु खाता सं 192 प्लाट सं. 102 ... 26.40 एकड़ तथा मौजा नागफेनी खाता सं 82 प्लाट सं. 829 रकबा 10.80 से संबंधित भूमि का बिद्युतार प्रतिवेदन निम्नप्रकार है।

क्र.सं.	बिद्युतार प्रतिवेदन	प्रतिवेदन
1.	क्या आवेदित भूमि ---- जंगल झाड़ी के रूप मे दर्ज है?	— नही
2	क्या 500 मीटर ---- जलीय निकाय स्थित है?	— नही
3	क्या 500 मीटर ---- मानव बसाहट स्थित है?	— नही
4	क्या 500 मीटर ---- नदी स्थित है?	— नही
5	क्या 500 मीटर ---- शैक्षणिक संस्थान स्थित है?	— नही
6	क्या 500 मीटर ---- चिकित्सालय स्थित है?	— नही
7	क्या 10 कि.मी ---- अन्तराज्यीय सीमा है?	— नही
8	क्या 500 मीटर ---- महत्व के स्थल स्थित है?	— नही

अतः जाँच प्रतिवेदन अग्रेत्तर कारवाई हेतु कार्यालय को समर्पित

आपका विश्वासी

R.S.I

दिलीप कु. सिंह

रा. उप. नि.

इलाका सं. V

दिनांक 16/01/2023

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

SK-12

कार्यालय अंचल अधिकारी, सिसई।

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पत्रांक 88 (i)
दिनांक 25/01/2023

प्रेषक,

अंचल अधिकारी,
सिसई।

सेवा में,

जिला खनन पदाधिकारी,
गुमला।

विषय :– DSR (Sand) में चिन्हित बालूघाटों से संबंधित प्रतिवेदन उपलब्ध कराने के संबंध में।
प्रसंग :– भवदीय के पत्रांक 40 / एम0, दिनांक 06.01.2023

महाशय,

उपर्युक्त विषयक प्रसंगाधीन पत्र के आलोक में संबंधित राजस्व उप निरीक्षक एवं अंचल निरीक्षक द्वारा राजस्व कागजातों से जाँच किया गया। प्रतिवेदनानुसार मौजा – नागफेनी के खाता सं0 – 82, प्लॉट सं0 – 829, रकबा – 10.80 एकड़ भूमि का बिन्दुवार प्रतिवेदन निम्नवत है :–

क्र0	निर्धारित बिन्दु	प्रतिवेदन (हाँ / नही)
1	क्या आवेदित भूमि की कोटि सर्वे खतियान यथा रजिस्टर – II में जंगल–झाड़ी के रूप में दर्ज है ?	नही
2	क्या 500 मीटर की दूरी के अन्दर कोई मानव बसाहट (Habitaion) स्थित है ?	नही
3	क्या 500 मीटर की दूरी के अन्दर कोई जलीय निकाय (Dam/Reservoir) स्थित है ?	नही
4	क्या 500 मीटर की दूरी के अन्दर कोई नदी (River) स्थित है ?	नही
5	क्या 500 मीटर की दूरी के अन्दर कोई शैक्षणिक संस्थान (Educational Insitute) स्थित है ?	नही
6	क्या 500 मीटर की दूरी के अन्दर कोई चिकित्सालय (Hospital) स्थित है ?	नही
7	क्या 10 कि0मी0 की परिधि में अन्तर्राराज्यीय (Interstate) सीमा है ?	नही
8	क्या 500 मीटर की दूरी के अन्दर कोई राष्ट्रीय धरोहर / पुरातत्वीय (Monuments/Archaeological) महत्त्व के स्थल स्थित है ?	नही

अतः प्रतिवेदन अग्रेत्तर कार्रवाई हेतु भवदीय को समर्पित।

अनुलग्नक :– यथोक्त।

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

विश्वासभाजन

अंचल अधिकारी,
25/01/23 सिसई।

O/C

SK-12

कार्यालय अंचल अधिकारी, सिसई।

Email – cosisai123@gmail.com

पत्रांक 88 (i)
दिनांक 25/01/2023

प्रेषक,

अंचल अधिकारी,
सिसई।

सेवा में,

जिला खनन पदाधिकारी,
गुमला।

विषय :– DSR (Sand) में चिन्हित बालूघाटों से संबंधित प्रतिवेदन उपलब्ध कराने के संबंध में।

प्रसंग :– भवदीय के पत्रांक 40 / एम0, दिनांक 06.01.2023

महाशय,

उपर्युक्त विषयक प्रसंगाधीन पत्र के आलोक में संबंधित राजस्व उप निरीक्षक एवं अंचल निरीक्षक द्वारा राजस्व कागजातों से जाँच किया गया। प्रतिवेदनानुसार मौजा – नागफेनी के खाता सं0 – 82, प्लॉट सं0 – 829, रकबा – 10.80 एकड़ भूमि का बिन्दुवार प्रतिवेदन निम्नवत है :–

क्र0	निर्धारित बिन्दु	प्रतिवेदन (हाँ / नही)
1	क्या आवेदित भूमि की कोटि सर्वे खतियान यथा रजिस्टर – II में जंगल–झाड़ी के रूप में दर्ज है ?	नही
2	क्या 500 मीटर की दूरी के अन्दर कोई मानव बसाहट (Habitaion) स्थित है ?	नही
3	क्या 500 मीटर की दूरी के अन्दर कोई जलीय निकाय (Dam/Reservoir) स्थित है ?	नही
4	क्या 500 मीटर की दूरी के अन्दर कोई नदी (River) स्थित है ?	नही
5	क्या 500 मीटर की दूरी के अन्दर कोई शैक्षणिक संस्थान (Educational Insitute) स्थित है ?	नही
6	क्या 500 मीटर की दूरी के अन्दर कोई चिकित्सालय (Hospital) स्थित है ?	नही
7	क्या 10 कि0मी0 की परिधि में अन्तर्राराज्यीय (Interstate) सीमा है ?	नही
8	क्या 500 मीटर की दूरी के अन्दर कोई राष्ट्रीय धरोहर / पुरातत्वीय (Monuments/Archaeological) महत्त्व के स्थल स्थित है ?	नही

अतः प्रतिवेदन अग्रेत्तर कार्रवाई हेतु भवदीय को समर्पित।

अनुलग्नक :– यथोक्त।

विश्वासभाजन

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★ Approved

25/01/23

अंचल अधिकारी,
सिसई।

सेवा मे,

अंचल अधिकारी सिसई

विषय- DSR (Sand) मे चिह्नित बालु घाट से सम्बंधित प्रतिवेदन

प्रसंग- जिला खनन पदाधिकारी गुमला के पत्रांक 40/एम/दिनांक 06/01/2023

महाशय,

उपर्युक्त विषयक प्रसंगाधीन पत्र के आलोक मे मौजा पोढा के खाता सं 211 प्लाट सं. 02 रकबा 46.03 एकड़ वो मौजा मुरगु खाता सं 192 प्लाट सं. 102 रकबा 26.40 एकड़ तथा मौजा नागफेनी खाता सं 82 प्लाट सं. 829 रकबा 10.80 एकड़ से संबंधित भूमि का बिंदुवार प्रतिवेदन निम्नप्रकार है।

क्र.सं.	बिंदुवार प्रतिवेदन	प्रतिवेदन
1.	क्या आवेदित भूमि ---- जंगल झाड़ी के रूप मे दर्ज है?	— नही
2	क्या 500 मीटर ---- जलीय निकाय स्थित है?	— नही
3	क्या 500 मीटर ---- मानव बसाहट स्थित है?	— नही
4	क्या 500 मीटर ---- नदी स्थित है?	— नही
5	क्या 500 मीटर ---- शैक्षणिक संस्थान स्थित है?	— नही
6	क्या 500 मीटर ---- चिकित्सालय स्थित है?	— नही
7	क्या 10 कि.मी ---- अन्तराज्यीय सीमा है?	— नही
8	क्या 500 मीटर ---- महत्व के स्थल स्थित है?	— नही

अतः जाँच प्रतिवेदन अग्रेतर कारवाई हेतु कार्यालय को समर्पित।

आपका विश्वासी

R.S.I

दिलीप कु. सिंह

रा. उप. नि.

हल्का सं. V

दिनांक 16/01/2023

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

SK-13

कार्यालय अंचल अधिकारी, सिसई।

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पत्रांक 90 (i)
दिनांक 25/01/2023

प्रेषक,

अंचल अधिकारी,
सिसई।

सेवा में,

जिला खनन पदाधिकारी,
गुमला।

विषय :– DSR (Sand) में चिन्हित बालूघाटों से संबंधित प्रतिवेदन उपलब्ध कराने के संबंध में।
प्रसंग :– भवदीय के पत्रांक 40/एम0, दिनांक 06.01.2023

महाशय,

उपर्युक्त विषयक प्रसंगाधीन पत्र के आलोक में संबंधित राजस्व उप निरीक्षक एवं अंचल निरीक्षक द्वारा राजस्व कागजातों से जाँच किया गया। प्रतिवेदनानुसार मौजा – पोढ़ा के खाता सं0 – 211, प्लॉट सं0 – 02, रकबा – 46.03 ए0. भूमि का बिन्दुवार प्रतिवेदन निम्नवत है :–

क्र0	निर्धारित बिन्दु	प्रतिवेदन (हाँ/नही)
1	क्या आवेदित भूमि की कोटि सर्वे खतियान यथा रजिस्टर – II में जंगल–झाड़ी के रूप में दर्ज है ?	नही
2	क्या 500 मीटर की दूरी के अन्दर कोई मानव बसाहट (Habitaion) स्थित है ?	नही
3	क्या 500 मीटर की दूरी के अन्दर कोई जलीय निकाय (Dam/Reservoir) स्थित है ?	नही
4	क्या 500 मीटर की दूरी के अन्दर कोई नदी (River) स्थित है ?	नही
5	क्या 500 मीटर की दूरी के अन्दर कोई शैक्षणिक संस्थान (Educational Insitute) स्थित है ?	नही
6	क्या 500 मीटर की दूरी के अन्दर कोई चिकित्सालय (Hospital) स्थित है ?	नही
7	क्या 10 कि0मी0 की परिधि में अन्तर्राराज्यीय (Interstate) सीमा है ?	नही
8	क्या 500 मीटर की दूरी के अन्दर कोई राष्ट्रीय धरोहर/पुरातत्वीय (Monuments/Archaeological) महत्त्व के स्थल स्थित है ?	नही

अतः प्रतिवेदन अग्रेत्तर कार्रवाई हेतु भवदीय को समर्पित।

अनुलग्नक :– यथोक्त।

विश्वासभाजन

25/01/23
अंचल अधिकारी,
सिसई।

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi
25/01/23

o/c

सेवा में,

अंचल अधिकारी सिसई

विषय- DSR (Sand) में चिन्हित बालु घाट से संबंधित प्रतिवेदन

संदर्भ- जिला खनन पदाधिकारी गुमला के पत्रांक 40/एम/दिनांक 06/01/2023

महाशय,

उपर्युक्त विषयक प्रसंगाधीन पत्र के आलोक में मौजा पोहा के खाता सं॰ 111 प्लाट सं॰ 02 रकबा 46.03 एकड़ वो मौजा मुरगु खाता सं 192 प्लाट सं॰ 102 रकबा 26.40 एकड़ तथा मौजा नागफेनी खाता सं 82 प्लाट सं॰ 829 रकबा 10.80 एकड़ से संबंधित भूमि का विद्युतार प्रतिवेदन निम्नप्रकार है।

क्र॰सं॰	विद्युतार प्रतिवेदन		प्रतिवेदन
1.	क्या आवेदित भूमि	जंगल झाड़ी के रूप में दर्ज है?	नहीं
2	क्या 500 मीटर	जलीय निकाय स्थित है?	नहीं
3	क्या 500 मीटर	मानव बसाहट स्थित है?	नहीं
4	क्या 500 मीटर	नदी स्थित है?	नहीं
5	क्या 500 मीटर	सैद्धांतिक संस्थान स्थित है?	नहीं
6	क्या 500 मीटर	चिकित्सालय स्थित है?	नहीं
7	क्या 10 कि॰मी॰	अंतराज्यीय सीमा है?	नहीं
8	क्या 500 मीटर	ऐतिहासिक के स्थल स्थित है?	नहीं

अतः जाँच प्रतिवेदन अग्रेत्तर कारवाई हेतु कार्यालय को समर्पित।

आपका विश्वासी

R.S.

दिलीप कुमार सिंह

स॰ अ॰ नि॰

सिसई

दिनांक 16/01/2023

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

16.1.23

SW-15 & 16

कार्यालय अंचल अधिकारी, सिसई।

Email – cosisai123@gmail.com

पत्रांक -83 (ii)
दिनांक 25/01/2023

प्रेषक,

अंचल अधिकारी,
सिसई।

सेवा में,

जिला खनन पदाधिकारी,
गुमला।

विषय :– DSR (Sand) में चिन्हित बालूघाटों से संबंधित प्रतिवेदन उपलब्ध कराने के संबंध में।
प्रसंग :– भवदीय के पत्रांक 40/एम0, दिनांक 06.01.2023

महाशय,

उपर्युक्त विषयक प्रसंगाधीन पत्र के आलोक में संबंधित राजस्व उप निरीक्षक एवं अंचल निरीक्षक द्वारा राजस्व कागजातों से जाँच किया गया। प्रतिवेदनानुसार मौजा – ओलमुण्डा के खाता सं0 – 142, प्लॉट सं0 – 01, रकबा – 17.79 ए0, खाता सं0 – 142, प्लॉट सं0 – 1738, रकबा – 10.63 ए0 तथा प्लॉट सं0 – 1739, रकबा – 24.52 एकड़ भूमि का बिन्दुवार प्रतिवेदन निम्नवत है :–

क्र0	निर्धारित बिन्दु	प्रतिवेदन (हाँ/नही)
1	क्या आवेदित भूमि की कोटि सर्वे खतियान यथा रजिस्टर – II में जंगल–झाड़ी के रूप में दर्ज है ?	नही
2	क्या 500 मीटर की दूरी के अन्दर कोई मानव बसाहट (Habitaion) स्थित है ?	नही
3	क्या 500 मीटर की दूरी के अन्दर कोई जलीय निकाय (Dam/Reservoir) स्थित है ?	नही
4	क्या 500 मीटर की दूरी के अन्दर कोई नदी (River) स्थित है ?	नही
5	क्या 500 मीटर की दूरी के अन्दर कोई शैक्षणिक संस्थान (Educational Insitute) स्थित है ?	नही
6	क्या 500 मीटर की दूरी के अन्दर कोई चिकित्सालय (Hospital) स्थित है ?	नही
7	क्या 10 कि0मी0 की परिधि में अन्तर्राज्यीय (Interstate) सीमा है ?	नही
8	क्या 500 मीटर की दूरी के अन्दर कोई राष्ट्रीय धरोहर/पुरातत्वीय (Monuments/Archaeological) महत्त्व के स्थल स्थित है ?	नही

अतः प्रतिवेदन अग्रेत्तर कार्रवाई हेतु भवदीय को समर्पित।

अनुलग्नक :– यथोक्त।

विश्वासभाजन

25/01/23
अंचल अधिकारी,
सिसई।

State Level Environment Impact Assessment Authority * Jharkhand, Ranchi *
Approved
25/01/23

सेवा में,

अंचल अधिकारी
सिसई

विषय :- DSR (Second) में चिह्नित कालू घाट से संबंधित प्रतिवेद

प्रसंग :- जिला खनन पदाधिकारी, गुमला के पत्रांक 40/एम० दिनांक 6/11/2023

महाशय,

उपर्युक्त विषयक, प्रसंगाधीन पत्र के आलोक में मौजा आमकुल के खाता सं०62 प्लॉट सं० 402 रकबा 22.97 ए० मौजा भोलमुण्डा के खाता संख्या 142 प्लॉट सं० 01 रकबा 17.79 ए० मौजा भोलमुण्डा खाता सं० 142 प्लॉट सं० 1738 रकबा 10.63 ए० प्लॉट संख्या 1739 रकबा 24.52 ए० से संबंधित भूमि का बिन्दुवार प्रतिवेदन निम्नवत् है :—

क्रम सं. निर्धारित बिन्दु प्रतिवेदन

1. क्या आवेदित भूमि ---------- जंगलझाड़ी के रूप में दर्ज है? — नहीं।
2. क्या 500 मीटर ---------- मानव बसाहट स्थित है? — नहीं।
3. क्या 500 मीटर ---------- जलीय निकाय स्थित है? — नहीं।
4. क्या 500 मीटर ---------- नदी स्थित है? — नहीं।
5. क्या 500 मीटर ---------- शैक्षणिक संस्थान स्थित है? — नहीं।
6. क्या 500 मीटर ---------- चिकित्सालय स्थित है? — नहीं।
7. क्या 10 कि०मी० ---------- अंतर्राज्यीय सीमा है? — नहीं।
8. क्या 500 मीटर ---------- महत्व के स्थल स्थित है? — नहीं।

अतः प्रतिवेदन हेतु सादर समर्पित।

आपका विश्वासी
सावित्री कुमारी
रा० उप० मि०
हल्का सं० VI

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

SK-14

SP 14

कार्यालय अंचल अधिकारी, सिसई।

Email – cosisai123@gmail.com

पत्रांक 84(ii)
दिनांक 25/01/2023

प्रेषक,

अंचल अधिकारी,
सिसई।

सेवा में,

जिला खनन पदाधिकारी,
गुमला।

विषय :– DSR (Sand) में चिन्हित बालूघाटों से संबंधित प्रतिवेदन उपलब्ध कराने के संबंध में।
प्रसंग :– भवदीय के पत्रांक 40 / एम0, दिनांक 06.01.2023

महाशय,

उपर्युक्त विषयक प्रसंगाधीन पत्र के आलोक में संबंधित राजस्व उप निरीक्षक एवं अंचल निरीक्षक द्वारा राजस्व कागजातों से जाँच किया गया। प्रतिवेदनानुसार मौजा – आमकुली के खाता सं0 – 62, प्लॉट सं0 – 402, रकबा – 22.97 ए0 भूमि का बिन्दुवार प्रतिवेदन निम्नवत है :–

क्र0	निर्धारित बिन्दु	प्रतिवेदन (हाँ / नही)
1	क्या आवेदित भूमि की कोटि सर्वे खतियान यथा रजिस्टर – II में जंगल–झाड़ी के रूप में दर्ज है ?	नही
2	क्या 500 मीटर की दूरी के अन्दर कोई मानव बसाहट (Habitaion) स्थित है ?	नही
3	क्या 500 मीटर की दूरी के अन्दर कोई जलीय निकाय (Dam/Reservoir) स्थित है ?	नही
4	क्या 500 मीटर की दूरी के अन्दर कोई नदी (River) स्थित है ?	नही
5	क्या 500 मीटर की दूरी के अन्दर कोई शैक्षणिक संस्थान (Educational Insitute) स्थित है ?	नही
6	क्या 500 मीटर की दूरी के अन्दर कोई चिकित्सालय (Hospital) स्थित है ?	नही
7	क्या 10 कि0मी0 की परिधि में अन्तर्राराज्यीय (Interstate) सीमा है ?	नही
8	क्या 500 मीटर की दूरी के अन्दर कोई राष्ट्रीय धरोहर / पुरातत्वीय (Monuments/Archaeological) महत्त्व के स्थल स्थित है ?	नही

अतः प्रतिवेदन अग्रेत्तर कार्रवाई हेतु भवदीय को समर्पित।

अनुलग्नक :– यथोक्त।

विश्वासभाजन

25/01/23

अंचल अधिकारी,
सिसई।

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★
Approved
25/01/23

सेवा में,

अंचल अधिकारी
सिसई

विषय :- DSR (Sand) में चिह्नित कालू घाट से संबंधित प्रति

प्रसंग :- जिला खनन पदाधिकारी, गुमला के पत्रांक ५०/खम० दि. 6/11/20.

महाशय,

उपर्युक्त विषयक, प्रसंगाधीन पत्र के आलोक में मौजा आम के खाता सं० 62 प्लॉट सं. 402 रकबा 22.97 ए. मौजा भेलमुण्डा, खाता संख्या 142 प्लॉट सं० 01 रकबा 17.79 ए० मौजा भेलमुण्डा, खाता सं० 142 प्लॉट सं० 1738 रकबा 10.63 ए० प्लॉट संख्या 1739 रकबा 24.52 ए० से संबंधित भूमि का बिन्दुवार प्रतिवेदन निम्नवत् है :—

क्रम सं.	निर्धारित बिन्दु	प्रतिवेदन
1.	क्या आवेदित भूमि ----------	जंगल झाड़ी के रूप में दर्ज है? — नहीं।
2.	क्या 500 मीटर ----------	मानव वसाहट स्थित है? — नहीं।
3.	क्या 500 मीटर ----------	जलीय निकाय स्थित है? — नहीं।
4.	क्या 500 मीटर ----------	नदी स्थित है? — नहीं।
5.	क्या 500 मीटर ----------	शैक्षणिक संस्थान स्थित है? — नहीं।
6.	क्या 500 मीटर ----------	चिकित्सालय स्थित है? — नहीं।
7.	क्या 10 कि०मी० ----------	अंतर्राज्यीय सीमा है? — नहीं।
8.	क्या 500 मीटर ----------	महत्व के स्थल स्थित है? — नहीं।

अतः प्रतिवेदन [illegible] को समर्पित।

आपका विश्वासी

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

कार्यालय अंचल अधिकारी, रायडीह।

पत्रांक 24 (28)
दिनांक 17/01/2023

प्रेषक,

अंचल अधिकारी,
रायडीह।

सेवा में,

जिला खनन पदाधिकारी
गुमला।

विषय :– DSR (Sand) में चिन्हित बालूघाटों से संबंधित प्रतिवेदन भेजने के संबंध में।

महाशय,

उपर्युक्त विषय के संबंध में सादर सूचित करना है कि अंचल रायडीह के अन्तर्गत DSR (Sand) में चिन्हित बालूघाटों से संबंधित जांच प्रतिवेदन संबंधित राजस्व उप निरीक्षक, एवं अंचल निरीक्षक, से प्राप्त है जिसे इस पत्र के साथ संलग्न कर भेजी जा रही है।

कृपया प्राप्ति स्वीकार करने की कृपा की जाय।

विश्वासभाजन

अंचल अधिकारी,
रायडीह।
17/01/2023

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

SH-04

सेवा में,

जिला खनन पदाधिकारी,
गुमला।

विषय :– DSR (Sand) में चिन्हित बालूघाटों से संबंधित प्रतिवेदन भेजने के संबंध में।
प्रसंग :– भवदीय पत्रांक 41/M, दिनांक– 06.01.2023

महाशय,

उपरोक्त विषय के संबंध में स्थानीय जांच किया मौजा– कांसीर के खाता सं– 376 प्लॉट सं 4621 रकबा– 3.80 हेक्टर भूमि सर्वे खतियान में किस्म नदी दर्ज है बालू खनन हेतु जांच प्रतिवेदन विन्दुवार निम्नवत है :–

क्रमांक	निर्धारित बिन्दु	प्रतिवेदन (हाँ/नहीं)
1	क्या आवेदित भूमि की कोटि सर्वे खतियान तथा रजिस्टर II में जंगल झाड़ी के रूप में दर्ज है ?	नही
2	क्या 500 मीटर की दूरी के अन्दर कोई मानव बसाहट (Habitation) स्थिति है ?	नही
3	क्या 500 मीटर की दूरी के अन्दर कोई जलीय निकाय (Dam/Reservoir) स्थित है ?	नही
4	क्या 500 मीटर की दूरी के अन्दर कोई नदी (River) स्थित है ?	नही
5	क्या 500 मीटर की दूरी के अन्दर कोई शैक्षणिक संस्थान (Educational Institute) स्थित है ?	नही
6	क्या 500 मीटर की दूरी के अन्दर कोई चिकित्सालय (Hospital) स्थित है ?	नही
7	क्या 10 कि0मी0 की परिधि में अंतर्राराज्यीय (Interstate) सीमा है ?	हां
8	क्या 500 मीटर की दूरी के अन्दर कोई राष्ट्रीय धरोहर/पुरातत्वीय (Monuments/Archaeogical) महत्व के स्थल स्थित है ?	नही

मुख्य पथ से आवेदित खनन क्षेत्र के बीच कई रैयतों का खेती योग्य भूमि है तथा पहुँच पथ नही है।

16.1.23
रायजस्व उपनिरीक्षक,

अंचल निरीक्षक,
रायडीह।

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★ Approved

अंचल अधिकारी,
रायडीह।

SH-05

SH-5

सेवा में,

जिला खनन पदाधिकारी,
गुमला।

विषय :– DSR (Sand) में चिन्हित बालूघाटों से संबंधित प्रतिवेदन भेजने के संबंध में।
प्रसंग :– भवदीय पत्रांक 41/M, दिनांक– 06.01.2023

महाशय,

उपरोक्त विषय के संबंध में स्थानीय जांच किया मौजा– केमटे के खाता सं– 135, प्लॉट सं– 3176, एवं कांसीर के खाता सं– 441 प्लॉट सं 6605 का कुल रकबा– से 16.00 हेक्टर भूमि सर्वे खतियान में किस्म नदी दर्ज है बालू खनन हेतु जांच प्रतिवेदन विन्दुवार निम्नवत है :–

क्रमांक	निर्धारित बिन्दु	प्रतिवेदन (हाँ/नहीं)
1	क्या आवेदित भूमि की कोटि सर्वे खतियान तथा रजिस्टर II में जंगल झाड़ी के रूप में दर्ज है ?	नही
2	क्या 500 मीटर की दूरी के अन्दर कोई मानव बसाहट (Habitation) स्थिति है ?	नही
3	क्या 500 मीटर की दूरी के अन्दर कोई जलीय निकाय (Dam/Reservoir) स्थित है ?	नही
4	क्या 500 मीटर की दूरी के अन्दर कोई नदी (River) स्थित है ?	नही
5	क्या 500 मीटर की दूरी के अन्दर कोई शैक्षणिक संस्थान (Educational Institute) स्थित है ?	नही
6	क्या 500 मीटर की दूरी के अन्दर कोई चिकित्सालय (Hospital) स्थित है ?	नही
7	क्या 10 कि0मी0 की परिधि में अंतर्राराज्यीय (Interstate) सीमा है ?	हां
8	क्या 500 मीटर की दूरी के अन्दर कोई राष्ट्रीय धरोहर/पुरातत्वीय (Monuments/Archaeogical) महत्व के स्थल स्थित है ?	नही

मुख्य पथ से आवेदित खनन क्षेत्र के बीच कई रैयतों का खेती योग्य भूमि है तथा पहुँच पथ नही है।

रायजस्व उपनिरीक्षक,

अंचल निरीक्षक,
रायडीह।

अंचल अधिकारी,
रायडीह।

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

SH-06

सेवा में,

जिला खनन पदाधिकारी,
गुमला।

SH-6

विषय :– DSR (Sand) में चिन्हित बालूघाटों से संबंधित प्रतिवेदन भेजने के संबंध में।
प्रसंग :– भवदीय पत्रांक 41/M, दिनांक– 06.01.2023

महाशय,

उपरोक्त विषय के संबंध में स्थानीय जांच किया मौजा– लाटु के खाता सं– 117, प्लॉट सं– 4002, रकबा–41.53 ए0 में से 8.30 हेक्टर भूमि सर्वे खतियान में किस्म नदी दर्ज है बालू खनन हेतु जांच प्रतिवेदन विन्दुवार निम्नवत है :–

क्रमांक	निर्धारित बिन्दु	प्रतिवेदन (हाँ/नहीं)
1	क्या आवेदित भूमि की कोटि सर्वे खतियान तथा रजिस्टर II में जंगल झाड़ी के रूप में दर्ज है ?	नही
2	क्या 500 मीटर की दूरी के अन्दर कोई मानव बसाहट (Habitation) स्थिति है ?	नही
3	क्या 500 मीटर की दूरी के अन्दर कोई जलीय निकाय (Dam/Reservoir) स्थित है ?	नही
4	क्या 500 मीटर की दूरी के अन्दर कोई नदी (River) स्थित है ?	नही
5	क्या 500 मीटर की दूरी के अन्दर कोई शैक्षणिक संस्थान (Educational Institute) स्थित है ?	नही
6	क्या 500 मीटर की दूरी के अन्दर कोई चिकित्सालय (Hospital) स्थित है ?	नही
7	क्या 10 कि0मी0 की परिधि में अंतर्राराज्यीय (Interstate) सीमा है ?	हां
8	क्या 500 मीटर की दूरी के अन्दर कोई राष्ट्रीय धरोहर/पुरातत्वीय (Monuments/Archaeogical) महत्व के स्थल स्थित है ?	नही

मुख्य पथ से आवेदित खनन क्षेत्र के बीच कई रैयतों का खेती योग्य भूमि है तथा पहुँच पथ नही है।

16.1.23
रायजस्व उपनिरीक्षक,

17/1/2023
अंचल निरीक्षक,
रायडीह।

17/1/23
अंचल अधिकरी,
रायडीह।

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

SH-7

सेवा में,

जिला खनन पदाधिकारी,
गुमला।

विषय :– DSR (Sand) में चिन्हित बालूघाटों से संबंधित प्रतिवेदन भेजने के संबंध में।

प्रसंग :– भवदीय पत्रांक 41/M, दिनांक– 06.01.2023

महाशय,

उपरोक्त विषय के संबंध में स्थानीय जांच किया मौजा– कोब्जा के खाता सं– 301, प्लॉट सं– 371/5530, रकबा– 4.05 हेक्टर भूमि सर्वे खतियान में किस्म नदी दर्ज है बालू खनन हेतु जांच प्रतिवेदन विन्दुवार निम्नवत है :–

क्रमांक	निर्धारित बिन्दु	प्रतिवेदन (हाँ/नहीं)
1	क्या आवेदित भूमि की कोटि सर्वे खतियान तथा रजिस्टर II में जंगल झाड़ी के रूप में दर्ज है ?	नही
2	क्या 500 मीटर की दूरी के अन्दर कोई मानव बसाहट (Habitation) स्थिति है ?	नही
3	क्या 500 मीटर की दूरी के अन्दर कोई जलीय निकाय (Dam/Reservoir) स्थित है ?	नही
4	क्या 500 मीटर की दूरी के अन्दर कोई नदी (River) स्थित है ?	नही
5	क्या 500 मीटर की दूरी के अन्दर कोई शैक्षणिक संस्थान (Educational Institute) स्थित है ?	नही
6	क्या 500 मीटर की दूरी के अन्दर कोई चिकित्सालय (Hospital) स्थित है ?	नही
7	क्या 10 कि0मी0 की परिधि में अंतर्राराज्यीय (Interstate) सीमा है ?	नही
8	क्या 500 मीटर की दूरी के अन्दर कोई राष्ट्रीय धरोहर/पुरातत्वीय (Monuments/Archaeogical) महत्व के स्थल स्थित है ?	नही

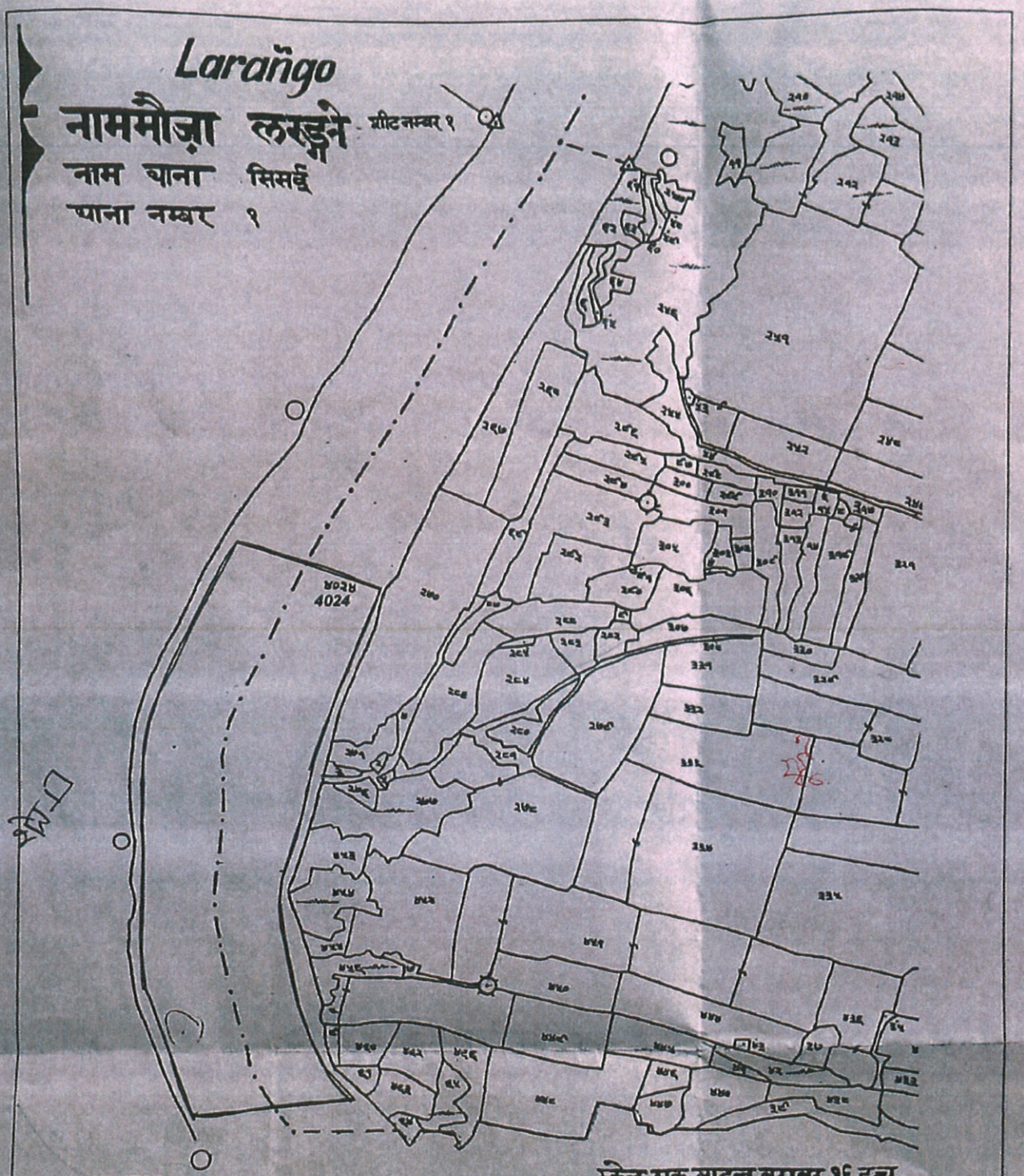
अतः जांच प्रतिवेदन अग्रेतर कार्रवाई हेतु अग्रसारित ।

17/01/2023
रायजस्व उपनिरीक्षक,
(DSI)

17/01/2023
अंचल निरीक्षक,
रायडीह।

17/1/23.
अंचल अधिकरी,
रायडीह।

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

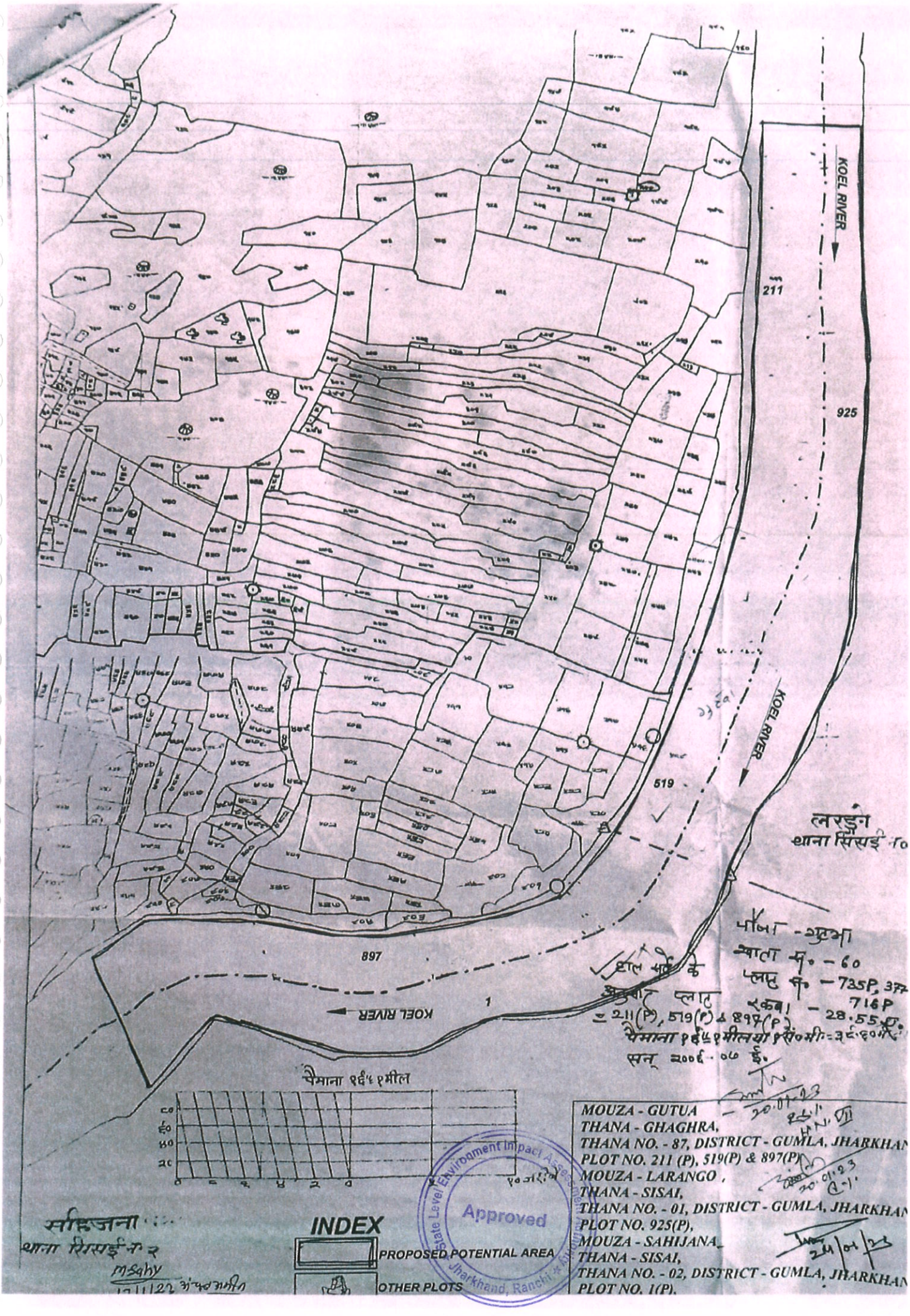


MOUZA - LARANGO
THANA - SISAI,
THANA NO. - 01, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 4024(P),
TOTAL AREA - 7.85 HA.

मौजा लरंगो | खाता ७५१ | प्लॉट ४०२४ | रकबा ११.४०८० | किस्म नदी | [illegible]

अंचल अधिकारी
गुमला

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi


KOEL RIVER
211
925
KOEL RIVER
519
897
1
KOEL RIVER
लरङ्गो
थाना सिसई नं०
पैमाना १६"=१मील
MOUZA - GUTUA
THANA - GHAGHRA,
THANA NO. - 87, DISTRICT - GUMLA, JHARKHAN
PLOT NO. 211 (P), 519(P) & 897(P)
MOUZA - LARANGO ,
THANA - SISAI,
THANA NO. - 01, DISTRICT - GUMLA, JHARKHAN
PLOT NO. 925(P),
MOUZA - SAHIJANA
THANA - SISAI,
THANA NO. - 02, DISTRICT - GUMLA, JHARKHAN
PLOT NO. 1(P).
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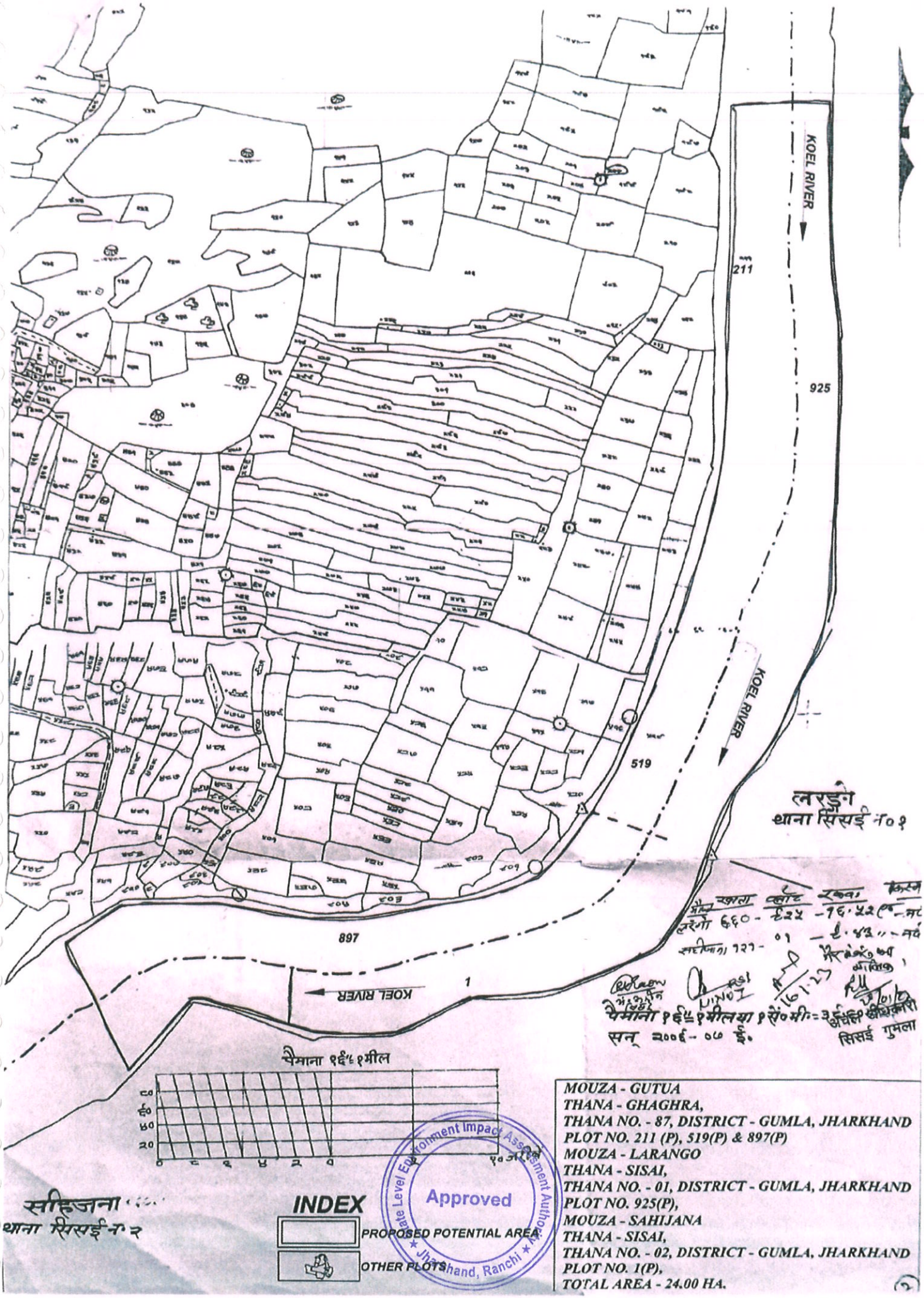
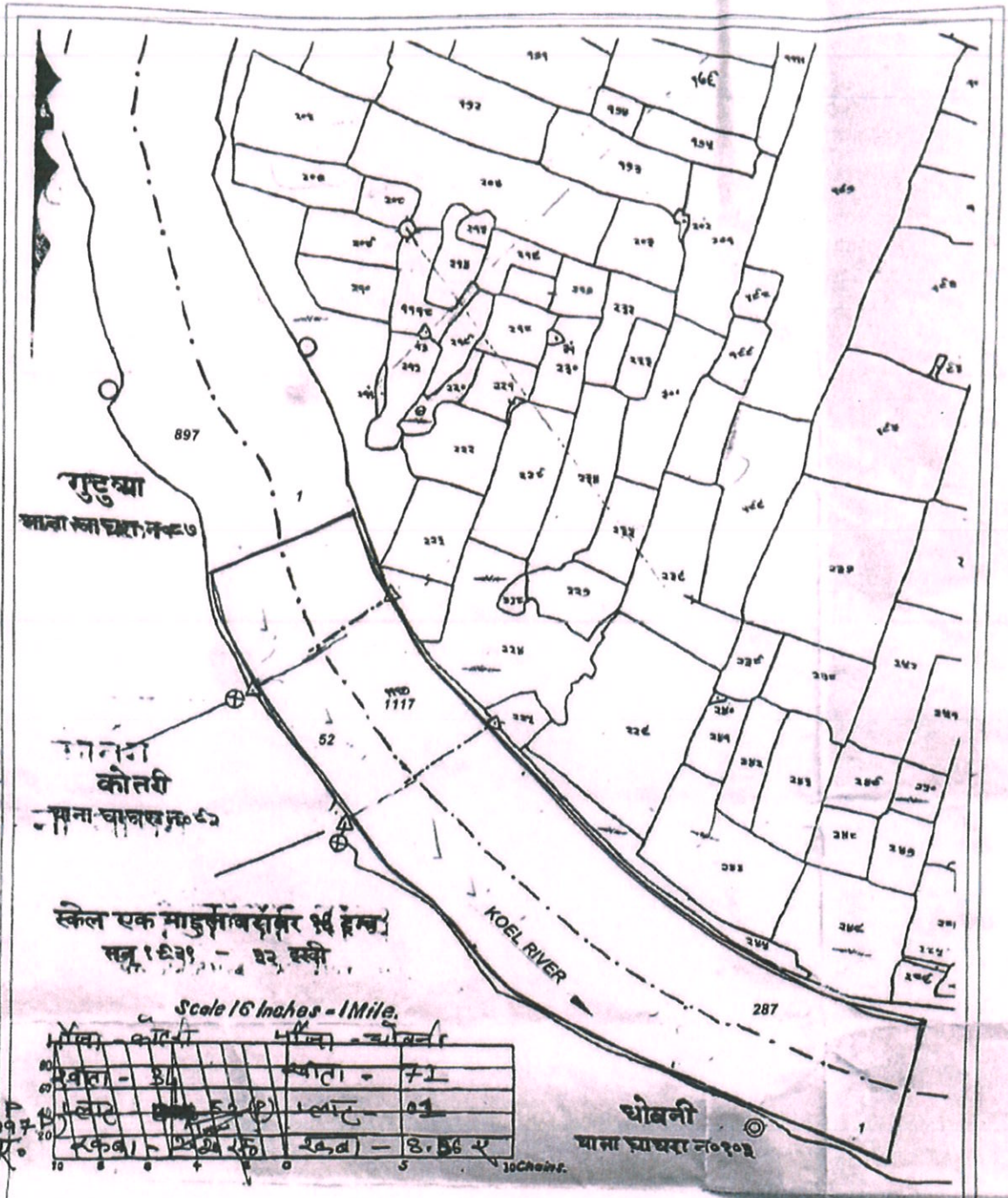
PROPOSED POTENTIAL AREA
OTHER PLOTS
State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi



MOUZA - GUTUA
THANA - GHAGHRA,
THANA NO. - 87, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 211 (P), 519(P) & 897(P)
MOUZA - LARANGO
THANA - SISAI,
THANA NO. - 01, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 925(P),
MOUZA - SAHIJANA
THANA - SISAI,
THANA NO. - 02, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1(P),
TOTAL AREA - 24.00 HA.



MOUZA - SAHIJANA
THANA - SISAI,
THANA NO. - 02, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1117(P), 287(P), 1(P),
MOUZA - DHOBNI
THANA - GHAGHRA,
THANA NO. - 103, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1(P),
MOUZA - KOTRI
THANA - GHAGHRA,
THANA NO. - 92, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 52(P),
MOUZA - GUTUA
THANA - GHAGHRA,
THANA NO. - 87, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 897(P),
TOTAL AREA - 10.00 HA.

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PROPOSED POTENTIAL AREA

OTHER PLOTS

State Level Environment Impact Assessment Authority * Jharkhand, Ranchi *
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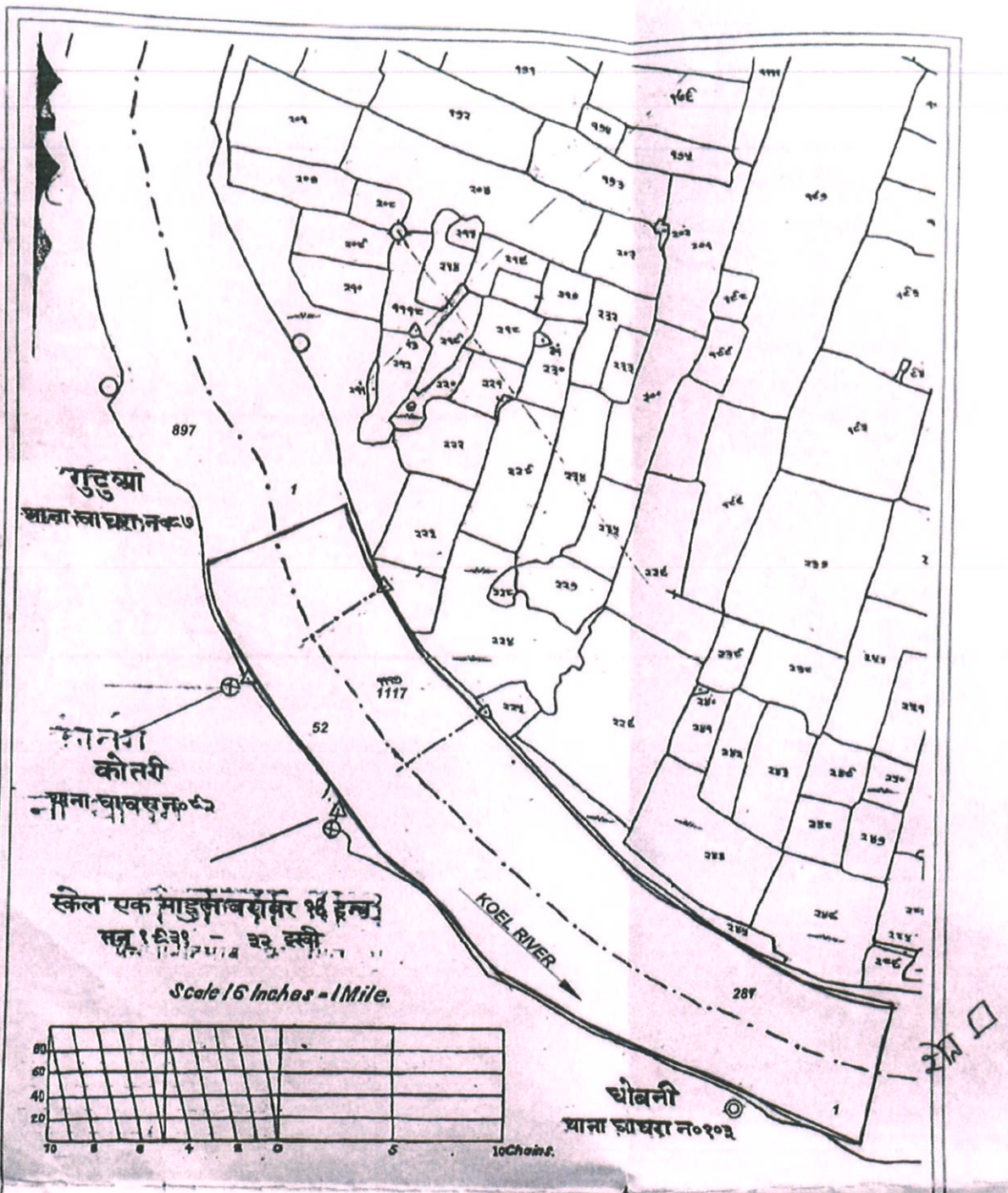

MOUZA - SAHIJANA
THANA - SISAI,
THANA NO. - 02, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1117(P), 287(P), 1(P),
MOUZA - DHOBNI
THANA - GHAGHRA,
THANA NO. - 103, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1(P),
MOUZA - KOTRI
THANA - GHAGHRA,
THANA NO. - 92, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 52(P);
MOUZA - GUTUA
THANA - GHAGHRA,
THANA NO. - 87, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 897(P),
TOTAL AREA - 10.00 HA.

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PROPOSED POTENTIAL AREA

OTHER PLOTS

मौजा	खाता	प्लॉट	रकबा	किस्म भूमि	वैध अवधि
सहीजाना	127	1	1.50 हे०	नदी	
	127	1117	2.20 "	नदी	
	127	287	2.26 "	नदी	

अंचल अधिकारी
सिसई गुमला

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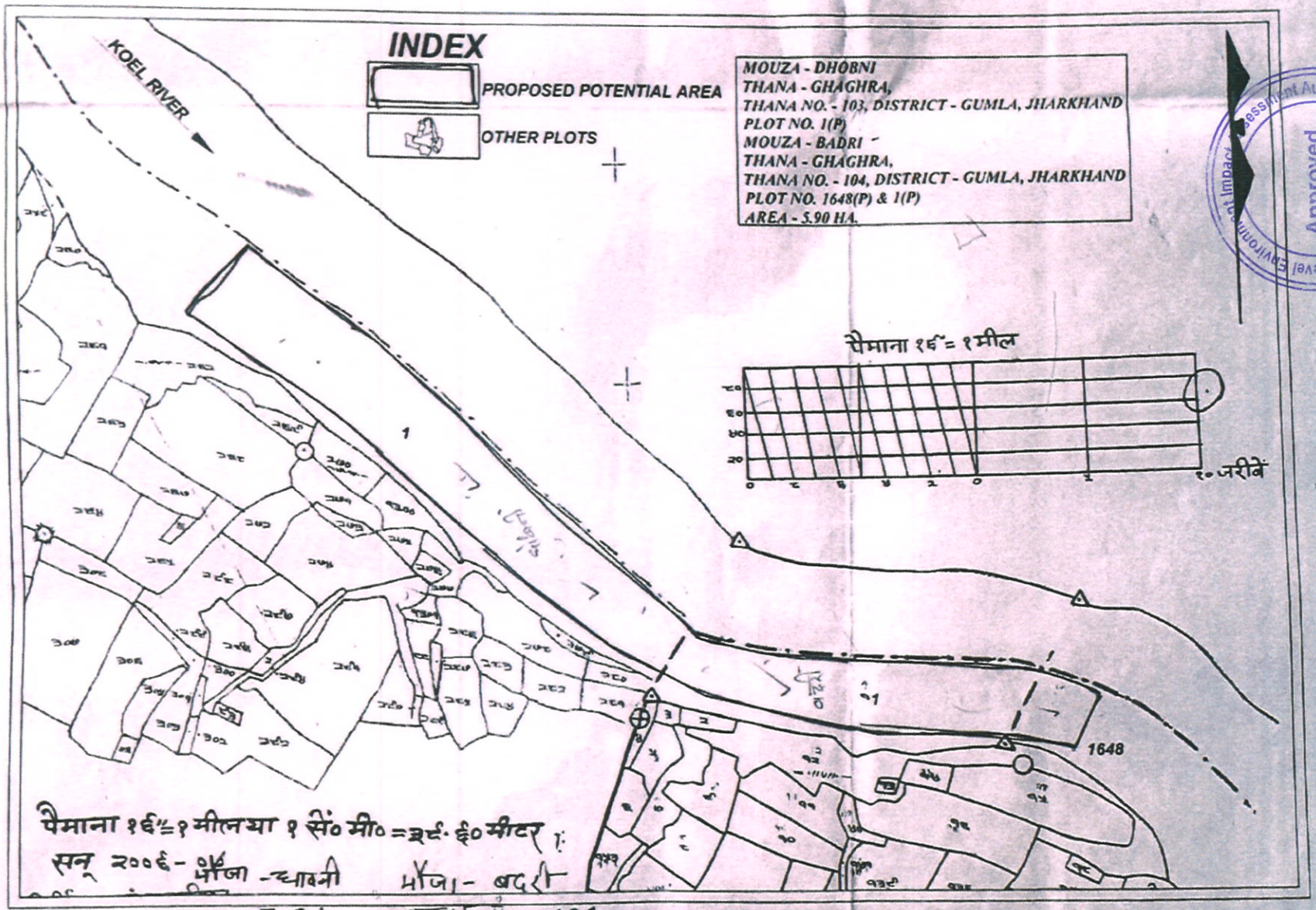

खाता सं० 71
प्लाट सं० 1
रकबा = 8.062 M.Sqhy

खाता नं० - 101
प्लाट सं० - 1648 (हाल सर्वे)
रकबा - 5.35 ए०

17/11/23

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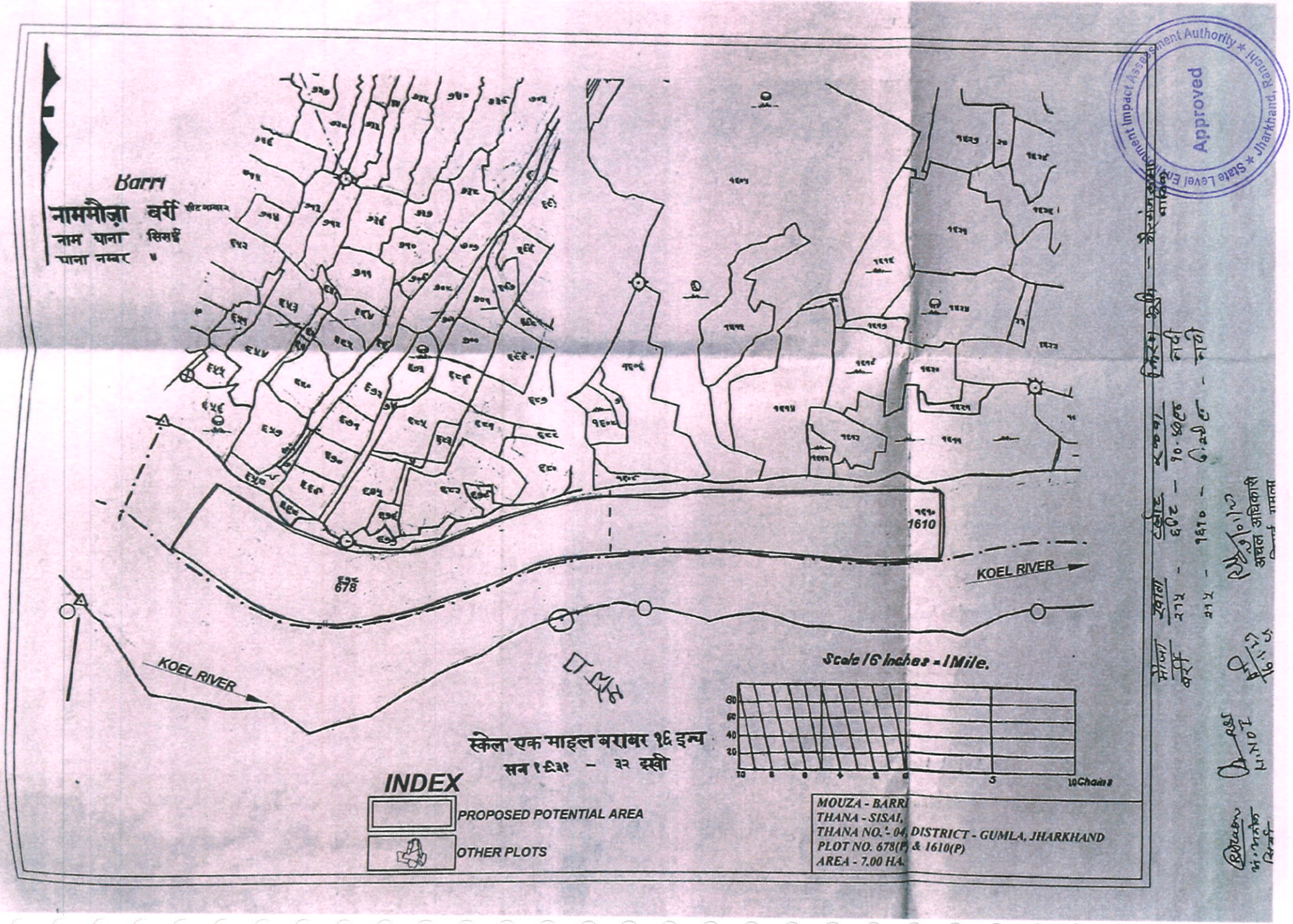
Barri
नाममौज़ा बर्री
नाम थाना सिसई
थाना नम्बर ४
1610
678
KOEL RIVER
KOEL RIVER
Scale 16 Inches = 1 Mile.
10 Chains
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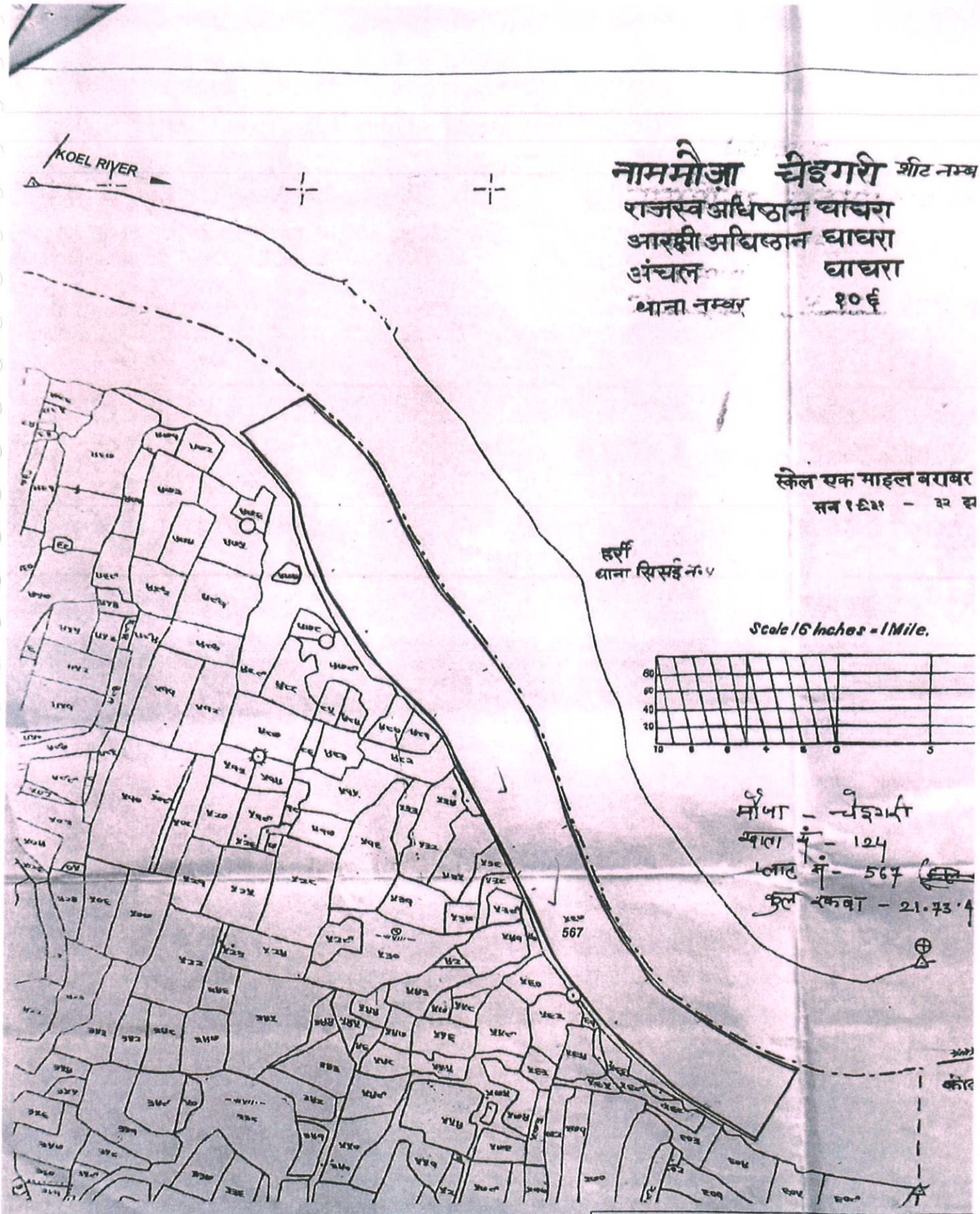
OTHER PLOTS
स्केल एक माइल बराबर १६ इन्च
सन १६३१ - ३२ इस्वी
MOUZA - BARRI
THANA - SISAI,
THANA NO. - 04, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 678(P) & 1610(P)
AREA - 7.00 HA.
Approved
State Level Environment Impact Assessment Authority * Jharkhand, Ranchi


KOEL RIVER
नाममौजा चैइगरी शीट नम्ब
राजस्व अधिष्ठान घाघरा
आरक्षी अधिष्ठान घाघरा
अंचल घाघरा
थाना नम्बर १०६
स्केल एक माइल बराबर
सन १६२१ - ३२ इ
हर्री
थाना सिरई नं.५
Scale 16 inches - 1 Mile.
80
60
40
20
10 8 6 4 2 0 5
मौजा - चैइगरी
थाना नं - 124
प्लाट नं - 567
कुल रकबा - 21.73.4
567
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PROPOSED POTENTIAL AREA
OTHER PLOTS
MOUZA - CHEIGARI
THANA - GHAGHRA,
THANA NO. - 106, DISTRICT - GUMLA, JHARKH
PLOT NO. 567(P)
AREA - 8.80 HA.
State Level Environment Impact Assessment Authority
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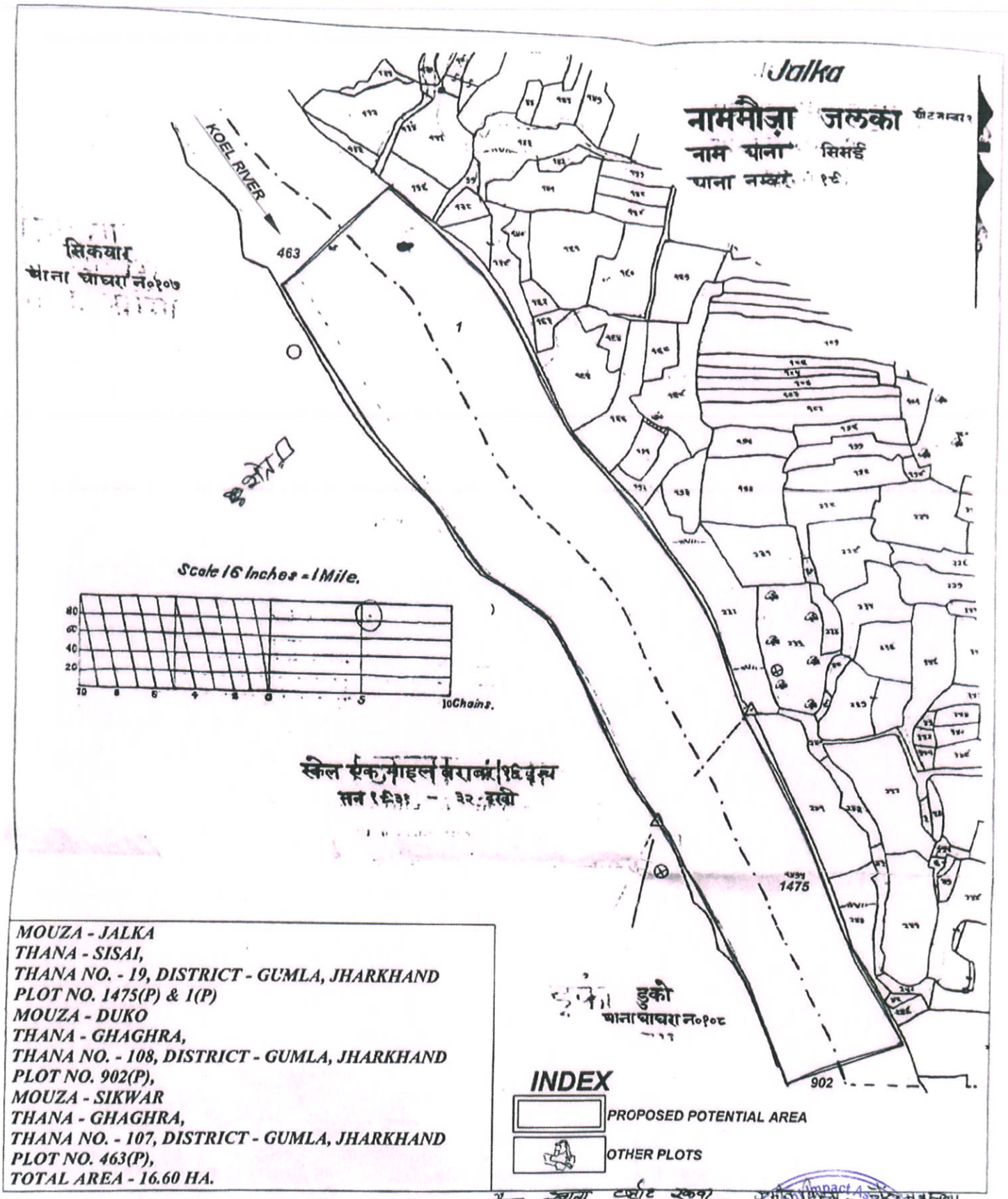

MOUZA - JALKA
THANA - SISAI,
THANA NO. - 19, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1475(P) & 1(P)
MOUZA - DUKO
THANA - GHAGHRA,
THANA NO. - 108, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 902(P),
MOUZA - SIKWAR
THANA - GHAGHRA,
THANA NO. - 107, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 463(P),
TOTAL AREA - 16.60 HA.

मौजा जलका | खाता १०९ | प्लॉट ०१ - १२.४२ एक | एकवा - जमीन पिछड़ा - नहीं
१४६५ - ०६.६८ "

16/01/2023 RS
अं० अमीन सिसई
16.1.23
20/01/23
अंचल अधिकारी
सिसई गुमला

State Level Environment Impact Assessment Authority
Approved
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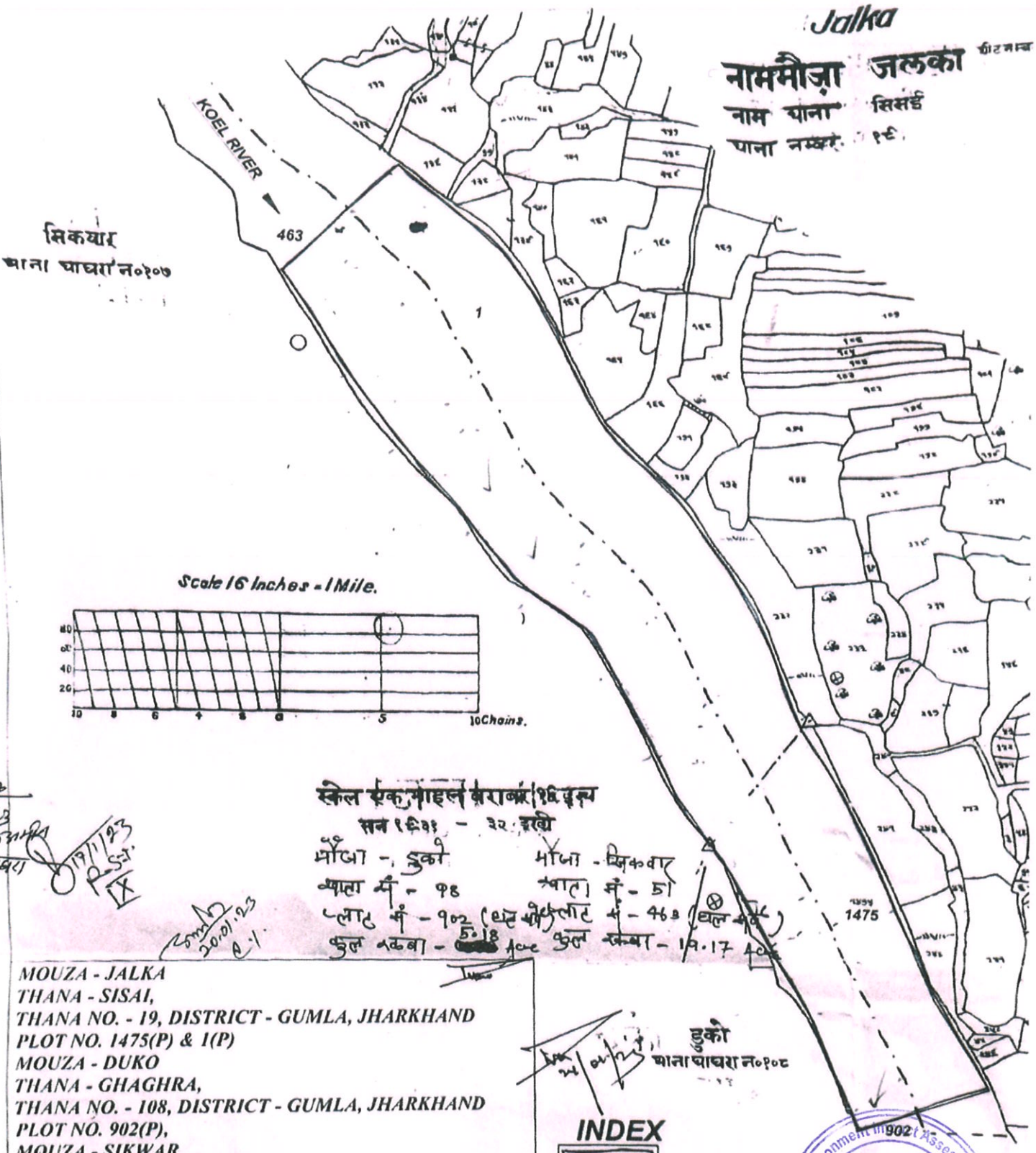
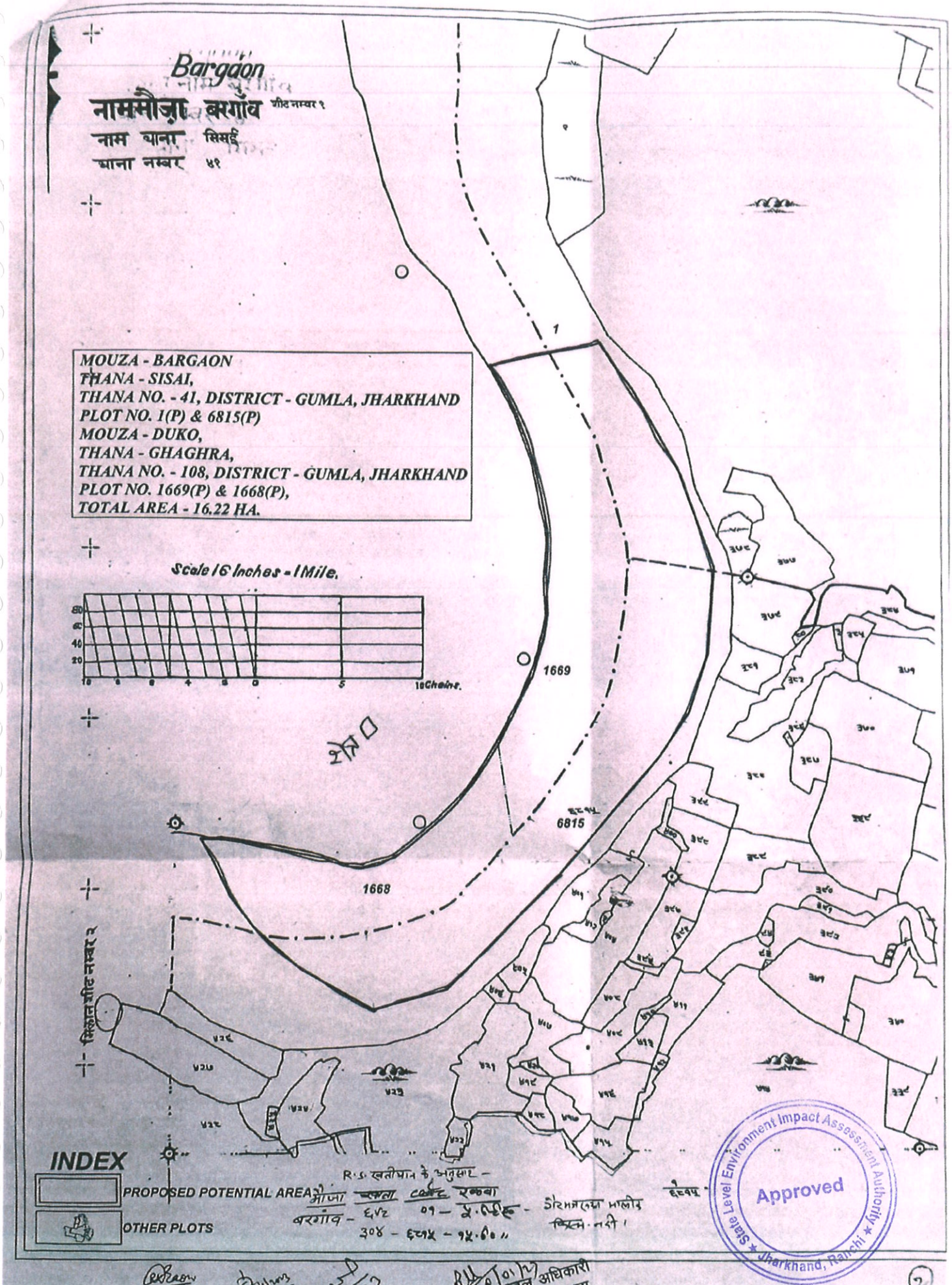


MOUZA - JALKA
THANA - SISAI,
THANA NO. - 19, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1475(P) & 1(P)
MOUZA - DUKO
THANA - GHAGHRA,
THANA NO. - 108, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 902(P),
MOUZA - SIKWAR
THANA - GHAGHRA,
THANA NO. - 107, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 463(P),
TOTAL AREA - 16.60 HA.

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi


Bargaon
नाममौज़ा बरगाँव शीट नम्बर १
नाम थाना सिसई
थाना नम्बर ४१
MOUZA - BARGAON
THANA - SISAI,
THANA NO. - 41, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1(P) & 6815(P)
MOUZA - DUKO,
THANA - GHAGHRA,
THANA NO. - 108, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1669(P) & 1668(P),
TOTAL AREA - 16.22 HA.
Scale 16 Inches - 1 Mile.
10 Chains.
1
1669
6815
1668
मिलान शीट नम्बर २
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PROPOSED POTENTIAL AREA
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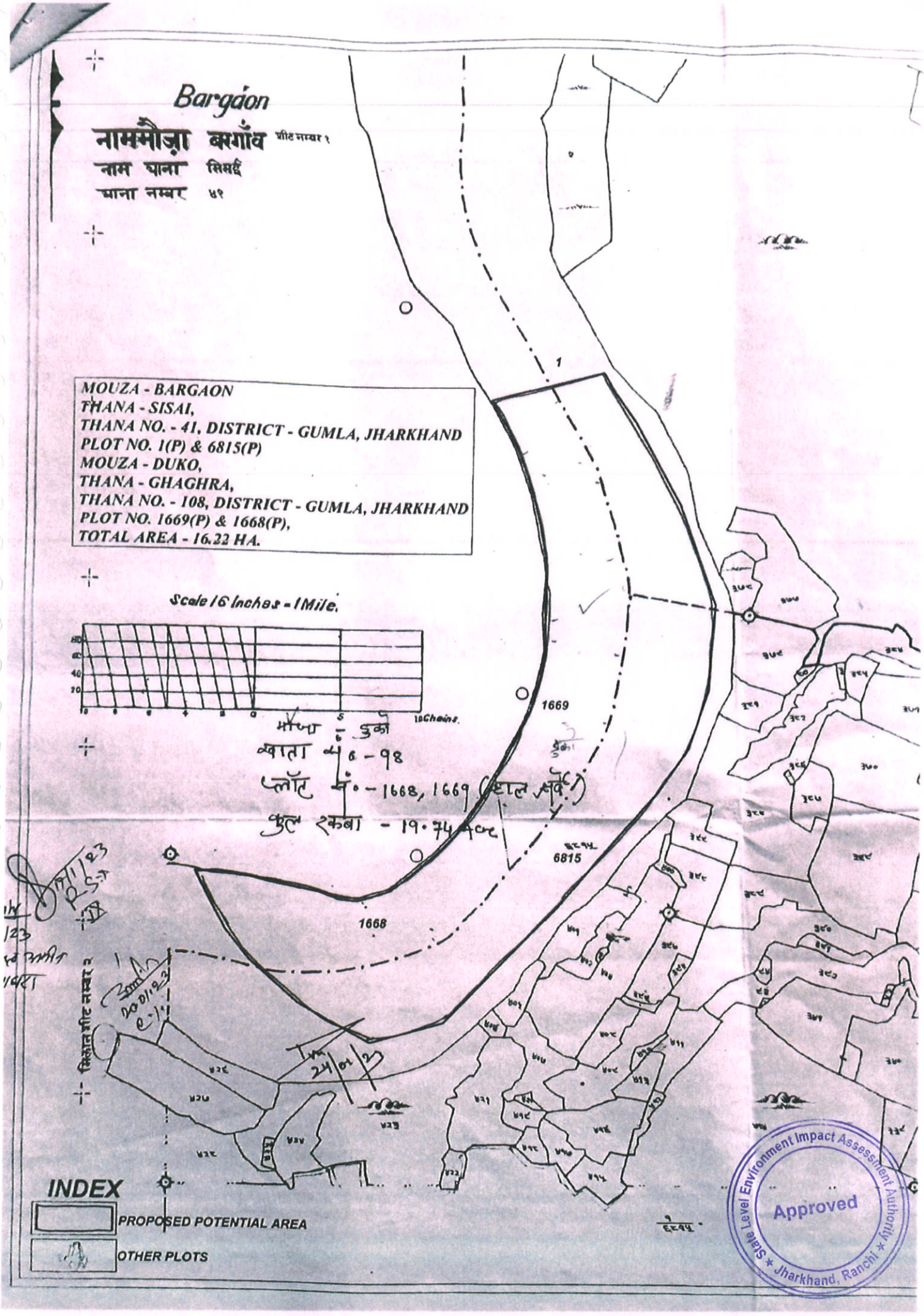
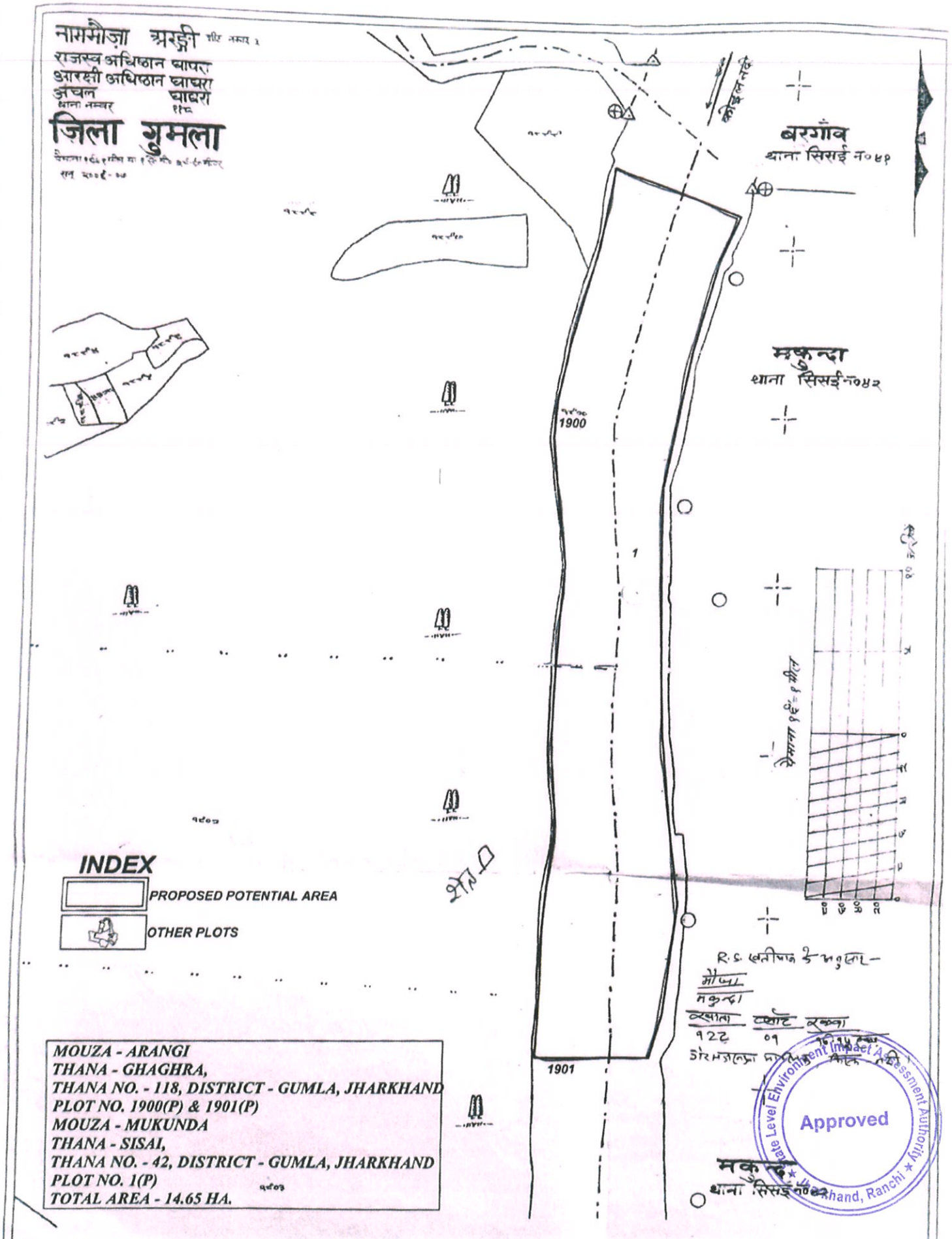
बरगांव - ६५८ ०१ - ५.६६ - गैरमजरूआ मालीक किस्म नदी।
३०४ - ६८१५ - १५.६० "
State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi
अचल अधिकारी
सिसई गुमला


Bargaon
नाममौज़ा बरगाँव शीट नम्बर १
नाम थाना सिसई
थाना नम्बर ४१
MOUZA - BARGAON
THANA - SISAI,
THANA NO. - 41, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1(P) & 6815(P)
MOUZA - DUKO,
THANA - GHAGHRA,
THANA NO. - 108, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1669(P) & 1668(P),
TOTAL AREA - 16.22 HA.
Scale 16 Inches = 1 Mile.
10 Chains
1669
6815
1668
INDEX
PROPOSED POTENTIAL AREA
OTHER PLOTS
State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi


नाममौज़ा अरङ्गी
राजस्व अधिष्ठान घाघरा
आरक्षी अधिष्ठान घाघरा
अंचल घाघरा
थाना नम्बर ११८
जिला गुमला
बरगाँव
थाना सिसई न० ४१
मकुन्दा
थाना सिसई न० ४२
1900
1
1901
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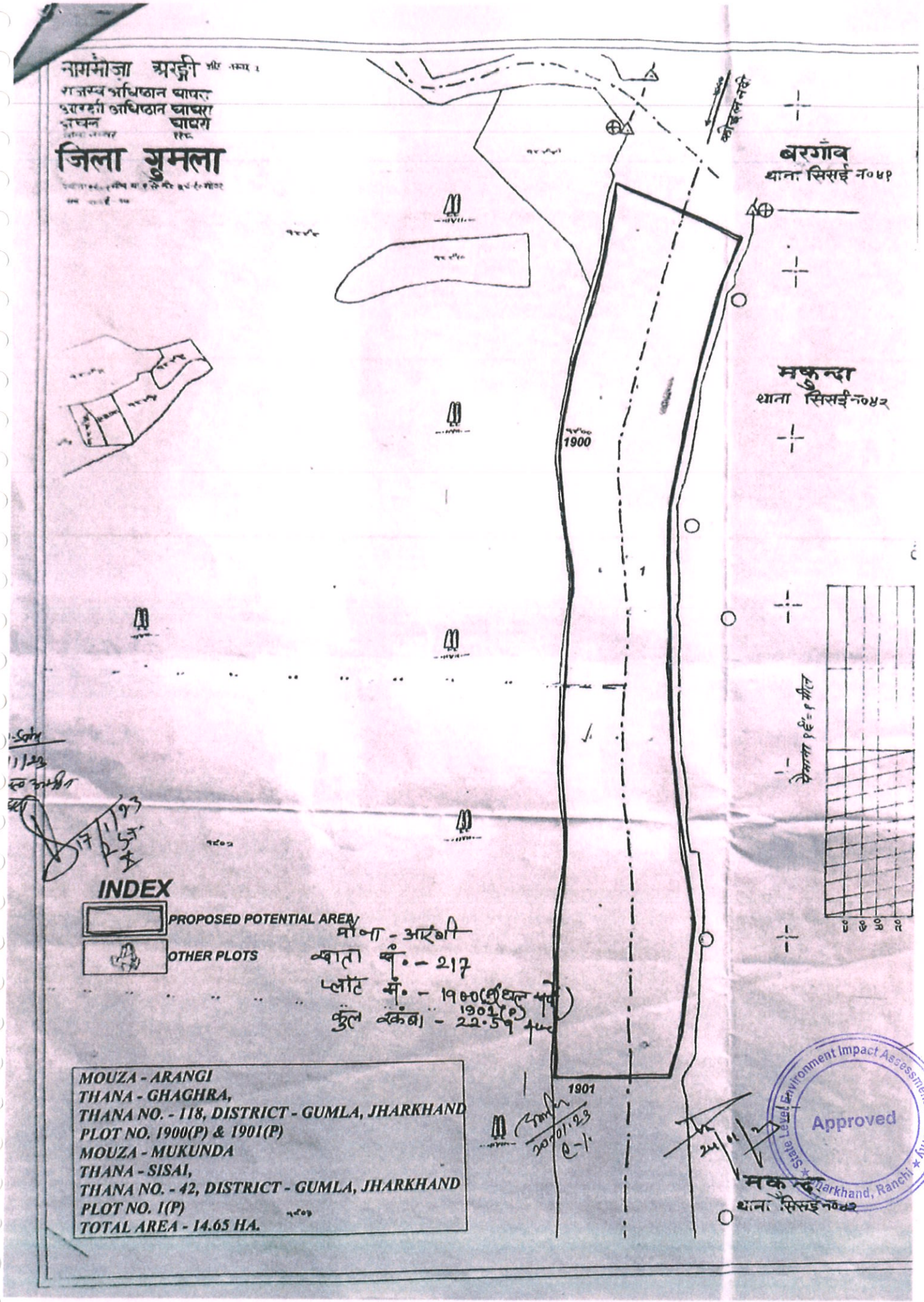
PROPOSED POTENTIAL AREA
OTHER PLOTS
MOUZA - ARANGI
THANA - GHAGHRA,
THANA NO. - 118, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1900(P) & 1901(P)
MOUZA - MUKUNDA
THANA - SISAI,
THANA NO. - 42, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1(P)
TOTAL AREA - 14.65 HA.
मकुन्दा
थाना सिसई न० ४२
State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi



नाममौज़ा अरङ्गी
राजस्व अधिष्ठान घाघरा
अरङ्गी अधिष्ठान घाघरा
जिला गुमला
बरगाँव
थाना सिसई नं०४१
मकुन्दा
थाना सिसई नं०४२
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1901
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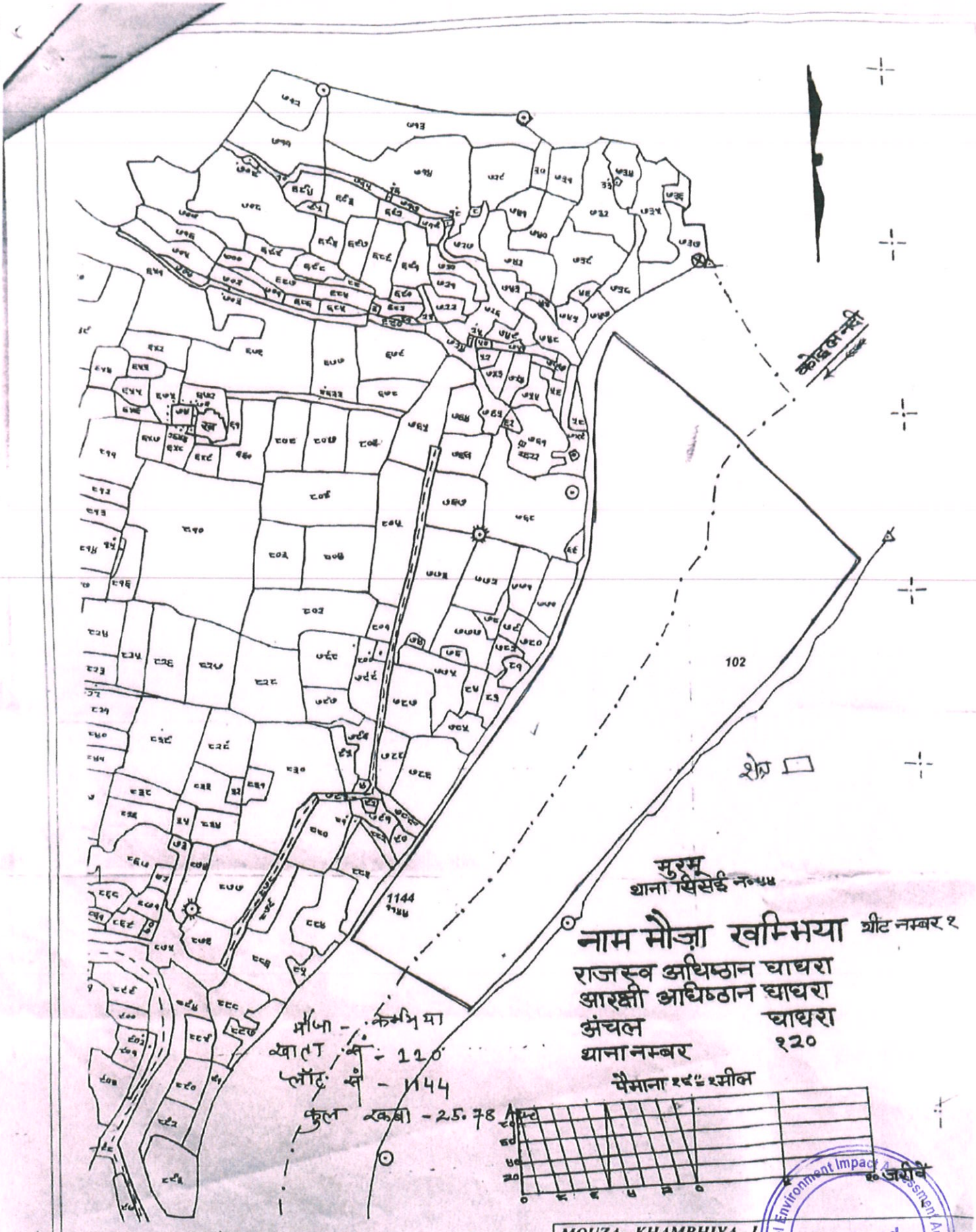
OTHER PLOTS
मौजा - आरंगी
खाता सं० - 217
प्लॉट सं० - 1900(P) (धल सर्वे)
1901(P)
कुल रकबा - 22.59 Acre
MOUZA - ARANGI
THANA - GHAGHRA,
THANA NO. - 118, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1900(P) & 1901(P)
MOUZA - MUKUNDA
THANA - SISAI,
THANA NO. - 42, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1(P)
TOTAL AREA - 14.65 HA.
State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi



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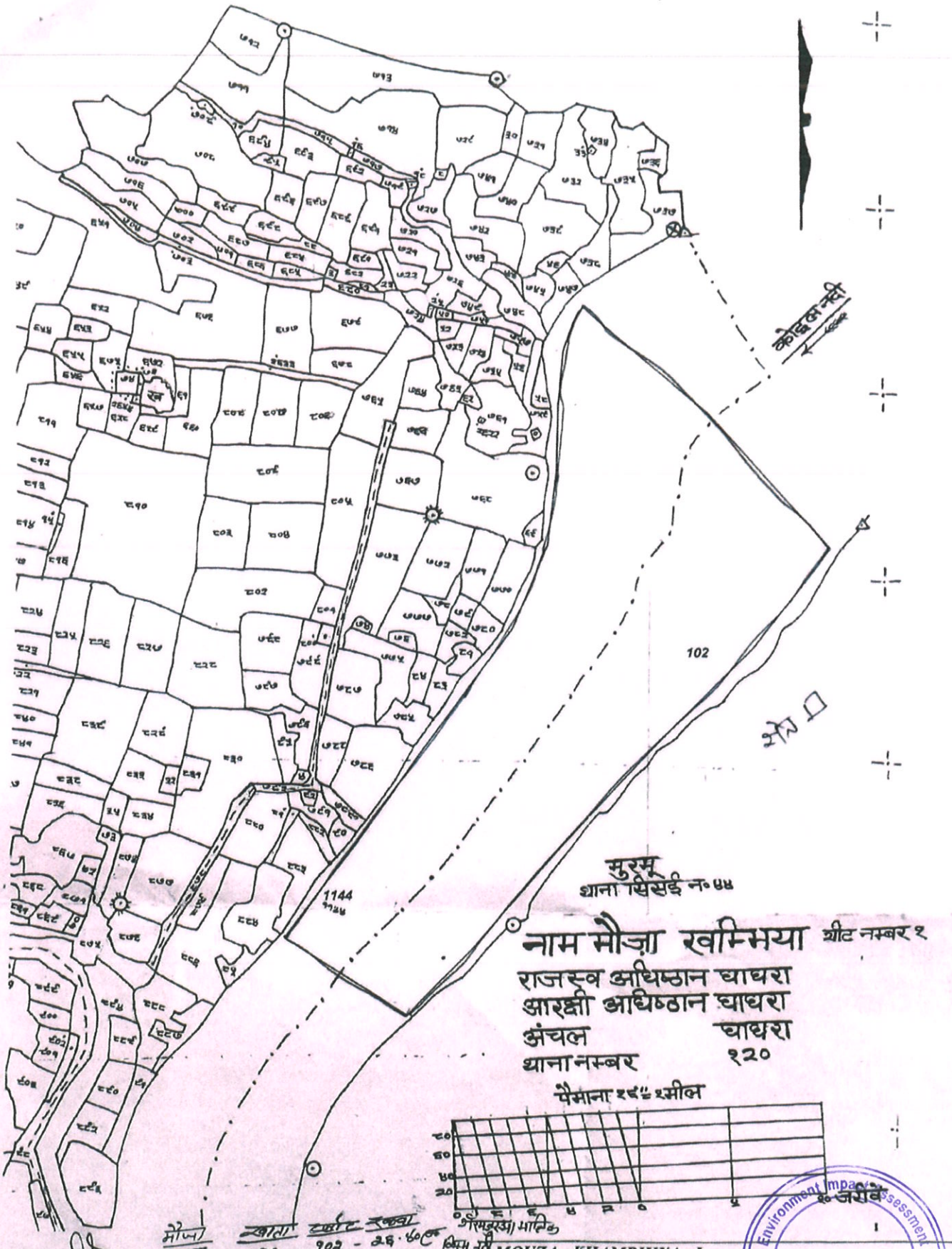
PROPOSED POTENTIAL AREA

OTHER PLOTS

MOUZA - KHAMBHIYA - I
THANA - GHAGRA,
THANA NO. - 120, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1144(P)
MOUZA - MURMU
THANA - SISAI,
THANA NO. - 44, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 102(P)
TOTAL AREA - 17.00 HA.

Approved
State Level Environment Impact Assessment Authority
Jharkhand, Ranchi



मौजा मुरमू | खाता 192 | प्लॉट रकबा 102 - 26.40 एक

R.S.I

अंचल अधिकारी

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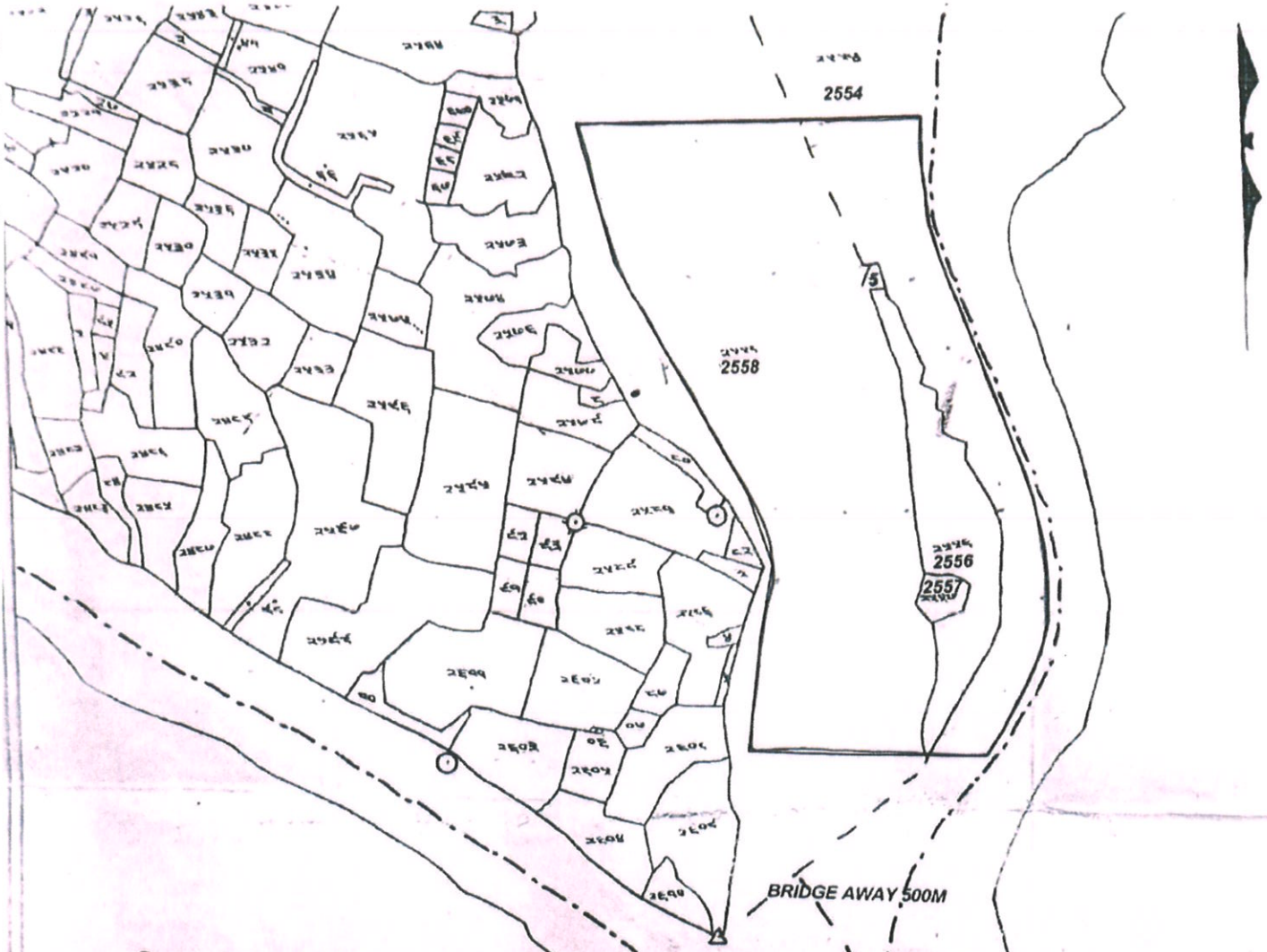
PROPOSED POTENTIAL AREA

OTHER PLOTS

MOUZA - KHAMBHIYA - I
THANA - GHAGRA,
THANA NO. - 120, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1144(P)
MOUZA - MURMU
THANA - SISAI,
THANA NO. - 44, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 102(P)
TOTAL AREA - 17.00 HA.

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi



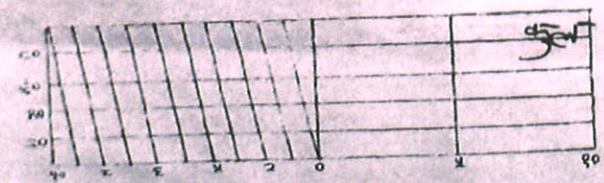
नाम मौज़ा खम्भिया शीट नम्बर 3

राजस्वअधिष्ठान घाघरा
आरक्षीअधिष्ठान घाघरा
अंचल घाघरा
थाना नम्बर १२०

मौजा - खम्भिया
खाता नं० - 110
प्लॉट नं० - 2555, 2556, 2557, 2558 (हाल सर्वे)
कुल रकबा - 32.11 Acre

पैमाना १ई०=१ मीलया १ सें०मी०=३८.६० मीटर

सन् २००६-०७



INDEX

PROPOSED POTENTIAL AREA

OTHER PLOTS

MOUZA - KHAMBHIYA-II
THANA - GHAGRA,
THANA NO. - 120, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 2555, 2556, 2557, 2554(P) & 2558(P)
AREA - 13.00 HA.

State Level Environment Impact Assessment Authority
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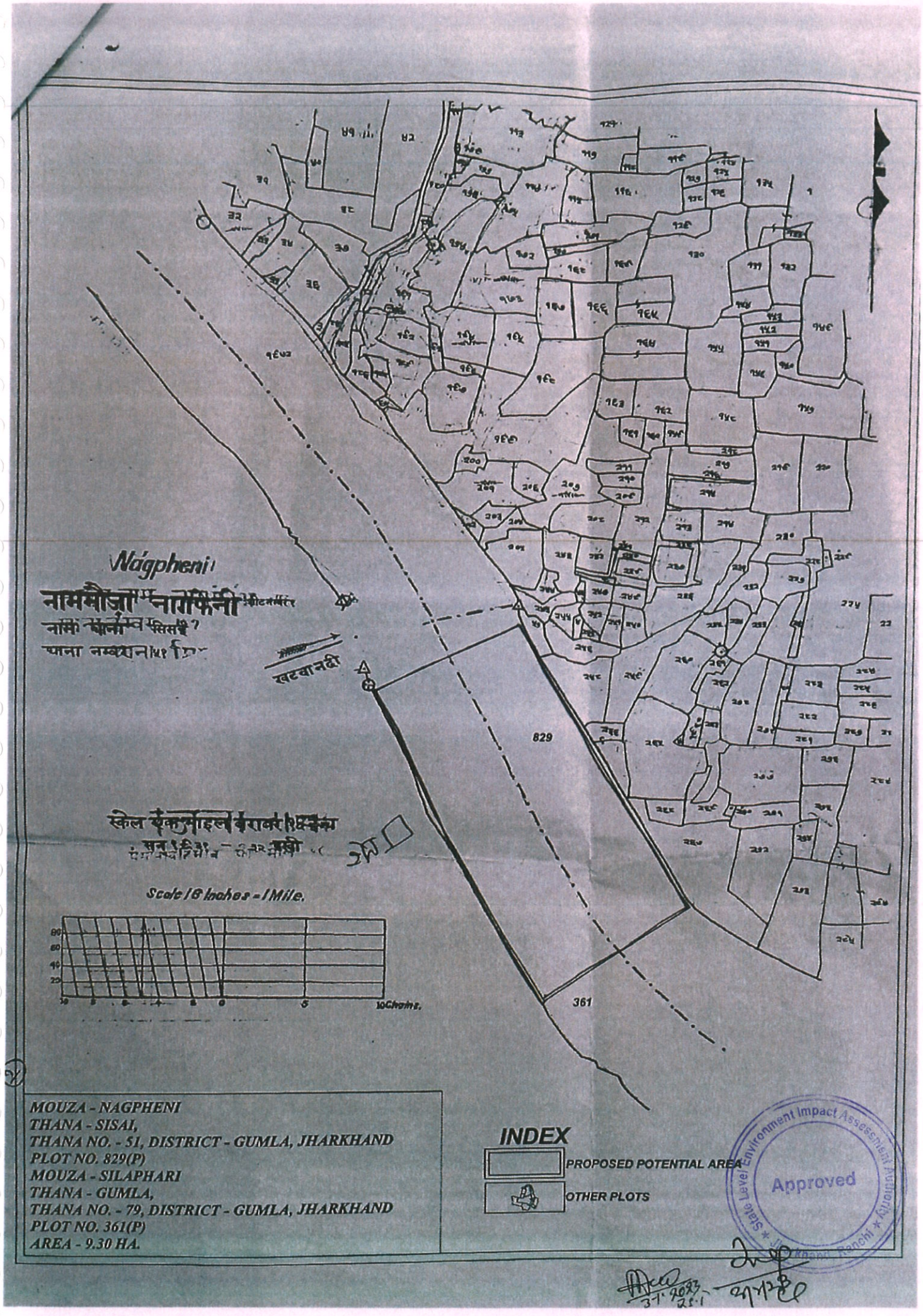
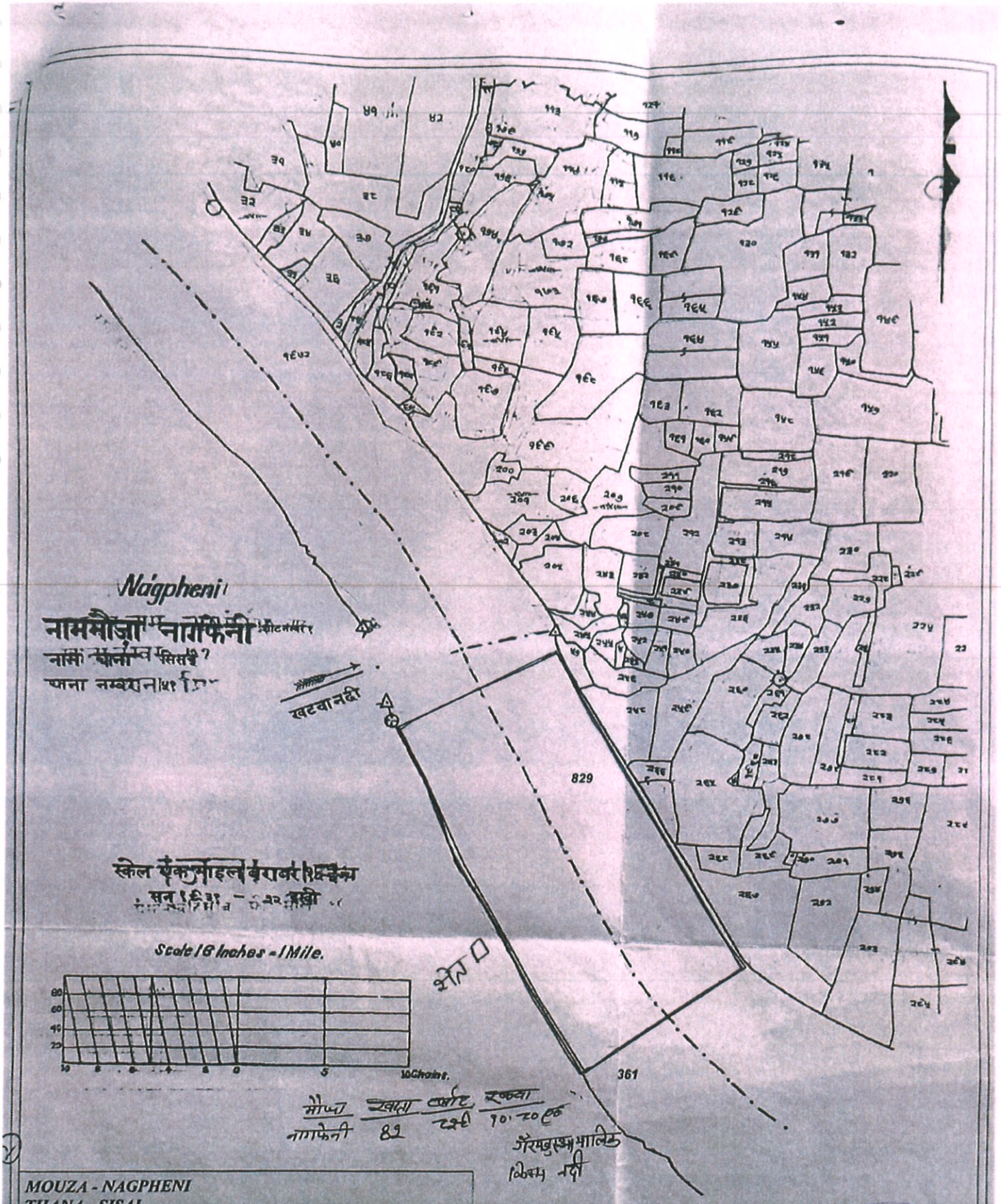
Jharkhand, Ranchi


Nágpheni
नाममौजा नागफेनी
खटवानदी
829
361
Scale 16 Inches = 1 Mile.
10 Chains.
MOUZA - NAGPHENI
THANA - SISAI,
THANA NO. - 51, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 829(P)
MOUZA - SILAPHARI
THANA - GUMLA,
THANA NO. - 79, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 361(P)
AREA - 9.30 HA.
INDEX
PROPOSED POTENTIAL AREA
OTHER PLOTS
State Level Environment Impact Assessment Authority
Approved
Ranchi



MOUZA - NAGPHENI
THANA - SISAI,
THANA NO. - 51, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 829(P)
MOUZA - SILAPHARI
THANA - GUMLA,
THANA NO. - 79, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 361(P)
AREA - 9.30 HA.

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PROPOSED POTENTIAL AREA

OTHER PLOTS

State Level Environment Impact Assessment Authority * Jharkhand, Ranchi *
Approved

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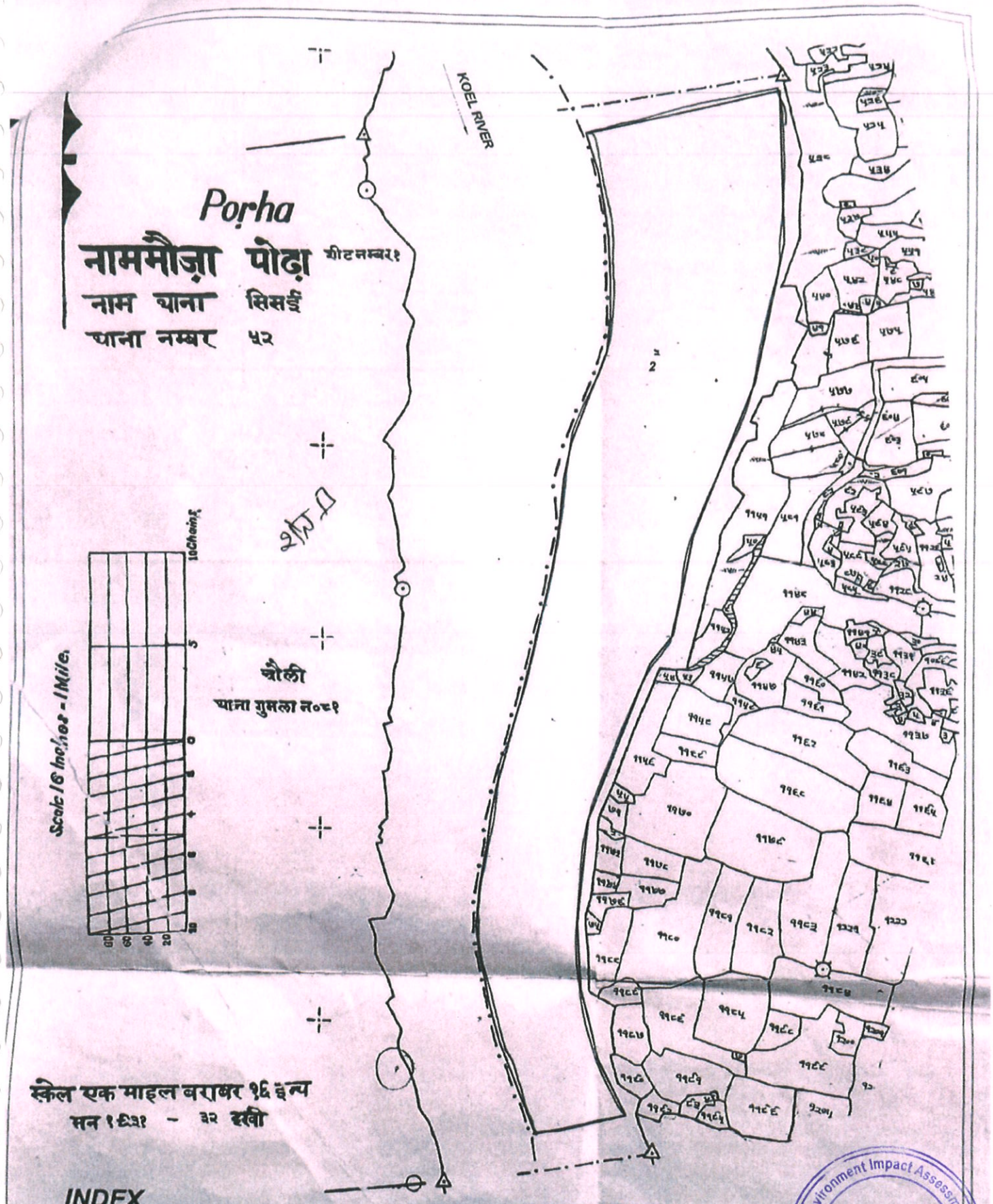
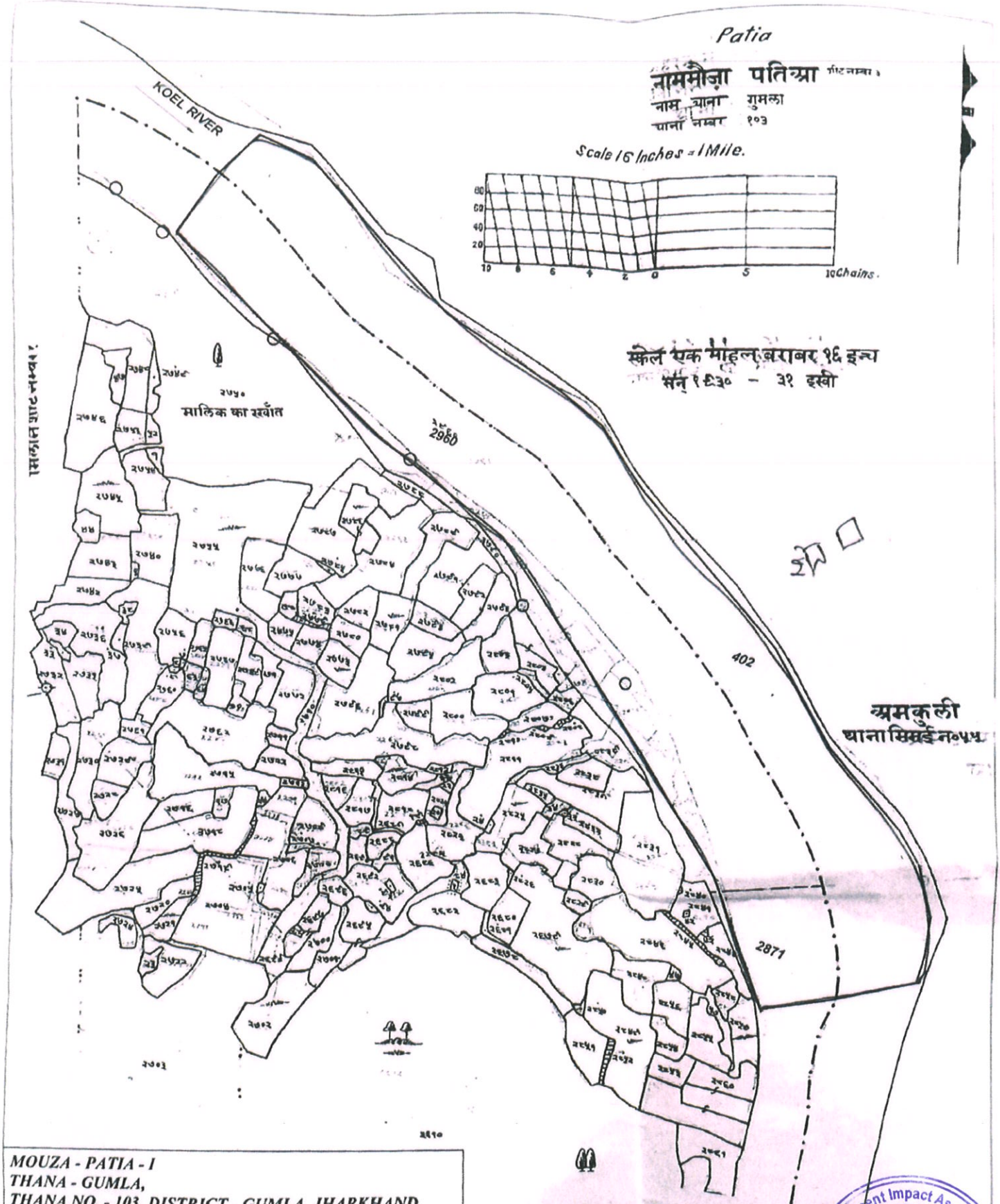
अंचल अधिकारी
सिसई गुमला



मौजा पोढ़ा खाता २११ टर्लाट २ रकबा ४६.०३९ गैरमजरुआ मालेक किस्म नदी

अंचल अधिकारी सिसई गुमला



MOUZA - PATIA - I
THANA - GUMLA,
THANA NO. - 103, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 2960(P) & 2871(P)
MOUZA - AMKULI
THANA - SISAI,
THANA NO. - 55, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 402(P)
TOTAL AREA - 21.20 HA.

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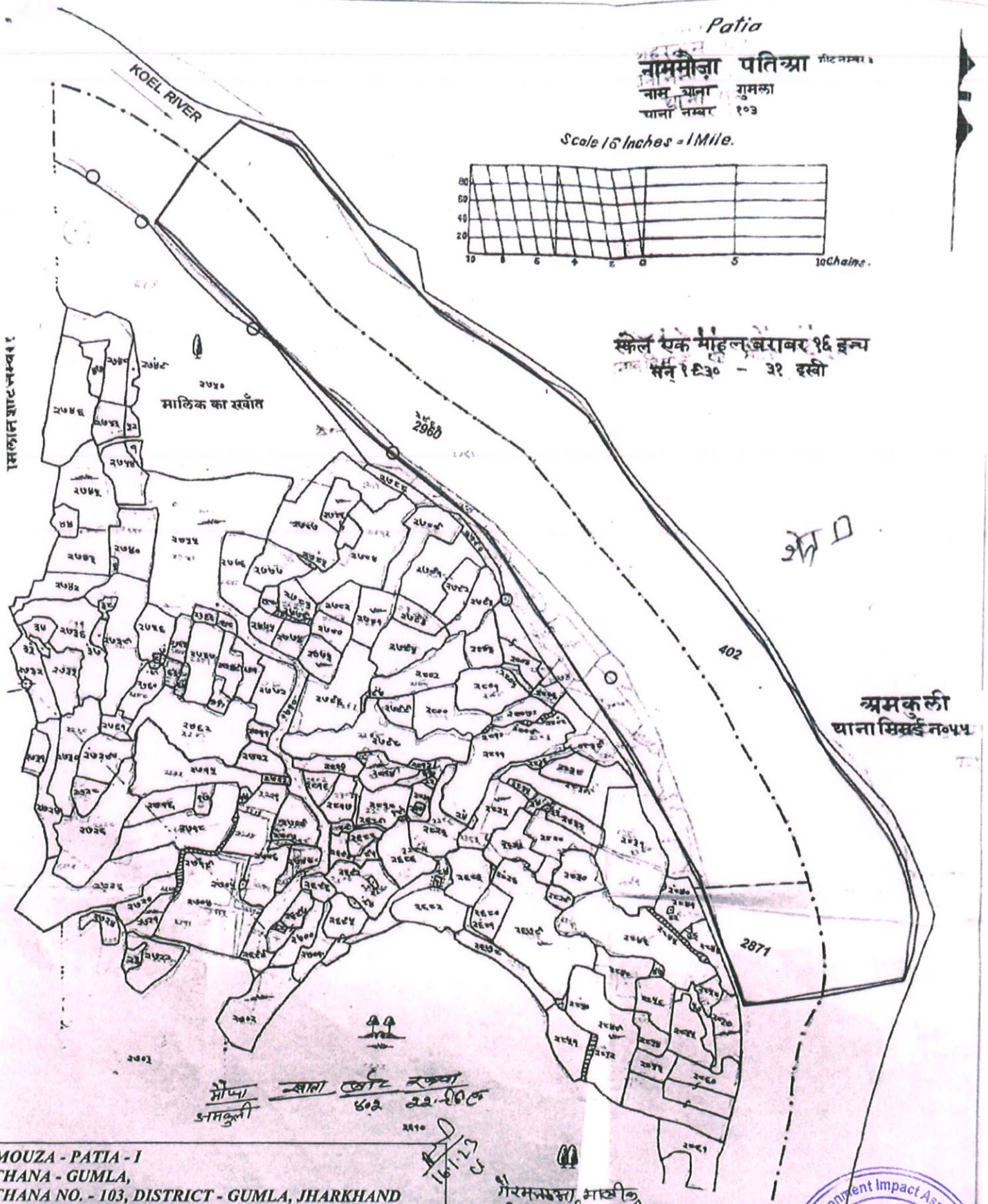
Patia
नाममौज़ा पतिआ
नाम थाना गुमला
थाना नम्बर १०३
Scale 16 Inches = 1 Mile.
10 Chains.
स्केल एक माइल बराबर १६ इन्च
सन् १९३० - ३१ इस्वी
KOEL RIVER
मालिक का खवाँत
2960
402
2871
अमकुली
थाना सिसई नं०५५
MOUZA - PATIA - I
THANA - GUMLA,
THANA NO. - 103, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 2960(P) & 2871(P)
MOUZA - AMKULI
THANA - SISAI,
THANA NO. - 55, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 402(P)
TOTAL AREA - 21.20 HA.
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सिसई, गुमला
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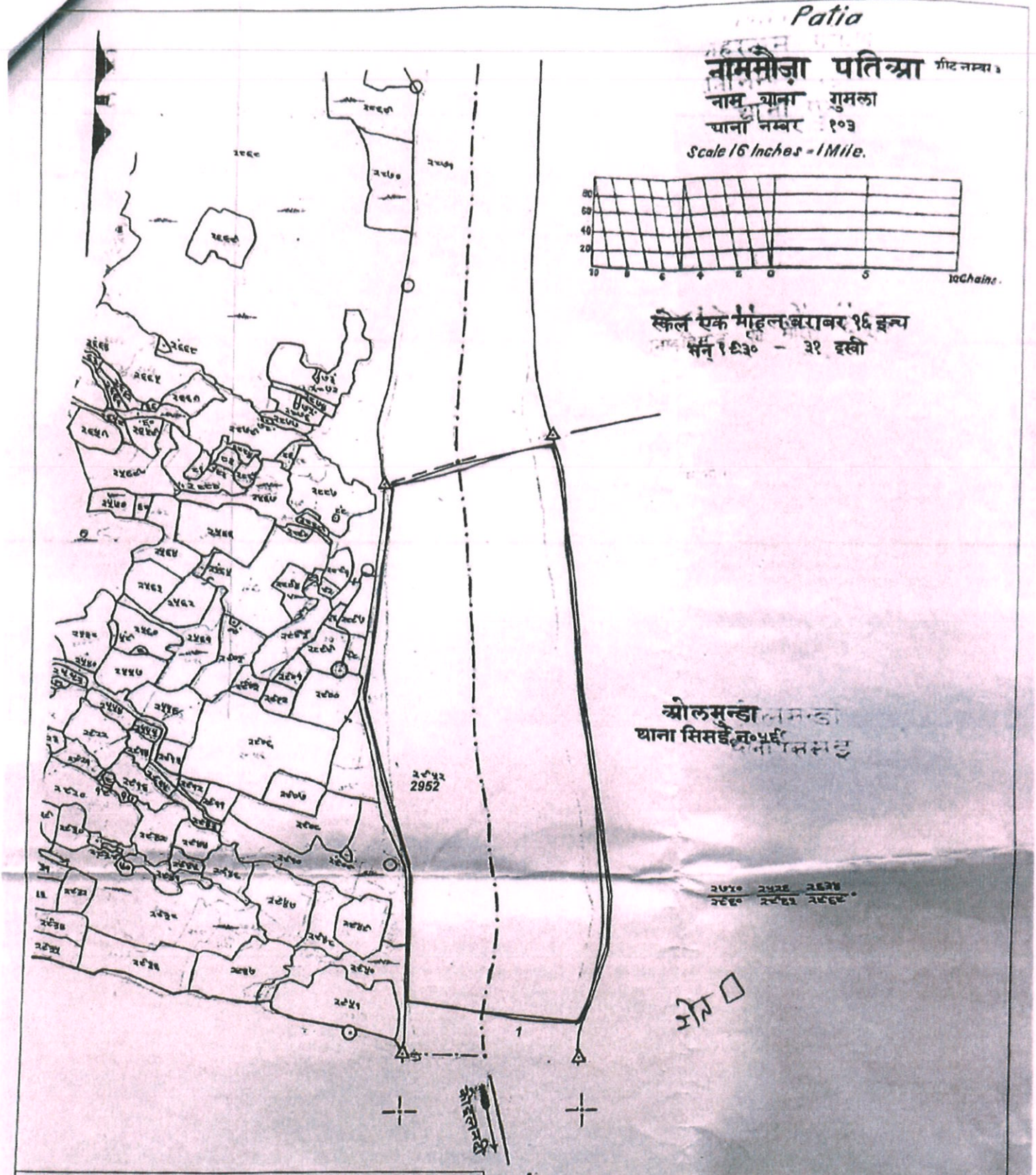

MOUZA - PATIA - II
THANA - GUMLA,
THANA NO. - 103, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 2952(P)
MOUZA - OLMUNDA
THANA - SISAI,
THANA NO. - 56, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1(P)
TOTAL AREA - 13.50 HA.

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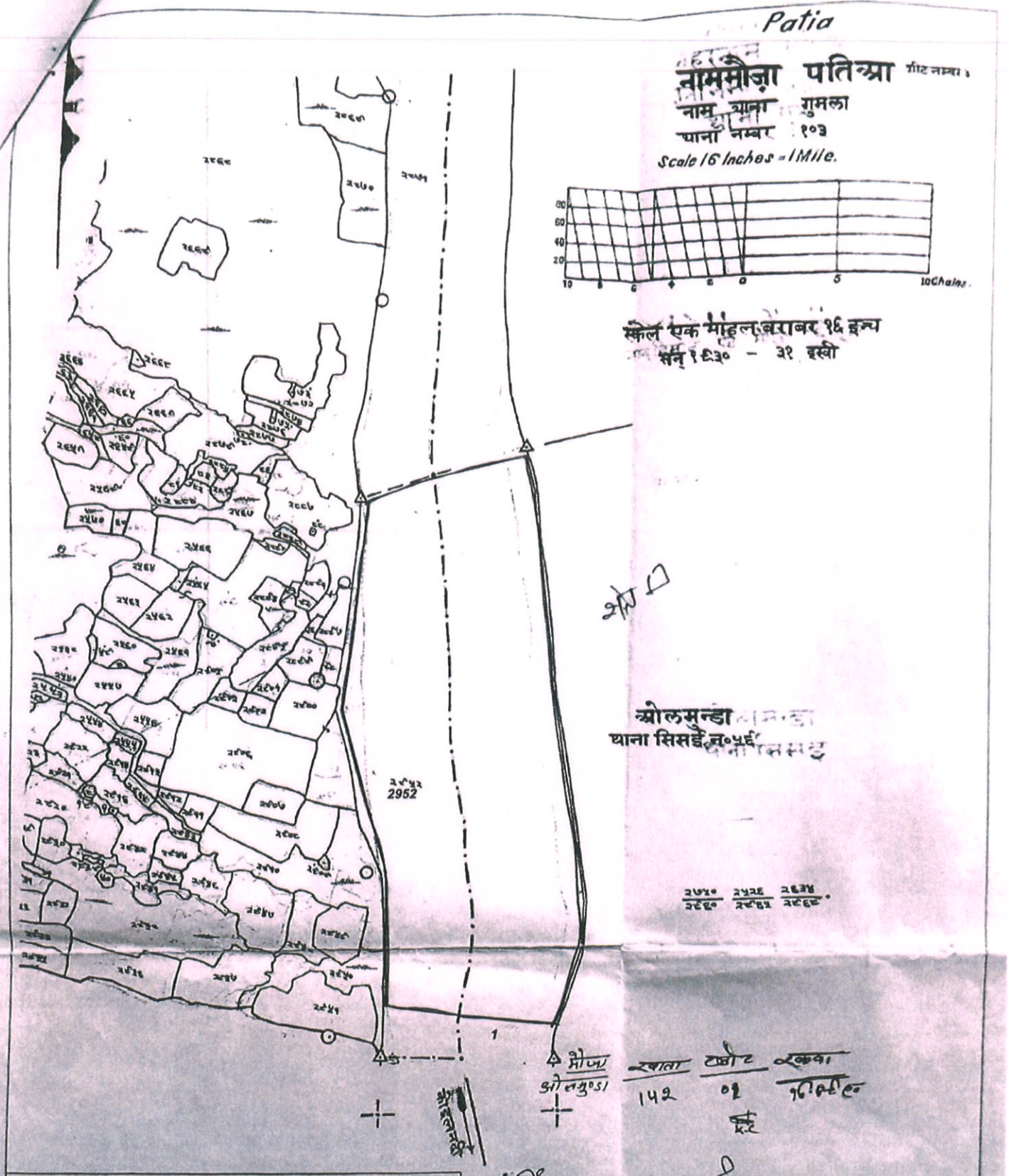
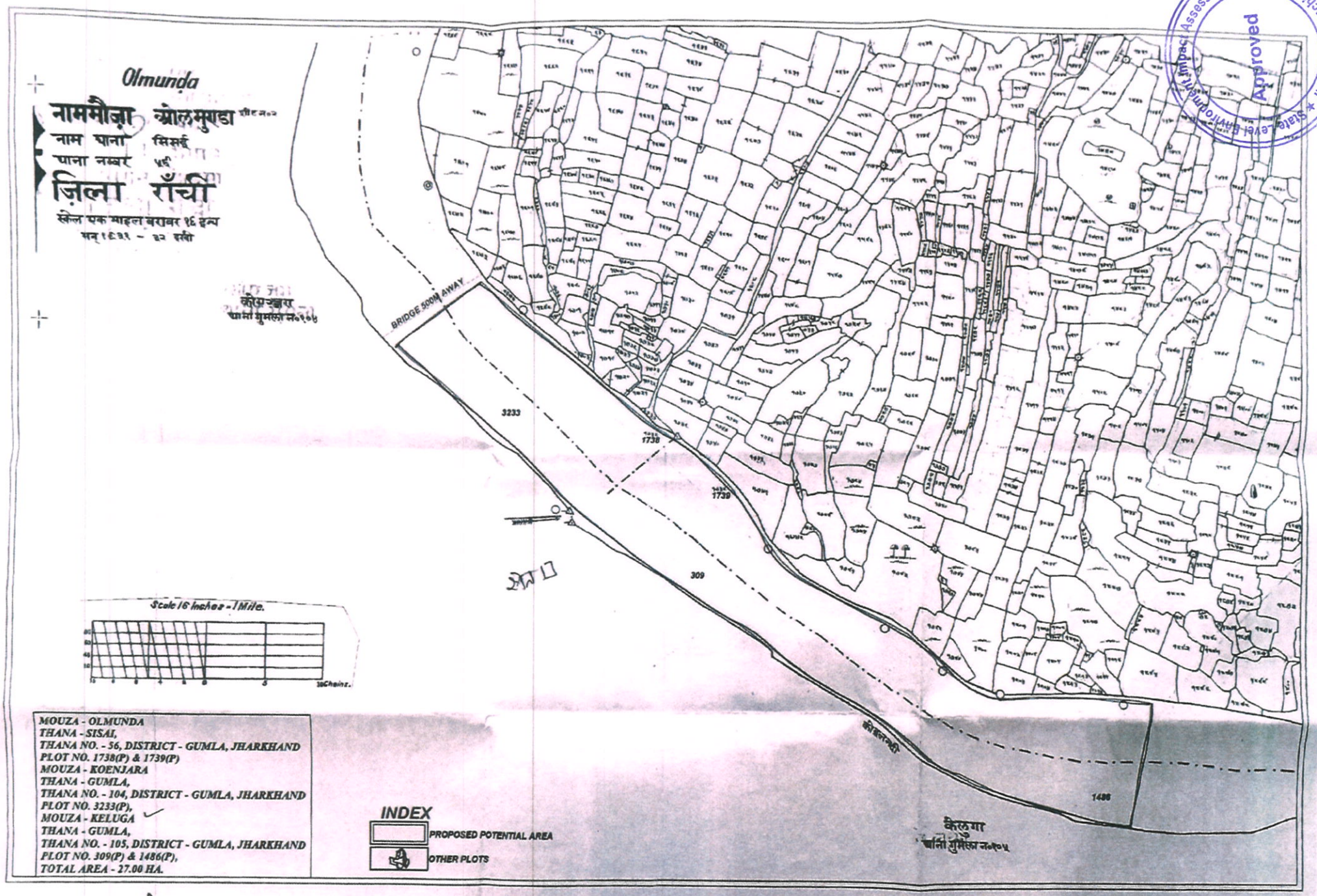
(2)

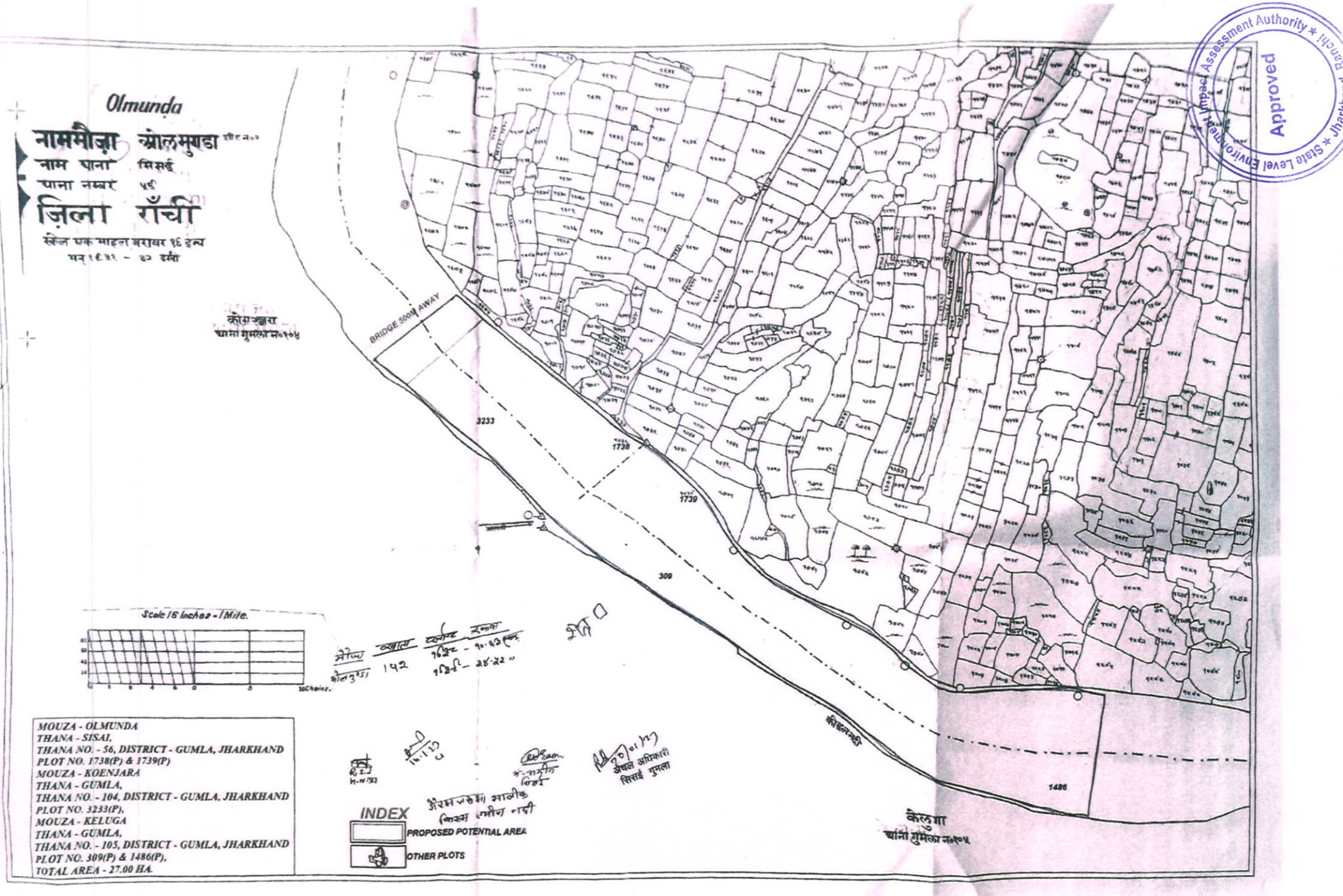


MOUZA - PATIA - II
THANA - GUMLA,
THANA NO. - 103, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 2952(P)
MOUZA - OLMUNDA
THANA - SISAI,
THANA NO. - 56, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1(P)
TOTAL AREA - 13.50 HA.

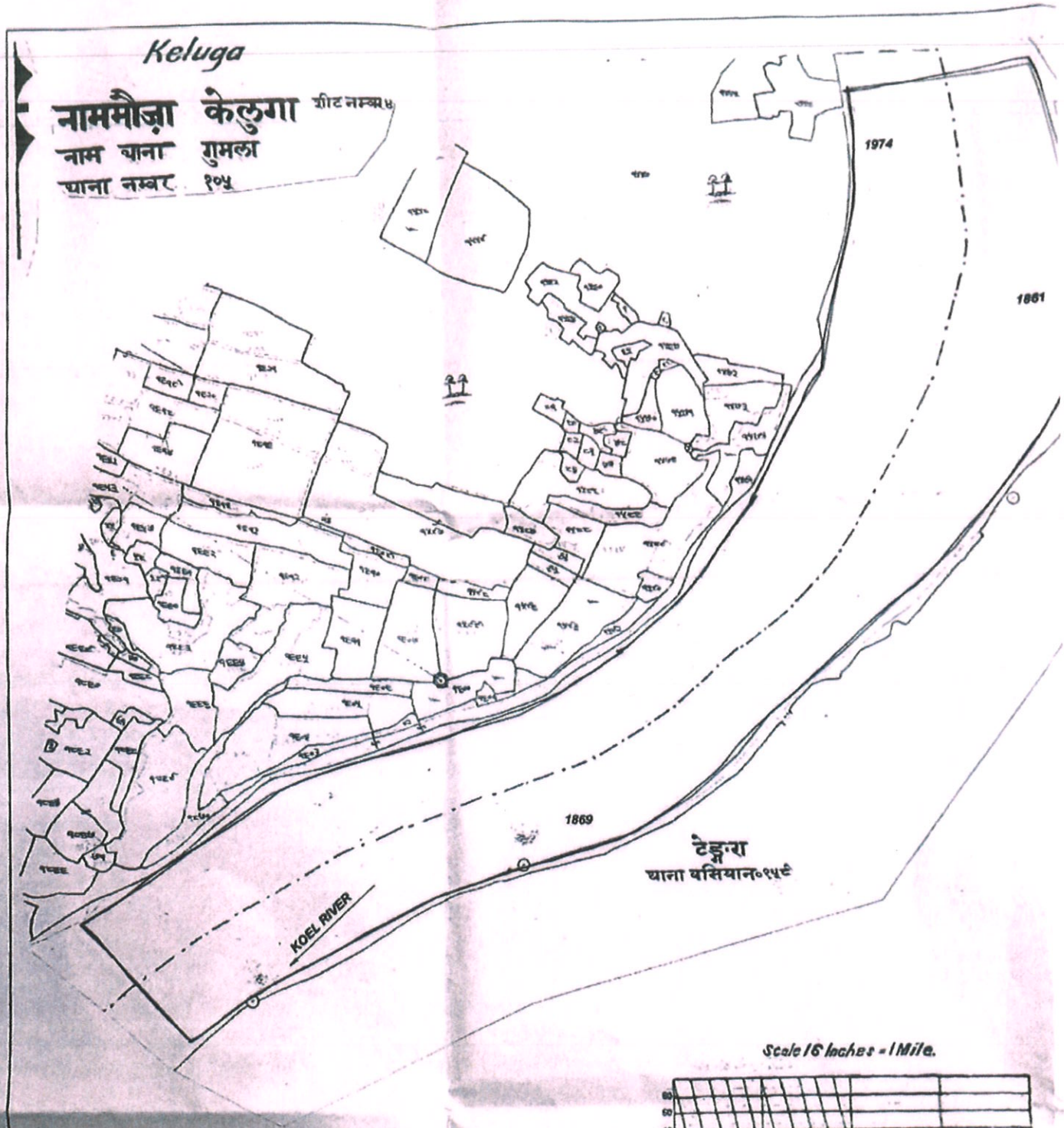
(2)



Approved
Impact Assessment Authority * State Level Environmental * Ranchi * Jharkhand, Ranchi



Approved
Jharkhand State Level Environment Impact Assessment Authority



MOUZA - KELUGA
THANA - GUMLA,
THANA NO. - 105, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1974(P)
MOUZA - TENGRA
THANA - BASIA,
THANA NO. - 159, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1869(P) & 1861(P),
TOTAL AREA - 31.50 HA.

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स्केल एक माइल बराबर १६ इन्च
सन् १९३० - ३१ इसवी

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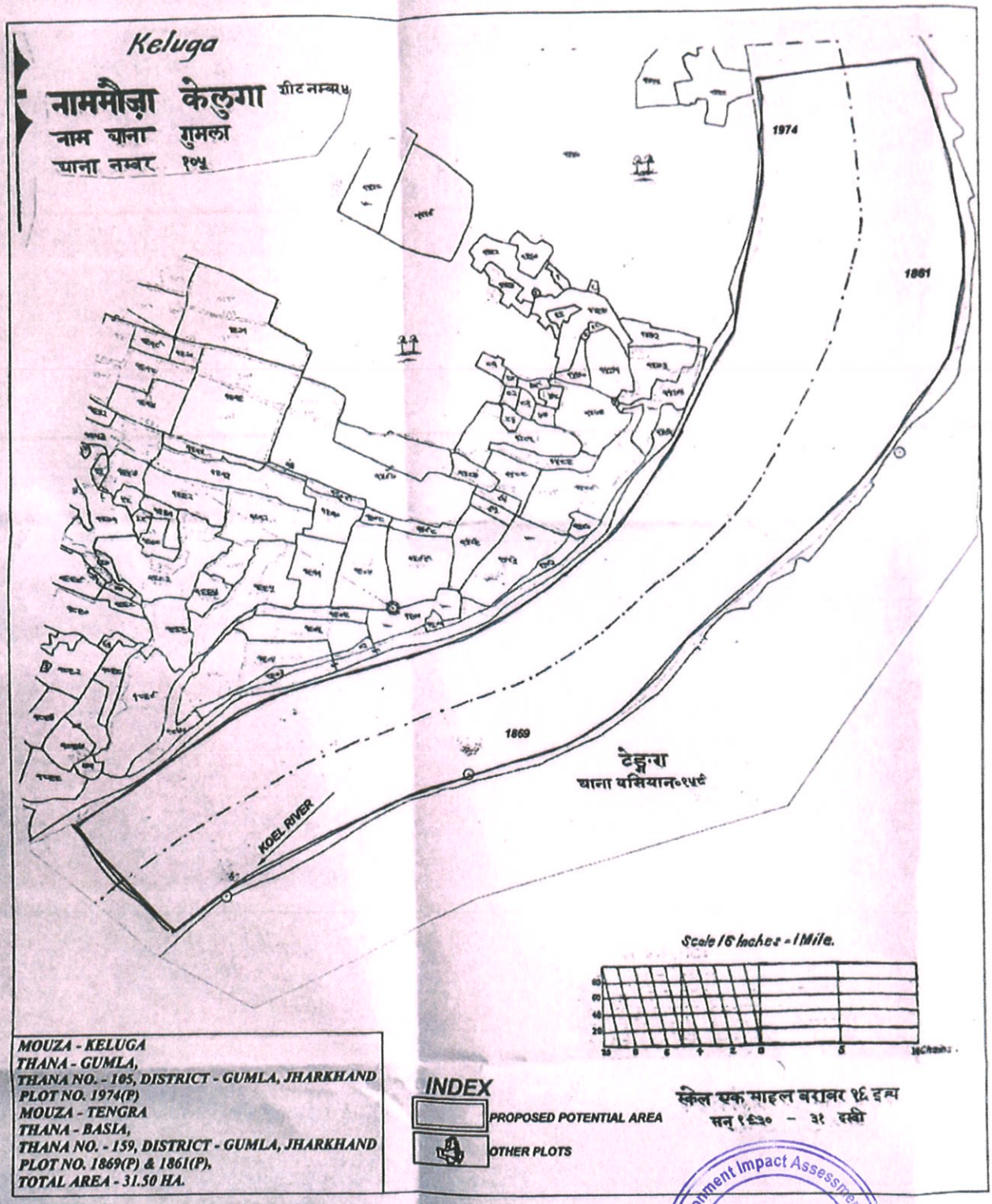
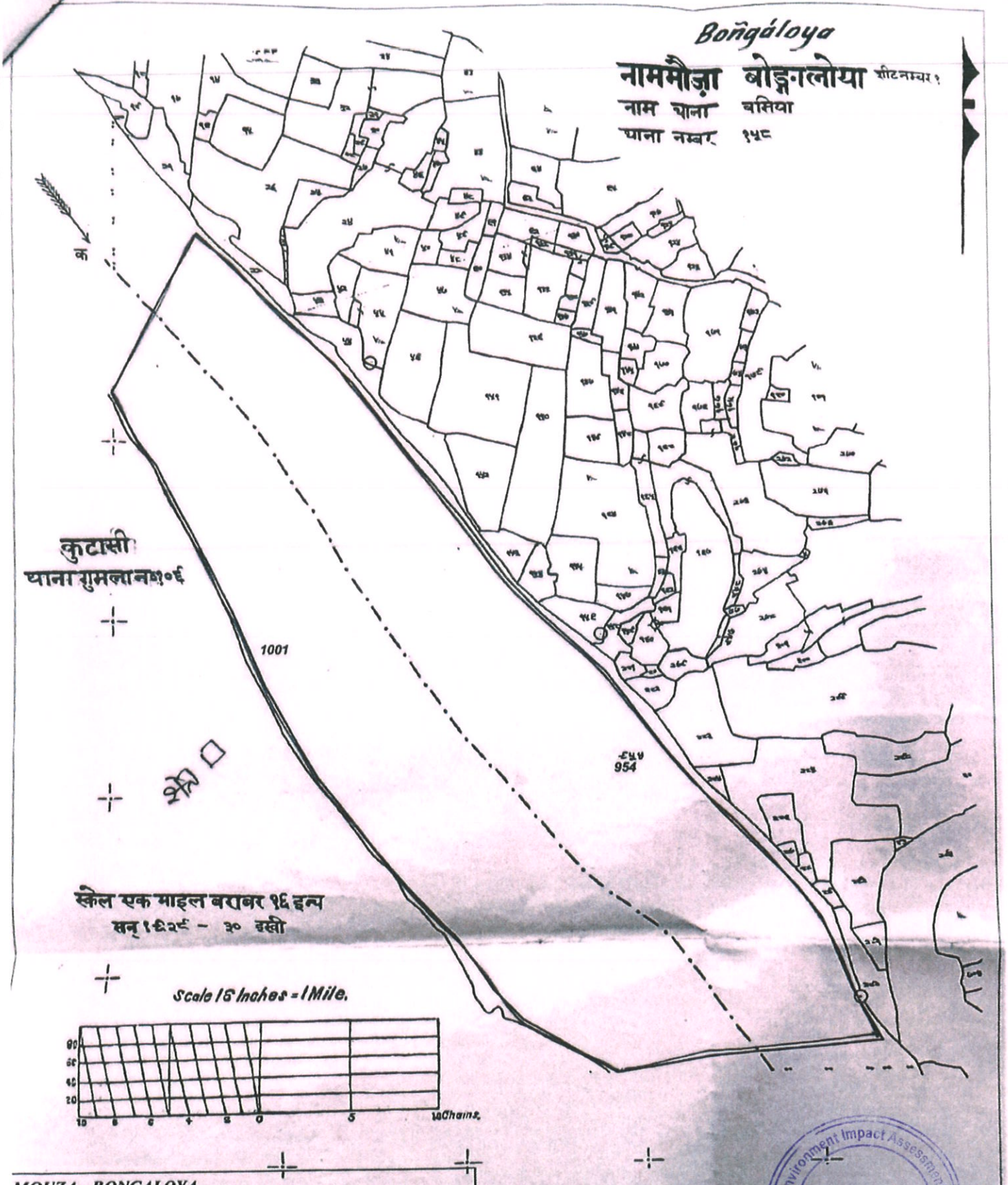
2/3/23
R.S.I + C.I



State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi



MOUZA - BONGALOYA
THANA - BASIA,
THANA NO. - 158, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 954(P),
MOUZA - KUTASI
THANA - GUMLA,
THANA NO. - 106, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1001(P),
TOTAL AREA - 31.00 HA.

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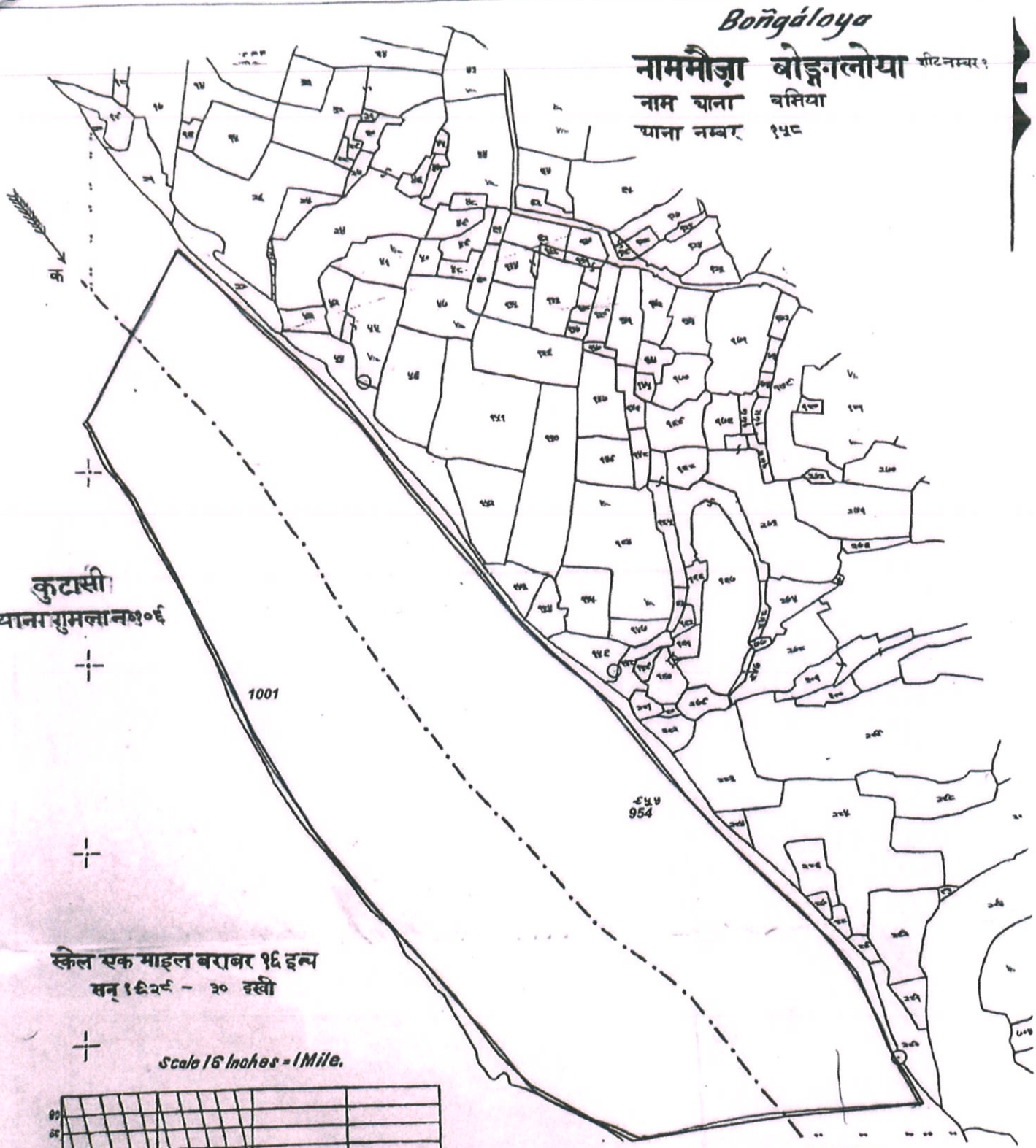
(2)



MOUZA - BONGALOYA
THANA - BASIA,
THANA NO. - 158, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 954(P),
MOUZA - KUTASI
THANA - GUMLA,
THANA NO. - 106, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1001(P),
TOTAL AREA - 31.00 HA.

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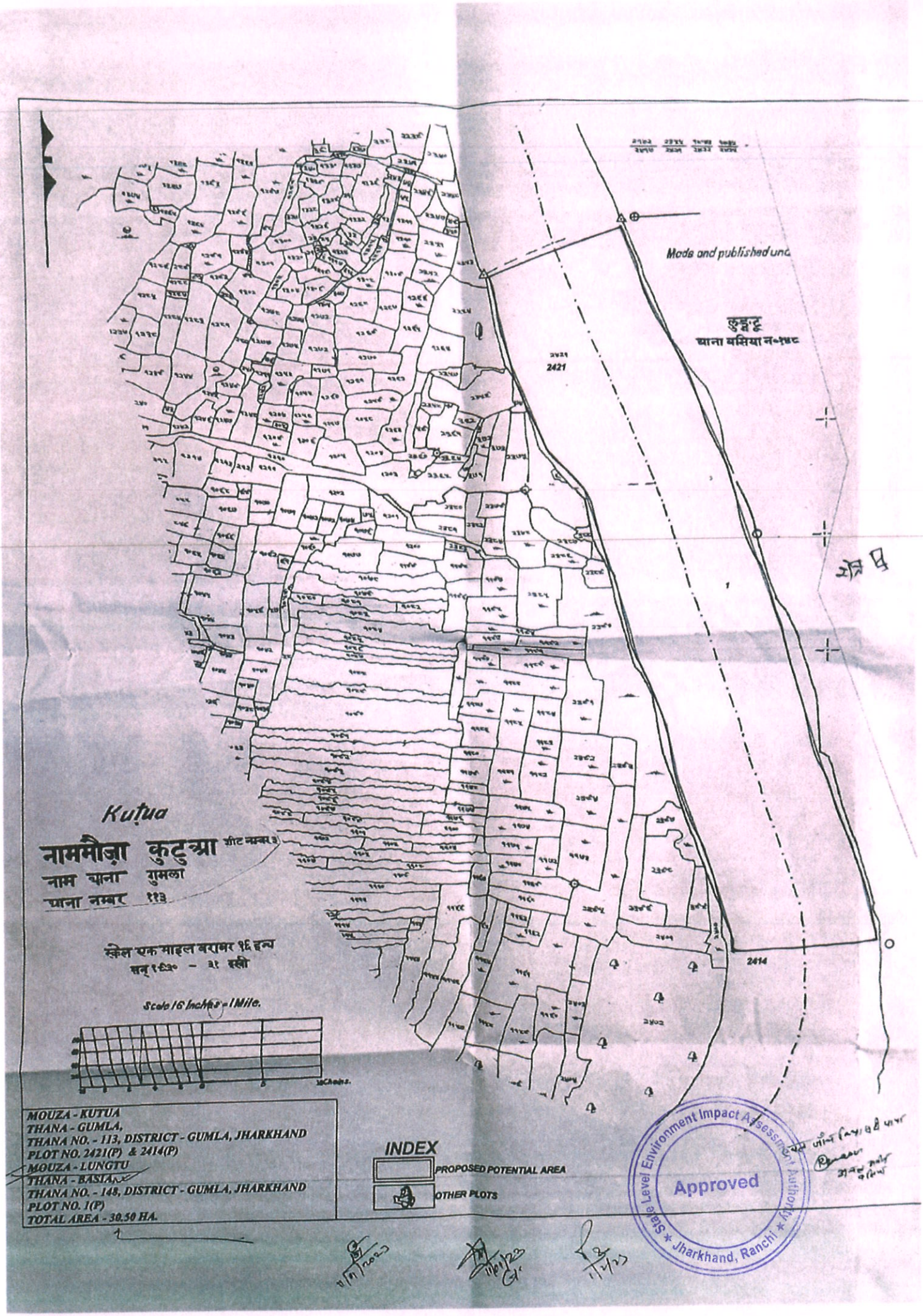
Made and published und
लुङ्गटू
थाना बसिया न०१४८
2421
2414
Kuṭua
नाममौज़ा कुटुआ शीट नम्बर ३
नाम थाना गुमला
थाना नम्बर ११३
स्केल एक माइल बराबर १६ इन्च
सन् १९३० - ३१ इसवी
Scale 16 Inches = 1 Mile.
10 Chains.
MOUZA - KUTUA
THANA - GUMLA,
THANA NO. - 113, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 2421(P) & 2414(P)
MOUZA - LUNGTU
THANA - BASIA,
THANA NO. - 148, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1(P)
TOTAL AREA - 30.50 HA.
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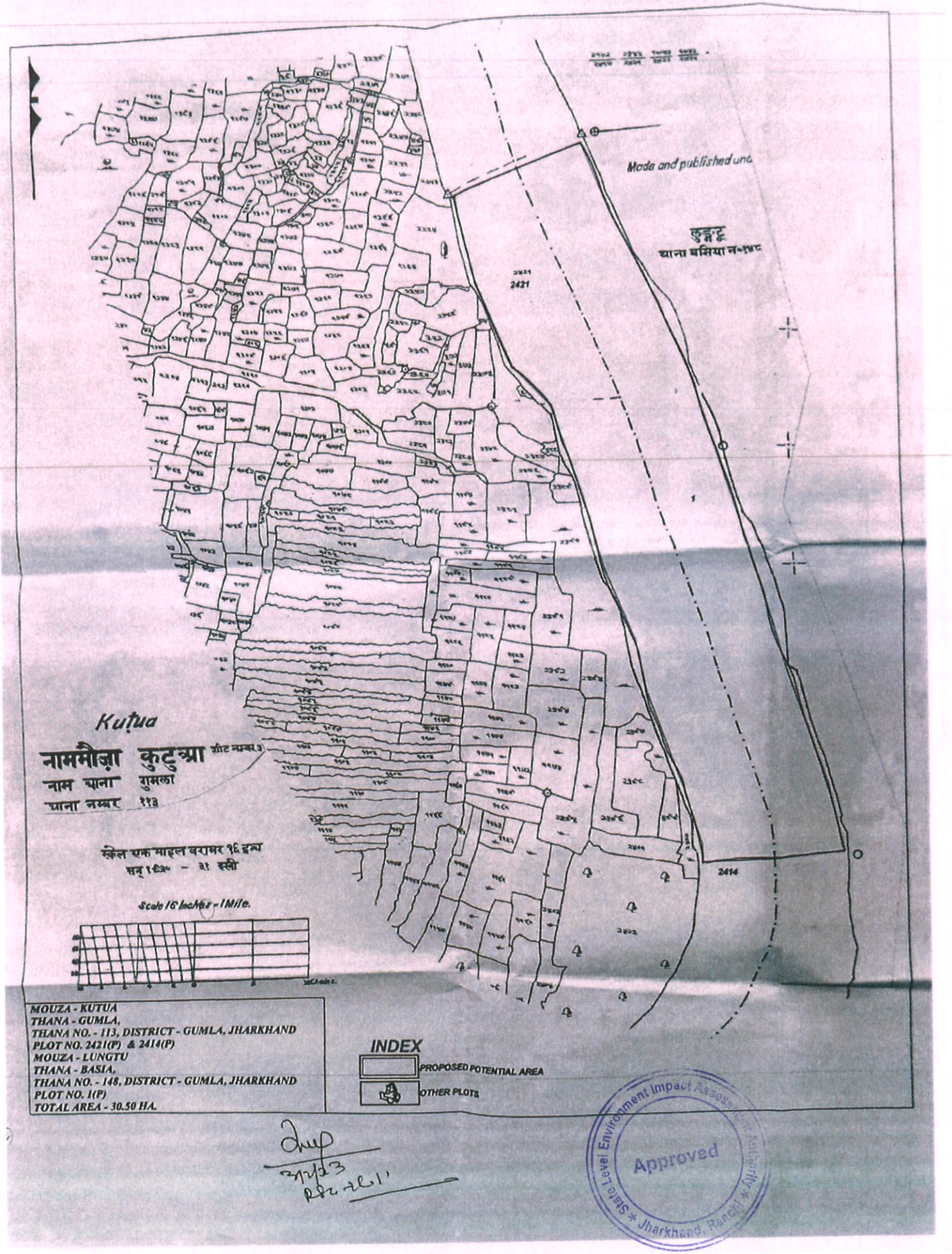
Kutua
नाममौज़ा कुटुआ
नाम थाना गुमला
थाना नम्बर ११३
स्केल एक माइल बराबर १६ इन्च
सन् १८३० - ३१ इस्वी
Scale 16 Inches = 1 Mile.
2421
2414
MOUZA - KUTUA
THANA - GUMLA,
THANA NO. - 113, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 2421(P) & 2414(P)
MOUZA - LUNGTU
THANA - BASIA,
THANA NO. - 148, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1(P)
TOTAL AREA - 30.50 HA.
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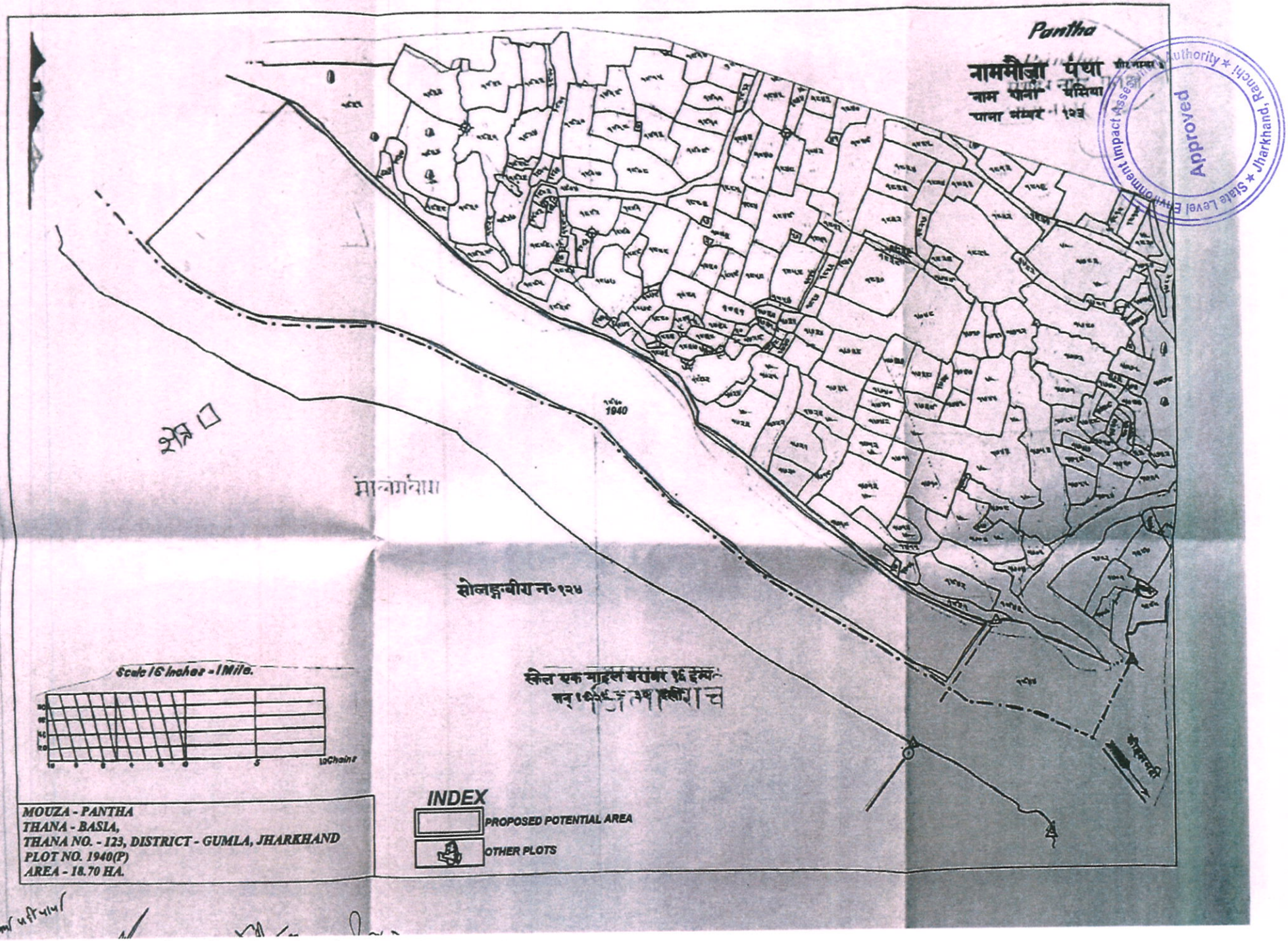


Approved
State Level Environment Impact Assessment Authority * Jharkhand, Ranchi

Kanaskeli

नामसौजा कानसकेली शीटनम्बर २

नाम थाना बसिया

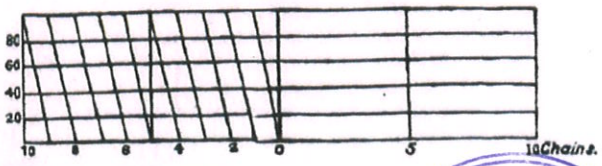
थाना नम्बर ३१

बड़कोइली न०४६



Scale 16 Inches = 1 Mile.

स्केल एक माईल बराबर १६ इंच



MOUZA - KANASKELI
THANA - BASIA,
THANA NO. - 31, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1291(P)
AREA - 7.00 HA.

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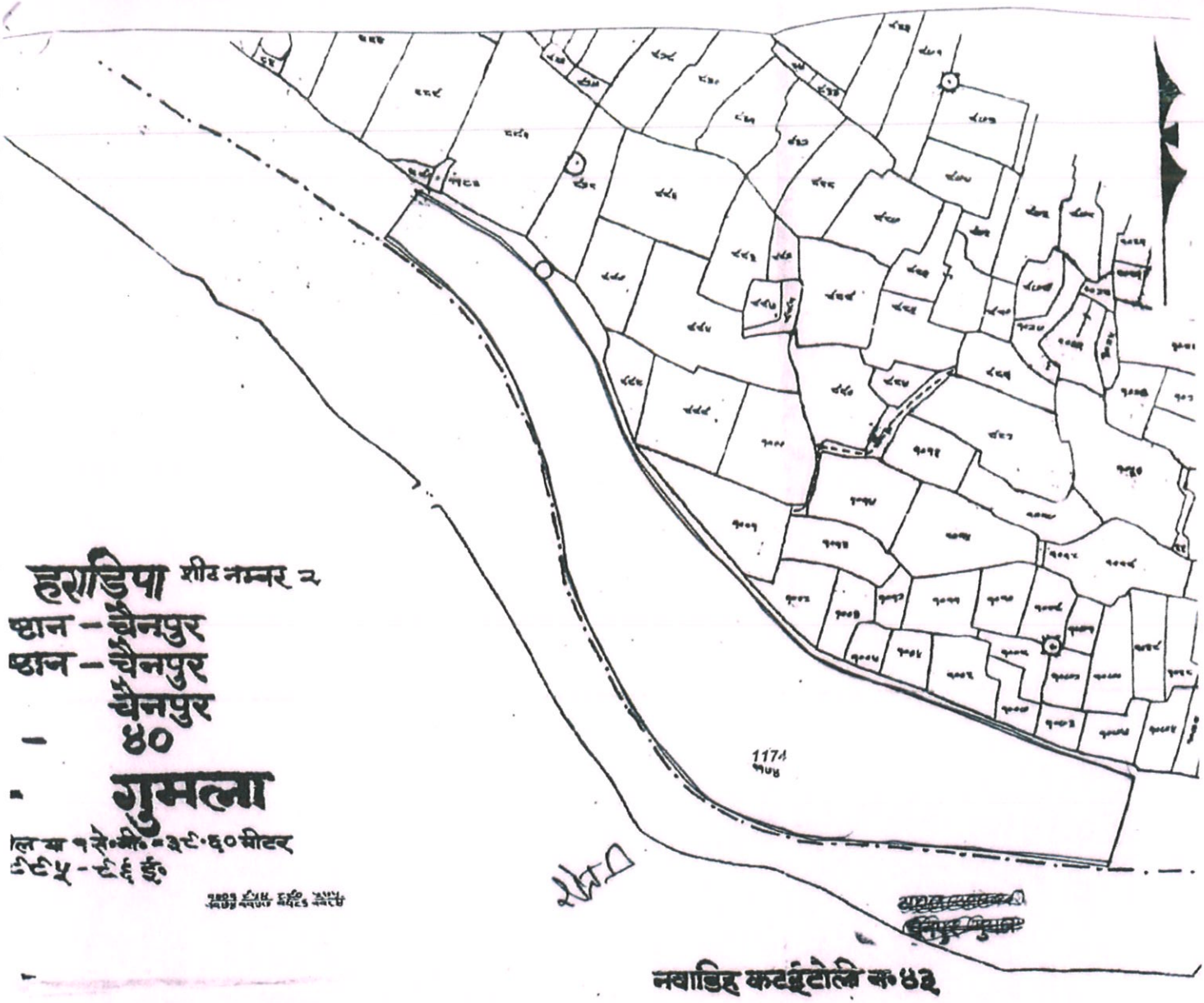
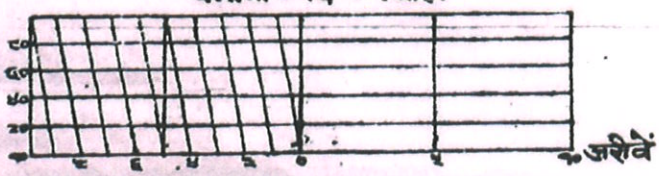


हराडिपा शीट नम्बर २
ष्टान – चैनपुर
ष्टान – चैनपुर
चैनपुर
– ४०
– गुमला
ल या १ से॰मी॰ = ३९·६० मीटर
९९५ – ९६ इं॰

नवाडिह कटईटोली नं॰ ४३

पैमाना – १६" = १ मील



पैमाना – १६" = १ मील या १ से॰मी॰ = ३९·६० मीटर
ष्टान – १९९५ – ९६ इं॰

R.S.I.
28/01/023

28/1/2023
I-C.I.

28/01/023
अंचल अधिकारी
चैनपुर

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OUZA - HARADIPA
IANA - CHAINPUR,
IANA NO. - 40, DISTRICT - GUMLA, JHARKHAND
LOT NO. 1174(P)
REA - 10.00 HA.

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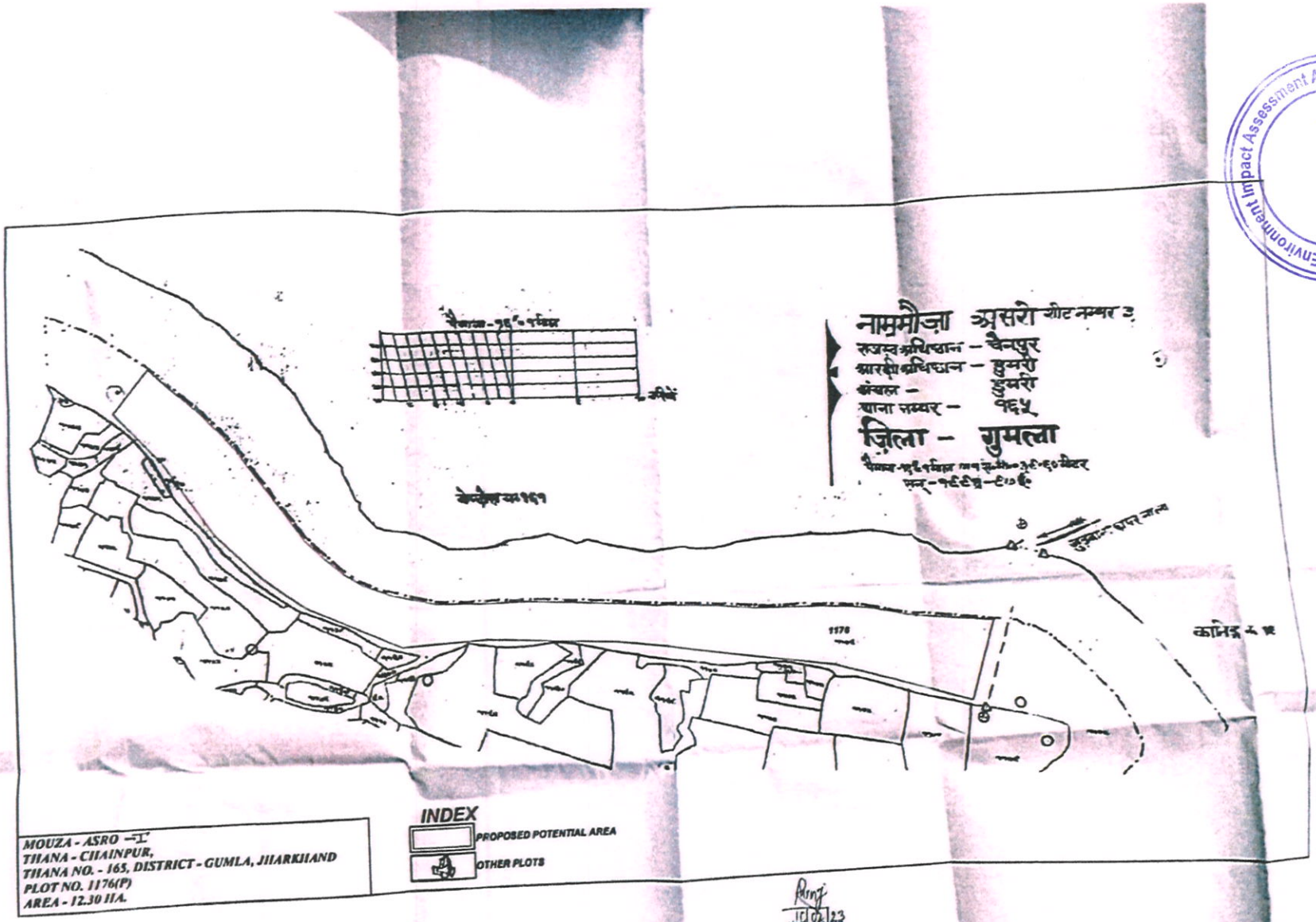

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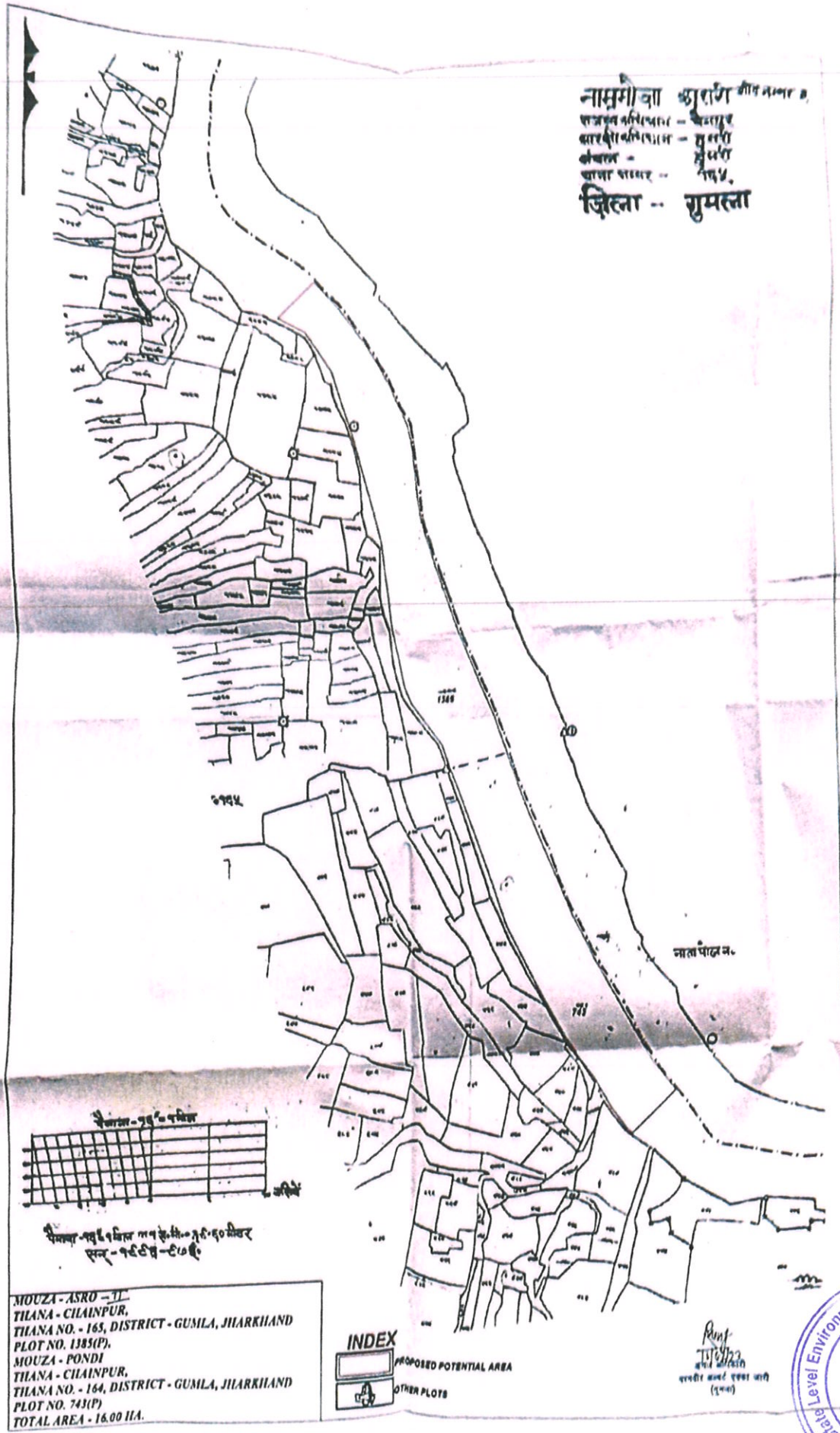
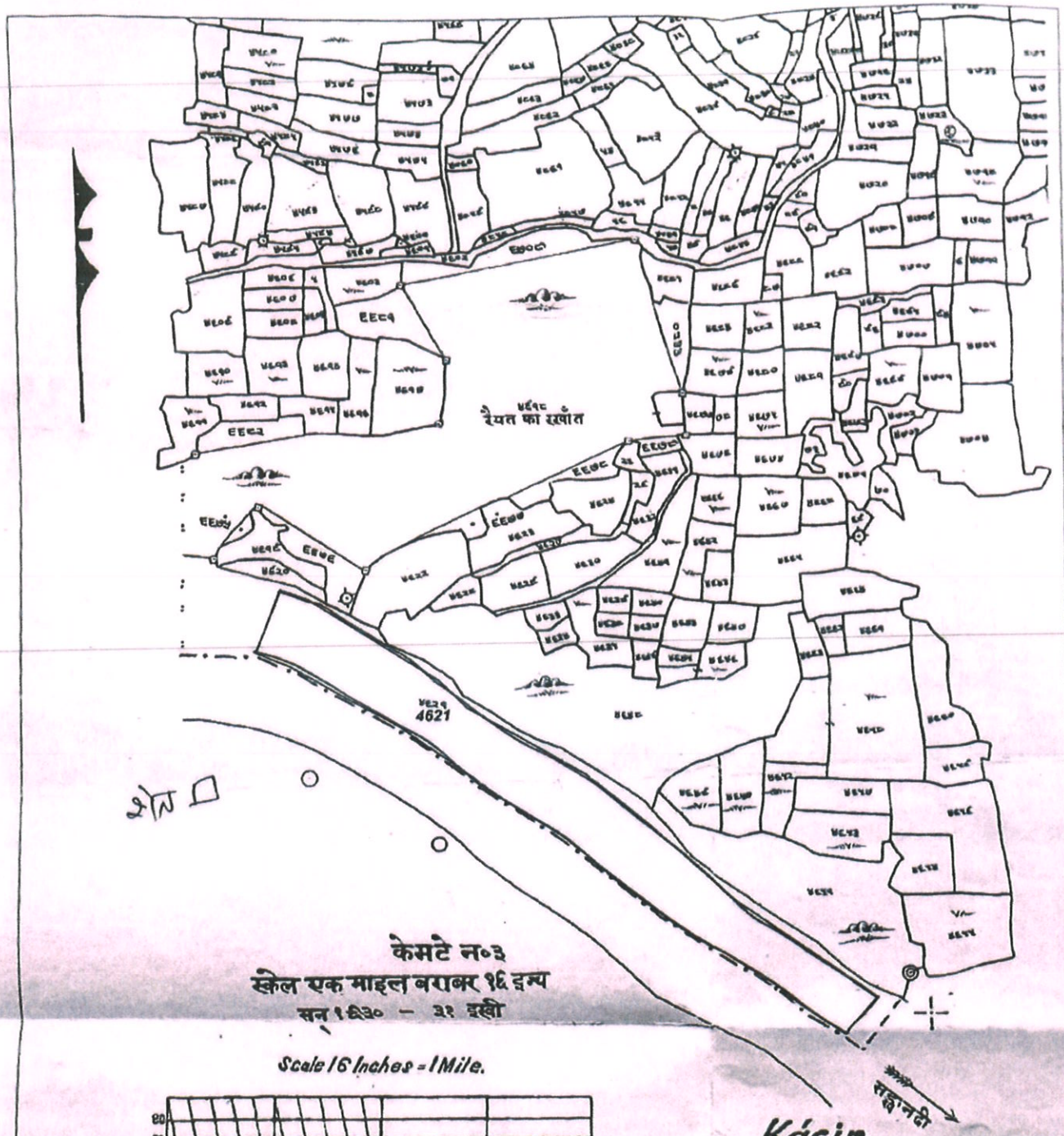
State Level Environment Impact Assessment Authority * Jharkhand, Ranchi



State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★
Approved



MOUZA - KASIR-I
THANA - RAIDIH,
THANA NO. - 4, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 4621(P)
AREA - 3.80 HA.

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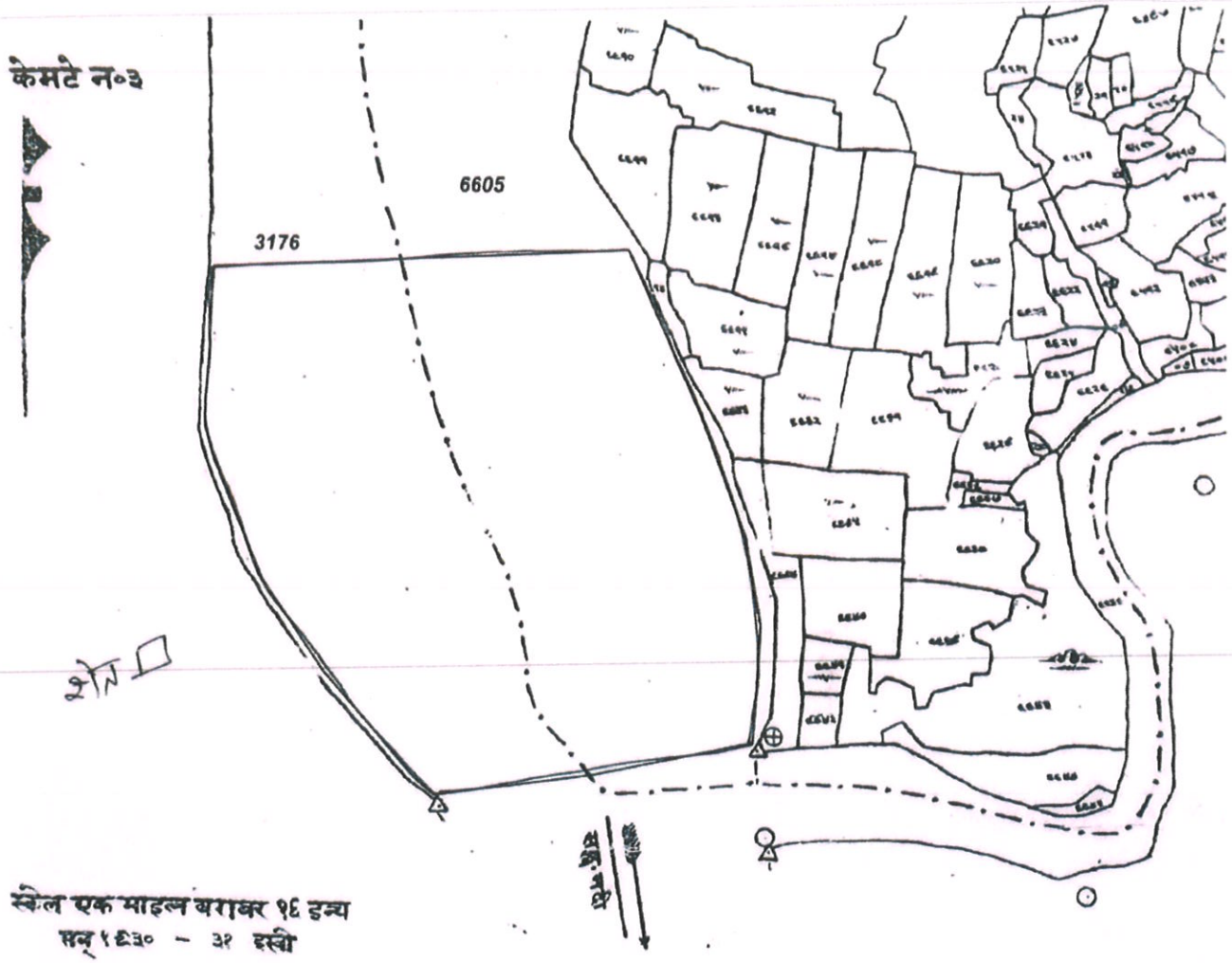

Kasir

नाममौज़ा कासिर पीट नम्बर १०
नाम थाना रायडिह
थाना नम्बर ४

MOUZA - KASIR-II
THANA - RAIDIH,
THANA NO. - 4, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 6605(P)
MOUZA - KEMTE
THANA - RAIDIH,
THANA NO. - 3, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 3176(P)
TOTAL AREA - 16.00 HA.

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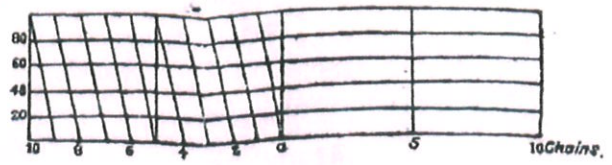
State Level Environment Impact Assessment Authority * Jharkhand, Ranchi *
Approved

Latu

नाममौज़ा लाटू

नाम थाना रायडीह

थाना नम्बर १०



4002

मसगाँव न०६

स्केल एक माइल बराबर १६ इन्च

सन् १६३० - ३१ इस्वी

MOUZA - LATU
THANA - RAIDIH,
THANA NO. - 10, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 4002(P)
AREA - 8.30 HA.

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17/1/2023

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Kobja
नाममौज़ा कोबजा शीट नम्बर २
नाम थाना गयहिह
थाना नम्बर ५२
कोनकेल न०५५
5530
स्केल एक माइल बराबर १६ इन्च
सन् १९३० - ३१ इस्वी
Scale 16 Inches = 1 Mile.
10Chains.
MOUZA - KOBJA
THANA - RAIDIH,
THANA NO. - 52, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 5530(P)
AREA - 4.05 HA.
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PROPOSED POTENTIAL AREA
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Approved
State Level Environment Impact Assessment Authority
Jharkhand, Ranchi



State Level Environment Impact Assessment Authority * Jharkhand, Ranchi *
Approved

ANNEXURE-02

COPY OF DFO LETTER



कार्यालयः— वन प्रमण्डल पदाधिकारी, गुमला वन प्रमण्डल, गुमला।
वन भवन, — गुमला 835207

Mob:-8987790115 (Office)
Email:-forest-gumla@jharkhandmail.gov.in

पत्रांक ....270.... / दिनांक ..2/2/2023.... /

सेवा में,

जिला खनन पदाधिकारी,
गुमला।

विषय :— DSR (Sand) में चिन्हित बालूघाटों से संबंधित प्रतिवेदन उपलब्ध कराने के संबंध में।

प्रसंग :— आपका पत्रांक 32/एम0 दिनांक 05.01.2023 एवं पत्रांक 64/एम0 दिनांक 11.01.2023

महाशय,

उपर्युक्त विषयक प्रसांगिक पत्र के संबंध में सूचित करना है कि आपके द्वारा भेजे गये चिन्हित नक्शें एवं जी0पी0एस0 कॉडिनेट के आधार पर सभी वन क्षेत्रों में वनकर्मियों के द्वारा स्थल का सत्यापन किया गया। तत्पश्चात् वांछित प्रतिवेदन इस पत्र के साथ संलग्न कर भेजा जा रहा है।

निम्नांकित बिन्दुओं पर अनुपालन सुनिश्चित किया जाए।

1.संलग्न नक्शे में बालू निकासी का पथ दर्शाया गया नहीं है। संविदा के पूर्व बालू निकासी के लिए नक्शे में बालू निकासी पर दर्शाना अनिवार्य होगा।

2.बालू निकासी के लिए वन भूमि का उपयोग नहीं किया जायेगा। अगर विशेष परिस्थिति में बालू का निकासी के लिए वन भूमि का उपयोग होता है तो इस कार्यालय से वन पथ निर्माण के लिए अनुमति लिया जाना अनिवार्य होगा।

अनु0—यथोक्त।

विश्वासभाजन

01/02/23

वन प्रमंडल पदाधिकारी,
गुमला वन प्रमंडल, गुमला।

State Level Environment Impact Assessment Authority * Jharkhand, Ranchi * Approved

aby/a/ for DSR

DSR (Sand) से संबंधित कुरूमगढ़ वन प्रक्षेत्र में चिन्हित बालू घाटों से संबंधित जाँच प्रतिवेदन

क्र0 सं0	UIN	नदी का नाम	रकबा का विवरण	रकबा (हे0)	GPS Coordinates	क्या परियोजना स्थल आरक्षित वन/ सुरक्षित वन भूमि से दूरी 250 मी0 है ?	क्या परियोजना स्थल No Mining Zone के अंतर्गत आता है	क्या परियोजना स्थल से 10 कि0मी0 दूरी के अंदर कोई national Park है	क्या परियोजना स्थल से 10 कि0मी0 दूरी के अंदर कोई अभ्यारण्य एवं जैव विवधता क्षेत्र हैं	क्या परियोजना स्थल से 10 कि0मी0 की दूरी के अंदर कोई Eco Sensetive Zone है	क्या आवेदित परियोजना Eco Sensetive Zone के अंतर्गत प्रतिबंधित श्रेणी में आता है अथवा नहीं	अभ्युक्ति
2	3		4	5	6	7	8	9	10	11	12	
1	SH01	Sankh Category-II	MAUZA-HARADIPA THANA NO.- 40 DIST -GUMLA PLOT NO.-1174(P) TOPOSHEET NO.- 73A/12	10.00	1) 23°11'7.51"N 84° 9'26.81"E 2) 23°11'10.99"N 84° 9'29.12"E 3) 23°10'54.66"N 84° 9'52.97"E 4) 23°10'51.06"N 84° 9'51.37"E	हाँ	नहीं	नहीं	नहीं	नहीं	नहीं	
2	SH02	Sankh Category-II	MAUZA-ASRO-I THANA NO.- 165 DIST -GUMLA PLOT NO.-1176(P) TOPOSHEET NO.- 73A/12	12.30	1) 23° 4'15.22"N 84°16'31.91"E 2) 23° 3'59.23"N 84°17'13.58"E 3) 23° 3'56.31"N 84°17'12.85"E 4) 23° 4'12.17"N 84°16'29.76"E	हाँ	नहीं	नहीं	नहीं	नहीं	नहीं	
3	SH03	Sankh Category-II	1)MOUZA - ASRO -II THANA - CHAINPUR, THANA NO. - 165, DISTRICT - GUMLA, JHARKHAND PLOT NO. 1385(P), 2)MOUZA - PONDI THANA - CHAINPUR. THANA NO. - 164, DISTRICT - GUMLA, JHARKHAND PLOT NO. 743(P) Toposheet No.- 73A/12	16.00	1) 23° 3'20.53"N 84°17'12.08"E 2) 23° 2'38.57"N 84°17'36.44"E 3) 23° 2'37.17"N 84°17'33.73"E 4) 23° 3'18.18"N 84°17'9.96"E	नहीं	नहीं	नहीं	नहीं	नहीं	नहीं	
4	SH04	Sankh Category-II	MAUZA-KASIR-I THANA NO.- 4 DIST.-GUMLA PLOT NO.- 4621(P), TOPOSHEET NO.- 73A/12	3.80	1) 23° 1'48.44"N 84°20'25.60"E 2) 23° 1'36.40"N 84°20'47.21"E 3) 23° 1'35.35"N 84°20'46.02"E 4) 23° 1'46.97"N 84°20'24.92"E	नहीं	नहीं	नहीं	नहीं	नहीं	नहीं	
5	SH05	Sankh Category-II	1)MOUZA - KASIR-II THANA - RAIDIH, THANA NO. - 4, DISTRICT - GUMLA, JHARKHAND PLOT NO. 6605(P) 2)MOUZA - KEMTE THANA - RAIDIH, THANA NO. - 3, DISTRICT - GUMLA, JHARKHAND PLOT NO. 3176(P) Toposheet No.- 73A/12	16.00	1) 23° 1'6.80"N 84°20'57.38"E 2) 23° 1'8.87"N 84°21'8.11"E 3) 23° 0'52.91"N 84°21'11.27"E 4) 23° 0'49.65"N 84°21'3.25"E	हाँ	नहीं	नहीं	नहीं	नहीं	नहीं	

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6	SH06	Sankh Category-II	MAUZA-LATU THANA- **RAIDIH THANA NO.-** 10 DIST.- GUMLA PLOT NO.-4002(P), TOPOSHEET NO.- 73A/12	8.30	1) 23° 0'19.20"N 84°21'25.31"E 2) 23° 0'19.84"N 84°21'28.50"E 3) 22°59'56.08"N 84°21'34.75"E 4) 22°59'54.22"N 84°21'31.91"E	हाँ	नहीं	नहीं	नहीं	नही	नहीं	
7	SH07	Sankh Category-II	MAUZA-KOBJA THANA-**RAIDIH THANA NO.-** 52 DIST.- GUMLA PLOT NO.-5530(P) TOPOSHEET NO.- 73A/12	4.05	1) 22°50'32.89"N 84°22'50.20"E 2) 22°50'33.59"N 84°22'52.98"E 3) 22°50'13.32"N 84°22'59.63"E 4) 22°50'12.90"N 84°22'57.14"E	यह क्षेत्र वन्यप्राणी आश्रयणी प्रमंडल, राँची के अन्तर्गत आता है।						

Shekhar Singh (प्रादेशिक वनपाल)
01/02/23

01/02/2023
वन क्षेत्र पदाधिकारी,
कुरूमगढ़ वन प्रक्षेत्र।
कुरूमगढ़ वन क्षेत्र
चैनपुर, गुमला

01/02/23
वन प्रमंडल पदाधिकारी,
गुमला वन प्रमंडल, गुमला

Approved
Jharkhand * State Level Environment Impact Assessment Authority * Ranchi

DSR (Sand) से संबंधित विशुनपुर वन प्रक्षेत्र में चिन्हित बालू घाटों से संबंधित जाँच प्रतिवेदन

क्र0 सं0	UIN	नदी का नाम	रकबा का विवरण	रकबा (हे0)	GPS Coordinates	क्या परियोजना स्थल आरक्षित वन/ सुरक्षित वन भूमि से दूरी 250 मी0 है ?	क्या परियोजना स्थल No Mining Zone के अंतर्गत आता है	क्या परियोजना स्थल से 10 कि0मी0 दूरी के अंदर कोई national Park है	क्या परियोजना स्थल से 10 कि0मी0 दूरी के अंदर कोई अभ्यारण्य एवं जैव विवधता क्षेत्र हैं	क्या परियोजना स्थल से 10 कि0मी0 की दूरी के अंदर कोई Eco Sensetive Zone है	क्या आवेदित परियोजना Eco Sensetive Zone के अंतर्गत प्रतिबंधित श्रेणी में आता है अथवा नहीं	अभ्युक्ति
2			4	5	6	7	8	9	10	11	12	
1	SK02	South Koel Category-II	1) MOUZA - GUTUA THANA - GHAGHRA, THANA NO. - 87, DISTRICT - GUMLA, JHARKHAND PLOT NO. 2[illegible] (P), 519(P) & 897(P) 2) MOUZA - LARANGO THANA - SISAI, THANA NO. - 01, DISTRICT - GUMLA, JHARKHAND PLOT NO. 925(P), 3)MOUZA - SAHIJANA THANA - SISAI, THANA NO. - 02, DISTRICT - GUMLA, JHARKHAND PLOT NO. 1(P), Toposheet No.-73A/11	24.00	1) 23°17'13.38"N 84°36'44.14"E 2) 23°17'11.82"N 84°36'47.22"E 3) 23°16'41.83"N 84°36'44.70"E 4) 23°16'27.38"N 84°36'15.56"E 5) 23°16'30.75"N 84°36'13.91"E 6) 23°16'40.40"N 84°36'38.97"E	हाँ	नहीं	नहीं	नहीं	नहीं	नहीं	
2	SK04	South Koel Category-II	1)MOUZA - DHOBNI THANA - GHAGHRA, THANA NO. - 103, DISTRICT - GUMLA, JHARKHAND PLOT NO. 1(P) 2)MOUZA - BADRI THANA - GHAGHRA, THANA NO. - 104, DISTRICT - GUMLA, JHARKHAND PLOT NO. 1648(P) & 1(P) Toposheet No.- 73A/12	5.90	1) 23°15'36.94"N 84°36'55.69"E 2) 23°15'21.77"N 84°37'22.87"E 3) 23°15'20.33"N 84°37'21.93"E 4) 23°15'34.76"N 84°36'53.92"E	हाँ	नहीं	नहीं	नहीं	नहीं	नहीं	
3	SK06	South Koel Category-II	MAUZA-CHEIGARI THANA- GHAGHRA THANA NO.- 106 DIST.-GUMLA PLOT NO.-567(P) TOPOSHEET NO.- 73A/12	8.80	1) 23°14'42.91"N 84°38'55.44"E 2) 23°14'44.11"N 84°38'57.93"E 3) 23°14'21.04"N 84°39'16.99"E 4) 23°14'19.24"N 84°39'14.91"E	हाँ	नहीं	नहीं	नहीं	नहीं	नहीं	

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4	SK09	South Koel Category-II	1) MOUZA-ARANGI THANA- GHAGHRA, THANA NO.-118, DISTRICT-GUMLA, JHARKHAND PLOT NO.-1900(P) & 1901(P) 2) MOUZA-MUKUNDA THANA- SISAI, THANA NO.-42, DISTRICT- GUMLA, JHARKHAND PLOT NO.-1(P) TOPOSHEET NO.- 73A/12	14.65	1) 23°11'56.02"N 84°39'41.15"E 2) 23°11'57.34"N 84°39'37.52"E 3) 23°11'31.38"N 84°39'36.02"E 4) 23°11'7.74"N 84°39'36.05"E 5) 23°11'7.78"N 84°39'39.75"E 6) 23°11'24.29"N 84°39'39.55"E	नहीं	नहीं	नहीं	नहीं	नहीं	नहीं	
5	SK10	South Koel Category-II	1)MOUZA - KHAMBHIYA - I THANA - GHAGHRA, THANA NO. - 120, DISTRICT - GUMLA, JHARKHAND PLOT NO. 1144(P) 2)MOUZA - MURMU THANA - SISAI, THANA NO. - 44, DISTRICT - GUMLA, JHARKHAND PLOT NO. 102(P) Toposheet No - 73A/12	17.00	1) 23° 9'35.03"N 84°38'51.79"E 2) 23° 9'58.50"N 84°39'5.50"E 3) 23° 9'53.79"N 84°39'15.14"E 4) 23° 9'33.25"N 84°38'56.10"E	हाँ	नहीं	नहीं	नहीं	नहीं	नहीं	
6	SK11	South Koel Category-II	MOUZA-KHAMBHIYA-II Thana- Ghaghra Thana No.-120 Dist.-Gumla Plot No.-2555, 2556 2557, 2558(P) & 2554 Toposheet No - 73A/12	13.00	1) 23° 8'11.88"N 84°38'37.84"E 2) 23° 8'9.95"N 84°38'49.08"E 3) 23° 7'54.85"N 84°38'51.89"E 4) 23° 7'53.14"N 84°38'44.03"E	हाँ	नहीं	नहीं	नहीं	नहीं	नहीं	

Shukan Singh (प्रभारी वनपाल)
01/02/2023

01/02/2023
वन क्षेत्र पदाधिकारी/कारी
वन क्षेत्र
कुरुमगढ़ वन प्रक्षेत्र
चैनपुर, गुमला

01/02/23
वन प्रमंडल पदाधिकारी,
गुमला वन प्रमंडल, गुमला।

Approved
State Level Environment Impact Assessment Authority
Jharkhand

DSR (Sand) से संबंधित गुमला वन प्रक्षेत्र में चिन्हित बालू घाटों से संबंधित जाँच प्रतिवेदन

क्र0 सं0	UIN	नदी का नाम	रकबा का विवरण	रकबा (हे0)	GPS Coordinates	क्या परियोजना स्थल आरक्षित वन/ सुरक्षित वन भूमि से दूरी 250 मी0 है ?	क्या परियोजना स्थल No Mining Zone के अंतर्गत आता है	क्या परियोजना स्थल से 10 कि0मी0 दूरी के अंदर कोई national Park है	क्या परियोजना स्थल से 10 कि0मी0 दूरी के अंदर कोई अभ्यारण्य एवं जैव विवधता क्षेत्र हैं	क्या परियोजना स्थल से 10 कि0मी0 की दूरी के अंदर कोई Eco Sensetive Zone है	क्या आवेदित परियोजना Eco Sensetive Zone के अंतर्गत प्रतिबंधित श्रेणी में आता है अथवा नहीं	अभ्युक्ति
1	2	3	4	5	6	7	8	9	10	11	12	
1	SK01	South Koel Category-II	1)MOUZA - LARANGO THANA - SISAI, THANA NO. - 01, DISTRICT - GUMLA, JHARKHAND PLOT NO. 4024(P), Toposheet No.-73A/11	7.85	1) 23°17'55.91"N 84°36'42.15"E 2) 23°17'53.83"N 84°36'46.51"E 3) 23°17'37.23"N 84°36'47.66"E 4) 23°17'36.16"N 84°36'43.24"E	हाँ	नहीं	नहीं	नहीं	नहीं	नहीं	
2	SK03	South Koel Category-II	1) MOUZA - SAHIJANA THANA - SISAI, THANA NO. - 02, DISTRICT - GUMLA, JHARKHAND PLOT NO. 1117(P), 287(P), 1(P), 2) MOUZA – DHOBNI THANA - GHAGHRA, THANA NO. - 103, DISTRICT - GUMLA, JHARKHAND PLOT NO. 1(P), 3)MOUZA - KOTRI THANA - GHAGHRA, THANA NO. - 92, DISTRICT - GUMLA, JHARKHAND PLOT NO. 52(P), 4)MOUZA - GUTUA THANA - GHAGHRA, THANA NO. - 87, DISTRICT - GUMLA, JHARKHAND PLOT NO. 897(P), Toposheet No.- 73A/11	10.00	1) 23°16'1.22"N 84°35'56.57"E 2) 23°16'2.14"N 84°36'1.42"E 3) 23°15'45.64"N 84°36'21.00"E 4) 23°15'42.22"N 84°36'20.47"E	हाँ	नहीं	नहीं	नहीं	नहीं	नहीं	
3	SK05	वनजी झवमस ब्जमहवतल.प	MAUZA-BARRI THANA- SISAI THANA NO.- 04 DIST.- GUMLA PLOT NO.-678(P),1610(P) TOPOSHEET NO.- 73A/12	7.00	1) 23°14'49.20"N 84°37'59.01"E 2) 23°14'49.77"N 84°38'31.00"E 3) 23°14'47.71"N 84°38'31.33"E 4) 23°14'47.33"N 84°37'57.41"E	हाँ	नहीं	नहीं	नहीं	नहीं	नहीं	

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Praveen Tirkey (G-C

4	SK07	South Koel Category-II	1)MOUZA - JALKA THANA - SISAI, THANA NO. - 19, DISTRICT - GUMLA, JHARKHAND PLOT NO. 1475(P) & 1(P) 2)MOUZA - DUKO THANA - GHAGHRA, THANA NO. - 108, DISTRICT - GUMLA, JHARKHAND PLOT NO. 902(P), 3)MOUZA - SIKWAR THANA - GHAGHRA, THANA NO. - 107, DISTRICT - GUMLA, JHARKHAND PLOT NO. 463(P), TOPOSHEET NO.- 73A/12	16.60	1) 23°14'0.65"N 84°40'13.54"E 2) 23°14'1.00"N 84°40'18.36"E 3) 23°13'28.07"N 84°40'40.41"E 4) 23°13'26.06"N 84°40'36.37"E	हाँ	नहीं	नहीं	नहीं	नहीं	नहीं	
5	SK08	South Koel Category-II	1)MOUZA-BARGAON THANA- SISAI, THANA NO.-41, DISTRICT-GUMLA, JHARKHAND PLOT NO.-1(P) & 6815(P) 2)MOUZA-DUKO THANA- GHAGHRA, THANA NO.-108, DISTRICT- GUMLA, JHARKHAND PLOT NO.-1669(P) & 1668(P) TOPOSHEET NO.- 73A/12	16.22	1)23°12'37.42"N 84°40'20.15"E 2) 23°12'38.58"N 84°40'24.46"E 3) 23°12'23.35"N 84°40'24.65"E 4) 23°12'15.57"N 84°40'5.89"E 5) 23°12'20.31"N 84°40'0.60"E 6) 23°12'22.74"N 84°40'18.31"E	नहीं	नहीं	नहीं	नहीं	नहीं	नहीं	
6	SK12	South Koel Category-II	1)MOUZA - NAGPHENI THANA - SISAI, THANA NO. - 51, DISTRICT - GUMLA, JHARKHAND PLOT NO. 829(P) 2)MOUZA - SILAPHARI THANA - GUMLA, THANA NO. - 79, DISTRICT - GUMLA, JHARKHAND PLOT NO. 361(P) Toposheet No.- 73A/12	9.30	1) 23° 6'56.67"N 84°39'38.67"E 2) 23° 7'0.69"N 84°39'43.69"E 3) 23° 6'48.14"N 84°39'53.15"E 4) 23° 6'44.32"N 84°39'47.38"E	हाँ	नहीं	नहीं	नहीं	नहीं	नहीं	
7	SK13	South Koel Category-II	MAUZA-PORHA THANA- SISAI THANA NO.- 52 DIST.-GUMLA PLOT NO.-2(P) TOPOSHEET NO.- 73A/12	18.20	1) 23° 6'1.45"N 84°41'0.90"E 2) 23° 5'19.62"N 84°41'2.29"E 3) 23° 5'16.07"N 84°41'0.81"E 4) 23° 6'0.44"N 84°40'54.48"E	हाँ	नहीं	नहीं	नहीं	नहीं	नहीं	
8	SK14	South Koel Category-II	1)MOUZA - PATIA - I THANA - GUMLA, THANA NO. - 103, DISTRICT - GUMLA, JHARKHAND PLOT NO. 2960(P) &2871(P) 2)MOUZA - AMKULI THANA - SISAI, THANA NO. - 55, DISTRICT - GUMLA, JHARKHAND PLOT NO. 402(P) Toposheet No.- 73A/12	21.20	1) 23° 4'15.66"N 84°43'5.60"E 2) 23° 4'20.60"N 84°43'8.60"E 3) 23° 4'8.05"N 84°43'24.62"E 4) 23° 3'50.32"N 84°43'37.66"E 5) 23° 3'46.97"N 84°43'31.55"E 6) 23° 4'2.10"N 84°43'21.83"E	नहीं	नहीं	नहीं	नहीं	नहीं	नहीं	

Praveen Tirkey (G.C

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9	SK15	South Koel Category-II	1)MOUZA - PATIA - II THANA - GUMLA, THANA NO. - 103, DISTRICT - GUMLA, JHARKHAND PLOT NO. 2952(P) 2)MOUZA - OLMUNDA THANA - SISAI, THANA NO. - 56, DISTRICT - GUMLA, JHARKHAND PLOT NO. 1(P) Toposheet No.- 73A/12	13.50	1) 23° 3'20.87"N 84°43'28.20"E 2) 23° 3'21.54"N 84°43'34.36"E 3) 23° 2'59.77"N 84°43'36.60"E 4) 23° 2'59.02"N 84°43'29.74"E	नहीं	नहीं	नहीं	नहीं	नहीं	नहीं	
10	SK16	South Koel Category-II	1)MOUZA - OLMUNDA THANA - SISAI, THANA NO. - 56, DISTRICT - GUMLA, JHARKHAND PLOT NO. 1738(P) & 1739(P) 2)MOUZA - KOENJARA THANA - GUMLA, THANA NO. - 104, DISTRICT - GUMLA, JHARKHAND PLOT NO. 3233(P), 3)MOUZA - KELUGA THANA - GUMLA, THANA NO. - 105, DISTRICT - GUMLA, JHARKHAND PLOT NO. 309(P) & 1486(P), Toposheet No.- 73A/12	27.00	1) 23° 2'27.58"N 84°43'41.92"E 2) 23° 2'2.80"N 84°44'27.98"E 3) 23° 1'56.44"N 84°44'25.82"E 4) 23° 2'25.27"N 84°43'34.69"E	नहीं	नहीं	नहीं	नहीं	नहीं	नहीं	
11	SK17	South Koel Category-II	1)MOUZA - KELUGA THANA - GUMLA, THANA NO. - 105, DISTRICT - GUMLA, JHARKHAND PLOT NO. 1974(P) 2)MOUZA - TENGRA THANA - BASIA, THANA NO. - 159, DISTRICT - GUMLA, JHARKHAND PLOT NO. 1869(P) & 1861(P), Toposheet No.- 73A/12	31.50	1) 23° 1'16.99"N 84°45'3.12"E 2) 23° 1'14.39"N 84°45'10.95"E 3) 23° 0'53.23"N 84°44'57.96"E 4) 23° 0'40.74"N 84°44'33.73"E 5) 23° 0'44.65"N 84°44'28.43"E 6) 23° 0'58.69"N 84°44'55.23"E	नहीं	नहीं	नहीं	नहीं	हाँ	नहीं	
12	SK18	South Koel Category-II	1)MOUZA - BONGALOYA THANA - BASIA, THANA NO. - 158, DISTRICT - GUMLA, JHARKHAND PLOT NO. 954(P), 2)MOUZA - KUTASI THANA - GUMLA, THANA NO. - 106, DISTRICT - GUMLA, JHARKHAND PLOT NO. 1001(P), Toposheet No.- 73A/12	31.00	1) 23° 0'18.89"N 84°44'23.00"E 2) 22°59'46.83"N 84°44'54.01"E 3) 22°59'39.75"N 84°44'49.08"E 4) 23° 0'9.58"N 84°44'23.75"E	हाँ	नहीं	नहीं	नहीं	हाँ	हाँ	

State Level Environment Impact Assessment Authority Jharkhand Approved

Praveen Tuking (G.C)

SK19	South Koel Category-II	1) MOUZA - KUTUA THANA - GUMLA, THANA NO. - 113, DISTRICT - GUMLA, JHARKHAND PLOT NO. 2421(P) & 2414(P) 2) MOUZA - LUNGTU THANA - BASIA, THANA NO. - 148, DISTRICT - GUMLA, JHARKHAND PLOT NO. 1(P) Toposheet No.- 73A/12	30.50	1) 22°58'23.36"N 84°44'6.05"E 2) 22°58'25.16"N 84°44'12.22"E 3) 22°57'41.04"N 84°44'29.63"E 4) 22°57'39.40"N 84°44'22.63"E	नहीं	नहीं	नहीं	नहीं	हाँ	हाँ	
SK20	South Koel Category-II	MAUZA-PANTHA THANA NO.- 123 DIST.-GUMLA PLOT NO.-1940(P) TOPOSHEET NO.- 73A/12	18.70	1) 22°52'47.63"N 84°47'24.72"E 2) 22°52'19.14"N 84°48'9.67"E 3) 22°52'15.50"N 84°48'7.97"E 4) 22°52'42.73"N 84°47'20.15"E	नहीं	नहीं	नहीं	नहीं	हाँ	हाँ	
SK21	South Koel Category-II	MAUZA-KANASKELI THANA- BASIA THANA NO.- 31 DIST.-GUMLA PLOT NO.-1291(P) TOPOSHEET NO.- 73A/12	7.00	1) 22°49'46.74"N 84°53'2.44"E 2) 22°49'42.02"N 84°53'25.67"E 3) 22°49'38.61"N 84°53'24.59"E 4) 22°49'43.33"N 84°53'1.11"E	नहीं	नहीं	नहीं	नहीं	नहीं	नहीं	

वन क्षेत्र पदाधिकारी,
गुमला वन प्रक्षेत्र।

01/02/23

वन प्रमंडल पदाधिकारी,
गुमला वन प्रमंडल, गुमला।

Praveen Tirkey (G.C.)

प्रभारी वनपाल
गुमला

Approved
State Level Environment Impact Assessment Authority
Jharkhand

ANNEXURE-03

COPY OF WILD LIFE DFO



Department of Forest, Environment and Climate Change

Report of Distance from Notified Forest, National Park, Sanctuary & Eco-Sensitive Zone

Name Of Applicant dISTRICT MINING OFFICER GUMLA
Institution Type Non Government
Email ID dmo-gumla@jharkhandmail.gov.in **Contact no.:** 9661334716

Location of Proposed Land

District Gumla
Thana No.: 52
Khata No.: 301

Battery Point MAUZA- KOBJA, THANA- RAIDIH, THANA NO-52 DISTRICT- GUMLA, JHARKHAND
Thana Name: RAIDIH
Khesra Name: 5530P

#	Checkpoint	Range Forest Officer	Divisional Forest Officer
1	Whether Distance of Project location from Reserved Forest/Protected Forest is 250 m? *	~~Yes~~ Related to Gumla Forest Div., Gumla	~~Yes~~ Related to Gumla Forest Div., Gumla
2	Whether Project location come under No Mining Zone? *	~~Yes~~	~~Yes~~
3	Does there any National park located within 10 km from project location? *	No	No
4	Does there any Wildlife sanctuary located within 10 km distance from project location? *	Yes	Yes
5	Does there any ESZ available within 10 km distance from project location? *	Yes	Yes
6	Whether Proposed project comes under prohibited category of ESZ (Yes or No)? *	Yes	Yes

Division **DFO Wildlife Ranchi**
Letter No. 156
Date of issue 01-03-2023
Signature
Name

Divisional Forest Officer

01/03/2023
Divisional Forest Officer
Wildlife Division, Ranchi

Note:- As per Notification - S.O. 2897(E) dated 09th August 2019 of the Ministry of Environment, Forest and Climate Change, Government of India, New Delhi, the Eco Sensitive Zone (ESZ) is 350 meters to 05 kilometers around the boundary of Palkot Wildlife Sanctuary, Gumla. Since the battery point is found inside the Eco Sensitive Zone of Palkot Wildlife Sanctuary, hence the proposed activity is prohibited as per the ESZ Notification.

01/03/2023
Divisional Forest Officer
Wildlife Division, Ranchi

State Level Environment Impact Assessment Authority * Jharkhand, Ranchi *
Approved

ANNEXURE-04

CADASTRAL MAP OF POTENTIAL AREA OF SAND

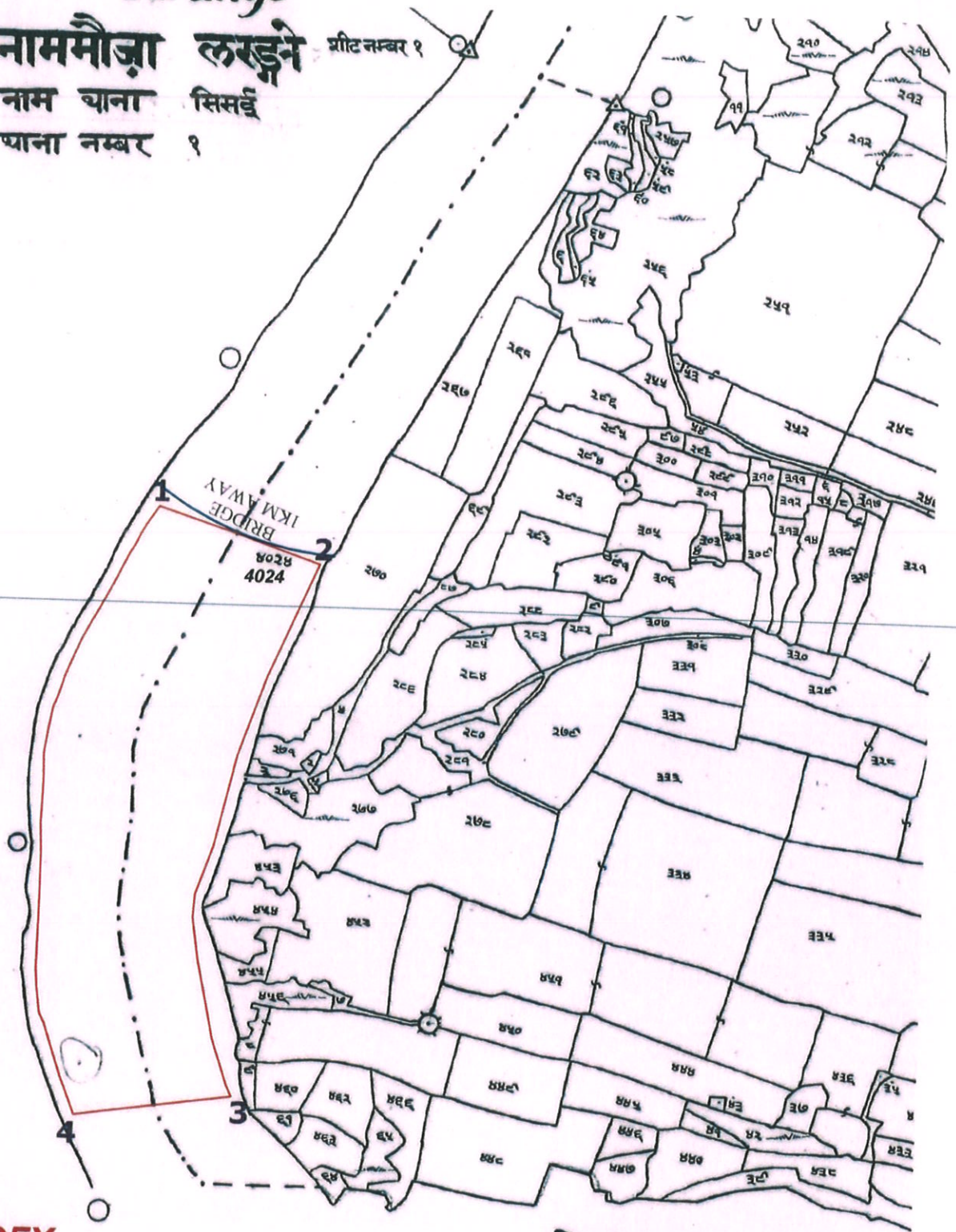


Larango

नाममौज़ा लरङ्गो प्रीट नम्बर १

नाम थाना सिसई

थाना नम्बर १



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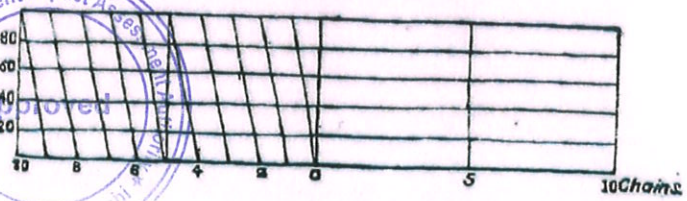
PROPOSED POTENTIAL AREA

OTHER PLOTS

DISTANCE SK01 TO SK02 BLOCK 1.1KM
FROM PILLAR NO. 3 & 4

स्केल एक माइल बराबर १६ इन्च
सन् १६३१ - ३२ इस्वी

Scale 16 Inches = 1 Mile.



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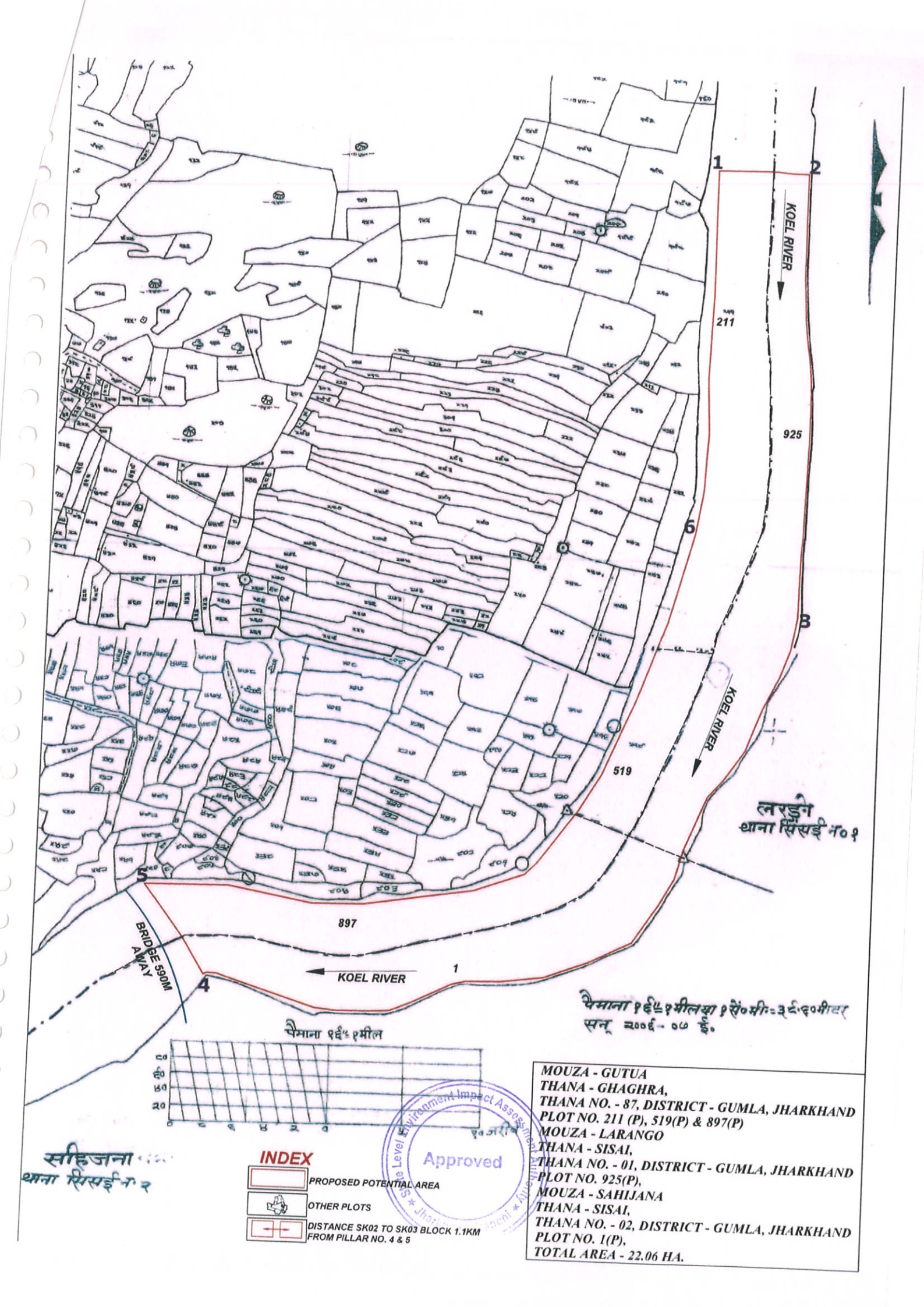
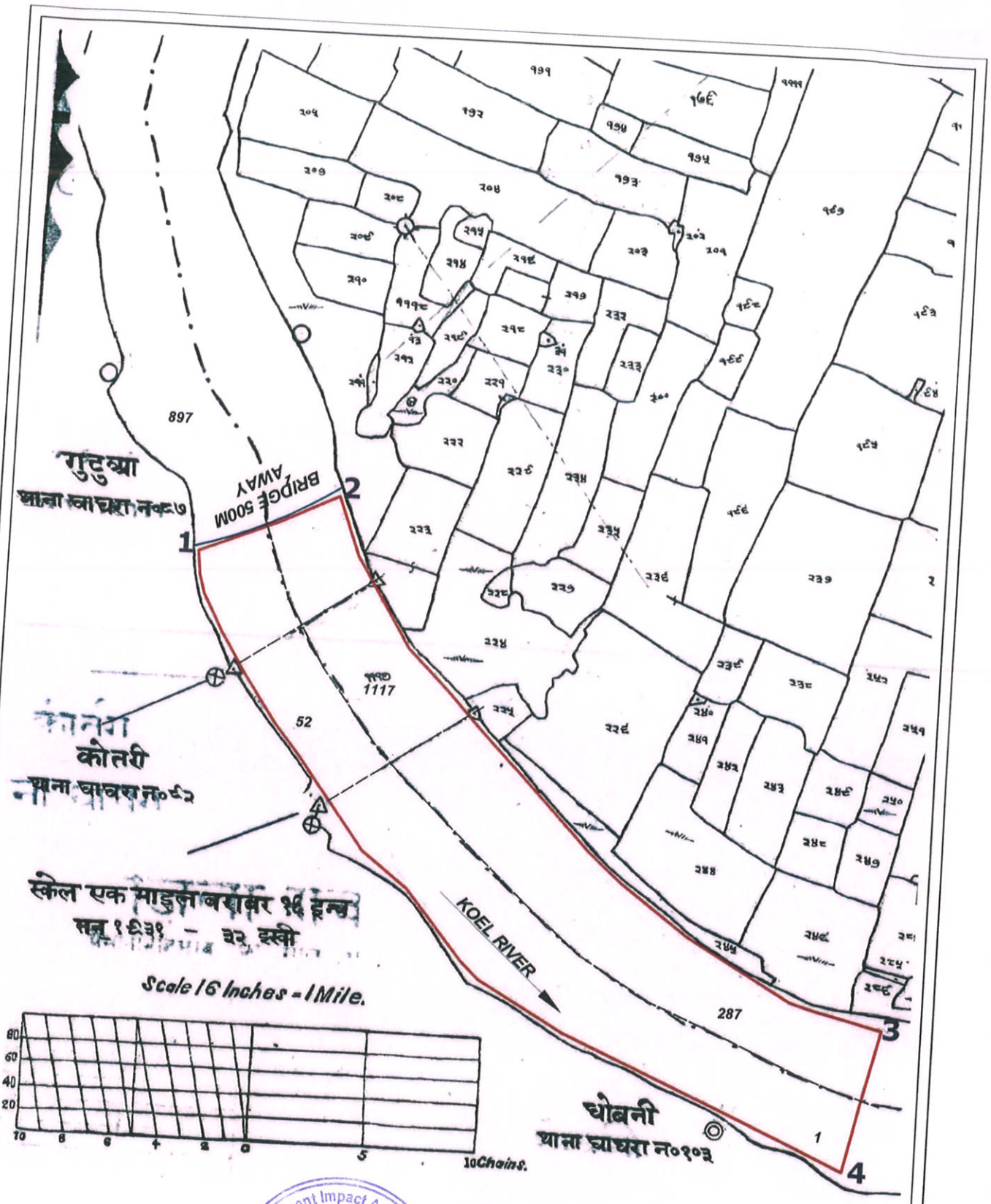
MOUZA - LARANGO
THANA - SISAI,
THANA NO. - 01, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 4024(P),
TOTAL AREA - 4.62 HA.


KOEL RIVER
KOEL RIVER
KOEL RIVER
BRIDGE 590M AWAY
211
925
519
897
1
2
3
4
5
6
लरांगो
थाना सिसई नं० १
सहिजना
थाना सिसई नं० २
पैमाना १ई॰=१मील
पैमाना १ई॰=१मीलया १सें०मी॰=३ई॰८०मीटर
सन् २००६ ई०
INDEX
PROPOSED POTENTIAL AREA
OTHER PLOTS
DISTANCE SK02 TO SK03 BLOCK 1.1KM
FROM PILLAR NO. 4 & 5
Approved
MOUZA - GUTUA
THANA - GHAGHRA,
THANA NO. - 87, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 211 (P), 519(P) & 897(P)
MOUZA - LARANGO
THANA - SISAI,
THANA NO. - 01, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 925(P),
MOUZA - SAHIJANA
THANA - SISAI,
THANA NO. - 02, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1(P),
TOTAL AREA - 22.06 HA.



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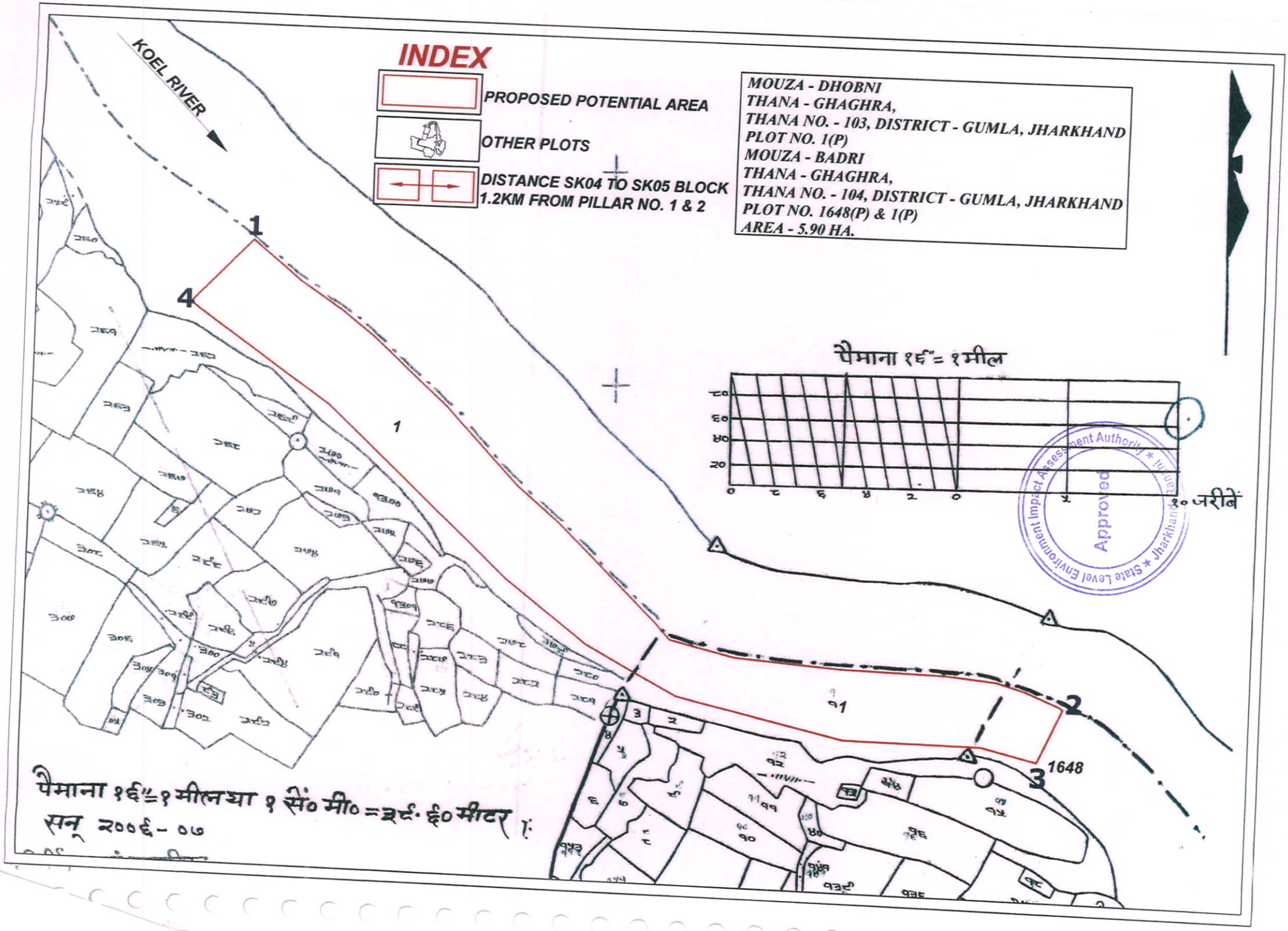
PROPOSED POTENTIAL AREA

OTHER PLOTS

DISTANCE SK03 TO SK04 BLOCK 1.2KM FROM PILLAR NO. 3 & 4

MOUZA - SAHIJANA
THANA - SISAI,
THANA NO. - 02, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1117(P), 287(P), 1(P),
MOUZA - DHOBNI
THANA - GHAGHRA,
THANA NO. - 103, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1(P),
MOUZA - KOTRI
THANA - GHAGHRA,
THANA NO. - 92, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 52(P),
MOUZA - GUTUA
THANA - GHAGHRA,
THANA NO. - 87, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 897(P),
TOTAL AREA - 10.00 HA.


INDEX
PROPOSED POTENTIAL AREA
OTHER PLOTS
DISTANCE SK04 TO SK05 BLOCK
1.2KM FROM PILLAR NO. 1 & 2
MOUZA - DHOBNI
THANA - GHAGHRA,
THANA NO. - 103, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1(P)
MOUZA - BADRI
THANA - GHAGHRA,
THANA NO. - 104, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1648(P) & 1(P)
AREA - 5.90 HA.
KOEL RIVER
1
2
3
4
1648
पैमाना १६"= १ मील
जरीबें
पैमाना १६"=१ मील या १ सें० मी० = ३९.६० मीटर
सन् २००६-०७
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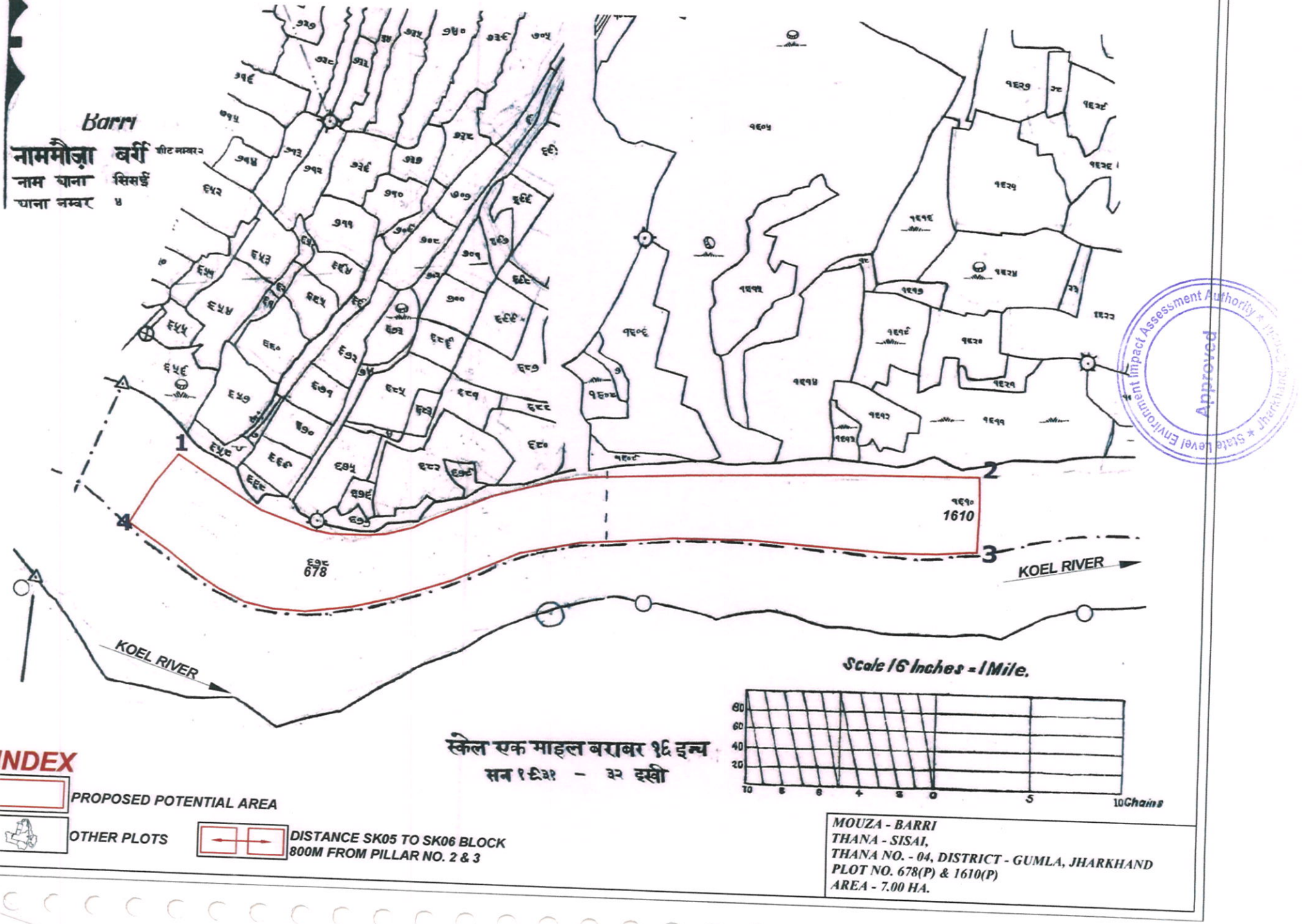
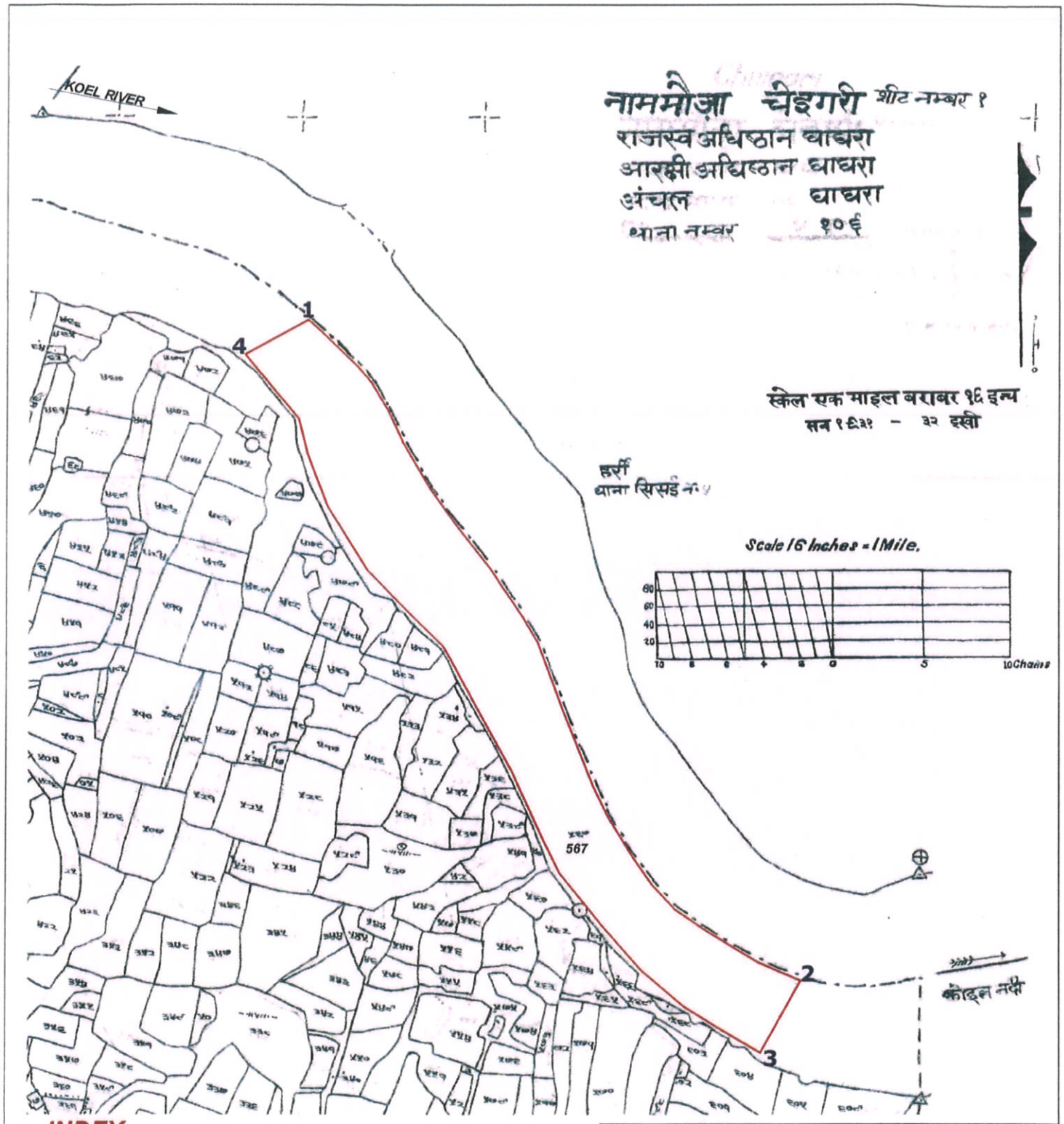

Barri
नाममौज़ा बर्री
नाम थाना सिसई
थाना नम्बर ४
1
2
3
4
1610
678
KOEL RIVER
KOEL RIVER
Approved
Scale 16 Inches = 1 Mile.
80
60
40
20
10 8 6 4 2 0 5 10 Chains
स्केल एक माइल बराबर १६ इन्च
सन १९३१ - ३२ इसवी
INDEX
PROPOSED POTENTIAL AREA
OTHER PLOTS
DISTANCE SK05 TO SK06 BLOCK
800M FROM PILLAR NO. 2 & 3
MOUZA - BARRI
THANA - SISAI,
THANA NO. - 04, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 678(P) & 1610(P)
AREA - 7.00 HA.



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PROPOSED POTENTIAL AREA

OTHER PLOTS

DISTANCE SK06 TO SK05 BLOCK
800M FROM PILLAR NO. 1 & 4

MOUZA - CHEIGARI
THANA - GHAGHRA,
THANA NO. - 106, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 567(P)
AREA - 8.80 HA.

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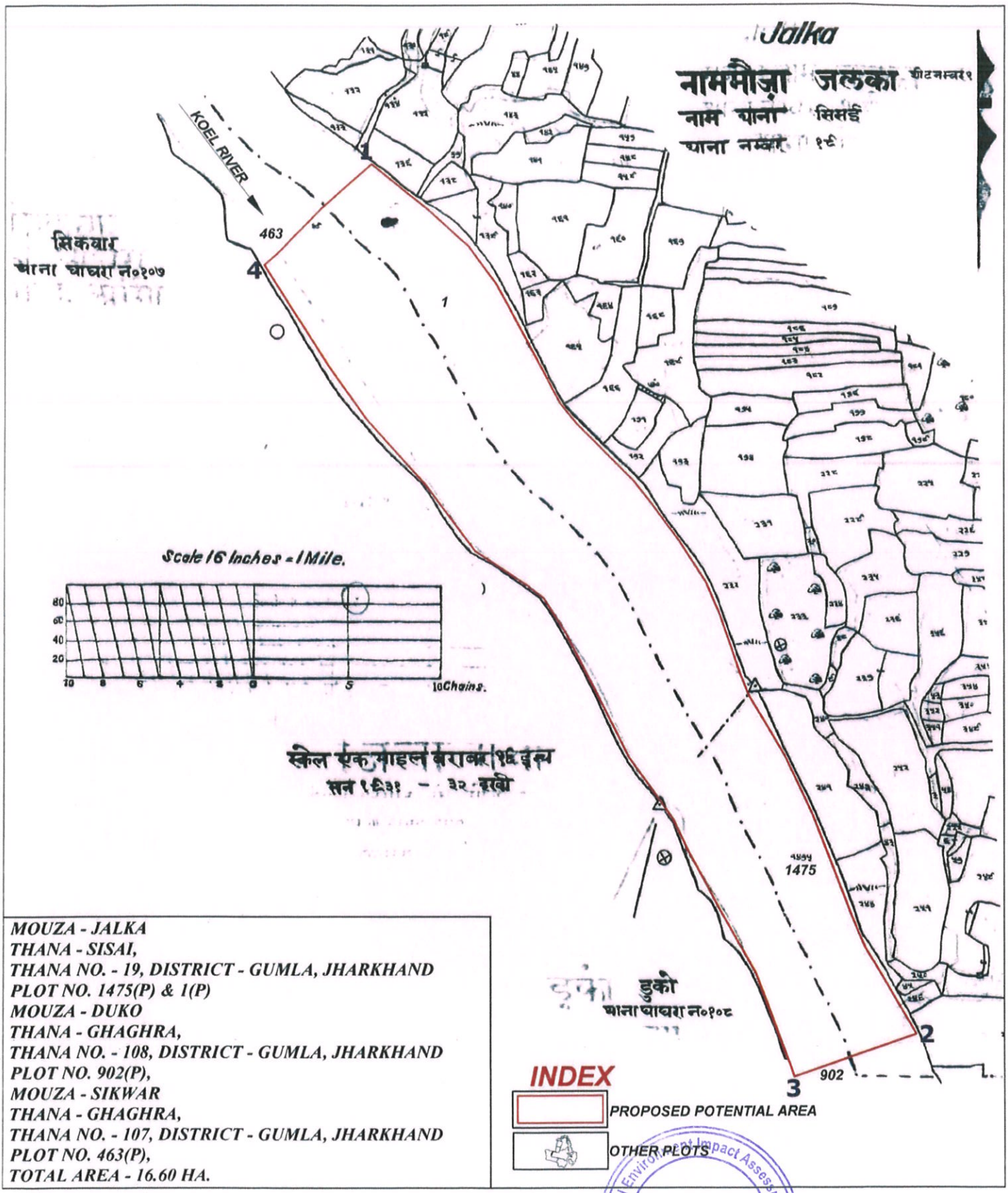

MOUZA - JALKA
THANA - SISAI,
THANA NO. - 19, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1475(P) & 1(P)
MOUZA - DUKO
THANA - GHAGHRA,
THANA NO. - 108, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 902(P),
MOUZA - SIKWAR
THANA - GHAGHRA,
THANA NO. - 107, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 463(P),
TOTAL AREA - 16.60 HA.

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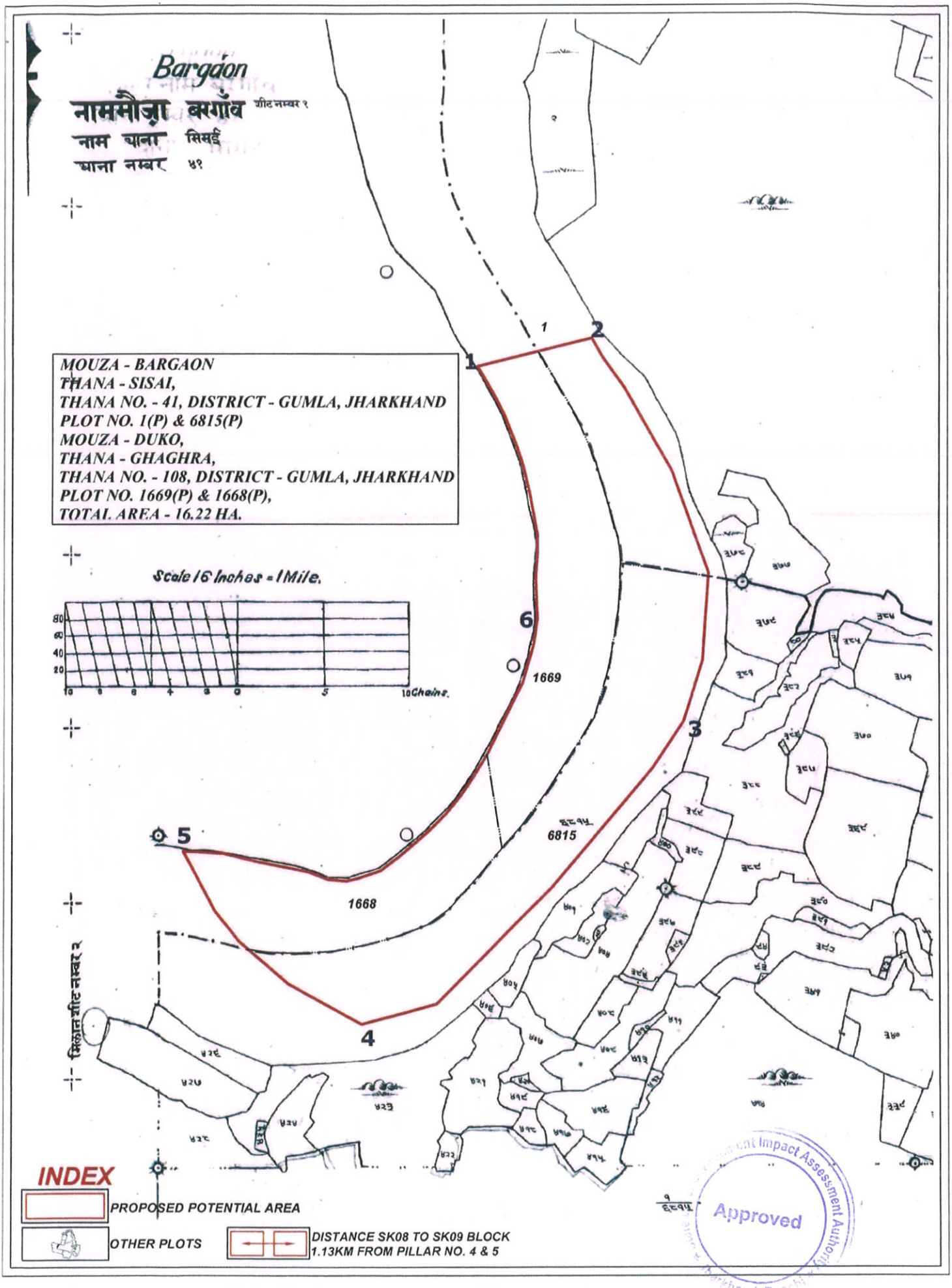
Bargaon
नाममौज़ा बरगाँव शीट नम्बर १
नाम थाना सिसई
थाना नम्बर ४१
MOUZA - BARGAON
THANA - SISAI,
THANA NO. - 41, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1(P) & 6815(P)
MOUZA - DUKO,
THANA - GHAGHRA,
THANA NO. - 108, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1669(P) & 1668(P),
TOTAL AREA - 16.22 HA.
Scale 16 Inches = 1 Mile.
80
60
40
20
10 Chains.
1
2
3
4
5
6
1669
6815
1668
मिलान शीट नम्बर २
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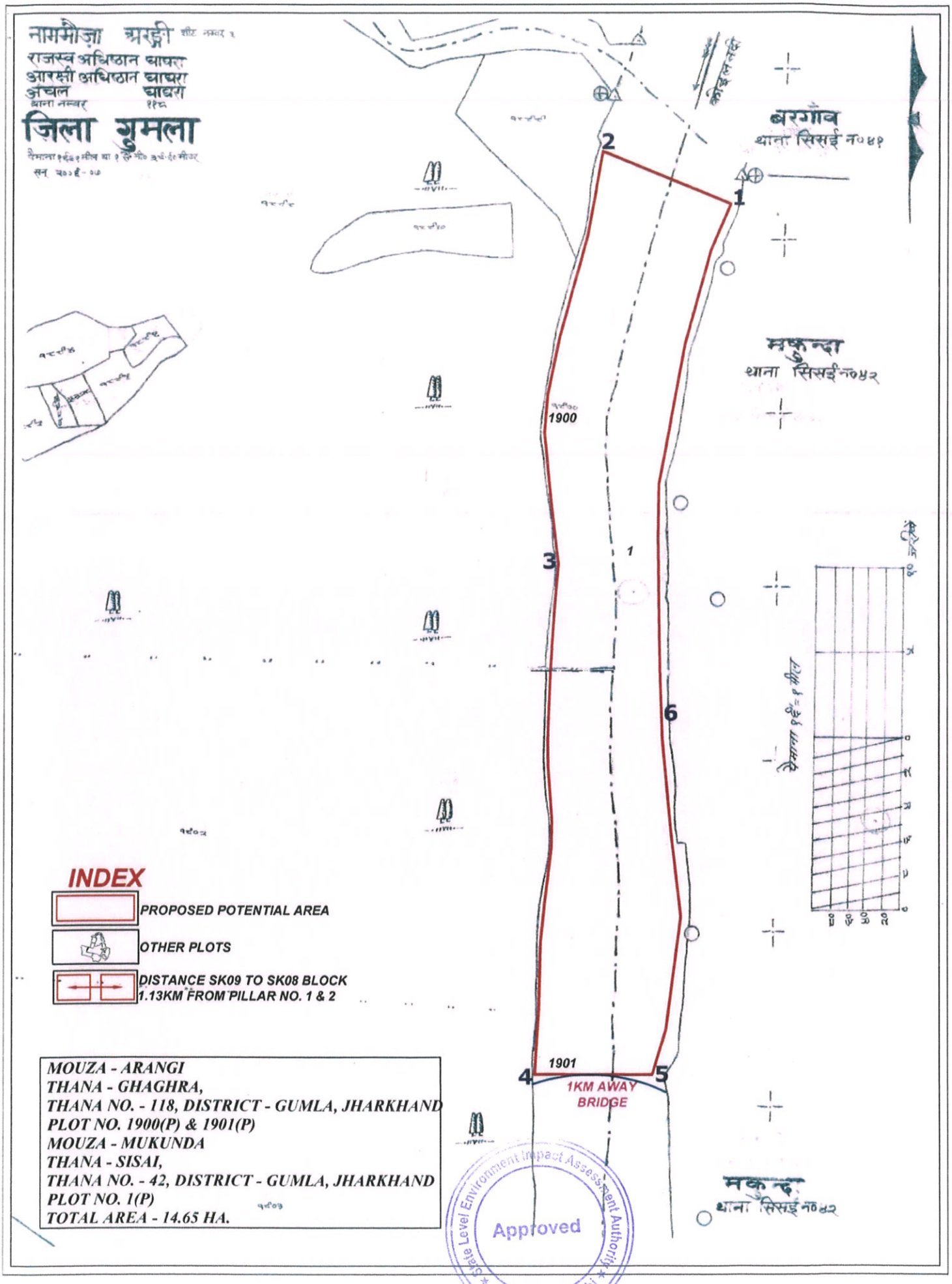
PROPOSED POTENTIAL AREA
OTHER PLOTS
DISTANCE SK08 TO SK09 BLOCK
1.13KM FROM PILLAR NO. 4 & 5
Approved


नाममौज़ा अरङ्गी शीट नम्बर १
राजस्व अधिष्ठान चाघरा
आरक्षी अधिष्ठान चाघरा
अंचल चाघरा
थाना नम्बर ११८
जिला गुमला
सन् २०१६ - १७
बरगाँव
थाना सिसई न०४१
मकन्दा
थाना सिसई न०४२
1900
1901
1
2
3
4
5
6
1KM AWAY
BRIDGE
INDEX
PROPOSED POTENTIAL AREA
OTHER PLOTS
DISTANCE SK09 TO SK08 BLOCK
1.13KM FROM PILLAR NO. 1 & 2
MOUZA - ARANGI
THANA - GHAGHRA,
THANA NO. - 118, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1900(P) & 1901(P)
MOUZA - MUKUNDA
THANA - SISAI,
THANA NO. - 42, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1(P)
TOTAL AREA - 14.65 HA.
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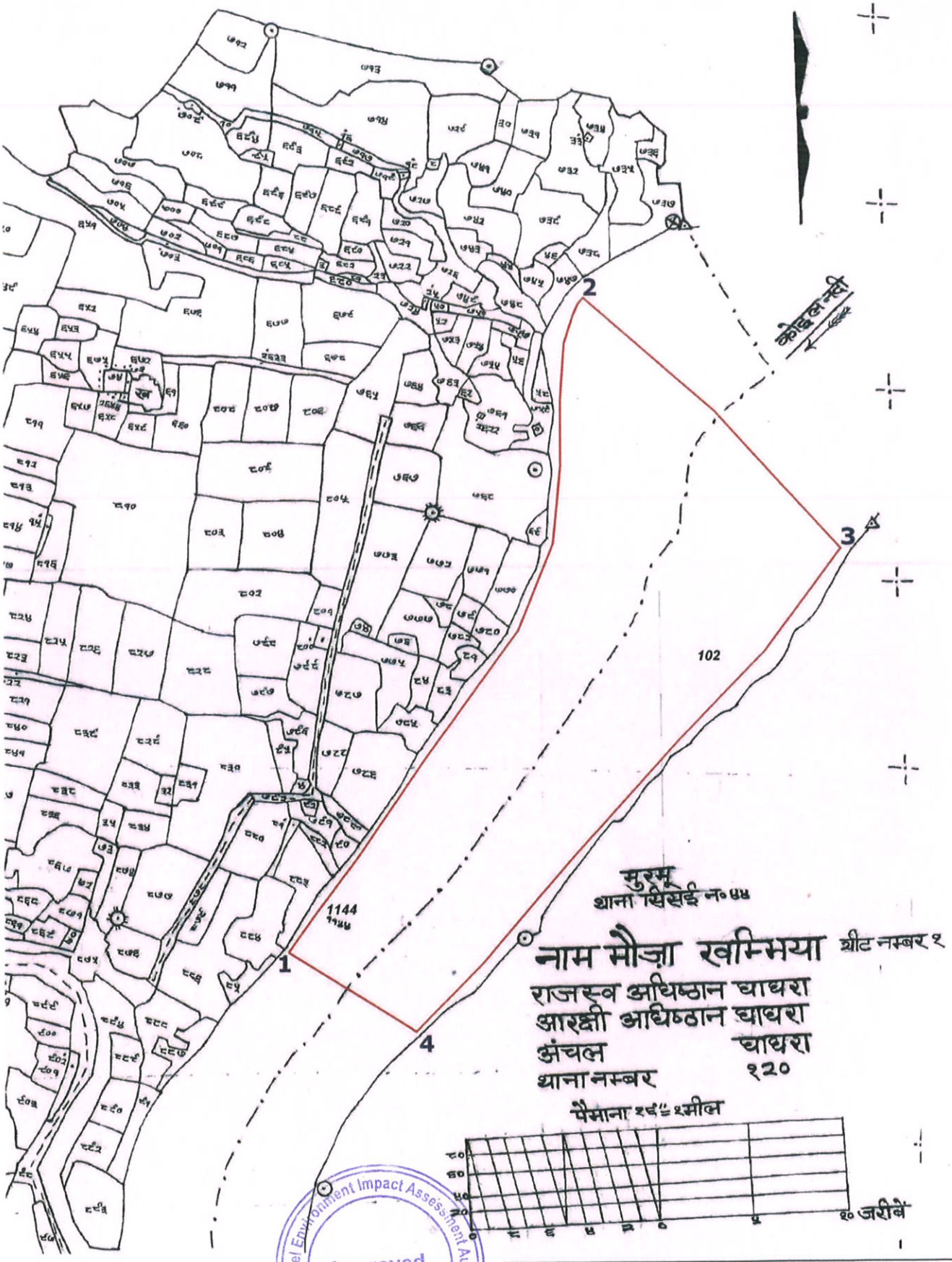

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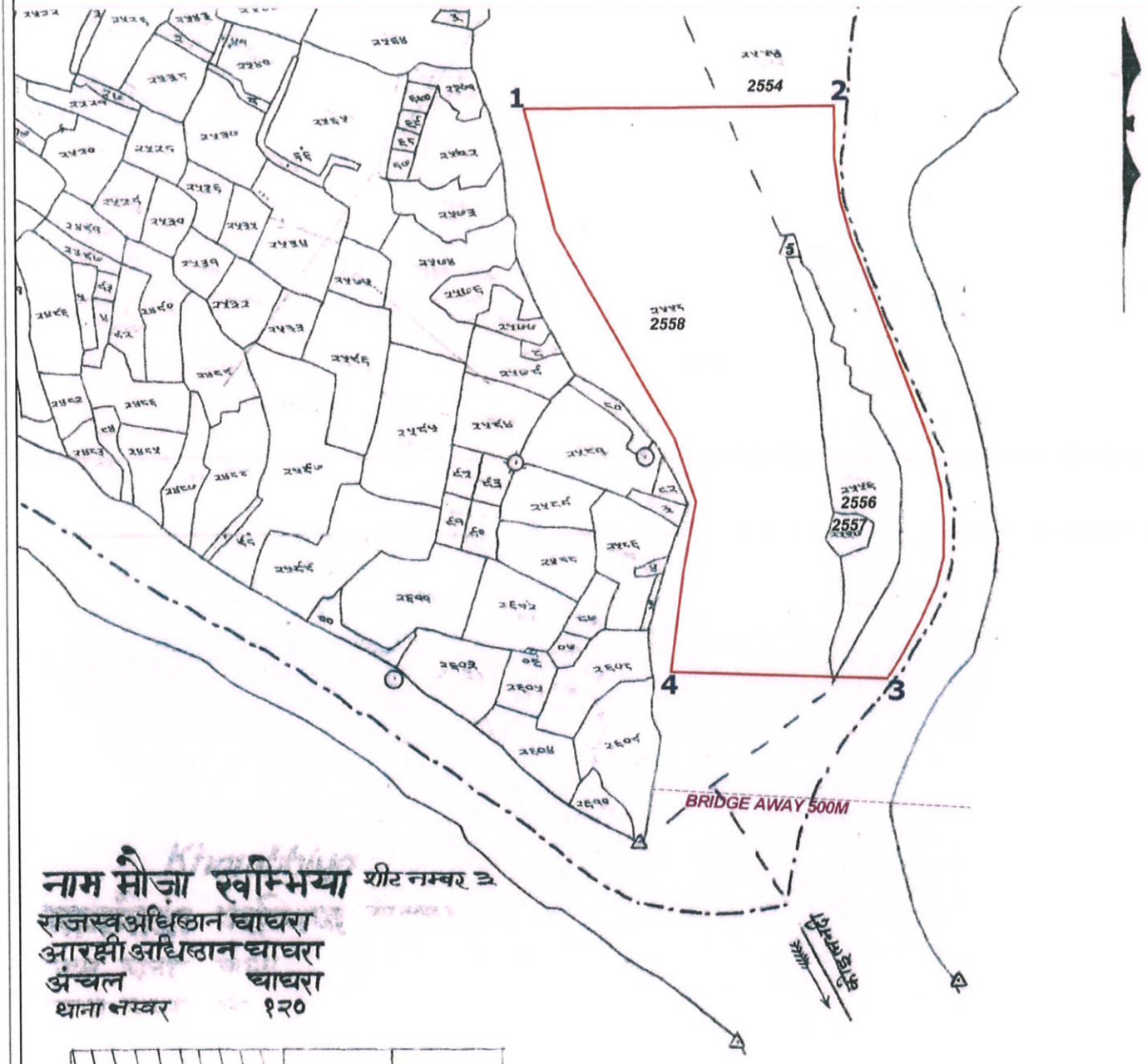
PROPOSED POTENTIAL AREA

OTHER PLOTS

MOUZA - KHAMBHIYA - I
THANA - GHAGRA,
THANA NO. - 120, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1144(P)
MOUZA - MURMU
THANA - SISAI,
THANA NO. - 44, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 102(P)
TOTAL AREA - 17.00 HA.



नाम मौज़ा खम्भिया शीट नम्बर ३
राजस्वअधिष्ठान घाघरा
आरक्षीअधिष्ठान घाघरा
अंचल घाघरा
थाना नम्बर १२०

पैमाना १ई॰=१ मीलया १ मे॰मी॰=३ई॰ ६० मीटर
सन् २००६-०७

INDEX

PROPOSED POTENTIAL AREA

OTHER PLOTS

MOUZA - KHAMBHIYA-II
THANA - GHAGRA,
THANA NO. - 120, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 2555, 2556, 2557, 2554(P) & 2558(P)
AREA - 13.00 HA.

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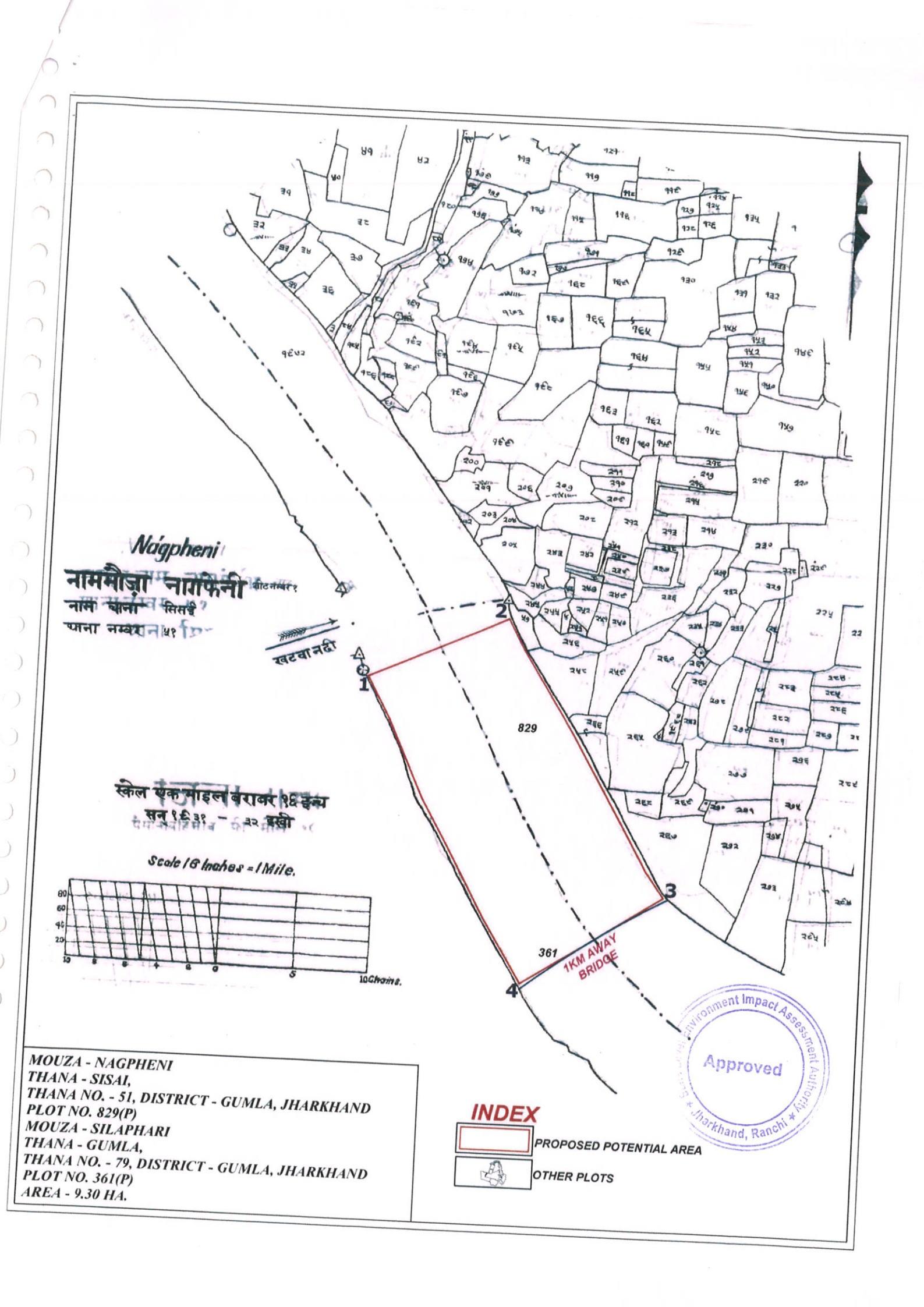
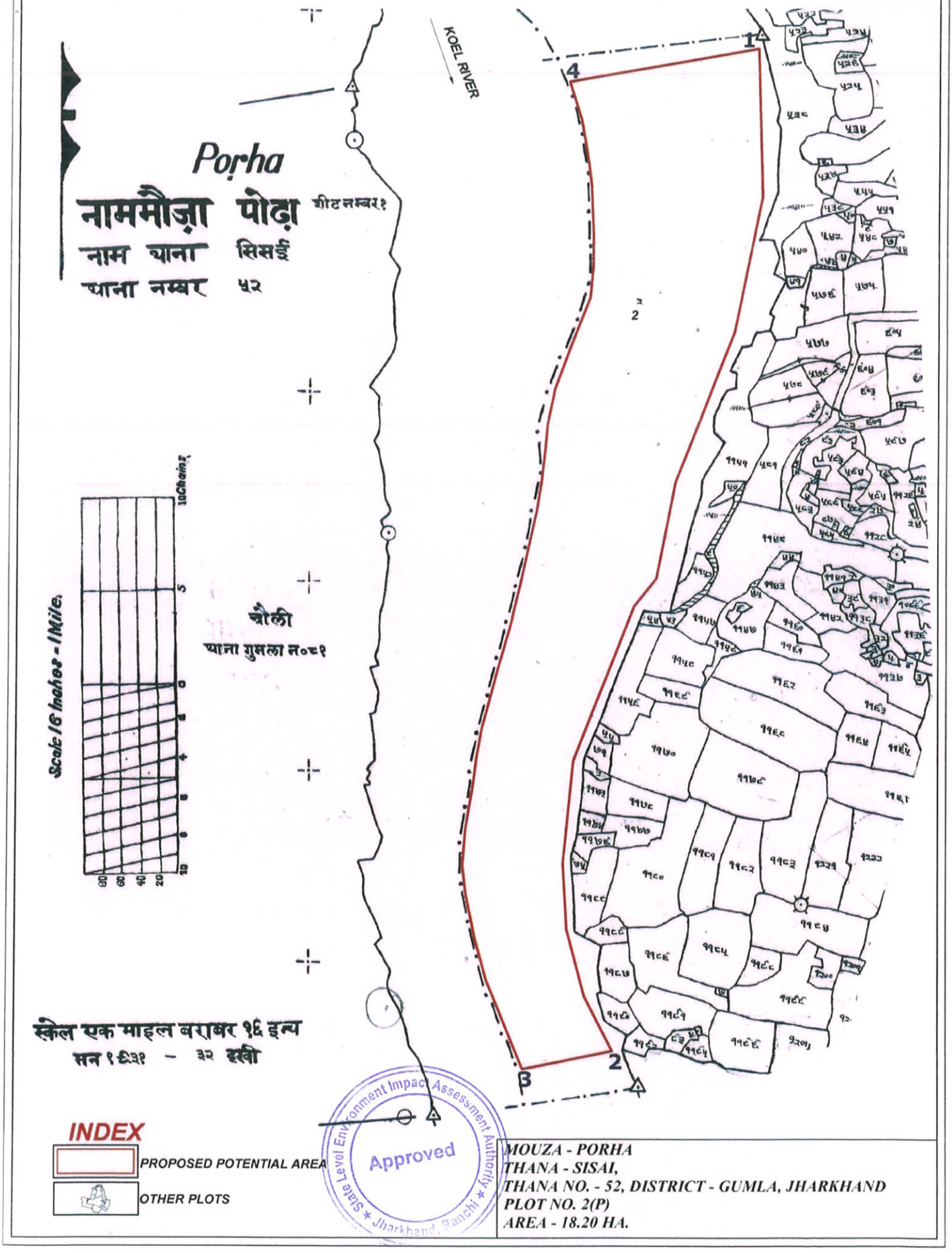
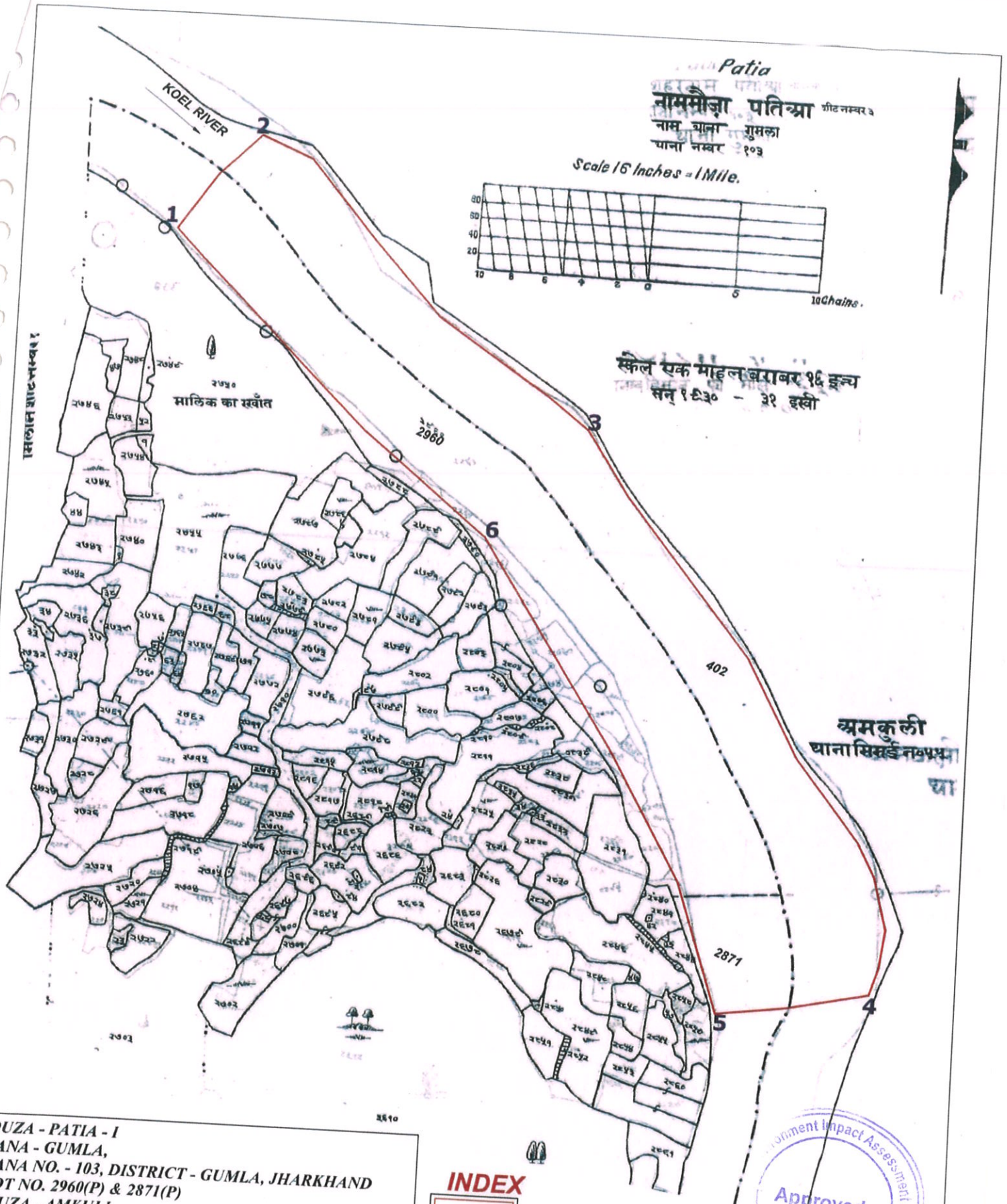


MOUZA - NAGPHENI
THANA - SISAI,
THANA NO. - 51, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 829(P)
MOUZA - SILAPHARI
THANA - GUMLA,
THANA NO. - 79, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 361(P)
AREA - 9.30 HA.



MOUZA - PORHA
THANA - SISAI,
THANA NO. - 52, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 2(P)
AREA - 18.20 HA.



MOUZA - PATIA - I
THANA - GUMLA,
THANA NO. - 103, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 2960(P) & 2871(P)
MOUZA - AMKULI
THANA - SISAI,
THANA NO. - 55, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 402(P)
TOTAL AREA - 20.54 HA.

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- PROPOSED POTENTIAL AREA
- OTHER PLOTS
- DISTANCE SK14 TO SK15 BLOCK 1.13KM FROM PILLAR NO. 4 & 5

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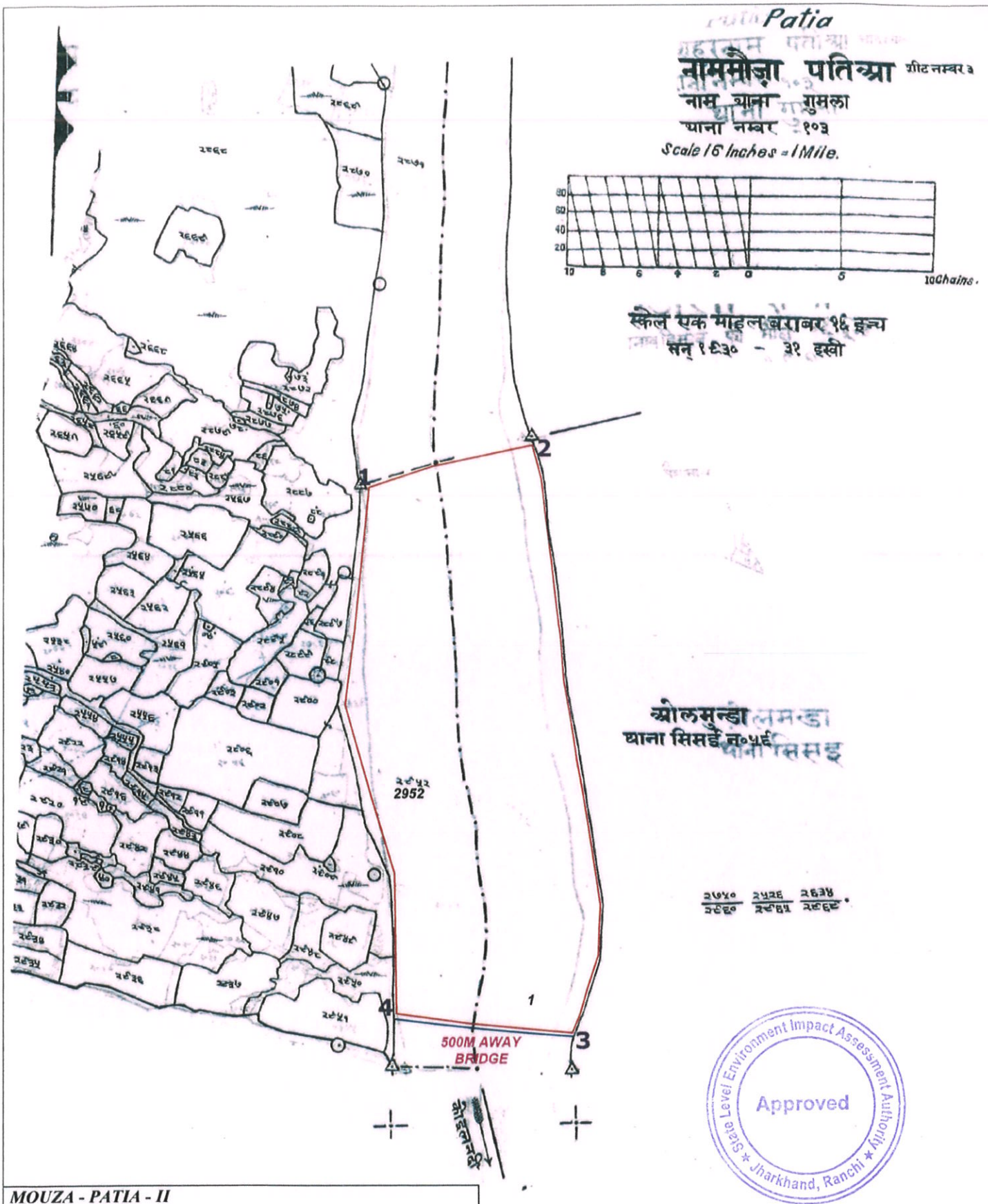

MOUZA - PATIA - II
THANA - GUMLA,
THANA NO. - 103, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 2952(P)
MOUZA - OLMUNDA
THANA - SISAI,
THANA NO. - 56, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1(P)
TOTAL AREA - 13.20 HA.

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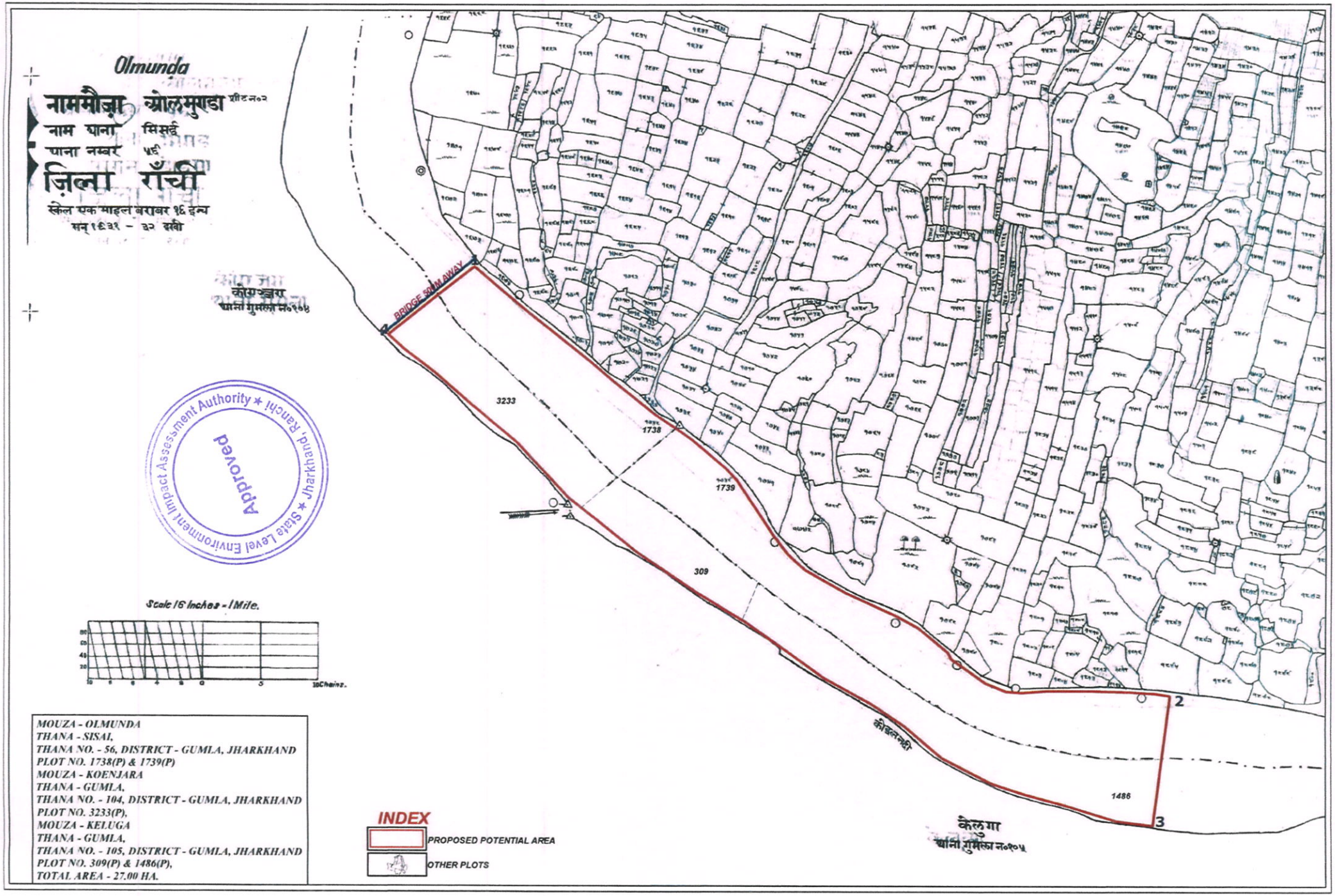
PROPOSED POTENTIAL AREA

OTHER PLOTS

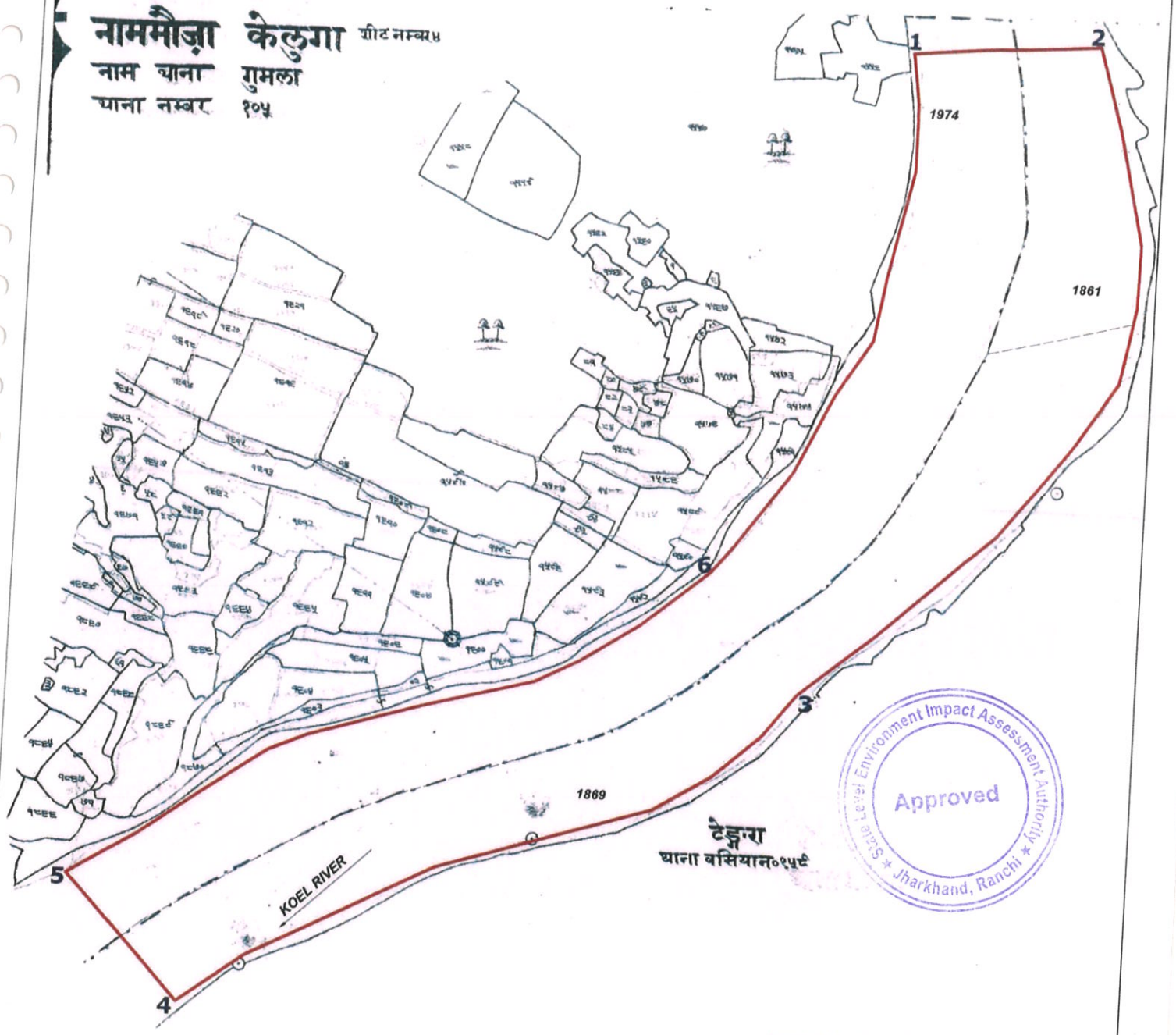

Olmunda
नाममौज़ा ओलमुण्डा शीट न०२
नाम थाना सिसई
थाना नम्बर ५६
ज़िला राँची
स्केल एक माइल बराबर १६ इन्च
सन् १९३१ - ३२ दखी
कोएञ्जरा
थाना गुमला न०१०४
BRIDGE 500M AWAY
3233
1738
1739
309
1486
2
3
कोइलनदी
केलुगा
थाना गुमला न०१०५
Approved
State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★
Scale 16 Inches = 1 Mile.
10 Chains.
MOUZA - OLMUNDA
THANA - SISAI,
THANA NO. - 56, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1738(P) & 1739(P)
MOUZA - KOENJARA
THANA - GUMLA,
THANA NO. - 104, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 3233(P),
MOUZA - KELUGA
THANA - GUMLA,
THANA NO. - 105, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 309(P) & 1486(P),
TOTAL AREA - 27.00 HA.
INDEX
PROPOSED POTENTIAL AREA
OTHER PLOTS

Keluga

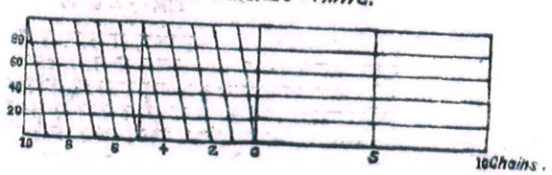
नाममौज़ा केलुगा शीट नम्बर५

नाम थाना गुमला

थाना नम्बर १०५



Scale 16 Inches = 1 Mile.



MOUZA - KELUGA
THANA - GUMLA,
THANA NO. - 105, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1974(P)
MOUZA - TENGRA
THANA - BASIA,
THANA NO. - 159, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1869(P) & 1861(P),
TOTAL AREA - 31.50 HA.

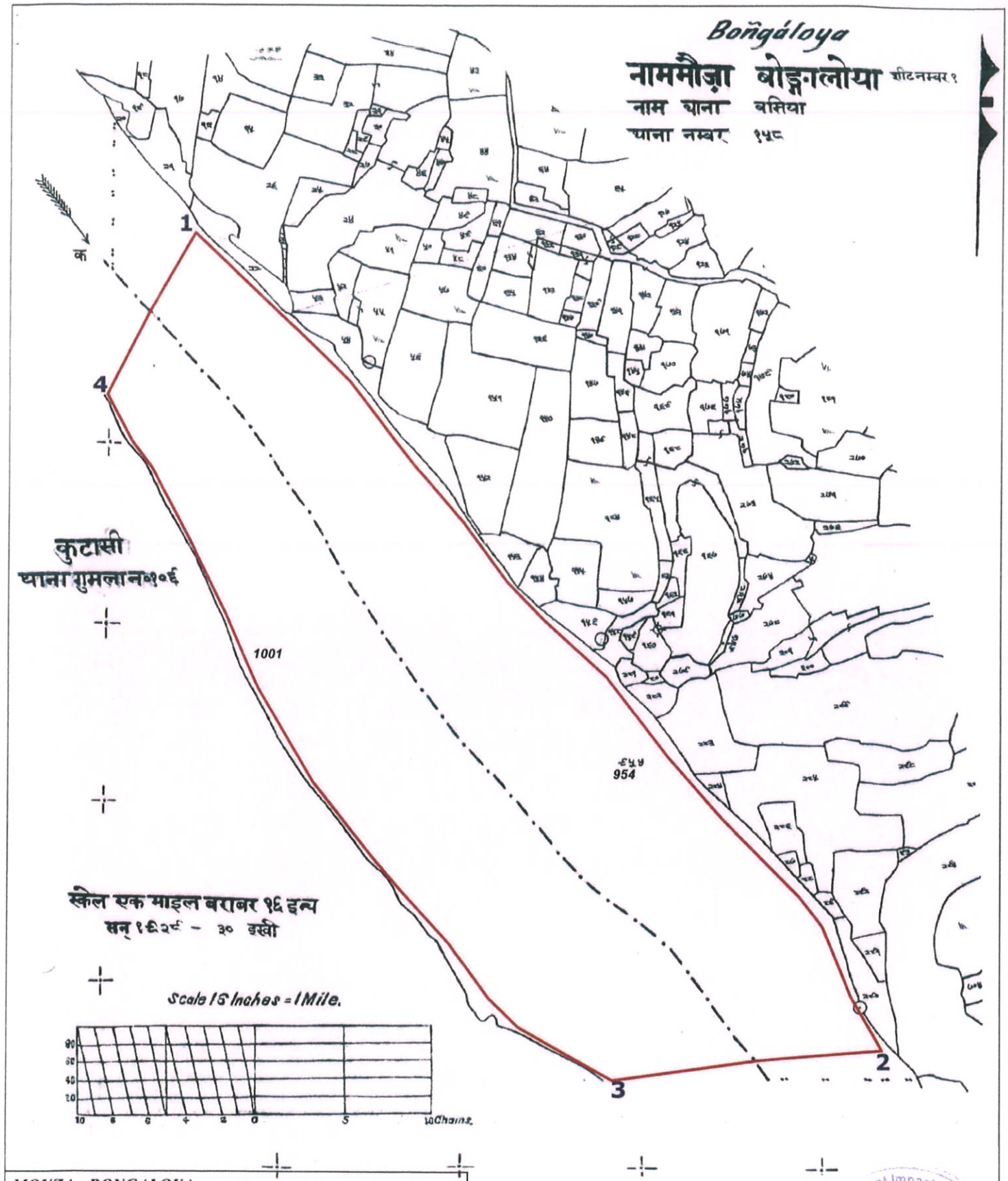
INDEX

PROPOSED POTENTIAL AREA

OTHER PLOTS

DISTANCE SK17 TO SK18 BLOCK
1.1KM FROM PILLAR NO. 4 & 5

स्केल एक माइल बराबर १६ इन्च
सन् १६३० - ३१ इस्वी

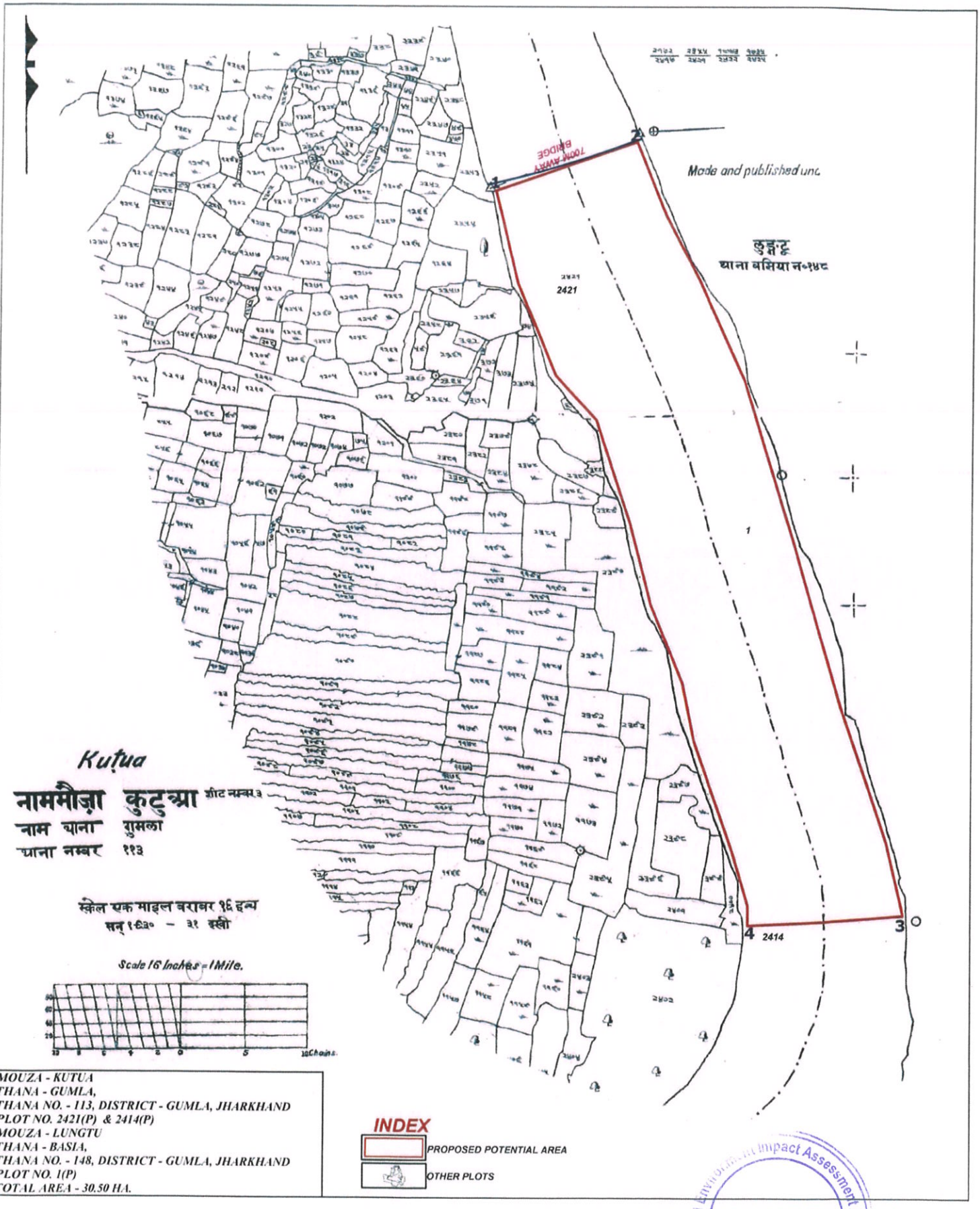


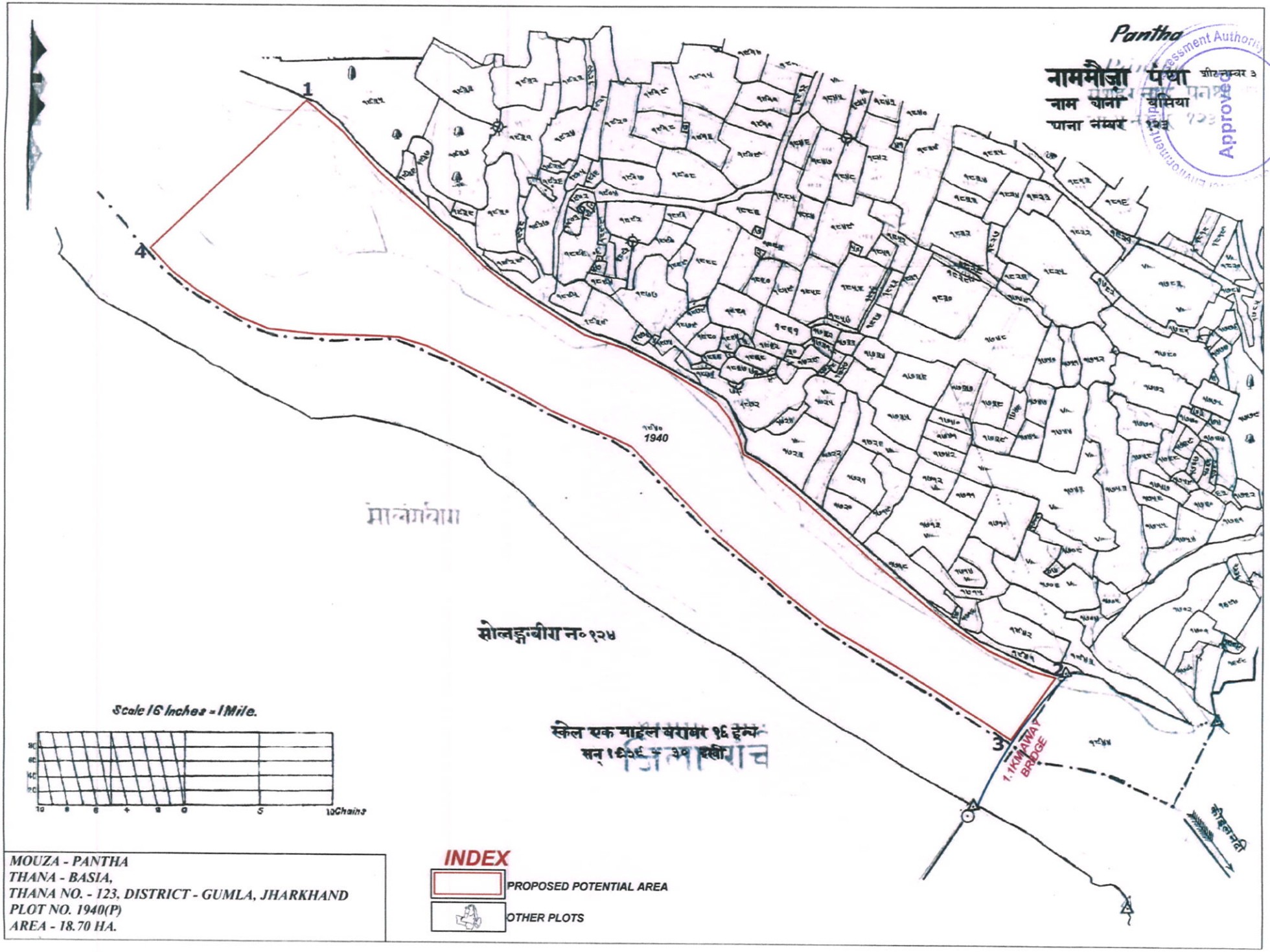
MOUZA - BONGALOYA
THANA - BASIA,
THANA NO. - 158, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 954(P),
MOUZA - KUTASI
THANA - GUMLA,
THANA NO. - 106, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1001(P),
TOTAL AREA - 31.00 HA.

INDEX

- PROPOSED POTENTIAL AREA
- OTHER PLOTS
- DISTANCE SK18 TO SK17 BLOCK 1.1KM FROM PILLAR NO. 1 & 4

Environment Impact Assessment Authority ★ Jharkhand, Ranchi
Approved


Made and published unc
लुङ्गटु
थाना बसिया न०११८
2421
2414
1
2
3
4
Kutua
नाममौज़ा कुटुआ शीट नम्बर ३
नाम थाना गुमला
थाना नम्बर ११३
स्केल एक माइल बराबर १६ इन्च
सन् १९३० – ३१ इस्वी
Scale 16 Inches = 1 Mile.
10 Chains.
MOUZA - KUTUA
THANA - GUMLA,
THANA NO. - 113, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 2421(P) & 2414(P)
MOUZA - LUNGTU
THANA - BASIA,
THANA NO. - 148, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1(P)
TOTAL AREA - 30.50 HA.
INDEX
PROPOSED POTENTIAL AREA
OTHER PLOTS
State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi


Pantha
नाममौजा पंथा
नाम थाना बसिया
थाना नम्बर १२३
1940
सोलङ्गबीरा न० १२४
1.1KM AWAY BRIDGE
Scale 16 Inches = 1 Mile.
10 8 6 4 2 0 5 10 Chains
INDEX
PROPOSED POTENTIAL AREA
OTHER PLOTS
MOUZA - PANTHA
THANA - BASIA,
THANA NO. - 123, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1940(P)
AREA - 18.70 HA.

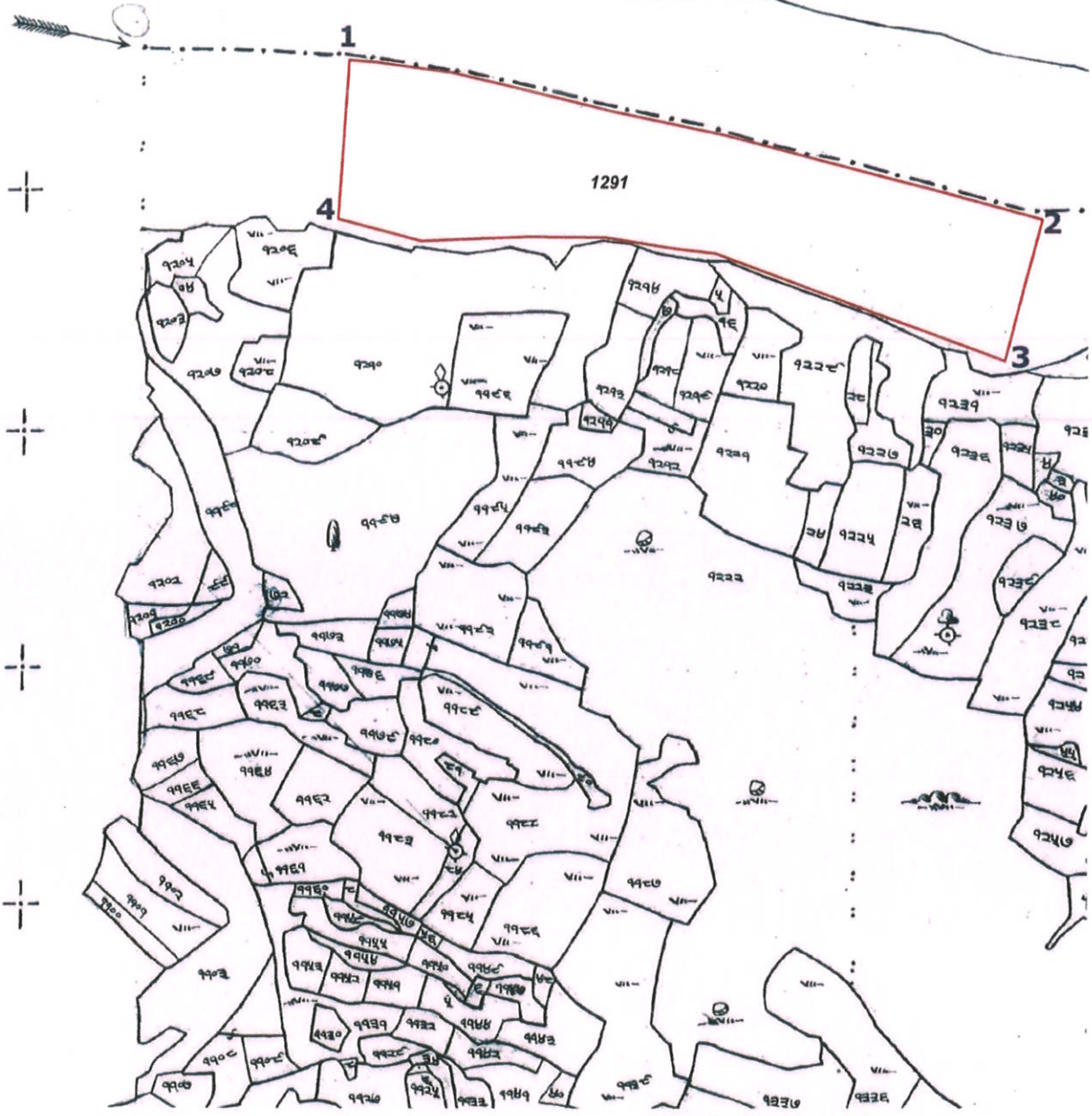
Kanaskeli

नामसौजा कनसकेली शीट नम्बर २

नाम थाना बसिया

थाना नम्बर ३१

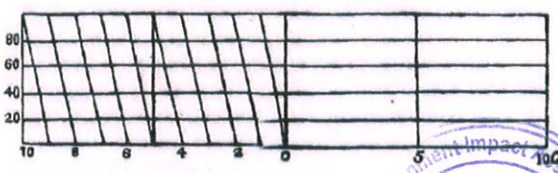
बड़कोहली न०४६



Scale 16 Inches = 1 Mile.

स्केल एक माइल बराबर १६ इन्च

मन् १६२८ - ३० दखी



MOUZA - KANASKELI
THANA - BASIA,
THANA NO. - 31, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1291(P)
AREA - 7.00 HA.

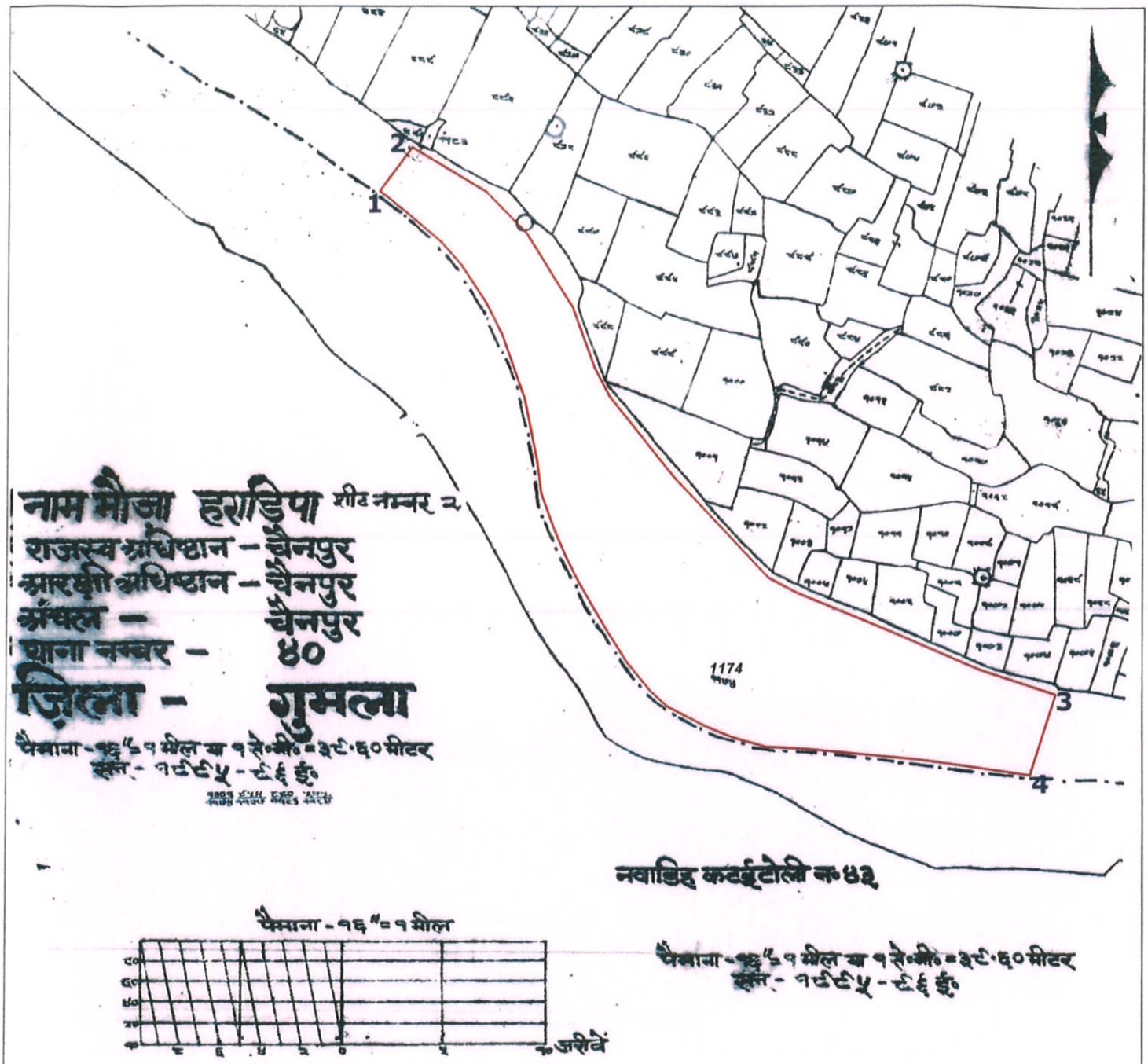
INDEX

PROPOSED POTENTIAL AREA

OTHER PLOTS

Approved

State Level Environment Impact Assessment Authority
Jharkhand, Ranchi



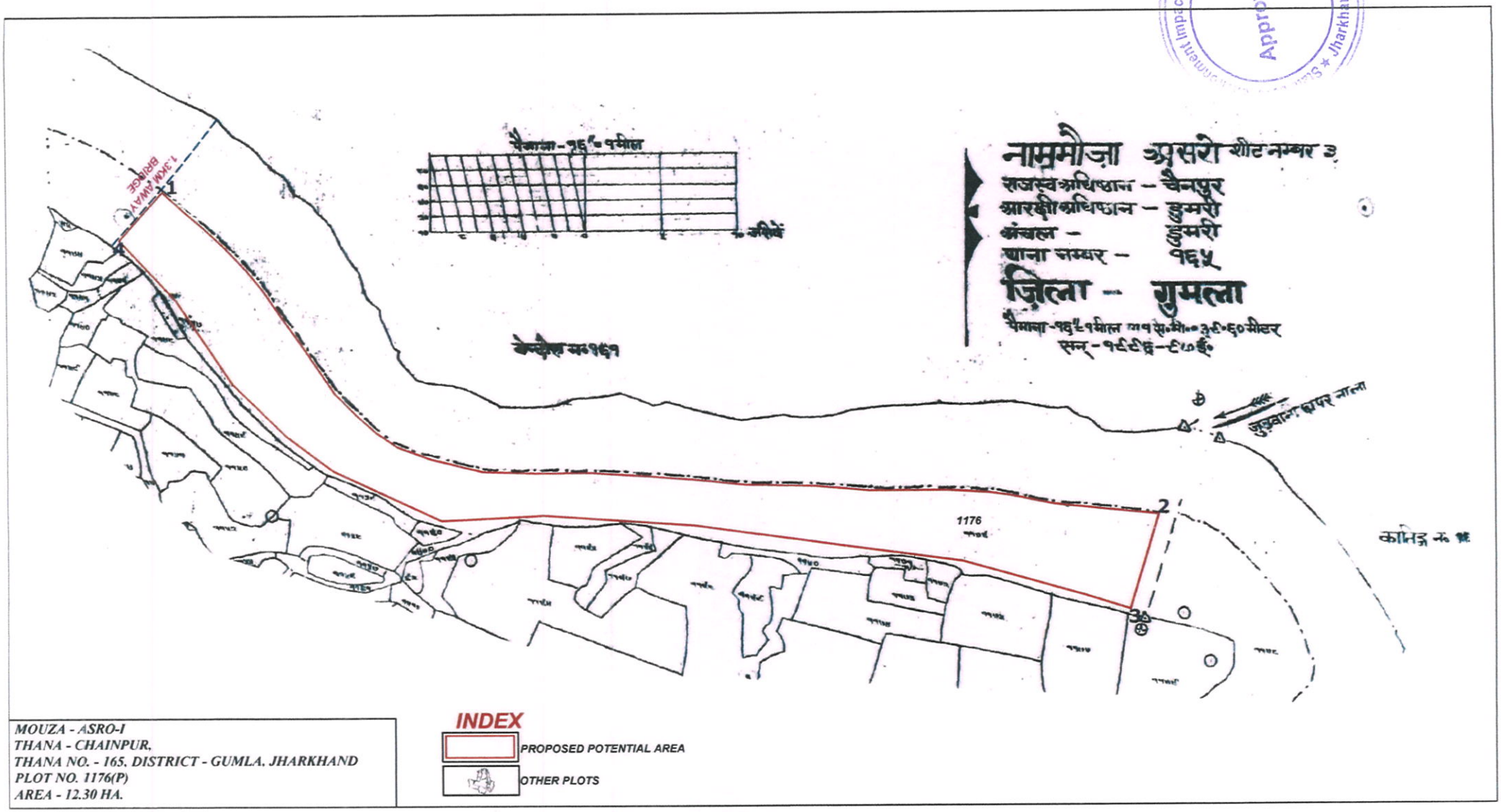
State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

MOUZA - HARADIPA
THANA - CHAINPUR,
THANA NO. - 40, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1174(P)
AREA - 10.00 HA.

INDEX

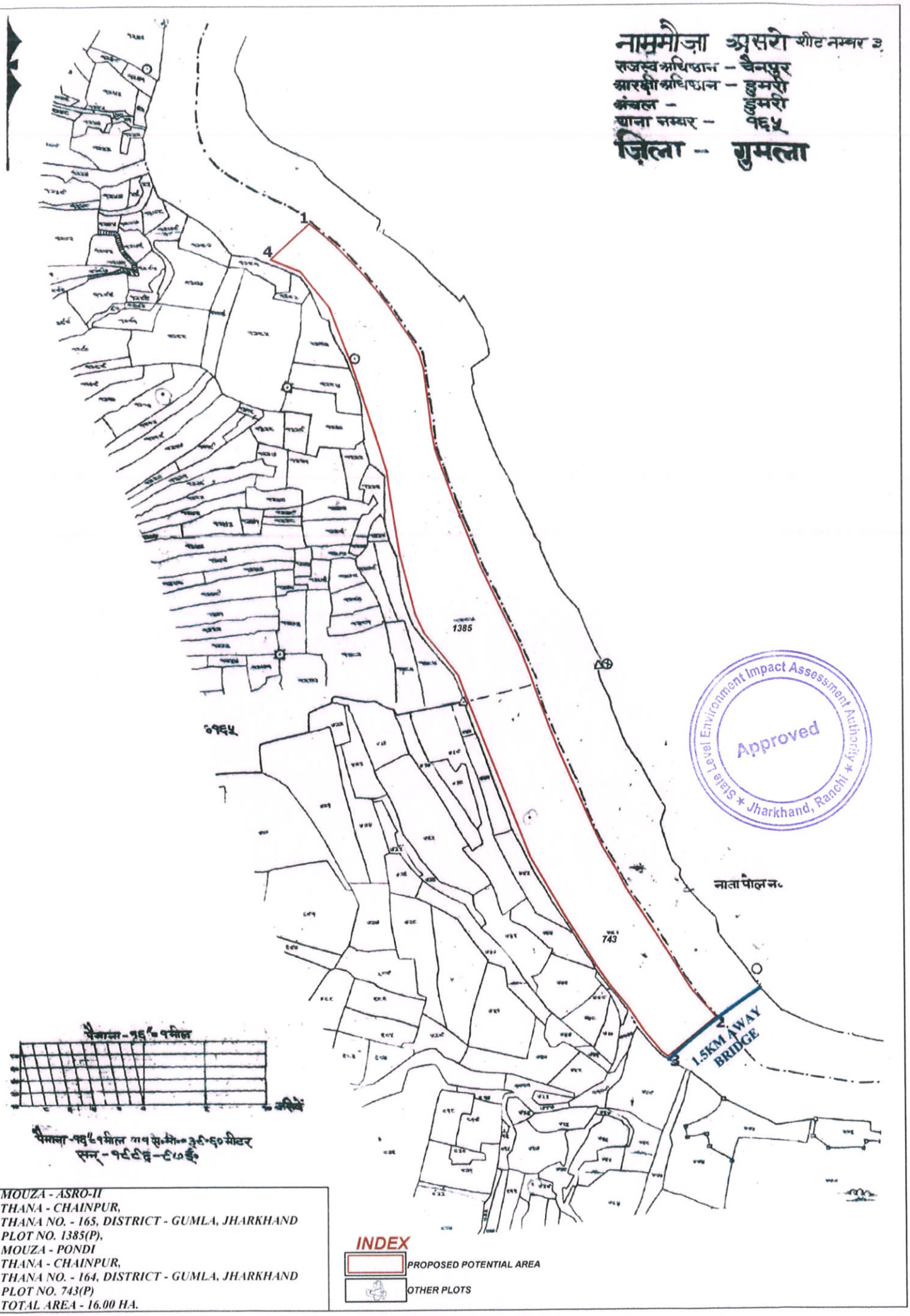
PROPOSED POTENTIAL AREA

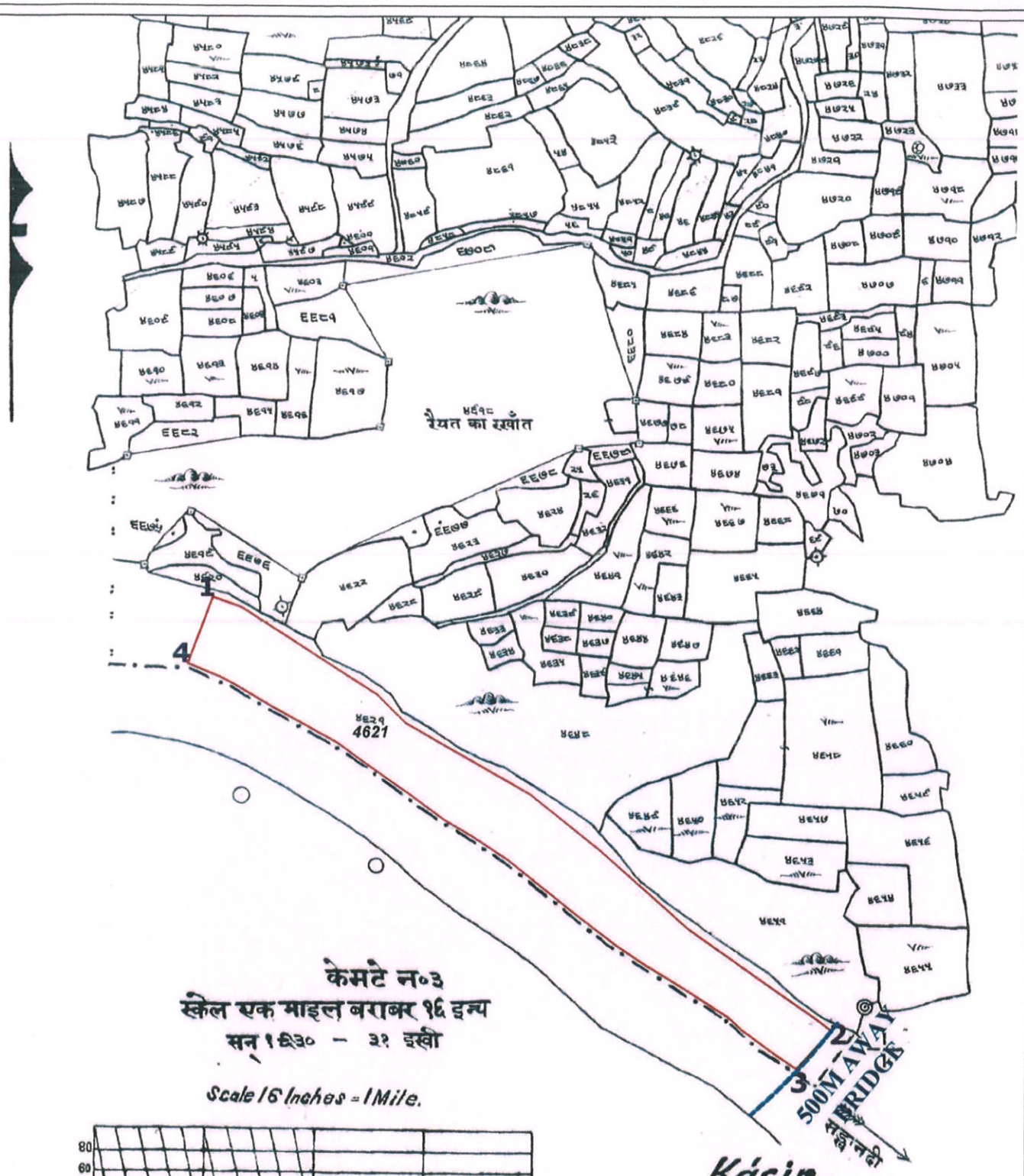
OTHER PLOTS



MOUZA - ASRO-I
THANA - CHAINPUR,
THANA NO. - 165, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1176(P)
AREA - 12.30 HA.

Approved


नाममौज़ा असरो शीट नम्बर ३
राजस्व अधिष्ठान – चैनपुर
आरक्षी अधिष्ठान – डुमरी
अंचल – डुमरी
थाना नम्बर – १६५
ज़िला – गुमला
1
4
1385
०१६५
743
नाता पोल न०
2
3
1.5KM AWAY BRIDGE
State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi
पैमाना - १६" = १ मील
पैमाना - १६" = १ मील
सन् - १९९६ - ९७ ई०
MOUZA - ASRO-II
THANA - CHAINPUR,
THANA NO. - 165, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1385(P),
MOUZA - PONDI
THANA - CHAINPUR,
THANA NO. - 164, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 743(P)
TOTAL AREA - 16.00 HA.
INDEX
PROPOSED POTENTIAL AREA
OTHER PLOTS



नाममौज़ा कासिर शीट नम्बर ७

नाम थाना रायडिह

थाना नम्बर ४

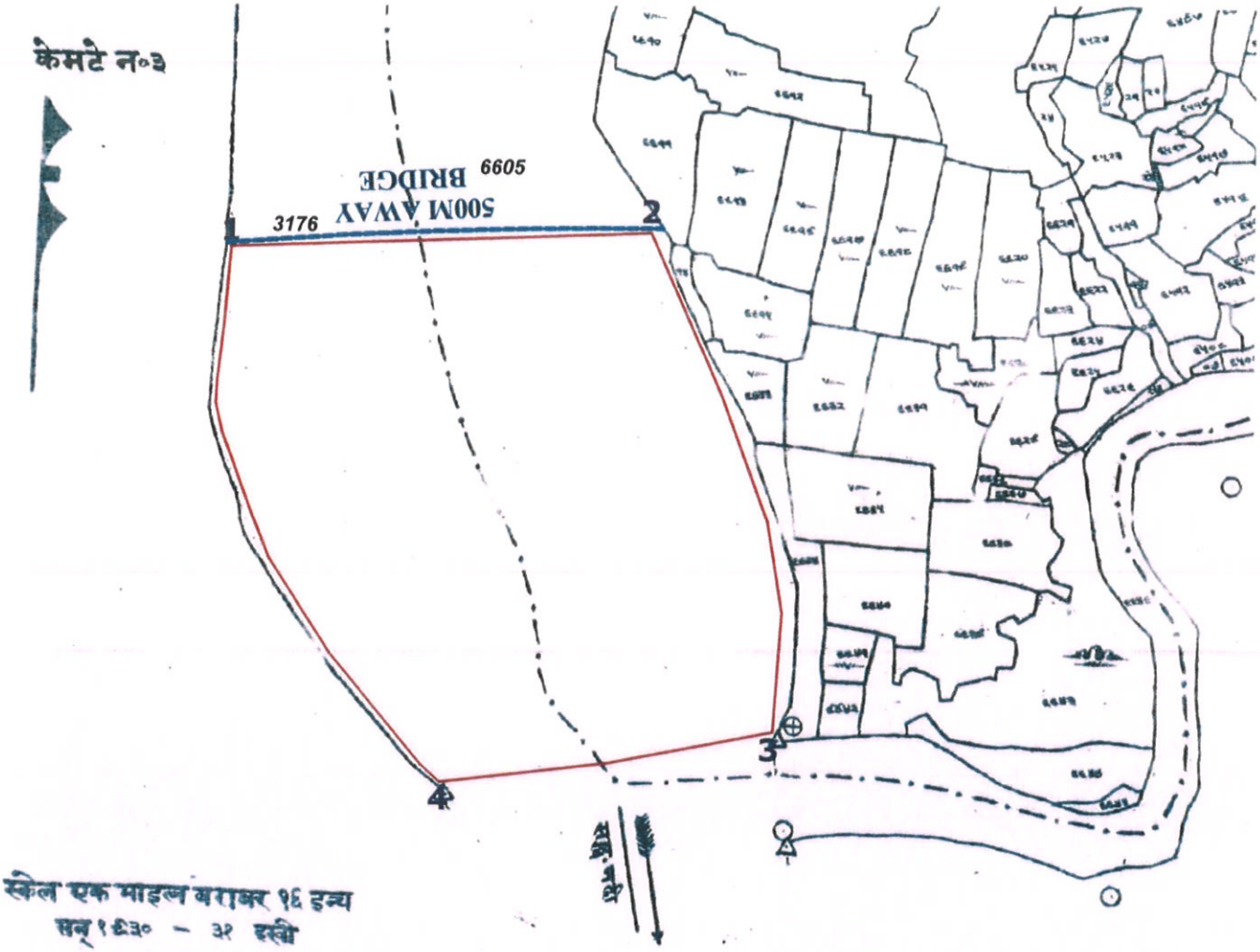
INDEX

PROPOSED POTENTIAL AREA

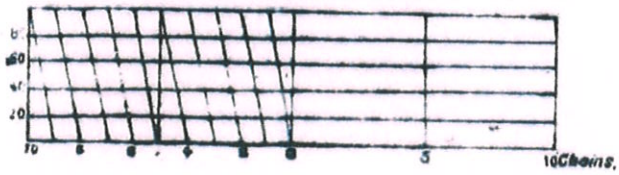
OTHER PLOTS

DISTANCE SH04 TO SH05 BLOCK
1.0KM FROM PILLAR NO. 2 & 3

MOUZA - KASIR-I
THANA - RAIDIH,
THANA NO. - 4, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 4621(P)
AREA - 3.80 HA.



Scale 16 Inches = 1 Mile.



Kasir

नाममौज़ कासिर शीट नम्बर १०
नाम थाना गयडिह
थाना नम्बर ४

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Jharkhand, Ranchi

MOUZA - KASIR-II
THANA - RAIDIH,
THANA NO. - 4, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 6605(P)
MOUZA - KEMTE
THANA - RAIDIH,
THANA NO. - 3, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 3176(P)
TOTAL AREA - 16.00 HA.

INDEX

PROPOSED POTENTIAL AREA

OTHER PLOTS

DISTANCE SH05 TO SH04 BLOCK
1.0KM FROM PILLAR NO. 1 & 2

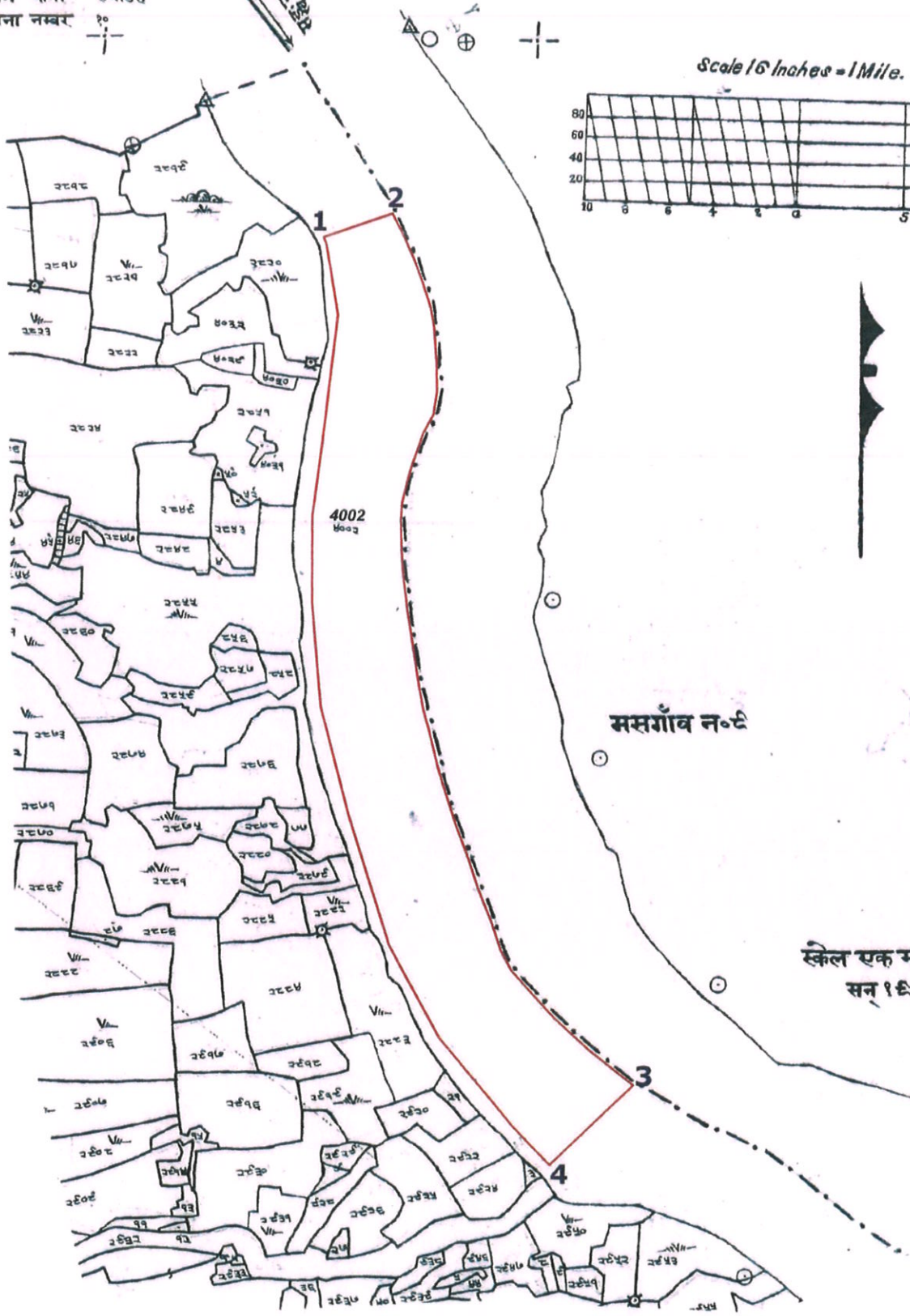
Latu

नाममौज़ा लाटू
नाम थाना रायडिह
थाना नम्बर १०

शीट नम्बर ४

Scale 16 Inches = 1 Mile.

80
60
40
20
10 8 6 4 3 2 1 0 5 10 Chains.



स्केल एक माइल बराबर १६ इन्च
सन् १६३० – ३१ इस्वी

MOUZA - LATU
THANA - RAIDIH,
THANA NO. - 10, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 4002(P)
AREA - 8.30 HA.

INDEX

PROPOSED POTENTIAL AREA

OTHER PLOTS

State Level Environment Impact Assessment Authority
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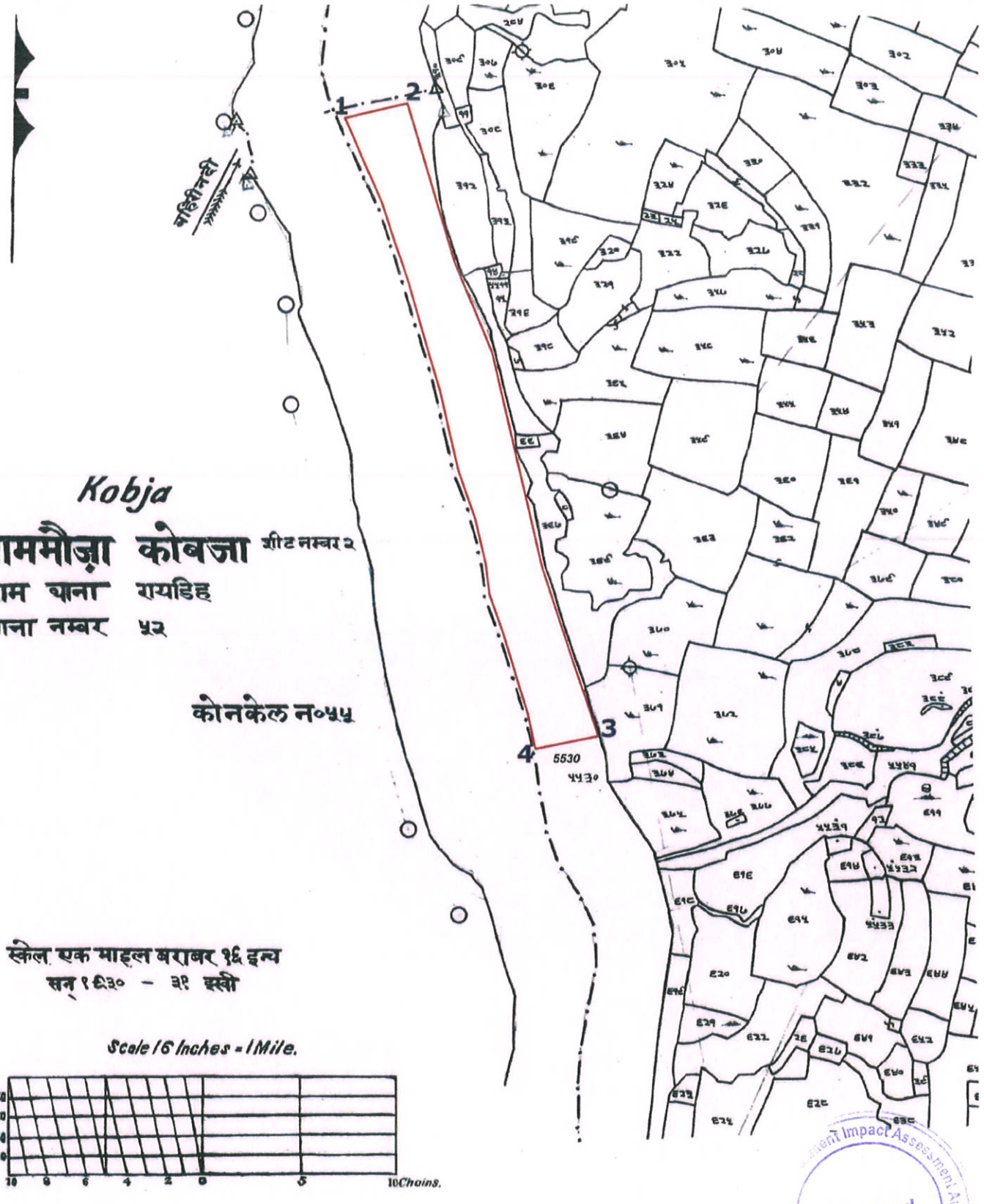


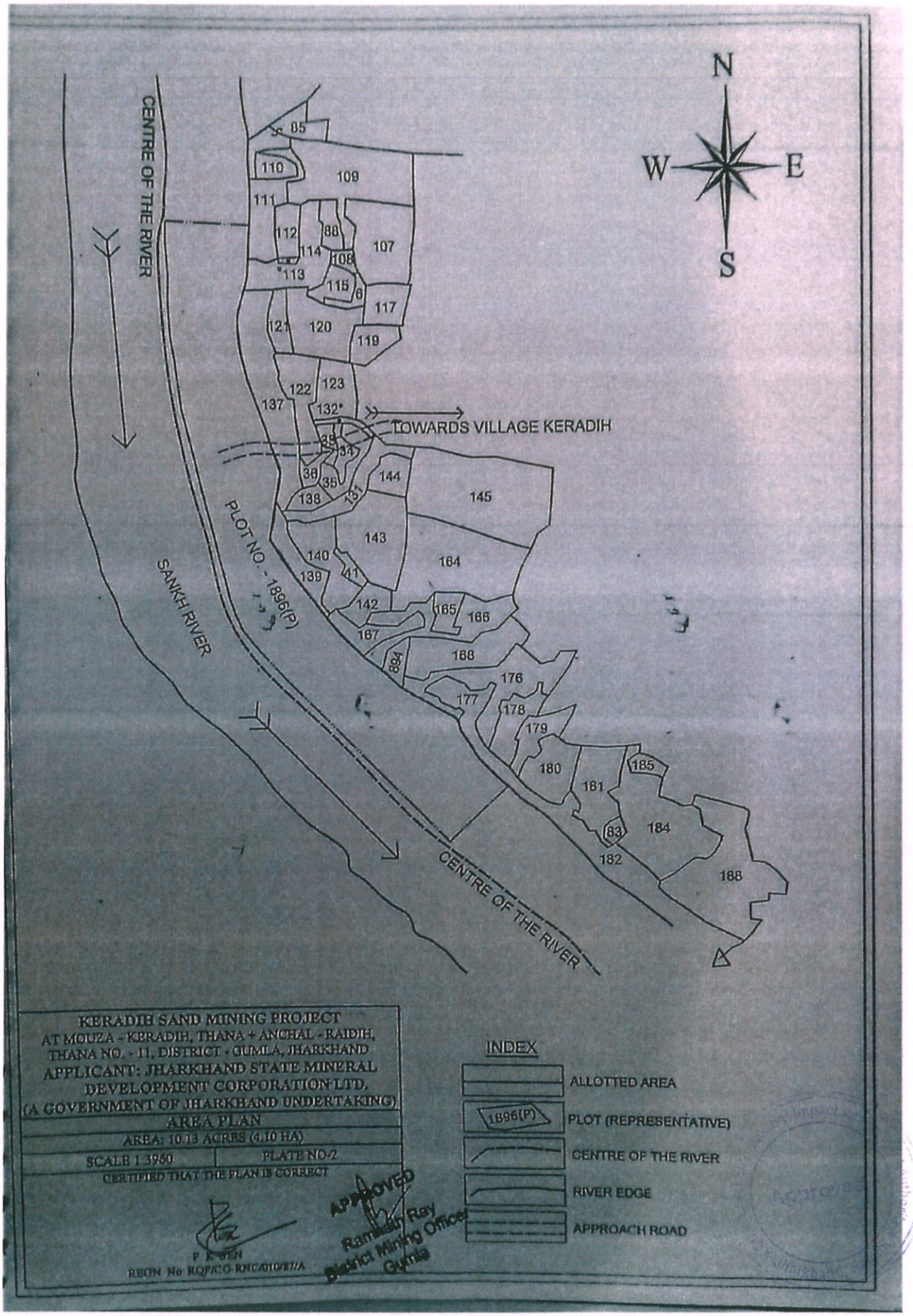
MOUZA - KOBJA
THANA - RAIDIH,
THANA NO. - 52, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 5530(P)
AREA - 4.05 HA.

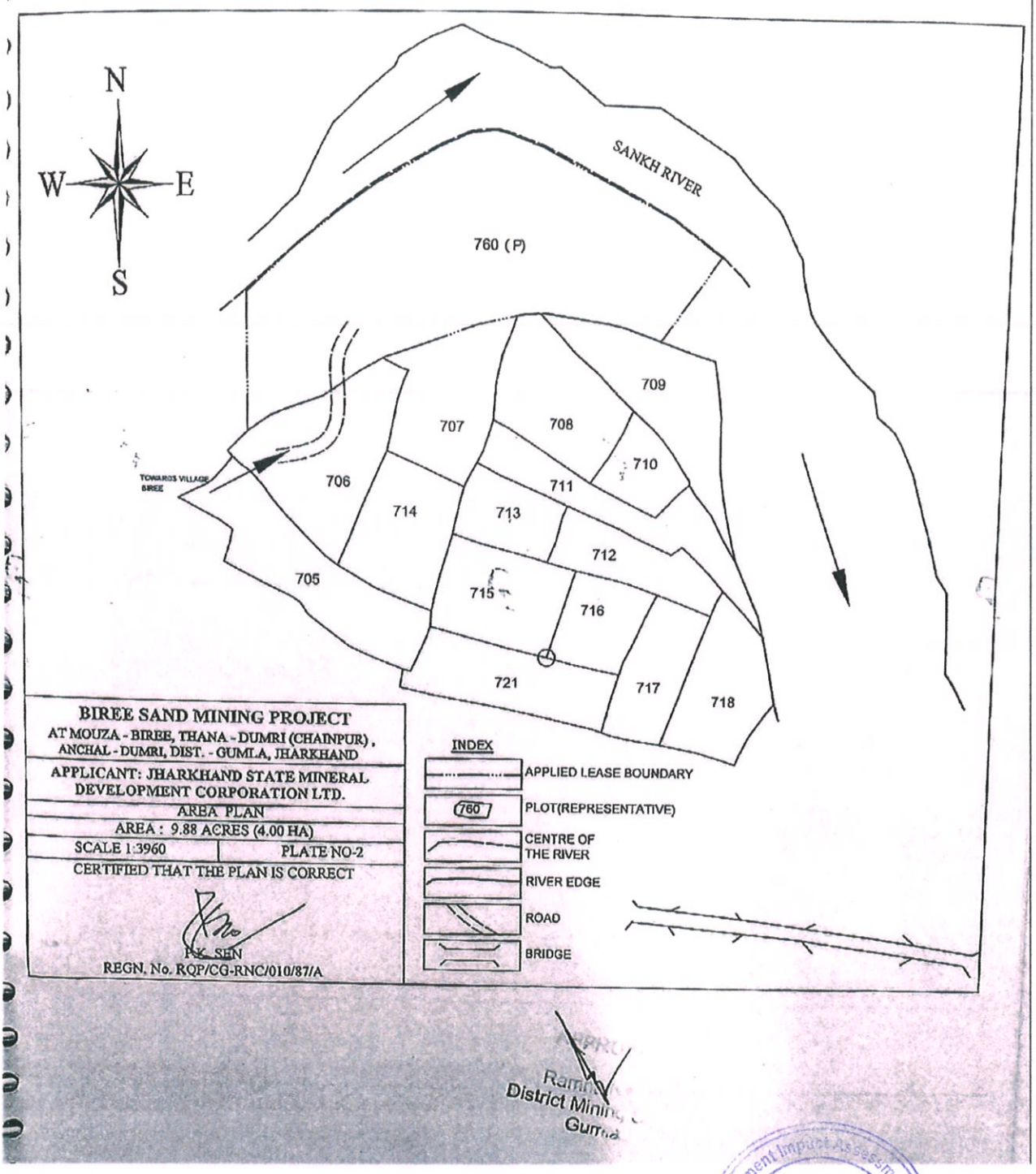
INDEX

PROPOSED POTENTIAL AREA

OTHER PLOTS

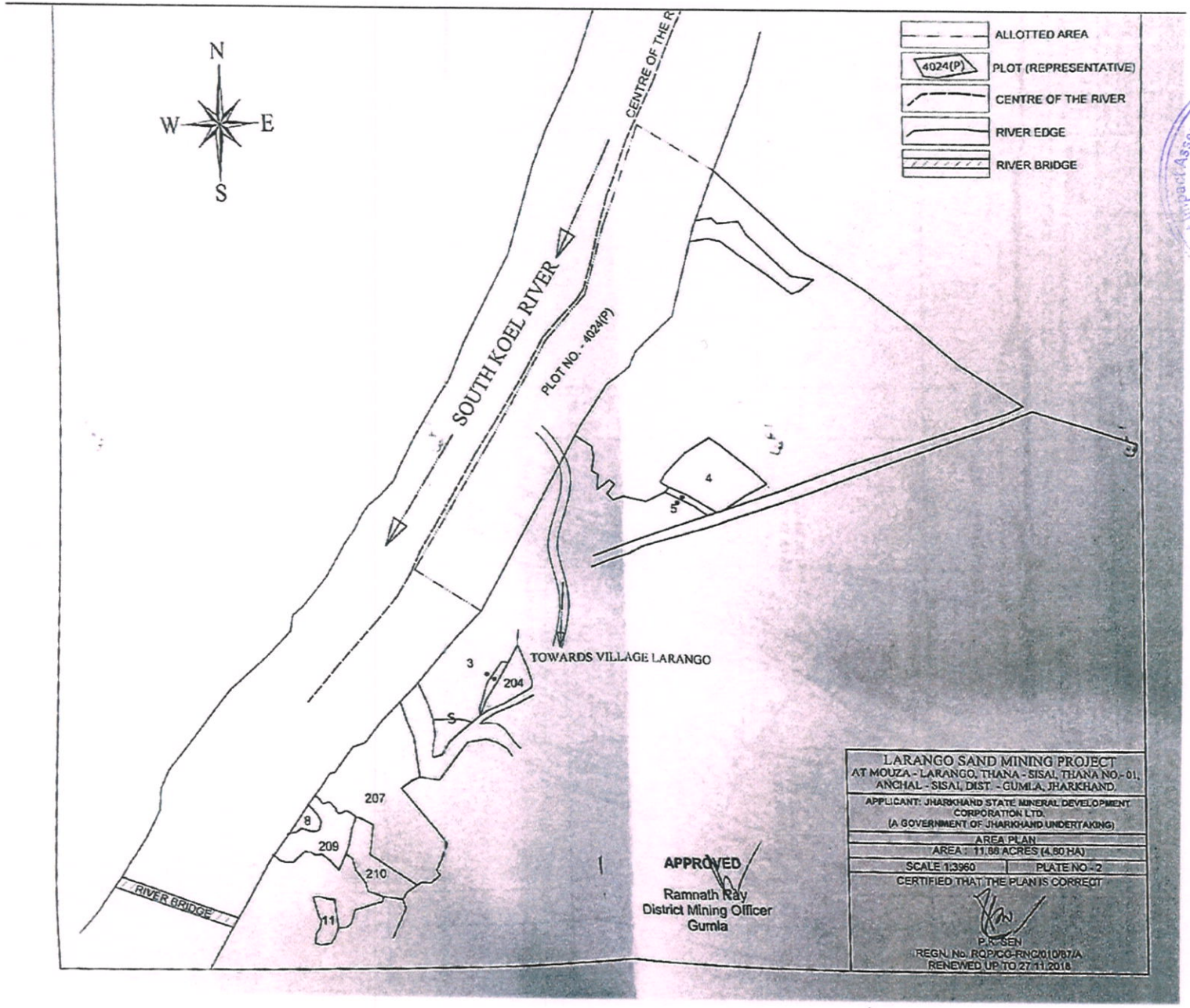
Approved
Jharkhand, Ranchi


N
W
E
S
CENTRE OF THE RIVER
TOWARDS VILLAGE KERADIH
PLOT NO. - 1896(P)
SANKH RIVER
CENTRE OF THE RIVER
85
110
109
111
112
86
107
114
108
113
115
6
117
121
120
119
122
123
137
132
38
34
36
35
144
145
138
131
143
164
140
41
139
142
165
166
167
894
168
176
177
178
179
180
181
185
83
184
182
188
KERADIH SAND MINING PROJECT
AT MOUZA - KERADIH, THANA + ANCHAL - RAIDIH, THANA NO. - 11, DISTRICT - GUMLA, JHARKHAND
APPLICANT: JHARKHAND STATE MINERAL DEVELOPMENT CORPORATION LTD. (A GOVERNMENT OF JHARKHAND UNDERTAKING)
AREA PLAN
AREA: 10.13 ACRES (4.10 HA)
SCALE 1:3960
PLATE NO-2
CERTIFIED THAT THE PLAN IS CORRECT
P. K. SEN
REGN. No. ROP/CO-RNC/010/87/A
APPROVED
Ramesh Ray
District Mining Officer
Gumla
INDEX
ALLOTTED AREA
1896(P)
PLOT (REPRESENTATIVE)
CENTRE OF THE RIVER
RIVER EDGE
APPROACH ROAD



Ramn
District Minin
Gumla

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

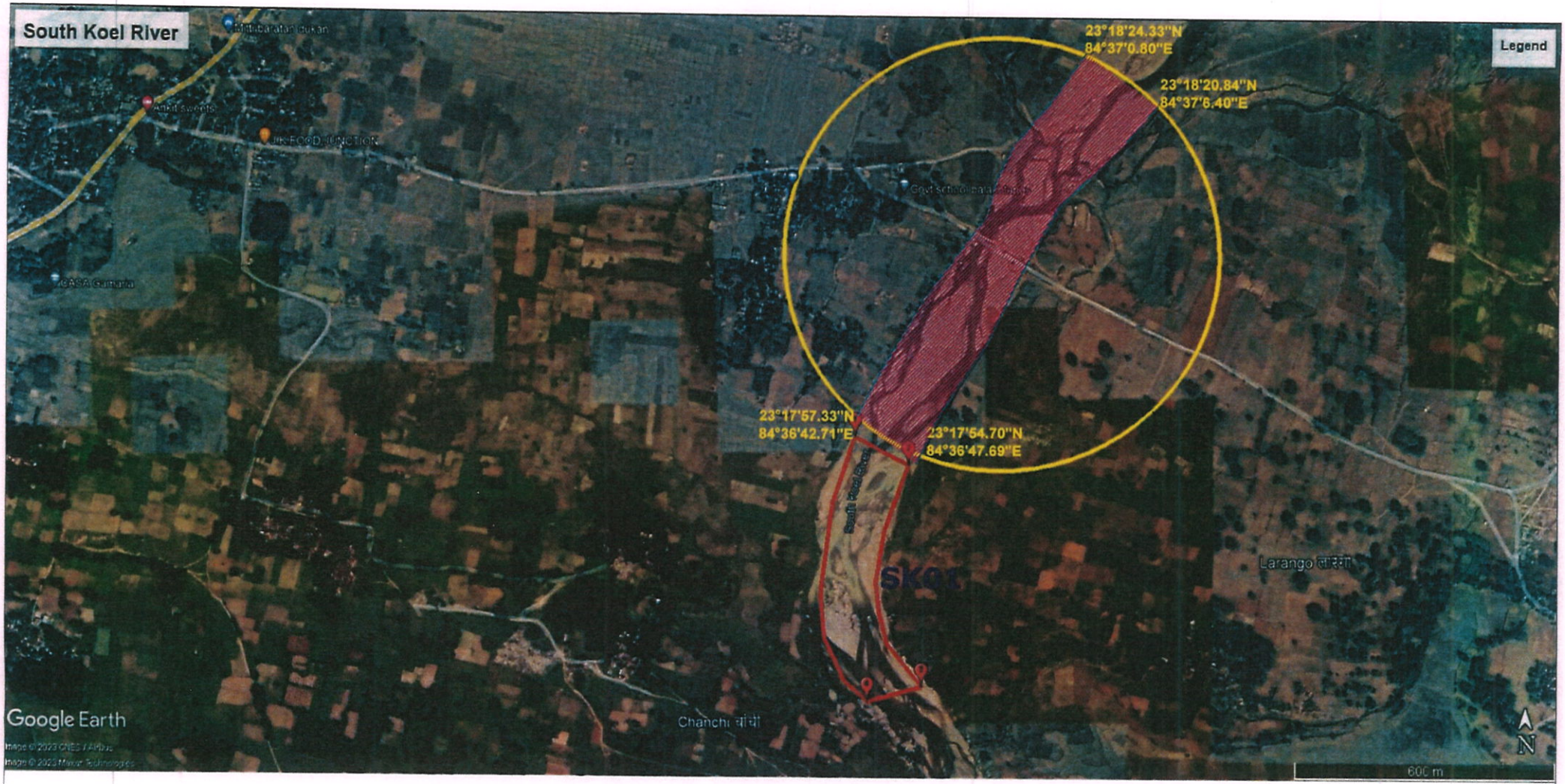


Approved
State Level Environment Impact Assessment Authority * Ranchi, Jharkhand *

ANNEXURE-05

NO MINING ZONE MAP OF SAND GHAT





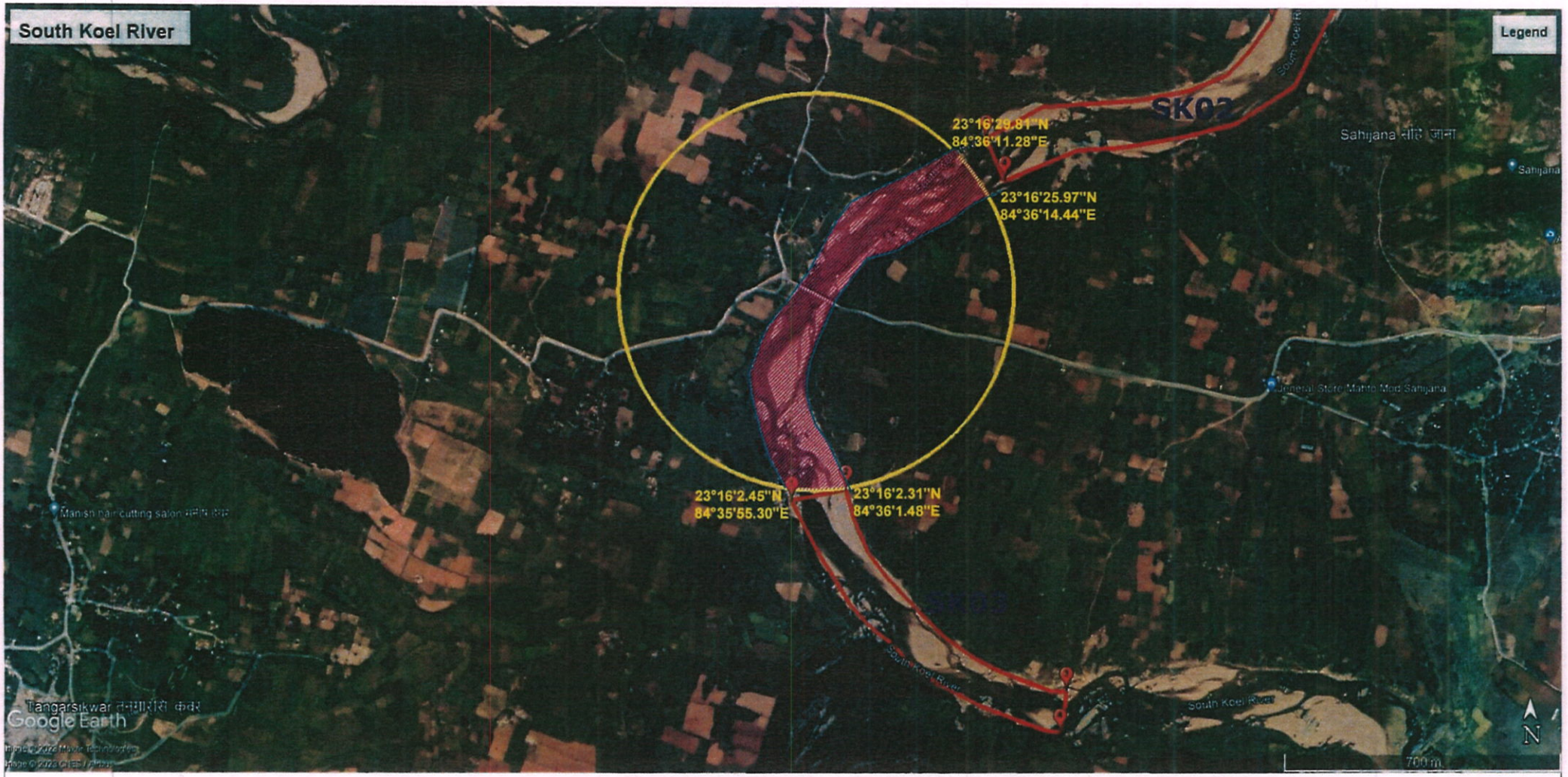
MAP SHOWING NO MINING ZONE AT SOUTH KOEL RIVER, GUMLA DISTRICT, JHARKHAND

NO MINING ZONE

500M BUFFER ZONE

Atmos Sustainanie Solutions P. Ltd.

Approved
State Environment Impact Assessment Authority
Jharkhand, Ranchi



MAP SHOWING NO MINING ZONE AT SOUTH KOEL RIVER, GUMLA DISTRICT, JHARKHAND

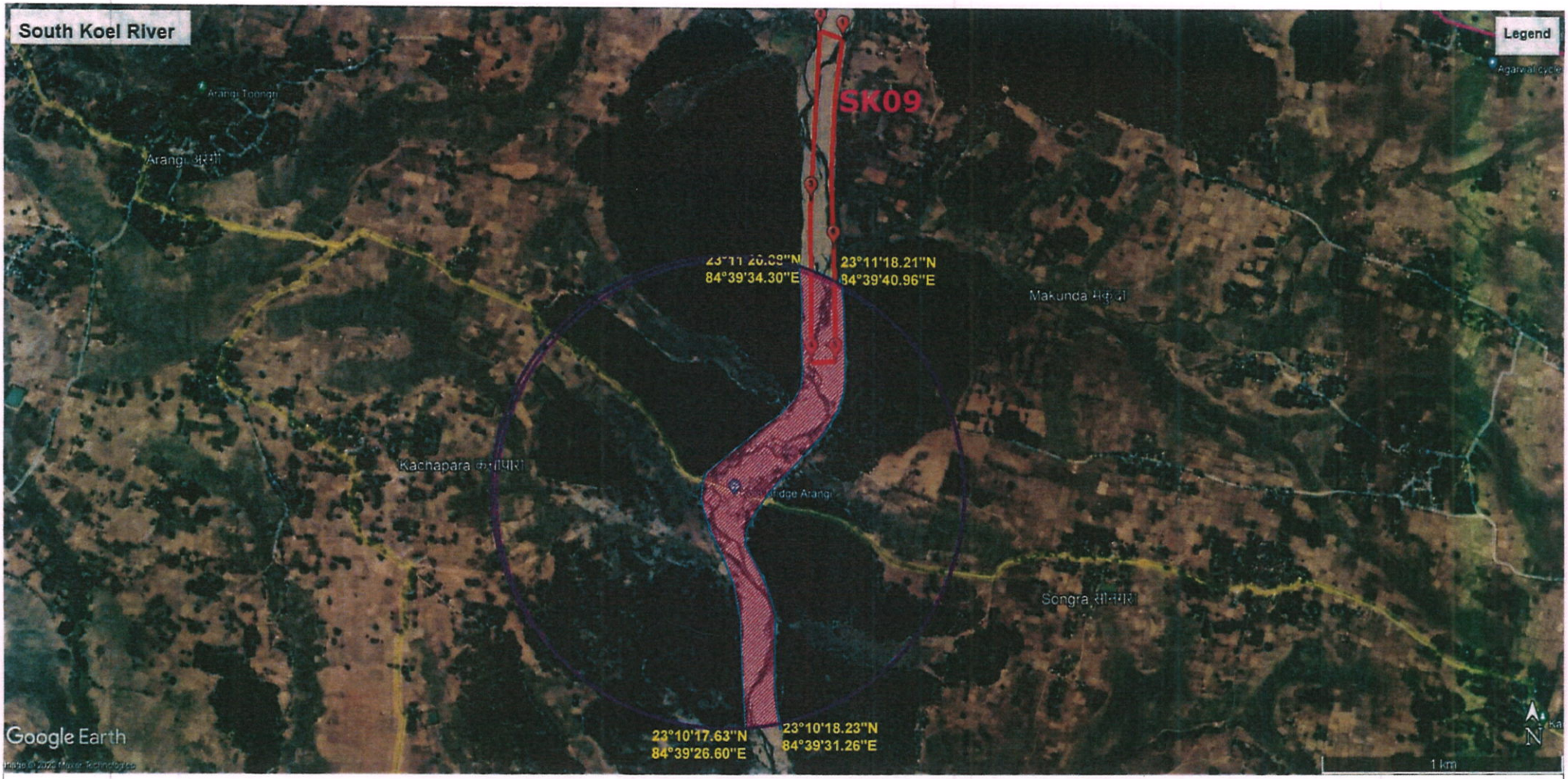
NO MINING ZONE

500M BUFFER ZONE

Atmos Sustainanie Solutions P. Ltd.

Approved

Jharkhand, Ranchi

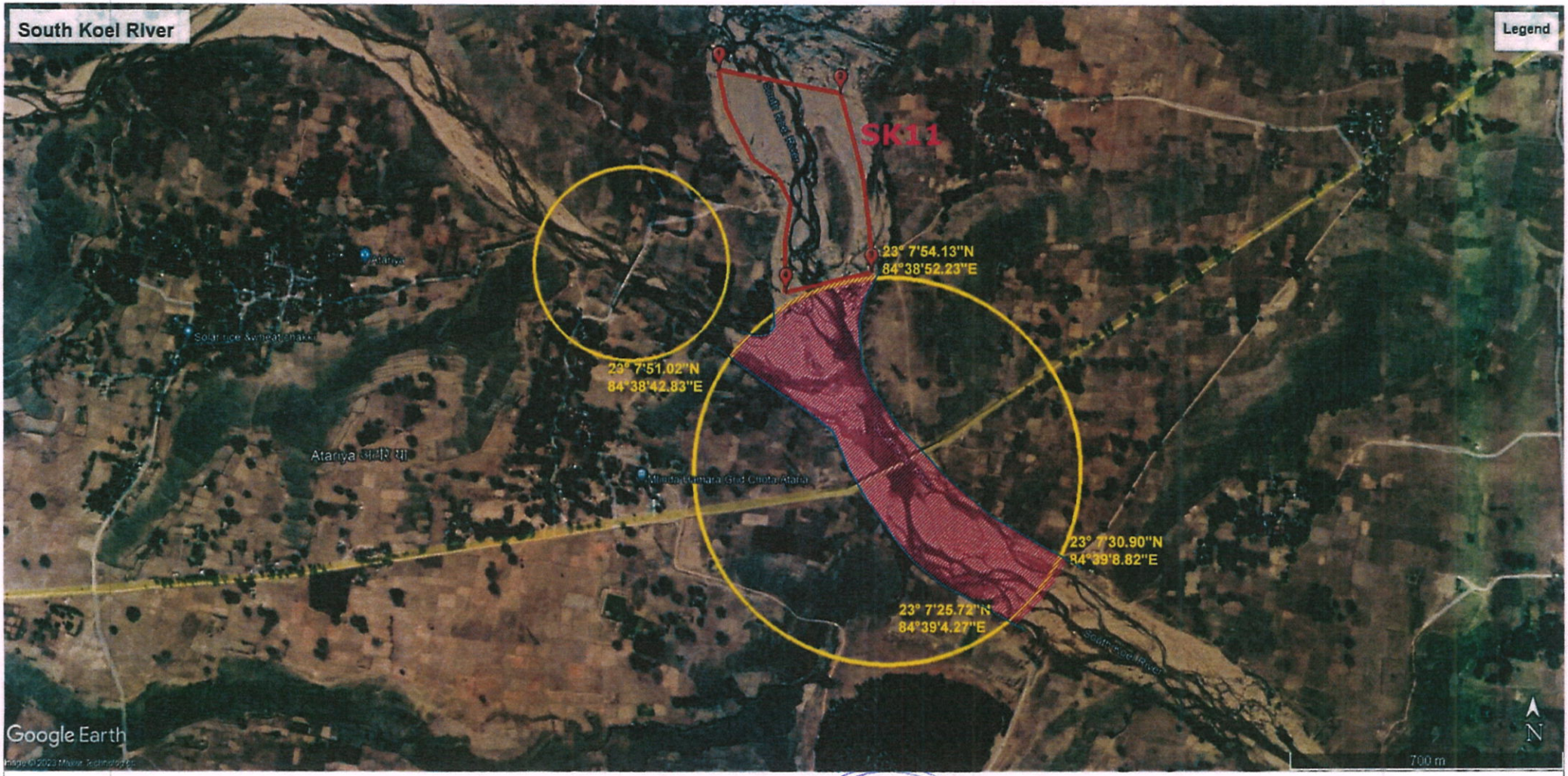


MAP SHOWING NO MINING ZONE AT SOUTH KOEL RIVER, GUMLA DISTRICT, JHARKHAND

NO MINING ZONE

1KM BUFFER ZONE

Approved



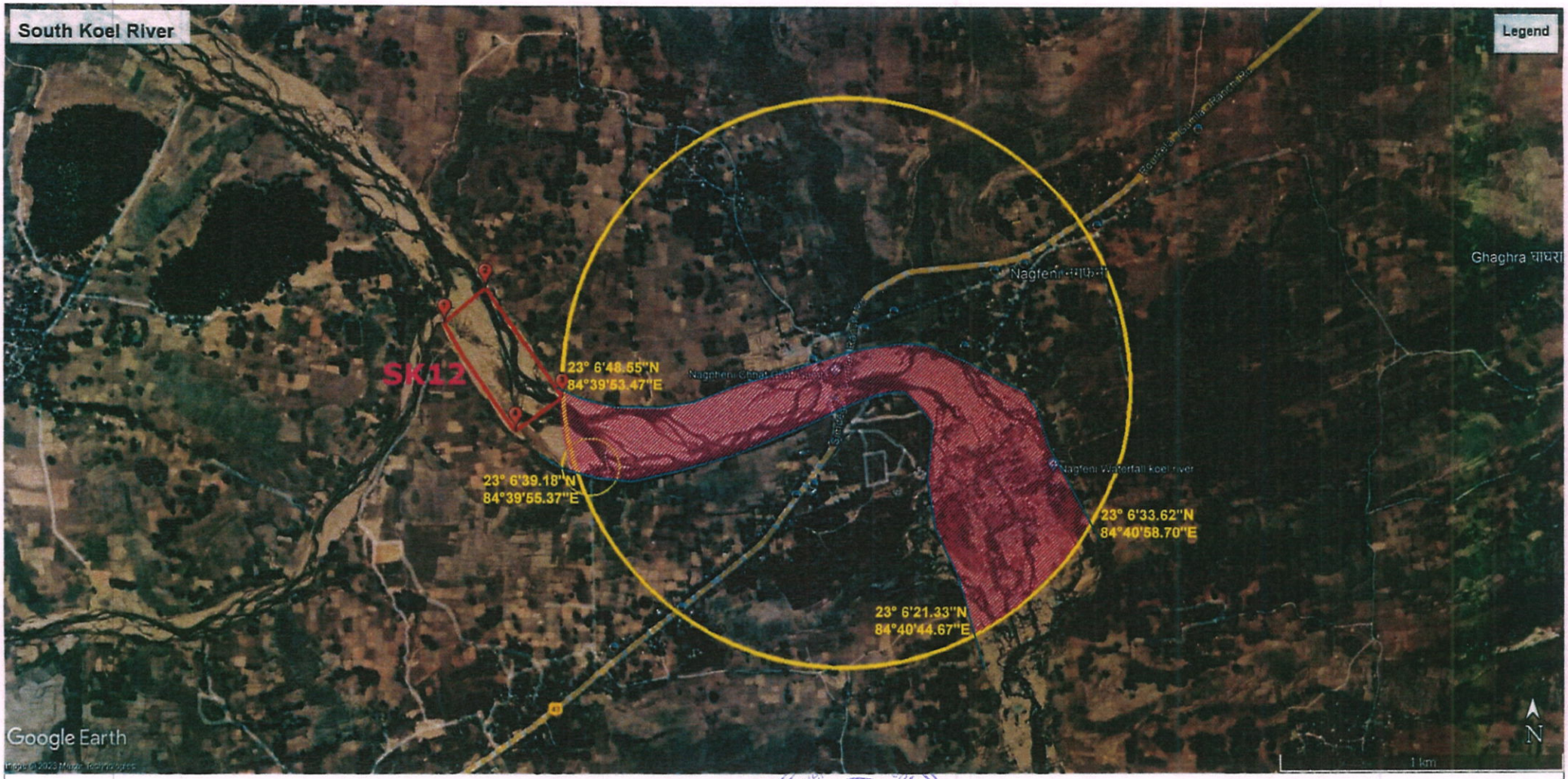
MAP SHOWING NO MINING ZONE AT SOUTH KOEL RIVER, GUMLA DISTRICT, JHARKHAND

NO MINING ZONE

500M BUFFER ZONE

Atmos Sustainable Solutions P. Ltd.

State Level Environment Impact Assessment Authority Jharkhand, Ranchi — Approved



MAP SHOWING NO MINING ZONE AT SOUTH KOEL RIVER, GUMLA DISTRICT, JHARKHAND

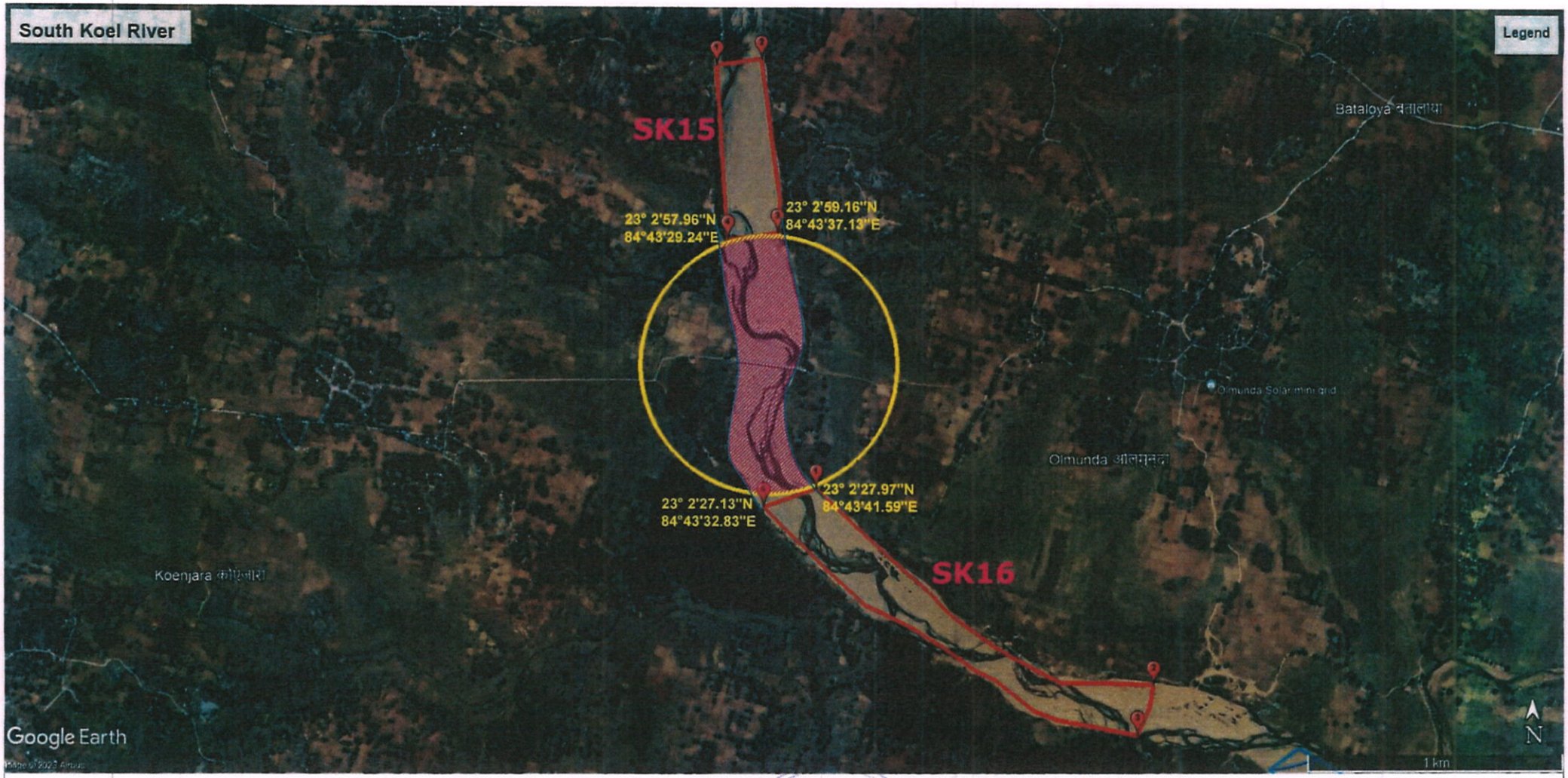
NO MINING ZONE

1KM BUFFER ZONE

State Level Environment Impact Assessment Authority Jharkhand, Ranchi Approved

Atmos Sustainanle Solutions P. Ltd.

Atmos Sustainanle Solutions P. Ltd.



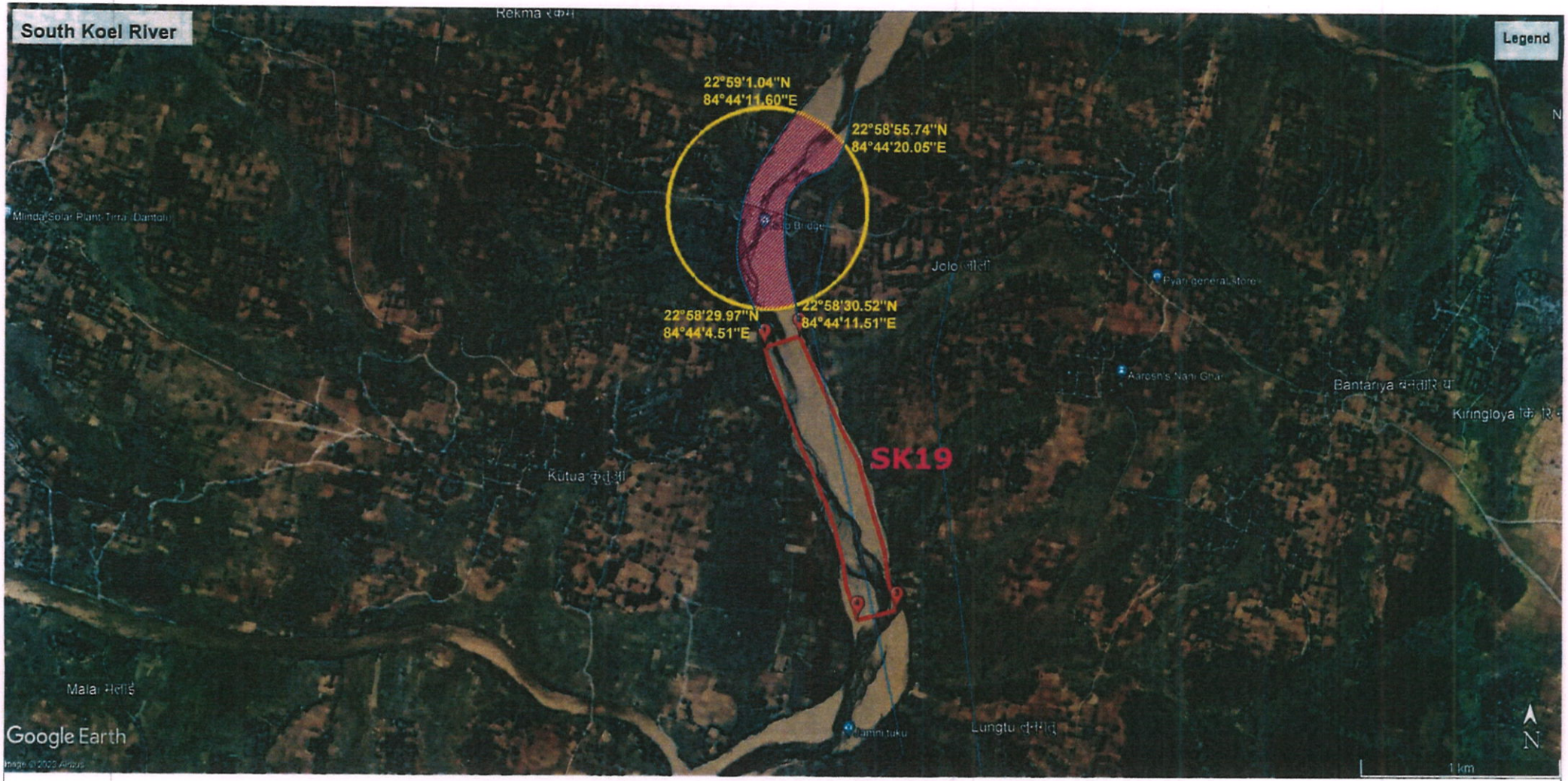
MAP SHOWING NO MINING ZONE AT SOUTH KOEL RIVER, GUMLA DISTRICT, JHARKHAND

NO MINING ZONE

500M BUFFER ZONE

Ramcos Sustainable Solutions Pvt. Ltd.

State Level Environment Impact Assessment Authority Approved Jharkhand, Ranchi



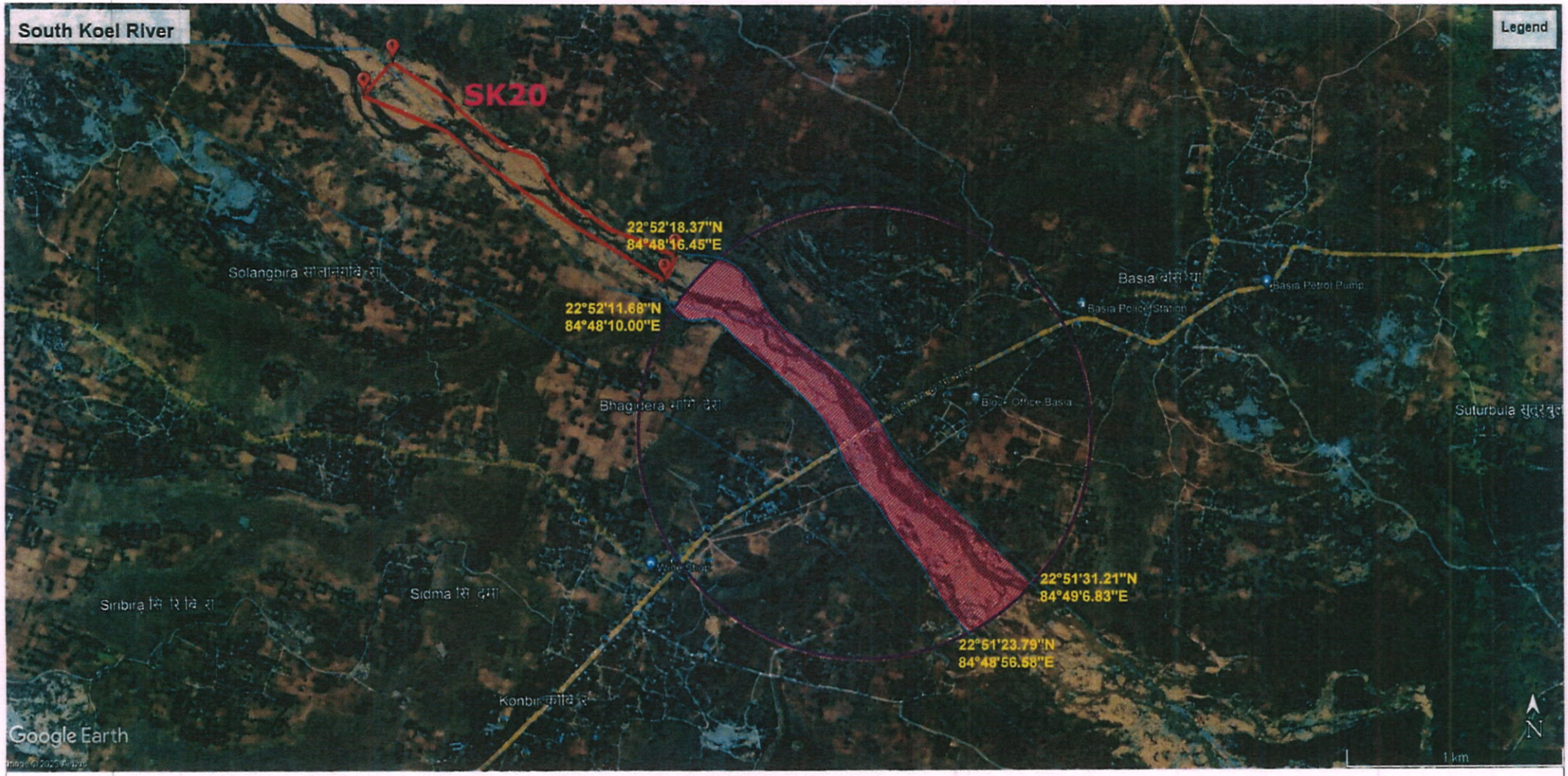
MAP SHOWING NO MINING ZONE AT SOUTH KOEL RIVER, GUMLA DISTRICT, JHARKHAND

NO MINING ZONE

500M BUFFER ZONE

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★ Approved

Atmos Sustainanle Solutions P. Ltd.

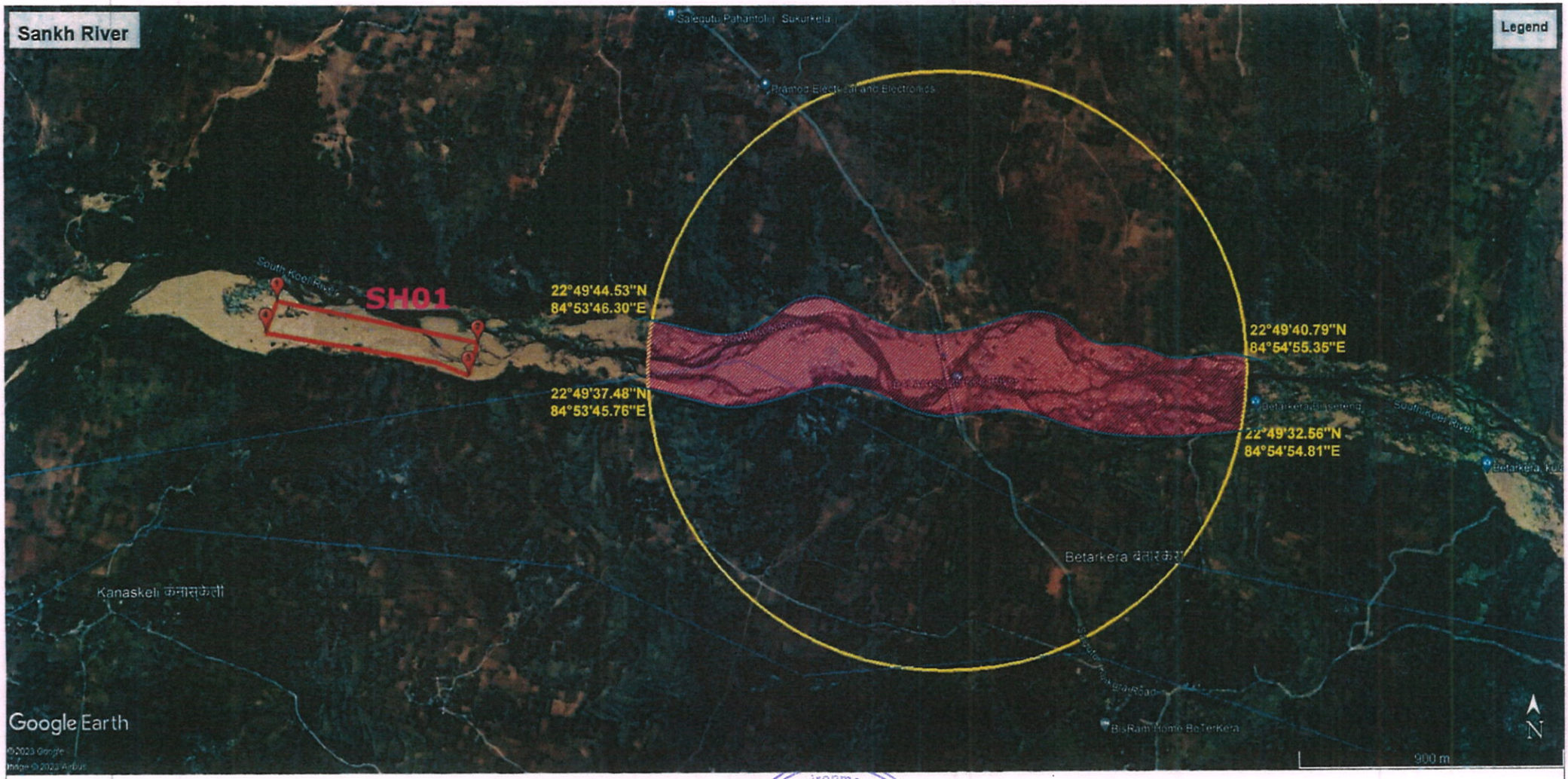


MAP SHOWING NO MINING ZONE AT SOUTH KOEL RIVER, GUMLA DISTRICT, JHARKHAND

NO MINING ZONE

1KM BUFFER ZONE

Approved



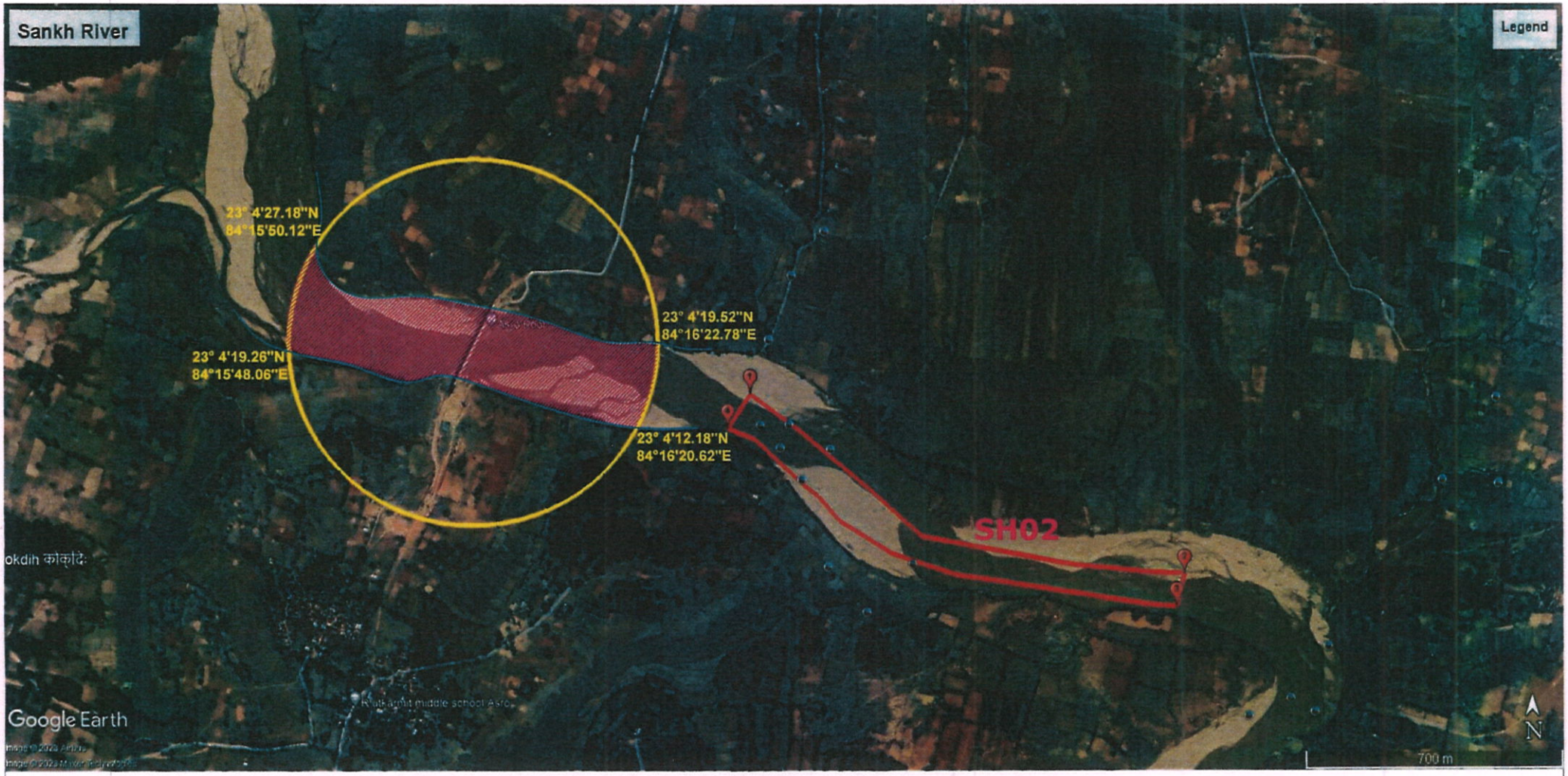
MAP SHOWING NO MINING ZONE AT SANKH RIVER, GUMLA DISTRICT, JHARKHAND

NO MINING ZONE

1KM BUFFER ZONE

State Level Environment Impact Assessment Authority * Approved * Jharkhand, Ranchi *

Sustainable Solutions Pvt. Ltd.

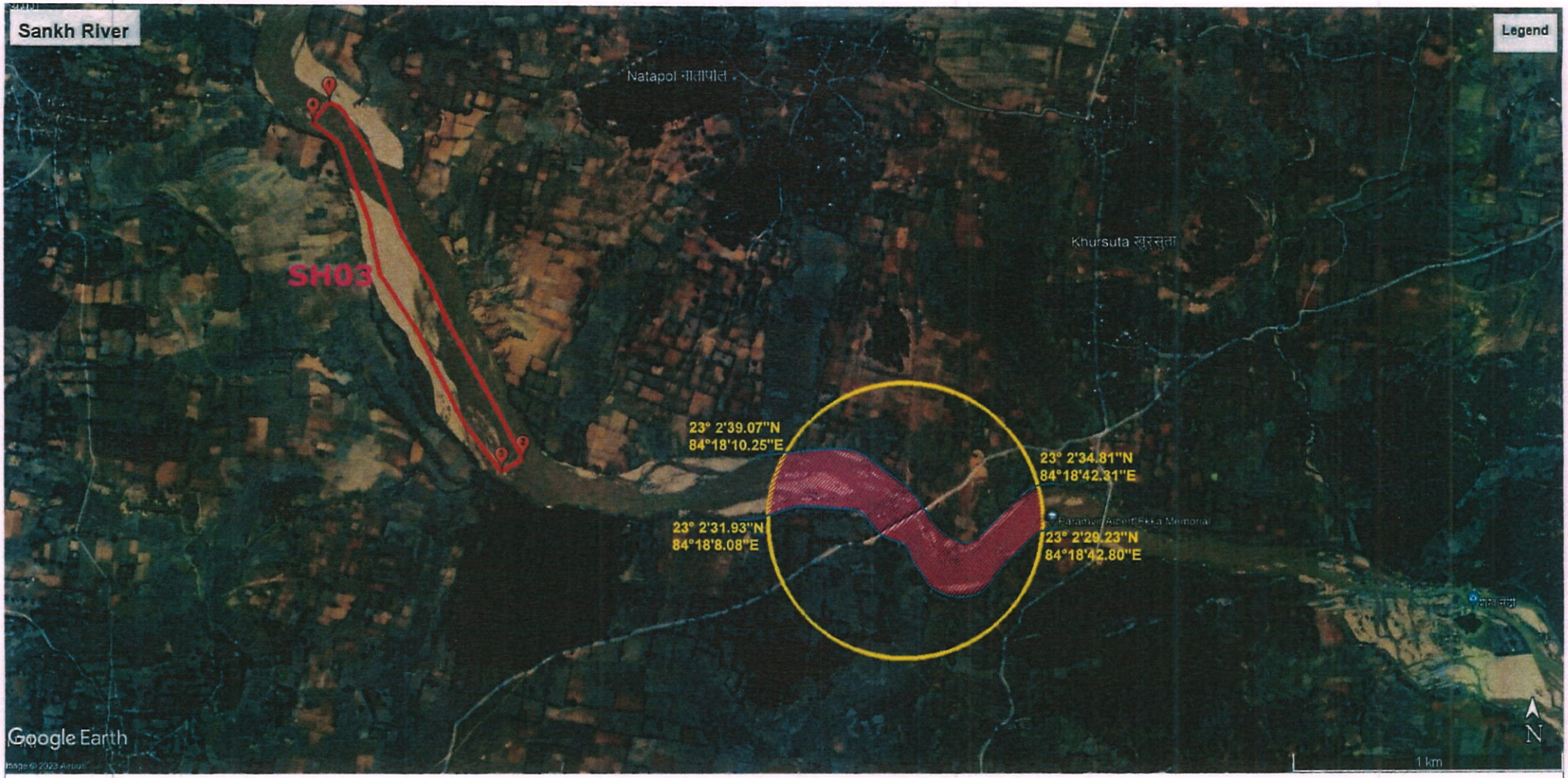


MAP SHOWING NO MINING ZONE AT SANKH RIVER, GUMLA DISTRICT, JHARKHAND

NO MINING ZONE

500M BUFFER ZONE

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★ Approved

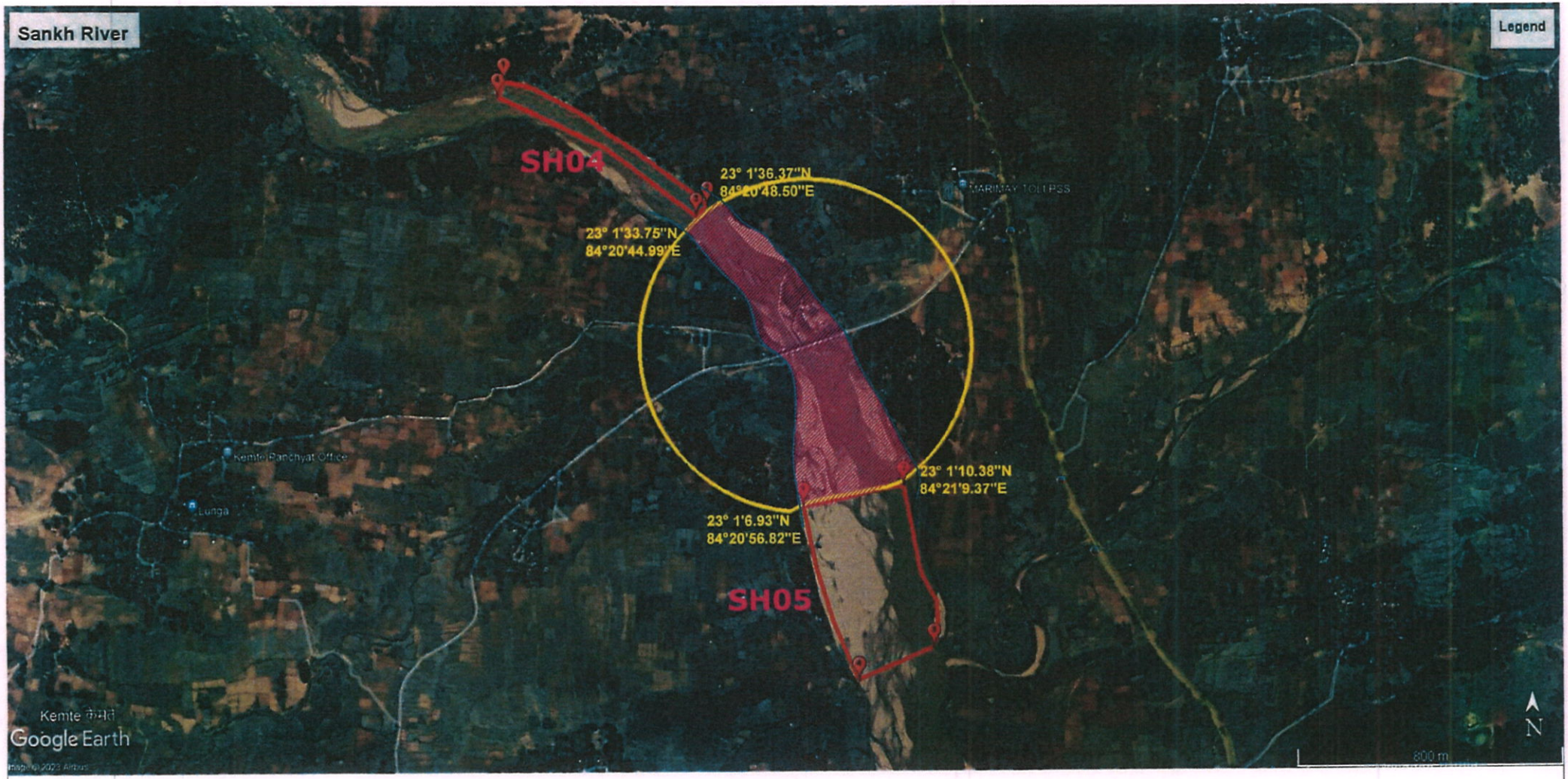


MAP SHOWING NO MINING ZONE AT SANKH RIVER, GUMLA DISTRICT, JHARKHAND

NO MINING ZONE

500M BUFFER ZONE

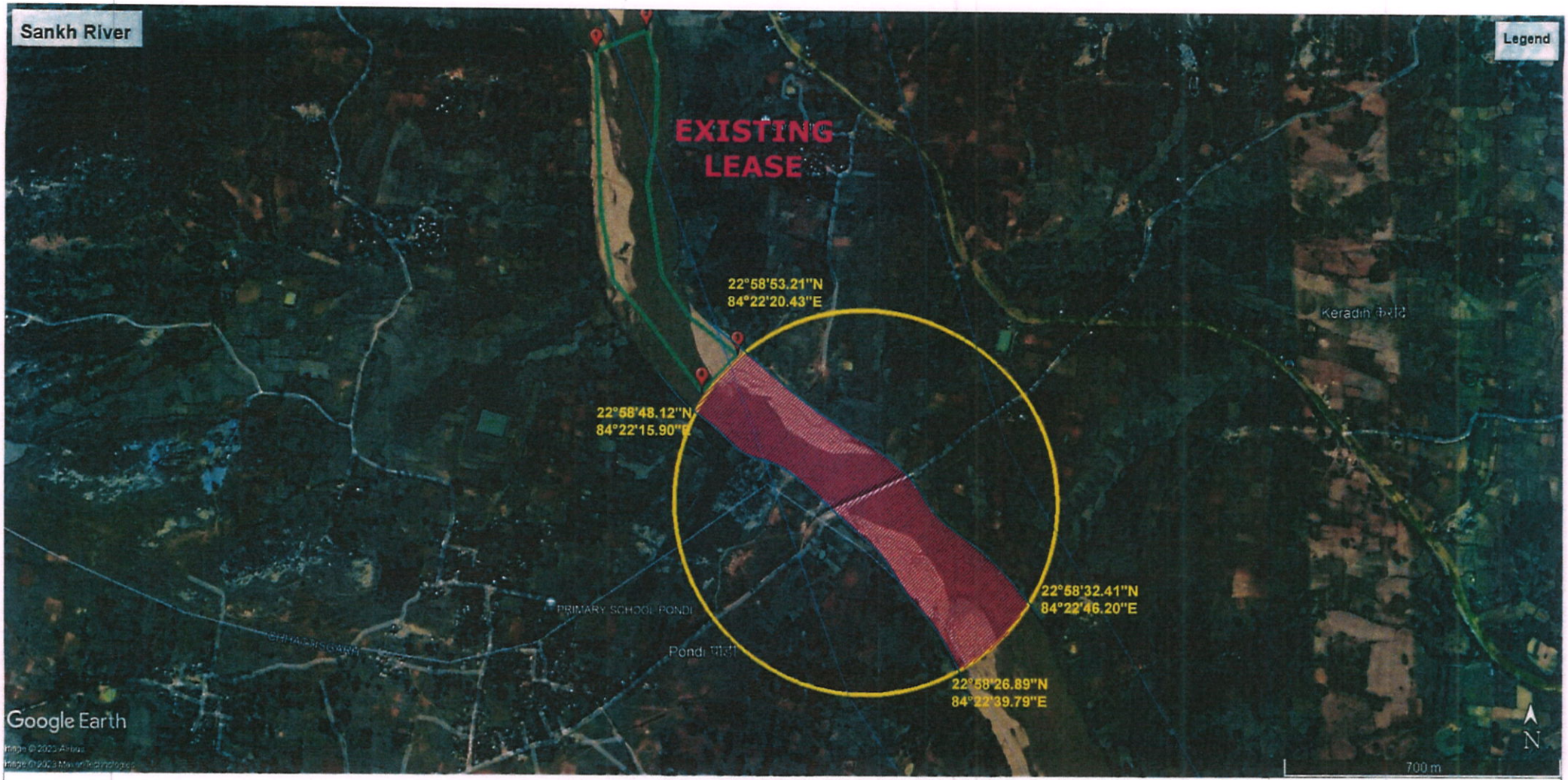
Approved



MAP SHOWING NO MINING ZONE AT SANKH RIVER, GUMLA DISTRICT, JHARKHAND

NO MINING ZONE

500M BUFFER ZONE

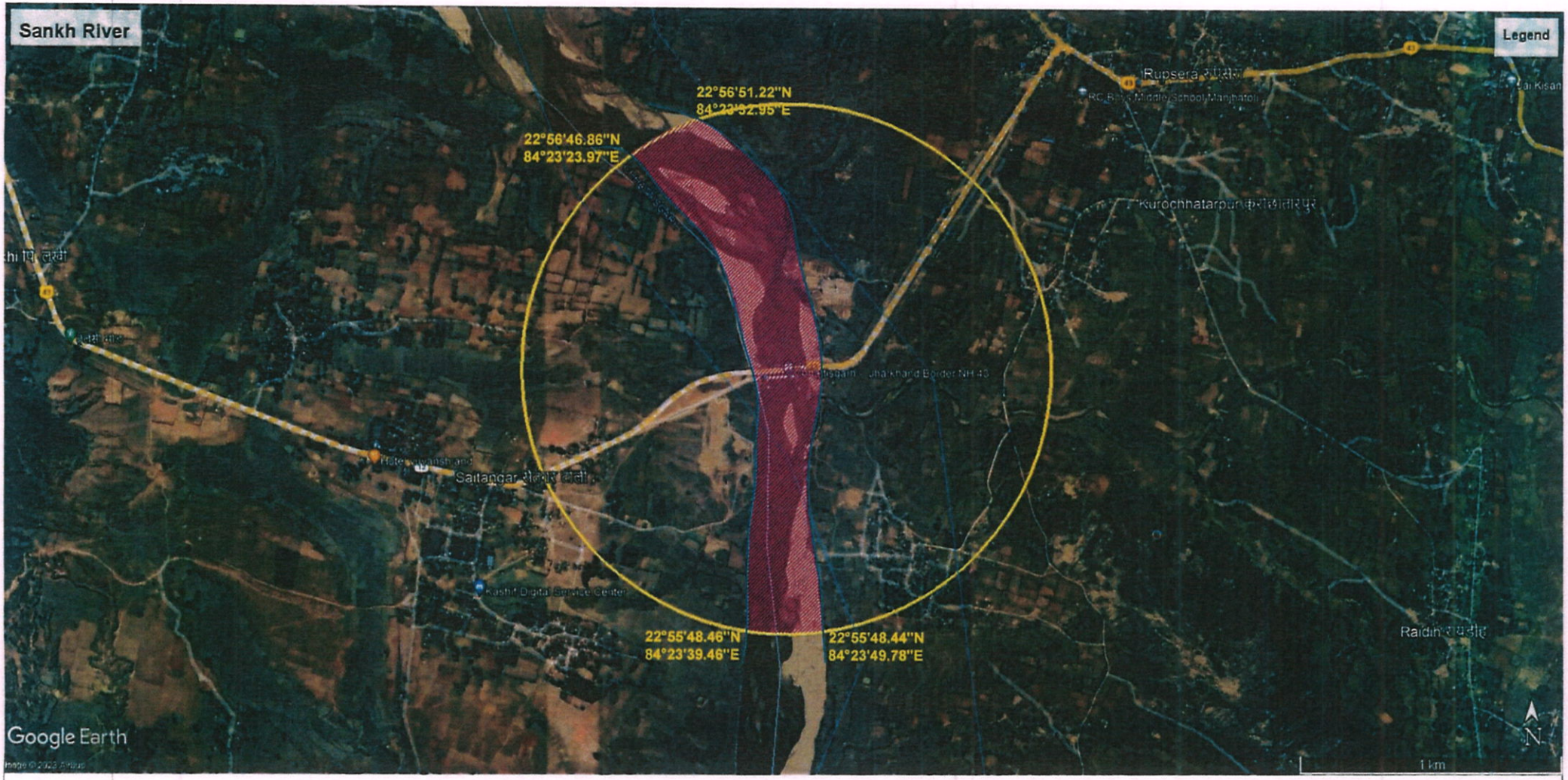


MAP SHOWING NO MINING ZONE AT SANKH RIVER, GUMLA DISTRICT, JHARKHAND

NO MINING ZONE

500M BUFFER ZONE

State Level Environment Impact Assessment Authority Jharkhand, Ranchi Approved



MAP SHOWING NO MINING ZONE AT SANKH RIVER, GUMLA DISTRICT, JHARKHAND

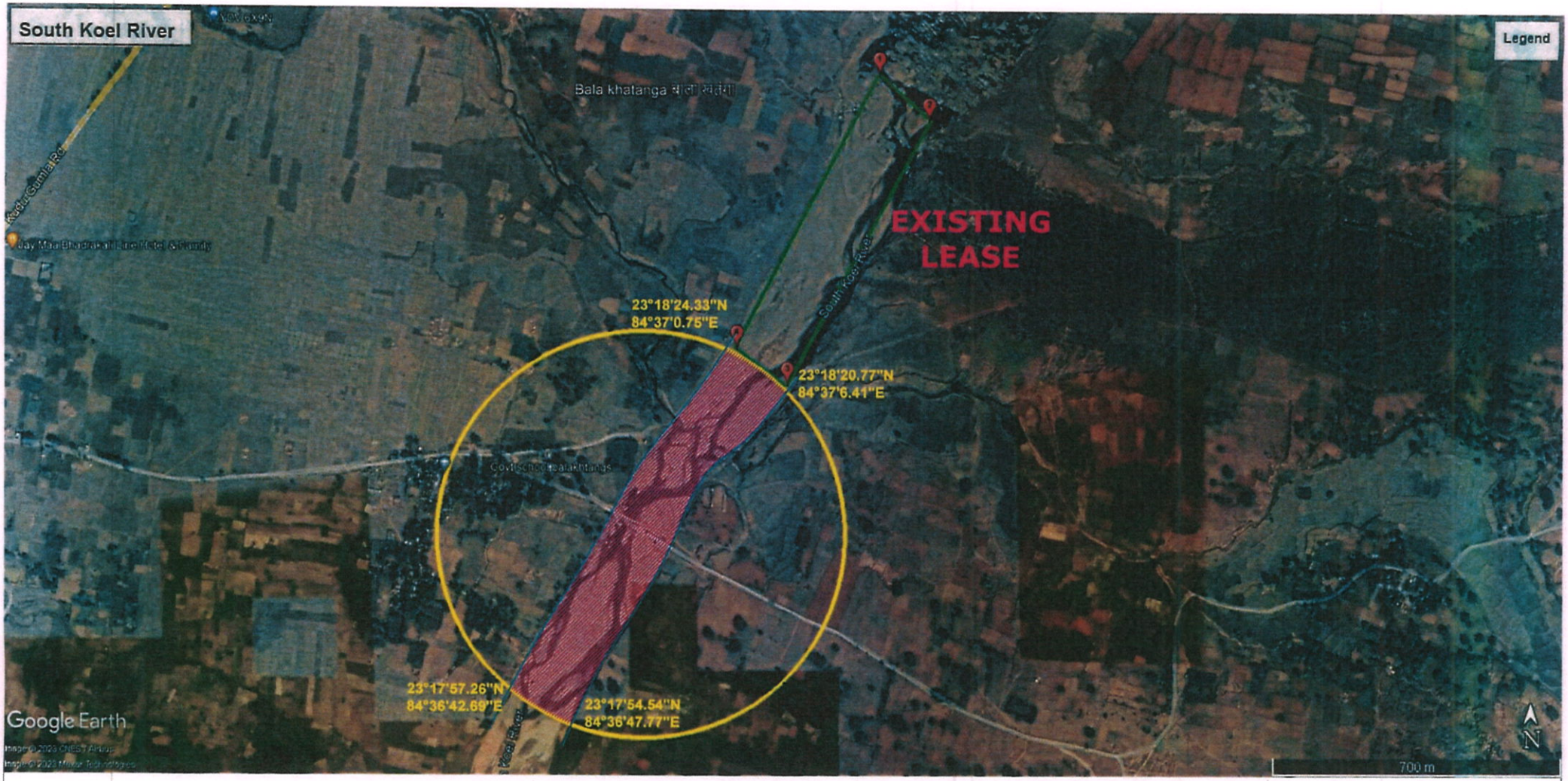
NO MINING ZONE

500M BUFFER ZONE

Mmos Sustainanle Solutions P. Ltd

State Level Environment Impact Assessment Authority Jharkhand, Ranchi

Approved



MAP SHOWING NO MINING ZONE AT SANKH RIVER, GUMLA DISTRICT, JHARKHAND

NO MINING ZONE

500M BUFFER ZONE

Approved

State Level Environment Impact Assessment Authority * Jharkhand, Ranchi *

ANNEXURE-06

ROUTE MAP OF SAND GHAT

Environment Impact Assessment Authority ★ State Level ★ Jharkhand, Ranchi ★
Approved

Potential Area

Sankh koel River

Metalled Road

Unmetalled Road

Plantation

Geo-Coordinates:
23°11'7.51"N
84°9'26.81"E



Route Map of Sand Ghat of Proposed Site



Water body



No High Tension Line



Metalled road



Human Settlement



No Religious Places



No Archaeological Site



No Bridge

www.dreamstime.com

Potential Area

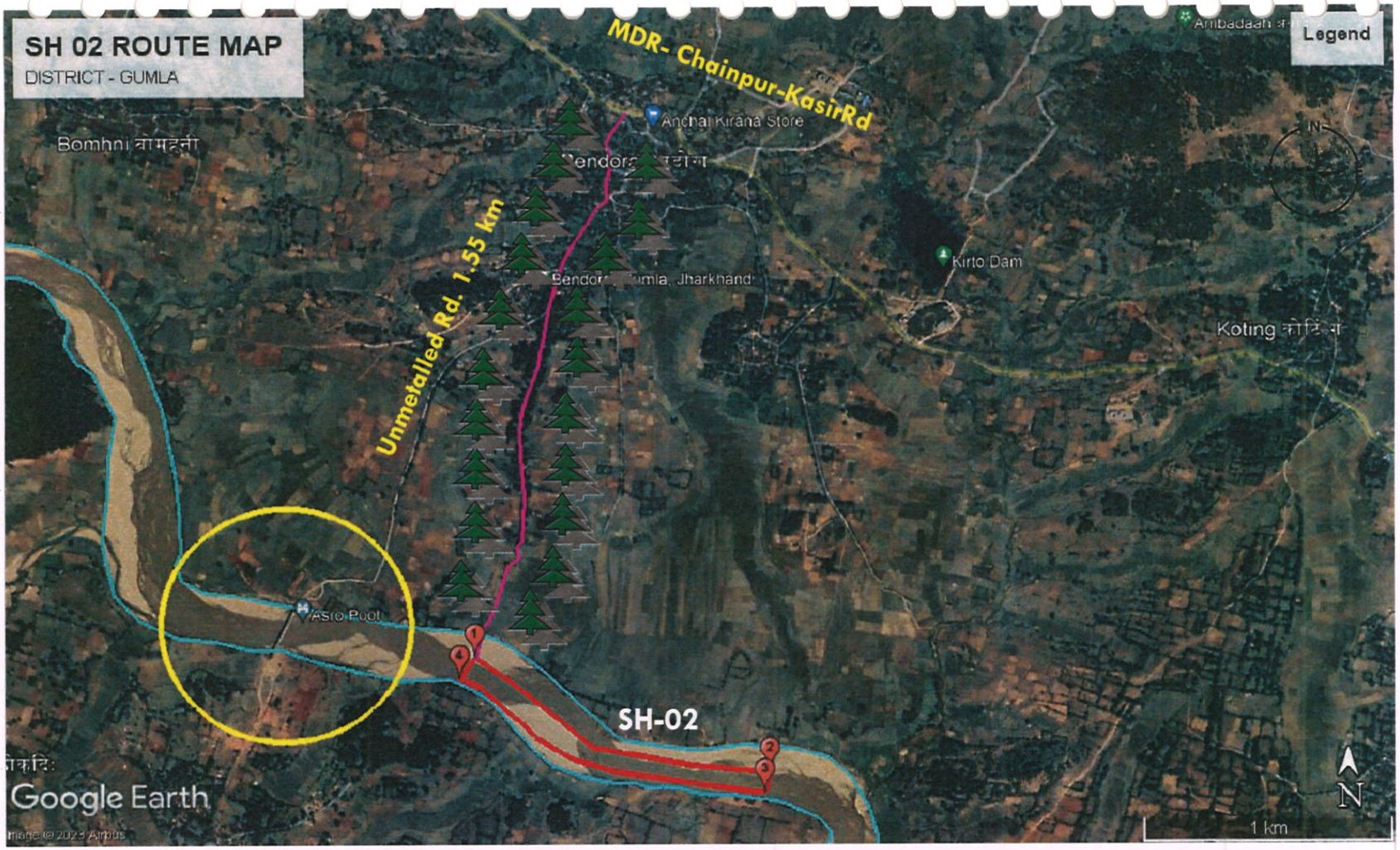
Sankh koel River

Metalled Road

Unmetalled Road

Plantation

Geo-Coordinates:
23°4'15.22"N
84°16'31.91"E



Route Map of Sand Ghat of Proposed Site



Water body



No High Tension Line



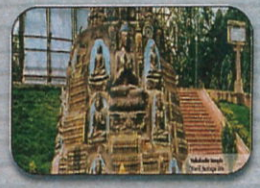
Metalled road



Human Settlement



No Religious Places



No Archaeological Site



No Bridge

Potential Area

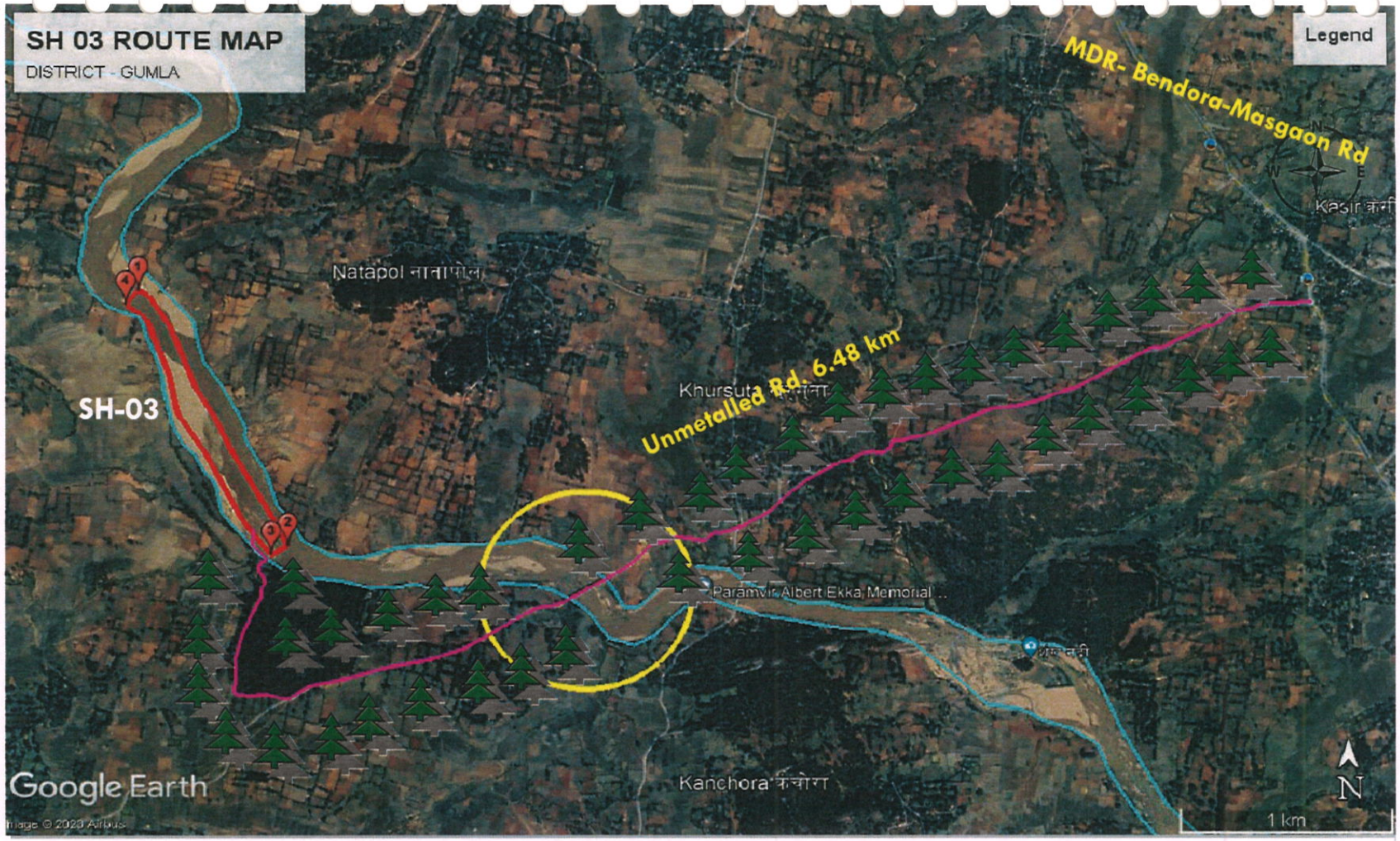
Sankh koel River

Metalled Road

Unmetalled Road

Plantation

Geo-Coordinates:
23°3'20.53"N
84°17'12.00"E



Route Map of Sand Ghat of Proposed Site


Water body


No High Tension Line



Metalled road


Human Settlement


No Religious Places


No Archaeological Site


No Bridge

www.dreamstime.com

Potential Area

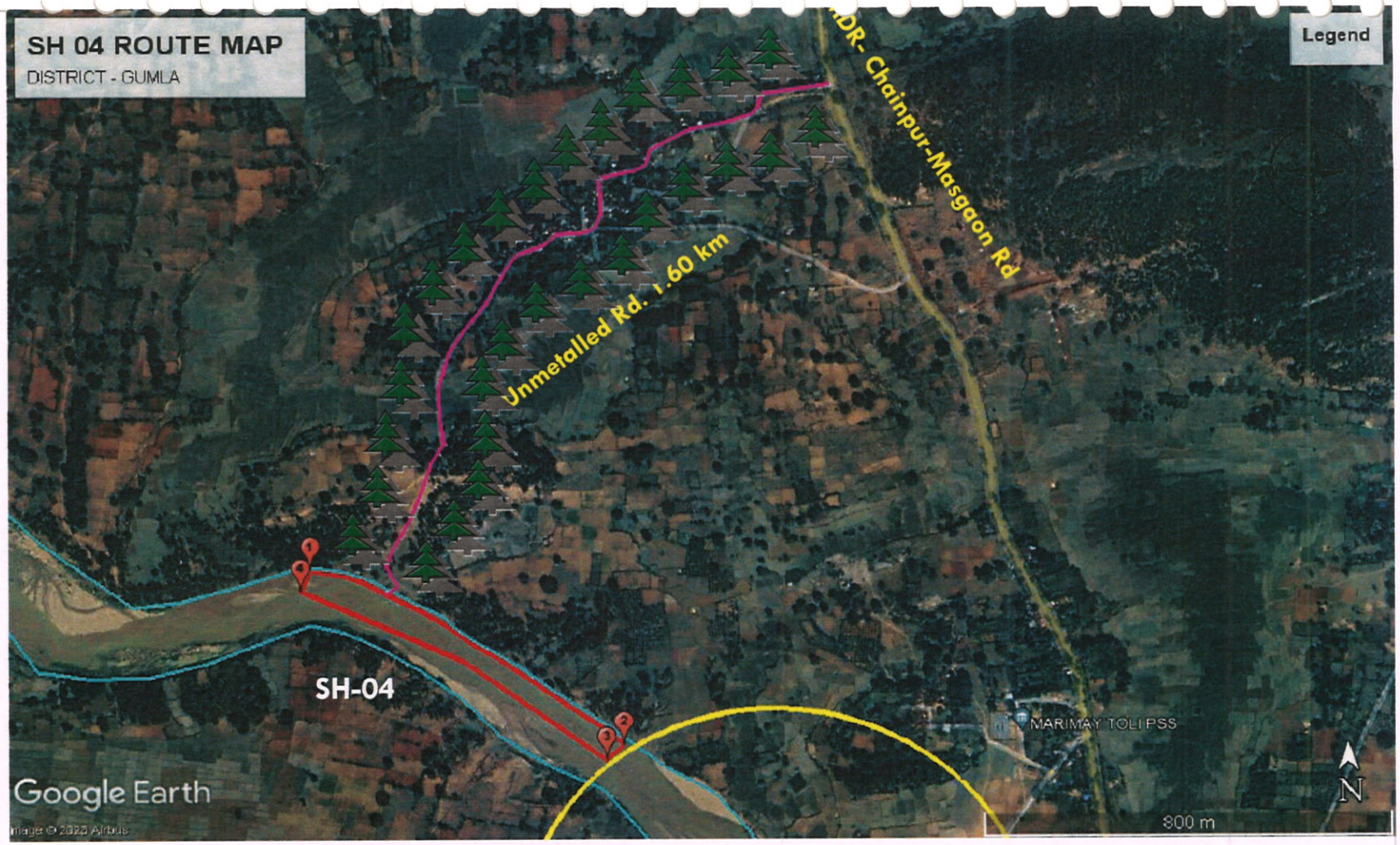
Sankh koel River

Metalled Road

Unmetalled Road

Plantation

Geo-Coordinates:
23°1'48.44"N
84°20'25.60"E



Route Map of Sand Ghat of Proposed Site



Water body



No High Tension Line



Metalled road



Human Settlement



No Religious Places



No Archaeological Site



No Bridge

www.dasbridge.org

Potential Area

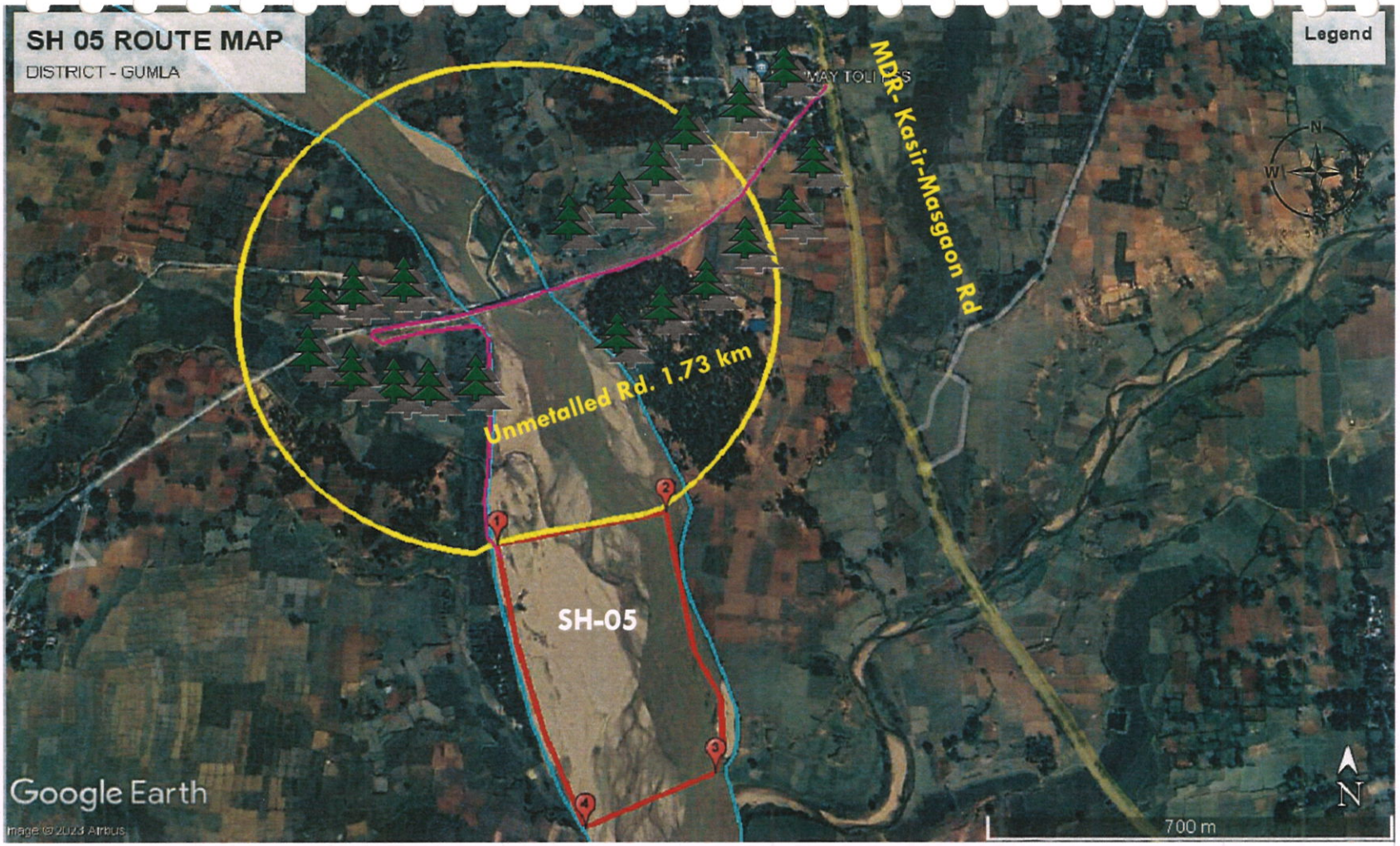
Sankh koel River

Metalled Road

Unmetalled Road

Plantation

Geo-Coordinates:
23°1'6.80"N
84°20'57.38"E



Route Map of Sand Ghat of Proposed Site


Water body


No High Tension Line



Metalled road


Human Settlement


No Religious Places


No Archaeological Site


No Bridge

Approved
www.dreamstime.com

Potential Area

Sankh koel River

Metalled Road

Unmetalled Road

Plantation

Geo-Coordinates:
23°0'19.20"N
84°21'25.31"E



Route Map of Sand Ghat of Proposed Site



Water body



No High Tension Line



Metalled road



Human Settlement



No Religious Places



No Archaeological Site



No Bridge

Approved
www.dreamstime.com

Potential Area

Sankh koel River

Metalled Road

Unmetalled Road

Plantation

Geo-Coordinates:
22°50'32.89"N
84°22'50.20"E



Route Map of Sand Ghat of Proposed Site



Water body



No High Tension Line



Metalled road



Human Settlement



No Religious Places



No Archaeological Site



No Bridge

Approved

Potential Area

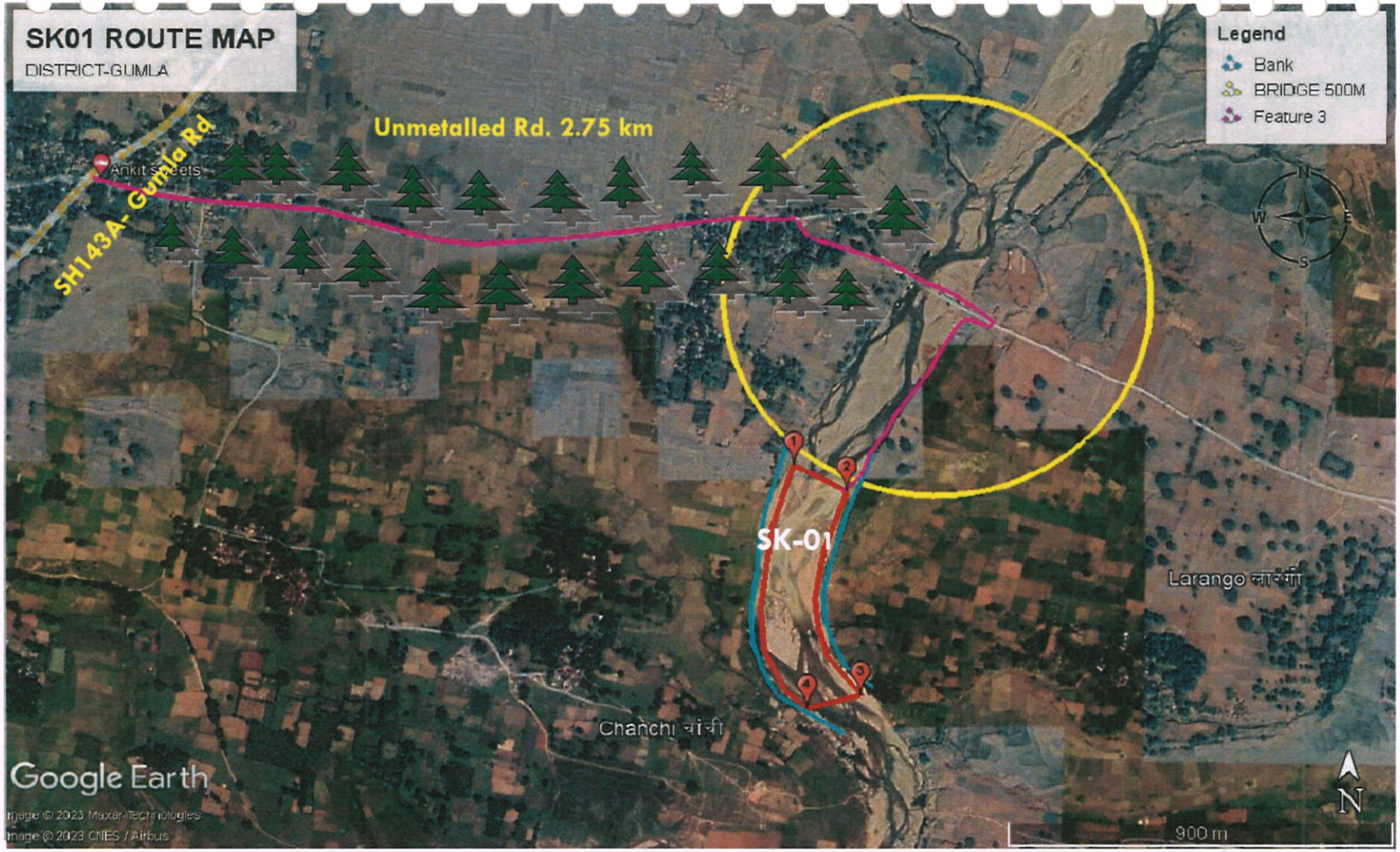
South koel River

Metalled Road

Unmetalled Road

Plantation

Geo-Coordinates:
23°17'55.91"N
84°36'42.15"E



Route Map of Sand Ghat of Proposed Site



Water body



No High Tension Line



Metalled road



Human Settlement



No Religious Places



No Archaeological Site



No Bridge

Approved
www.dreamstime.com

Potential Area

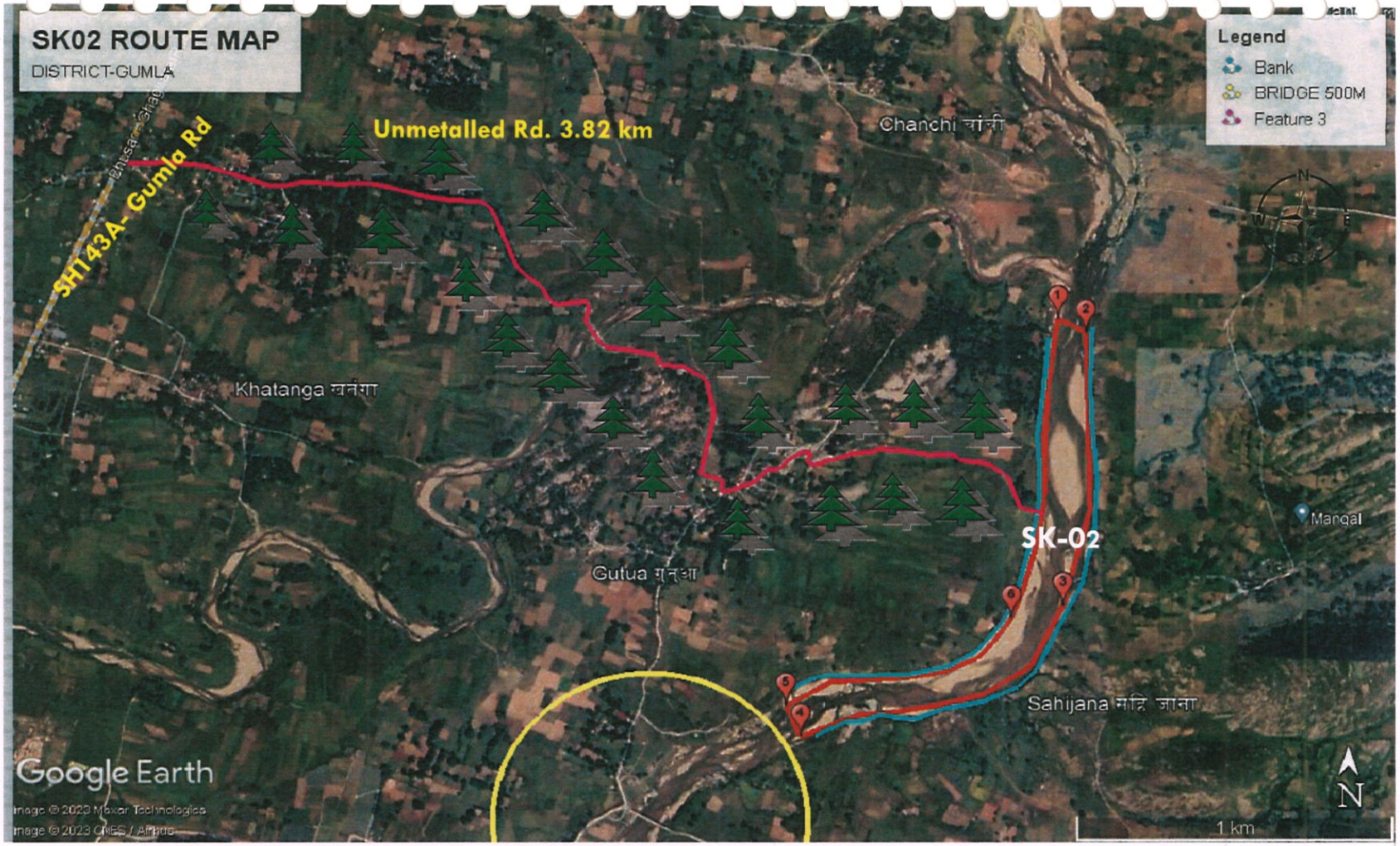
South koel River

Metalled Road

Unmetalled Road

Plantation

Geo-Coordinates:
23°17'13.38"N
84°36'44.14"E



Route Map of Sand Ghat of Proposed Site



Water body



No High Tension Line



Metalled road



Human Settlement



No Religious Places



No Archaeological Site



No Bridge

Approved

Potential Area

South koel River

Metalled Road

Unmetalled Road

Plantation

Geo-Coordinates:
23°16'1.22"N
84°35'56.57"E



Route Map of Sand Ghat of Proposed Site



Water body



No High Tension Line



Metalled road



Human Settlement



No Religious Places



No Archaeological Site



No Bridge

www.dasbridge.org

Potential Area

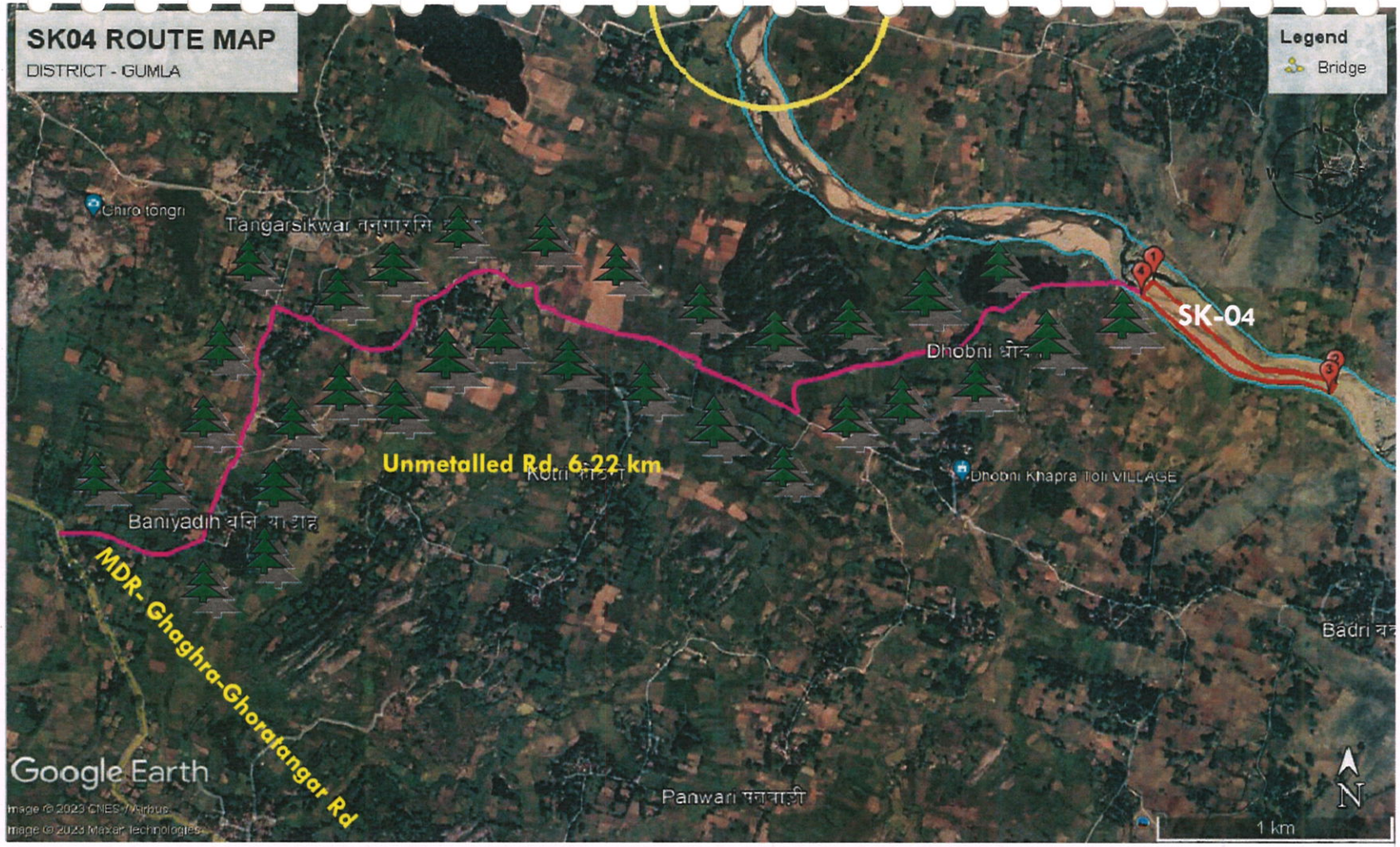
South koel River

Metalled Road

Unmetalled Road

Plantation

Geo-Coordinates:
23°15'36.94"N
84°36'55.69"E



Route Map of Sand Ghat of Proposed Site



Water body



No High Tension Line



Metalled road



Human Settlement



No Religious Places



No Archaeological Site



No Bridge

www.dasbridge.org

Potential Area

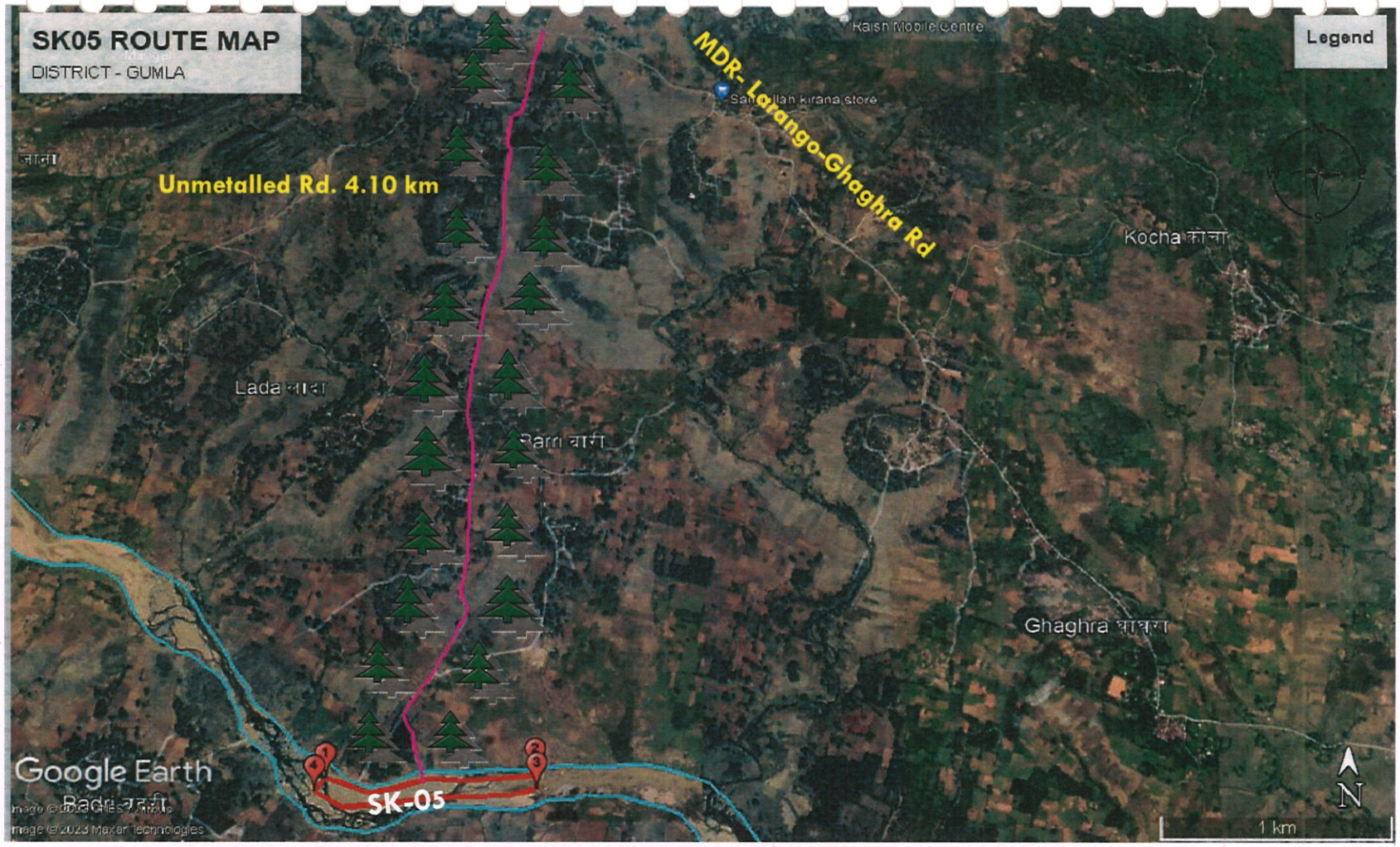
South koel River

Metalled Road

Unmetalled Road

Plantation

Geo-Coordinates:
23°14'49.20"N
84°37'59.01"E



Route Map of Sand Ghat of Proposed Site



Water body



No High Tension Line



Metalled road



Human Settlement



No Religious Places



No Archaeological Site



No Bridge

www.dasbridge.org

Potential Area

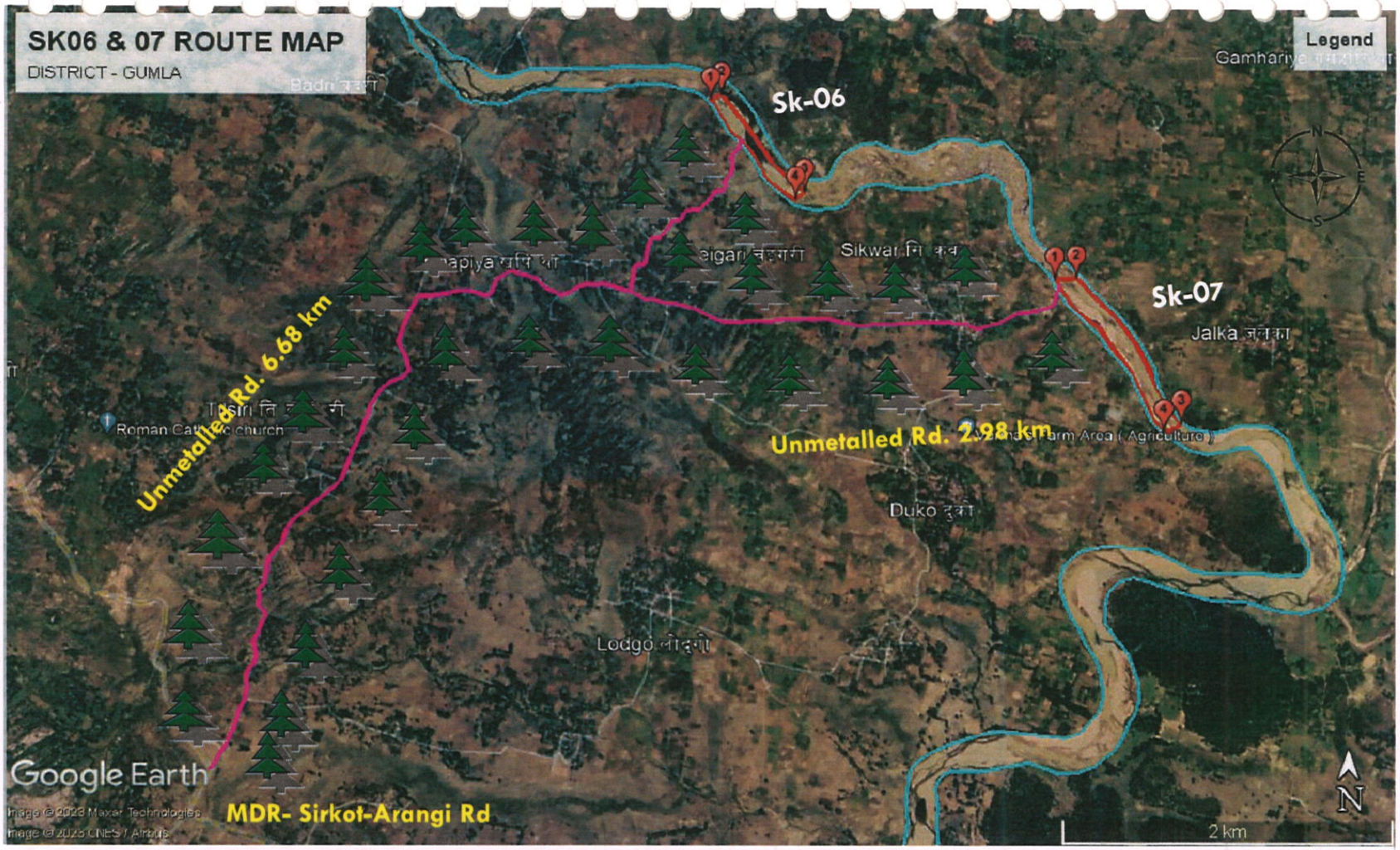
South koel River

Metalled Road

Unmetalled Road

Plantation

Geo-Coordinates:
23°14'42.91"N 84°38'55.44"E
23°14'0.65"N 84°40'13.54"E



Route Map of Sand Ghat of Proposed Site

Approved


Water body


No High Tension Line



Metalled road


Human Settlement


No Religious Places


No Archaeological Site


No Bridge

www.dreamstime.com

Potential Area

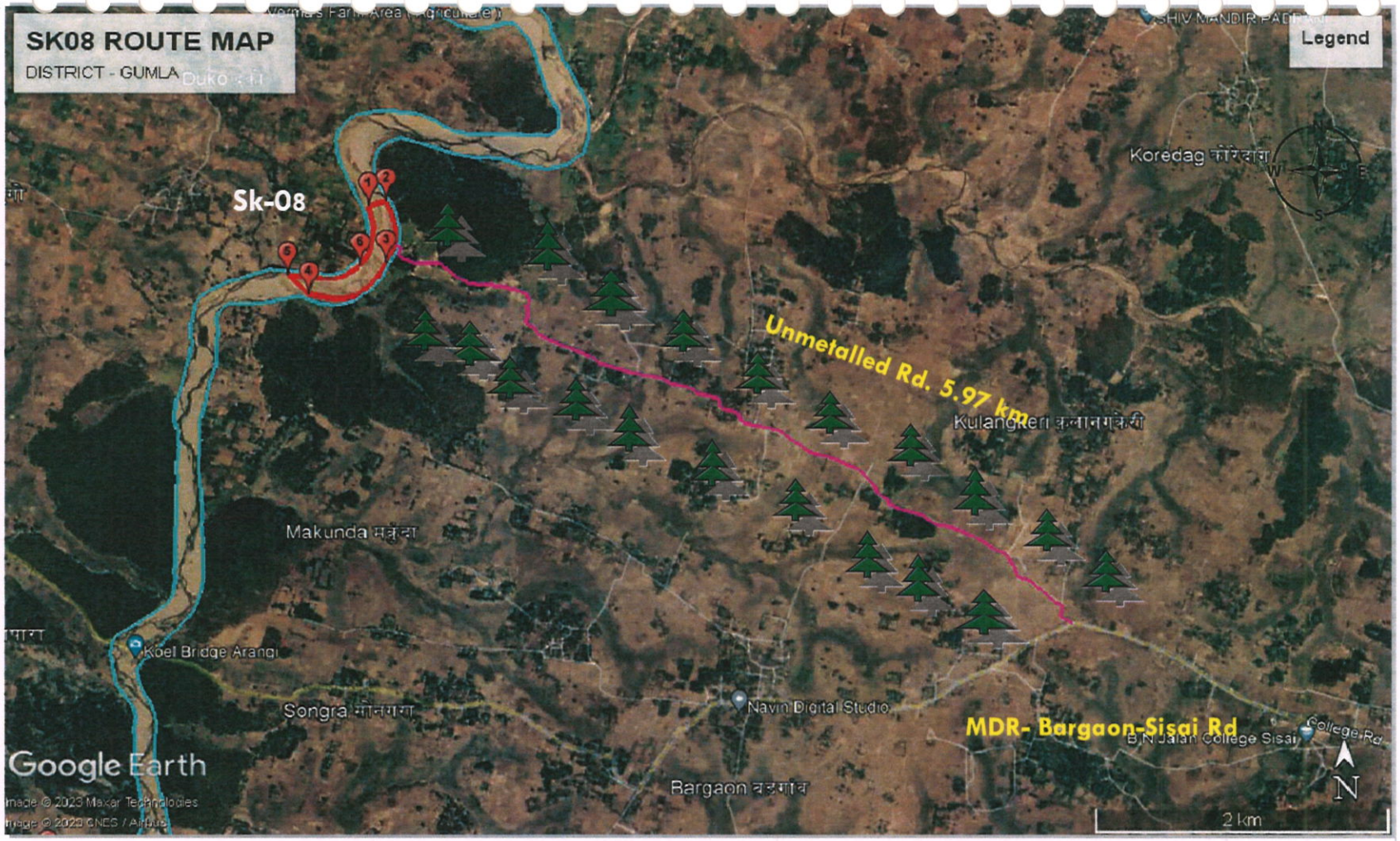
South koel River

Metalled Road

Unmetalled Road

Plantation

Geo-Coordinates:
23°12'37.42"N
84°40'20.15"E



Route Map of Sand Ghat of Proposed Site



Water body



No High Tension Line



Metalled road



Human Settlement



No Religious Places



No Archaeological Site



No Bridge

Potential Area

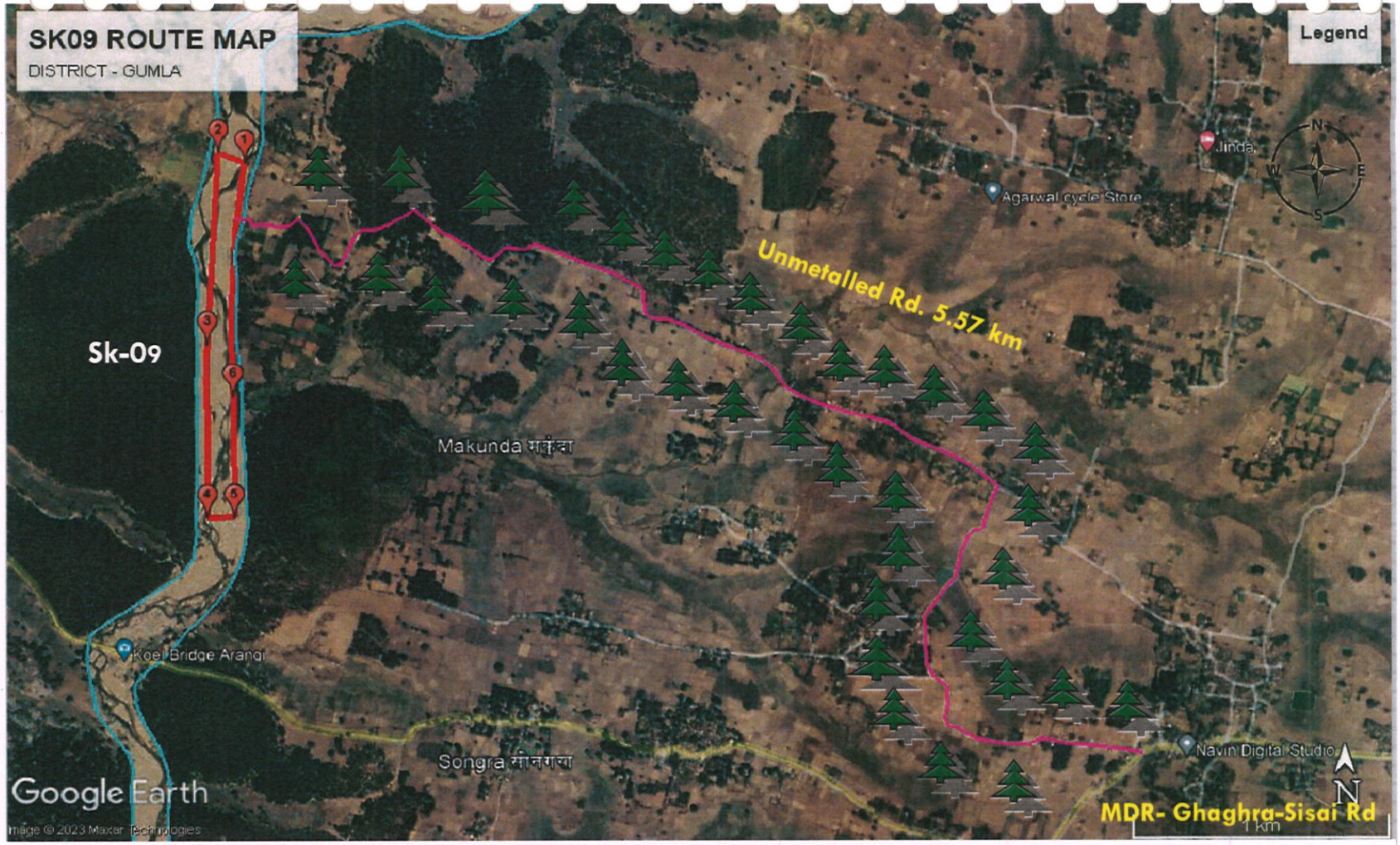
South koel River

Metalled Road

Unmetalled Road

Plantation

Geo-Coordinates:
23°11'56.02"N
84°39'41.15"E



Route Map of Sand Ghat of Proposed Site


Water body


No High Tension Line



Metalled road


Human Settlement


No Religious Places


No Archaeological Site


No Bridge

www.dreamstime.com

Potential Area

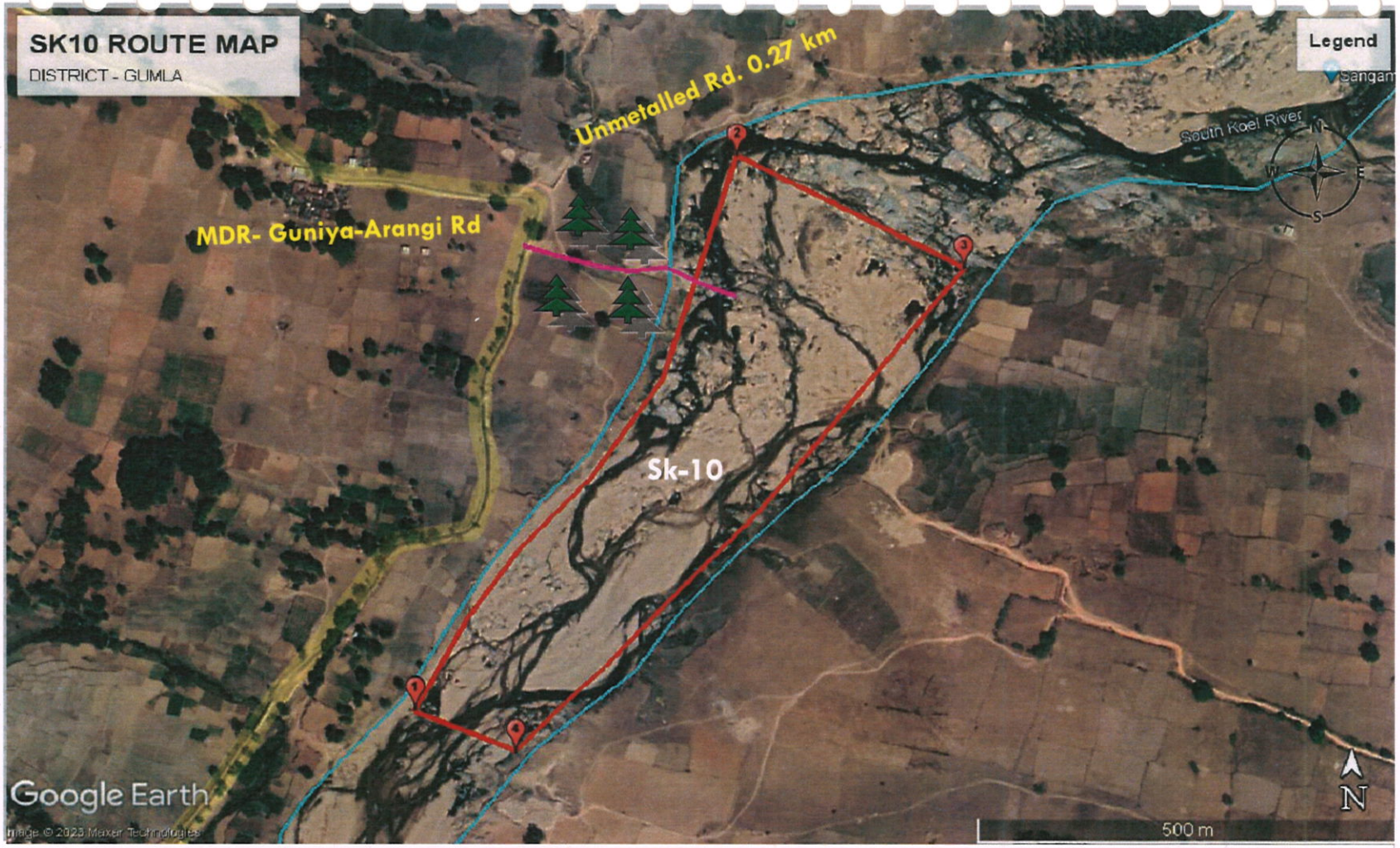
South koel River

Metalled Road

Unmetalled Road

Plantation

Geo-Coordinates:
23°9'35.03"N
84°38'51.79"E



Route Map of Sand Ghat of Proposed Site

Approved



Water body



No High Tension Line



Metalled road



Human Settlement



No Religious Places



No Archaeological Site



No Bridge

www.dreamstime.com

Potential Area

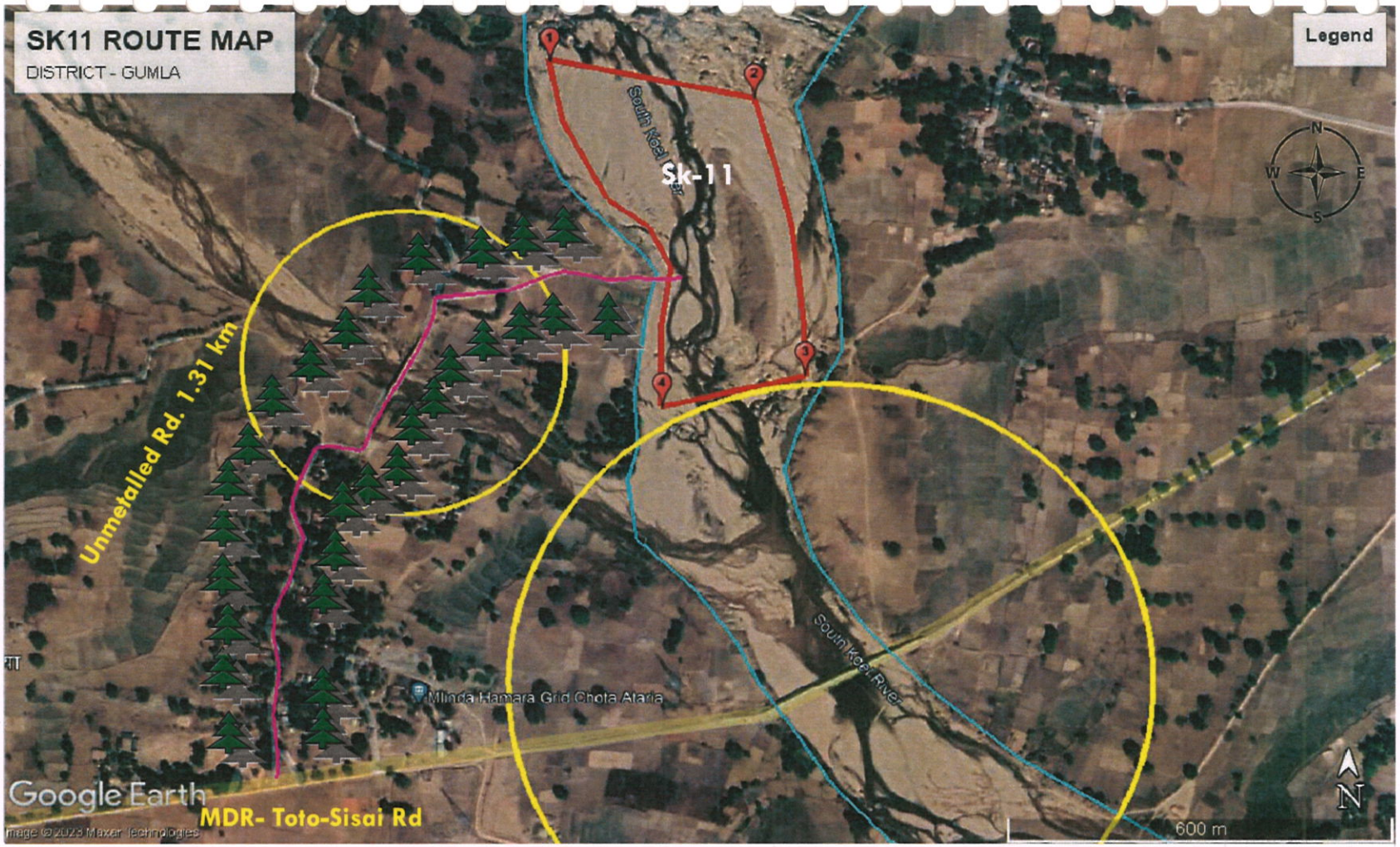
South koel River

Metalled Road

Unmetalled Road

Plantation

Geo-Coordinates:
23°8'11.88"N
84°38'37.84"E



Route Map of Sand Ghat of Proposed Site

Approved


Water body

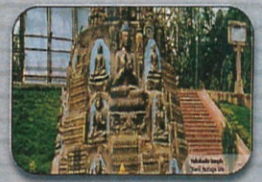

No High Tension Line



Metalled road


Human Settlement


No Religious Places


No Archaeological Site


No Bridge

www.dreamstime.com

Potential Area

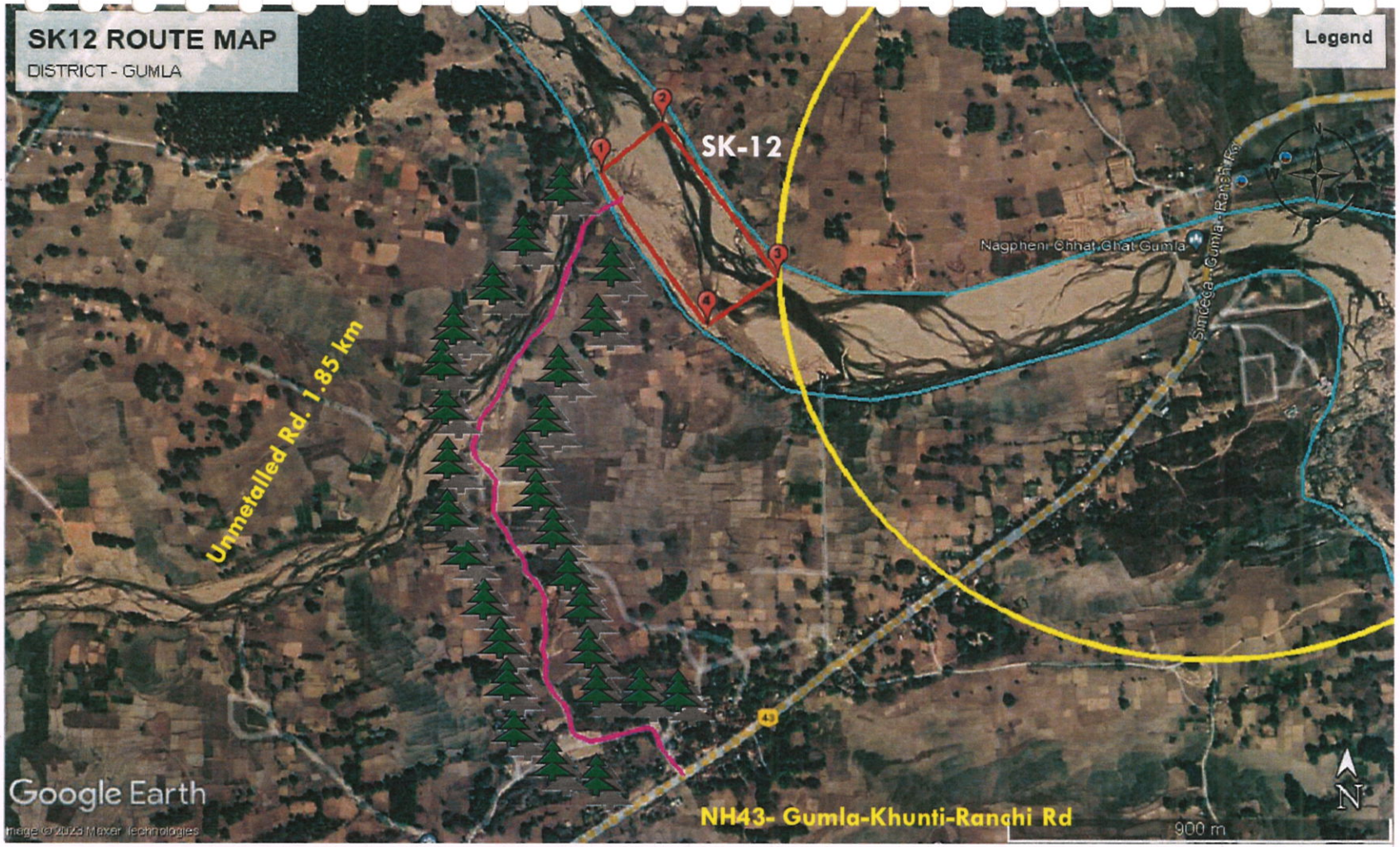
South koel River

Metalled Road

Unmetalled Road

Plantation

Geo-Coordinates:
23°6'56.67"N
84°39'38.67"E



Route Map of Sand Ghat of Proposed Site


Water body


No High Tension Line



Metalled road


Human Settlement


No Religious Places


No Archaeological Site


No Bridge

www.dreamstime.com

Potential Area

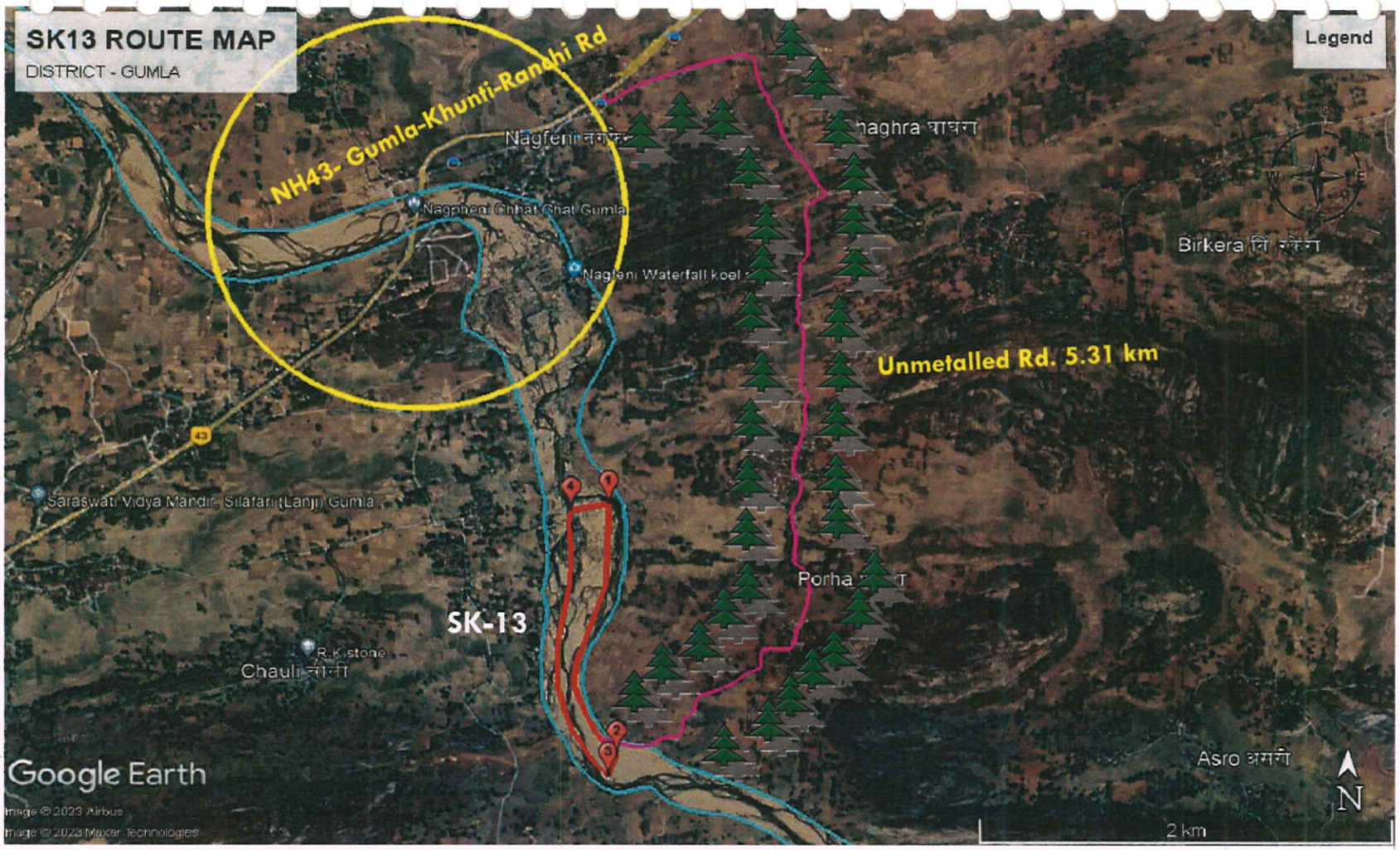
South koel River

Metalled Road

Unmetalled Road

Plantation

Geo-Coordinates:
23°6'1.45"N
84°41'0.90"E



Route Map of Sand Ghat of Proposed Site


Water body


No High Tension Line



Metalled road


Human Settlement


No Religious Places


No Archaeological Site


No Bridge

www.dasbridge.org

Potential Area

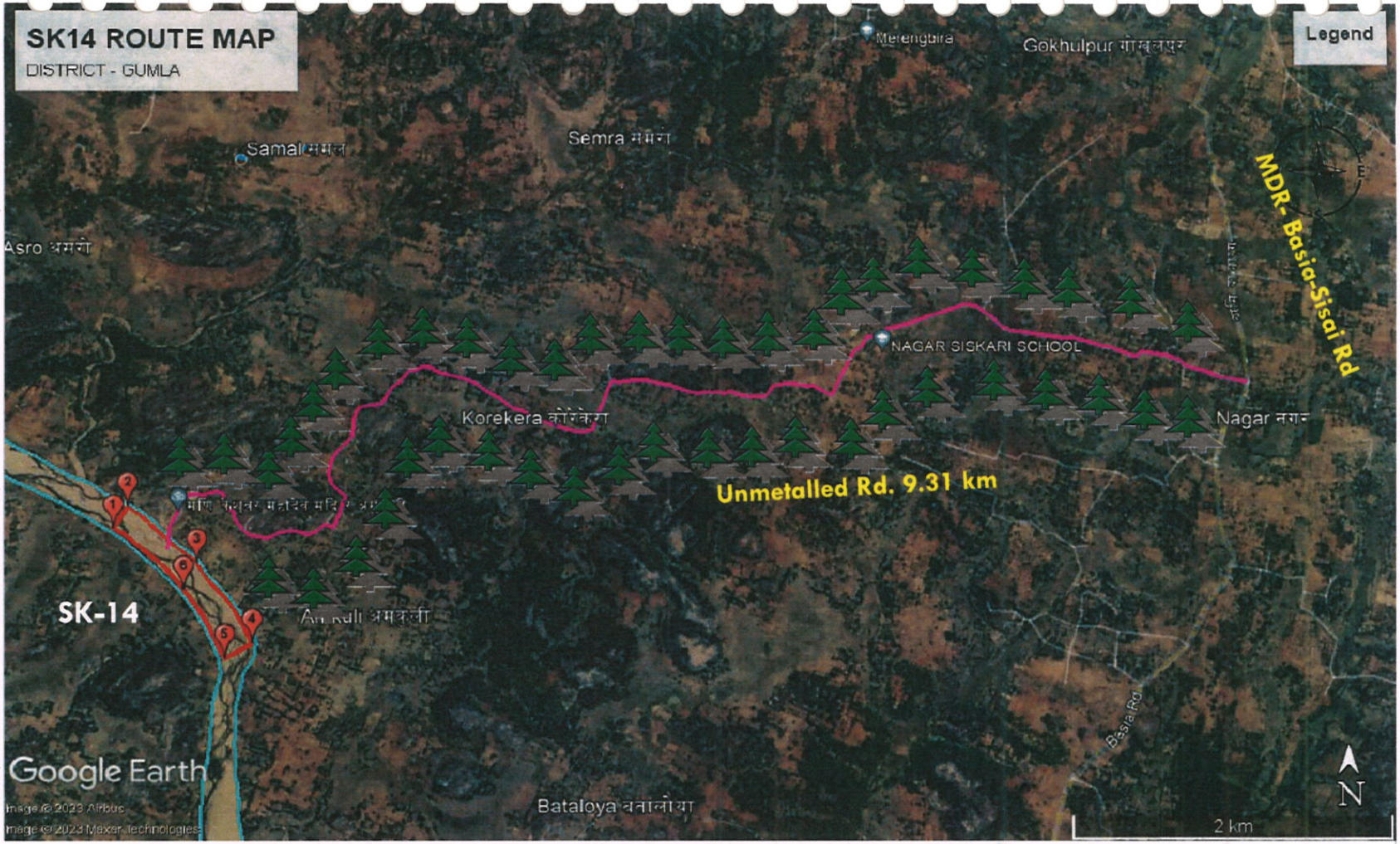
South koel River

Metalled Road

Unmetalled Road

Plantation

Geo-Coordinates:
23°4'15.66"N
84°43'5.60"E



Route Map of Sand Ghat of Proposed Site


Water body


No High Tension Line



Metalled road


Human Settlement


No Religious Places


No Archaeological Site


No Bridge

www.dasbridge.org

Potential Area

South koel River

Metalled Road

Unmetalled Road

Plantation

Geo-Coordinates:
23°3'20.87"N
84°43'28.20"E



Route Map of Sand Ghat of Proposed Site


Water body


No High Tension Line



Metalled road


Human Settlement


No Religious Places


No Archaeological Site


No Bridge

www.dreamstime.com

Potential Area

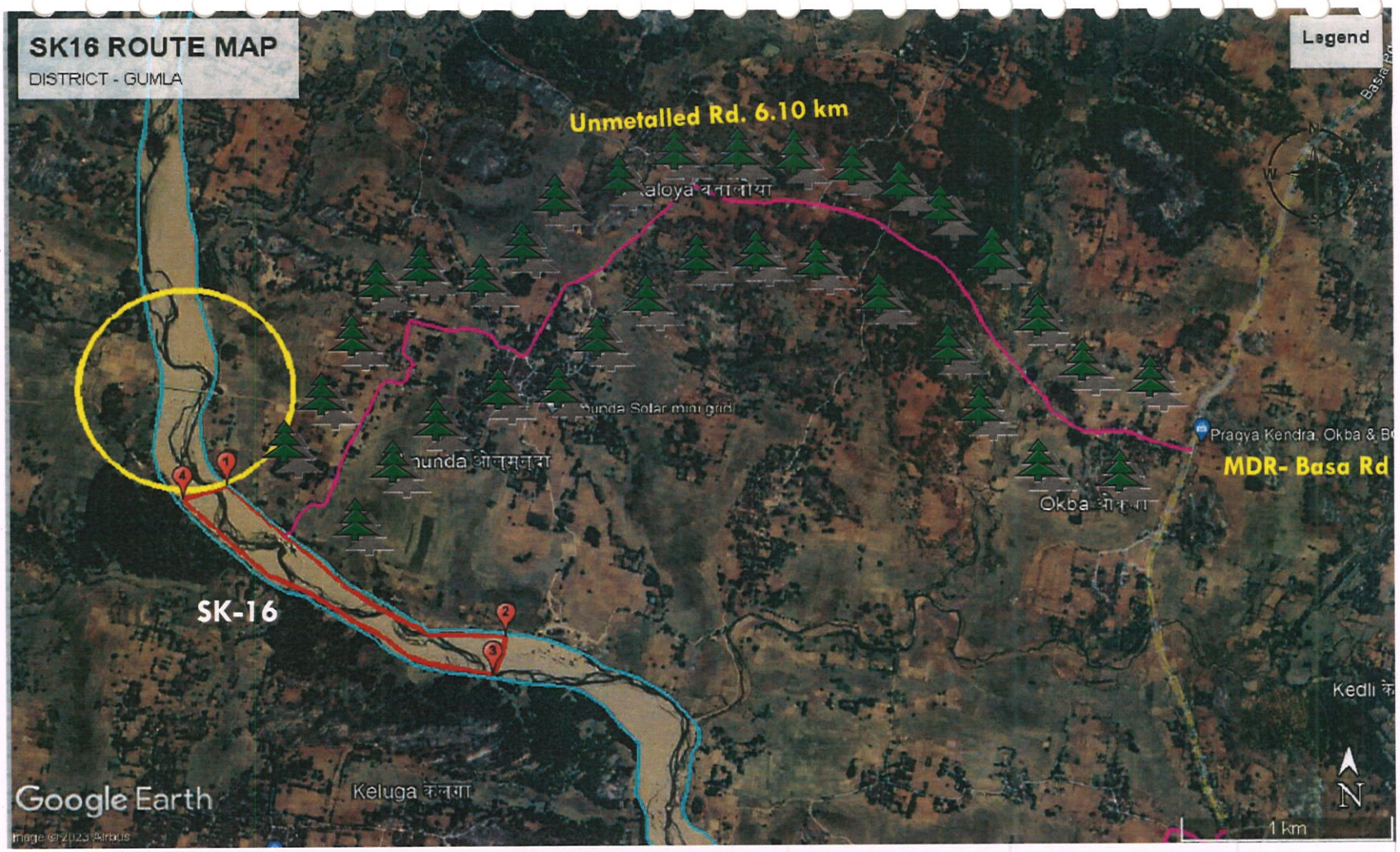
South koel River

Metalled Road

Unmetalled Road

Plantation

Geo-Coordinates:
23°2'27.58"N
84°43'41.92"E



Route Map of Sand Ghat of Proposed Site

Approved


Water body


No High Tension Line



Metalled road


Human Settlement


No Religious Places


No Archaeological Site


No Bridge

Potential Area

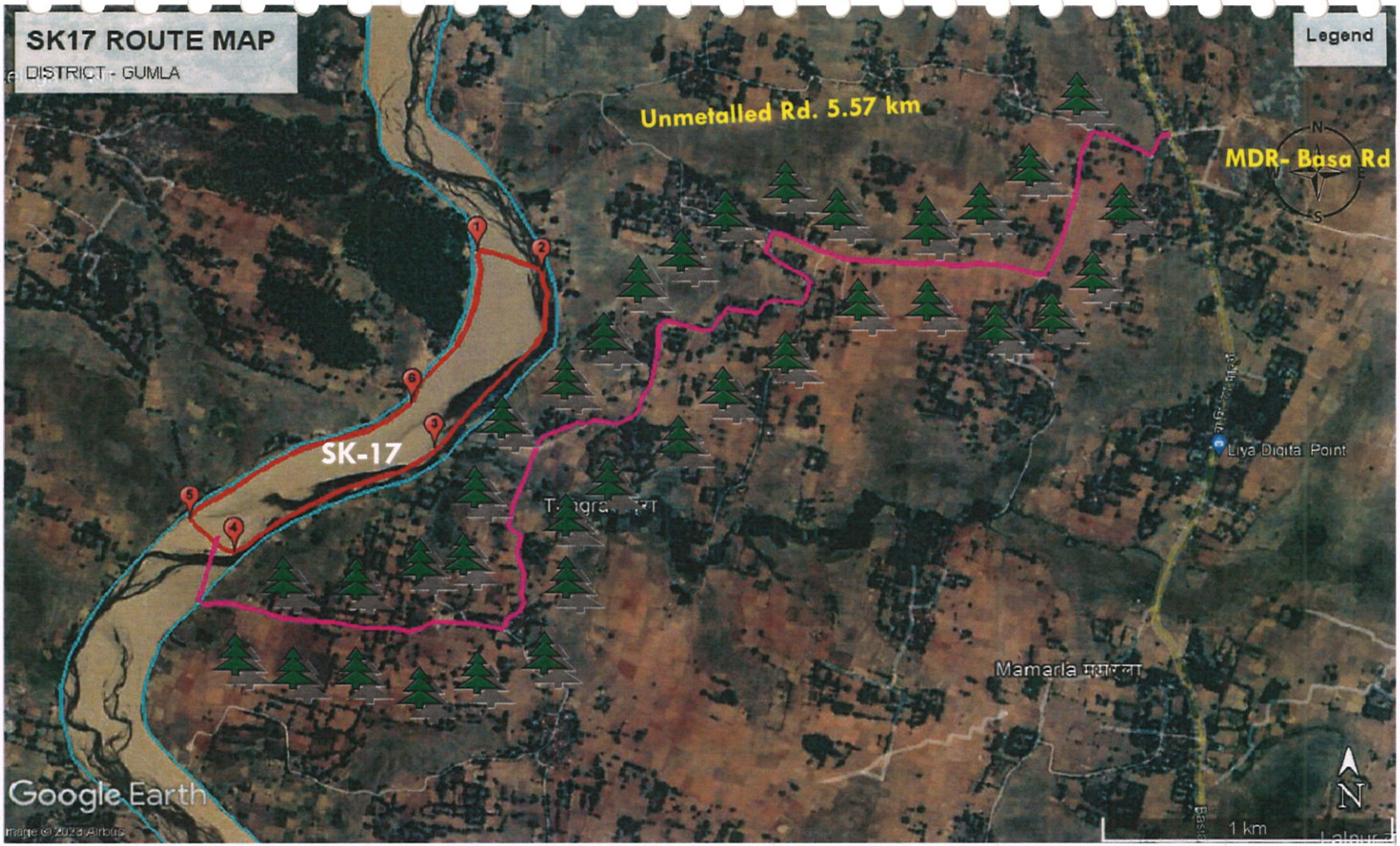
South koel River

Metalled Road

Unmetalled Road

Plantation

Geo-Coordinates:
23°1'16.99"N
84°45'3.12"E



Route Map of Sand Ghat of Proposed Site

Approved


Water body


No High Tension Line



Metalled road


Human Settlement


No Religious Places


No Archaeological Site


No Bridge

Potential Area

South koel River

Metalled Road

Unmetalled Road

Plantation

Geo-Coordinates:
23°0'18.89"N
84°44'23.00"E



Route Map of Sand Ghat of Proposed Site



Water body



No High Tension Line



Metalled road



Human Settlement



No Religious Places



No Archaeological Site



No Bridge

Approved
www.dreamstime.com

Potential Area

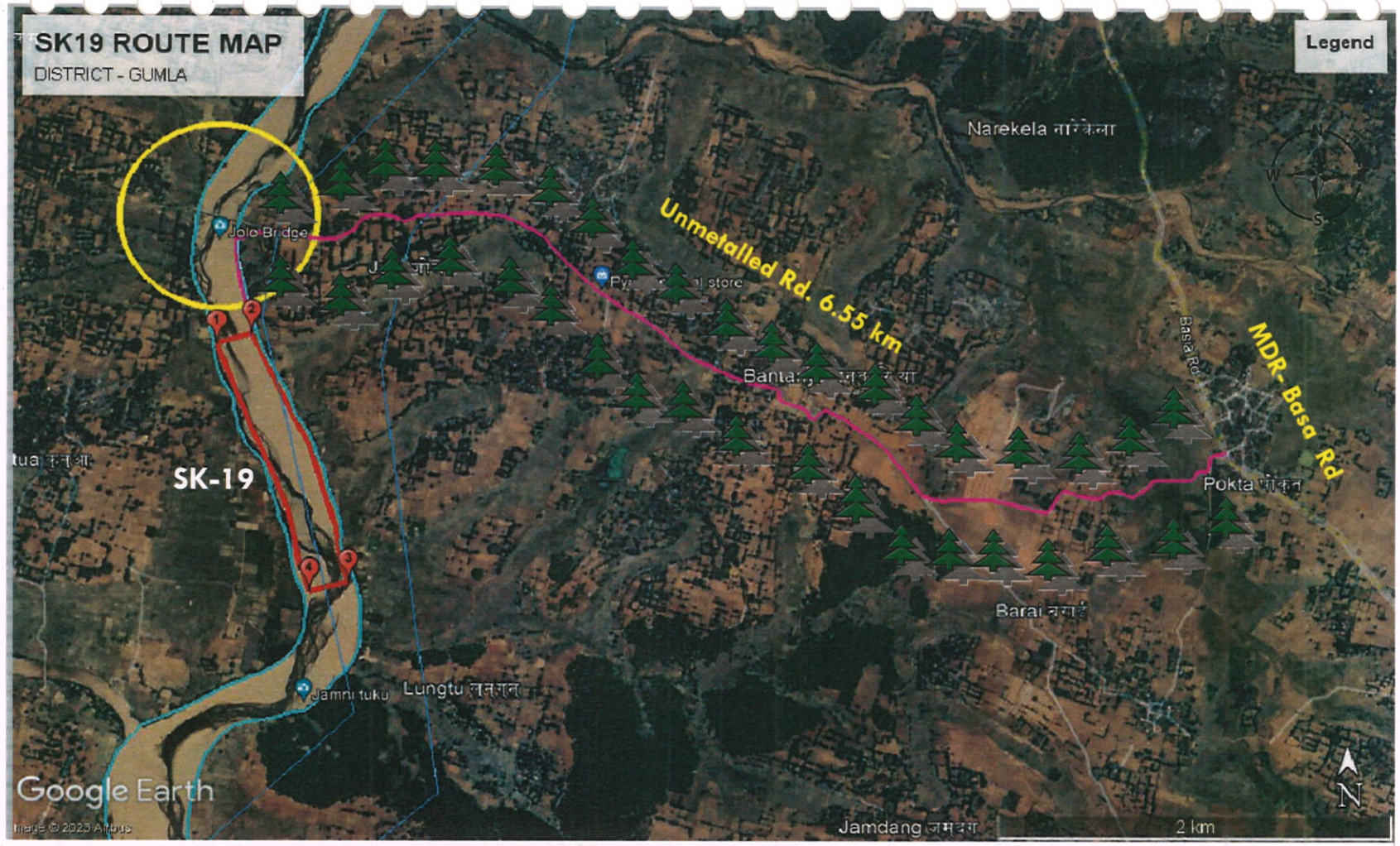
South koel River

Metalled Road

Unmetalled Road

Plantation

Geo-Coordinates:
22°58‘23.36"N
84°44‘6.05“E



Route Map of Sand Ghat of Proposed Site


Water body


No High Tension Line



Metalled road


Human Settlement


No Religious Places


No Archaeological Site


No Bridge

www.dustdig.org

Potential Area

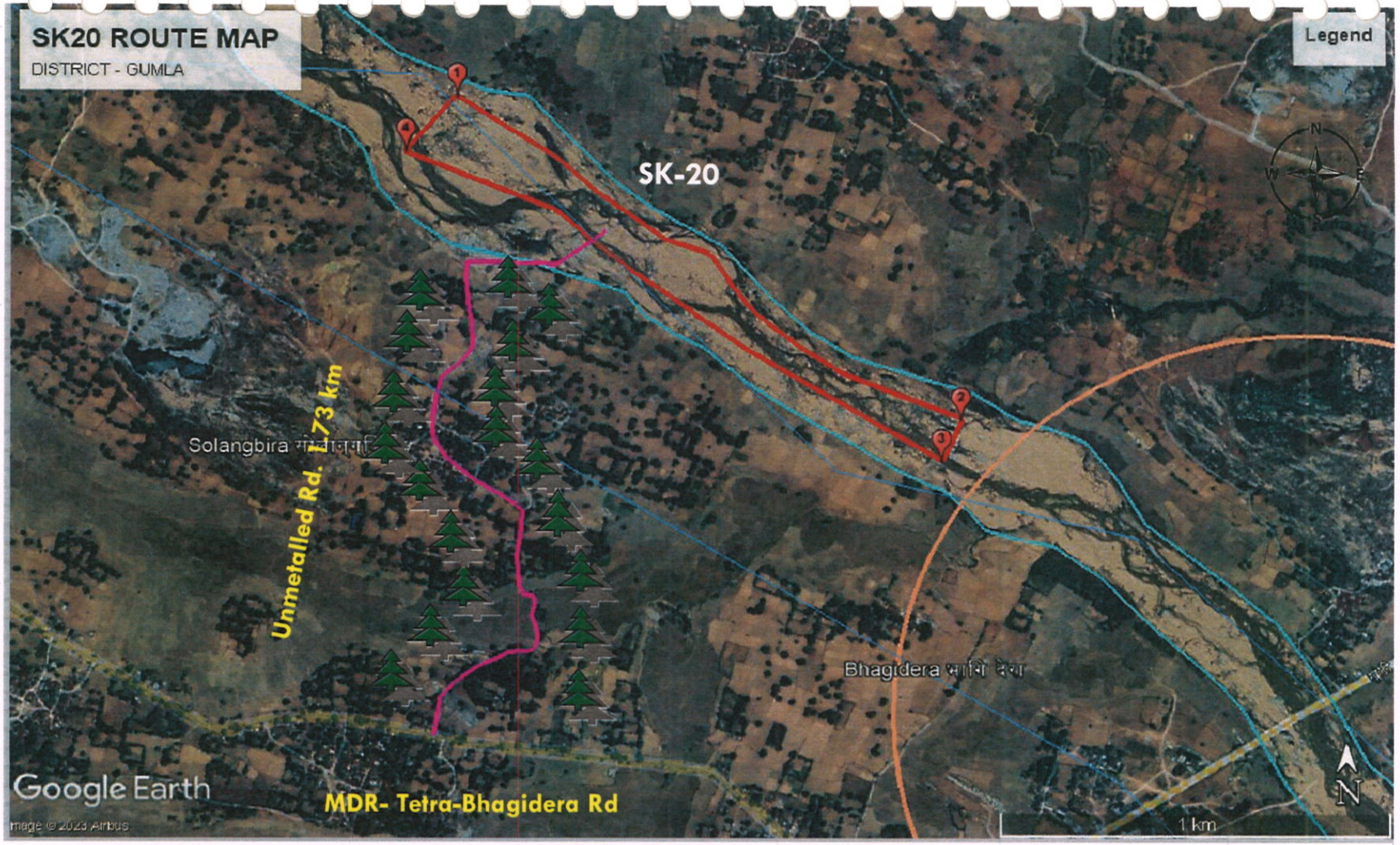
South koel River

Metalled Road

Unmetalled Road

Plantation

Geo-Coordinates:
22°52'47.63"N
84°47'24.72"E



Route Map of Sand Ghat of Proposed Site



Water body



No High Tension Line



Metalled road



Human Settlement



No Religious Places



No Archaeological Site



No Bridge

Approved
www.dreamstime.com

Potential Area

South koel River

Metalled Road

Unmetalled Road

Plantation

Geo-Coordinates:
22°49'46.74"N
84°53'2.44"E



Route Map of Sand Ghat of Proposed Site



Water body



No High Tension Line



Metalled road



Human Settlement



No Religious Places



No Archaeological Site



No Bridge

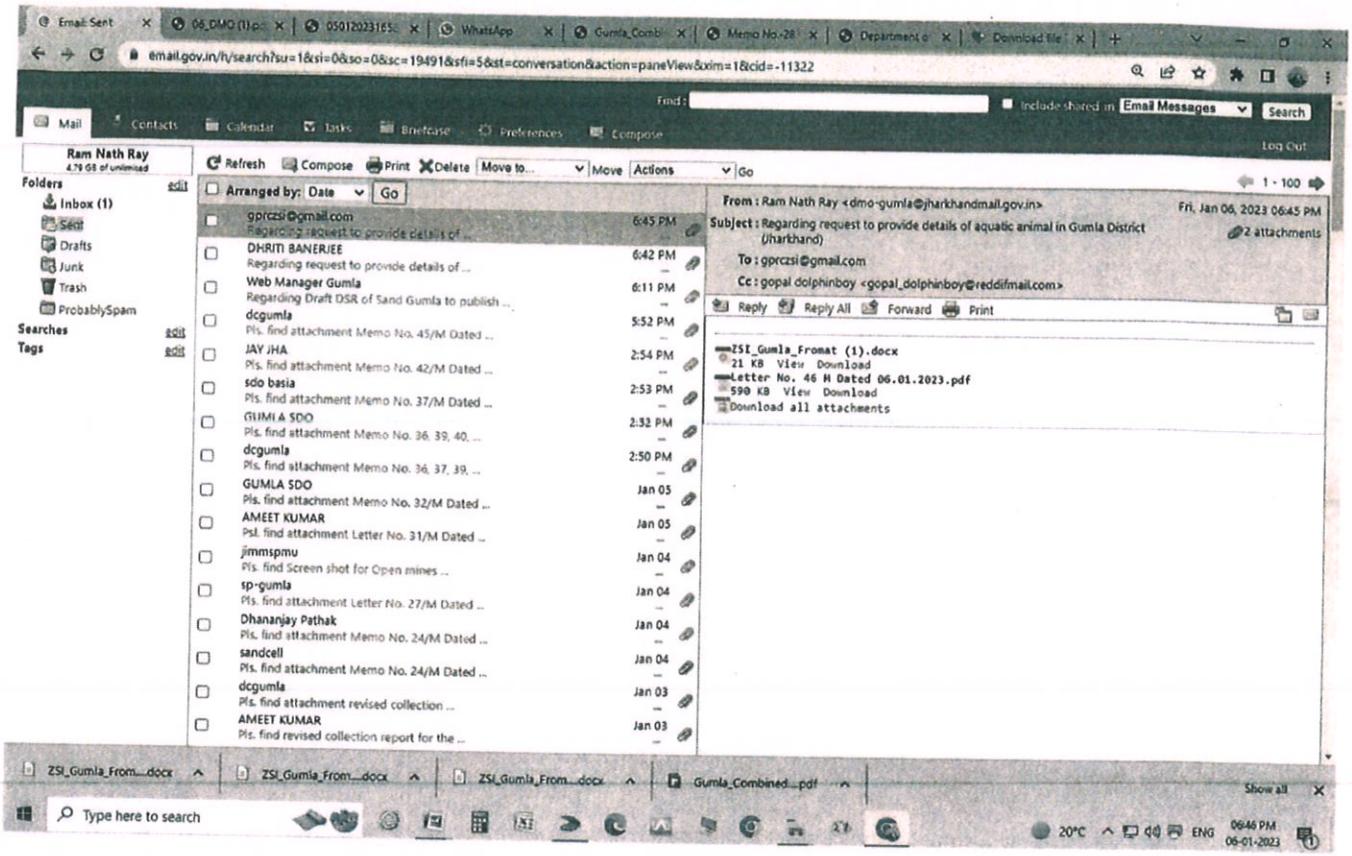
www.dasbridge.org

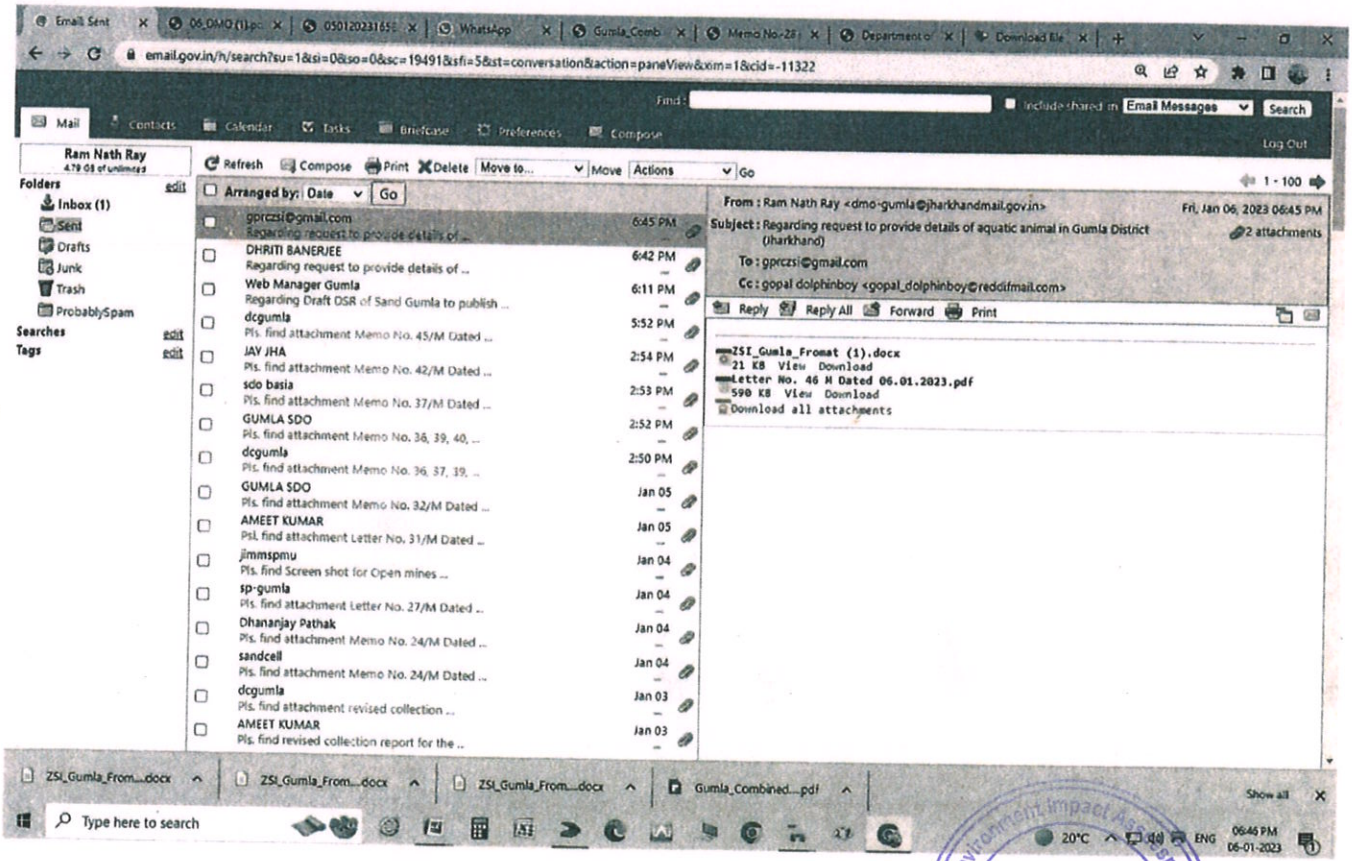
ANNEXURE-07

COPY OF ZOOLOGICAL SURVEY OF INDIA LETTER



GUMLA





State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

DISTRICT MINING OFFICE, GUMLA (JHARKHAND)
(E-MAIL: dmo-gumla@jharkhandmail.gov.in)
Mob. No. 9661334716

Letter No. ....46..../M. Gumla, date...6/1/23

To,
The Director,
Gangetic Plains Regional Centre,
Zoological Survey of India,
Bahadurpur Housing Colony,
Sec-8, Patna- 800026, Bihar.

Subject: - Request to provide details regarding the presence of aquatic animal in the river South Koel & Sankh river of Gumla District Jharkhand and proposed potential area enlisted in Gumla district Jharkhand.

Dera Sir,

With reference to the above-mentioned subject, we would like to bring to your notice that, the work for the preparation of district survey report for Sand Mineral of Gumla district is in progress.

As per direction given by SEAC, Jharkhand we require to submit the undertaking regarding presence of aquatic animal in the river in proximity of the proposed Potential area should be verified and certified by concerned Govt. Departments like Zoological survey of India.

It is therefore requested to provide the details of presence of aquatic animal in the river in proximity of the proposed potential area of river sand in DSR (District Survey Report).

We are enclosing details of proposed potential area of the sand along with Geo-coordinates for your reference.

Thanking You.

Yours faithfully

State Level Environment Impact Assessment Authority ★ Approved ★ Ranchi

6/1/23

District Mining Officer
Gumla, Jharkhand

DISTRICT MINING OFFICE, GUMLA (JHARKHAND)
(E-MAIL: dmo-gumla@jharkhandmail.gov.in)
Mob. No. 9661334716

Letter No. ...47...../M. Gumla, date..6/1/23.

To,
The Director,
Zoological Survey of India,
Prani Vigyan Bhawan, Block M. New Alipore,
Kolkata, West Bengal-700053.

Subject: - Request to provide details regarding the presence of aquatic animal in the river South Koel & Sankh river of Gumla District Jharkhand and proposed potential area enlisted in Gumla district Jharkhand.

Dera Sir,

With reference to the above-mentioned subject, we would like to bring to your notice that, the work for the preparation of district survey report for Sand Mineral of Gumla district is in progress.

As per direction given by SEAC, Jharkhand we require to submit the undertaking regarding presence of aquatic animal in the river in proximity of the proposed Potential area should be verified and certified by concerned Govt. Departments like Zoological survey of India.

It is therefore requested to provide the details of presence of aquatic animal in the river in proximity of the proposed potential area of river sand in DSR(District Survey Report).

We are enclosing details of proposed potential area of the sand along with Geo-coordinates for your reference.

Thanking You.

Yours faithfully

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

6/1/23

District Mining Officer
Gumla, Jharkhand

ANNEXURE-08

COPY OF FISHERY DEPARTMENT LETTER



झारखण्ड सरकार

कार्यालय : जिला मत्स्य पदाधिकारी–सह–मुख्य कार्यपालक पदाधिकारी, गुमला।

SP आवास के पास, करमटोली रोड, गुमला–7209721521 Email Id- fisheriesgumla2018@gmail.com

पत्रांक.....130...../मत्स्य

प्रेषक,

जिला मत्स्य पदाधिकारी–सह–
मुख्य कार्यपालक पदाधिकारी,
गुमला ।

सेवा में,

प्रभारी पदाधिकारी,
जिला गोपनीय शाखा,
गुमला ।

मत्स्य/गुमला/दिनांक 06.02. 2023.

विषयः– जलीय जीवों के संबंध में सूचना एकत्र करने के संबंध में ।

प्रसंगः– उपायुक्त–सह–जिला दण्डाधिकारी का कार्यालय पत्रांक 814(ii)/गो0 दिनांक 02.02.2023.

महाशय,

उपर्युक्त विषयक प्रासंगिक पत्र के संबंध में सादर सूचित करना है कि जलीय जीवों के संबंध में सूचना एकत्र कर प्रतिवेदन इस पत्र के साथ संलग्न कर आवश्यक कार्यार्थ उपलब्ध कराई जा रही है ।

अनु0:–यथोक्त।

विश्वासभाजन

06.02.23

जिला मत्स्य पदाधिकारी–सह–
मुख्य कार्यपालक पदाधिकारी,
गुमला ।

06.02.2023

State Level Environment Impact Assessment Authority * Approved * Jharkhand, Ranchi

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Aquatic animals of Jharkhand

Sr. No.	Scientific Name	Common Name
1	*Macrobrachium rosenbergii*	Giant freshwater prawn
2	*Macrobrachium malcolmsonii*	Freshwater prawn
3	*Pila globosa*	Freshwater snail
4	*Nemacheilus anguilla*	Fresh water loach and species
5	*Nemacheilus monilis*	
6	*Nemacheilus chrysolaimos*	
7	*Nemacheilus pallidus*	
8	*Nemacheilus coriza*	
9	*Hepido cephalichthys*	
10	*Notopterus chitla*	
11	*Chanda nama*	Chanda
12	*C.ranga*	
13	*Carcinus maenas*	(Carb)
14	*Unio Manus*	(Unio)
15	*Catla catla*	Catla (Indian Major carpa)
16	*Cirrhinus mrigala*	Mrigal (Indian Major carpa
17	*Labeo rohita*	Rohu (Indian Major carpa)
18	*L. gonius*	Minor carp
19	*L. dero*	Minor carp
20	*Puntius ticto*	Pothia/ Minor carp
21	*P. sarana*	Pothia/ Minor carp
22	*cirrhinus reba*	Pothia/ Minor carp
23	*Clarias batracus*	Indian magur
24	*Mystus vittatus*	Tengra
25	*M. cavasius*	Tengra
26	*M.tengara*	Tengra
27	*Wallago attu*	Freshwater shark/Bowari
28	*Heteropneustes fossilis*	Singhi
29	*Anguilla bicolor*	Eel/Baam
30	*Channa punctatus*	Snake head/Garai
31	*C. gachua*	Snake head/Garai

Approved

06.02.23.

जिला मत्स्य पदाधिकारी–सह–
मुख्य कार्यपालक पदाधिकारी,
गुमला ।

Scanned with OKEN Scanner

ANNEXURE-09

COPY OF NEWS PAPER CUTTING



NEWS PAPER CUTTING



PR 287000 Mines and Geology(22-23)D

जिला खनन कार्यालय–गुमला। प्रभात खबर 10.1.23

आम सूचना

एतद् द्वारा सर्वसाधारण को सूचित किया जाता है कि गुमला जिला का बालू खनिज का District Survey Report (जिला सर्वेक्षण रिपोर्ट) Enforcement and Monitoring Guidelines for Sand Mining 2020 के आलोक में तैयार कर गुमला जिला के website https://gumla.nic.in में अपलोड किया गया है।

District Survey Report (जिला सर्वेक्षण रिपोर्ट) के संबंध में यदि कोई सुझाव हो, तो 30 दिनों के अन्दर अपना सुझाव जिला खनन कार्यालय, गुमला में (किसी कार्य दिवस) अथवा email: dmo-gumla@jharkhandmail.gov.in पर सूचना उपलब्ध करने की कृपा की जाय।

ह०/–
07.01.2023
जिला खनन पदाधिकारी, गुमला।

PR 287039 Mines and Geology(22-23)D

PRABHAT KHABAR

DATE: 10.01.2023

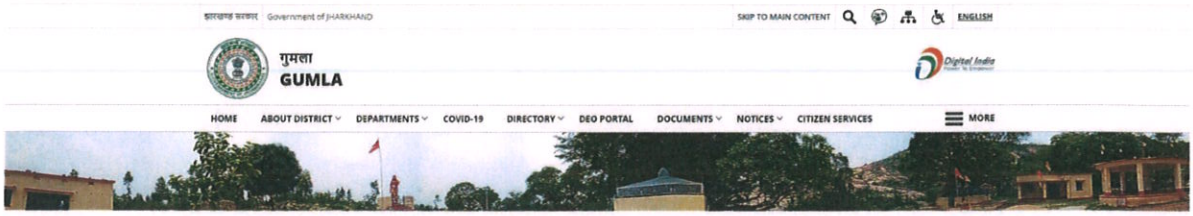


ANNEXURE-10

COPY OF NIC D.C. UPLOAD SCREEN SHOT



NIC UPLOAD



HOME / NOTICES / ANNOUNCEMENTS / Draft DSR Report - DMO Gumla

Draft DSR Report - DMO Gumla

Draft DSR Report - DMO Gumia

Title	Description	Start Date	End Date	File
Draft DSR Report - DMO Gumla	DMO Gumla	07/01/2023	06/02/2023	View (7 MB)

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

ANNEXURE-11

COPY OF SUB-DIVISIONAL COMITTE LETTER



उपायुक्त–सह–जिला दण्डाधिकारी का कार्यालय, गुमला

(खनन शाखा)

–: आदेश :–

पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार, नई दिल्ली के अधिसूचिना सं०–2827, दिनांक 25.07.2018 के आलोक में भूतत्व निदेशालय, झारखण्ड, राँची द्वारा चयनित एजेंसी M/s Atmos Sustainable Solution Pvt. Ltd. द्वारा गुमला जिला के लिए बालू खनिज का DRAFT DSR तैयार किया गया है। एजेंसी द्वारा तैयार DRAFT DSR (बालू) का जाँच (Vetting) कर SEIAA (State Environment Impact Assessement Authority), झारखण्ड, राँची को अग्रसारित करने हेतु अधोहस्ताक्षरी की अध्यक्षता में निम्नवत् समिति का गठन किया जाता है:–

1.	वन प्रमण्डल पदाधिकारी, वन प्रमण्डल, गुमला	–	सदस्य।
2.	अनुमण्डल पदाधिकारी, गुमला / बसिया / चैनपुर	–	सदस्य।
3.	जिला खनन पदाधिकारी, गुमला	–	सदस्य सचिव।
4.	कार्यपालक अभियंता, लघु सिंचाई प्रमण्डल, गुमला।	–	सदस्य।
5.	सहायक निदेशक, भूतत्व, जिला भूतात्विक कार्यालय, गुमला	–	सदस्य।
6.	क्षेत्रीय पदाधिकारी, झारखण्ड राज्य प्रदूषण नियंत्रण पर्षद्, राँची	–	सदस्य।

उपायुक्त,
गुमला।

ज्ञापांक : 113 एम० / दिनांक 25/1/2023

प्रतिलिपिः सभी सदस्यों को अधिसूचना सं० 2827, दिनांक 25.07.2018 एवं DSR की प्रति सअनुलग्नक सूचनार्थ एवं आवश्यक कार्रवाई हेतु प्रेषित।

25.01.23
उपायुक्त,
गुमला।

Level Environment Impact Assessment Authority ★ Ranchi ★ Approved

ANNEXURE-12

INDIVIDUAL TOPOSHEET MAP OF SURVEY OF INDIA



POTENTIAL AREA OF SAND AT SOUTH KOEL RIVER, DISTRICT - GUMLA, OSM TOPOSHEET NO. F45A11



INDEX

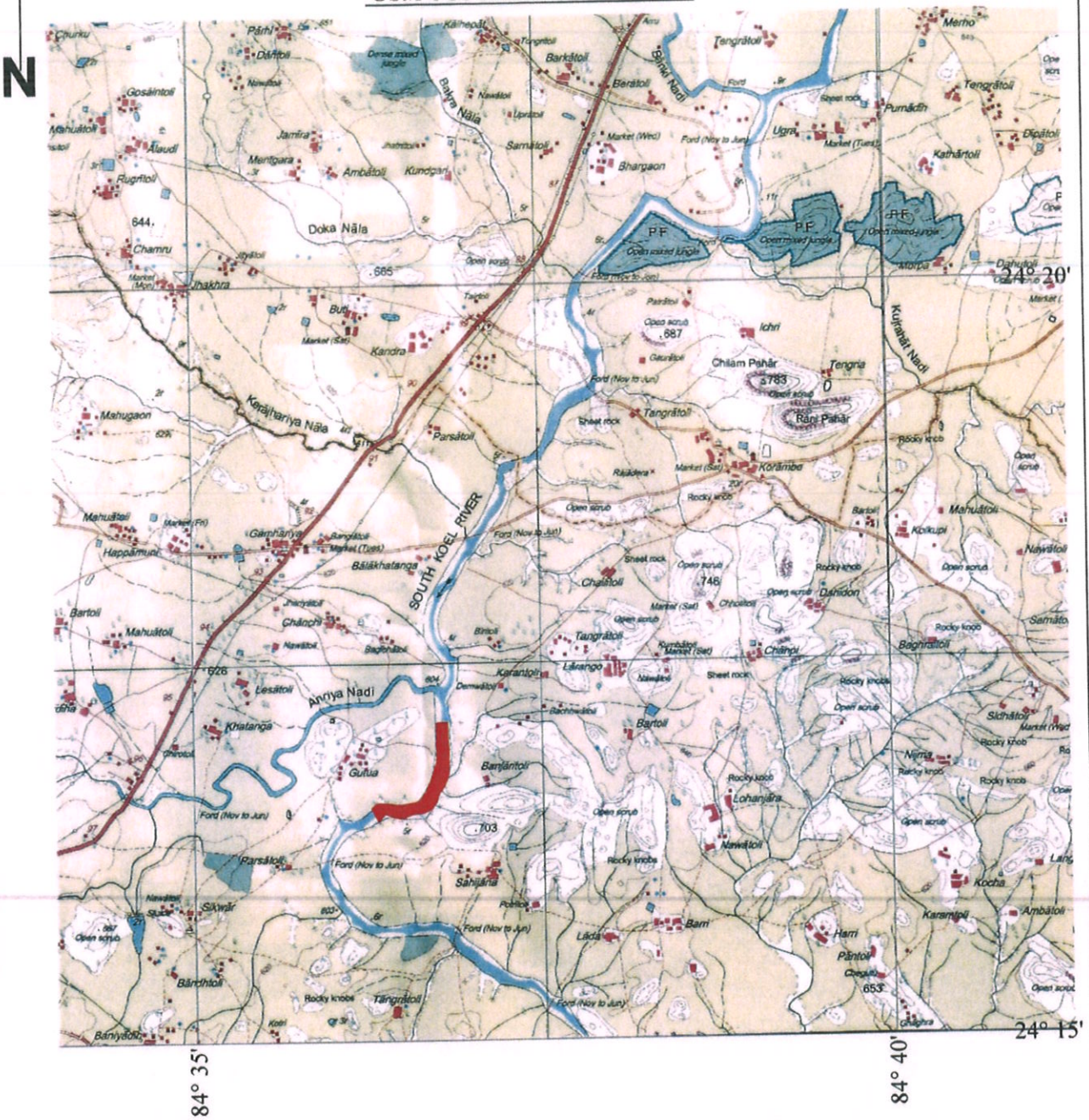
PROPOSED POTENTIAL AREA

SK-01 AREA - 7.85 HA

SCALE - 1:1500

Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

POTENTIAL AREA OF SAND AT SOUTH KOEL RIVER, DISTRICT - GUMLA, OSM TOPOSHEET NO. F45A11

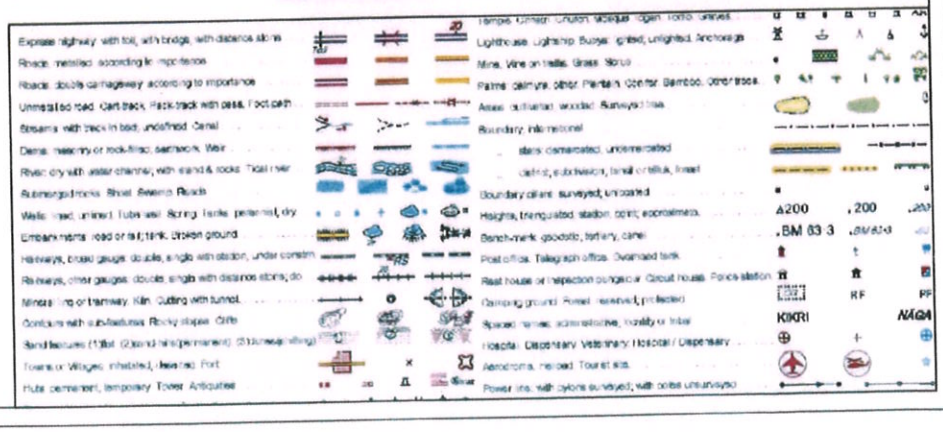


INDEX

PROPOSED POTENTIAL AREA

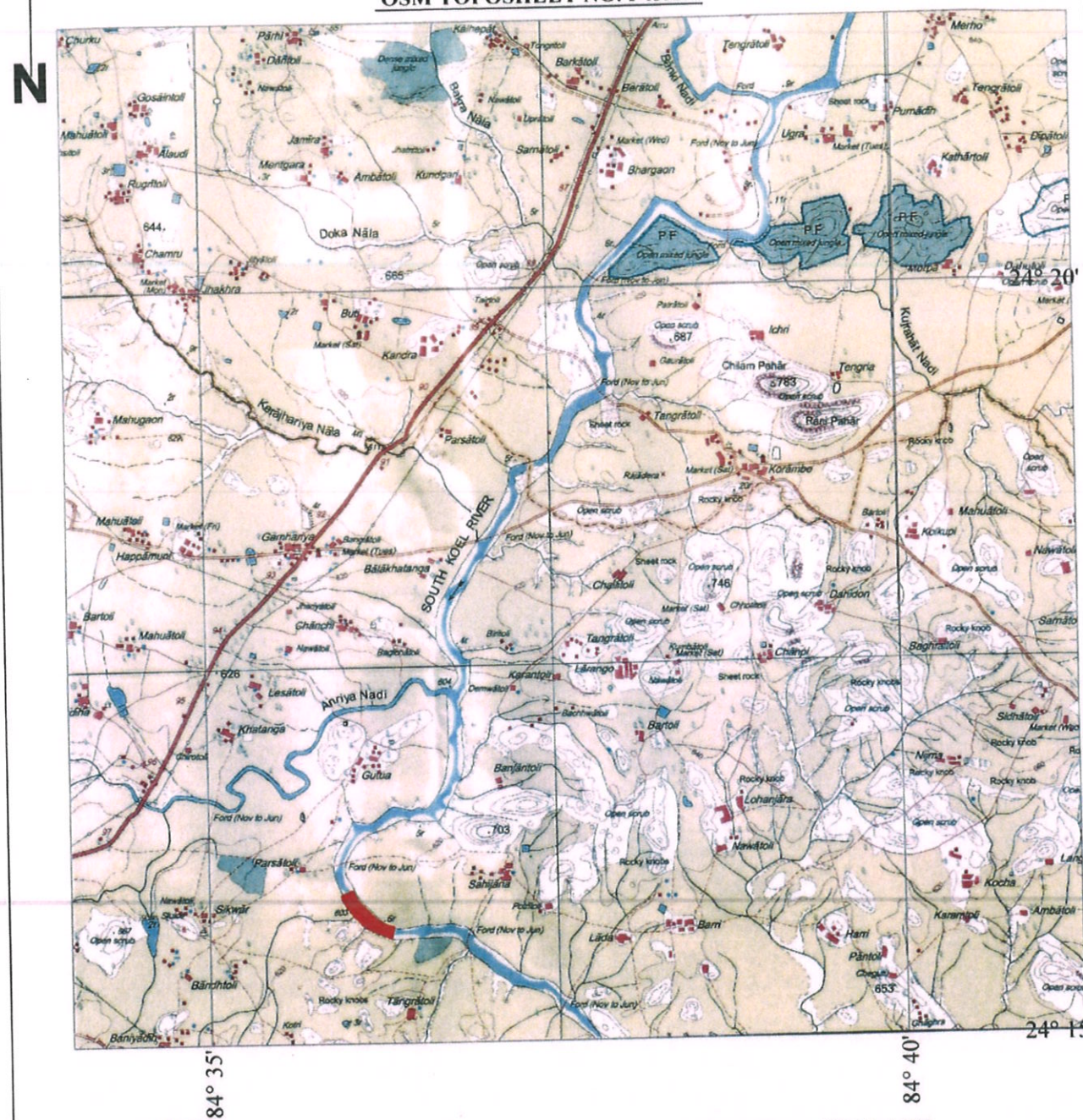
SK-02 AREA - 24.00 HA

SCALE - 1:1500





POTENTIAL AREA OF SAND AT SOUTH KOEL RIVER, DISTRICT - GUMLA, OSM TOPOSHEET NO. F45A11



INDEX

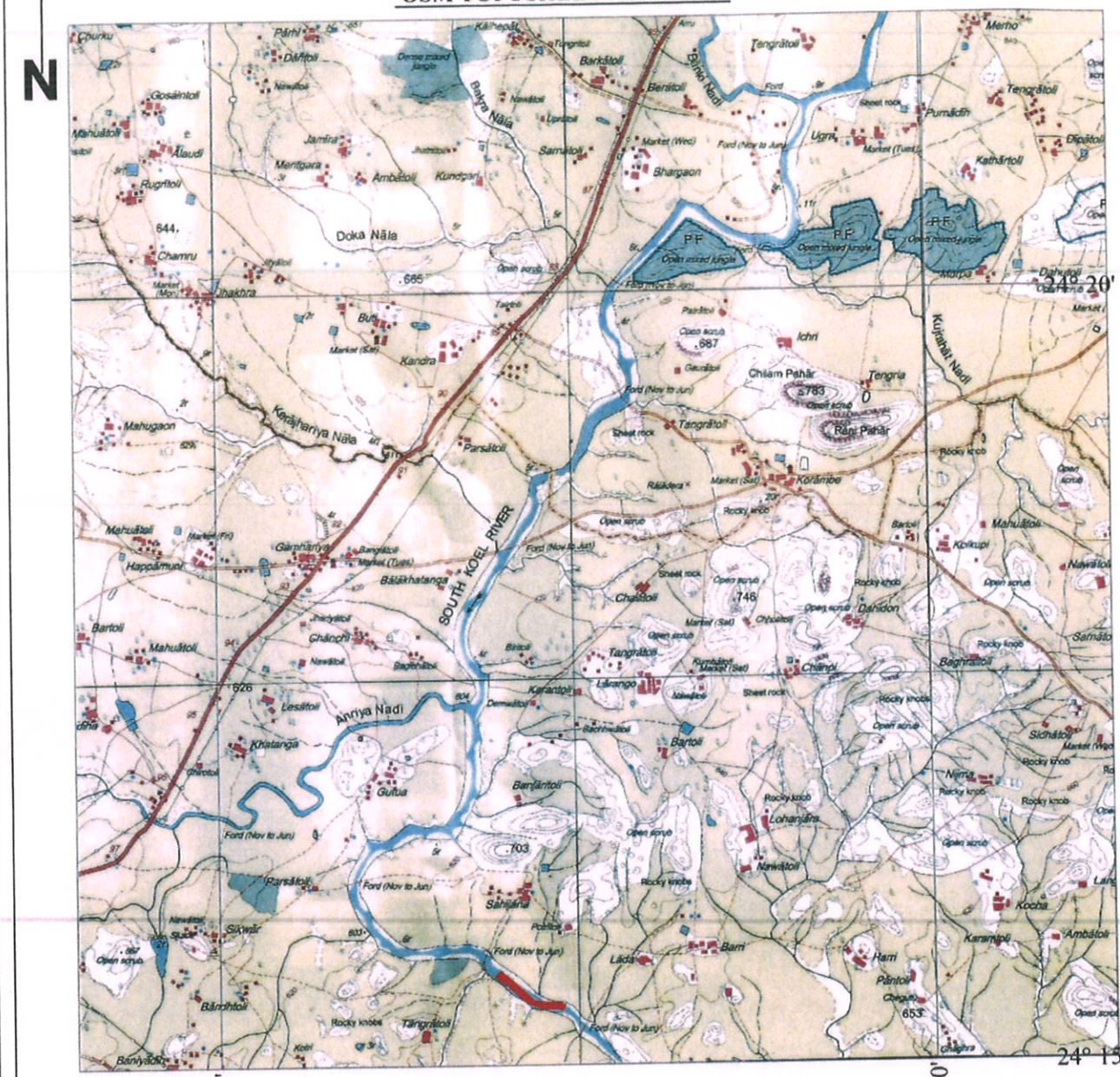
PROPOSED POTENTIAL AREA

SK-03 AREA - 10.00 HA

SCALE - 1:1500

State Level Environment Impact Assessment Authority * Jharkhand, Ranchi *
Approved

POTENTIAL AREA OF SAND AT SOUTH KOEL RIVER, DISTRICT - GUMLA, OSM TOPOSHEET NO. F45A11

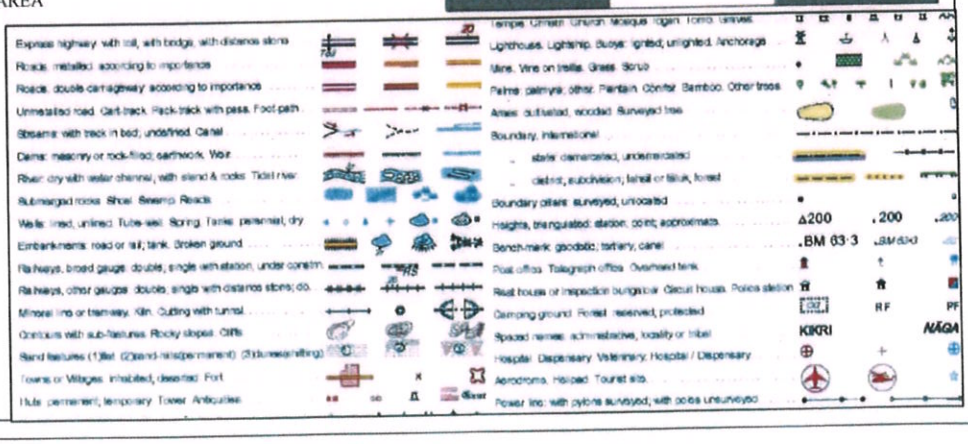


INDEX

PROPOSED POTENTIAL AREA

SK-04 AREA - 5.90 HA

SCALE - 1:1500





POTENTIAL AREA OF SAND AT SOUTH KOEL RIVER, DISTRICT - GUMLA, OSM TOPOSHEET NO. F45A12

N



INDEX

PROPOSED POTENTIAL AREA

SK-05 AREA - 7.00 HA

SCALE - 1:1500

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

POTENTIAL AREA OF SAND AT SOUTH KOEL RIVER, DISTRICT - GUMLA, OSM TOPOSHEET NO. F45A12

N

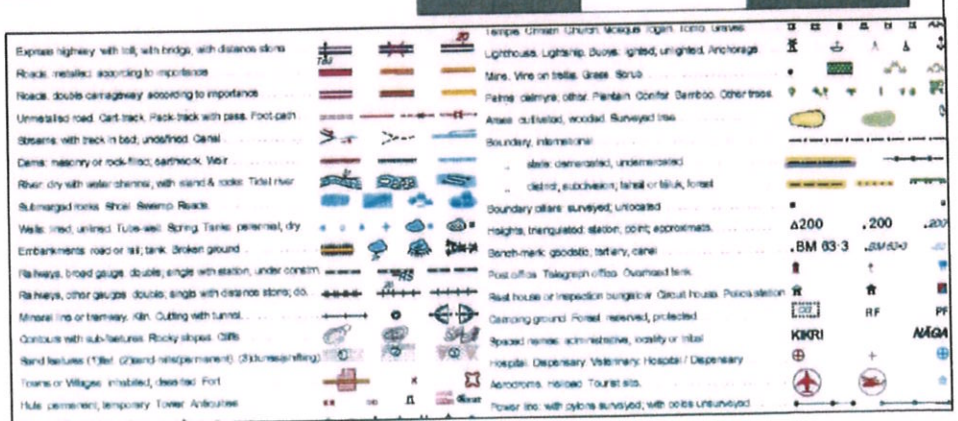


INDEX

PROPOSED POTENTIAL AREA

SK-06 AREA - 8.80 HA

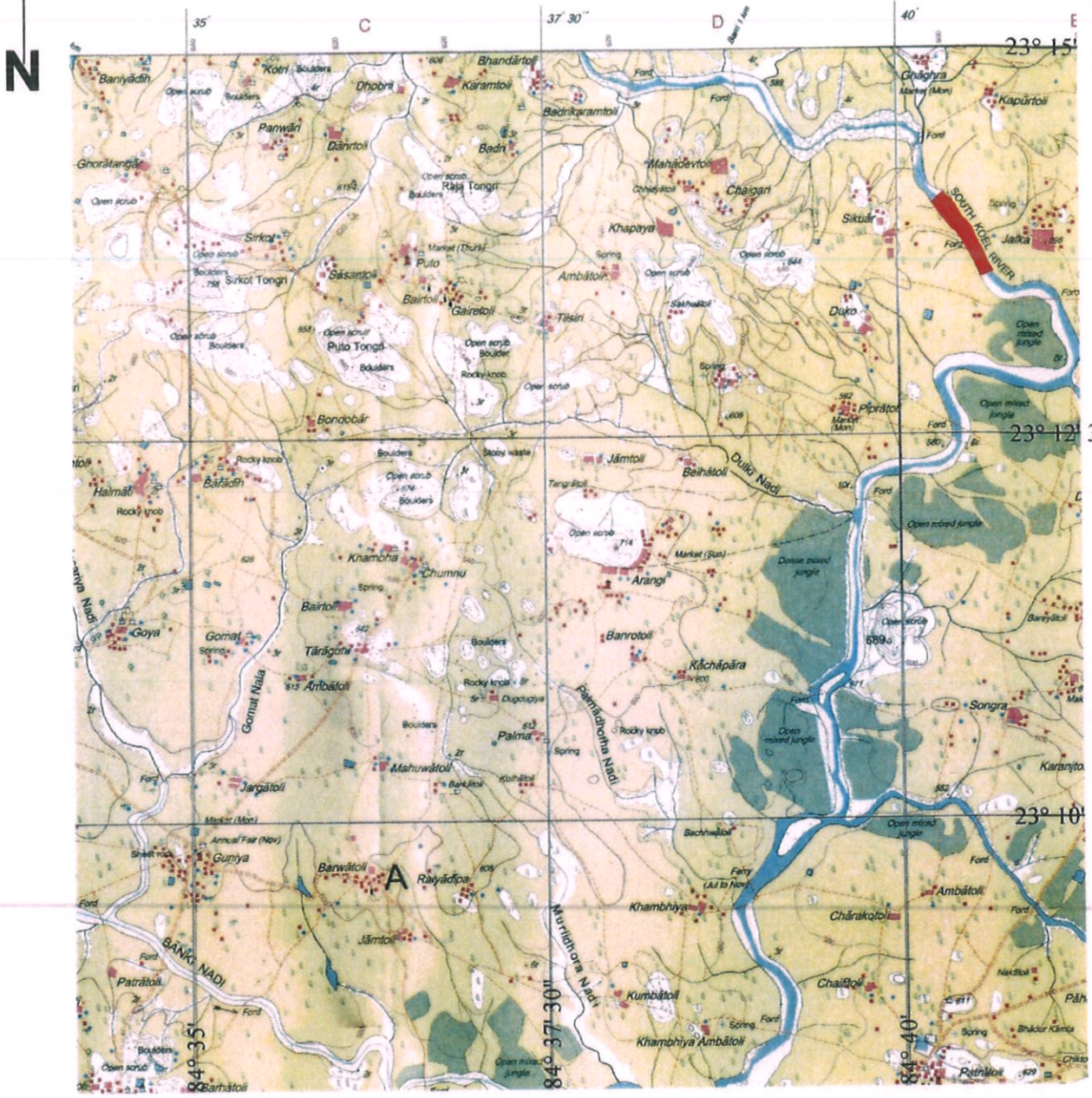
SCALE - 1:1500



State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★

Approved

POTENTIAL AREA OF SAND AT SOUTH KOEL RIVER, DISTRICT - GUMLA, OSM TOPOSHEET NO. F45A12



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PROPOSED POTENTIAL AREA

SK-07 AREA - 16.60 HA

SCALE - 1:1500

Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

POTENTIAL AREA OF SAND AT SOUTH KOEL RIVER, DISTRICT - GUMLA, OSM TOPOSHEET NO. F45A12

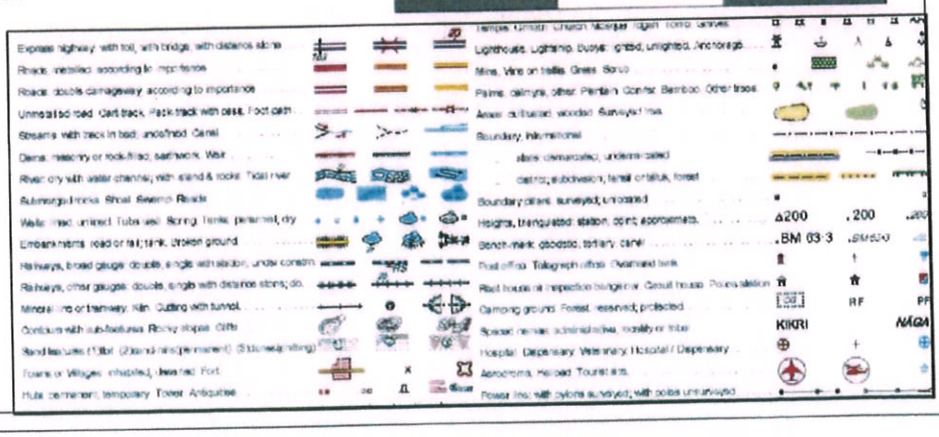


INDEX

PROPOSED POTENTIAL AREA

SK-08 AREA - 16.22 HA

SCALE - 1:1500



State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★

Approved

POTENTIAL AREA OF SAND AT SOUTH KOEL RIVER, DISTRICT - GUMLA, OSM TOPOSHEET NO. F45A12

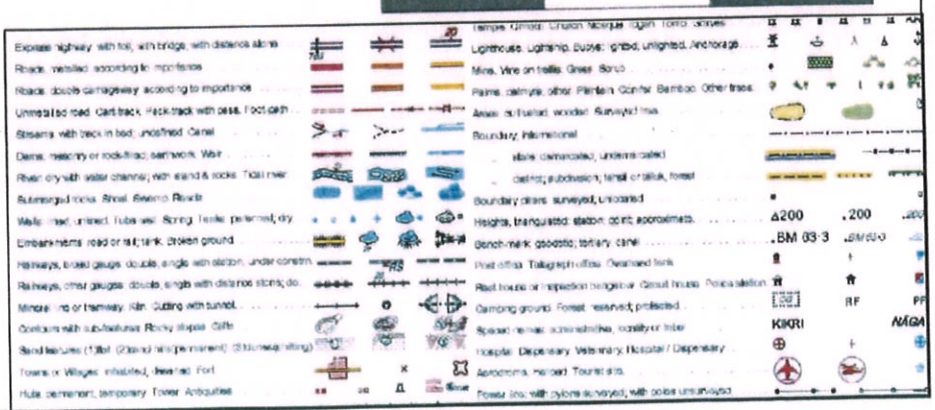


INDEX

PROPOSED POTENTIAL AREA

SK-09 AREA - 14.65 HA

SCALE - 1:1500



Approved

Environment Impact Assessment Authority

Jharkhand, Ranchi

POTENTIAL AREA OF SAND AT SOUTH KOEL RIVER, DISTRICT - GUMLA, OSM TOPOSHEET NO. F45A12

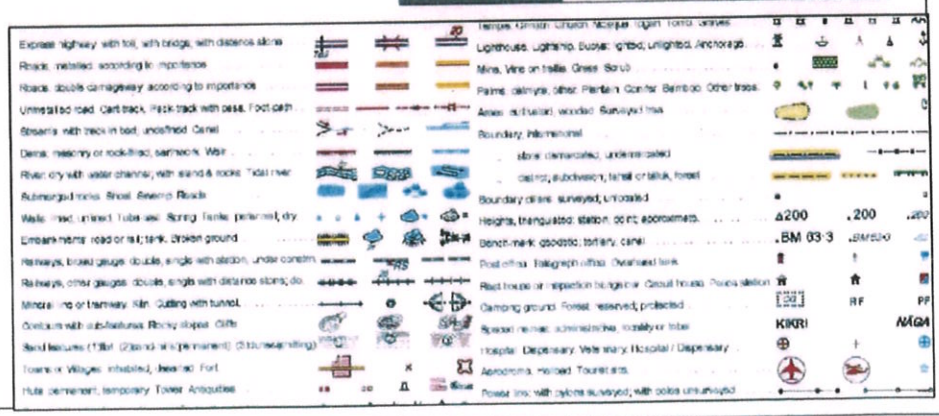


INDEX

PROPOSED POTENTIAL AREA

SK-10 AREA - 17.00 HA

SCALE - 1:1500



Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★ Approved

POTENTIAL AREA OF SAND AT SOUTH KOEL RIVER, DISTRICT - GUMLA, OSM TOPOSHEET NO. F45A12

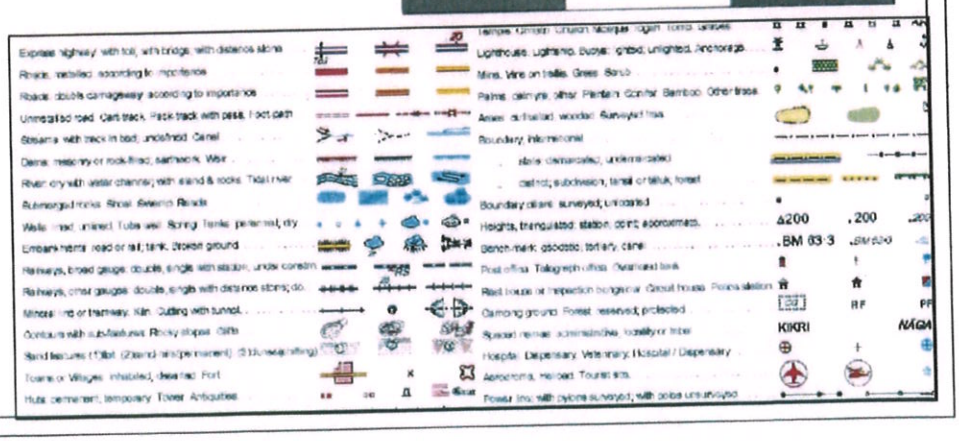


INDEX

PROPOSED POTENTIAL AREA

SK-11 AREA - 13.00 HA

SCALE - 1:1500



Approved

Environment Impact Assessment Authority

Jharkhand, Ranchi

POTENTIAL AREA OF SAND AT SOUTH KOEL RIVER, DISTRICT - GUMLA, OSM TOPOSHEET NO. F45A12



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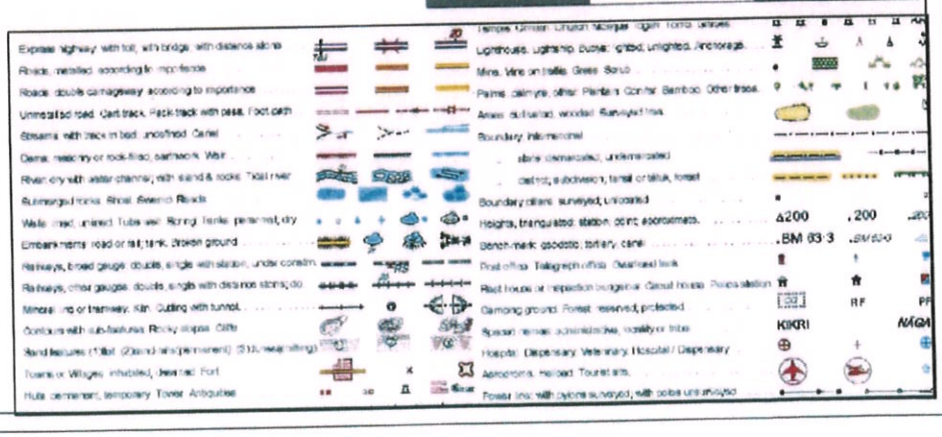
PROPOSED POTENTIAL AREA

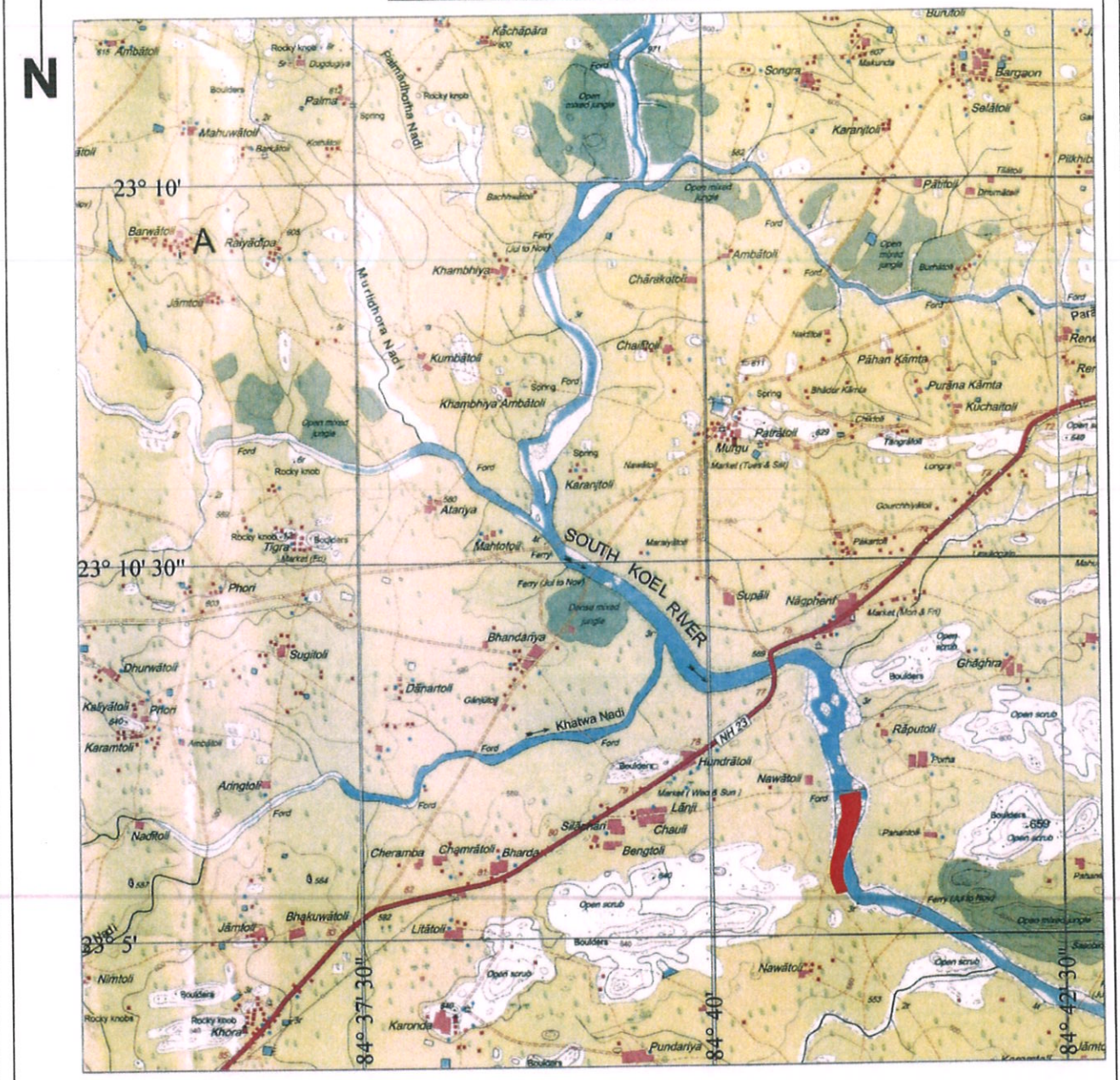
SK-12 AREA - 9.30 HA

SCALE - 1:1500



Environment Impact Assessment Authority
Approved
Ranchi

POTENTIAL AREA OF SAND AT SOUTH KOEL RIVER, DISTRICT - GUMLA, OSM TOPOSHEET NO. F45A12



INDEX

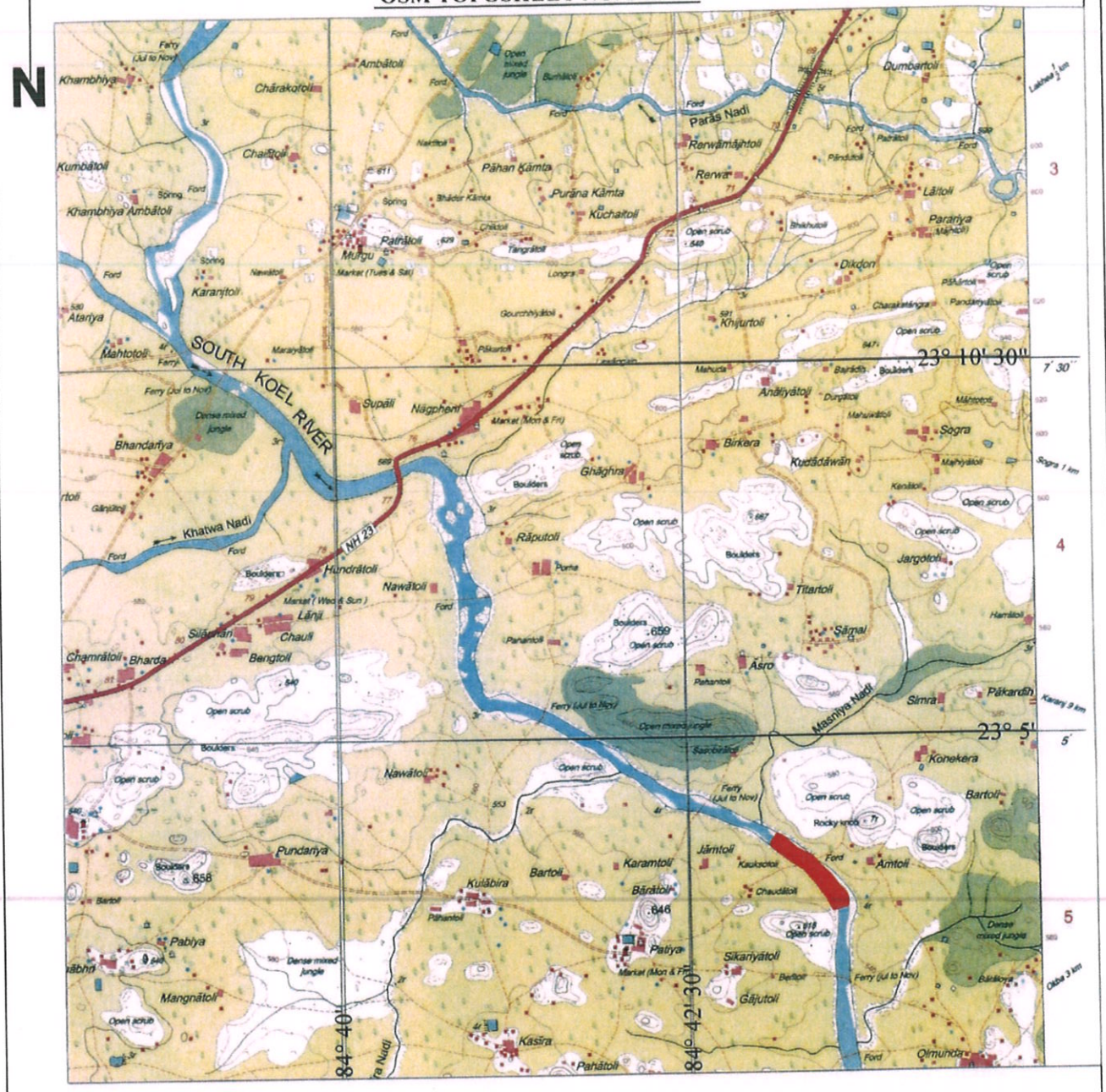
PROPOSED POTENTIAL AREA

SK-13 AREA - 18.20 HA

SCALE - 1:1500

Environment Impact Assessment Authority
Approved
Ranchi

POTENTIAL AREA OF SAND AT SOUTH KOEL RIVER, DISTRICT - GUMLA, OSM TOPOSHEET NO. F45A12

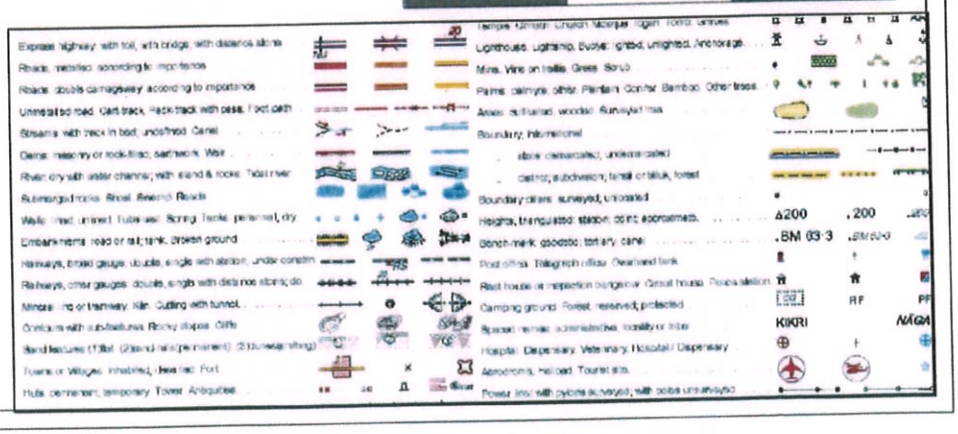


INDEX

PROPOSED POTENTIAL AREA

SK-14 AREA - 21.20 HA

SCALE - 1:1500



State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★
Approved

POTENTIAL AREA OF SAND AT SOUTH KOEL RIVER, DISTRICT - GUMLA, OSM TOPOSHEET NO. F45A12

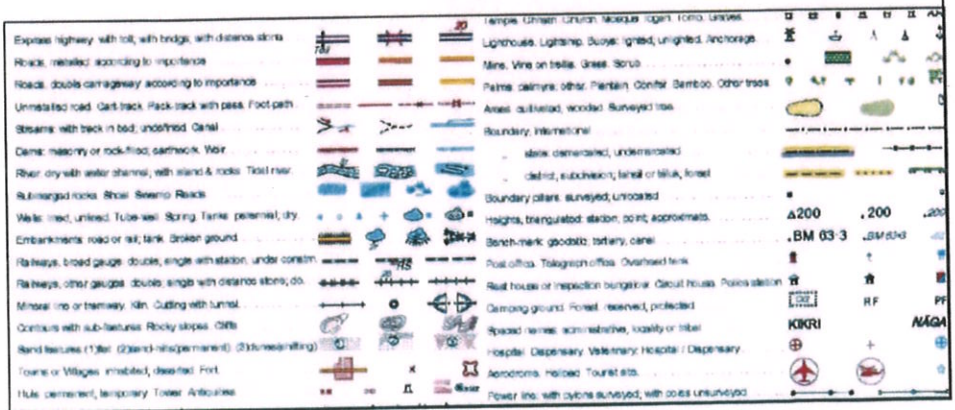


INDEX

PROPOSED POTENTIAL AREA

SK-15 AREA - 13.50 HA

SCALE - 1:1500



Approved
Jharkhand, Ranchi

POTENTIAL AREA OF SAND AT SOUTH KOEL RIVER, DISTRICT - GUMLA, OSM TOPOSHEET NO. F45A12

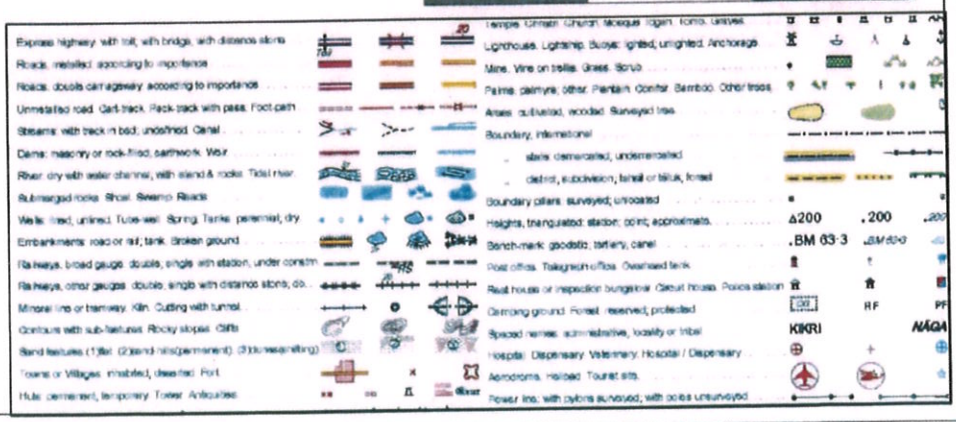


INDEX

PROPOSED POTENTIAL AREA

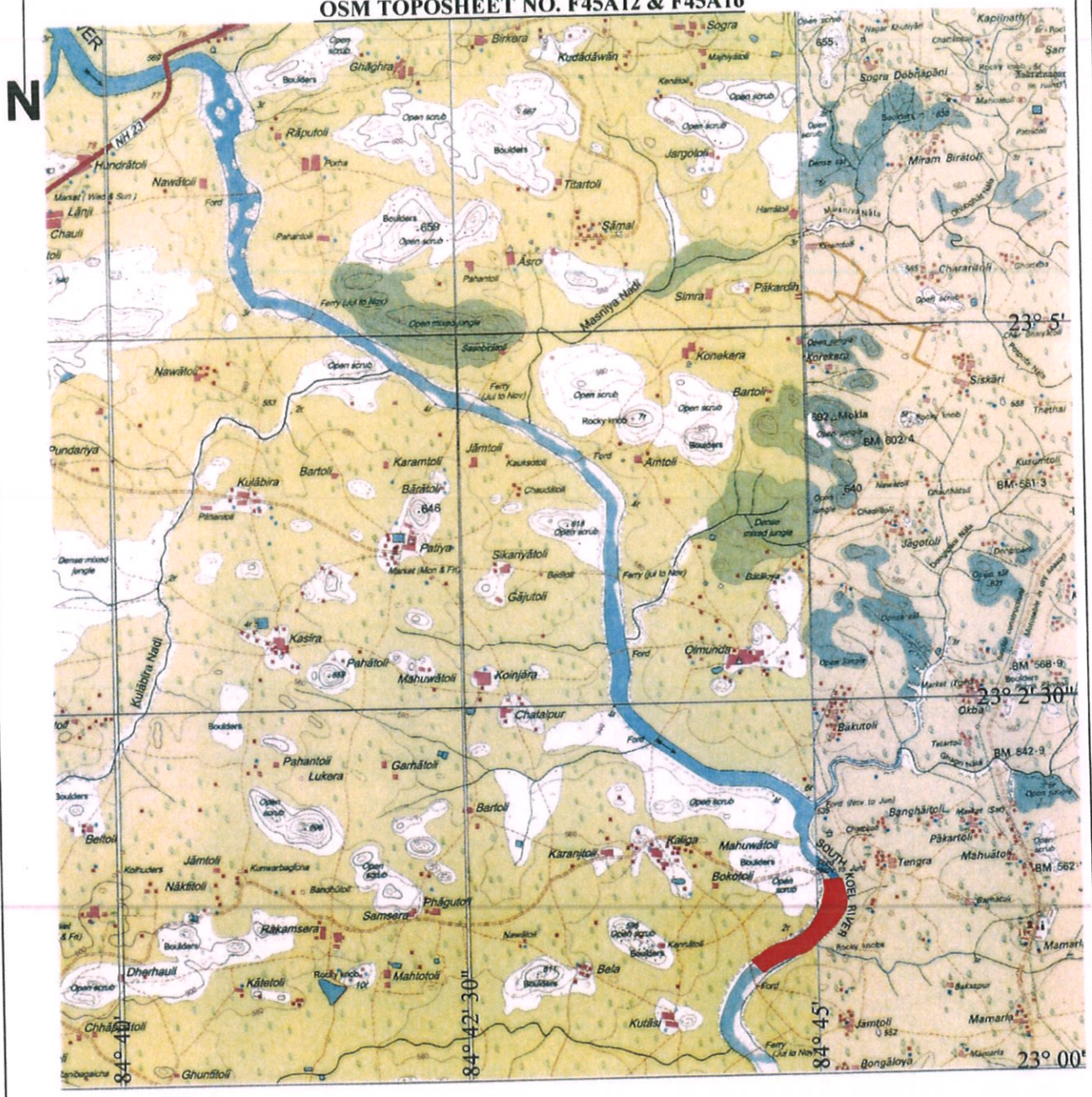
SK-16 AREA - 27.00 HA

SCALE - 1:1500



Environment Impact Assessment Authority
Approved
Ranchi

POTENTIAL AREA OF SAND AT SOUTH KOEL RIVER, DISTRICT - GUMLA, OSM TOPOSHEET NO. F45A12 & F45A16

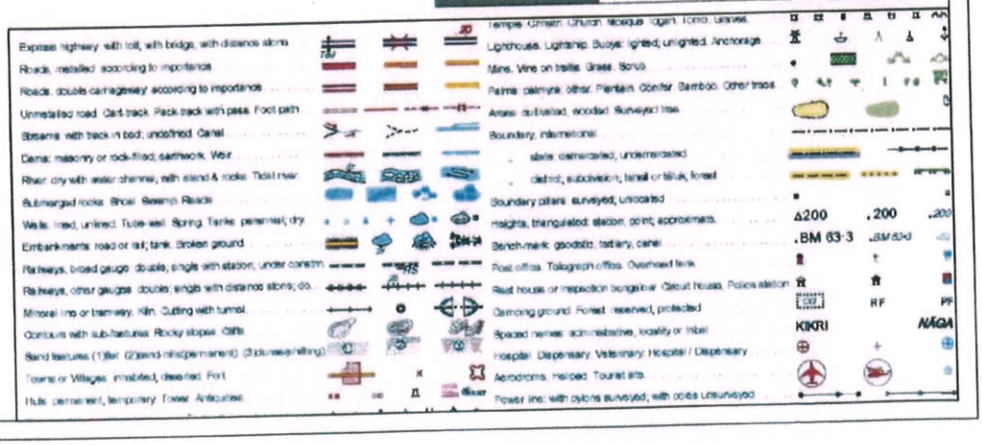


INDEX

PROPOSED POTENTIAL AREA

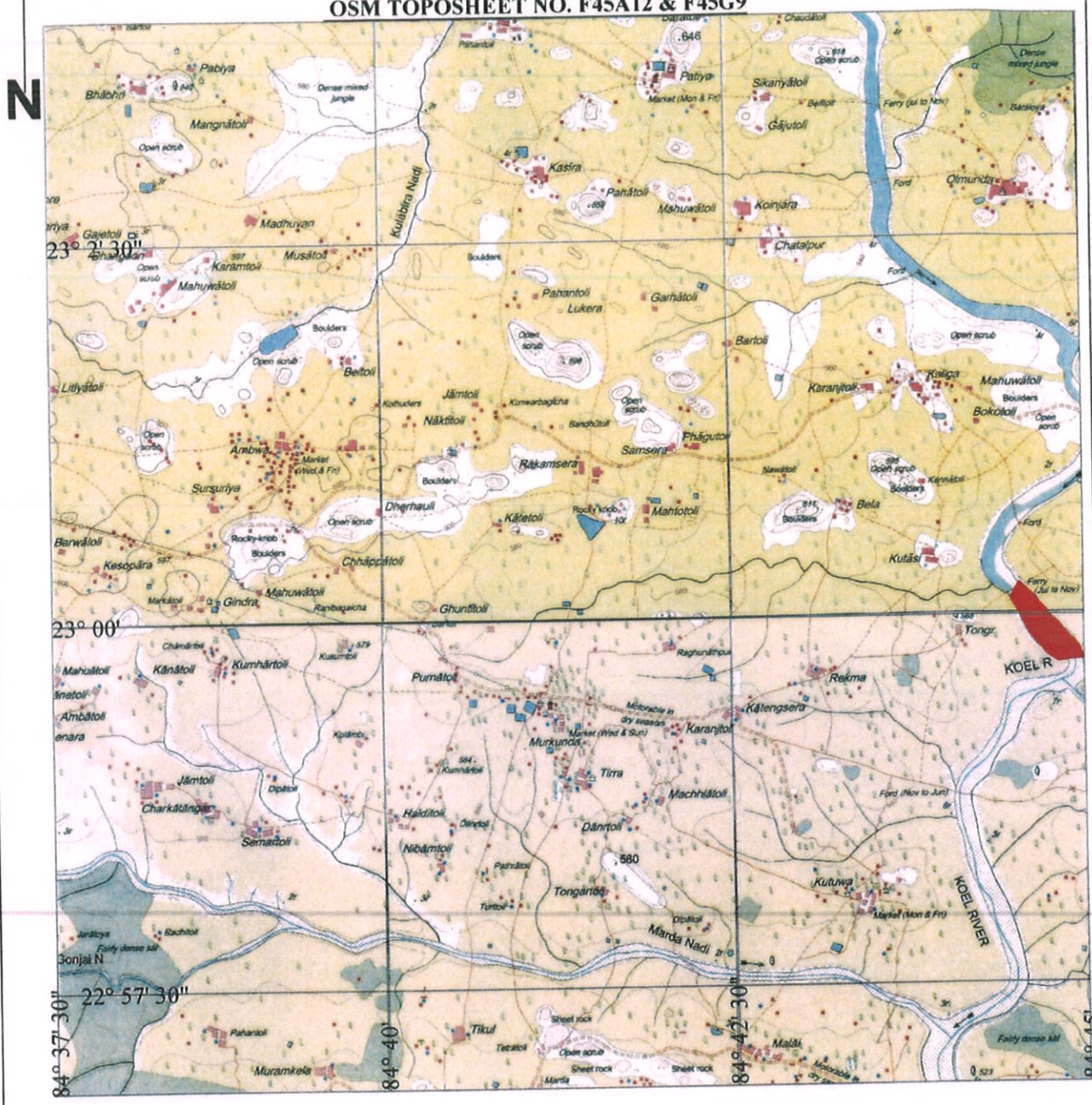
SK-17 AREA - 31.50 HA

SCALE - 1:1500





POTENTIAL AREA OF SAND AT SOUTH KOEL RIVER, DISTRICT - GUMLA, OSM TOPOSHEET NO. F45A12 & F45G9

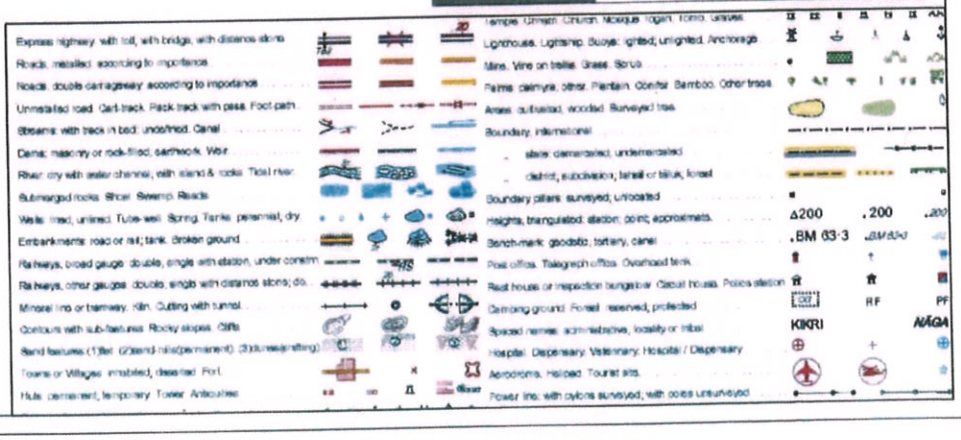


INDEX

PROPOSED POTENTIAL AREA

SK-18 AREA - 31.00 HA

SCALE - 1:1500



Environment Impact Assessment Authority
Approved
Khand, Ranchi

POTENTIAL AREA OF SAND AT SOUTH KOEL RIVER, DISTRICT - GUMLA, OSM TOPOSHEET NO. F45G9

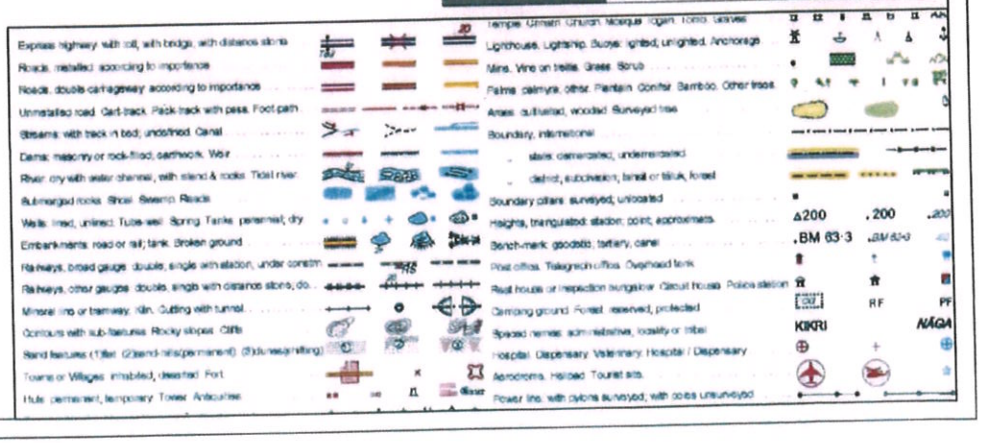


INDEX

PROPOSED POTENTIAL AREA

SK-19 AREA - 30.50 HA

SCALE - 1:1500



Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

POTENTIAL AREA OF SAND AT SOUTH KOEL RIVER, DISTRICT - GUMLA, OSM TOPOSHEET NO. F45G13



INDEX

PROPOSED POTENTIAL AREA

SK-20 AREA - 18.70 HA

SCALE - 1:1500

Approved

Environment Impact Assessment Authority

Jharkhand, Ranchi

POTENTIAL AREA OF SAND AT SOUTH KOEL RIVER, DISTRICT - GUMLA, OSM TOPOSHEET NO. F45G13

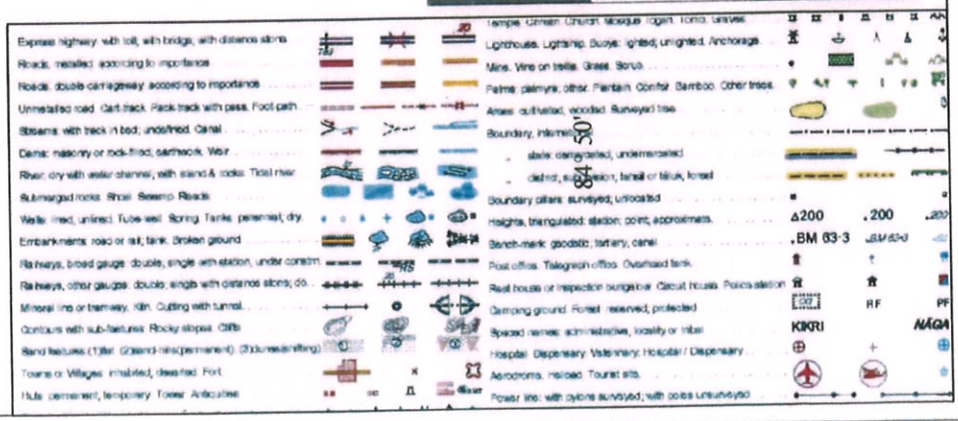


INDEX

PROPOSED POTENTIAL AREA

SK-21 AREA - 7.00 HA

SCALE - 1:1500



Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

POTENTIAL AREA OF SAND AT SANKH RIVER, DISTRICT - GUMLA, OSM TOPOSHEET NO. F45A4

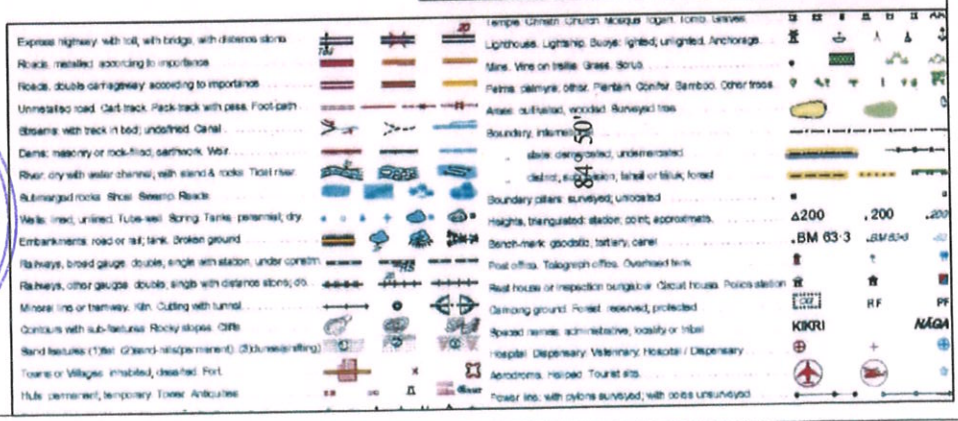


INDEX

PROPOSED POTENTIAL AREA

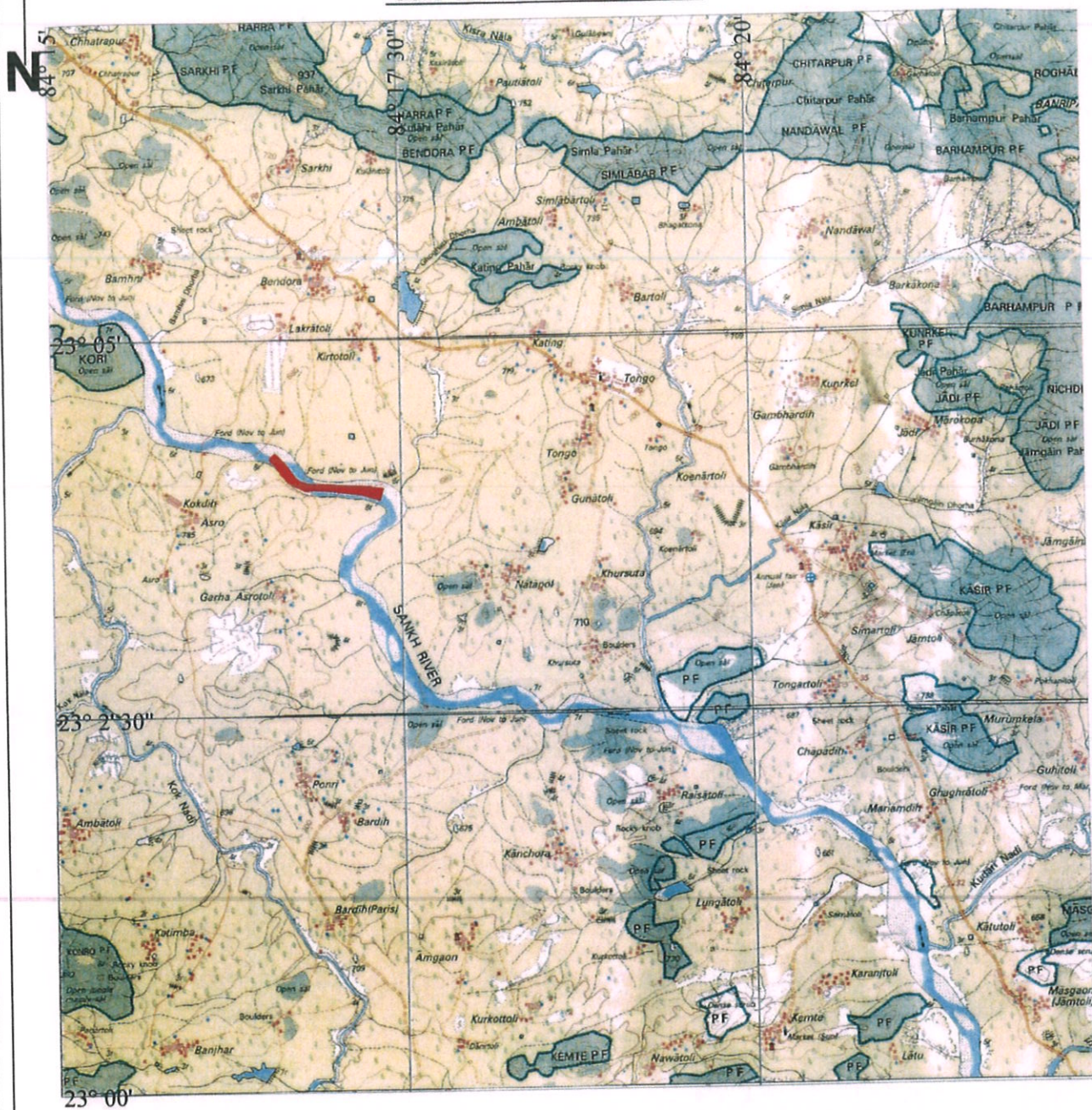
SH-01 AREA - 10.00 HA

SCALE - 1:1500



State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★
Approved

POTENTIAL AREA OF SAND AT SANKH RIVER, DISTRICT - GUMLA, OSM TOPOSHEET NO. F45A8



INDEX

PROPOSED POTENTIAL AREA

SH-02 AREA - 12.30 HA

SCALE - 1:1500

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POTENTIAL AREA OF SAND AT SANKH RIVER, DISTRICT - GUMLA, OSM TOPOSHEET NO. F45A8

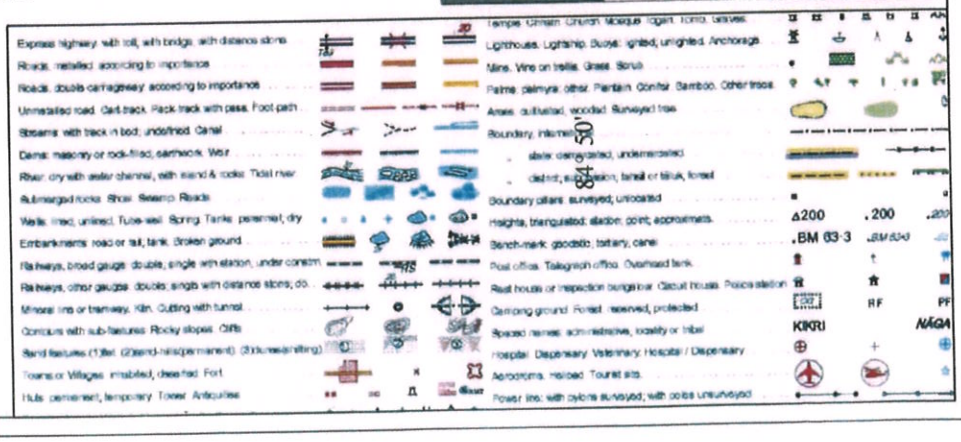


INDEX

PROPOSED POTENTIAL AREA

SH-03 AREA - 16.00 HA

SCALE - 1:1500



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POTENTIAL AREA OF SAND AT SANKH RIVER, DISTRICT - GUMLA, OSM TOPOSHEET NO. F45A8



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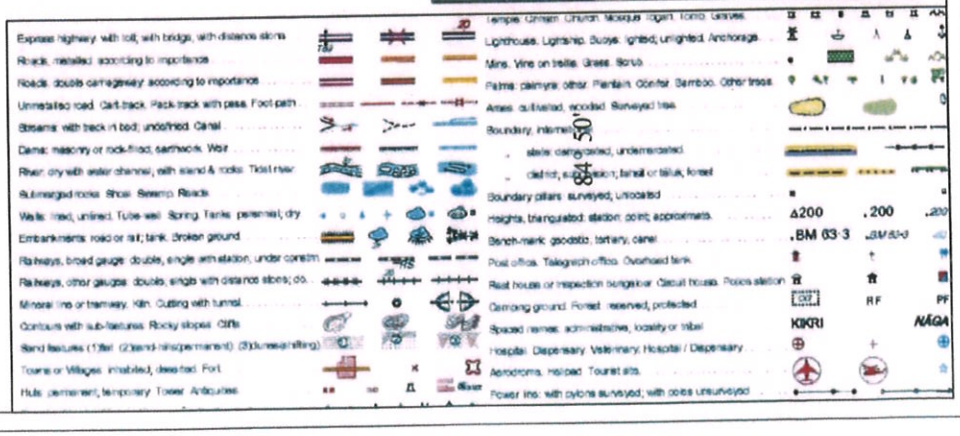
PROPOSED POTENTIAL AREA

SH-04 AREA - 3.80 HA

SCALE - 1:1500



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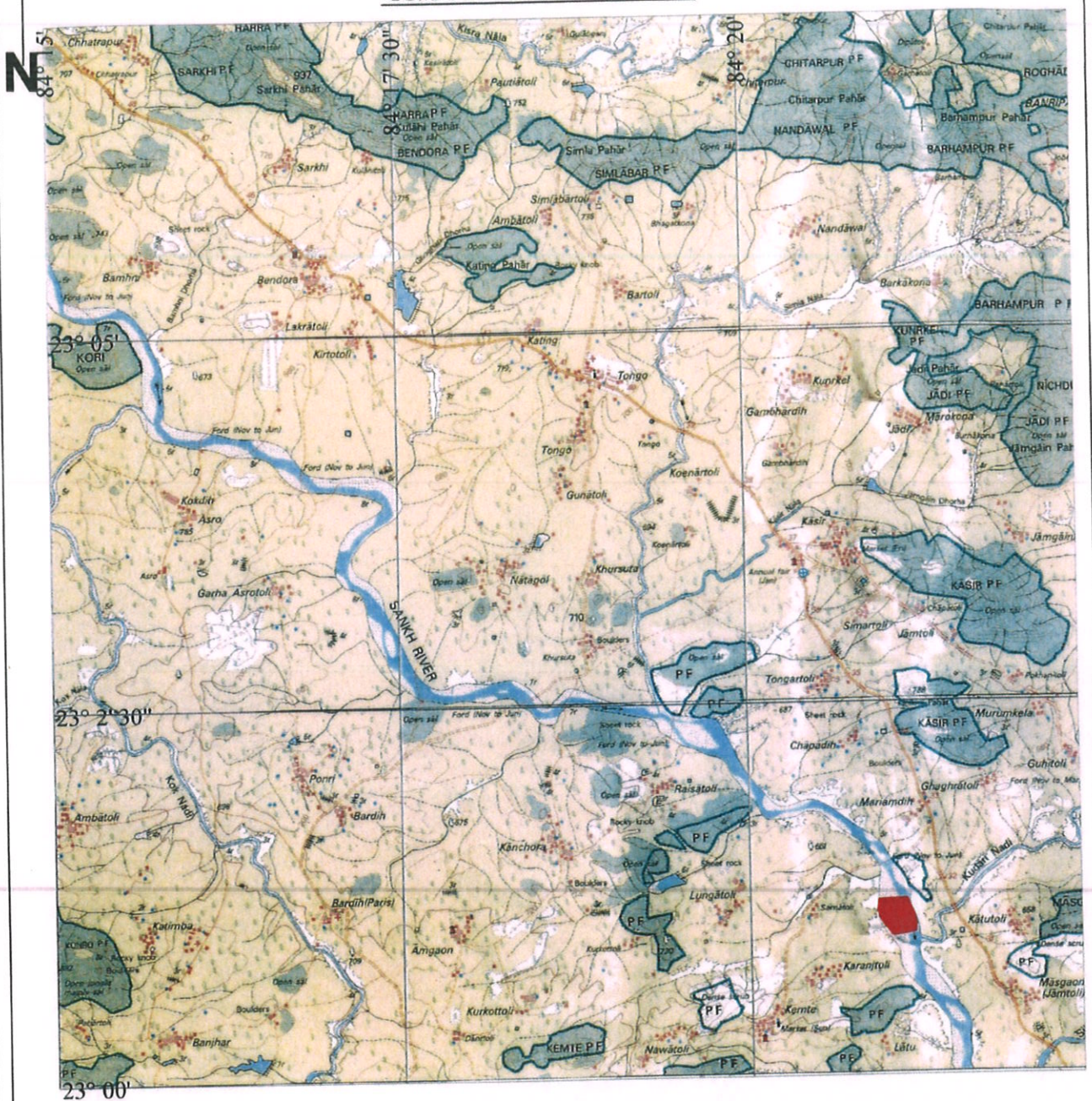
POTENTIAL AREA OF SAND AT SANKH RIVER, DISTRICT - GUMLA, OSM TOPOSHEET NO. F45A8

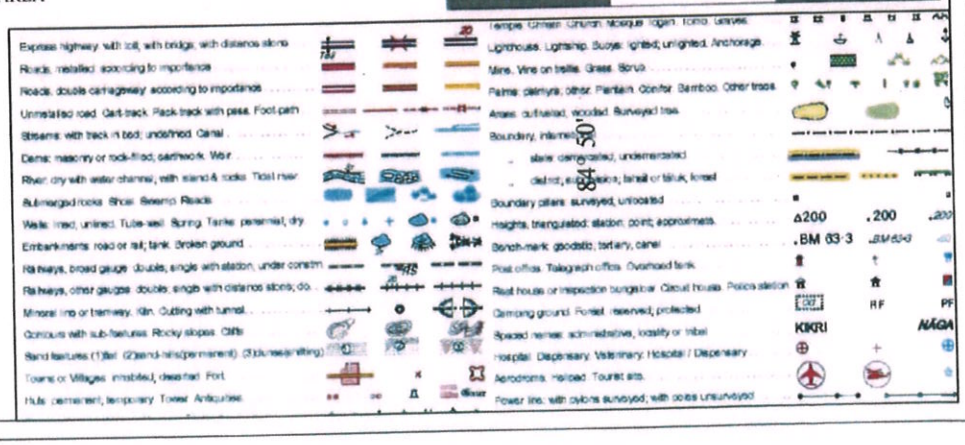


INDEX

PROPOSED POTENTIAL AREA

SH-05 AREA - 16.00 HA

SCALE - 1:1500





POTENTIAL AREA OF SAND AT SANKH RIVER, DISTRICT - GUMLA, OSM TOPOSHEET NO. F45A8 & F45G5



INDEX

PROPOSED POTENTIAL AREA

SH-06 AREA - 8.30 HA

SCALE - 1:1500

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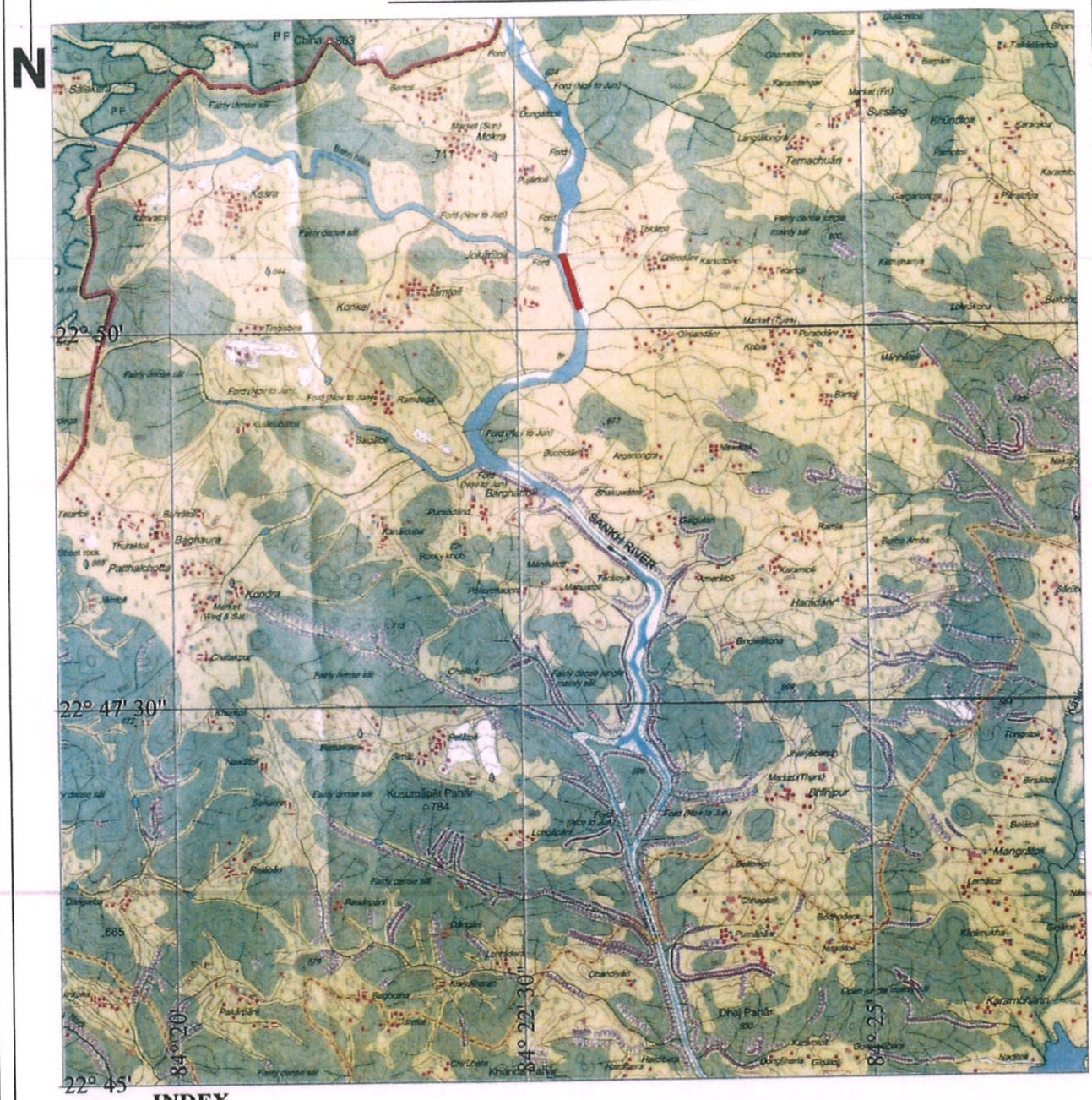
POTENTIAL AREA OF SAND AT SANKH RIVER, DISTRICT - GUMLA, OSM TOPOSHEET NO. F45G5

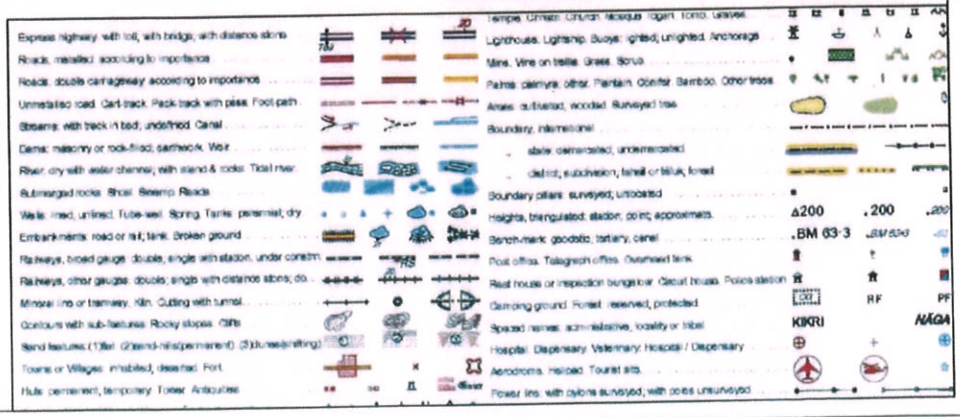


INDEX

PROPOSED POTENTIAL AREA

SH-07 AREA - 4.05 HA

SCALE - 1:1500



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ANNEXURE-13

COMPOSITE MAP OF TOPOSHEET MAP OF SURVEY OF INDIA



ANNEXURE-14

SATELLITE MAP OF PRE-MONSOON AND POST-MONSOON MAP

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ZONE WISE

ANNEXURE-15

REPLENISHMENT STUDY OF PRE-MONSOON AND POST MONSOON DATA



SOUTH KOEL RIVER OF GUMA DISTRICT											
PRE MONSOON					POST MONSOON						
S.NO	UIN SAND BAR	AMSL	AREA IN SQM	AREA IN HA.	UIN SAND BAR	AMSL	AREA IN SQM	AREA IN HA.	THICKNESS OF SAND IN MTR	VOLUME IN CUM	VOL IN M CUM
1	GUM_SK_PRE_01	606.67	436191	43.62	GUM_SK_POS_01	606.9	436193	43.62	0.23	100324	0.1003
2	GUM_SK_PRE_02	604.65	303895	30.39	GUM_SK_POS_02	604.83	303899	30.39	0.18	54702	0.0547
3	GUM_SK_PRE_03	602.73	182989	18.30	GUM_SK_POS_03	602.91	182991	18.30	0.18	32938	0.0329
4	GUM_SK_PRE_04	600.48	130915	13.09	GUM_SK_POS_04	600.78	130917	13.09	0.30	39275	0.0393
5	GUM_SK_PRE_05	594.46	353944	35.39	GUM_SK_POS_05	594.83	353946	35.39	0.37	130960	0.1310
6	GUM_SK_PRE_06	585.92	401561	40.16	GUM_SK_POS_06	586.45	401564	40.16	0.53	212829	0.2128
7	GUM_SK_PRE_07	581.91	991809	99.18	GUM_SK_POS_07	582.5	991812	99.18	0.59	585169	0.5852
8	GUM_SK_PRE_08	576.81	171530	17.15	GUM_SK_POS_08	577.39	171534	17.15	0.58	99490	0.0995
9	GUM_SK_PRE_09	572.45	239108	23.91	GUM_SK_POS_09	572.68	239111	23.91	0.23	54996	0.0550
10	GUM_SK_PRE_10	562.33	358060	35.81	GUM_SK_POS_10	562.84	358063	35.81	0.51	182612	0.1826
11	GUM_SK_PRE_11	559.27	368111	36.81	GUM_SK_POS_11	559.83	368114	36.81	0.56	206144	0.2061
12	GUM_SK_PRE_12	544.34	275138	27.51	GUM_SK_POS_12	544.56	275140	27.51	0.22	60531	0.0605
13	GUM_SK_PRE_13	543.16	191302	19.13	GUM_SK_POS_13	543.65	191306	19.13	0.49	93740	0.0937
14	GUM_SK_PRE_14	539.24	609548	60.95	GUM_SK_POS_14	539.78	609551	60.96	0.54	329158	0.3292
15	GUM_SK_PRE_15	537.74	439045	43.90	GUM_SK_POS_15	538.82	439048	43.90	1.08	474172	0.4742
16	GUM_SK_PRE_16	536.15	168870	16.89	GUM_SK_POS_16	536.58	168873	16.89	0.43	72615	0.0726
17	GUM_SK_PRE_17	532.95	422470	42.25	GUM_SK_POS_17	533.38	422473	42.25	0.43	181663	0.1817
18	GUM_SK_PRE_18	530.50	411294	41.13	GUM_SK_POS_18	530.98	411297	41.13	0.48	197423	0.1974
19	GUM_SK_PRE_19	528.08	139941	13.99	GUM_SK_POS_19	529.14	139945	13.99	1.06	148342	0.1483
20	GUM_SK_PRE_20	527.35	481602	48.16	GUM_SK_POS_20	527.87	481607	48.16	0.52	250436	0.2504
21	GUM_SK_PRE_21	524.04	286820	28.68	GUM_SK_POS_21	525.09	286822	28.68	1.05	301163	0.3012
22	GUM_SK_PRE_22	516.67	147559	14.76	GUM_SK_POS_22	517.71	147562	14.76	1.04	153464	0.1535
23	GUM_SK_PRE_23	513.85	188992	18.90	GUM_SK_POS_23	514.88	188995	18.90	1.03	194665	0.1947
24	GUM_SK_PRE_24	506.48	367965	36.80	GUM_SK_POS_24	506.83	367969	36.80	0.35	128789	0.1288
25	GUM_SK_PRE_25	466.92	225519	22.55	GUM_SK_POS_25	467.85	225521	22.55	0.93	209735	0.2097
26	GUM_SK_PRE_26	465.94	210920	21.09	GUM_SK_POS_26	466.31	210922	21.09	0.37	78041	0.0780
				850.51			**8505175**	**850.52**		**4573375**	**4.5734**

SANKH RIVER OF GUMLA DISTRICT											
PRE MONSOON					POST MONSOON						
S.NO	UIN SAND BAR	AMSL	AREA IN SQM	AREA IN HA.	UIN SAND BAR	AMSL	AREA IN SQM	AREA IN HA.	THICKNESS OF SAND IN MTR	VOLUME IN CUM	VOL IN M CUM
1	GUM_SH_PRE_01	717.78	69654	6.97	GUM_SK_POS_01	718.06	69659	6.97	0.28	19505	0.0195
2	GUM_SH_PRE_02	707.79	169499	16.95	GUM_SK_POS_02	707.93	169501	16.95	0.14	23730	0.0237
3	GUM_SH_PRE_03	704.38	182100	18.21	GUM_SK_POS_03	705.02	182101	18.21	0.64	116545	0.1165
4	GUM_SH_PRE_04	703.36	42522	4.25	GUM_SK_POS_04	704.06	42527	4.25	0.70	29769	0.0298
5	GUM_SH_PRE_05	689.02	71970	7.20	GUM_SK_POS_05	689.71	71972	7.20	0.69	49661	0.0497
6	GUM_SH_PRE_06	675.01	147040	14.70	GUM_SK_POS_06	675.61	147042	14.70	0.60	88225	0.0882
7	GUM_SH_PRE_07	669.17	212580	21.26	GUM_SK_POS_07	669.84	212583	21.26	0.67	142431	0.1424
8	GUM_SH_PRE_08	666.28	427862	42.79	GUM_SK_POS_08	666.81	427865	42.79	0.53	226768	0.2268
9	GUM_SH_PRE_09	661.10	355630	35.56	GUM_SK_POS_09	661.57	355631	35.56	0.47	167147	0.1671
10	GUM_SH_PRE_10	650.21	105732	10.57	GUM_SK_POS_10	650.47	105736	10.57	0.26	27491	0.0275
11	GUM_SH_PRE_11	646.88	295121	29.51	GUM_SK_POS_11	647.40	295125	29.51	0.52	153465	0.1535
12	GUM_SH_PRE_12	643.18	201760	20.18	GUM_SK_POS_12	643.50	201763	20.18	0.32	64564	0.0646
13	GUM_SH_PRE_13	640.74	285776	28.58	GUM_SK_POS_13	641.39	285779	28.58	0.65	185756	0.1858
14	GUM_SH_PRE_14	632.79	234160	23.42	GUM_SK_POS_14	633.30	234162	23.42	0.51	119423	0.1194
15	GUM_SH_PRE_15	616.37	150641	15.06	GUM_SK_POS_15	616.93	150645	15.06	0.56	84361	0.0844
				295.20			**2952091**	**295.21**		**1498840**	**1.4988**

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ESTIMATED POTENTIAL AREA OF SAND BAR OF PRE-MONSOON AND POST MONSOON PERIOD												
SAND REPLENISHMENT ESTIMATION SHEET AS PER GSDA												
PRE MONSOON DATA					POST MONSOON DATA							
SOUTH KOEL RIVER					SOUTH KOEL RIVER							
UIN OF SAND BAR	AMSL	AVG AMSL	AREA IN SQM	RIVER WIDTH IN MTR	UIN OF SAND BAR	LATITUDE (N)	LONGITUDE (E)	AMSL	AVG AMSL	AREA IN SQM	SAND THICKNESS IN MTR	VOLUME IN M CUM
GUM_SK_PRE_01	606.53	606.67	436191	194	GUM_SK_POS_01	23.313144	84.620001	606.77	606.9	436193	0.23	0.1003
	606.22					23.31285	84.620221	606.46				
	606.48					23.312513	84.620606	606.72				
	606.60					23.312226	84.620939	606.84				
	608.74					23.311771	84.621514	608.98				
	610.52					23.311483	84.621853	610.76				
	606.88					23.311515	84.62102	607.12				
	605.82					23.311562	84.620446	606.07				
	605.76					23.311613	84.620063	606.01				
	607.78					23.311635	84.619709	608.02				
	605.84					23.311133	84.620105	606.08				
	606.22					23.310694	84.620521	606.46				
	607.72					23.31019	84.621123	607.97				
	605.50					23.310235	84.620385	605.75				
	605.73					23.310268	84.619768	605.98				
	607.46					23.310255	84.619164	607.70				
	606.20					23.309939	84.619609	606.44				
	604.95					23.309627	84.620069	605.20				
	607.71					23.30919	84.620628	607.96				
	604.99					23.309107	84.619996	605.23				
	607.23					23.309097	84.619471	607.47				
	609.42					23.309148	84.618964	609.67				
	611.00					23.309097	84.618474	611.24				
	608.28					23.308808	84.618941	608.52				
	606.60					23.308522	84.619378	606.84				
	607.66					23.308214	84.619828	607.90				
	606.37					23.30821	84.619242	606.61				
	607.69					23.308222	84.618675	607.93				
	609.89					23.308293	84.618008	610.13				
	608.75					23.307957	84.618336	608.99				
	608.51					23.307646	84.618728	608.75				
	609.47					23.307237	84.619221	609.72				
	609.18					23.30709	84.618688	609.42				
	609.17					23.307175	84.617986	609.42				
	610.00					23.30715	84.617354	610.25				
	609.43					23.306581	84.617733	609.67				
	609.28					23.306189	84.618078	609.53				
	609.85					23.305814	84.618427	610.09				
	609.12					23.305873	84.617794	609.37				
	609.04					23.305977	84.617232	609.28				
	610.01					23.306126	84.616537	610.26				
	607.82					23.305593	84.61687	608.07				
	605.78					23.305138	84.61714	606.02				
	605.91					23.304725	84.617366	606.15				
	606.54					23.304778	84.616682	606.78				
	606.97					23.304998	84.616162	607.21				
	608.10					23.305029	84.615726	608.35				
	606.91					23.304637	84.615949	607.15				
	607.05					23.304239	84.616196	607.29				
	607.48					23.304056	84.61629	607.72				
	605.90					23.304023	84.615871	606.15				
	607.62					23.304075	84.615501	607.86				
	609.41					23.304109	84.615198	609.65				
	610.70					23.304108	84.614878	610.95				
	608.99					23.303784	84.615089	609.24				
	606.96					23.303389	84.615379	607.20				
	606.53					23.303124	84.615648	606.78				
	606.73					23.302947	84.615775	606.97				
	607.02					23.303018	84.615343	607.27				
	607.69					23.303168	84.614934	607.93				
	608.76					23.303293	84.614539	609.01				
	607.27					23.302944	84.615023	607.52				
	607.24					23.30265	84.615556	607.49				
	606.77					23.302445	84.615101	607.02				
	606.78					23.302508	84.614371	607.03				
	607.14					23.302355	84.614021	607.38				
	605.41					23.302073	84.614736	605.65				
	605.54					23.301777	84.615118	605.78				
	603.91					23.301694	84.614605	604.15				
	603.08					23.301646	84.614133	603.32				
	608.49					23.301599	84.613471	608.73				
	606.46					23.301339	84.613718	606.71				
	604.86					23.301024	84.614047	605.10				

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	607.17					23.300663	84.614324	607.42				
	606.48					23.300679	84.613896	606.73				
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	607.72					23.300817	84.612869	607.96				
	606.97					23.300503	84.613118	607.21				
	606.43					23.300152	84.613391	606.67				
	609.89					23.299739	84.613736	610.14				
	606.22					23.299801	84.613321	606.47				
	605.80					23.299924	84.612913	606.04				
	606.47					23.300113	84.612424	606.71				
	605.82					23.299582	84.61281	606.06				
	606.75					23.29929	84.613102	607.00				
	608.42					23.299022	84.613347	608.66				
	606.06					23.299084	84.612796	606.30				
	605.18					23.299102	84.612371	605.43				
	606.43					23.299105	84.611784	606.68				
	606.05					23.298741	84.61202	606.29				
	606.39					23.298451	84.612382	606.64				
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	605.92					23.298044	84.612314	606.16				
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	606.15					23.297953	84.611314	606.39				
	605.26					23.297712	84.611563	605.50				
	604.85					23.297556	84.611932	605.09				
	604.96					23.297402	84.612249	605.20				
	605.53					23.29725	84.61254	605.78				
	605.41					23.297107	84.61198	605.65				
	605.79					23.297003	84.611485	606.03				
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	606.15					23.296576	84.611466	606.40				
	605.91					23.296394	84.611908	606.15				
	606.87					23.296188	84.612321	607.12				
	605.51					23.296007	84.61184	605.75				
	605.89					23.295863	84.611357	606.14				
	606.83					23.295685	84.610956	607.08				
	604.89					23.295445	84.611424	605.13				
	604.90					23.295338	84.611836	605.14				
	607.14					23.295203	84.612363	607.38				
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	604.24					23.294765	84.611261	604.48				
	604.56					23.294588	84.611122	604.80				
	603.18					23.294512	84.611667	603.42				
	605.59					23.294548	84.612238	605.83				
	606.87					23.294536	84.612582	607.12				
	604.85					23.294309	84.612171	605.09				
	604.00					23.294029	84.611872	604.24				
	605.88					23.293729	84.611455	606.12				
	604.82					23.293785	84.611952	605.06				
	604.65					23.293861	84.612356	604.89				
	605.77					23.29401	84.612847	606.01				
	606.08					23.293993	84.613056	606.32				
	604.62					23.293659	84.612758	604.86				
	603.12					23.293408	84.612528	603.37				
	605.00					23.293112	84.612292	605.24				
	604.61					23.293072	84.612847	604.85				
	605.54					23.293177	84.613321	605.79				
	607.13					23.293187	84.613703	607.37				
	605.73					23.292904	84.6135	605.98				
	604.93					23.292587	84.613294	605.17				
	606.71					23.292129	84.613067	606.95				
	605.34					23.292247	84.613407	605.59				
	605.31					23.292415	84.613817	605.55				
	605.94					23.2925	84.61424	606.18				
	604.74					23.291995	84.614056	604.98				
	605.66					23.291646	84.61365	605.91				
	607.08					23.291354	84.613452	607.32				
	606.96					23.291354	84.613486	607.20				
	605.36					23.291229	84.614013	605.60				
	606.25					23.29119	84.614481	606.49				
	607.12					23.291139	84.614648	607.37				
	606.25					23.290905	84.614307	606.49				
	606.99					23.290704	84.613789	607.23				
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	606.52					23.290397	84.613949	606.76				
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GUM_SK_PRE_02	606.27	604.65	303895	187	GUM_SK_POS_02	23.287543	84.612091	606.45	604.83	303899	0.18	0.0547
	605.13					23.287451	84.612261	605.31				
	604.14					23.287376	84.612395	604.33				
	603.45					23.287264	84.612618	603.64				
	604.21					23.287069	84.612958	604.39				

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	605.34					23.286949	84.613216	605.52				
	603.00					23.286925	84.612635	603.18				
	604.61					23.28698	84.612161	604.79				
	605.41					23.28693	84.612006	605.59				
	602.55					23.286724	84.612401	602.73				
	603.51					23.286595	84.612767	603.69				
	605.93					23.286484	84.613205	606.11				
	604.05					23.286394	84.612826	604.23				
	604.35					23.286228	84.612252	604.54				
	606.24					23.286133	84.611975	606.43				
	603.94					23.285983	84.612419	604.12				
	604.77					23.285883	84.61291	604.95				
	605.53					23.285779	84.613195	605.71				
	603.88					23.285675	84.612588	604.06				
	605.20					23.285599	84.612188	605.38				
	606.29					23.285536	84.611949	606.47				
	603.86					23.285326	84.612356	604.04				
	604.39					23.285207	84.612814	604.57				
	606.11					23.285123	84.613206	606.29				
	604.98					23.285005	84.612951	605.17				
	603.70					23.284905	84.612706	603.88				
	603.29					23.284675	84.612261	603.47				
	603.98					23.284556	84.612029	604.16				
	604.62					23.284452	84.611818	604.80				
	602.32					23.284293	84.612402	602.50				
	602.67					23.284256	84.612655	602.86				
	603.53					23.284244	84.612838	603.72				
	605.41					23.284201	84.613239	605.59				
	604.90					23.283928	84.612933	605.09				
	603.88					23.283622	84.612447	604.06				
	605.05					23.283421	84.612125	605.23				
	605.94					23.283212	84.611788	606.12				
	605.44					23.283117	84.612259	605.62				
	606.40					23.283013	84.612735	606.58				
	609.08					23.282945	84.613277	609.26				
	606.41					23.282652	84.612692	606.59				
	606.50					23.282416	84.612204	606.69				
	605.86					23.282541	84.612459	606.05				
	608.29					23.282208	84.611795	608.47				
	606.35					23.281918	84.612208	606.53				
	605.38					23.281758	84.612733	605.56				
	607.98					23.2816	84.61323	608.17				
	604.22					23.2814	84.612638	604.40				
	605.33					23.281291	84.612232	605.51				
	608.36					23.28116	84.611758	608.54				
	608.33					23.28116	84.611762	608.51				
	604.35					23.280934	84.612275	604.54				
	603.97					23.280698	84.61282	604.15				
	605.41					23.280463	84.61322	605.59				
	603.21					23.280335	84.612607	603.39				
	604.80					23.280301	84.612057	604.98				
	606.79					23.280104	84.611545	606.98				
	604.85					23.279748	84.611936	605.03				
	603.04					23.279407	84.612438	603.22				
	604.89					23.279166	84.61293	605.07				
	603.19					23.279132	84.612412	603.37				
	605.37					23.279096	84.611705	605.55				
	606.24					23.279087	84.611511	606.42				
	607.82					23.279077	84.611197	608.01				
	606.05					23.278882	84.611401	606.24				
	603.87					23.278679	84.61161	604.05				
	603.31					23.278294	84.612055	603.49				
	605.02					23.277961	84.612401	605.20				
	603.33					23.277935	84.611698	603.51				
	605.71					23.277941	84.611172	605.89				
	608.04					23.277916	84.610699	608.22				
	605.64					23.277539	84.611041	605.82				
	605.15					23.277214	84.611322	605.33				
	605.80					23.276844	84.611757	605.98				
	604.71					23.276926	84.611041	604.89				
	605.26					23.277062	84.610616	605.45				
	606.03					23.277113	84.610389	606.21				
	607.28					23.277202	84.610127	607.47				
	606.00					23.277026	84.610199	606.18				
	603.87					23.276676	84.610339	604.05				
	605.10					23.27689	84.610254	605.28				
	603.94					23.276246	84.610513	604.12				
	604.73					23.275795	84.610697	604.91				
	603.05					23.276024	84.61	603.23				
	604.91					23.276292	84.609532	605.09				
	607.06					23.276483	84.60926	607.24				
	603.65					23.275962	84.609266	603.84				
	604.27					23.275593	84.609205	604.45				
	605.43					23.275401	84.609125	605.62				

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	604.22					23.275709	84.608811	604.40				
	604.40					23.275894	84.60869	604.59				
	606.01					23.276077	84.60857	606.19				
	607.67					23.276249	84.608395	607.85				
	605.00					23.275751	84.608299	605.18				
	605.63					23.27537	84.608185	605.82				
	605.96					23.274977	84.608075	606.14				
	604.88					23.275355	84.607807	605.06				
	604.77					23.275784	84.607545	604.95				
	605.29					23.276031	84.607248	605.48				
	604.59					23.275643	84.607227	604.77				
	604.13					23.275262	84.60715	604.32				
	604.02					23.274946	84.607054	604.20				
	604.29					23.275391	84.606719	604.47				
	603.83					23.275724	84.606377	604.01				
	603.07					23.275954	84.606071	603.25				
	603.18					23.275545	84.606	603.36				
	605.49					23.274871	84.605742	605.68				
	603.44					23.275265	84.605496	603.62				
	602.57					23.275777	84.605263	602.75				
	602.75					23.275846	84.60511	602.93				
	602.89					23.275407	84.605107	603.07				
	603.09					23.275037	84.605119	603.27				
	604.90					23.274668	84.605145	605.08				
	602.43					23.275053	84.604876	602.61				
	602.70					23.275377	84.604637	602.88				
	604.49					23.275724	84.60437	604.68				
	601.25					23.275165	84.604278	601.43				
	601.35					23.274745	84.604321	601.53				
	603.69					23.27415	84.604325	603.87				
	603.61					23.274151	84.604312	603.80				
	602.26					23.274322	84.604145	602.44				
	601.54					23.274768	84.603883	601.72				
	603.84					23.275209	84.603642	604.02				
	602.35					23.274783	84.603627	602.53				
	602.21					23.274357	84.603732	602.39				
	604.03					23.273851	84.603752	604.21				
	602.62					23.274046	84.603549	602.81				
	602.89					23.274516	84.603246	603.07				
	604.17					23.274722	84.603049	604.36				
	602.08					23.274224	84.603251	602.26				
	604.05					23.273638	84.603427	604.23				
GUM_SK_PRE_03	604.19	602.73	182989	168	**GUM_SK_POS_03**	23.271747	84.599192	604.38	602.91	182991	0.18	0.0329
	603.72					23.271607	84.599348	603.90				
	603.72					23.271396	84.599634	603.90				
	604.02					23.271233	84.599828	604.20				
	603.17					23.271239	84.599369	603.35				
	604.16					23.271246	84.598791	604.34				
	603.24					23.27108	84.598936	603.42				
	602.32					23.270764	84.59928	602.50				
	603.00					23.270644	84.599414	603.19				
	603.61					23.270532	84.599522	603.80				
	602.28					23.270587	84.599102	602.46				
	603.57					23.270774	84.598664	603.75				
	604.21					23.270805	84.598489	604.39				
	603.52					23.270571	84.598603	603.71				
	602.90					23.270301	84.598829	603.08				
	602.78					23.270044	84.599075	602.96				
	603.34					23.26984	84.599315	603.52				
	602.63					23.269827	84.599131	602.81				
	602.76					23.269841	84.598872	602.94				
	602.81					23.269844	84.598782	602.99				
	602.87					23.26989	84.598577	603.05				
	603.81					23.269936	84.598141	604.00				
	603.06					23.269717	84.598448	603.25				
	602.90					23.269586	84.598683	603.08				
	602.48					23.269439	84.598959	602.66				
	602.11					23.269399	84.599157	602.30				
	602.95					23.269351	84.599356	603.14				
	602.76					23.269228	84.598776	602.94				
	603.85					23.269115	84.598389	604.03				
	603.16					23.269021	84.598676	603.34				
	601.77					23.269006	84.599237	601.95				
	602.94					23.268945	84.599511	603.12				
	601.76					23.268788	84.599	601.94				
	604.99					23.268622	84.598458	605.17				
	601.17					23.268522	84.599039	601.35				
	601.75					23.268566	84.599452	601.93				
	603.10					23.268561	84.599735	603.28				
	601.68					23.268344	84.599547	601.86				
	600.73					23.268142	84.599227	600.91				
	604.32					23.267812	84.598681	604.50				
	602.41					23.267731	84.59948	602.59				
	602.97					23.267766	84.59989	603.15				

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	603.93					23.2677	84.600192	604.11				
	602.72					23.267397	84.59986	602.90				
	602.64					23.267099	84.599472	602.82				
	603.14					23.266714	84.599098	603.32				
	602.24					23.266936	84.599882	602.42				
	603.07					23.266996	84.600208	603.25				
	604.09					23.267013	84.600452	604.27				
	602.47					23.266714	84.600161	602.65				
	602.05					23.266597	84.600065	602.23				
	602.20					23.266409	84.599834	602.38				
	603.97					23.266116	84.599397	604.15				
	602.47					23.266125	84.599816	602.65				
	602.71					23.266195	84.600306	602.90				
	603.33					23.266208	84.600512	603.51				
	604.10					23.266225	84.60077	604.28				
	603.26					23.265938	84.600566	603.45				
	602.35					23.265632	84.60019	602.53				
	603.07					23.265271	84.599855	603.25				
	602.47					23.265333	84.600228	602.66				
	603.03					23.265492	84.600845	603.21				
	603.81					23.265506	84.601233	603.99				
	602.42					23.265233	84.600861	602.60				
	602.38					23.264903	84.600501	602.56				
	603.22					23.264643	84.600266	603.40				
	602.19					23.2647	84.60086	602.37				
	602.30					23.264816	84.601228	602.49				
	603.06					23.264981	84.601721	603.24				
	602.39					23.264657	84.601569	602.57				
	602.25					23.264298	84.601334	602.43				
	603.64					23.263957	84.60104	603.82				
	602.34					23.26409	84.601446	602.52				
	601.84					23.264178	84.601688	602.02				
	602.05					23.264264	84.601867	602.23				
	603.06					23.264422	84.602299	603.24				
	601.73					23.264094	84.602172	601.91				
	601.80					23.263741	84.602005	601.98				
	601.66					23.263931	84.602095	601.84				
	602.73					23.263375	84.60184	602.91				
	600.59					23.263524	84.602266	600.77				
	600.19					23.263616	84.602411	600.37				
	600.58					23.263738	84.602583	600.76				
	601.49					23.263823	84.602752	601.67				
	602.35					23.26389	84.602924	602.54				
	600.59					23.263553	84.60277	600.77				
	599.48					23.263284	84.602593	599.66				
	602.19					23.26293	84.60239	602.37				
	601.47					23.263024	84.602734	601.65				
	601.19					23.263139	84.602891	601.37				
	601.07					23.263252	84.603031	601.25				
	601.08					23.263256	84.603041	601.26				
	603.11					23.263531	84.603447	603.29				
	602.64					23.263182	84.603463	602.82				
	602.88					23.262894	84.603341	603.06				
	603.68					23.262574	84.603273	603.87				
	603.15					23.26272	84.603609	603.33				
	603.77					23.263028	84.603895	603.95				
	604.90					23.263196	84.604094	605.08				
	603.50					23.262876	84.604021	603.68				
	603.43					23.262324	84.603904	603.61				
	602.00					23.26253	84.604148	602.18				
	604.80					23.262952	84.604581	604.98				
	602.26					23.26257	84.604501	602.44				
	603.60					23.262153	84.604366	603.78				
	602.81					23.262274	84.604532	603.00				
	602.25					23.262554	84.604876	602.43				
	604.37					23.262819	84.605151	604.55				
	601.86					23.262479	84.605157	602.04				
	602.64					23.26214	84.605089	602.82				
	603.25					23.261876	84.60507	603.43				
	602.44					23.262151	84.60544	602.62				
	602.16					23.262553	84.605718	602.34				
	603.32					23.262764	84.605886	603.50				
	602.08					23.262329	84.605887	602.26				
	602.43					23.262061	84.605868	602.62				
	602.83					23.261721	84.60585	603.01				
	603.07					23.261963	84.60603	603.25				
	602.41					23.262296	84.606132	602.60				
	602.42					23.262675	84.606284	602.60				
	602.80					23.262934	84.606482	602.98				
	601.95					23.262548	84.606399	602.13				
	603.12					23.262183	84.606334	603.30				
	604.54					23.26178	84.606281	604.72				
	602.61					23.26234	84.606485	602.79				
	602.41					23.26295	84.606731	602.59				

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GUM_SK_PRE_04	601.71	600.48	130915	181	**GUM_SK_POS_04**	23.25968	84.614798	602.02	600.78	130917	0.30	0.393
	601.12					23.259788	84.614948	601.42				
	600.48					23.259995	84.615185	600.78				
	601.03					23.26036	84.615441	601.34				
	600.32					23.259997	84.61532	600.62				
	600.68					23.259773	84.615238	600.99				
	601.19					23.259464	84.615124	601.49				
	600.65					23.259664	84.61538	600.95				
	600.18					23.259877	84.615558	600.48				
	600.09					23.260134	84.61587	600.39				
	600.05					23.259791	84.615751	600.35				
	600.56					23.259499	84.615618	600.86				
	601.11					23.259207	84.615449	601.41				
	600.74					23.259286	84.615683	601.04				
	600.39					23.259475	84.615965	600.69				
	600.47					23.259824	84.616428	600.77				
	600.53					23.259494	84.616297	600.83				
	600.67					23.259197	84.616104	600.98				
	602.41					23.258867	84.615879	602.71				
	601.64					23.258953	84.616112	601.94				
	600.83					23.259121	84.616359	601.14				
	600.66					23.259292	84.616691	600.96				
	600.54					23.25944	84.617045	600.84				
	600.37					23.259108	84.616846	600.67				
	600.99					23.258896	84.616687	601.29				
	601.97					23.258669	84.616431	602.27				
	602.97					23.2585	84.616283	603.27				
	601.41					23.258553	84.616707	601.71				
	600.89					23.258696	84.617024	601.19				
	599.57					23.258935	84.617515	599.87				
	600.84					23.258595	84.617393	601.14				
	601.56					23.258236	84.617124	601.86				
	601.57					23.257947	84.616932	601.87				
	601.05					23.258032	84.617248	601.35				
	601.00					23.258134	84.61753	601.30				
	601.44					23.258232	84.617872	601.75				
	601.66					23.25837	84.618103	601.96				
	600.93					23.257999	84.617944	601.23				
	599.98					23.257737	84.617747	600.28				
	598.95					23.257455	84.617515	599.25				
	599.34					23.257495	84.617759	599.64				
	600.44					23.257613	84.618143	600.74				
	601.24					23.257762	84.618473	601.54				
	601.70					23.257836	84.618688	602.00				
	600.96					23.257451	84.618583	601.27				
	600.73					23.257208	84.61841	601.03				
	600.92					23.256854	84.618165	601.22				
	600.64					23.256916	84.618449	600.94				
	600.67					23.257067	84.618915	600.97				
	601.15					23.257343	84.619495	601.45				
	600.64					23.256983	84.619337	600.94				
	599.80					23.256692	84.619184	600.10				
	602.26					23.256334	84.619022	602.56				
	601.16					23.256517	84.61946	601.46				
	601.30					23.256813	84.619875	601.60				
	601.19					23.257101	84.620258	601.49				
	601.39					23.256585	84.620306	601.69				
	601.68					23.256284	84.620275	601.98				
	601.80					23.25613	84.620275	602.10				
	601.11					23.256355	84.620581	601.42				
	600.91					23.256595	84.6209	601.21				
	603.06					23.257025	84.621303	603.37				
	602.14					23.256527	84.621349	602.44				
	601.40					23.256268	84.62137	601.70				
	600.73					23.256051	84.621413	601.03				
	602.27					23.256373	84.621655	602.57				
	602.71					23.256632	84.6219	603.01				
	602.72					23.25686	84.62214	603.02				
	601.78					23.256587	84.622107	602.08				
	600.35					23.256214	84.622068	600.65				
	599.03					23.255871	84.622014	599.33				
	599.51					23.256231	84.622373	599.81				
	599.82					23.25647	84.622648	600.12				
	600.09					23.256655	84.622979	600.39				
	599.22					23.256421	84.622999	599.52				
	598.06					23.256065	84.622898	598.36				
	598.88					23.255606	84.622794	599.18				
	597.13					23.255829	84.622997	597.43				
	597.65					23.25609	84.623343	597.95				
	598.85					23.256298	84.623605	599.15				
	597.67					23.255959	84.623564	597.97				
	598.43					23.255544	84.623396	598.73				
	599.59					23.25535	84.623339	599.89				
	598.44					23.255535	84.623614	598.74				

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	598.05					23.255772	84.623859	598.35				
	598.85					23.255956	84.6241	599.15				
	598.38					23.255515	84.623981	598.68				
	599.03					23.255196	84.623813	599.33				
	600.44					23.254841	84.623666	600.75				
	598.44					23.255124	84.624008	598.74				
	598.60					23.255433	84.624292	598.90				
	599.73					23.255712	84.624509	600.03				
	598.31					23.254884	84.624052	598.61				
	599.92					23.254535	84.62384	600.22				
GUM_SK_PRE_05	595.48	594.46	353944	161	**GUM_SK_POS_05**	23.24613	84.632261	595.84	594.83	353946	0.37	0.131
	594.64					23.246414	84.632499	595.00				
	594.87					23.246607	84.632706	595.23				
	597.16					23.247149	84.633218	597.52				
	595.90					23.246821	84.631121	596.26				
	594.99					23.246385	84.632932	595.34				
	594.73					23.24604	84.632783	595.09				
	595.09					23.245726	84.632646	595.44				
	594.75					23.245975	84.63304	595.11				
	594.76					23.245978	84.633053	595.12				
	595.22					23.246297	84.633464	595.58				
	597.34					23.246817	84.633955	597.69				
	595.32					23.24632	84.633805	595.68				
	594.45					23.245922	84.633653	594.81				
	594.90					23.245443	84.63345	595.26				
	594.03					23.245768	84.63387	594.38				
	594.60					23.246094	84.634123	594.96				
	597.59					23.246603	84.634531	597.95				
	595.35					23.246207	84.634547	595.71				
	593.34					23.245856	84.634529	593.70				
	593.93					23.245373	84.634527	594.28				
	593.91					23.245382	84.634528	594.27				
	593.23					23.245712	84.634781	593.58				
	594.76					23.246086	84.63497	595.12				
	599.11					23.246575	84.635221	599.47				
	595.52					23.24616	84.635269	595.88				
	592.92					23.245864	84.63532	593.27				
	593.90					23.245561	84.63536	594.26				
	593.65					23.245941	84.635606	594.01				
	596.54					23.246246	84.635717	596.90				
	600.64					23.246729	84.635895	601.00				
	597.78					23.246433	84.636005	598.14				
	595.65					23.246183	84.636142	596.01				
	593.96					23.245774	84.636248	594.32				
	595.09					23.24612	84.636469	595.44				
	595.75					23.246479	84.636585	596.11				
	596.66					23.246915	84.636731	597.02				
	595.28					23.246626	84.636812	595.64				
	595.12					23.246303	84.636936	595.48				
	595.54					23.245894	84.637069	595.90				
	595.16					23.24624	84.637216	595.52				
	594.38					23.246554	84.637309	594.74				
	594.74					23.246904	84.637411	595.10				
	595.24					23.247109	84.637507	595.59				
	594.26					23.246836	84.637628	594.61				
	594.25					23.246497	84.637781	594.61				
	595.89					23.246043	84.638014	596.24				
	594.54					23.246417	84.638195	594.90				
	593.98					23.24677	84.63835	594.33				
	594.65					23.24708	84.638534	595.01				
	593.01					23.246699	84.638646	593.37				
	594.61					23.246296	84.638791	594.97				
	596.09					23.246038	84.638922	596.45				
	593.20					23.246512	84.639258	593.56				
	594.26					23.246885	84.639552	594.62				
	595.71					23.247069	84.639879	596.07				
	596.33					23.24663	84.640151	596.69				
	596.70					23.246108	84.640383	597.06				
	596.79					23.245942	84.640529	597.15				
	595.67					23.246305	84.640747	596.03				
	595.41					23.247129	84.641101	595.77				
	594.50					23.246484	84.641228	594.86				
	595.23					23.245977	84.64132	595.58				
	594.15					23.24631	84.64162	594.51				
	594.24					23.246839	84.641979	594.60				
	594.58					23.247174	84.642351	594.94				
	593.98					23.246933	84.642487	594.33				
	595.20					23.246331	84.642814	595.56				
	595.08					23.246766	84.643049	595.44				





	595.09					23.246775	84.643049	595.45				
	596.36					23.247273	84.643347	596.71				
	595.45					23.246846	84.643476	595.81				
	595.17					23.246449	84.643635	595.53				
	593.88					23.246758	84.643917	594.24				
	595.14					23.247234	84.644276	595.50				
	593.83					23.246915	84.644197	594.19				
	593.53					23.246475	84.644107	593.88				
	593.17					23.246692	84.644548	593.53				
	593.87					23.247015	84.644722	594.23				
	593.89					23.247229	84.644879	594.25				
	593.63					23.246808	84.644956	593.98				
	594.46					23.246498	84.645012	594.82				
	594.20					23.246791	84.645399	594.55				
	594.93					23.247142	84.645681	595.29				
	595.54					23.247337	84.645882	595.90				
	594.79					23.246753	84.64599	595.14				
	595.79					23.246333	84.646067	596.15				
	594.86					23.246554	84.646336	595.21				
	595.40					23.246896	84.646708	595.75				
	596.11					23.247185	84.647109	596.47				
	593.68					23.246679	84.647094	594.04				
	593.74					23.246134	84.647042	594.10				
	593.05					23.246362	84.647331	593.40				
	593.36					23.246735	84.647777	593.72				
	594.89					23.24696	84.648116	595.24				
	593.18					23.246307	84.647946	593.54				
	593.32					23.245777	84.647804	593.68				
	593.43					23.24602	84.648158	593.79				
	594.16					23.246351	84.648645	594.52				
	594.58					23.246528	84.649005	594.94				
	594.95					23.245885	84.648894	595.31				
	595.58					23.245194	84.648696	595.94				
	595.59					23.245194	84.648691	595.95				
	594.69					23.245493	84.649222	595.05				
	594.01					23.245851	84.649859	594.37				
	592.64					23.24495	84.649666	593.00				
	596.52					23.244268	84.64935	596.88				
	593.88					23.244478	84.649885	594.24				
	594.65					23.244669	84.650534	595.01				
	596.03					23.244721	84.650848	596.39				
	593.65					23.244074	84.650528	594.00				
	597.06					23.243589	84.650182	597.42				
	600.09					23.243173	84.649956	600.46				
	595.73					23.243291	84.650548	596.09				
	593.50					23.243542	84.651171	593.85				
	593.68					23.243566	84.651506	594.04				
	593.28					23.243164	84.651135	593.64				
	594.09					23.242725	84.650783	594.45				
	595.57					23.242471	84.65063	595.93				
	593.34					23.242601	84.651087	593.70				
	592.75					23.242634	84.651581	593.10				
	593.65					23.242707	84.651925	594.01				
	592.83					23.242209	84.651732	593.18				
	592.89					23.241835	84.651552	593.25				
	593.76					23.241511	84.651383	594.12				
	592.92					23.241613	84.651865	593.27				
	593.31					23.241673	84.652216	593.67				
	593.96					23.241763	84.652643	594.31				
	593.28					23.241405	84.652389	593.64				
	593.13					23.241096	84.652107	593.49				
	593.63					23.240759	84.651795	593.98				
	592.70					23.240711	84.652382	593.06				
	592.24					23.240873	84.652898	592.59				
	592.00					23.240932	84.653356	592.36				
	592.15					23.24037	84.652993	592.51				
	591.97					23.240082	84.652737	592.33				
	592.82					23.239757	84.652497	593.18				
	592.79					23.239781	84.652883	593.15				
	592.60					23.240037	84.653342	592.96				
	593.16					23.240265	84.653879	593.52				
	592.69					23.239714	84.653697	593.04				
	593.05					23.239361	84.653528	593.41				
	594.07					23.239048	84.653442	594.43				
	592.46					23.239241	84.653834	592.82				
	592.05					23.239486	84.654154	592.40				
	592.21					23.239773	84.654653	592.57				
	591.62					23.239303	84.654354	591.98				
	592.24					23.239048	84.654155	592.59				

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	594.33					23.238698	84.654024	594.68				
	592.61					23.238934	84.654337	592.97				
	591.01					23.239172	84.654707	591.36				
	591.60					23.23947	84.65508	591.96				
	594.21					23.238607	84.654462	594.57				
GUM_SK_PRE_06	587.68	585.92	401561	189	**GUM_SK_POS_06**	23.233572	84.670347	588.21	586.45	401564	0.53	0.2128
	587.27					23.233617	84.670649	587.80				
	587.21					23.233709	84.671033	587.74				
	587.75					23.233799	84.671395	588.28				
	588.26					23.233837	84.671655	588.79				
	587.18					23.233512	84.671266	587.71				
	587.64					23.233111	84.670884	588.17				
	588.31					23.232912	84.670695	588.84				
	587.34					23.232945	84.671091	587.87				
	586.27					23.233086	84.671615	586.80				
	589.39					23.233275	84.672186	589.92				
	586.56					23.232762	84.671885	587.09				
	585.79					23.232406	84.671582	586.31				
	587.27					23.232055	84.671241	587.80				
	585.59					23.232069	84.671639	586.11				
	585.64					23.232146	84.672126	586.17				
	588.36					23.232488	84.672897	588.89				
	584.68					23.231898	84.672564	585.21				
	584.66					23.231431	84.672297	585.19				
	586.13					23.231119	84.672161	586.66				
	584.56					23.23126	84.672684	585.09				
	584.67					23.231384	84.673149	585.19				
	586.95					23.231622	84.67375	587.48				
	585.33					23.230989	84.673346	585.85				
	586.90					23.23048	84.67302	587.43				
	586.57					23.230581	84.673539	587.10				
	587.14					23.230688	84.674064	587.67				
	588.85					23.230755	84.674481	589.38				
	586.94					23.230208	84.673988	587.46				
	587.77					23.229935	84.673623	588.30				
	588.32					23.229752	84.673397	588.85				
	587.69					23.229755	84.673659	588.22				
	587.01					23.229771	84.673943	587.54				
	587.13					23.229883	84.674406	587.66				
	589.17					23.229969	84.674964	589.70				
	586.66					23.229565	84.674573	587.19				
	586.53					23.22924	84.674142	587.06				
	587.17					23.22904	84.673836	587.70				
	586.46					23.228978	84.674087	586.98				
	585.52					23.22893	84.674411	586.05				
	584.40					23.228945	84.674831	584.93				
	585.74					23.229053	84.675599	586.27				
	583.66					23.228676	84.675116	584.18				
	583.31					23.228348	84.674776	583.83				
	585.34					23.228129	84.674541	585.87				
	584.65					23.228115	84.674758	585.18				
	583.89					23.228124	84.67509	584.42				
	584.98					23.228123	84.6757	585.51				
	585.68					23.228155	84.675991	586.21				
	584.92					23.227704	84.675722	585.45				
	586.58					23.22735	84.675354	587.11				
	588.48					23.22705	84.675124	589.01				
	586.34					23.22702	84.675574	586.86				
	586.63					23.227125	84.676393	587.16				
	586.26					23.226501	84.676105	586.79				
	586.14					23.226244	84.675922	586.67				
	586.62					23.225929	84.675683	587.15				
	586.57					23.225871	84.675949	587.10				
	586.99					23.225819	84.676259	587.52				
	588.75					23.22566	84.67706	589.28				
	586.67					23.225356	84.676766	587.20				
	586.62					23.224931	84.67647	587.15				
	588.82					23.224526	84.676187	589.35				
	586.92					23.224528	84.676817	587.45				
	585.79					23.224529	84.67749	586.32				
	586.94					23.224519	84.67791	587.47				
	585.03					23.224224	84.67764	585.56				
	587.36					23.223706	84.677145	587.89				
	586.01					23.223735	84.677652	586.54				
	587.14					23.224119	84.678498	587.67				
	585.92					23.223686	84.678274	586.45				
	586.85					23.223201	84.678041	587.38				
	585.10					23.223379	84.678545	585.63				
	586.80					23.223764	84.678944	587.33				

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	588.29					23.223916	84.679137	588.82				
	585.25					23.223541	84.67912	585.78				
	586.90					23.222792	84.67909	587.43				
	584.96					23.223137	84.679335	585.49				
	585.40					23.223462	84.679545	585.93				
	588.92					23.223851	84.679833	589.45				
	587.33					23.223618	84.679904	587.86				
	585.67					23.223367	84.679977	586.19				
	586.86					23.222946	84.680142	587.39				
	587.36					23.222807	84.680199	587.89				
	586.00					23.223187	84.680433	586.52				
	587.41					23.223708	84.680703	587.94				
	588.78					23.224057	84.680886	589.31				
	586.00					23.223494	84.681179	586.53				
	586.03					23.223052	84.681388	586.56				
	585.73					23.223541	84.681653	586.26				
	586.08					23.224104	84.6819	586.60				
	586.57					23.224253	84.681962	587.09				
	584.74					23.22373	84.68216	585.26				
	583.86					23.223225	84.682173	584.39				
	584.35					23.222933	84.682198	584.87				
	583.08					23.223451	84.682581	583.61				
	586.20					23.22412	84.68321	586.73				
	583.96					23.223383	84.683062	584.49				
	584.26					23.222976	84.682887	584.79				
	584.71					23.222603	84.682701	585.24				
	585.08					23.22287	84.683122	585.60				
	584.61					23.223158	84.683712	585.13				
	584.50					23.223339	84.684009	585.03				
	585.05					23.222745	84.683661	585.58				
	586.86					23.222318	84.683301	587.38				
	587.12					23.222142	84.683081	587.64				
	585.88					23.222174	84.683671	586.41				
	583.86					23.22223	84.68418	584.39				
	585.33					23.222204	84.684515	585.86				
	584.54					23.221781	84.684122	585.07				
	586.13					23.221501	84.683829	586.66				
	586.88					23.221189	84.683631	587.41				
	584.89					23.221349	84.684308	585.42				
	585.13					23.221423	84.684903	585.66				
	585.12					23.221036	84.684335	585.65				
	585.98					23.220642	84.683849	586.51				
	584.70					23.22068	84.684351	585.23				
	585.72					23.220818	84.685154	586.24				
	583.70					23.220494	84.68463	584.22				
	584.69					23.220132	84.683933	585.22				
	582.53					23.220036	84.684236	583.05				
	582.42					23.219825	84.684693	582.94				
	585.15					23.219694	84.685474	585.67				
	587.12					23.219526	84.68588	587.64				
	584.10					23.21915	84.685259	584.63				
	584.53					23.219038	84.684748	585.06				
	585.16					23.218943	84.684605	585.69				
	585.96					23.218853	84.684412	586.49				
	585.07					23.218715	84.684707	585.60				
	584.28					23.218547	84.685097	584.80				
	584.58					23.218467	84.685695	585.11				
	588.30					23.21825	84.686418	588.83				
	584.37					23.21804	84.685733	584.90				
	585.38					23.217926	84.685436	585.91				
	587.65					23.217799	84.685005	588.18				
	585.05					23.21764	84.685597	585.58				
	583.86					23.217555	84.685951	584.39				
	584.69					23.217306	84.686629	585.21				
	582.52					23.217113	84.686016	583.05				
	586.61					23.216931	84.685338	587.14				
	581.08					23.216596	84.686001	581.61				
	583.11					23.216351	84.686804	583.64				
	582.53					23.216064	84.686398	583.05				
	587.14					23.215882	84.685438	587.67				
	583.10					23.215756	84.686143	583.63				
	583.26					23.21575	84.686963	583.78				
GUM_SK_PRE_07	587.20	581.91	991809	200	**GUM_SK_POS_07**	23.215244	84.684985	587.79	582.5	991812	0.59	0.5852
	584.23					23.214823	84.68497	584.81				
	584.78					23.213404	84.68513	585.36				
	584.72					23.213415	84.685109	585.30				
	581.22					23.214097	84.68469	581.80				
	587.30					23.214989	84.684189	587.89				
	584.66					23.214423	84.684153	585.25				

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	583.42					23.214013	84.684106	584.00				
	583.42					23.21359	84.684026	584.00				
	583.52					23.21331	84.683996	584.10				
	583.42					23.214022	84.683477	584.00				
	589.15					23.214973	84.68311	589.74				
	585.18					23.214449	84.683081	585.77				
	584.83					23.213432	84.682867	585.41				
	583.86					23.214658	84.682786	584.44				
	585.48					23.215132	84.682025	586.06				
	580.78					23.214048	84.681586	581.37				
	584.00					23.213733	84.681439	584.58				
	582.30					23.214356	84.681208	582.88				
	586.89					23.215108	84.680908	587.48				
	585.19					23.214641	84.680649	585.77				
	586.77					23.213871	84.680037	587.36				
	585.21					23.214289	84.679831	585.80				
	585.47					23.215096	84.679566	586.06				
	584.56					23.214672	84.679291	585.15				
	586.30					23.213981	84.678859	586.89				
	585.41					23.214518	84.678535	586.00				
	585.53					23.21538	84.67805	586.12				
	583.51					23.215027	84.677683	584.10				
	584.98					23.214527	84.677094	585.57				
	582.54					23.215111	84.67708	583.13				
	583.30					23.215737	84.677082	583.88				
	581.40					23.215459	84.676552	581.99				
	582.44					23.214974	84.675917	583.03				
	581.30					23.215571	84.675703	581.88				
	581.92					23.216308	84.675593	582.51				
	581.42					23.21611	84.675068	582.00				
	582.00					23.215746	84.674337	582.58				
	584.11					23.215418	84.673922	584.69				
	581.26					23.215966	84.673726	581.84				
	580.89					23.216725	84.673319	581.47				
	581.50					23.216253	84.673091	582.08				
	583.95					23.2151	84.672835	584.54				
	582.78					23.215528	84.672475	583.37				
	583.21					23.216238	84.671973	583.79				
	583.87					23.216472	84.671752	584.46				
	582.71					23.215592	84.671674	583.29				
	583.33					23.215068	84.671868	583.92				
	584.37					23.214468	84.672287	584.95				
	582.91					23.214939	84.671274	583.50				
	584.48					23.215411	84.670381	585.07				
	582.91					23.214487	84.671406	583.50				
	584.72					23.213904	84.672209	585.30				
	583.00					23.213851	84.671389	583.59				
	584.31					23.213462	84.670515	584.89				
	584.53					23.213137	84.672256	585.11				
	582.83					23.212787	84.671894	583.42				
	583.33					23.212101	84.671255	583.92				
	582.83					23.212119	84.672049	583.41				
	584.11					23.212093	84.672562	584.70				
	583.05					23.211688	84.672192	583.64				
	584.15					23.21106	84.671776	584.74				
	584.94					23.210942	84.673443	585.53				
	583.43					23.210202	84.672124	584.01				
	581.70					23.210118	84.673121	582.28				
	585.02					23.210023	84.67393	585.61				
	581.28					23.209413	84.673465	581.86				
	581.61					23.208885	84.672736	582.19				
	582.80					23.208348	84.672311	583.38				
	580.76					23.208478	84.673091	581.34				
	583.39					23.208552	84.674291	583.97				
	579.70					23.207939	84.673427	580.28				
	580.49					23.207472	84.672769	581.07				
	583.25					23.207214	84.672187	583.83				
	579.66					23.207099	84.673239	580.25				
	581.78					23.207024	84.673922	582.36				
	580.71					23.206703	84.673178	581.29				
	582.52					23.20652	84.67234	583.11				
	583.64					23.206502	84.671663	584.23				
	581.24					23.20581	84.672334	581.82				
	582.73					23.205413	84.672769	583.32				
	581.02					23.205443	84.672127	581.60				
	580.79					23.205656	84.67136	581.37				
	582.87					23.205844	84.670728	583.45				
	579.44					23.205009	84.671303	580.02				
	580.68					23.204538	84.671518	581.27				

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	581.71					23.204284	84.671598	582.30				
	580.22					23.205027	84.670544	580.80				
	584.16					23.205577	84.670008	584.75				
	581.42					23.205026	84.670052	582.00				
	581.08					23.204037	84.669957	581.66				
	580.86					23.204687	84.669382	581.44				
	583.80					23.205577	84.668985	584.38				
	582.07					23.205239	84.668739	582.66				
	582.09					23.204422	84.668242	582.67				
	581.16					23.204876	84.668193	581.75				
	583.11					23.205705	84.668098	583.69				
	580.65					23.20535	84.667769	581.23				
	579.33					23.204853	84.667445	579.91				
	581.64					23.2044	84.667229	582.22				
	579.39					23.205058	84.666866	579.97				
	582.20					23.205772	84.666626	582.78				
	579.70					23.204835	84.666427	580.28				
	580.58					23.204131	84.666235	581.16				
	579.42					23.204668	84.665617	580.00				
	582.34					23.205498	84.664572	582.93				
	581.28					23.204838	84.664451	581.87				
	581.94					23.203791	84.664176	582.52				
	578.36					23.204203	84.664019	578.94				
	583.27					23.205302	84.663824	583.85				
	582.33					23.204715	84.663584	582.91				
	582.94					23.203849	84.663329	583.52				
	581.57					23.204337	84.66306	582.15				
	583.17					23.204926	84.662701	583.76				
	581.47					23.204439	84.662581	582.05				
	584.04					23.203522	84.662459	584.62				
	581.61					23.203844	84.66208	582.19				
	583.25					23.204306	84.661462	583.83				
	580.48					23.203716	84.661539	581.06				
	583.63					23.202908	84.661974	584.22				
	580.38					23.203378	84.660714	580.96				
	581.88					23.202841	84.661258	582.46				
	584.56					23.202616	84.661704	585.15				
	586.14					23.202486	84.661984	586.73				
	583.77					23.202375	84.661316	584.36				
	582.11					23.202207	84.660713	582.69				
	582.51					23.201879	84.661417	583.09				
	584.15					23.201705	84.662006	584.73				
	581.30					23.201456	84.661592	581.88				
	580.39					23.201116	84.66072	580.97				
	579.57					23.201066	84.6615	580.15				
	581.23					23.201044	84.661982	581.82				
	578.99					23.200706	84.661402	579.57				
	580.66					23.200315	84.660667	581.24				
	580.06					23.200208	84.661202	580.64				
	581.33					23.20005	84.661942	581.91				
	580.32					23.199819	84.661788	580.90				
	580.24					23.199701	84.660769	580.82				
	581.05					23.199626	84.660466	581.63				
	579.79					23.19932	84.661022	580.37				
	580.28					23.198973	84.661572	580.86				
	579.27					23.198819	84.66099	579.85				
	579.53					23.198609	84.660444	580.11				
	579.73					23.198474	84.66012	580.32				
	578.85					23.198071	84.660577	579.43				
	580.60					23.197586	84.661202	581.18				
	579.21					23.197501	84.66066	579.79				
	579.61					23.197256	84.659772	580.19				
	579.74					23.196845	84.66025	580.32				
	581.70					23.196524	84.660805	582.28				
	583.06					23.196207	84.661123	583.64				
	582.48					23.195959	84.660377	583.07				
	583.51					23.19561	84.659679	584.09				
	582.16					23.195561	84.660157	582.74				
	582.04					23.195451	84.660783	582.62				
	582.68					23.195408	84.661053	583.27				
	581.36					23.19519	84.660442	581.94				
	582.74					23.194916	84.659788	583.32				
	581.37					23.194758	84.660319	581.95				
	581.66					23.194653	84.660806	582.24				
	583.08					23.194583	84.661048	583.66				
	582.38					23.194263	84.660483	582.96				
	582.78					23.193882	84.659829	583.36				
	582.57					23.193739	84.660479	583.15				
	584.50					23.193691	84.661037	585.08				

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	581.83					23.193098	84.660409	582.42				
	581.71					23.192578	84.659775	582.29				
	579.99					23.192371	84.660203	580.57				
	581.76					23.192044	84.661041	582.34				
	580.40					23.191919	84.660391	580.98				
	582.60					23.191712	84.659735	583.18				
	581.05					23.191337	84.660323	581.64				
	582.23					23.191004	84.661097	582.81				
	581.77					23.190827	84.660515	582.36				
	581.25					23.190525	84.660038	581.83				
	582.17					23.190333	84.659705	582.76				
	578.59					23.190047	84.66043	579.17				
	579.81					23.189764	84.661198	580.39				
	579.36					23.189655	84.660681	579.94				
	580.82					23.189587	84.660048	581.40				
	582.63					23.18952	84.659744	583.21				
	581.21					23.188988	84.660386	581.80				
	581.27					23.188674	84.661279	581.85				
	578.26					23.188405	84.660619	578.84				
	578.69					23.188097	84.660119	579.27				
	580.01					23.187847	84.65981	580.60				
	578.03					23.187712	84.660354	578.61				
	585.10					23.187444	84.661342	585.68				
	578.42					23.187104	84.660812	579.00				
	580.75					23.18651	84.659795	581.33				
	577.86					23.186347	84.660553	578.44				
	582.83					23.186152	84.66139	583.42				
	575.93					23.185885	84.66074	576.51				
	579.75					23.185577	84.659813	580.33				
	576.14					23.185482	84.660516	576.72				
	578.09					23.185362	84.661099	578.67				
	581.80					23.185255	84.661401	582.39				
	575.23					23.184804	84.660798	575.80				
	579.41					23.184305	84.659698	579.99				
	577.98					23.183847	84.660189	578.56				
	580.19					23.183178	84.660637	580.77				
	578.59					23.183206	84.659895	579.17				
	581.38					23.183301	84.659117	581.96				
	579.00					23.182851	84.659235	579.58				
	579.42					23.181939	84.659439	580.00				
	578.17					23.182149	84.658865	578.75				
	579.35					23.182528	84.658021	579.93				
	577.89					23.182022	84.658296	578.46				
	580.49					23.181334	84.658823	581.08				
	577.79					23.181588	84.658367	578.37				
	579.19					23.18208	84.657382	579.77				
GUM_SK_PRE_08	577.22	576.81	171530	146	**GUM_SK_POS_08**	23.18009	84.655582	577.80	577.39	171534	0.58	0.0995
	576.48					23.179625	84.656077	577.06				
	577.34					23.179228	84.656584	577.92				
	579.23					23.179027	84.656948	579.81				
	577.34					23.17903	84.656248	577.92				
	577.38					23.178911	84.655943	577.96				
	576.90					23.178723	84.65665	577.48				
	579.27					23.178623	84.657055	579.85				
	576.67					23.178378	84.656698	577.25				
	576.70					23.178107	84.656517	577.28				
	576.99					23.177933	84.656424	577.57				
	577.41					23.177808	84.656998	577.99				
	578.32					23.177695	84.657484	578.90				
	577.01					23.177316	84.657435	577.59				
	577.22					23.17692	84.657188	577.79				
	576.32					23.176609	84.657619	576.89				
	578.97					23.176271	84.657996	579.55				
	577.56					23.176141	84.657567	578.14				
	578.67					23.176006	84.657354	579.25				
	578.97					23.175708	84.657697	579.55				
	579.80					23.175373	84.658274	580.39				
	579.44					23.175276	84.657938	580.02				
	579.31					23.175114	84.657567	579.89				
	580.22					23.17495	84.657248	580.80				
	578.90					23.174778	84.657538	579.48				
	578.52					23.174464	84.658003	579.10				
	578.50					23.174247	84.658313	579.08				
	577.73					23.174091	84.657753	578.31				
	578.29					23.173879	84.657334	578.86				
	577.69					23.173691	84.65772	578.27				
	578.41					23.173437	84.658326	578.99				
	578.07					23.173051	84.657896	578.65				
	578.79					23.172579	84.657406	579.37				

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	578.39					23.172558	84.657932	578.97				
	579.48					23.172518	84.65846	580.07				
	578.49					23.172201	84.658172	579.07				
	578.87					23.171895	84.65782	579.45				
	579.41					23.17162	84.657547	579.99				
	578.58					23.171592	84.658073	579.16				
	579.97					23.171476	84.658644	580.56				
	576.76					23.17118	84.658311	577.34				
	578.60					23.170737	84.657814	579.18				
	575.97					23.170549	84.658418	576.54				
	578.99					23.17026	84.658975	579.57				
	578.08					23.170088	84.658859	578.66				
	575.50					23.169861	84.658418	576.08				
	575.75					23.169584	84.658149	576.33				
	575.06					23.169377	84.658568	575.63				
	576.63					23.169243	84.658962	577.20				
	577.60					23.169046	84.659244	578.18				
	574.56					23.168774	84.658643	575.14				
	573.56					23.168616	84.658312	574.14				
	575.52					23.168492	84.657996	576.10				
	574.01					23.168297	84.658545	574.58				
	575.29					23.168084	84.658952	575.86				
	575.93					23.167977	84.659185	576.51				
	574.80					23.167869	84.658487	575.38				
	574.94					23.167823	84.658152	575.51				
	575.40					23.167779	84.657802	575.97				
	575.05					23.167364	84.658097	575.63				
	575.39					23.167091	84.658317	575.96				
	575.62					23.166873	84.6585	576.20				
	574.48					23.167007	84.657973	575.06				
	574.04					23.167229	84.657635	574.62				
	575.68					23.16757	84.657252	576.26				
	573.76					23.167091	84.657371	574.33				
	572.77					23.166733	84.657367	573.35				
	573.60					23.166487	84.657354	574.18				
	573.77					23.166896	84.657074	574.34				
	575.38					23.167191	84.656873	575.96				
	576.48					23.167334	84.656713	577.06				
	574.60					23.166953	84.656763	575.18				
	573.56					23.166589	84.656815	574.13				
	574.62					23.166325	84.656807	575.20				
	573.70					23.166591	84.656661	574.78				
	575.52					23.16703	84.656465	576.09				
	576.79					23.167217	84.656301	577.37				
	574.78					23.166847	84.656329	575.36				
GUM_SK_PRE_09	573.35	572.45	239108	210	GUM_SK_POS_09	23.166386	84.651454	573.58	572.68	239111	0.23	0.055
	572.53					23.165866	84.652257	572.76				
	572.74					23.165243	84.653115	572.97				
	573.13					23.164595	84.65406	573.36				
	572.63					23.164525	84.652977	572.86				
	573.02					23.164642	84.652228	573.25				
	573.00					23.164725	84.650973	573.23				
	571.91					23.164245	84.651703	572.14				
	572.21					23.163758	84.652439	572.44				
	573.07					23.163351	84.653048	573.30				
	571.33					23.163291	84.652124	571.56				
	570.10					23.163377	84.651347	570.33				
	571.90					23.163097	84.650246	572.12				
	568.89					23.162594	84.650922	569.12				
	572.56					23.161855	84.651523	572.79				
	570.27					23.162155	84.650599	570.50				
	573.46					23.16224	84.64956	573.69				
	570.92					23.161408	84.649875	571.15				
	574.45					23.16055	84.650356	574.68				
	572.46					23.160673	84.649737	572.69				
	571.42					23.160961	84.648952	571.64				
	572.58					23.161068	84.6485	572.81				
	571.27					23.160377	84.64877	571.50				
	572.41					23.159845	84.649232	572.64				
	573.97					23.159586	84.649418	574.20				
	571.42					23.159728	84.648743	571.65				
	571.44					23.159914	84.648172	571.67				
	573.26					23.160019	84.647822	573.49				
	571.44					23.159631	84.648102	571.67				
	570.29					23.159235	84.64843	570.52				
	571.77					23.159005	84.648628	572.00				
	572.45					23.159179	84.647777	572.68				
	574.57					23.159205	84.647184	574.80				
	573.29					23.158736	84.647479	573.52				

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	572.74					23.158379	84.647809	572.97				
	573.27					23.158161	84.648	573.50				
	572.93					23.158126	84.647325	573.16				
	573.51					23.158247	84.646811	573.74				
	573.40					23.158309	84.646362	573.63				
	573.15					23.157852	84.646756	573.38				
	572.75					23.157485	84.647362	572.98				
	574.41					23.157144	84.647854	574.64				
	572.36					23.157278	84.647038	572.59				
	572.73					23.15742	84.646562	572.96				
	573.45					23.157492	84.646091	573.68				
	571.84					23.157084	84.646778	572.07				
	573.30					23.156725	84.647707	573.53				
	571.49					23.156852	84.646955	571.72				
	573.28					23.157145	84.646055	573.51				
GUM_SK_PRE_10	563.61	562.33	358060	265	**GUM_SK_POS_10**	23.136729	84.643733	564.12	562.84	358063	0.51	0.1826
	562.11					23.136513	84.644524	562.61				
	562.40					23.136158	84.645935	562.90				
	564.20					23.135956	84.647425	564.71				
	562.30					23.135639	84.646534	562.80				
	561.87					23.135257	84.644846	562.38				
	564.55					23.135094	84.64413	565.06				
	560.63					23.134896	84.645537	561.13				
	563.22					23.134611	84.646606	563.72				
	564.61					23.134528	84.647895	565.11				
	564.33					23.133967	84.646775	564.84				
	562.05					23.133662	84.646066	562.55				
	562.34					23.133469	84.645613	562.85				
	563.91					23.133308	84.646527	564.42				
	564.05					23.133072	84.648106	564.56				
	561.48					23.132805	84.647349	561.98				
	561.19					23.132529	84.646499	561.70				
	562.36					23.132204	84.645441	562.87				
	560.23					23.132064	84.64625	560.74				
	561.13					23.13191	84.647143	561.63				
	563.49					23.131799	84.647786	564.00				
	559.90					23.131545	84.646739	560.41				
	560.89					23.1313	84.645867	561.40				
	564.29					23.131131	84.645343	564.79				
	561.02					23.130854	84.646204	561.53				
	563.09					23.13047	84.647343	563.60				
	561.94					23.130236	84.64663	562.45				
	562.39					23.130071	84.646015	562.90				
	562.63					23.129922	84.645202	563.14				
	562.13					23.129585	84.646742	562.64				
	564.08					23.129396	84.647603	564.59				
	562.26					23.129109	84.646957	562.76				
	564.14					23.128846	84.646049	564.65				
	562.55					23.128777	84.646834	563.05				
	563.13					23.128681	84.647537	563.64				
	566.01					23.128607	84.648031	566.52				
	562.72					23.128268	84.647345	563.23				
	564.25					23.128002	84.646832	564.76				
	562.80					23.127883	84.647557	563.31				
	565.80					23.127859	84.648769	566.31				
	566.39					23.127692	84.648443	566.90				
	563.71					23.127378	84.64781	564.22				
	563.22					23.127198	84.647347	563.73				
	563.86					23.127126	84.648146	564.36				
	563.86					23.127194	84.648685	564.37				
	562.93					23.127224	84.649249	563.44				
	562.05					23.126782	84.648618	562.55				
	563.02					23.126304	84.648003	563.53				
	562.51					23.126323	84.648787	563.01				
	562.68					23.126361	84.649488	563.18				
	563.49					23.126387	84.650006	564.00				
	562.78					23.125953	84.649446	563.28				
	563.51					23.125495	84.648818	564.01				
	562.31					23.125507	84.649441	562.82				
	560.97					23.125613	84.650011	561.48				
	561.41					23.125765	84.650786	561.91				
	560.71					23.125389	84.650436	561.21				
	559.93					23.125115	84.650149	560.43				
	561.63					23.124795	84.649801	562.13				
	560.55					23.124875	84.650534	561.06				
	560.42					23.125058	84.651021	560.92				
	561.32					23.12526	84.651588	561.82				
	559.91					23.124862	84.651305	560.41				
	560.45					23.124498	84.651078	560.95				

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	561.19					23.124179	84.650915	561.69				
	559.05					23.124396	84.651571	559.56				
	560.02					23.12458	84.652098	560.53				
	562.01					23.12478	84.652628	562.52				
	559.34					23.124239	84.652205	559.85				
	560.76					23.123793	84.651918	561.27				
	561.89					23.123593	84.651773	562.39				
	560.27					23.123929	84.652351	560.78				
	561.05					23.124371	84.65284	561.56				
	562.37					23.124575	84.653086	562.88				
	560.99					23.12375	84.652393	561.50				
	562.70					23.123391	84.652096	563.21				
GUM_SK_PRE_11	559.44	559.27	368111	233	GUM_SK_POS_11	23.115853	84.660629	560.00	559.83	368114	0.56	0.2061
	559.22					23.116099	84.661215	559.78				
	560.36					23.116338	84.662002	560.92				
	560.80					23.116436	84.662529	561.36				
	560.13					23.11591	84.661943	560.70				
	559.95					23.115563	84.661553	560.51				
	560.45					23.115095	84.661037	561.02				
	560.95					23.115134	84.661933	561.51				
	560.69					23.115193	84.662457	561.25				
	559.82					23.115237	84.663392	560.38				
	558.46					23.114696	84.662747	559.02				
	556.78					23.114253	84.662351	557.34				
	559.74					23.113808	84.661997	560.30				
	557.05					23.113847	84.662807	557.60				
	558.56					23.114095	84.663629	559.12				
	560.51					23.114191	84.664169	561.07				
	558.75					23.113622	84.663567	559.31				
	558.61					23.113226	84.663199	559.17				
	560.17					23.112702	84.662797	560.73				
	559.21					23.11292	84.66378	559.77				
	561.24					23.113337	84.664824	561.80				
	559.41					23.112835	84.664515	559.97				
	558.16					23.11217	84.664121	558.72				
	558.53					23.111836	84.663949	559.09				
	557.85					23.112006	84.664611	558.41				
	558.03					23.112299	84.665191	558.59				
	560.83					23.113017	84.665933	561.39				
	557.56					23.111975	84.66556	558.12				
	558.47					23.111512	84.665341	559.03				
	560.24					23.111264	84.665162	560.80				
	558.08					23.112103	84.666172	558.64				
	559.79					23.112485	84.666496	560.35				
	561.77					23.112968	84.666964	562.33				
	559.07					23.112264	84.666921	559.63				
	557.41					23.111712	84.66682	557.97				
	559.73					23.111036	84.66671	560.30				
	556.99					23.1116	84.667344	557.55				
	557.58					23.112281	84.667697	558.14				
	559.48					23.112934	84.66798	560.04				
	557.85					23.111909	84.66805	558.41				
	560.37					23.111275	84.668023	560.93				
	557.74					23.11199	84.668541	558.29				
	557.06					23.112737	84.668886	557.62				
	559.47					23.113165	84.669144	560.04				
	556.35					23.112579	84.669376	556.91				
	557.94					23.111989	84.669561	558.49				
	559.15					23.111647	84.669691	559.71				
	558.03					23.112238	84.669981	558.59				
	558.88					23.112939	84.670217	559.44				
	559.95					23.113333	84.670424	560.51				
	559.30					23.112752	84.670615	559.86				
	560.17					23.11195	84.670877	560.73				
	558.74					23.112497	84.67113	559.30				
	559.84					23.113369	84.671343	560.40				
	559.83					23.113577	84.671465	560.39				
	558.86					23.113089	84.671681	559.42				
	557.74					23.112527	84.671865	558.30				
	559.26					23.112282	84.671947	559.82				
	558.90					23.113017	84.672136	559.46				
	559.75					23.113593	84.672257	560.31				
	559.99					23.113795	84.672428	560.56				
	559.67					23.113355	84.672675	560.23				
	559.37					23.112912	84.672862	559.93				
	559.17					23.11263	84.672979	559.73				
	559.22					23.112663	84.672981	559.78				
	560.01					23.113166	84.673142	560.57				
	560.37					23.114032	84.673381	560.93				

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	560.02					23.113435	84.673521	560.58				
	559.97					23.112883	84.673702	560.53				
	559.37					23.113475	84.673821	559.93				
	560.16					23.114253	84.674041	560.72				
	559.20					23.113601	84.674318	559.76				
	559.68					23.113216	84.674337	560.24				
	559.99					23.113714	84.674697	560.55				
	558.94					23.11425	84.674861	559.50				
	560.04					23.114654	84.675058	560.60				
	558.57					23.114341	84.675294	559.13				
	561.39					23.113607	84.675639	561.95				
	557.72					23.114278	84.675737	558.28				
	557.78					23.114702	84.676027	558.34				
	557.42					23.114232	84.676345	557.98				
	559.87					23.113651	84.676407	560.43				
	557.67					23.114114	84.676709	558.23				
	560.24					23.114736	84.677115	560.81				
	558.20					23.114218	84.677123	558.76				
	558.95					23.113448	84.677032	559.51				
	558.18					23.113947	84.677442	558.74				
	560.10					23.11432	84.677608	560.66				
	562.69					23.114485	84.678002	563.26				
	559.62					23.114083	84.677868	560.18				
	558.51					23.113709	84.67771	559.07				
	558.00					23.113088	84.677439	558.55				
	558.89					23.113476	84.677989	559.45				
	560.82					23.113877	84.678433	561.39				
	562.01					23.114179	84.678724	562.58				
	560.81					23.113833	84.678565	561.37				
	559.02					23.113259	84.67818	559.58				
	558.34					23.112666	84.677709	558.90				
	560.09					23.113563	84.678618	560.65				
	561.99					23.11405	84.679135	562.55				
GUM_SK_PRE_12	544.82	544.34	275138	237	**GUM_SK_POS_12**	23.100416	84.683634	545.04	544.56	275140	0.22	0.0605
	543.79					23.100016	84.682842	544.01				
	543.78					23.09972	84.68207	544.00				
	544.03					23.099391	84.681564	544.25				
	543.78					23.099182	84.682537	544.00				
	543.78					23.099184	84.683225	544.00				
	543.93					23.099066	84.683858	544.15				
	543.78					23.098644	84.683073	544.00				
	543.78					23.098375	84.682261	544.00				
	544.19					23.098186	84.681481	544.41				
	543.78					23.097705	84.682428	544.00				
	543.78					23.097372	84.683211	544.00				
	545.15					23.097158	84.683712	545.37				
	543.78					23.096804	84.682703	544.00				
	543.78					23.096636	84.682052	544.00				
	544.11					23.096466	84.681397	544.32				
	543.78					23.096157	84.682143	544.00				
	543.80					23.095802	84.682733	544.02				
	544.24					23.095572	84.683106	544.46				
	543.78					23.095373	84.682315	544.00				
	543.78					23.095274	84.681782	544.00				
	543.95					23.095274	84.681747	544.17				
	543.78					23.094887	84.681764	544.00				
	543.78					23.09448	84.682309	544.00				
	544.10					23.094302	84.682591	544.31				
	543.78					23.09402	84.681944	544.00				
	543.78					23.093955	84.681276	544.00				
	544.26					23.093734	84.680783	544.47				
	543.78					23.093414	84.681189	544.00				
	543.79					23.09325	84.681719	544.01				
	543.95					23.093063	84.682109	544.17				
	543.78					23.092969	84.681665	544.00				
	544.03					23.092891	84.681279	544.25				
	544.59					23.092853	84.68078	544.81				
	544.05					23.092512	84.681436	544.27				
	544.31					23.09231	84.682028	544.53				
	544.03					23.092206	84.681459	544.25				
	544.48					23.092066	84.681084	544.70				
	544.77					23.091956	84.680845	544.99				
	544.05					23.09165	84.681445	544.27				
	544.48					23.091544	84.681979	544.70				
	545.02					23.091437	84.682265	545.24				
	544.14					23.091197	84.681876	544.36				
	544.22					23.090999	84.681304	544.44				
	544.53					23.090815	84.681066	544.75				
	544.02					23.090659	84.681524	544.24				

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	544.27					23.090643	84.682192	544.49				
	545.92					23.090547	84.682729	546.14				
	543.98					23.090176	84.682427	544.19				
	543.78					23.089849	84.682082	544.00				
	543.78					23.089512	84.6818	544.00				
	544.08					23.089523	84.682554	544.30				
	546.56					23.089629	84.682933	546.78				
	549.13					23.089652	84.68331	549.35				
	546.07					23.089347	84.683077	546.29				
	544.46					23.089041	84.68283	544.67				
	543.81					23.088575	84.682473	544.02				
	544.22					23.088705	84.68291	544.44				
	545.14					23.088933	84.683288	545.36				
	546.72					23.089187	84.683674	546.94				
	545.26					23.088797	84.683531	545.48				
	544.05					23.088448	84.683305	544.27				
	543.92					23.087997	84.683052	544.14				
	543.97					23.088239	84.683511	544.19				
	544.95					23.088504	84.683854	545.17				
	546.51					23.088881	84.684289	546.73				
	545.64					23.088575	84.684174	545.86				
	544.45					23.088255	84.683944	544.67				
	543.97					23.087894	84.683664	544.19				
	543.82					23.087662	84.683483	544.04				
	544.09					23.087824	84.683992	544.31				
	544.13					23.088265	84.684682	544.35				
	544.68					23.088667	84.685204	544.90				
	543.90					23.0882	84.684883	544.12				
	544.00					23.087723	84.684314	544.22				
	544.22					23.087207	84.683948	544.44				
	544.19					23.087233	84.683949	544.40				
	544.13					23.087263	84.683966	544.35				
	543.78					23.088199	84.685206	544.00				
	544.52					23.088551	84.685661	544.73				
GUM_SK_PRE_13	543.89	543.16	191302	182	**GUM_SK_POS_13**	23.083862	84.693388	544.38	543.65	191306	0.49	0.0937
	543.98					23.083969	84.69371	544.48				
	544.25					23.084065	84.694011	544.74				
	546.42					23.084395	84.694947	546.91				
	545.10					23.083958	84.694633	545.59				
	544.04					23.083594	84.694459	544.53				
	543.52					23.083305	84.694289	544.01				
	544.03					23.08348	84.694985	544.52				
	544.84					23.083589	84.695555	545.33				
	546.06					23.083692	84.696165	546.55				
	543.70					23.083278	84.696002	544.19				
	543.55					23.082893	84.695766	544.04				
	543.78					23.082542	84.6956	544.27				
	543.58					23.082628	84.696223	544.07				
	543.82					23.08275	84.696674	544.31				
	545.13					23.083013	84.697349	545.63				
	544.23					23.08274	84.697287	544.72				
	543.60					23.082336	84.697121	544.09				
	543.88					23.081974	84.697011	544.37				
	544.08					23.081772	84.696951	544.57				
	543.51					23.081922	84.697502	544.00				
	543.86					23.082176	84.697982	544.35				
	544.30					23.082312	84.698385	544.79				
	543.70					23.081862	84.698183	544.19				
	543.58					23.081514	84.698033	544.07				
	543.76					23.081238	84.697929	544.25				
	543.60					23.08149	84.698462	544.09				
	544.01					23.081659	84.698754	544.50				
	544.42					23.081749	84.699081	544.91				
	543.77					23.081378	84.699041	544.26				
	543.28					23.081094	84.698837	543.77				
	543.12					23.080778	84.698688	543.61				
	543.35					23.080602	84.698616	543.84				
	542.53					23.080679	84.699156	543.01				
	543.14					23.08089	84.699528	543.63				
	544.50					23.081101	84.699848	544.99				
	542.93					23.080624	84.699631	543.42				
	542.63					23.080362	84.699391	543.12				
	542.52					23.080102	84.699199	543.01				
	542.58					23.08014	84.6995	543.07				
	542.80					23.080239	84.699993	543.29				
	543.97					23.080382	84.700454	544.46				
	542.46					23.079891	84.700315	542.95				
	542.44					23.079454	84.700093	542.93				
	542.47					23.079207	84.700032	542.96				

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	542.10					23.079379	84.700458	542.59				
	541.94					23.079519	84.700845	542.43				
	543.04					23.079888	84.70147	543.53				
	541.92					23.07939	84.701255	542.40				
	541.55					23.078996	84.701002	542.04				
	541.53					23.0788	84.700871	542.02				
	541.62					23.079033	84.70141	542.11				
	541.81					23.079274	84.701897	542.30				
	542.48					23.079454	84.70234	542.97				
	541.64					23.079206	84.702786	542.13				
	541.68					23.078701	84.702253	542.17				
	542.51					23.078116	84.702183	543.00				
	541.59					23.078492	84.702677	542.08				
	542.82					23.078947	84.703239	543.31				
	541.65					23.078409	84.703112	542.13				
	542.56					23.07776	84.702891	543.05				
	541.81					23.078165	84.703468	542.30				
	542.73					23.078428	84.70395	543.22				
	543.87					23.078555	84.70426	544.36				
	542.22					23.078058	84.704216	542.71				
	541.73					23.077598	84.704057	542.22				
	542.27					23.077177	84.703992	542.76				
	541.53					23.07747	84.704519	542.02				
	542.28					23.077802	84.705094	542.77				
	542.62					23.077829	84.705669	543.11				
	541.87					23.077068	84.70442	542.36				
GUM_SK_PRE_14	540.28	539.24	609548	199	**GUM_SK_POS_14**	23.071105	84.71803	540.82	539.78	609551	0.54	0.3292
	540.20					23.071501	84.718392	540.75				
	540.89					23.072141	84.718833	541.43				
	541.98					23.072374	84.719155	542.53				
	539.97					23.071775	84.719	540.51				
	539.66					23.071291	84.718867	540.20				
	539.48					23.070801	84.718664	540.02				
	539.47					23.071066	84.719143	540.01				
	539.80					23.071325	84.719647	540.34				
	540.21					23.07151	84.719934	540.75				
	541.30					23.071711	84.720281	541.84				
	539.95					23.07115	84.720117	540.49				
	539.46					23.070802	84.720035	540.00				
	539.46					23.070474	84.71987	540.00				
	539.46					23.07	84.719589	540.00				
	539.46					23.070179	84.720229	540.00				
	539.46					23.070298	84.720655	540.00				
	539.52					23.070424	84.720935	540.06				
	539.65					23.070567	84.721319	540.19				
	539.71					23.070081	84.721061	540.25				
	539.46					23.069664	84.720832	540.00				
	539.46					23.069234	84.720541	540.00				
	539.54					23.069285	84.721292	540.08				
	539.87					23.069507	84.721895	540.41				
	540.13					23.069682	84.72254	540.67				
	539.47					23.069173	84.722355	540.01				
	539.46					23.068622	84.722013	540.00				
	539.46					23.068622	84.722001	540.00				
	539.79					23.068193	84.72169	540.33				
	539.59					23.068154	84.722245	540.13				
	539.46					23.068341	84.72275	540.00				
	539.57					23.06845	84.723123	540.11				
	539.69					23.068533	84.723304	540.23				
	540.26					23.068529	84.723805	540.80				
	539.13					23.067969	84.723496	539.67				
	538.81					23.067669	84.723179	539.35				
	539.36					23.067267	84.722749	539.90				
	538.46					23.067417	84.723364	539.00				
	538.61					23.067588	84.723659	539.15				
	538.98					23.067724	84.724124	539.52				
	539.85					23.067764	84.724437	540.39				
	538.62					23.067268	84.72426	539.16				
	538.46					23.066977	84.724139	539.00				
	538.46					23.066656	84.723936	539.00				
	538.70					23.066309	84.723692	539.24				
	539.03					23.06608	84.723497	539.57				
	538.46					23.066217	84.724165	539.00				
	538.46					23.066333	84.724695	539.00				
	538.80					23.066452	84.725102	539.34				
	540.45					23.066629	84.725562	540.99				
	539.67					23.066204	84.725413	540.21				
	538.91					23.065969	84.725173	539.45				
	538.46					23.065611	84.724865	539.00				

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	538.46					23.065303	84.724596	539.00				
	538.46					23.065026	84.724211	539.00				
	538.46					23.065003	84.724895	539.00				
	538.69					23.065182	84.725435	539.23				
	539.28					23.065291	84.725908	539.82				
	540.41					23.065386	84.726417	540.96				
	538.84					23.064767	84.726269	539.38				
	538.46					23.064318	84.725614	539.00				
	539.12					23.063741	84.724918	539.66				
	538.59					23.063796	84.725584	539.13				
	538.46					23.063845	84.726239	539.00				
	539.71					23.06399	84.727137	540.25				
	538.46					23.063454	84.726457	539.00				
	538.51					23.063129	84.725989	539.05				
	539.90					23.062731	84.725342	540.44				
	538.63					23.062654	84.725778	539.17				
	539.02					23.062643	84.726394	539.56				
	539.29					23.062618	84.726634	539.83				
	538.93					23.062314	84.726151	539.47				
	539.43					23.061847	84.725271	539.97				
	538.68					23.061621	84.72565	539.22				
	539.40					23.061334	84.726161	539.94				
	540.02					23.061197	84.726341	540.56				
	538.49					23.06099	84.725812	539.03				
	538.49					23.06099	84.725807	539.03				
	538.90					23.060825	84.72546	539.44				
	539.13					23.060632	84.725099	539.67				
	538.57					23.060249	84.725531	539.11				
	539.24					23.05999	84.725994	539.78				
	539.83					23.059827	84.726104	540.37				
	538.68					23.059717	84.725532	539.22				
	538.56					23.059561	84.725162	539.10				
	538.80					23.059422	84.724949	539.34				
	538.78					23.059137	84.725248	539.32				
	539.24					23.058931	84.725575	539.78				
	540.05					23.058713	84.726027	540.59				
	539.34					23.058616	84.725542	539.88				
	539.32					23.058473	84.725155	539.86				
	540.19					23.05837	84.724908	540.73				
	538.88					23.057849	84.725312	539.42				
	538.52					23.057548	84.725726	539.06				
	539.50					23.057236	84.72603	540.04				
	538.58					23.057192	84.72528	539.12				
	539.71					23.056995	84.724791	540.25				
	539.10					23.05657	84.725607	539.64				
	539.75					23.056156	84.726169	540.29				
	538.49					23.056024	84.725109	539.03				
	539.03					23.055809	84.724552	539.57				
	539.00					23.055815	84.724564	539.54				
	538.46					23.055116	84.725329	539.00				
	538.87					23.054794	84.726004	539.41				
	539.94					23.054403	84.726448	540.48				
	538.46					23.054165	84.725378	539.00				
	540.40					23.053973	84.724596	540.94				
	538.46					23.05359	84.725401	539.00				
	539.57					23.053418	84.726152	540.11				
	541.04					23.05322	84.726621	541.58				
	538.46					23.052968	84.72579	539.00				
	538.46					23.052815	84.725204	539.00				
	540.22					23.052619	84.724633	540.76				
	538.46					23.052371	84.725234	539.00				
	538.49					23.052166	84.725854	539.03				
	539.21					23.051964	84.726454	539.75				
	540.25					23.051792	84.726844	540.79				
	538.97					23.051392	84.726151	539.51				
	538.46					23.051204	84.725624	539.00				
	539.84					23.050859	84.724764	540.38				
	538.46					23.050566	84.725362	539.00				
	538.88					23.050342	84.726084	539.42				
	541.25					23.050093	84.726913	541.79				
	538.48					23.049859	84.725851	539.02				
	538.52					23.049397	84.724989	539.06				
	538.89					23.048785	84.726193	539.43				
	539.43					23.048573	84.72664	539.97				
	540.08					23.048321	84.727193	540.62				
	538.72					23.047825	84.726387	539.26				
	539.22					23.04804	84.72676	539.76				
	538.74					23.047487	84.725715	539.28				
	539.90					23.047141	84.725232	540.44				

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	538.46					23.047091	84.726357	539.00				
	538.97					23.047243	84.727095	539.51				
	539.66					23.047192	84.727543	540.20				
	539.05					23.046782	84.727154	539.59				
	538.46					23.046492	84.726351	539.00				
	539.02					23.046049	84.725464	539.56				
	538.46					23.045946	84.726273	539.00				
	538.53					23.045789	84.727218	539.07				
	539.09					23.045666	84.72755	539.63				
	538.59					23.045524	84.726815	539.13				
	539.08					23.045554	84.725577	539.62				
GUM_SK_PRE_15	539.35	537.74	439045	251	**GUM_SK_POS_15**	23.045135	84.725492	540.43	538.82	439048	1.08	0.4742
	537.92					23.044889	84.725933	539.00				
	537.92					23.044584	84.726404	539.00				
	538.30					23.044287	84.726942	539.38				
	537.92					23.044098	84.726373	539.00				
	537.92					23.043973	84.725879	539.00				
	538.27					23.04376	84.725273	539.34				
	537.92					23.043523	84.726154	539.00				
	537.92					23.043283	84.726632	539.00				
	537.92					23.043033	84.727062	539.00				
	537.92					23.042745	84.726243	539.00				
	538.13					23.042549	84.725651	539.21				
	538.51					23.042386	84.725261	539.59				
	538.53					23.042393	84.725252	539.61				
	537.92					23.041931	84.726072	539.00				
	537.92					23.04183	84.726586	539.00				
	537.92					23.041677	84.72719	539.00				
	538.08					23.041489	84.727671	539.16				
	537.92					23.041277	84.727406	539.00				
	537.92					23.041013	84.726971	539.00				
	539.56					23.040361	84.726248	540.64				
	537.92					23.040455	84.727443	539.00				
	537.92					23.040418	84.728282	539.00				
	538.47					23.040343	84.729119	539.55				
	538.35					23.040082	84.728727	539.43				
	537.96					23.039614	84.728399	539.04				
	538.83					23.039012	84.727846	539.91				
	537.96					23.039127	84.728798	539.04				
	537.92					23.039163	84.729572	539.00				
	538.90					23.03923	84.730365	539.98				
	537.92					23.038551	84.729997	539.00				
	538.09					23.037883	84.729743	539.17				
	538.58					23.03739	84.729491	539.66				
	537.92					23.037505	84.730489	539.00				
	537.93					23.037519	84.731154	539.01				
	538.93					23.037792	84.732186	540.01				
	537.92					23.037201	84.732016	539.00				
	537.92					23.036788	84.731887	539.00				
	538.85					23.036218	84.731777	539.93				
	537.92					23.036443	84.732552	539.00				
	537.94					23.036674	84.733306	539.02				
	537.92					23.036342	84.733136	539.00				
	537.92					23.035894	84.732958	539.00				
	538.42					23.035535	84.732755	539.49				
	537.92					23.035674	84.733471	539.00				
	537.92					23.035862	84.733992	539.00				
	537.82					23.035982	84.734397	538.90				
	537.91					23.035559	84.7342	538.99				
	537.92					23.035163	84.734051	539.00				
	538.52					23.034846	84.733904	539.60				
	537.56					23.035201	84.734567	538.64				
	537.92					23.035478	84.735136	539.00				
	537.41					23.035036	84.735182	538.49				
	537.06					23.034683	84.735093	538.14				
	537.03					23.034243	84.734968	538.11				
	537.12					23.034382	84.735317	538.20				
	537.60					23.034473	84.735763	538.68				
	537.81					23.034624	84.736156	538.89				
	537.67					23.034742	84.736596	538.75				
	537.18					23.034332	84.736427	538.26				
	537.22					23.033917	84.736253	538.30				
	537.54					23.033649	84.736103	538.62				
	537.69					23.033526	84.736056	538.77				
	537.51					23.033678	84.736536	538.59				
	537.13					23.033891	84.736972	538.21				
	536.94					23.034365	84.737455	538.01				
	536.97					23.033959	84.737354	538.04				
	537.21					23.033492	84.737202	538.29				

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	537.27					23.032988	84.737	538.35				
	536.93					23.033313	84.737553	538.00				
	537.22					23.033743	84.738004	538.30				
	537.90					23.03421	84.738392	538.98				
	537.36					23.033793	84.738509	538.44				
	537.00					23.033418	84.738545	538.08				
	537.41					23.032923	84.738583	538.49				
	537.78					23.03262	84.738595	538.86				
	537.31					23.033014	84.738921	538.38				
	536.93					23.033418	84.739236	538.01				
	537.16					23.033807	84.73951	538.24				
	537.93					23.034232	84.739847	539.01				
	537.29					23.03367	84.739914	538.36				
	536.95					23.03319	84.739895	538.02				
	537.04					23.032756	84.739864	538.11				
	537.59					23.032406	84.739818	538.67				
	536.92					23.03279	84.740336	538.00				
	536.99					23.033385	84.740777	538.06				
	537.49					23.0341	84.741149	538.57				
	536.92					23.033156	84.74105	538.00				
	536.92					23.032698	84.740998	538.00				
	538.19					23.032279	84.741005	539.27				
	536.92					23.032819	84.741477	538.00				
	536.92					23.03347	84.742	538.00				
	536.92					23.033875	84.742339	538.00				
	536.92					23.033277	84.742381	538.00				
	536.92					23.032686	84.742295	538.00				
	538.61					23.032147	84.742284	539.69				
	536.92					23.032803	84.742683	538.00				
	537.12					23.033582	84.743038	538.19				
	536.92					23.032559	84.742749	538.00				
	538.52					23.032195	84.742658	539.60				
GUM_SK_PRE_16	537.75	536.15	168870	233	**GUM_SK_POS_16**	23.031141	84.74555	538.18	536.58	168873	0.43	0.0726
	537.16					23.031154	84.745866	537.59				
	536.86					23.031215	84.746219	537.29				
	536.58					23.031324	84.746656	537.01				
	537.07					23.031482	84.747204	537.50				
	536.60					23.030917	84.746924	537.03				
	536.79					23.030624	84.746783	537.22				
	536.98					23.030478	84.746699	537.41				
	537.40					23.030176	84.746514	537.83				
	537.22					23.030219	84.746764	537.65				
	536.90					23.030279	84.747082	537.33				
	536.59					23.030356	84.747474	537.02				
	536.57					23.030511	84.748048	537.00				
	536.47					23.030646	84.748711	536.90				
	536.44					23.030363	84.748519	536.87				
	536.54					23.029977	84.748299	536.97				
	536.30					23.029654	84.748046	536.73				
	536.40					23.029191	84.747644	536.83				
	536.71					23.028826	84.747322	537.14				
	536.07					23.02886	84.747678	536.50				
	535.73					23.028905	84.748137	536.16				
	535.57					23.028922	84.748458	536.00				
	535.57					23.02898	84.748844	536.00				
	535.68					23.028925	84.749234	536.11				
	535.57					23.028355	84.748569	536.00				
	535.57					23.028069	84.748172	536.00				
	535.57					23.027803	84.747771	536.00				
	536.42					23.027463	84.747323	536.85				
	535.57					23.027233	84.748227	536.00				
	535.57					23.027014	84.749055	536.00				
	535.57					23.026548	84.748515	536.00				
	535.53					23.026335	84.748246	535.96				
	535.13					23.026066	84.747827	535.56				
	534.76					23.025797	84.747631	535.19				
	535.15					23.02569	84.747909	535.58				
	535.55					23.025556	84.7483	535.97				
	535.57					23.025457	84.749022	536.00				
	536.11					23.025412	84.749348	536.54				
	537.05					23.025359	84.749739	537.48				
	536.10					23.025235	84.749481	536.53				
	535.59					23.025103	84.749197	536.02				
	535.62					23.024958	84.748892	536.05				
	535.82					23.024791	84.748538	536.25				
	536.16					23.024643	84.74801	536.59				
	535.96					23.024674	84.748515	536.39				
	535.90					23.024721	84.749087	536.33				
	535.68					23.0248	84.749625	536.11				

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	535.57					23.024871	84.749988	536.00				
	536.09					23.024468	84.749315	536.52				
	536.55					23.024185	84.748825	536.98				
GUM_SK_PRE_17	537.74	532.95	422470	239	**GUM_SK_POS_17**	23.021617	84.750811	538.17	533.38	422473	0.43	0.1817
	536.97					23.021406	84.751124	537.40				
	535.44					23.021067	84.751523	535.87				
	534.24					23.020554	84.75219	534.67				
	533.57					23.019938	84.753762	534.00				
	533.57					23.019634	84.752333	534.00				
	533.73					23.019422	84.751563	534.16				
	536.47					23.019221	84.750644	536.90				
	533.81					23.018811	84.751324	534.24				
	533.57					23.01849	84.751984	534.00				
	534.54					23.018106	84.752877	534.97				
	533.78					23.017867	84.751972	534.21				
	533.57					23.017677	84.751034	534.00				
	533.43					23.017716	84.7503	533.86				
	533.55					23.017772	84.749701	533.98				
	532.57					23.017249	84.74986	533.00				
	532.58					23.016685	84.750068	533.00				
	532.85					23.015562	84.750353	533.28				
	532.57					23.015707	84.749217	533.00				
	533.56					23.015986	84.748259	533.99				
	532.71					23.015333	84.748237	533.14				
	532.57					23.014855	84.748226	533.00				
	532.90					23.014029	84.748262	533.33				
	532.57					23.014187	84.747054	533.00				
	532.57					23.014628	84.746527	533.00				
	532.91					23.015088	84.745965	533.33				
	532.57					23.014082	84.745811	533.00				
	532.91					23.013005	84.74572	533.34				
	532.25					23.013416	84.744665	532.68				
	533.58					23.014179	84.74375	534.01				
	532.16					23.013577	84.743739	532.59				
	531.57					23.012753	84.743696	532.00				
	531.94					23.012358	84.743651	532.36				
	533.24					23.011774	84.743586	533.66				
	532.03					23.011889	84.74302	532.46				
	531.60					23.012025	84.742543	532.03				
	531.57					23.012166	84.74204	532.00				
	532.08					23.012441	84.741216	532.50				
	531.57					23.011604	84.741438	532.00				
	531.57					23.010807	84.741628	532.00				
	531.79					23.010244	84.741771	532.22				
	531.57					23.010279	84.741328	532.00				
	531.57					23.010342	84.74079	532.00				
	531.59					23.010437	84.739979	532.01				
	532.17					23.010538	84.739234	532.59				
	531.57					23.009905	84.740249	532.00				
	531.57					23.009641	84.740611	532.00				
	531.76					23.009384	84.740939	532.19				
	531.57					23.009775	84.739709	532.00				
	533.35					23.01008	84.738808	533.78				
GUM_SK_PRE_18	531.52	530.5	411294	387	**GUM_SK_POS_18**	23.00544	84.73956	532.00	530.98	411297	0.48	0.1974
	531.52					23.005123	84.739445	532.00				
	531.22					23.004749	84.739292	531.70				
	530.91					23.004487	84.739171	531.39				
	530.70					23.004199	84.739043	531.18				
	531.04					23.003638	84.738738	531.51				
	530.52					23.003926	84.739428	531.00				
	530.72					23.004009	84.740101	531.20				
	532.43					23.004202	84.740778	532.91				
	531.51					23.003888	84.740619	531.99				
	530.94					23.003633	84.74048	531.42				
	530.71					23.003125	84.74022	531.18				
	532.06					23.002421	84.739904	532.54				
	530.65					23.002747	84.740679	531.13				
	531.07					23.002987	84.741226	531.55				
	532.18					23.003176	84.741815	532.66				
	530.63					23.002542	84.741675	531.11				
	530.82					23.001891	84.741323	531.30				
	531.42					23.001264	84.740887	531.90				
	530.47					23.001376	84.741482	530.95				
	530.32					23.001494	84.742015	530.79				
	531.98					23.001772	84.742941	532.46				
	530.64					23.001415	84.742748	531.12				
	529.64					23.000928	84.742458	530.11				
	529.90					23.000296	84.742012	530.38				
	531.51					22.999774	84.741606	531.99				





	530.24					22.999827	84.742131	530.72				
	529.52					22.999869	84.742698	530.00				
	529.60					23.000094	84.743635	530.08				
	530.71					23.000356	84.744821	531.19				
	529.52					22.999407	84.744281	530.00				
	529.52					22.998667	84.743648	530.00				
	530.80					22.99792	84.743003	531.28				
	529.78					22.997983	84.743646	530.26				
	529.52					22.99809	84.74427	530.00				
	529.52					22.998419	84.745464	530.00				
	530.65					22.998584	84.746418	531.13				
	529.52					22.997651	84.745835	530.00				
	529.52					22.996776	84.745253	530.00				
	532.44					22.996015	84.744693	532.92				
	529.55					22.996386	84.745809	530.03				
	529.56					22.996856	84.746801	530.04				
	531.28					22.997187	84.74786	531.76				
	529.98					22.996804	84.747614	530.46				
	529.52					22.996027	84.747108	530.00				
	529.50					22.995537	84.74672	529.98				
	532.29					22.99486	84.746198	532.77				
	529.24					22.995082	84.746931	529.71				
	528.86					22.995276	84.747498	529.33				
	529.33					22.995543	84.748383	529.81				
	531.15					22.995696	84.74886	531.63				
	528.58					22.994753	84.748178	529.06				
	530.37					22.99378	84.747462	530.84				
	529.98					22.995064	84.748886	530.46				
GUM_SK_PRE_19	528.68	528.08	139941	271	**GUM_SK_POS_19**	22.985425	84.740138	529.74	529.14	139945	1.06	0.1483
	528.38					22.985436	84.739933	529.44				
	528.20					22.985476	84.739665	529.26				
	528.03					22.985482	84.739336	529.09				
	528.16					22.985509	84.738982	529.22				
	528.67					22.985531	84.738556	529.73				
	528.55					22.985267	84.738659	529.61				
	528.43					22.985036	84.73876	529.49				
	528.37					22.984718	84.738942	529.43				
	529.09					22.984182	84.739308	530.15				
	528.51					22.984175	84.738809	529.57				
	528.20					22.984235	84.738511	529.26				
	528.36					22.984343	84.738213	529.42				
	529.95					22.984603	84.737726	531.02				
	528.55					22.984176	84.737843	529.61				
	528.30					22.983964	84.737934	529.36				
	528.09					22.983713	84.738062	529.15				
	527.94					22.98327	84.738317	529.00				
	528.10					22.983014	84.738429	529.16				
	527.94					22.983111	84.73781	529.00				
	528.00					22.98317	84.737442	529.06				
	528.35					22.983252	84.73712	529.41				
	529.10					22.983388	84.736692	530.16				
	528.50					22.983096	84.736847	529.56				
	528.19					22.982816	84.736957	529.25				
	527.94					22.982359	84.737125	529.00				
	527.94					22.982019	84.737279	529.00				
	527.94					22.981707	84.737396	529.00				
	527.94					22.981835	84.736688	529.00				
	528.30					22.981886	84.736105	529.36				
	529.69					22.981954	84.735542	530.75				
	528.42					22.981675	84.735644	529.48				
	528.01					22.981342	84.735769	529.06				
	527.94					22.981101	84.735908	529.00				
	527.94					22.980944	84.735994	529.00				
	527.80					22.980637	84.736155	528.86				
	527.68					22.980299	84.736324	528.74				
	527.54					22.98031	84.736136	528.60				
	527.46					22.980394	84.735895	528.51				
	527.07					22.980544	84.735165	528.13				
	527.32					22.980498	84.734844	528.37				
	527.98					22.980513	84.734568	529.04				
	527.54					22.980271	84.73475	528.60				
	527.04					22.980043	84.734961	528.09				
	526.94					22.979693	84.73554	528.00				
	526.94					22.97949	84.735788	528.00				
	526.94					22.979605	84.735307	528.00				
	527.08					22.979709	84.734932	528.13				
	527.88					22.979835	84.734566	528.94				
GUM_SK_PRE_20	528.26	527.35	481602	274	**GUM_SK_POS_20**	22.979213	84.73438	528.79	527.87	481607	0.52	0.2504
	527.80					22.979025	84.734671	528.33				

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	527.47					22.97877	84.735055	528.00				
	527.47					22.97854	84.735613	528.00				
	527.47					22.978434	84.735831	528.00				
	527.48					22.978231	84.735072	528.01				
	527.65					22.978147	84.734317	528.18				
	528.14					22.978104	84.734106	528.67				
	527.56					22.977826	84.734878	528.09				
	528.00					22.977545	84.735462	528.53				
	528.38					22.977332	84.735895	528.90				
	527.57					22.977201	84.735129	528.10				
	528.38					22.976929	84.73455	528.91				
	529.36					22.976747	84.734174	529.89				
	527.93					22.976541	84.734807	528.46				
	527.47					22.976348	84.735564	528.00				
	528.16					22.976184	84.73607	528.69				
	527.47					22.975997	84.735731	528.00				
	527.47					22.975767	84.735326	528.00				
	527.99					22.975419	84.734825	528.52				
	528.95					22.975244	84.734545	529.48				
	527.47					22.975073	84.735306	528.00				
	527.61					22.974989	84.735953	528.14				
	528.04					22.974882	84.736381	528.57				
	527.65					22.974707	84.736066	528.18				
	527.55					22.9745	84.735718	528.08				
	528.47					22.973896	84.734864	529.00				
	527.47					22.973689	84.735827	528.00				
	528.49					22.973647	84.736872	529.02				
	528.14					22.973336	84.73639	528.67				
	527.52					22.973088	84.73589	528.05				
	527.47					22.972614	84.735154	528.00				
	527.47					22.972603	84.735642	528.00				
	527.58					22.972632	84.736375	528.10				
	530.94					22.972755	84.737313	531.47				
	529.19					22.972369	84.736994	529.72				
	527.47					22.97204	84.736652	528.00				
	527.47					22.97168	84.736238	528.00				
	528.50					22.971322	84.735576	529.03				
	527.84					22.97127	84.73602	528.37				
	527.62					22.97125	84.736424	528.15				
	527.88					22.971347	84.737222	528.41				
	530.15					22.971426	84.738022	530.68				
	527.82					22.971135	84.737475	528.35				
	527.49					22.970884	84.73691	528.02				
	527.83					22.970439	84.736364	528.36				
	528.23					22.970228	84.736031	528.76				
	527.63					22.970202	84.736533	528.16				
	527.47					22.970204	84.736925	528.00				
	527.59					22.970275	84.737807	528.12				
	527.77					22.970376	84.738558	528.30				
	527.53					22.970058	84.738219	528.06				
	527.23					22.9698	84.737876	527.76				
	526.72					22.969372	84.737383	527.25				
	526.54					22.969073	84.73699	527.07				
	526.90					22.968807	84.736673	527.43				
	526.68					22.968772	84.737131	527.21				
	526.47					22.968749	84.73752	527.00				
	526.47					22.968831	84.738269	527.00				
	526.54					22.968891	84.739347	527.07				
	526.47					22.968596	84.73901	527.00				
	526.47					22.96835	84.738678	527.00				
	526.47					22.967949	84.738072	527.00				
	527.02					22.96748	84.737267	527.55				
	526.47					22.96731	84.738002	527.00				
	526.47					22.967245	84.738564	527.00				
	526.51					22.967276	84.73921	527.04				
	527.16					22.96728	84.739949	527.69				
	526.61					22.966924	84.739528	527.13				
	526.47					22.966573	84.739091	527.00				
	526.47					22.966079	84.738491	527.00				
	526.47					22.965716	84.738019	527.00				
	526.47					22.965612	84.73876	527.00				
	526.47					22.965604	84.739545	527.00				
	527.49					22.965714	84.740494	528.02				
	526.66					22.965339	84.740186	527.18				
	526.47					22.965014	84.739892	527.00				
	526.47					22.964476	84.739243	527.00				
	526.47					22.964038	84.738656	527.00				
	526.47					22.963927	84.739011	527.00				
	526.47					22.96388	84.739392	527.00				

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	526.59					22.963857	84.740151	527.11				
	527.08					22.963954	84.740681	527.61				
	527.58					22.963942	84.741016	528.11				
	526.47					22.963291	84.740264	527.00				
	526.47					22.962844	84.739649	527.00				
	526.47					22.962646	84.739347	527.00				
	526.54					22.962426	84.738965	527.06				
	526.47					22.96229	84.739431	527.00				
	526.47					22.962161	84.739793	527.00				
	526.47					22.962089	84.740497	527.00				
	527.77					22.962046	84.741577	528.30				
	526.55					22.961589	84.740901	527.07				
	526.47					22.961352	84.740361	527.00				
	526.54					22.961127	84.73991	527.07				
	527.10					22.960884	84.739443	527.63				
	526.56					22.96087	84.739926	527.09				
	526.47					22.960925	84.740284	527.00				
	527.83					22.961217	84.741818	528.36				
	526.47					22.960743	84.740196	527.00				
	527.67					22.960523	84.739529	528.20				
GUM_SK_PRE_21	524.88	524.04	286820	388	**GUM_SK_POS_21**	22.954284	84.732853	525.93	525.09	286822	1.05	0.3012
	524.48					22.953559	84.733633	525.53				
	525.05					22.952994	84.734218	526.10				
	524.17					22.953142	84.733517	525.22				
	523.99					22.953468	84.732301	525.04				
	524.44					22.953746	84.731104	525.50				
	523.95					22.953248	84.73198	525.00				
	523.95					22.952653	84.733076	525.00				
	526.33					22.952158	84.733985	527.38				
	523.95					22.952243	84.733268	525.00				
	523.95					22.952421	84.732336	525.00				
	523.95					22.952656	84.731542	525.00				
	524.60					22.953022	84.730594	525.65				
	523.95					22.952129	84.730873	525.00				
	523.95					22.951735	84.731351	525.00				
	523.95					22.951245	84.731913	525.00				
	525.62					22.950416	84.733419	526.67				
	523.95					22.950402	84.732133	525.00				
	523.95					22.950433	84.731513	525.00				
	523.95					22.950605	84.730797	525.00				
	523.95					22.950613	84.730437	525.00				
	524.34					22.950717	84.729839	525.39				
	523.95					22.950355	84.730103	525.00				
	523.95					22.94989	84.730468	525.00				
	523.95					22.949689	84.731248	525.00				
	523.95					22.949344	84.732368	525.00				
	526.42					22.94911	84.733515	527.47				
	523.95					22.948793	84.732096	525.00				
	523.95					22.948666	84.731529	525.00				
	523.95					22.948589	84.731154	525.00				
	524.10					22.948513	84.730675	525.15				
	523.85					22.948203	84.731394	524.90				
	523.41					22.947885	84.732136	524.46				
	523.06					22.947685	84.732939	524.11				
	524.70					22.947669	84.734223	525.75				
	522.95					22.947118	84.73322	524.00				
	522.95					22.946773	84.732805	524.00				
	522.97					22.946747	84.733509	524.02				
	523.09					22.946808	84.734021	524.14				
	523.66					22.946935	84.734664	524.71				
	524.08					22.946993	84.734955	525.14				
	523.25					22.946781	84.734668	524.30				
	522.95					22.946441	84.734228	524.00				
	523.37					22.946004	84.733725	524.42				
GUM_SK_PRE_22	518.16	516.67	147559	232	**GUM_SK_POS_22**	22.932623	84.737747	519.20	517.71	147562	1.04	0.1535
	517.31					22.932866	84.738074	518.35				
	516.81					22.933166	84.738458	517.85				
	517.06					22.933559	84.738838	518.10				
	518.01					22.933869	84.739327	519.05				
	516.07					22.933361	84.739185	517.10				
	516.11					22.932934	84.739046	517.15				
	516.30					22.932567	84.738887	517.34				
	517.79					22.932286	84.738805	518.82				
	515.97					22.93257	84.739481	517.00				
	515.97					22.93273	84.740014	517.01				
	517.43					22.933182	84.740921	518.47				
	515.97					22.932459	84.740555	517.00				
	515.97					22.932009	84.740237	517.00				
	516.50					22.931575	84.73995	517.54				

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	515.97					22.931706	84.740309	517.00				
	515.97					22.931865	84.740644	517.00				
	516.76					22.932283	84.741281	517.80				
	517.78					22.932436	84.741652	518.82				
	516.19					22.931816	84.741349	517.22				
	515.97					22.931438	84.741016	517.00				
	516.80					22.930963	84.740419	517.84				
	516.03					22.930921	84.740803	517.06				
	515.97					22.930888	84.741123	517.00				
	515.97					22.930883	84.741613	517.00				
	518.13					22.930828	84.742269	519.17				
	516.36					22.930442	84.741795	517.39				
	516.71					22.930089	84.741318	517.75				
	518.50					22.929774	84.74073	519.54				
	516.78					22.929695	84.741251	517.81				
	516.47					22.929669	84.741798	517.51				
	518.07					22.929689	84.74223	519.11				
	516.37					22.929297	84.74174	517.40				
	516.37					22.929133	84.741318	517.40				
	516.49					22.928993	84.741112	517.53				
	516.86					22.928852	84.740787	517.90				
	516.26					22.928751	84.74118	517.29				
	516.03					22.928633	84.74168	517.06				
	518.11					22.928567	84.74217	519.15				
	516.09					22.92836	84.741699	517.12				
	516.03					22.928227	84.741217	517.07				
	516.52					22.928049	84.740702	517.55				
	516.25					22.927961	84.741132	517.29				
	516.01					22.927897	84.74159	517.05				
	517.25					22.927828	84.742115	518.29				
	516.21					22.927672	84.74176	517.25				
	516.34					22.927601	84.741308	517.38				
	517.58					22.927432	84.74068	518.61				
	516.05					22.927521	84.741595	517.08				
	516.97					22.927536	84.742078	518.01				
GUM_SK_PRE_23	517.71	513.85	188992	317	**GUM_SK_POS_23**	22.892875	84.756021	518.75	514.88	188995	1.03	0.1947
	514.46					22.89316	84.756499	515.49				
	514.36					22.893372	84.756939	515.39				
	516.25					22.89364	84.757727	517.28				
	514.13					22.892816	84.757025	515.16				
	514.58					22.892477	84.756604	515.61				
	514.00					22.892556	84.757022	515.03				
	514.19					22.892651	84.757595	515.22				
	514.85					22.892786	84.758148	515.88				
	516.31					22.892998	84.758714	517.34				
	515.04					22.892746	84.758599	516.07				
	513.97					22.892465	84.758493	515.00				
	513.97					22.891993	84.758173	515.00				
	514.12					22.891621	84.75784	515.15				
	513.99					22.891652	84.758228	515.02				
	513.97					22.891732	84.758848	515.00				
	513.72					22.892007	84.759513	514.75				
	513.55					22.892093	84.759883	514.58				
	514.14					22.892241	84.7604	515.17				
	513.39					22.891808	84.760208	514.42				
	513.04					22.891551	84.760066	514.07				
	513.01					22.891244	84.759936	514.04				
	512.98					22.890863	84.759701	514.01				
	512.97					22.89031	84.759189	514.00				
	514.69					22.889997	84.758928	515.73				
	512.97					22.890049	84.75948	514.00				
	512.97					22.89015	84.759754	514.00				
	512.97					22.890436	84.760529	514.00				
	513.72					22.890725	84.761167	514.75				
	514.53					22.89084	84.761484	515.56				
	513.80					22.890452	84.76128	514.83				
	513.34					22.890128	84.761097	514.37				
	512.97					22.889678	84.760653	514.00				
	512.97					22.889444	84.760464	514.00				
	512.98					22.889164	84.760228	514.01				
	514.71					22.888865	84.760036	515.74				
	513.81					22.888942	84.760387	514.84				
	513.10					22.889049	84.76093	514.12				
	513.08					22.88926	84.761613	514.11				
	514.54					22.889662	84.762352	515.57				
	512.97					22.889154	84.762241	514.00				
	512.97					22.888602	84.762004	514.00				
	513.40					22.888213	84.761844	514.43				
	512.97					22.888396	84.762185	514.00				

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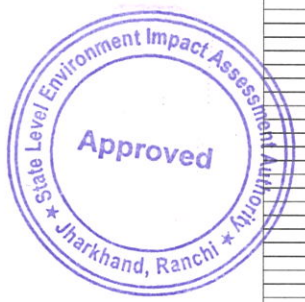
	512.97					22.888578	84.76244	514.00					
	513.43					22.889124	84.762904	514.46					
	513.08					22.888534	84.762857	514.10					
	513.26					22.88822	84.762852	514.29					
	513.94					22.887957	84.762855	514.97					
GUM_SK_PRE_24	509.42	506.48	367965	209	GUM_SK_POS_24	22.878522	84.788709	509.77	506.83	367969	0.35	0.1288	
	509.08					22.878801	84.789092	509.44					
	508.69					22.879128	84.789447	509.05					
	508.92					22.879463	84.789816	509.28					
	509.55					22.87985	84.790385	509.90					
	509.04					22.879283	84.790252	509.40					
	509.19					22.878705	84.79007	509.54					
	510.11					22.878029	84.789877	510.47					
	510.89					22.877716	84.789716	511.24					
	510.14					22.877828	84.790026	510.50					
	508.78					22.87822	84.79054	509.14					
	508.76					22.87864	84.791173	509.11					
	509.89					22.879153	84.791784	510.24					
	507.42					22.878238	84.791665	507.77					
	505.73					22.877529	84.791428	506.08					
	505.65					22.877003	84.791235	506.00					
	506.55					22.877476	84.792055	506.91					
	506.99					22.877791	84.792538	507.35					
	507.78					22.8781	84.793109	508.14					
	507.41					22.877387	84.79271	507.77					
	506.35					22.876973	84.792458	506.70					
	505.81					22.876751	84.79233	506.16					
	506.47					22.876876	84.792863	506.83					
	507.22					22.877103	84.793422	507.58					
	507.63					22.877437	84.79401	507.99					
	507.33					22.87687	84.793822	507.69					
	507.18					22.876404	84.793637	507.54					
	507.65					22.876121	84.793492	508.00					
	506.93					22.876354	84.794111	507.29					
	507.05					22.876509	84.79459	507.40					
	507.37					22.876708	84.795232	507.73					
	507.11					22.876341	84.795074	507.46					
	507.23					22.875915	84.794843	507.58					
	507.84					22.875432	84.79457	508.19					
	507.35					22.875812	84.795271	507.71					
	507.22					22.876069	84.79581	507.57					
	507.88					22.876248	84.796236	508.24					
	506.79					22.875708	84.796046	507.15					
	507.74					22.875331	84.795869	508.10					
	508.75					22.874765	84.795454	509.10					
	506.94					22.874957	84.796186	507.30					
	505.18					22.875113	84.796767	505.53					
	506.95					22.875172	84.797379	507.30					
	505.45					22.874632	84.797116	505.81					
	505.39					22.874202	84.796874	505.74					
	507.76					22.873855	84.796709	508.11					
	505.43					22.874041	84.797249	505.78					
	505.25					22.874276	84.797722	505.60					
	506.16					22.874377	84.79806	506.52					
	505.54					22.873913	84.797842	505.89					
	506.21					22.873521	84.797545	506.56					
	507.23					22.873333	84.797401	507.59					
	506.58					22.873374	84.798053	506.93					
	506.41					22.873616	84.798575	506.77					
	507.27					22.873759	84.79924	507.62					
	505.86					22.873151	84.79902	506.21					
	506.44					22.872697	84.798792	506.79					
	507.47					22.872408	84.798686	507.83					
	505.67					22.872581	84.799369	506.02					
	506.11					22.872849	84.800018	506.46					
	508.39					22.873013	84.800534	508.74					
	505.46					22.87255	84.800362	505.81					
	505.93					22.872159	84.800169	506.28					
	507.70					22.871709	84.799954	508.05					
	505.06					22.871906	84.800435	505.42					
	503.99					22.87218	84.800921	504.34					
	505.75					22.872537	84.801479	506.10					
	503.34					22.871833	84.801075	503.69					
	504.43					22.87137	84.800832	504.78					
	505.53					22.871215	84.800782	505.88					
	503.91					22.871494	84.801348	504.27					
	503.95					22.871795	84.801875	504.31					
	504.70					22.872104	84.802489	505.05					
	503.67					22.871594	84.802398	504.02					





	504.77					22.870797	84.802134	505.12				
	507.45					22.87045	84.802073	507.80				
	503.65					22.870865	84.802872	504.00				
	504.34					22.871322	84.803621	504.69				
	505.23					22.871495	84.803993	505.58				
	504.26					22.870632	84.803803	504.62				
	502.71					22.87003	84.803574	503.06				
	503.93					22.86966	84.803459	504.28				
	503.24					22.870187	84.804011	503.59				
	504.84					22.870609	84.804505	505.20				
	506.81					22.871173	84.805044	507.17				
	504.10					22.870404	84.804924	504.46				
	503.70					22.869816	84.804802	504.05				
	506.19					22.869364	84.804705	506.54				
	503.75					22.870149	84.805319	504.10				
	504.64					22.870538	84.805772	505.00				
	504.06					22.869973	84.805566	504.41				
	506.46					22.869281	84.80518	506.81				
GUM_SK_PRE_25	466.91	466.92	225519	263	**GUM_SK_POS_25**	22.830634	84.86315	467.84	467.85	225521	0.93	0.2097
	466.16					22.830741	84.863465	467.09				
	466.07					22.830895	84.864084	467.00				
	466.78					22.831183	84.86488	467.72				
	466.07					22.830658	84.864618	467.00				
	466.07					22.830119	84.86435	467.00				
	467.81					22.829552	84.863927	468.75				
	467.28					22.829635	84.864227	468.22				
	466.60					22.829735	84.864531	467.54				
	466.07					22.829921	84.865276	467.00				
	466.75					22.830094	84.866033	467.69				
	466.07					22.829638	84.865737	467.00				
	466.07					22.829178	84.865408	467.00				
	469.40					22.828601	84.86488	470.34				
	467.46					22.82866	84.865354	468.40				
	466.29					22.828748	84.865738	467.23				
	466.07					22.828857	84.866327	467.00				
	466.88					22.829086	84.867041	467.81				
	466.07					22.828545	84.866608	467.00				
	466.67					22.828013	84.866224	467.61				
	468.47					22.827616	84.865889	469.41				
	467.08					22.82769	84.866299	468.02				
	466.07					22.827787	84.866683	467.00				
	466.16					22.828077	84.867536	467.09				
	467.57					22.828128	84.868057	468.51				
	466.07					22.827321	84.867919	467.00				
	466.07					22.826745	84.867795	467.00				
	467.88					22.826184	84.867678	468.82				
	466.19					22.826552	84.868137	467.13				
	466.07					22.826909	84.868639	467.00				
	466.71					22.82741	84.869287	467.65				
	466.07					22.826606	84.869136	467.00				
	466.07					22.825955	84.86898	467.00				
	469.24					22.82544	84.868802	470.18				
	466.07					22.825889	84.869436	467.00				
	466.07					22.826414	84.869952	467.00				
	469.61					22.82709	84.870561	470.55				
	466.58					22.826193	84.870494	467.51				
	466.35					22.825593	84.870418	467.29				
	467.16					22.824981	84.870324	468.10				
	466.38					22.82564	84.870931	467.31				
	467.27					22.826335	84.871444	468.21				
	468.62					22.826797	84.871855	469.56				
	466.29					22.825782	84.871565	467.22				
	468.51					22.825045	84.871275	469.45				
	466.71					22.825733	84.871956	467.64				
	467.04					22.826601	84.872448	467.98				
	470.09					22.825275	84.872088	471.03				
GUM_SK_PRE_26	467.27	465.94	210920	238	**GUM_SK_POS_26**	22.829314	84.880417	467.65	466.31	210922	0.37	0.078
	466.64					22.829606	84.880481	467.02				
	465.73					22.829962	84.880521	466.10				
	467.04					22.83059	84.880563	467.42				
	466.00					22.830155	84.880693	466.37				
	466.50					22.829744	84.880773	466.88				
	467.80					22.829379	84.880857	468.17				
	468.50					22.829158	84.880881	468.88				
	466.63					22.829615	84.881063	467.00				
	465.66					22.829987	84.881147	466.03				
	466.69					22.830602	84.881276	467.06				
	465.78					22.830091	84.881382	466.15				
	466.09					22.829673	84.881336	466.47				

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	466.71					22.829338	84.881787	467.08				
	468.31					22.82898	84.881762	468.69				
	466.00					22.829384	84.881527	466.37				
	465.63					22.829806	84.881717	466.00				
	465.91					22.830237	84.881833	466.29				
	466.36					22.83061	84.881999	466.73				

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	465.72					22.830079	84.882051	466.10				
	465.63					22.829388	84.882029	466.00				
	467.05					22.828877	84.881985	467.42				
	468.00					22.828695	84.881966	468.37				
	466.18					22.829004	84.882191	466.55				
	465.63					22.829454	84.882381	466.00				
	465.73					22.830068	84.882567	466.10				
	466.56					22.830473	84.882677	466.93				
	465.63					22.829638	84.882663	466.00				
	465.67					22.829124	84.882601	466.05				
	466.12					22.828715	84.882567	466.50				
	466.38					22.828491	84.882559	466.75				
	465.85					22.828881	84.882801	466.22				
	465.63					22.829337	84.883006	466.00				
	465.63					22.829744	84.883203	466.00				
	467.15					22.830306	84.883443	467.52				
	465.63					22.829783	84.883564	466.00				
	465.63					22.829201	84.883543	466.00				
	465.74					22.828743	84.883511	466.11				
	465.85					22.828307	84.883449	466.22				
	465.88					22.828752	84.883753	466.25				
	465.63					22.829177	84.88403	466.00				
	465.63					22.82965	84.884295	466.00				
	466.30					22.830139	84.88456	466.68				
	465.63					22.829594	84.884583	466.00				
	465.70					22.829107	84.88456	466.07				
	466.24					22.828652	84.884543	466.62				
	466.57					22.82838	84.884514	466.94				
	466.12					22.828758	84.884817	466.49				
	465.63					22.82916	84.885031	466.01				
	465.83					22.829642	84.885295	466.20				
	466.19					22.829958	84.885493	466.56				
	465.82					22.829395	84.885574	466.19				
	465.68					22.829032	84.885545	466.06				
	465.84					22.828654	84.885544	466.21				
	465.97					22.828387	84.885526	466.34				
	465.64					22.828871	84.885808	466.01				
	466.12					22.829369	84.886048	466.50				
	468.03					22.829807	84.886276	468.41				
	466.26					22.829308	84.886404	466.64				
	465.84					22.828936	84.886478	466.21				
	466.35					22.828457	84.886545	466.73				
	467.33					22.828163	84.886572	467.70				
	466.13					22.828658	84.886897	466.50				
	465.17					22.829119	84.887122	465.54				
	468.03					22.829571	84.887359	468.41				
	465.40					22.828871	84.887414	465.78				
	466.47					22.828403	84.887354	466.85				
	467.56					22.828008	84.88733	467.94				
	466.19					22.828389	84.887634	466.57				
	464.97					22.828813	84.887995	465.34				
	465.92					22.829346	84.888317	466.30				
	464.65					22.828784	84.888314	465.02				
	464.77					22.828349	84.888274	465.14				
	466.53					22.827855	84.888223	466.91				
	465.05					22.828183	84.888606	465.42				
	464.90					22.828678	84.888875	465.27				
	466.13					22.829233	84.889181	466.50				
	465.14					22.828758	84.88922	465.51				
	464.72					22.828243	84.88918	465.09				
	465.74					22.827682	84.888988	466.12				
	464.99					22.827881	84.88932	465.36				
	464.10					22.828359	84.889662	464.47				
	465.58					22.828892	84.889864	465.96				
	466.52					22.82912	84.890025	466.89				
	464.50					22.828574	84.890008	464.88				
	464.02					22.828069	84.889934	464.40				
	464.91					22.827496	84.889776	465.29				
	464.28					22.827898	84.890213	464.66				
	464.80					22.82857	84.890466	465.17				
	467.43					22.828982	84.890875	467.80				
	463.95					22.828386	84.890826	464.32				
	464.61					22.827902	84.890756	464.99				
	464.67					22.827779	84.890467	465.04				
	465.74					22.827344	84.890343	466.12				
	465.19					22.82766	84.89078	465.56				
	463.62					22.82825	84.891083	463.99				
	466.68					22.82892	84.89106	467.06				

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ESTIMATED POTENTIAL AREA OF SAND BAR OF PRE-MONSOON AND POST MONSOON PERIOD												
SAND REPLENISHMENT ESTIMATION SHEET AS PER GSDA												
PRE MONSOON DATA					POST MONSOON DATA							
SANKH RIVER					SANKH RIVER							
UIN OF SAND BAR	AMSL	AVG AMSL	AREA IN SQM	RIVER WIDTH IN MTR	UIN OF SAND BAR	LATITUDE (N)	LONGITUDE (E)	AMSL	AVG AMSL	AREA IN SQM	SAND THICKNESS IN MTR	VOLUME IN M CUM
GUM_SH_PRE_01	719.91	717.78	69654	179	GUM_SH_POS_01	23.20939	84.131457	720.20	718.06	69659	0.28	0.0195
	720.04					23.209622	84.131328	720.33				
	720.12					23.209811	84.131277	720.41				
	720.19					23.209639	84.131531	720.48				
	719.92					23.209439	84.131812	720.21				
	720.26					23.209676	84.131804	720.55				
	720.57					23.21012	84.131827	720.86				
	720.43					23.209832	84.131998	720.72				
	719.75					23.209509	84.132199	720.04				
	720.40					23.209849	84.132247	720.69				
	720.21					23.210418	84.13233	720.50				
	720.64					23.210062	84.132424	720.93				
	719.80					23.209705	84.132589	720.08				
	719.42					23.209597	84.132674	719.71				
	719.57					23.209923	84.132792	719.86				
	718.66					23.210329	84.132906	718.95				
	717.39					23.210694	84.13304	717.68				
	717.43					23.210292	84.133228	717.72				
	717.72					23.209948	84.133385	718.00				
	717.86					23.209743	84.13353	718.15				
	717.31					23.210151	84.133692	717.60				
	718.07					23.210596	84.133912	718.36				
	719.34					23.210893	84.134084	719.63				
	718.49					23.210508	84.134144	718.78				
	716.99					23.210072	84.134184	717.28				
	717.25					23.20978	84.134211	717.54				
	717.39					23.210116	84.134466	717.68				
	718.23					23.210423	84.134685	718.52				
	718.58					23.210677	84.134924	718.87				
	717.90					23.2102	84.134912	718.19				
	717.39					23.209747	84.134812	717.68				
	718.03					23.210015	84.135245	718.32				
	718.81					23.210159	84.135632	719.10				
	717.44					23.209784	84.135419	717.73				
	716.80					23.209573	84.135322	717.08				
	716.37					23.20957	84.135645	716.66				
	716.83					23.209758	84.136118	717.12				
	715.68					23.209477	84.135945	715.97				
	714.47					23.209273	84.135795	714.75				
	715.20					23.209323	84.136076	715.49				
	715.94					23.209419	84.136336	716.23				
	716.25					23.209471	84.13657	716.54				
	716.05					23.209045	84.136565	716.34				
	715.36					23.208673	84.136465	715.64				
	715.66					23.208811	84.137	715.95				
	716.24					23.208873	84.137413	716.52				
	714.63					23.208539	84.137247	714.91				
	715.69					23.208068	84.137161	715.98				
	714.39					23.2085	84.137679	714.67				
	714.29					23.20854	84.137966	714.58				
	715.19					23.208105	84.137388	715.48				
GUM_SH_PRE_02	711.55	707.79	169499	211	GUM_SH_POS_02	23.18669	84.156949	711.69	707.93	169501	0.14	0.0237
	711.38					23.186541	84.156901	711.52				
	711.23					23.186412	84.156848	711.37				
	710.40					23.185902	84.156571	710.54				
	711.57					23.186069	84.157129	711.71				
	712.38					23.186318	84.157467	712.52				
	711.62					23.186432	84.157664	711.76				
	711.01					23.186519	84.157807	711.15				

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	710.66					23.186266	84.157762	710.81				
	710.62					23.185952	84.157674	710.77				
	710.56					23.185251	84.157302	710.70				
	709.23					23.185535	84.157769	709.37				
	705.52					23.185727	84.158266	705.66				
	705.52					23.185798	84.158505	705.66				
	706.98					23.185909	84.158805	707.12				
	706.53					23.185576	84.15871	706.67				
	706.25					23.18502	84.158449	706.39				
	706.52					23.184429	84.158166	706.66				
	707.08					23.184609	84.158627	707.23				
	709.21					23.184776	84.159206	709.35				
	710.90					23.184975	84.159756	711.05				
	709.46					23.184302	84.159332	709.60				
	706.11					23.183855	84.158983	706.25				
	704.44					23.183684	84.158828	704.58				
	704.93					23.183705	84.159384	705.07				
	706.13					23.183876	84.160002	706.27				
	708.57					23.184025	84.160486	708.71				
	704.42					23.183551	84.160141	704.57				
	704.50					23.183035	84.159867	704.64				
	706.12					23.182787	84.159692	706.26				
	705.91					23.182825	84.159994	706.05				
	705.63					23.182863	84.160355	705.77				
	705.02					23.18303	84.160859	705.16				
	706.47					23.183248	84.161383	706.61				
	706.37					23.182604	84.161077	706.51				
	707.26					23.18218	84.16082	707.40				
	707.86					23.18189	84.160611	708.00				
	707.46					23.181964	84.16094	707.60				
	707.02					23.182094	84.161357	707.16				
	705.64					23.182449	84.162014	705.78				
	706.38					23.182753	84.162464	706.52				
	707.75					23.181995	84.162361	707.89				
	709.86					23.181448	84.162233	710.00				
	711.40					23.181116	84.162182	711.54				
	708.68					23.181307	84.162481	708.83				
	707.76					23.181506	84.162783	707.91				
	704.70					23.181914	84.163454	704.84				
	706.45					23.182199	84.163817	706.59				
	705.21					23.181611	84.163581	705.35				
	706.56					23.181189	84.163449	706.70				
	709.27					23.180774	84.163329	709.41				
	705.90					23.181189	84.163927	706.04				
	707.47					23.181552	84.164234	707.61				
	709.40					23.181905	84.164729	709.54				
	706.91					23.181276	84.16455	707.05				
	706.96					23.180591	84.164472	707.10				
	706.23					23.181065	84.164692	706.38				
	709.08					23.181596	84.164816	709.22				
GUM SH PRE 03	705.07	704.38	182100	284	**GUM SH POS 03**	23.178294	84.17216	705.71	705.02	182101	0.64	0.1165
	706.63					23.177773	84.172316	707.27				
	707.51					23.177372	84.172494	708.15				
	707.36					23.177491	84.171851	708.00				
	706.73					23.177654	84.171331	707.37				
	707.30					23.177344	84.171527	707.94				
	707.56					23.176912	84.171904	708.20				
	707.82					23.176639	84.172101	708.46				
	706.83					23.176692	84.171438	707.47				
	705.85					23.176836	84.170875	706.49				
	706.19					23.176866	84.170456	706.82				
	705.00					23.176505	84.170823	705.63				
	705.28					23.176259	84.171206	705.92				
	706.10					23.176062	84.171821	706.73				
	706.41					23.17596	84.172287	707.05				
	704.46					23.175812	84.171307	705.09				
	704.16					23.175829	84.170664	704.80				
	706.22					23.175918	84.170233	706.86				
	702.45					23.175396	84.171011	703.08				

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	704.77					23.175311	84.171678	705.41				
	706.79					23.175376	84.17245	707.42				
	705.70					23.175005	84.172038	706.34				
	702.44					23.174755	84.171581	703.07				
	703.20					23.174379	84.17062	703.83				
	700.06					23.174293	84.171434	700.69				
	702.69					23.174401	84.172092	703.32				
	706.30					23.174703	84.172903	706.93				
	704.80					23.174288	84.17267	705.44				
	702.91					23.173782	84.172319	703.54				
	701.41					23.173351	84.171962	702.05				
	701.06					23.173012	84.171582	701.69				
	702.69					23.173141	84.172297	703.33				
	703.89					23.17352	84.17282	704.52				
	704.36					23.173916	84.173308	704.99				
	705.32					23.174179	84.173717	705.96				
	704.20					23.173664	84.173669	704.84				
	703.24					23.173109	84.173508	703.88				
	702.75					23.172667	84.173337	703.38				
	702.71					23.17246	84.173276	703.34				
	700.98					23.172828	84.173807	701.62				
	701.66					23.173216	84.174186	702.29				
	703.39					23.173849	84.174709	704.02				
	701.84					23.173352	84.174658	702.47				
	700.55					23.172883	84.1746	701.19				
	699.83					23.172442	84.174531	700.46				
	701.52					23.172828	84.17503	702.15				
	703.01					23.173368	84.175432	703.64				
	705.05					23.173759	84.17574	705.69				
	703.90					23.173232	84.175651	704.53				
	704.12					23.172725	84.175514	704.76				
	704.66					23.172396	84.175464	705.29				
	705.49					23.172686	84.175756	706.13				
	705.38					23.173104	84.176098	706.01				
	705.60					23.173525	84.1766	706.24				
	705.88					23.172868	84.176209	706.51				
	706.44					23.172428	84.175964	707.07				
GUM_SH_PRE_04	705.23	703.36	42522	222	**GUM_SH_POS_04**	23.171668	84.180814	705.94	704.06	42527	0.7	0.0298
	704.03					23.171729	84.181145	704.74				
	702.81					23.171729	84.181416	703.51				
	703.54					23.171471	84.181136	704.25				
	704.09					23.17117	84.180827	704.80				
	703.58					23.17119	84.181001	704.28				
	703.08					23.171218	84.181158	703.78				
	701.97					23.17125	84.181478	702.68				
	702.46					23.17102	84.18127	703.17				
	702.72					23.170849	84.181084	703.43				
	703.42					23.170719	84.180889	704.13				
	703.01					23.17063	84.18112	703.71				
	702.51					23.170509	84.181378	703.21				
	702.18					23.170341	84.181572	702.88				
	703.48					23.170298	84.181181	704.18				
	703.83					23.170298	84.181068	704.54				
	704.31					23.170302	84.180916	705.01				
	704.05					23.169916	84.18121	704.75				
	702.49					23.16969	84.181623	703.20				
	704.17					23.169635	84.181263	704.88				
	704.69					23.169596	84.181163	705.40				
	705.40					23.169564	84.181027	706.10				
	704.57					23.169379	84.181243	705.28				
	703.80					23.169276	84.181401	704.51				
	702.31					23.169103	84.181663	703.02				
	704.40					23.168952	84.181251	705.11				
	704.95					23.168885	84.181111	705.66				
	705.62					23.168773	84.180893	706.33				
	704.79					23.168652	84.181006	705.49				
	703.99					23.168514	84.181133	704.70				
	702.66					23.168322	84.181508	703.36				
	703.22					23.168175	84.181019	703.92				

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	702.73					23.168009	84.180807	703.43				
	702.30					23.167933	84.180952	703.00				
	701.43					23.16771	84.181262	702.14				
	700.88					23.167619	84.18084	701.58				
	700.82					23.167506	84.180624	701.52				
	701.52					23.167249	84.180874	702.22				
	702.38					23.167062	84.181044	703.09				
	702.90					23.166957	84.180765	703.61				
	703.19					23.166873	84.180451	703.89				
	704.06					23.166682	84.180697	704.77				
	704.07					23.166552	84.18091	704.77				
	703.91					23.166515	84.180689	704.62				
	703.46					23.166515	84.180369	704.16				
GUM_SH_PRE_05	691.40	689.02	71970	111	**GUM_SH_POS_05**	23.113332	84.207348	692.09	689.71	71972	0.69	0.0497
	690.26					23.113237	84.207533	690.95				
	689.68					23.113125	84.207852	690.37				
	690.03					23.113015	84.207631	690.72				
	690.90					23.112866	84.207409	691.59				
	690.07					23.112771	84.207584	690.76				
	689.37					23.112675	84.207803	690.06				
	688.67					23.112558	84.207976	689.36				
	689.64					23.112448	84.20769	690.33				
	690.45					23.112342	84.207476	691.14				
	689.78					23.112203	84.207666	690.47				
	689.18					23.112102	84.207871	689.87				
	688.69					23.111983	84.208067	689.38				
	689.41					23.111955	84.207818	690.10				
	690.02					23.111886	84.207607	690.71				
	690.36					23.111852	84.20749	691.06				
	689.53					23.111524	84.207837	690.22				
	688.37					23.111299	84.208187	689.06				
	689.43					23.110982	84.20789	690.12				
	691.02					23.110712	84.207532	691.71				
	689.97					23.110588	84.207779	690.66				
	688.55					23.110399	84.208265	689.24				
	689.82					23.110173	84.207858	690.51				
	690.34					23.109943	84.207475	691.03				
	689.46					23.109707	84.207924	690.15				
	689.31					23.109539	84.208309	690.00				
	689.13					23.109347	84.208064	689.82				
	688.37					23.109075	84.207682	689.06				
	688.53					23.109008	84.208044	689.22				
	688.84					23.108955	84.208431	689.53				
	687.72					23.108717	84.208102	688.41				
	687.40					23.108566	84.20786	688.09				
	686.81					23.108445	84.208224	687.50				
	687.26					23.108436	84.208719	687.95				
	686.66					23.108216	84.208379	687.35				
	687.13					23.108098	84.208217	687.82				
	686.94					23.108349	84.208787	687.63				
	688.24					23.107751	84.208517	688.93				
	688.75					23.107856	84.208835	689.44				
	689.51					23.107817	84.209064	690.20				
	690.63					23.107549	84.209039	691.32				
	691.32					23.107269	84.208959	692.01				
	691.59					23.107315	84.20928	692.28				
	691.71					23.107315	84.209506	692.41				
	691.18					23.106986	84.209434	691.87				
	691.11					23.10672	84.209375	691.80				
	689.80					23.106806	84.209677	690.49				
	688.50					23.106824	84.209988	689.19				
	688.50					23.106492	84.209823	689.19				
	689.62					23.106323	84.20969	690.31				
	687.32					23.106329	84.210008	688.01				
	687.83					23.106433	84.210373	688.52				
	687.38					23.106175	84.210246	688.07				
	687.26					23.105839	84.210043	687.95				
	687.06					23.105943	84.210344	687.75				
	687.14					23.10605	84.210649	687.83				

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	687.78					23.106213	84.21106	688.47				
	686.32					23.105819	84.210919	687.01				
	688.42					23.105602	84.210767	689.11				
	690.42					23.10541	84.210679	691.11				
	687.85					23.105577	84.211033	688.54				
	686.19					23.105891	84.211184	686.88				
	688.26					23.105469	84.211124	688.95				
	689.20					23.105238	84.211216	689.89				
GUM_SH_PRE_06	678.89	675.01	147040	177	**GUM_SH_POS_06**	23.100445	84.247887	679.50	675.61	147042	0.6	0.0882
	676.68					23.100117	84.248131	677.29				
	675.19					23.099792	84.248501	675.80				
	675.69					23.099675	84.248716	676.29				
	675.04					23.099636	84.248139	675.65				
	675.53					23.099541	84.247762	676.13				
	677.14					23.099505	84.247343	677.75				
	673.98					23.099268	84.247748	674.59				
	673.38					23.099028	84.24827	673.99				
	675.80					23.098881	84.248687	676.41				
	673.25					23.098747	84.248093	673.86				
	673.15					23.098676	84.24746	673.75				
	677.93					23.098615	84.246882	678.54				
	672.29					23.098246	84.247485	672.90				
	673.24					23.098011	84.24803	673.85				
	675.92					23.097756	84.248597	676.53				
	672.35					23.097602	84.247815	672.95				
	672.16					23.097537	84.247222	672.77				
	675.47					23.097521	84.246547	676.07				
	672.52					23.097207	84.247204	673.12				
	671.98					23.096987	84.247684	672.58				
	672.02					23.096984	84.247691	672.63				
	674.97					23.096789	84.248249	675.58				
	672.33					23.096673	84.247342	672.94				
	676.93					23.096599	84.246636	677.54				
	674.63					23.096251	84.247212	675.24				
	673.41					23.096128	84.247722	674.02				
	675.42					23.096011	84.24834	676.03				
	674.36					23.095749	84.247756	674.97				
	678.29					23.095479	84.247167	678.90				
	675.98					23.09536	84.247768	676.59				
	674.16					23.095303	84.248323	674.76				
	675.07					23.095257	84.248627	675.68				
	674.53					23.094921	84.248164	675.14				
	676.60					23.094534	84.247622	677.21				
	674.26					23.094499	84.248133	674.87				
	674.42					23.094553	84.248679	675.02				
	676.05					23.094572	84.249222	676.66				
	674.55					23.094179	84.248813	675.16				
	674.30					23.093911	84.248562	674.91				
	675.03					23.093612	84.248204	675.64				
	674.75					23.093563	84.248793	675.35				
	675.22					23.093571	84.249303	675.82				
	677.10					23.093633	84.249749	677.71				
	675.80					23.093367	84.24954	676.41				
	674.97					23.093106	84.249152	675.58				
	677.75					23.092727	84.248668	678.36				
	675.75					23.092767	84.24917	676.35				
	675.14					23.0928	84.249693	675.75				
	675.10					23.092804	84.25004	675.71				
	674.53					23.092568	84.249732	675.13				
	675.86					23.092382	84.249391	676.47				
	677.82					23.092174	84.248997	678.44				
	675.37					23.092201	84.249648	675.98				
	675.25					23.092201	84.250242	675.86				
GUM_SH_PRE_07	673.58	669.17	212580	253	**GUM_SH_POS_07**	23.080093	84.261574	674.26	669.84	212583	0.67	0.1424
	671.10					23.079889	84.262089	671.77				
	670.04					23.079766	84.262775	670.72				
	669.60					23.079508	84.262397	670.28				
	670.13					23.079183	84.261867	670.81				
	671.37					23.078928	84.261464	672.04				

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	669.89					23.07891	84.262029	670.57				
	669.40					23.0789	84.262561	670.07				
	669.94					23.078849	84.262944	670.61				
	669.44					23.078485	84.262408	670.11				
	669.91					23.078293	84.261993	670.58				
	671.12					23.078024	84.261416	671.79				
	669.50					23.07794	84.262224	670.17				
	669.81					23.077758	84.262933	670.48				
	669.08					23.077292	84.262214	669.75				
	668.65					23.07693	84.26167	669.32				
	669.89					23.076667	84.26134	670.57				
	668.33					23.076478	84.261893	669.00				
	668.33					23.076316	84.262496	669.00				
	668.34					23.076316	84.262508	669.01				
	668.58					23.076164	84.263014	669.25				
	668.33					23.075869	84.262249	669.00				
	668.56					23.075612	84.261772	669.23				
	670.00					23.075369	84.261288	670.67				
	668.87					23.075107	84.261985	669.54				
	668.33					23.074997	84.262504	669.00				
	668.33					23.0749	84.263265	669.00				
	668.69					23.074553	84.262202	669.36				
	669.69					23.074231	84.261515	670.36				
	668.89					23.074096	84.262071	669.56				
	668.33					23.073913	84.262765	669.00				
	668.88					23.07385	84.263519	669.55				
	668.40					23.073444	84.26247	669.07				
	669.72					23.073344	84.261915	670.39				
	668.65					23.07317	84.262446	669.32				
	668.49					23.073198	84.263165	669.16				
	669.11					23.07353	84.264021	669.78				
	668.50					23.073105	84.263658	669.17				
	668.98					23.072794	84.263275	669.65				
	669.28					23.072543	84.262905	669.95				
	669.28					23.072543	84.262947	669.95				
	668.57					23.07283	84.263838	669.24				
	669.24					23.073294	84.264965	669.91				
	668.35					23.072552	84.26447	669.02				
	669.45					23.072025	84.264194	670.12				
	668.36					23.072473	84.26519	669.03				
	669.75					23.072939	84.265709	670.43				
	669.98					23.073114	84.266148	670.66				
	668.87					23.072677	84.266017	669.54				
	669.28					23.071708	84.26574	669.95				
	668.27					23.072144	84.26631	668.94				
	668.38					23.072552	84.266782	669.05				
	668.48					23.072921	84.267249	669.15				
	668.05					23.072264	84.266969	668.72				
	668.32					23.071457	84.266579	668.99				
	668.27					23.071465	84.266587	668.94				
	668.18					23.072376	84.267466	668.85				
	668.61					23.072784	84.267826	669.28				
GUM_SH_PRE_08	668.15	666.28	427862	273	**GUM_SH_POS_08**	23.071173	84.269043	668.68	666.81	427865	0.53	0.2268
	667.76					23.071404	84.269213	668.30				
	667.92					23.072049	84.269489	668.46				
	668.46					23.072499	84.2698	669.00				
	667.87					23.072004	84.269859	668.41				
	667.50					23.071468	84.269872	668.04				
	667.59					23.071004	84.269864	668.13				
	667.33					23.071252	84.270225	667.87				
	667.39					23.071569	84.270554	667.92				
	669.34					23.072301	84.271062	669.88				
	667.40					23.071714	84.271015	667.94				
	666.86					23.07123	84.270978	667.39				
	666.72					23.070777	84.270913	667.26				
	666.55					23.070987	84.271308	667.08				
	666.47					23.071308	84.271729	667.00				
	669.24					23.072064	84.272347	669.78				
	666.47					23.071233	84.272238	667.00				

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	666.48					23.070829	84.272159	667.01				
	667.22					23.070519	84.272106	667.75				
	666.48					23.070828	84.272633	667.01				
	667.34					23.071245	84.273232	667.87				
	670.01					23.071823	84.273775	670.55				
	667.11					23.071055	84.273673	667.64				
	667.87					23.070246	84.273503	668.41				
	666.80					23.070908	84.274237	667.33				
	667.98					23.07135	84.274498	668.52				
	667.87					23.071647	84.274825	668.41				
	667.60					23.071284	84.27482	668.13				
	667.26					23.070787	84.274808	667.80				
	667.83					23.07	84.274692	668.37				
	667.73					23.070802	84.275236	668.26				
	668.59					23.07118	84.27551	669.12				
	669.85					23.071529	84.275744	670.39				
	668.85					23.071014	84.275862	669.39				
	667.47					23.070448	84.275886	668.01				
	668.88					23.069608	84.275735	669.41				
	666.57					23.070101	84.276315	667.10				
	666.47					23.070436	84.276688	667.00				
	667.11					23.070821	84.277222	667.65				
	665.97					23.070043	84.277131	666.50				
	666.21					23.069267	84.276879	666.74				
	667.04					23.068798	84.276639	667.58				
	666.20					23.068914	84.277033	666.73				
	665.61					23.069028	84.277398	666.14				
	666.96					23.069646	84.278709	667.49				
	665.56					23.068816	84.278463	666.09				
	665.47					23.068587	84.278259	666.00				
	665.47					23.068352	84.278059	666.00				
	666.49					23.068066	84.277873	667.03				
	667.93					23.06782	84.277708	668.46				
	666.62					23.067903	84.278075	667.16				
	665.84					23.067994	84.278404	666.37				
	665.48					23.068212	84.279112	666.01				
	667.98					23.068428	84.279746	668.52				
	665.91					23.067834	84.279476	666.45				
	665.65					23.06735	84.279221	666.18				
	666.51					23.06695	84.278976	667.04				
	666.03					23.067033	84.279297	666.56				
	665.89					23.067147	84.279701	666.42				
	666.54					23.067391	84.280317	667.07				
	669.10					23.0676	84.280962	669.64				
	667.51					23.067232	84.280836	668.04				
	665.91					23.066769	84.280704	666.45				
	666.11					23.066523	84.280582	666.65				
	665.94					23.066783	84.281137	666.47				
	667.75					23.067149	84.281621	668.29				
	668.23					23.06728	84.281817	668.77				
	668.97					23.067492	84.282045	669.51				
	668.12					23.067314	84.282047	668.65				
	667.20					23.06713	84.282078	667.73				
	665.42					23.066505	84.282104	665.95				
	666.45					23.066152	84.282114	666.98				
	664.48					23.066659	84.282536	665.02				
	666.18					23.066999	84.282732	666.71				
	668.27					23.067367	84.282939	668.81				
	667.36					23.067189	84.283011	667.90				
	666.32					23.066996	84.283084	666.86				
	664.97					23.066459	84.283234	665.50				
	666.12					23.065975	84.283279	666.66				

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	666.10					23.065986	84.283285	666.63				
	664.55					23.066611	84.283662	665.08				
	665.68					23.066939	84.283866	666.22				
	666.84					23.06724	84.283981	667.37				
	665.76					23.067008	84.284105	666.29				
	664.80					23.066764	84.284224	665.34				
	664.47					23.066191	84.284362	665.00				
	664.50					23.065823	84.284402	665.03				
	664.47					23.066337	84.284787	665.00				
	664.71					23.066852	84.285062	665.24				
	665.34					23.067227	84.285248	665.87				
	665.01					23.066975	84.285379	665.54				
	664.56					23.066716	84.285498	665.10				
	664.47					23.066138	84.285702	665.00				
	665.43					23.065699	84.285804	665.96				
	664.47					23.066266	84.286142	665.00				
	664.49					23.066674	84.286364	665.03				
	666.85					23.067331	84.286652	667.38				
	665.71					23.067012	84.286739	666.24				
	664.47					23.066607	84.286849	665.00				
	664.47					23.066039	84.286894	665.00				
	665.92					23.065444	84.28691	666.46				
	664.47					23.066354	84.287438	665.00				
	664.69					23.066792	84.287688	665.23				
	665.76					23.067145	84.287857	666.30				
	664.47					23.066821	84.287959	665.00				
	663.80					23.06646	84.288058	664.33				
	663.73					23.06592	84.288113	664.26				
	663.94					23.065083	84.288126	664.47				
	663.47					23.066012	84.288677	664.00				
	663.47					23.066506	84.288937	664.00				
	664.24					23.066827	84.289156	664.77				
	663.48					23.066434	84.289183	664.01				
	663.49					23.066139	84.289209	664.02				
	663.47					23.065469	84.289169	664.00				
	663.91					23.064594	84.289249	664.44				
	663.47					23.065257	84.289637	664.00				
	663.53					23.065586	84.29002	664.07				
	664.47					23.065787	84.290282	665.00				
GUM_SH_PRE_09	664.68	661.1	355630	249	**GUM_SH_POS_09**	23.058247	84.285673	665.15	661.57	355631	0.47	0.1671
	661.88					23.057983	84.285081	662.35				
	663.19					23.05751	84.284317	663.66				
	662.50					23.057446	84.285286	662.96				
	663.39					23.057423	84.285567	663.86				
	664.35					23.057375	84.285877	664.82				
	662.97					23.057168	84.285661	663.43				
	662.07					23.056969	84.285405	662.53				
	663.80					23.056617	84.284395	664.26				
	661.54					23.056494	84.285217	662.00				
	661.79					23.056545	84.285883	662.26				
	665.57					23.056563	84.286602	666.04				
	662.95					23.056214	84.286348	663.41				
	661.58					23.055628	84.285789	662.04				
	662.28					23.0553	84.28551	662.74				
	661.54					23.055549	84.286346	662.00				
	661.76					23.055755	84.286869	662.22				
	663.05					23.05595	84.287344	663.52				
	661.92					23.055469	84.287236	662.39				

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	661.54					23.054972	84.286937	662.00				
	661.54					23.054575	84.286685	662.00				
	661.54					23.054862	84.287453	662.00				
	661.55					23.055011	84.287716	662.01				
	661.83					23.055241	84.288199	662.29				
	661.54					23.054878	84.288078	662.00				
	661.54					23.054576	84.287935	662.00				
	662.88					23.05364	84.287278	663.34				
	661.43					23.054025	84.288022	661.89				
	661.57					23.054159	84.288369	662.03				
	662.43					23.054408	84.288805	662.89				
	661.59					23.053975	84.288643	662.06				
	660.75					23.053508	84.288364	661.22				
	661.96					23.05284	84.287587	662.42				
	660.54					23.053072	84.28878	661.00				
	661.15					23.053089	84.289227	661.61				
	660.54					23.052248	84.288727	661.00				
	660.54					23.052029	84.288422	661.00				
	661.45					23.051835	84.28812	661.92				
	662.68					23.051695	84.287877	663.15				
	660.62					23.051589	84.288413	661.08				
	660.55					23.051627	84.288932	661.01				
	662.44					23.051692	84.289903	662.91				
	660.82					23.051175	84.289455	661.28				
	660.59					23.050989	84.289117	661.05				
	661.28					23.050659	84.288652	661.75				
	662.58					23.050459	84.288208	663.05				
	660.96					23.050453	84.288924	661.42				
	660.23					23.050397	84.289661	660.69				
	662.29					23.050407	84.290547	662.75				
	659.67					23.049942	84.289885	660.13				
	660.01					23.049702	84.289385	660.47				
	661.70					23.049245	84.288714	662.16				
	659.70					23.049099	84.289426	660.17				
	659.54					23.049147	84.290136	660.00				
	660.79					23.049302	84.291061	661.26				
	659.54					23.048606	84.290502	660.00				
	659.54					23.048181	84.290096	660.00				
	661.18					23.047757	84.289762	661.64				
	659.54					23.047685	84.290374	660.00				
	659.54					23.047728	84.291296	660.00				
	661.01					23.047793	84.291895	661.47				
	659.54					23.047016	84.291272	660.00				
	659.63					23.046615	84.290803	660.09				
	661.20					23.046311	84.290528	661.66				
	659.00					23.046218	84.291209	659.46				
	660.49					23.046438	84.292531	660.95				
	658.62					23.045731	84.291742	659.08				
	659.80					23.045345	84.291368	660.26				
	661.89					23.045073	84.291155	662.36				
	658.59					23.045154	84.291914	659.06				
	661.91					23.045463	84.293121	662.38				
	658.61					23.044793	84.292579	659.07				
	659.68					23.044511	84.292093	660.14				
	660.70					23.044272	84.291984	661.16				
	658.55					23.044285	84.292547	659.01				
	658.85					23.044447	84.293279	659.32				
	660.01					23.044447	84.293688	660.48				
	658.60					23.044044	84.293165	659.06				
	659.64					23.043602	84.292656	660.10				
	658.60					23.043814	84.293381	659.07				
	659.73					23.043969	84.293984	660.19				
	659.43					23.043446	84.292901	659.90				
GUM_SH_PRE_10	650.46	650.21	105732	112	**GUM_SH_POS_10**	23.029315	84.3401	650.72	650.47	105736	0.26	0.0275
	651.72					23.029579	84.340167	651.98				
	653.12					23.029872	84.340237	653.39				

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	654.65					23.030136	84.340333	654.92				
	652.95					23.029835	84.340366	653.21				
	651.24					23.029478	84.340408	651.50				
	650.28					23.029278	84.340428	650.54				
	651.56					23.029545	84.340565	651.82				
	651.57					23.029548	84.340567	651.83				
	652.80					23.029805	84.340703	653.07				
	654.05					23.030059	84.340887	654.31				
	653.98					23.030049	84.340887	654.24				
	651.37					23.029538	84.340957	651.63				
	649.81					23.029203	84.340922	650.07				
	650.82					23.029468	84.341141	651.08				
	651.85					23.029724	84.3413	652.12				
	652.41					23.029885	84.341477	652.68				
	650.69					23.02952	84.341459	650.95				
	649.25					23.029214	84.341433	649.51				
	650.26					23.029007	84.341405	650.52				
	649.08					23.029236	84.341663	649.34				
	651.32					23.029567	84.342025	651.58				
	649.79					23.029254	84.341943	650.05				
	650.53					23.028928	84.341881	650.79				
	651.20					23.0288	84.341897	651.46				
	650.11					23.029096	84.34215	650.37				
	651.42					23.02939	84.34244	651.68				
	650.63					23.029002	84.342391	650.89				
	651.23					23.028672	84.34224	651.49				
	651.52					23.0286	84.342186	651.78				
	651.24					23.028589	84.342307	651.50				
	650.76					23.028772	84.342567	651.02				
	652.64					23.029114	84.342954	652.91				
	650.76					23.028754	84.342835	651.02				
	650.22					23.028443	84.342646	650.48				
	650.35					23.028352	84.342584	650.61				
	649.97					23.028348	84.342665	650.23				
	649.16					23.028512	84.343079	649.42				
	651.59					23.028711	84.343517	651.85				
	646.94					23.028332	84.343361	647.20				
	648.49					23.028088	84.343164	648.75				
	649.21					23.028009	84.343084	649.47				
	648.22					23.028037	84.343253	648.48				
	648.95					23.028228	84.343631	649.21				
	652.67					23.028418	84.344055	652.93				
	649.85					23.027963	84.343846	650.11				
	649.36					23.027805	84.343716	649.62				
	649.27					23.027744	84.34366	649.53				
	649.28					23.027654	84.343598	649.54				
	649.32					23.027645	84.343715	649.58				
	649.45					23.027687	84.343885	649.71				
	650.83					23.027811	84.34429	651.09				
	653.54					23.02803	84.344637	653.81				
	649.59					23.02756	84.344282	649.85				
	648.57					23.027425	84.344168	648.83				
	648.55					23.027258	84.344032	648.81				
	648.56					23.027297	84.344233	648.82				
	649.78					23.027396	84.344444	650.04				
	653.98					23.027735	84.34511	654.24				
	651.22					23.027334	84.344796	651.48				
	649.74					23.02712	84.344616	650.00				
	648.31					23.026898	84.344424	648.57				
	649.64					23.026959	84.344713	649.90				
	651.36					23.027111	84.345014	651.62				
	652.55					23.027394	84.345636	652.81				
	651.87					23.027116	84.345463	652.13				
	651.19					23.026917	84.345327	651.45				
	650.34					23.026743	84.345148	650.60				
	650.00					23.026567	84.344934	650.26				

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	650.68					23.026594	84.345282	650.94				
	651.52					23.026753	84.345683	651.78				
	651.98					23.027003	84.346193	652.24				
	651.68					23.026556	84.3459	651.94				
	652.08					23.026272	84.345649	652.35				
	651.13					23.026391	84.346096	651.39				
	649.74					23.026601	84.346715	650.00				
	649.34					23.026136	84.346479	649.60				
	650.01					23.02581	84.346292	650.28				
	649.88					23.025814	84.346315	650.14				
	648.08					23.026002	84.346947	648.34				
	648.87					23.026146	84.347289	649.13				
	649.23					23.026176	84.347511	649.49				
	648.07					23.026016	84.347422	648.33				
	647.61					23.025548	84.347169	647.87				
	648.56					23.025208	84.34699	648.82				
	647.33					23.025783	84.347658	647.59				
	648.31					23.0259	84.347828	648.57				
	648.94					23.025942	84.347952	649.20				
	648.10					23.025706	84.347921	648.36				
	647.60					23.025451	84.347786	647.86				
	648.29					23.02474	84.347414	648.55				
	647.30					23.024949	84.347809	647.56				
	648.20					23.02547	84.348181	648.46				
	649.00					23.025612	84.348379	649.26				
	647.55					23.025228	84.348196	647.81				
	647.40					23.024466	84.347669	647.66				
	646.83					23.024967	84.348139	647.09				
	648.37					23.025389	84.348523	648.63				
GUM_SH_PRE_11	649.48	646.88	295121	319	**GUM_SH_POS_11**	23.022659	84.349007	650.00	647.4	295125	0.52	0.1535
	647.83					23.022739	84.34973	648.35				
	648.36					23.022749	84.350305	648.88				
	647.06					23.022413	84.34991	647.58				
	648.28					23.022101	84.349505	648.80				
	648.13					23.021909	84.349268	648.65				
	648.34					23.021883	84.34957	648.86				
	648.94					23.021933	84.350179	649.46				
	650.14					23.022013	84.350706	650.66				
	650.38					23.022057	84.350989	650.90				
	649.06					23.021442	84.350446	649.58				
	647.61					23.021068	84.349732	648.13				
	647.87					23.020624	84.349229	648.38				
	646.98					23.020567	84.349694	647.50				
	646.48					23.020823	84.350572	647.00				
	647.57					23.020984	84.351041	648.09				
	648.68					23.021097	84.351572	649.20				
	647.12					23.020594	84.351203	647.63				
	646.48					23.020061	84.350537	647.00				
	646.48					23.019745	84.34997	647.00				
	646.48					23.019459	84.349439	647.00				
	646.49					23.019268	84.349165	647.00				
	646.48					23.019191	84.349808	647.00				
	646.48					23.019278	84.35063	647.00				
	647.23					23.019847	84.351801	647.75				
	649.88					23.019834	84.352283	650.41				
	646.48					23.019267	84.351595	647.00				
	646.48					23.019004	84.351104	647.00				
	646.48					23.018622	84.350276	647.00				
	646.48					23.018304	84.349782	647.00				
	646.48					23.018109	84.349332	647.00				
	646.48					23.017972	84.34996	647.00				
	646.48					23.018088	84.350771	647.00				
	646.48					23.018261	84.351647	647.00				
	649.21					23.018402	84.352423	649.73				
	646.48					23.017746	84.351498	647.00				
	646.27					23.017324	84.350804	646.79				

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	645.73					23.016851	84.349988	646.24				
	646.17					23.016675	84.349714	646.69				
	645.48					23.016591	84.350378	646.00				
	645.48					23.016652	84.351141	646.00				
	645.98					23.016869	84.351875	646.50				
	648.13					23.016882	84.352809	648.65				
	645.72					23.016337	84.351993	646.24				
	645.48					23.015999	84.351397	646.00				
	645.55					23.015601	84.350633	646.07				
	646.00					23.015261	84.350207	646.52				
	645.48					23.015183	84.350891	646.00				
	645.48					23.015386	84.351612	646.00				
	645.48					23.015581	84.35231	646.00				
	649.63					23.015785	84.353224	650.15				
	645.60					23.015221	84.352546	646.12				
	645.48					23.014873	84.351978	646.00				
	645.48					23.014579	84.35139	646.00				
	645.69					23.014154	84.350674	646.21				
	645.50					23.014129	84.351389	646.02				
	645.48					23.0143	84.352231	646.00				
	645.70					23.014371	84.353231	646.22				
	645.48					23.014045	84.352348	646.00				
	645.48					23.013813	84.351711	646.00				
	645.94					23.013548	84.351155	646.46				
GUM_SH_PRE_12	644.38	643.18	201760	236	**GUM_SH_POS_12**	23.00683	84.355761	644.71	643.5	201763	0.32	0.0646
	643.68					23.006949	84.356193	644.00				
	643.68					23.007084	84.356665	644.00				
	645.39					23.007297	84.357295	645.72				
	643.91					23.00685	84.356962	644.24				
	643.68					23.006485	84.35667	644.00				
	645.68					23.006093	84.356181	646.00				
	643.68					23.006306	84.356767	644.00				
	643.68					23.006408	84.357156	644.00				
	643.80					23.006545	84.35762	644.12				
	643.68					23.006254	84.35735	644.00				
	643.68					23.00604	84.356979	644.00				
	645.40					23.005674	84.356472	645.72				
	643.70					23.005774	84.357137	644.02				
	643.68					23.005861	84.357599	644.00				
	643.72					23.005904	84.357886	644.04				
	643.40					23.005602	84.357535	643.72				
	644.67					23.005212	84.35685	645.00				
	643.08					23.005233	84.357453	643.40				
	643.15					23.005393	84.358106	643.47				
	642.68					23.004973	84.357695	643.00				
	644.22					23.004647	84.357199	644.54				
	645.51					23.004546	84.356989	645.84				
	643.18					23.00441	84.357417	643.51				
	642.68					23.004486	84.357928	643.00				
	642.92					23.004436	84.358434	643.24				
	642.68					23.004072	84.357768	643.00				
	643.17					23.003905	84.357438	643.49				
	646.25					23.003748	84.357074	646.57				
	643.81					23.003684	84.357368	644.13				
	642.68					23.003627	84.357673	643.00				
	642.68					23.003655	84.358218	643.00				
	643.39					23.003655	84.35863	643.71				
	642.68					23.003275	84.358076	643.00				
	642.68					23.003113	84.357722	643.00				
	643.53					23.002957	84.357376	643.85				
	644.60					23.002838	84.35718	644.93				
	642.68					23.002771	84.357546	643.00				
	642.68					23.002751	84.357947	643.00				
	643.85					23.002802	84.35882	644.17				
	642.84					23.002512	84.358399	643.16				
	642.77					23.002311	84.358008	643.09				

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	642.98					23.002175	84.357686	643.30				
	643.98					23.002042	84.357244	644.30				
	643.24					23.001969	84.357597	643.56				
	642.94					23.001953	84.358001	643.26				
	642.72					23.001912	84.358282	643.04				
	644.37					23.002088	84.359036	644.69				
	643.33					23.001713	84.358603	643.65				
	642.70					23.001465	84.358182	643.03				
	643.14					23.001392	84.357936	643.46				
	643.74					23.001301	84.357664	644.07				
	644.27					23.001261	84.357477	644.59				
	643.23					23.001161	84.357898	643.55				
	642.48					23.001141	84.358175	642.80				
	642.99					23.00117	84.35887	643.31				
	644.45					23.00115	84.359344	644.78				
	642.23					23.00078	84.358771	642.55				
	642.31					23.000612	84.358293	642.64				
	643.02					23.000504	84.35808	643.34				
	643.62					23.000422	84.357809	643.94				
	643.38					23.000357	84.357968	643.71				
	642.91					23.000339	84.3583	643.23				
	642.34					23.000412	84.358902	642.66				
	642.91					23.000431	84.359315	643.23				
	644.16					23.00042	84.359578	644.48				
	642.62					23.000167	84.35932	642.94				
	642.38					22.999901	84.358875	642.70				
	643.57					22.999675	84.358379	643.89				
	643.78					22.99956	84.358172	644.10				
	642.75					22.999566	84.35872	643.07				
	641.91					22.999615	84.359228	642.23				
	642.99					22.999699	84.3595	643.31				
	644.17					22.99977	84.359769	644.49				
	643.33					22.999526	84.359646	643.65				
	642.47					22.999357	84.359433	642.79				
	642.18					22.999032	84.358973	642.50				
	643.58					22.998808	84.358513	643.91				
	642.31					22.99881	84.35895	642.63				
	642.17					22.998921	84.359455	642.49				
	642.77					22.998979	84.359751	643.09				
	643.34					22.999058	84.359963	643.66				
	644.31					22.999155	84.360279	644.63				
	643.11					22.998916	84.36002	643.44				
	642.39					22.99871	84.359822	642.71				
	641.74					22.998263	84.359344	642.07				
	642.13					22.998052	84.359126	642.45				
	641.70					22.998265	84.359747	642.02				
	641.81					22.998382	84.36013	642.14				
	642.95					22.998578	84.360881	643.27				
	641.68					22.998135	84.360526	642.00				
	641.68					22.997721	84.360204	642.00				
	642.11					22.997426	84.360039	642.43				
	641.68					22.997711	84.360651	642.00				
	642.05					22.997919	84.361141	642.37				
	642.73					22.998013	84.361544	643.05				
	641.81					22.997622	84.361213	642.13				
	642.21					22.997258	84.360962	642.54				
	642.70					22.997067	84.360865	643.02				
	642.15					22.997228	84.361296	642.47				
	642.35					22.997777	84.361711	642.67				
GUM_SH_PRE_13	642.02	640.74	2857.76	189	**GUM_SH_POS_13**	22.992175	84.368885	642.66	641.39	285779	0.65	0.1858
	641.62					22.991932	84.368549	642.26				
	641.84					22.991672	84.36813	642.49				
	642.55					22.991384	84.367734	643.20				
	641.66					22.991437	84.368187	642.30				
	641.57					22.991397	84.3686	642.22				

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	641.77					22.991384	84.368847	642.41				
	642.02					22.991367	84.369175	642.66				
	641.58					22.991183	84.368766	642.22				
	641.40					22.991041	84.368459	642.04				
	641.67					22.990848	84.36808	642.31				
	641.97					22.990686	84.367772	642.62				
	641.16					22.99056	84.368249	641.81				
	640.98					22.990517	84.368642	641.62				
	640.94					22.990488	84.368907	641.59				
	642.12					22.990464	84.369448	642.76				
	640.71					22.990293	84.368942	641.35				
	640.51					22.990127	84.36855	641.15				
	641.54					22.989847	84.367839	642.19				
	640.36					22.989772	84.368375	641.00				
	640.36					22.989815	84.368813	641.00				
	640.36					22.989829	84.36913	641.00				
	641.99					22.989809	84.369657	642.63				
	640.36					22.989582	84.368972	641.00				
	640.36					22.989361	84.368432	641.00				
	641.20					22.989172	84.367983	641.84				
	640.36					22.989059	84.368462	641.00				
	640.36					22.989088	84.368986	641.00				
	641.02					22.989059	84.369484	641.67				
	641.66					22.98902	84.369825	642.30				
	640.36					22.988672	84.369147	641.00				
	640.36					22.988448	84.368748	641.00				
	640.62					22.988209	84.368279	641.26				
	640.36					22.988154	84.368777	641.00				
	640.36					22.988108	84.369183	641.00				
	640.36					22.988084	84.369611	641.00				
	640.36					22.988101	84.369971	641.00				
	640.36					22.987783	84.369504	641.00				
	640.36					22.987632	84.369128	641.00				
	640.42					22.987413	84.368668	641.06				
	640.72					22.987296	84.36831	641.36				
	640.57					22.987114	84.368786	641.21				
	640.36					22.987114	84.369284	641.00				
	640.36					22.987029	84.369756	641.00				
	640.36					22.987002	84.370003	641.00				
	640.36					22.986703	84.369394	641.00				
	640.75					22.986514	84.368888	641.40				
	641.40					22.986383	84.368517	642.05				
	641.78					22.986306	84.368338	642.42				
	641.40					22.986224	84.368601	642.04				
	640.81					22.986172	84.368929	641.45				
	640.36					22.986097	84.369423	641.00				
	640.36					22.986037	84.369975	641.00				
	640.36					22.985829	84.369322	641.00				
	640.97					22.98574	84.368897	641.61				
	641.67					22.985622	84.36854	642.31				
	641.90					22.985578	84.368405	642.55				
	641.21					22.985446	84.368705	641.85				
	640.60					22.985391	84.369028	641.24				
	640.36					22.985337	84.369287	641.00				
	640.36					22.985296	84.369935	641.00				
	640.38					22.98497	84.369146	641.02				
	640.78					22.984766	84.368815	641.42				
	641.15					22.984553	84.368504	641.80				
	640.64					22.984447	84.368935	641.28				
	640.36					22.984334	84.369248	641.00				
	640.36					22.984337	84.369823	641.00				
	640.49					22.984241	84.370096	641.14				
	640.36					22.983896	84.369544	641.00				
	640.39					22.983743	84.369143	641.03				
	640.78					22.983609	84.368817	641.42				
	640.90					22.983561	84.368718	641.54				

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	640.39					22.983283	84.369139	641.03				
	640.36					22.983319	84.369505	641.00				
	640.36					22.983307	84.369904	641.00				
	641.58					22.98331	84.370349	642.22				
	640.65					22.982951	84.370147	641.29				
	640.36					22.982673	84.369642	641.00				
	640.65					22.982404	84.369289	641.29				
	640.36					22.982211	84.370379	641.00				
	640.50					22.982293	84.370984	641.14				
	640.62					22.982189	84.371179	641.26				
	640.45					22.982057	84.37099	641.09				
	640.36					22.981781	84.370598	641.00				
	641.20					22.981445	84.370174	641.84				
	640.36					22.981511	84.370886	641.00				
	640.36					22.9816	84.371117	641.00				
	640.36					22.981664	84.371431	641.00				
	640.57					22.981759	84.371757	641.21				
	640.36					22.981574	84.371626	641.00				
	640.36					22.981324	84.371391	641.00				
	640.36					22.980948	84.371052	641.00				
	640.70					22.980678	84.370902	641.34				
	640.36					22.980942	84.371491	641.00				
	640.40					22.981126	84.371764	641.04				
	640.69					22.981321	84.372143	641.34				
	640.84					22.981356	84.37231	641.49				
	640.45					22.981002	84.37204	641.09				
	640.36					22.980792	84.371832	641.00				
	640.36					22.980458	84.371687	641.00				
	640.82					22.980095	84.371448	641.46				
	640.36					22.980282	84.371786	641.00				
	640.36					22.980437	84.372262	641.00				
	640.46					22.980604	84.372613	641.10				
	640.97					22.980874	84.372928	641.62				
	640.47					22.9803	84.372751	641.11				
	640.59					22.979391	84.372239	641.23				
	640.36					22.979777	84.372982	641.00				
	640.59					22.980002	84.37352	641.23				
	641.37					22.980161	84.373904	642.01				
	640.74					22.979765	84.373772	641.38				
	640.41					22.979396	84.373493	641.05				
	640.98					22.978947	84.37323	641.63				
	640.40					22.979237	84.373712	641.04				
	640.67					22.979434	84.374189	641.31				
	640.65					22.9796	84.374539	641.29				
	640.49					22.979605	84.374796	641.13				
	640.46					22.979348	84.37462	641.10				
	640.36					22.979102	84.374452	641.00				
	640.70					22.978485	84.373992	641.34				
	640.36					22.978777	84.37455	641.00				
	640.36					22.9792	84.374954	641.00				
	640.36					22.979321	84.375128	641.00				
	640.36					22.979036	84.375074	641.00				
	640.36					22.978706	84.374837	641.00				
	640.54					22.978227	84.374406	641.18				
	640.52					22.978236	84.374416	641.16				
	640.36					22.978739	84.375064	641.00				
	640.36					22.979092	84.375495	641.00				
GUM_SH_PRE_14	633.81	632.79	234160	293	**GUM_SH_POS_14**	22.938074	84.396802	634.32	633.3	234162	0.51	0.1194
	633.16					22.937814	84.396217	633.66				
	632.89					22.937702	84.396004	633.40				
	632.58					22.937565	84.395712	633.09				
	632.49					22.937383	84.395217	633.00				
	632.49					22.937317	84.395671	633.00				
	632.72					22.937309	84.396018	633.22				
	633.33					22.93724	84.396527	633.83				
	633.73					22.937201	84.396716	634.24				

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	632.78					22.937005	84.396076	633.29				
	632.49					22.936952	84.39583	633.00				
	632.49					22.936827	84.395188	633.00				
	632.57					22.936689	84.3959	633.08				
	632.90					22.936646	84.396158	633.41				
	633.45					22.936666	84.396632	633.96				
	632.66					22.936475	84.395926	633.16				
	632.49					22.936368	84.395457	633.00				
	632.49					22.93627	84.395175	633.00				
	632.49					22.936207	84.395692	633.00				
	633.39					22.936093	84.396147	633.90				
	634.44					22.936058	84.396492	634.95				
	633.15					22.935833	84.396014	633.65				
	632.49					22.935721	84.395527	633.00				
	632.49					22.935548	84.395136	633.00				
	632.49					22.935432	84.395647	633.00				
	633.13					22.935368	84.396049	633.64				
	634.17					22.935285	84.396429	634.68				
	632.67					22.935095	84.395902	633.18				
	632.49					22.934957	84.39542	633.00				
	632.49					22.934838	84.395068	633.00				
	632.49					22.934834	84.395072	633.00				
	632.49					22.934713	84.395646	633.00				
	632.49					22.93471	84.395658	633.00				
	633.36					22.934607	84.396193	633.87				
	634.03					22.93459	84.396472	634.53				
	633.50					22.934437	84.396252	634.01				
	632.49					22.934267	84.395707	633.00				
	632.49					22.934052	84.395076	633.00				
	632.49					22.933961	84.395541	633.00				
	633.03					22.933919	84.396095	633.54				
	633.64					22.933912	84.396397	634.15				
	633.84					22.933904	84.396499	634.35				
	633.27					22.933726	84.396275	633.78				
	632.69					22.933577	84.395959	633.20				
	632.49					22.933383	84.395107	633.00				
	632.49					22.933319	84.395711	633.00				
	632.73					22.933261	84.396029	633.24				
	633.37					22.933217	84.396561	633.87				
	633.04					22.932995	84.396284	633.54				
	632.63					22.932843	84.395945	633.14				
	632.49					22.93258	84.395169	633.00				
	632.49					22.932493	84.395827	633.00				
	632.95					22.932428	84.396212	633.46				
	633.56					22.932375	84.396686	634.07				
	633.15					22.932055	84.396376	633.65				
	632.53					22.931734	84.395865	633.04				
	632.49					22.931357	84.395232	633.00				
	632.50					22.931323	84.395841	633.01				
	632.89					22.931336	84.396387	633.40				
	633.30					22.931242	84.396843	633.81				
	632.62					22.930967	84.396469	633.12				
	632.49					22.930737	84.396121	633.00				
	632.49					22.930225	84.395278	633.00				
	632.49					22.930296	84.396045	633.00				
	632.49					22.930266	84.396506	633.00				
	633.12					22.930266	84.396975	633.62				
	632.49					22.929938	84.396409	633.00				
	632.49					22.929782	84.396129	633.00				
	632.49					22.929292	84.395348	633.00				
	632.49					22.929273	84.39615	633.00				
	632.80					22.929229	84.396795	633.31				
	633.49					22.929178	84.397081	634.00				
	632.49					22.928848	84.39661	633.00				
	632.49					22.928602	84.396058	633.00				
	632.49					22.928265	84.395402	633.00				

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	632.49					22.928233	84.396141	633.00				
	632.60					22.928201	84.396709	633.10				
	633.06					22.928114	84.396904	633.57				
	632.49					22.927794	84.396638	633.00				
	632.49					22.927559	84.396116	633.00				
	632.49					22.927251	84.395392	633.00				
	632.49					22.927181	84.396207	633.00				
	632.49					22.927223	84.396648	633.00				
	632.49					22.926851	84.396241	633.00				
	632.49					22.926365	84.395213	633.00				
	632.49					22.926326	84.396228	633.00				
	632.49					22.926326	84.396466	633.00				
	632.49					22.925983	84.395789	633.00				
	632.49					22.925643	84.394996	633.00				
	632.50					22.925534	84.395842	633.00				
	632.72					22.925455	84.396256	633.23				
	632.49					22.925229	84.39581	633.00				
	632.49					22.925139	84.394838	633.00				
	632.49					22.925139	84.394861	633.00				
	632.49					22.924947	84.395579	633.00				
	632.92					22.924819	84.396082	633.43				
	632.49					22.924685	84.395531	633.00				
GUM_SH_PRE_15	618.25	616.37	150641	210	**GUM_SH_POS_15**	22.843035	84.381425	618.81	616.93	150645	0.56	0.0844
	617.18					22.84285	84.381018	617.74				
	616.65					22.842674	84.380583	617.21				
	616.46					22.842487	84.380168	617.01				
	616.47					22.842435	84.380521	617.03				
	616.45					22.842417	84.380824	617.00				
	616.88					22.842373	84.381259	617.43				
	617.16					22.842356	84.381549	617.71				
	616.75					22.84218	84.381242	617.30				
	616.50					22.841993	84.380961	617.06				
	616.57					22.841852	84.380694	617.13				
	616.92					22.841702	84.380415	617.48				
	616.44					22.84165	84.380846	617.00				
	616.44					22.84165	84.380849	617.00				
	616.46					22.841693	84.381202	617.01				
	616.47					22.841691	84.381461	617.02				
	616.49					22.841702	84.381664	617.04				
	616.44					22.8415	84.381346	617.00				
	616.44					22.841319	84.381074	617.00				
	618.07					22.841083	84.380573	618.62				
	616.44					22.841058	84.381032	617.00				
	616.44					22.84112	84.381394	617.00				
	616.75					22.841151	84.381784	617.30				
	616.44					22.84096	84.381605	617.00				
	616.44					22.840781	84.381343	617.00				
	617.19					22.840505	84.380766	617.75				
	616.44					22.840502	84.381307	617.00				
	616.44					22.840501	84.381594	617.00				
	616.85					22.840524	84.381861	617.41				
	617.03					22.84053	84.38195	617.59				
	616.80					22.840369	84.381808	617.36				
	616.50					22.840285	84.381685	617.05				
	616.44					22.83994	84.380941	617.00				
	616.44					22.83994	84.380956	617.00				

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	616.44					22.83994	84.380969	617.00				
	616.44					22.839964	84.38164	617.00				
	617.08					22.839977	84.381844	617.63				
	618.12					22.839989	84.382133	618.67				
	617.56					22.83984	84.381998	618.12				
	616.94					22.839713	84.381823	617.50				
	616.44					22.839536	84.381404	617.00				
	616.44					22.839366	84.381043	617.00				
	616.44					22.839296	84.381531	617.00				
	616.78					22.839302	84.381797	617.34				
	617.41					22.839318	84.382037	617.97				
	618.29					22.839342	84.382363	618.85				
	617.36					22.839114	84.382075	617.92				
	616.75					22.838953	84.381836	617.30				
	616.55					22.838785	84.381474	617.11				
	616.89					22.838599	84.381119	617.45				
	616.46					22.838529	84.381653	617.01				
	616.65					22.838562	84.381973	617.20				
	617.03					22.838603	84.382415	617.58				
	617.58					22.838588	84.382666	618.13				
	616.46					22.838343	84.382355	617.02				
	616.21					22.838137	84.382019	616.77				
	616.08					22.837925	84.381565	616.63				
	616.32					22.837759	84.381199	616.87				
	615.74					22.837741	84.381824	616.29				
	615.74					22.837744	84.382275	616.29				
	616.10					22.83777	84.382635	616.65				
	617.12					22.837829	84.383033	617.68				
	616.25					22.837563	84.382802	616.80				
	615.45					22.837428	84.38248	616.00				
	615.45					22.837303	84.381983	616.00				
	616.58					22.837049	84.381444	617.13				
	615.45					22.836994	84.382155	616.00				
	615.77					22.837009	84.382827	616.32				
	616.29					22.837048	84.383264	616.84				
	615.73					22.83685	84.383033	616.28				
	615.45					22.836642	84.382684	616.00				
	615.45					22.836225	84.381813	616.00				
	615.45					22.836267	84.382541	616.00				
	615.45					22.836435	84.383103	616.00				
	615.91					22.836526	84.38345	616.47				
	615.45					22.836312	84.383262	616.00				
	615.45					22.835941	84.382821	616.00				
	615.97					22.835621	84.382372	616.53				
	615.50					22.835649	84.383134	616.05				
	615.45					22.835693	84.383492	616.00				
	615.45					22.835735	84.383811	616.00				
	615.45					22.835481	84.383547	616.00				
	615.49					22.835303	84.383269	616.05				
	616.19					22.83508	84.382643	616.75				
	615.45					22.83503	84.383365	616.00				
	615.45					22.83505	84.383632	616.00				
	615.45					22.83506	84.383922	616.00				
	615.45					22.834847	84.383654	616.00				
	615.91					22.834626	84.383167	616.47				
	617.74					22.834483	84.382664	618.29				
	615.46					22.83443	84.383328	616.02				
	615.45					22.834468	84.383741	616.00				
	615.45					22.834489	84.384033	616.00				
	615.45					22.834339	84.383753	616.00				
	616.83					22.834225	84.383029	617.38				
	618.80					22.834182	84.382624	619.36				
	615.45					22.834096	84.383332	616.00				
	615.45					22.834096	84.383338	616.00				
	615.50					22.834046	84.383641	616.05				
	615.53					22.834041	84.383822	616.09				

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

ANNEXURE-16

TEST REPORT OF SAND FROM NABL ACCREDITED AGENCY



A D POWER PVT.LTD. TESTING LAB

QR.NO. CD/488, SECTOR 2, DHURWA, RANCHI-834004, JHARKHAND

SPECIFC GRAVITY (IS:2386,Part - 3)

GUMLA

UIN	LEASE DETAILS	AREA (Ha.)	SAMPLE NO.	GEO-COORDINATE	SPECIFIC GRAVITY	BULK DENSITY
1. (SK01)	Larango,South Koel River	7.8	1	23°17'52.29"N 84°36'40.91"E	2.610	1.267
			2	23°17'40.78"N 84°36'41.59"E	2.615	1.269
2. (SK02)	Gutua, Larango, & Sahijana,South Koel River	24	3	23°16'38.31"N 84°36'38.72"E	2.600	1.275
			4	23°16'34.05"N 84°36'33.57"E	2.603	1.280
			5	23°16'32.34"N 84°36'18.81"E	2.622	1.269
3. (SK03)	Sahijana, Dhobni, Kotri & Gutua,South Koel River	10	6	23°15'59.04"N 84°36'0.99"E	2.629	1.278
			7	23°15'49.12"N 84°36'8.76"E	2.614	1.280
4. (SK04)	Dhobni, & Badri,South Koel River	5.9	8	23°15'33.35"N 84°36'58.69"E	2.632	1.282
			9	23°15'24.91"N 84°37'6.19"E	2.612	1.270
5. (SK05)	Barri,South Koel River	7	10	23°14'46.53"N 84°38'3.88"E	2.617	1.284
			11	23°14'48.12"N 84°38'15.84"E	2.611	1.272
6. (SK06)	Cheigari,South Koel River	8.8	12	23°14'38.50"N 84°38'59.88"E	2.630	1.286
			13	23°14'24.32"N 84°39'9.70"E	2.623	1.274
7. (SK07)	Jalka, Duko, & Sikwar,South Koel River	16.6	14	23°13'53.99"N 84°40'20.06"E	2.628	1.288
			15	23°13'44.09"N 84°40'26.96"E	2.608	1.278
			16	23°13'29.83"N 84°40'34.49"E	2.614	1.290
8. (SK08)	Bargaon & Duko,South Koel River	16.22	17	23°12'31.10"N 84°40'23.71"E	2.620	1.280
			18	23°12'20.14"N 84°40'20.44"E	2.605	1.292
			19	23°12'19.11"N 84°40'12.60"E	2.616	1.282
9. (SK09)	Arangi & Mukunda,South Koel River	14.65	20	23°11'49.57"N 84°39'38.32"E	2.634	1.294
			21	23°11'41.93"N 84°39'37.61"E	2.616	1.284
			22	23°11'19.99"N 84°39'36.17"E	2.608	1.296
10. (SK10)	Khambhiya-i & Murmu,South Koel River	17	23	23° 9'36.98"N 84°38'57.71"E	2.612	1.286
			24	23° 9'45.51"N 84°39'3.70"E	2.623	1.298
			25	23° 9'50.31"N 84°39'9.83"E	2.601	1.288
11. (SK11)	Khambhiya-ii,South Koel River	13	26	23° 8'8.16"N 84°38'40.89"E	2.624	1.299
			27	23° 8'6.83"N 84°38'49.07"E	2.602	1.300
			28	23° 7'59.29"N 84°38'50.85"E	2.626	1.283
12. (SK12)	Nagpheni & Silaphari,South Koel River	9.3	29	23° 6'57.32"N 84°39'41.88"E	2.603	1.298
			30	23° 6'48.23"N 84°39'44.78"E	2.609	1.282
13. (SK13)	Porha,South Koel River	18.2	31	23° 5'52.07"N 84°40'57.39"E	2.616	1.296
			32	23° 5'38.95"N 84°40'55.36"E	2.603	1.284
			33	23° 5'25.20"N 84°40'56.71"E	2.612	1.286
14. (SK14)	Patia-i & Amkuli,South Koel River	21.2	34	23° 4'16.84"N 84°43'11.14"E	2.619	1.295
			35	23° 4'6.62"N 84°43'19.06"E	2.632	1.284
			36	23° 4'0.35"N 84°43'29.37"E	2.628	1.294

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15. (SK15)	Patia-ii & Olmunda,South Koel River	13.5	37	23° 3'17.18"N 84°43'32.65"E	2.611	1.299
			38	23° 3'9.74"N 84°43'32.45"E	2.624	1.283
			39	23° 3'3.45"N 84°43'33.63"E	2.605	1.301
16. (SK16)	Olmunda, Koenjara, & Keluga,South Koel River	27	40	23° 2'23.12"N 84°43'43.15"E	2.617	1.288
			41	23° 2'15.01"N 84°43'47.56"E	2.633	1.288
			42	23° 2'9.07"N 84°44'1.66"E	2.635	1.296
			43	23° 2'1.47"N 84°44'22.82"E	2.624	1.294
17. (SK17)	Keluga & Tengra,South Koel River	31.5	44	23° 1'12.60"N 84°45'5.53"E	2.617	1.284
			45	23° 1'3.30"N 84°45'1.92"E	2.609	1.297
			46	23° 0'54.44"N 84°44'52.08"E	2.621	1.300
			47	23° 0'49.16"N 84°44'36.97"E	2.606	1.286
18. (SK18)	Bongaloya & Kutasi,South Koel River	31	48	23° 0'13.96"N 84°44'25.35"E	2.615	1.289
			49	23° 0'6.87"N 84°44'33.45"E	2.635	1.290
			50	22°59'57.35"N 84°44'35.53"E	2.614	1.305
			51	22°59'48.49"N 84°44'43.42"E	2.607	1.289
19. (SK19)	Kutua & Lungtu,South Koel River	30.5	52	22°58'17.24"N 84°44'13.22"E	2.613	1.284
			53	22°58'7.70"N 84°44'17.81"E	2.625	1.295
			54	22°57'56.37"N 84°44'23.97"E	2.602	1.293
			55	22°57'44.88"N 84°44'22.41"E	2.624	1.285
20. (SK20)	Pantha,South Koel River	18.7	56	22°52'39.19"N 84°47'27.71"E	2.603	1.293
			57	22°52'33.79"N 84°47'44.65"E	2.627	1.298
			58	22°52'23.48"N 84°47'52.13"E	2.605	1.269
21. (SK21)	Kanaskeli,South Koel River	7	59	22°49'43.65"N 84°53'8.53"E	2.608	1.271
			60	22°49'42.48"N 84°53'17.75"E	2.615	1.272
22. (SH01)	Haradipa,Sankh River	10	61	23°11'0.25"N 84° 9'32.48"E	2.604	1.268
			62	23°10'53.91"N 84° 9'41.96"E	2.613	1.271
23. (SH02)	Asro-I,Sankh River	12.3	63	23° 4'5.13"N 84°16'40.76"E	2.618	1.273
			64	23° 4'1.54"N 84°16'59.49"E	2.633	1.275
24. (SH03)	Asro-ii & Pondi,Sankh River	16	65	23° 3'15.50"N 84°17'18.65"E	2.629	1.278
			66	23° 3'1.58"N 84°17'18.98"E	2.612	1.284
			67	23° 2'48.11"N 84°17'26.24"E	2.625	1.281
25. (SH04)	Kasir-I,Sankh River	3.8	68	23° 1'39.95"N 84°20'36.44"E	2.606	1.283
26. (SH05)	Kasir-ii & Kemte,Sankh River	16	69	23° 1'5.31"N 84°21'0.01"E	2.617	1.300
			70	23° 1'0.24"N 84°21'2.69"E	2.632	1.263
			71	23° 0'54.76"N 84°21'2.65"E	2.636	1.286
27. (SH06)	Latu,Sankh River	8.3	72	23° 0'11.03"N 84°21'26.50"E	2.623	1.299
			73	23° 0'5.89"N 84°21'27.87"E	2.615	1.297
28. (SH07)	Kobja,Sankh River	4.05	74	22°50'28.52"N 84°22'52.70"E	2.610	1.302

For AD Powers Pvt. Ltd.
TESTING LAB
AUTHORIZED SIGNATORY

Authorised Signatory

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★
Approved

A D POWER PVT.LTD. TESTING LAB

QR.NO. CD/488, SECTOR 2, DHURWA, RANCHI-834004, JHARKHAND

SPECIFC GRAVITY (IS:2386,Part - 3)

GUMLA

UIN	LEASE DETAILS	AREA (Ha.)	SAMPLE NO.	GEO-COORDINATE	SPECIFIC GRAVITY
1. (SK01)	Larango,South Koel River	7.8	1	23°17'52.29"N 84°36'40.91"E	2.610
			2	23°17'40.78"N 84°36'41.59"E	2.615
2. (SK02)	Gutua, Larango, & Sahijana,South Koel River	24	3	23°16'38.31"N 84°36'38.72"E	2.600
			4	23°16'34.05"N 84°36'33.57"E	2.603
			5	23°16'32.34"N 84°36'18.81"E	2.622
3. (SK03)	Sahijana, Dhobni, Kotri & Gutua,South Koel River	10	6	23°15'59.04"N 84°36'0.99"E	2.629
			7	23°15'49.12"N 84°36'8.76"E	2.614
4. (SK04)	Dhobni, & Badri,South Koel River	5.9	8	23°15'33.35"N 84°36'58.69"E	2.632
			9	23°15'24.91"N 84°37'6.19"E	2.612
5. (SK05)	Barri,South Koel River	7	10	23°14'46.53"N 84°38'3.88"E	2.617
			11	23°14'48.12"N 84°38'15.84"E	2.611
6. (SK06)	Cheigari,South Koel River	8.8	12	23°14'38.50"N 84°38'59.88"E	2.630
			13	23°14'24.32"N 84°39'9.70"E	2.623
7. (SK07)	Jalka, Duko, & Sikwar,South Koel River	16.6	14	23°13'53.99"N 84°40'20.06"E	2.628
			15	23°13'44.09"N 84°40'26.96"E	2.608
			16	23°13'29.83"N 84°40'34.49"E	2.614
8. (SK08)	Bargaon & Duko,South Koel River	16.22	17	23°12'31.10"N 84°40'23.71"E	2.620
			18	23°12'20.14"N 84°40'20.44"E	2.605
			19	23°12'19.11"N 84°40'12.60"E	2.616
9. (SK09)	Arangi & Mukunda,South Koel River	14.65	20	23°11'49.57"N 84°39'38.32"E	2.634
			21	23°11'41.93"N 84°39'37.61"E	2.616
			22	23°11'19.99"N 84°39'36.17"E	2.608
10. (SK10)	Khambhiya-i & Murmu,South Koel River	17	23	23° 9'36.98"N 84°38'57.71"E	2.612
			24	23° 9'45.51"N 84°39'3.70"E	2.623
			25	23° 9'50.31"N 84°39'9.83"E	2.601
11. (SK11)	Khambhiya-ii,South Koel River	13	26	23° 8'8.16"N 84°38'40.89"E	2.624
			27	23° 8'6.83"N 84°38'49.07"E	2.602
			28	23° 7'59.29"N 84°38'50.85"E	2.626
12. (SK12)	Nagpheni & Silaphari,South Koel River	9.3	29	23° 6'57.32"N 84°39'41.88"E	2.603
			30	23° 6'48.23"N 84°39'44.78"E	2.609
13. (SK13)	Porha,South Koel River	18.2	31	23° 5'52.07"N 84°40'57.39"E	2.616
			32	23° 5'38.95"N 84°40'55.36"E	2.603
			33	23° 5'25.20"N 84°40'56.71"E	2.612
14. (SK14)	Patia-i & Amkuli,South Koel River	21.2	34	23° 4'16.84"N 84°43'11.14"E	2.619
			35	23° 4'6.62"N 84°43'19.06"E	2.632
			36	23° 4'0.35"N 84°43'29.37"E	2.628

For AD Powers Pvt. Ltd.
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15. (SK15)	Patia-ii & Olmunda,South Koel River	13.5	37	23° 3'17.18"N 84°43'32.65"E	2.611
			38	23° 3'9.74"N 84°43'32.45"E	2.624
			39	23° 3'3.45"N 84°43'33.63"E	2.605
16. (SK16)	Olmunda, Koenjara, & Keluga,South Koel River	27	40	23° 2'23.12"N 84°43'43.15"E	2.617
			41	23° 2'15.01"N 84°43'47.56"E	2.633
			42	23° 2'9.07"N 84°44'1.66"E	2.635
			43	23° 2'1.47"N 84°44'22.82"E	2.624
17. (SK17)	Keluga & Tengra,South Koel River	31.5	44	23° 1'12.60"N 84°45'5.53"E	2.617
			45	23° 1'3.30"N 84°45'1.92"E	2.609
			46	23° 0'54.44"N 84°44'52.08"E	2.621
			47	23° 0'49.16"N 84°44'36.97"E	2.606
18. (SK18)	Bongaloya & Kutasi,South Koel River	31	48	23° 0'13.96"N 84°44'25.35"E	2.615
			49	23° 0'6.87"N 84°44'33.45"E	2.635
			50	22°59'57.35"N 84°44'35.53"E	2.614
			51	22°59'48.49"N 84°44'43.42"E	2.607
19. (SK19)	Kutua & Lungtu,South Koel River	30.5	52	22°58'17.24"N 84°44'13.22"E	2.613
			53	22°58'7.70"N 84°44'17.81"E	2.625
			54	22°57'56.37"N 84°44'23.97"E	2.602
			55	22°57'44.88"N 84°44'22.41"E	2.624
20. (SK20)	Pantha,South Koel River	18.7	56	22°52'39.19"N 84°47'27.71"E	2.603
			57	22°52'33.79"N 84°47'44.65"E	2.627
			58	22°52'23.48"N 84°47'52.13"E	2.605
21. (SK21)	Kanaskeli,South Koel River	7	59	22°49'43.65"N 84°53'8.53"E	2.608
			60	22°49'42.48"N 84°53'17.75"E	2.615
22. (SH01)	Haradipa,Sankh River	10	61	23°11'0.25"N 84° 9'32.48"E	2.604
			62	23°10'53.91"N 84° 9'41.96"E	2.613
23. (SH02)	Asro-I,Sankh River	12.3	63	23° 4'5.13"N 84°16'40.76"E	2.618
			64	23° 4'1.54"N 84°16'59.49"E	2.633
24. (SH03)	Asro-ii & Pondi,Sankh River	16	65	23° 3'15.50"N 84°17'18.65"E	2.629
			66	23° 3'1.58"N 84°17'18.98"E	2.612
			67	23° 2'48.11"N 84°17'26.24"E	2.625
25. (SH04)	Kasir-I,Sankh River	3.8	68	23° 1'39.95"N 84°20'36.44"E	2.606
26. (SH05)	Kasir-ii & Kemte,Sankh River	16	69	23° 1'5.31"N 84°21'0.01"E	2.617
			70	23° 1'0.24"N 84°21'2.69"E	2.632
			71	23° 0'54.76"N 84°21'2.65"E	2.636
27. (SH06)	Latu,Sankh River	8.3	72	23° 0'11.03"N 84°21'26.50"E	2.623
			73	23° 0'5.89"N 84°21'27.87"E	2.615
28. (SH07)	Kobja,Sankh River	4.05	74	22°50'28.52"N 84°22'52.70"E	2.610

State Level Environment Impact Assessment Authority * Jharkhand, Ranchi *
Approved

AUTHORIZED SIGNATORY

For AD Powers Pvt. Ltd.
TESTING LAB

Authorised Signatory

AD Powers Private Limited

AD POWER PVT.LTD. TESTING LAB
QR. NO. CD/488, SECTOR2, DHURWA, RANCHI-834004, JHARKHAND
Email.:- adpower350@gmail.com,Mobile: -7903166826
NABL Accredited Laboratory

TEST REPORT

Reporting Date: -22.1.2023

Report No.ADP/GML/23-24/TR-NO-1/1

Description of Sample: - 02Bag Sand sample submitted to us for the Specific Gravity tests.

Source: -SOUTH KOEL RIVER

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

UIN	LEASE DETAILS	AREA (Ha.)	SAMPLE NO.	GEO-COORDINATE	SPECIFIC GRAVITY
1. (SK01)	Larango,South Koel River	7.8	1	23°17'52.29"N 84°36'40.91"E	2.610
			2	23°17'40.78"N 84°36'41.59"E	2.615

AUTHORIZED SIGNATORY

For AD Powers Pvt. Ltd.
TESTING LAB

Authorised Signatory

State Level Environment Impact Assessment Authority * Jharkhand, Ranchi *
Approved

AD POWER PVT.LTD. TESTING LAB
QR. NO. CD/488, SECTOR2, DHURWA, RANCHI-834004, JHARKHAND
Email.:- adpower350@gmail.com,Mobile: -7903166826
NABL Accredited Laboratory

TEST REPORT

Reporting Date: -22.1.2023

Report No.ADP/GML/23-24/TR-NO-1/2

Description of Sample: - 03 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: -SOUTH KOEL RIVER

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

UIN	LEASE DETAILS	AREA (Ha.)	SAMPLE NO.	GEO-COORDINATE	SPECIFIC GRAVITY
2. (SK02)	Gutua, Larango, & Sahijana,South Koel River	24	1	23°16'38.31"N 84°36'38.72"E	2.600
			2	23°16'34.05"N 84°36'33.57"E	2.603
			3	23°16'32.34"N 84°36'18.81"E	2.622

State Level Environment Impact Assessment Authority * Jharkhand, Ranchi * Approved

AUTHORIZED SIGNATORY

For AD Powers Pvt. Ltd.
TESTING LAB

Authorised Signatory

AD POWER PVT.LTD. TESTING LAB
QR. NO. CD/488, SECTOR2, DHURWA, RANCHI-834004, JHARKHAND
Email.:- adpower350@gmail.com,Mobile: -7903166826
NABL Accredited Laboratory

TEST REPORT

Reporting Date: -22.1.2023

Report No.ADP/GML/23-24/TR-NO-1/3

Description of Sample: - 02 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: -SOUTH KOEL RIVER

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

UIN	LEASE DETAILS	AREA (Ha.)	SAMPLE NO.	GEO-COORDINATE	SPECIFIC GRAVITY
3. (SK03)	Sahijana, Dhobni, Kotri & Gutua,South Koel River	10	1	23°15'59.04"N 84°36'0.99"E	2.629
			2	23°15'49.12"N 84°36'8.76"E	2.614

State Level Environment Impact Assessment Authority * Jharkhand, Ranchi *
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TEST REPORT

Reporting Date: -22.1.2023

Report No.ADP/GML/23-24/TR-NO-1/4

Description of Sample: - 02 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: -SOUTH KOEL RIVER

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

UIN	LEASE DETAILS	AREA (Ha.)	SAMPLE NO.	GEO-COORDINATE	SPECIFIC GRAVITY
4. (SK04)	Dhobni, & Badri,South Koel River	5.9	1	23°15'33.35"N 84°36'58.69"E	2.632
			2	23°15'24.91"N 84°37'6.19"E	2.612

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TEST REPORT

Reporting Date: -22.1.2023

Report No.ADP/GML/23-24/TR-NO-1/5

Description of Sample: - 02 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: -SOUTH KOEL RIVER

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

UIN	LEASE DETAILS	AREA (Ha.)	SAMPLE NO.	GEO-COORDINATE	SPECIFIC GRAVITY
5. (SK05)	Barri,South Koel River	7	1	23°14'46.53"N 84°38'3.88"E	2.617
			2	23°14'48.12"N 84°38'15.84"E	2.611

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TEST REPORT

Reporting Date: -22.1.2023

Report No.ADP/GML/23-24/TR-NO-1/6

Description of Sample: - 02 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: -SOUTH KOEL RIVER

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

UIN	LEASE DETAILS	AREA (Ha.)	SAMPLE NO.	GEO-COORDINATE	SPECIFIC GRAVITY
6. (SK06)	Cheigari,South Koel River	8.8	1	23°14'38.50"N 84°38'59.88"E	2.630
			2	23°14'24.32"N 84°39'9.70"E	2.623

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TEST REPORT

Reporting Date: -22.1.2023

Report No.ADP/GML/23-24/TR-NO-1/7

Description of Sample: - 03 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: -SOUTH KOEL RIVER

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

UIN	LEASE DETAILS	AREA (Ha.)	SAMPLE NO.	GEO-COORDINATE	SPECIFIC GRAVITY
7. (SK07)	Jalka, Duko, & Sikwar,South Koel River	16.6	1	23°13'53.99"N 84°40'20.06"E	2.628
			2	23°13'44.09"N 84°40'26.96"E	2.608
			3	23°13'29.83"N 84°40'34.49"E	2.614

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TEST REPORT

Reporting Date: -22.1.2023

Report No.ADP/GML/23-24/TR-NO-1/8

Description of Sample: - 03 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: -SOUTH KOEL RIVER

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

UIN	LEASE DETAILS	AREA (Ha.)	SAMPLE NO.	GEO-COORDINATE	SPECIFIC GRAVITY
8. (SK08)	Bargaon & Duko,South Koel River	16.22	1	23°12'31.10"N 84°40'23.71"E	2.620
			2	23°12'20.14"N 84°40'20.44"E	2.605
			3	23°12'19.11"N 84°40'12.60"E	2.616

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TEST REPORT

Reporting Date: -22.1.2023

Report No.ADP/GML/23-24/TR-NO-1/9

Description of Sample: - 03 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: -SOUTH KOEL RIVER

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

UIN	LEASE DETAILS	AREA (Ha.)	SAMPLE NO.	GEO-COORDINATE	SPECIFIC GRAVITY
9. (SK09)	Arangi & Mukunda,South Koel River	14.65	1	23°11'49.57"N 84°39'38.32"E	2.634
			2	23°11'41.93"N 84°39'37.61"E	2.616
			3	23°11'19.99"N 84°39'36.17"E	2.608

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TEST REPORT

Reporting Date: -22.1.2023

Report No.ADP/GML/23-24/TR-NO-1/10

Description of Sample: - 03 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: -SOUTH KOEL RIVER

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

UIN	LEASE DETAILS	AREA (Ha.)	SAMPLE NO.	GEO-COORDINATE	SPECIFIC GRAVITY
10. (SK10)	Khambhiya-i & Murmu,South Koel River	17	1	23° 9'36.98"N 84°38'57.71"E	2.612
			2	23° 9'45.51"N 84°39'3.70"E	2.623
			3	23° 9'50.31"N 84°39'9.83"E	2.601

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For AD Powers Pvt. Ltd.
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TEST REPORT

Reporting Date: -22.1.2023

Report No.ADP/GML/23-24/TR-NO-1/11

Description of Sample: - 03 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: -SOUTH KOEL RIVER

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

UIN	LEASE DETAILS	AREA (Ha.)	SAMPLE NO.	GEO-COORDINATE	SPECIFIC GRAVITY
11. (SK11)	Khambhiya-ii,South Koel River	13	1	23° 8'8.16"N 84°38'40.89"E	2.624
			2	23° 8'6.83"N 84°38'49.07"E	2.602
			3	23° 7'59.29"N 84°38'50.85"E	2.626

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TEST REPORT

Reporting Date: -22.1.2023

Report No.ADP/GML/23-24/TR-NO-1/12

Description of Sample: - 02 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: -SOUTH KOEL RIVER

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

UIN	LEASE DETAILS	AREA (Ha.)	SAMPLE NO.	GEO-COORDINATE	SPECIFIC GRAVITY
12. (SK12)	Nagpheni & Silaphari,South Koel River	9.3	1	23° 6'57.32"N 84°39'41.88"E	2.603
			2	23° 6'48.23"N 84°39'44.78"E	2.609

AUTHORIZED SIGNATORY

For AD Powers Pvt. Ltd.
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NABL Accredited Laboratory

TEST REPORT

Reporting Date: -22.1.2023

Report No.ADP/GML/23-24/TR-NO-1/13

Description of Sample: - 03 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: -SOUTH KOEL RIVER

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

UIN	LEASE DETAILS	AREA (Ha.)	SAMPLE NO.	GEO-COORDINATE	SPECIFIC GRAVITY
13. (SK13)	Porha,South Koel River	18.2	1	23° 5'52.07"N 84°40'57.39"E	2.616
			2	23° 5'38.95"N 84°40'55.36"E	2.603
			3	23° 5'25.20"N 84°40'56.71"E	2.612

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TEST REPORT

Reporting Date: -22.1.2023

Report No.ADP/GML/23-24/TR-NO-1/14

Description of Sample: - 03 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: -SOUTH KOEL RIVER

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

UIN	LEASE DETAILS	AREA (Ha.)	SAMPLE NO.	GEO-COORDINATE	SPECIFIC GRAVITY
14. (SK14)	Patia-i & Amkuli,South Koel River	21.2	1	23° 4'16.84"N 84°43'11.14"E	2.619
			2	23° 4'6.62"N 84°43'19.06"E	2.632
			3	23° 4'0.35"N 84°43'29.37"E	2.628

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★
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For AD Powers Pvt. Ltd.
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NABL Accredited Laboratory

TEST REPORT

Reporting Date: -22.1.2023

Report No.ADP/GML/23-24/TR-NO-1/15

Description of Sample: - 03 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: -SOUTH KOEL RIVER

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

UIN	LEASE DETAILS	AREA (Ha.)	SAMPLE NO.	GEO-COORDINATE	SPECIFIC GRAVITY
15. (SK15)	Patia-ii & Olmunda,South Koel River	13.5	1	23° 3'17.18"N 84°43'32.65"E	2.611
			2	23° 3'9.74"N 84°43'32.45"E	2.624
			3	23° 3'3.45"N 84°43'33.63"E	2.605

State Level Environment Impact Assessment Authority * Jharkhand, Ranchi * Approved

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For AD Powers Pvt. Ltd.
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Email.:- adpower350@gmail.com,Mobile: -7903166826
NABL Accredited Laboratory

TEST REPORT

Reporting Date: -22.1.2023

Report No.ADP/GML/23-24/TR-NO-1/16

Description of Sample: - 04 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: -SOUTH KOEL RIVER

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

UIN	LEASE DETAILS	AREA (Ha.)	SAMPLE NO.	GEO-COORDINATE	SPECIFIC GRAVITY
16. (SK16)	Olmunda, Koenjara, & Keluga,South Koel River	27	1	23° 2'23.12"N 84°43'43.15"E	2.617
			2	23° 2'15.01"N 84°43'47.56"E	2.633
			3	23° 2'9.07"N 84°44'1.66"E	2.635
			4	23° 2'1.47"N 84°44'22.82"E	2.624

State Level Environment Impact Assessment Authority * Jharkhand, Ranchi * Approved

AUTHORIZED SIGNATORY

For AD Powers Pvt. Ltd.
TESTING LAB

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NABL Accredited Laboratory

TEST REPORT

Reporting Date: -22.1.2023

Report No.ADP/GML/23-24/TR-NO-1/17

Description of Sample: - 04 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: -SOUTH KOEL RIVER

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

UIN	LEASE DETAILS	AREA (Ha.)	SAMPLE NO.	GEO-COORDINATE	SPECIFIC GRAVITY
17. (SK17)	Keluga & Tengra,South Koel River	31.5	1	23° 1'12.60"N 84°45'5.53"E	2.617
			2	23° 1'3.30"N 84°45'1.92"E	2.609
			3	23° 0'54.44"N 84°44'52.08"E	2.621
			4	23° 0'49.16"N 84°44'36.97"E	2.606

State Level Environment Impact Assessment Authority * Jharkhand, Ranchi * Approved

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NABL Accredited Laboratory

TEST REPORT

Reporting Date: -22.1.2023

Report No.ADP/GML/23-24/TR-NO-1/18

Description of Sample: - 04 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: -SOUTH KOEL RIVER

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

UIN	LEASE DETAILS	AREA (Ha.)	SAMPLE NO.	GEO-COORDINATE	SPECIFIC GRAVITY
18. (SK18)	Bongaloya & Kutasi,South Koel River	31	1	23° 0'13.96"N 84°44'25.35"E	2.615
			2	23° 0'6.87"N 84°44'33.45"E	2.635
			3	22°59'57.35"N 84°44'35.53"E	2.614
			4	22°59'48.49"N 84°44'43.42"E	2.607

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★
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TEST REPORT

Reporting Date: -22.1.2023

Report No.ADP/GML/23-24/TR-NO-1/19

Description of Sample: - 04 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: -SOUTH KOEL RIVER

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

UIN	LEASE DETAILS	AREA (Ha.)	SAMPLE NO.	GEO-COORDINATE	SPECIFIC GRAVITY
19. (SK19)	Kutua & Lungtu,South Koel River	30.5	1	22°58'17.24"N 84°44'13.22"E	2.613
			2	22°58'7.70"N 84°44'17.81"E	2.625
			3	22°57'56.37"N 84°44'23.97"E	2.602
			4	22°57'44.88"N 84°44'22.41"E	2.624

State Level Environment Impact Assessment Authority * Jharkhand, Ranchi *
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TEST REPORT

Reporting Date: -22.1.2023

Report No.ADP/GML/23-24/TR-NO-1/20

Description of Sample: - 03 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: -SOUTH KOEL RIVER

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

UIN	LEASE DETAILS	AREA (Ha.)	SAMPLE NO.	GEO-COORDINATE	SPECIFIC GRAVITY
20. (SK20)	Pantha,South Koel River	18.7	1	22°52'39.19"N 84°47'27.71"E	2.603
			2	22°52'33.79"N 84°47'44.65"E	2.627
			3	22°52'23.48"N 84°47'52.13"E	2.605

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TEST REPORT

Reporting Date: -22.1.2023

Report No.ADP/GML/23-24/TR-NO-1/21

Description of Sample: - 02 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: -SOUTH KOEL RIVER

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

UIN	LEASE DETAILS	AREA (Ha.)	SAMPLE NO.	GEO-COORDINATE	SPECIFIC GRAVITY
21. (SK21)	Kanaskeli,South Koel River	7	1	22°49'43.65"N 84°53'8.53"E	2.608
			2	22°49'42.48"N 84°53'17.75"E	2.615

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TEST REPORT

Reporting Date: -22.1.2023

Report No.ADP/GML/23-24/TR-NO-1/22

Description of Sample: - 02 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: -SANKH RIVER

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

UIN	LEASE DETAILS	AREA (Ha.)	SAMPLE NO.	GEO-COORDINATE	SPECIFIC GRAVITY
22. (SH01)	Haradipa,Sankh River	10	1	23°11'0.25"N 84° 9'32.48"E	2.604
			2	23°10'53.91"N 84° 9'41.96"E	2.613

State Level Environment Impact Assessment Authority * Jharkhand, Ranchi * Approved

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TEST REPORT

Reporting Date: -22.1.2023

Report No.ADP/GML/23-24/TR-NO-1/23

Description of Sample: - 02 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: -SANKH RIVER

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

UIN	LEASE DETAILS	AREA (Ha.)	SAMPLE NO.	GEO-COORDINATE	SPECIFIC GRAVITY
23. (SH02)	Asro-I,Sankh River	12.3	1	23° 4'5.13"N 84°16'40.76"E	2.618
			2	23° 4'1.54"N 84°16'59.49"E	2.633

AUTHORIZED SIGNATORY

For AD Powers Pvt. Ltd.
TESTING LAB

Authorised Signatory

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★
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NABL Accredited Laboratory

TEST REPORT

Reporting Date: -22.1.2023

Report No.ADP/GML/23-24/TR-NO-1/24

Description of Sample: - 03 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: -SANKH RIVER

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

UIN	LEASE DETAILS	AREA (Ha.)	SAMPLE NO.	GEO-COORDINATE	SPECIFIC GRAVITY
24. (SH03)	Asro-ii & Pondi,Sankh River	16	1	23° 3'15.50"N 84°17'18.65"E	2.629
			2	23° 3'1.58"N 84°17'18.98"E	2.612
			3	23° 2'48.11"N 84°17'26.24"E	2.625

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★
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For AD Powers Pvt. Ltd.
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TEST REPORT

Reporting Date: -22.1.2023

Report No.ADP/GML/23-24/TR-NO-1/25

Description of Sample: - 01 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: -SANKH RIVER

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

UIN	LEASE DETAILS	AREA (Ha.)	SAMPLE NO.	GEO-COORDINATE	SPECIFIC GRAVITY
25. (SH04)	Kasir-I,Sankh River	3.8	1	23° 1'39.95"N 84°20'36.44"E	2.606

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For AD Powers Pvt. Ltd.
TESTING LAB

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Approved

AD POWER PVT.LTD. TESTING LAB
QR. NO. CD/488, SECTOR2, DHURWA, RANCHI-834004, JHARKHAND
Email.:- adpower350@gmail.com,Mobile: -7903166826
NABL Accredited Laboratory

TEST REPORT

Reporting Date: -22.1.2023

Report No.ADP/GML/23-24/TR-NO-1/26

Description of Sample: - 03 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: -SANKH RIVER

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

UIN	LEASE DETAILS	AREA (Ha.)	SAMPLE NO.	GEO-COORDINATE	SPECIFIC GRAVITY
26. (SH05)	Kasir-ii & Kemte,Sankh River	16	1	23° 1'5.31"N 84°21'0.01"E	2.617
			2	23° 1'0.24"N 84°21'2.69"E	2.632
			3	23° 0'54.76"N 84°21'2.65"E	2.636

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★
Approved

AUTHORIZED SIGNATORY

For AD Powers Pvt. Ltd.
TESTING LAB

Authorised Signatory

AD POWER PVT.LTD. TESTING LAB
QR. NO. CD/488, SECTOR2, DHURWA, RANCHI-834004, JHARKHAND
Email.:- adpower350@gmail.com,Mobile: -7903166826
NABL Accredited Laboratory

TEST REPORT

Reporting Date: -22.1.2023

Report No.ADP/GML/23-24/TR-NO-1/27

Description of Sample: - 02 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: -SANKH RIVER

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

UIN	LEASE DETAILS	AREA (Ha.)	SAMPLE NO.	GEO-COORDINATE	SPECIFIC GRAVITY
27. (SH06)	Latu,Sankh River	8.3	1	23° 0'11.03"N 84°21'26.50"E	2.623
			2	23° 0'5.89"N 84°21'27.87"E	2.615

AUTHORIZED SIGNATORY

For AD Powers Pvt. Ltd.
TESTING LAB

Authorised Signatory

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★
Approved

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Email.:- adpower350@gmail.com,Mobile: -7903166826
NABL Accredited Laboratory

TEST REPORT

Reporting Date: -22.1.2023

Report No.ADP/GML/23-24/TR-NO-1/28

Description of Sample: - 01 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: -SANKH RIVER

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

UIN	LEASE DETAILS	AREA (Ha.)	SAMPLE NO.	GEO-COORDINATE	SPECIFIC GRAVITY
28. (SH07)	Kobja,Sankh River	4.05	1	22°50'28.52"N 84°22'52.70"E	2.610

AUTHORIZED SIGNATORY

For AD Powers Pvt. Ltd.
TESTING LAB

Authorised Signatory

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★
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QR.NO. CD/488, SECTOR 2, DHURWA, RANCHI-834004, JHARKHAND

SPECIFC GRAVITY (IS:2386,Part - 3)

GUMLA

SI. NO.		DETAILS	LATITUDE AND LONGITUDE	SAMPLE NO.	SPECIFIC GRAVITY
1	South Koel	Mouza Larango-1 Block - sisai Dist-Gumla Plot no. 1(P),97(P),722(P)	23°18'31.66"N 84°37'8.54"E	1	2.620
2	South Koel	Mouza Larango-II Block - sisai Dist-Gumla Plot no. 4024(P),4019(P),	23°17'46.12"N 84°36'43.11"E	2	2.60
			23°17'37.55"N 84°36'45.79"E	3	2.615
3	South Koel	Mouza Gutua-I, Block -Ghaghra, Dist-Gumla Plot no. 1(P),897(P),519(P),925(P),211(P),	23°16'58.68"N 84°36'44.67"E	4	2.630
			23°16'32.62"N 84°36'26.37"E	5	2.627
4	South Koel	Mouza Gutua-II Dhobni, Block - Ghaghra, Dist-Gumla Plot no. 1(P),287(P),1117(P),52(P),	23°15'52.91"N 84°36'3.61"E	6	2.600
			23°15'48.62"N 84°36'10.02"E	7	2.612
5	South Koel	Mouza Badri, Block -Ghaghra, Dist-Gumla Plot no. 1(P),287(P),1116(P),1109(P),789(P),1648(P)	23°15'25.65"N 84°37'6.34"E	8	2.624
			23°15'23.44"N 84°37'20.95"E	9	2.636
6	South Koel	Mouza Barri, Block -Sisai, Dist-Gumla Plot no. 1(P),678(P),1610(P),	23°14'46.74"N 84°38'2.43"E	10	2.611
			23°14'46.00"N 84°38'28.53"E	11	2.605
7	South Koel	Mouza Harri, Block -Sisai, Dist-Gumla Plot no. 567(P),1044(P),	23°14'37.20"N 84°39'0.35"E	12	2.622
			23°14'21.44"N 84°39'12.80"E	13	2.618
8	South Koel	Mouza Jalka, Block -Sisai, Dist-Gumla Plot no.1(P),463(P), 1475(P),902(P),1198(P),	23°13'53.56"N 84°40'20.11"E	14	2.605
			23°13'29.58"N 84°40'34.93"E	15	2.610
9	South Koel	Mouza Khambhiya-1, Block -Ghagra, Dist-Gumla Plot no.102(P)1144(P),	23° 9'40.45"N 84°39'1.92"E	16	2.615
			23° 9'27.42"N 84°38'51.09"E	17	2.620
10	South Koel	Mouza Khambhiya-II, Block -Ghagra, Dist-Gumla Plot	23° 8'6.83"N 84°38'42.20"E	18	2.613
11	South Koel	Mouza Silaphari, Block -Gumla, Dist-Gumla Plot no.1558(P),1972(P),361(P),829(P),	23° 6'53.05"N 84°39'42.64"E	19	2.609
			23° 6'43.07"N 84°39'52.52"E	20	2.603
12	South Koel	Mouza Porha, Block -Sisai, Dist-Gumla Plot no.968(P),2(P),2119(P),2399(P),3078(P),	23° 5'49.29"N 84°40'58.76"E	21	2.610
			23° 5'16.75"N 84°41'4.61"E	22	2.612
13	South Koel	Mouza Amkuli, Block -Sisai, Dist-Gumla Plot no.2960(P),402(P),2871(P),2959(P),	23° 4'17.30"N 84°43'9.25"E	23	2.615
			23° 3'57.20"N 84°43'32.14"E	24	2.612
14	South Koel	Mouza koenjara, Block -Gumla, Dist-Gumla Plot no.1(P),402(P),2959(P),2871(P),	23° 3'16.54"N 84°43'33.00"E	25	2.601
			23° 3'3.26"N 84°43'33.38"E	26	2.607

For AD Power & Pvt. Ltd.
TESTING LAB

Authorised Signatory

State Level Environment Impact Assessment Authority * Jharkhand, Ranchi *
Approved

15	South Koel	Mouza Olmunda, Block -Sisai, Dist-Gumla Plot no.3233(P),1738(P),1739(P),309(P),1486(P),	23° 2'12.11"N 84°43'57.38"E	27	2.605
			23° 2'0.49"N 84°44'26.69"E	28	2.612
16	South Koel	Mouza Tengra, Block -Basia, Dist-Gumla Plot no.1487(P),1861(P),1974(P),1869(P),	23° 1'12.22"N 84°45'5.62"E	29	2.603
			23° 0'50.21"N 84°44'42.04"E	30	2.614
17	South Koel	Mouza Bongaloya, Block -Basia, Dist-Gumla Plot no.1(P),954(P),1001(P),	23° 0'14.81"N 84°44'24.28"E	31	2.607
			22°59'51.11"N 84°44'39.61"E	32	2.612
18	South Koel	Mouza-Lungtu, Block -Basia, Dist-Gumla Plot no.2355(P),235(P),2421(P),1(P),2414(P),	22°58'13.71"N 84°44'15.22"E	33	2.615
			22°57'40.04"N 84°44'23.00"E	34	2.620
19	South Koel	Mouza-Solangbira, Block -Basia, Dist-Gumla Plot no.1940(P),2103(P),1(P),1944(P),318(P),230(P),	22°52'39.22"N 84°47'27.44"E	35	2.610
			22°52'15.39"N 84°48'16.75"E	36	2.621
20	South Koel	Mouza-Barkoili, Block -Kamdara, Dist-Gumla Plot no.801(P),1291(P),2060(P),	22°49'46.70"N 84°52'50.38"E	37	2.632
			22°49'43.73"N 84°53'6.79"E	38	2.625
21	Sankh	Mouza-Haradipa, Block -Chainpur, Dist-Gumla Plot no.869(P),793(P),1544(P),1174(P)	23°11'23.59"N 84° 9'10.16"E	39	2.632
			23°11'11.07"N 84° 9'26.40"E	40	2.600
22	Sankh	Mouza-Bhelwatola, Block -Chainpur, Dist-Gumla Plot no.1169(P),1(P),87(P),	23°10'32.68"N 84°10'18.43"E	41	2.612
			23°10'24.91"N 84°10'28.51"E	42	2.622
23	Sankh	Mouza-Bendora, Block -Chainpur, Dist-Gumla Plot no.3108(P),1(P),1176(P),3839(P),1178(P)	23° 4'15.66"N 84°16'32.58"E	43	2.624
			23° 4'0.34"N 84°17'2.72"E	44	2.615
24	Sankh	Mouza-Natapol, Block -Chainpur, Dist-Gumla Plot no.488(P),1385(P),743(P),865(P),	23° 3'15.96"N 84°17'18.32"E	45	2.618
			23° 3'0.29"N 84°17'19.47"E	46	2.623
25	Sankh	Mouza-Kemte, Block -Raidih, Dist-Gumla Plot no.4410(P),4370(P),4621(P),	23° 1'46.69"N 84°20'23.09"E	47	2.617
			23° 1'39.43"N 84°20'37.41"E	48	2.624
26	Sankh	Mouza-Masgaon, Block -Raidih, Dist-Gumla Plot no.3176(P),6605(P),3666(P),1197(P),	23° 1'3.23"N 84°21'1.08"E	49	2.607
			23° 0'54.51"N 84°21'2.80"E	50	2.611
27	Sankh	Mouza-Tururma, Block -Raidih, Dist-Gumla Plot no.4002(P),1342(P),3097(P),1(P),	23° 0'8.50"N 84°21'27.49"E	51	2.632
			22°59'50.94"N 84°21'46.26"E	52	2.619
28	Sankh	Mouza-Keradih, Block -Raidih, Dist-Gumla Plot no.1(P),4006(P),1896(P),3510(P),	22°59'4.88"N 84°22'7.83"E	53	2.616
			22°58'53.58"N 84°22'17.00"E	54	2.620
29	Sankh	Mouza-Konkel, Block -Raidih, Dist-Gumla Plot no.5529(P),1955(P),1410(P),5530(P),	22°50'34.27"N 84°22'51.81"E	55	2.613
			22°50'18.30"N 84°22'56.40"E	56	2.624

AUTHORIZED SIGNATORY

For AD Power & Pvt. Ltd.
TESTING LAB

Authorised Signatory

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★
Approved

AD Powers Private Limited

AD POWER PVT.LTD. TESTING LAB

QR. NO. CD/488, SECTOR2, DHURWA, RANCHI-834004, JHARKHAND

Email.: - adpower350@gmail.com, Mobile: -7903166826

NABL Accredited Laboratory

TEST REPORT

Reporting Date: - 16.12.2022

Report No.ADP/GM/22-23/TR-NO-12/1

Description of Sample: - 01 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: - South Koel

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

SI. NO.	DETAILS	LATITUDE AND LONGITUDE	SAMPLE NO.	SPECIFIC GRAVITY
1	Mouza – Larango-1, Block Sisai, Dist-Gumla, Plot.no-1(P),97(P),722(P)	23°18'31.66"N 84°37'8.54"E	1	2.620

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★ Approved

For AD Power & Pvt. Ltd.
TESTING LAB

Authorised Signatory

AUTHORIZED SIGNATORY

AD Powers Private Limited

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QR. NO. CD/488, SECTOR2, DHURWA, RANCHI-834004, JHARKHAND
Email.: - adpower350@gmail.com, Mobile: -7903166826
NABL Accredited Laboratory

TEST REPORT

Reporting Date: - 16.12.2022

Report No.ADP/GM/22-23/TR-NO-12/2

Description of Sample: - 02 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: - South Koel

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

SI. NO.	DETAILS	LATITUDE AND LONGITUDE	SAMPLE NO.	SPECIFIC GRAVITY
2	Mouza – Larango-II, Block Sisai, Dist-Gumla, Plot.no-4024(P), 4019(P)	23°17'46.12"N 84°36'43.11"E	2	2.60
		23°17'37.55"N 84°36'45.79"E	3	2.615

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★ Approved

AUTHORIZED SIGNATORY

For AD Power & Pvt. Ltd.
TESTING LAB

Authorised Signatory

AD Powers Private Limited

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Email.: - adpower350@gmail.com, Mobile: -7903166826
NABL Accredited Laboratory

TEST REPORT

Reporting Date: - 16.12.2022

Report No.ADP/GM/22-23/TR-NO-12/3

Description of Sample: - 02 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: - South Koel

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

SI. NO.	DETAILS	LATITUDE AND LONGITUDE	SAMPLE NO.	SPECIFIC GRAVITY
3	Mouza Gutua-I, Block -Ghaghra, Dist-Gumla Plot no. 1(P),897(P),519(P),925(P),211(P),	23°16'58.68"N 84°36'44.67"E	4	2.630
		23°16'32.62"N 84°36'26.37"E	5	2.627

AUTHORIZED SIGNATORY

For AD Power & Pvt. Ltd.
TESTING LAB

Authorised Signatory

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★
Approved

AD Powers Private Limited

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NABL Accredited Laboratory

TEST REPORT

Reporting Date: - 16.12.2022

Report No.ADP/GM/22-23/TR-NO-12/4

Description of Sample: - 02 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: - South Koel

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

SI. NO.	DETAILS	LATITUDE AND LONGITUDE	SAMPLE NO.	SPECIFIC GRAVITY
4	Mouza Gutua-II Dhobni, Block - Ghaghra, Dist-Gumla Plot no. 1(P),287(P),1117(P),52(P),	23°15'52.91"N 84°36'3.61"E	6	2.600
		23°15'48.62"N 84°36'10.02"E	7	2.612

AUTHORIZED SIGNATORY

FOR AD Power & PVT. LTD.
TESTING LAB

Authorised Signatory

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

AD Powers Private Limited

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QR. NO. CD/488, SECTOR2, DHURWA, RANCHI-834004, JHARKHAND
Email.: - adpower350@gmail.com, Mobile: -7903166826
NABL Accredited Laboratory

TEST REPORT

Reporting Date: - 16.12.2022

Report No.ADP/GM/22-23/TR-NO-12/5

Description of Sample: - 02 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: - South Koel

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

SI. NO.	DETAILS	LATITUDE AND LONGITUDE	SAMPLE NO.	SPECIFIC GRAVITY
5	Mouza Badri, Block -Ghaghra, Dist-Gumla Plot no. 1(P),287(P),1116(P),1109(P),789(P),1648(P)	23°15'25.65"N 84°37'6.34"E	8	2.624
		23°15'23.44"N 84°37'20.95"E	9	2.636

AUTHORIZED SIGNATORY

For AD Power & Pvt. Ltd.
TESTING LAB

Authorised Signatory

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★
Approved

AD Powers Private Limited

A D POWER PVT.LTD. TESTING LAB
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Email.: - adpower350@gmail.com, Mobile: -7903166826
NABL Accredited Laboratory

TEST REPORT

Reporting Date: - 16.12.2022

Report No.ADP/GM/22-23/TR-NO-12/6

Description of Sample: - 02 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: - South Koel

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

SI. NO.	DETAILS	LATITUDE AND LONGITUDE	SAMPLE NO.	SPECIFIC GRAVITY
6	Mouza Barri, Block -Sisai, Dist-Gumla Plot no. 1(P),678(P),1610(P),	23°14'46.74"N 84°38'2.43"E	10	2.611
		23°14'46.00"N 84°38'28.53"E	11	2.605

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★ Approved

AUTHORIZED SIGNATORY

for AD Power & Pvt. Ltd.
TESTING LAB

Authorised Signatory

AD Powers Private Limited

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QR. NO. CD/488, SECTOR2, DHURWA, RANCHI-834004, JHARKHAND
Email.: - adpower350@gmail.com, Mobile: -7903166826
NABL Accredited Laboratory

TEST REPORT

Reporting Date: - 16.12.2022

Report No.ADP/GM/22-23/TR-NO-12/7

Description of Sample: - 02 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: - South Koel

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

SI. NO.	DETAILS	LATITUDE AND LONGITUDE	SAMPLE NO.	SPECIFIC GRAVITY
7	Mouza Harri, Block -Sisai, Dist-Gumla Plot no. 567(P),1044(P),	23°14'37.20"N 84°39'0.35"E	12	2.622
		23°14'21.44"N 84°39'12.80"E	13	2.618

AUTHORIZED SIGNATORY

For AD Power & Pvt. Ltd.
TESTING LAB

Authorised Signatory

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★
Approved

AD Powers Private Limited

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Email.: - adpower350@gmail.com, Mobile: -7903166826
NABL Accredited Laboratory

TEST REPORT

Reporting Date: - 16.12.2022

Report No.ADP/GM/22-23/TR-NO-12/8

Description of Sample: - 02 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: - South Koel

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

SI. NO.	DETAILS	LATITUDE AND LONGITUDE	SAMPLE NO.	SPECIFIC GRAVITY
8	Mouza Jalka, Block -Sisai, Dist-Gumla Plot no.1(P),463(P), 1475(P),902(P),1198(P),	23°13'53.56"N 84°40'20.11"E	14	2.605
		23°13'29.58"N 84°40'34.93"E	15	2.610

AUTHORIZED SIGNATORY
For AD Power & Pvt. Ltd.
TESTING LAB
Authorised Signatory

State Level Environment Impact Assessment Authority * Jharkhand, Ranchi * Approved

AD Powers Private Limited

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NABL Accredited Laboratory

TEST REPORT

Reporting Date: - 16.12.2022

Report No.ADP/GM/22-23/TR-NO-12/9

Description of Sample: - 02 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: - South Koel

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

SI. NO.	DETAILS	LATITUDE AND LONGITUDE	SAMPLE NO.	SPECIFIC GRAVITY
9	Mouza Khambhiya-1, Block - Ghagra, Dist-Gumla Plot no.102(P)1144(P),	23° 9'40.45"N 84°39'1.92"E	16	2.615
		23° 9'27.42"N 84°38'51.09"E	17	2.620

AUTHORIZED SIGNATORY
For AD Power & Pvt. Ltd.
TESTING LAB

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State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★
Approved

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NABL Accredited Laboratory

TEST REPORT

Reporting Date: - 17.12.2022

Report No.ADP/GM/22-23/TR-NO-12/10

Description of Sample: - 01 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: - South Koel

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

SI. NO.	DETAILS	LATITUDE AND LONGITUDE	SAMPLE NO.	SPECIFIC GRAVITY
10	Mouza Khambhiya-II, Block -Ghagra, Dist-Gumla Plot no.2554(P),2555(P),2556(P),2557(P),2558(P)	23° 8'6.83"N 84°38'42.20"E	18	2.613

AUTHORIZED SIGNATORY

For AD Power & Pvt. Ltd.
TESTING LAB

Authorised Signatory

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★
Approved

AD Powers Private Limited

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Email.: - adpower350@gmail.com, Mobile: -7903166826

NABL Accredited Laboratory

TEST REPORT

Reporting Date: - 17.12.2022

Report No.ADP/GM/22-23/TR-NO-12/11

Description of Sample: - 02 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: - South Koel

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

SI. NO.	DETAILS	LATITUDE AND LONGITUDE	SAMPLE NO.	SPECIFIC GRAVITY
11	Mouza Silaphari, Block -Gumla, Dist-Gumla Plot no.1558(P),1972(P),361(P),829(P),	23° 6'53.05"N 84°39'42.64"E	19	2.609
		23° 6'43.07"N 84°39'52.52"E	20	2.603

AUTHORIZED SIGNATORY
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NABL Accredited Laboratory

TEST REPORT

Reporting Date: - 17.12.2022

Report No.ADP/GM/22-23/TR-NO-12/12

Description of Sample: - 02 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: - South Koel

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

SI. NO.	DETAILS	LATITUDE AND LONGITUDE	SAMPLE NO.	SPECIFIC GRAVITY
12	Mouza Porha, Block -Sisai, Dist-Gumla Plot no.968(P),2(P),2119(P),2399(P),3078(P),	23° 5'49.29"N 84°40'58.76"E	21	2.610
		23° 5'16.75"N 84°41'4.61"E	22	2.612

AUTHORIZED SIGNATORY

for AD Power & Pvt. Ltd.
TESTING LAB

Authorised Signatory

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★
Approved

AD Powers Private Limited

AD POWER PVT.LTD. TESTING LAB
QR. NO. CD/488, SECTOR2, DHURWA, RANCHI-834004, JHARKHAND
Email.: - adpower350@gmail.com, Mobile: -7903166826
NABL Accredited Laboratory

TEST REPORT

Reporting Date: - 17.12.2022

Report No.ADP/GM/22-23/TR-NO-12/13

Description of Sample: - 02 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: - South Koel

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

SI. NO.	DETAILS	LATITUDE AND LONGITUDE	SAMPLE NO.	SPECIFIC GRAVITY
13	Mouza Amkuli, Block -Sisai, Dist-Gumla Plot no.2960(P),402(P),2871(P),2959(P),	23° 4'17.30"N 84°43'9.25"E	23	2.615
		23° 3'57.20"N 84°43'32.14"E	24	2.612

AUTHORIZED SIGNATORY

For AD Power & Pvt. Ltd.
TESTING LAB

Authorised Signatory

State Level Environment Impact Assessment Authority * Jharkhand, Ranchi *
Approved

AD Powers Private Limited

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QR. NO. CD/488, SECTOR2, DHURWA, RANCHI-834004, JHARKHAND
Email.: - adpower350@gmail.com, Mobile: -7903166826
NABL Accredited Laboratory

TEST REPORT

Reporting Date: - 17.12.2022

Report No.ADP/GM/22-23/TR-NO-12/14

Description of Sample: - 02 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: - South Koel

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

SI. NO.	DETAILS	LATITUDE AND LONGITUDE	SAMPLE NO.	SPECIFIC GRAVITY
14	Mouza koenjara, Block -Gumla, Dist-Gumla Plot no.1(P),402(P),2959(P),2871(P),	23° 3'16.54"N 84°43'33.00"E	25	2.601
		23° 3'3.26"N 84°43'33.38"E	26	2.607

AUTHORIZED SIGNATORY

For AD Power & Pvt. Ltd.
TESTING LAB

Authorised Signatory

State Level Environment Impact Assessment Authority * Jharkhand, Ranchi *
Approved

AD Powers Private Limited

AD POWER PVT.LTD. TESTING LAB

QR. NO. CD/488, SECTOR2, DHURWA, RANCHI-834004, JHARKHAND

Email.: - adpower350@gmail.com, Mobile: -7903166826

NABL Accredited Laboratory

TEST REPORT

Reporting Date: - 17.12.2022

Report No.ADP/GM/22-23/TR-NO-12/15

Description of Sample: - 02 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: - South Koel

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

SI. NO.	DETAILS	LATITUDE AND LONGITUDE	SAMPLE NO.	SPECIFIC GRAVITY
15	Mouza Olmunda, Block -Sisai, Dist-Gumla Plot no.3233(P),1738(P),1739(P),309(P),1486(P),	23° 2'12.11"N 84°43'57.38"E	27	2.605
		23° 2'0.49"N 84°44'26.69"E	28	2.612

AUTHORIZED SIGNATORY

For AD Power & Pvt. Ltd.
TESTING LAB

Authorised Signatory

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★

Approved

AD Powers Private Limited

A D POWER PVT.LTD. TESTING LAB
QR. NO. CD/488, SECTOR2, DHURWA, RANCHI-834004, JHARKHAND
Email.: - adpower350@gmail.com, Mobile: -7903166826
NABL Accredited Laboratory

TEST REPORT

Reporting Date: - 17.12.2022

Report No.ADP/GM/22-23/TR-NO-12/16

Description of Sample: - 02 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: - South Koel

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

SI. NO.	DETAILS	LATITUDE AND LONGITUDE	SAMPLE NO.	SPECIFIC GRAVITY
16	Mouza Tengra, Block -Basia, Dist-Gumla Plot no.1487(P),1861(P),1974(P),1869(P),	23° 1'12.22"N 84°45'5.62"E	29	2.603
		23° 0'50.21"N 84°44'42.04"E	30	2.614

AUTHORIZED SIGNATORY
For AD Power & Pvt. Ltd.
TESTING LAB

Authorised Signatory

State Level Environment Impact Assessment Authority * Jharkhand, Ranchi *
Approved

AD Powers Private Limited

AD POWER PVT.LTD. TESTING LAB
QR. NO. CD/488, SECTOR2, DHURWA, RANCHI-834004, JHARKHAND
Email.: - adpower350@gmail.com, Mobile: -7903166826
NABL Accredited Laboratory

TEST REPORT

Reporting Date: - 17.12.2022

Report No.ADP/GM/22-23/TR-NO-12/17

Description of Sample: - 02 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: - South Koel

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

SI. NO.	DETAILS	LATITUDE AND LONGITUDE	SAMPLE NO.	SPECIFIC GRAVITY
17	Mouza Bongaloya, Block -Basia, Dist-Gumla Plot no.1(P),954(P),1001(P),	23° 0'14.81"N 84°44'24.28"E	31	2.607
		22°59'51.11"N 84°44'39.61"E	32	2.612

AUTHORIZED SIGNATORY

For AD Power & Pvt. Ltd.
TESTING LAB

Authorised Signatory

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★
Approved

AD Powers Private Limited

A D POWER PVT.LTD. TESTING LAB

QR. NO. CD/488, SECTOR2, DHURWA, RANCHI-834004, JHARKHAND

Email.: - adpower350@gmail.com, Mobile: -7903166826

NABL Accredited Laboratory

TEST REPORT

Reporting Date: - 17.12.2022

Report No.ADP/GM/22-23/TR-NO-12/18

Description of Sample: - 02 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: - South Koel

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

SI. NO.	DETAILS	LATITUDE AND LONGITUDE	SAMPLE NO.	SPECIFIC GRAVITY
18	Mouza-Lungtu, Block -Basia, Dist-Gumla Plot no.2355(P),235(P),2421(P),1(P),2414(P),	22°58'13.71"N 84°44'15.22"E	33	2.615
		22°57'40.04"N 84°44'23.00"E	34	2.620

AUTHORIZED SIGNATORY

For AD Power a Pvt. Ltd.
TESTING LAB

Authorised Signatory

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★
Approved

AD Powers Private Limited

A D POWER PVT.LTD. TESTING LAB

QR. NO. CD/488, SECTOR2, DHURWA, RANCHI-834004, JHARKHAND

Email.: - adpower350@gmail.com, Mobile: -7903166826

NABL Accredited Laboratory

TEST REPORT

Reporting Date: - 18.12.2022

Report No.ADP/GM/22-23/TR-NO-12/19

Description of Sample: - 02 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: - South Koel

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

SI. NO.	DETAILS	LATITUDE AND LONGITUDE	SAMPLE NO.	SPECIFIC GRAVITY
19	Mouza-Solangbira, Block -Basia, Dist-Gumla Plot no.1940(P),2103(P),1(P),1944(P),318(P),230(P),	22°52'39.22"N 84°47'27.44"E	35	2.610
		22°52'15.39"N 84°48'16.75"E	36	2.621

AUTHORIZED SIGNATORY

For AD Power & Pvt. Ltd.
TESTING LAB

Authorised Signatory

State Level Environment Impact Assessment Authority * Jharkhand, Ranchi *
Approved

AD Powers Private Limited

A D POWER PVT.LTD. TESTING LAB
QR. NO. CD/488, SECTOR2, DHURWA, RANCHI-834004, JHARKHAND
Email.: - adpower350@gmail.com, Mobile: -7903166826
NABL Accredited Laboratory

TEST REPORT

Reporting Date: - 18.12.2022

Report No.ADP/GM/22-23/TR-NO-12/20

Description of Sample: - 02 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: - South Koel

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

SI. NO.	DETAILS	LATITUDE AND LONGITUDE	SAMPLE NO.	SPECIFIC GRAVITY
20	Mouza-Barkoili, Block -Kamdara, Dist-Gumla Plot no.801(P),1291(P),2060(P),	22°49'46.70"N 84°52'50.38"E	37	2.632
		22°49'43.73"N 84°53'6.79"E	38	2.625

AUTHORIZED SIGNATORY

For AD Power & Pvt. Ltd.
TESTING LAB

Authorised Signatory

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

AD Powers Private Limited

A D POWER PVT.LTD. TESTING LAB
QR. NO. CD/488, SECTOR2, DHURWA, RANCHI-834004, JHARKHAND
Email.: - adpower350@gmail.com, Mobile: -7903166826
NABL Accredited Laboratory

TEST REPORT

Reporting Date: - 18.12.2022

Report No.ADP/GM/22-23/TR-NO-12/21

Description of Sample: - 02 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: - Sankh

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

SI. NO.	DETAILS	LATITUDE AND LONGITUDE	SAMPLE NO.	SPECIFIC GRAVITY
21	Mouza-Haradipa, Block - Chainpur, Dist-Gumla Plot no.869(P),793(P),1544(P),1174(P)	23°11'23.59"N 84° 9'10.16"E	39	2.632
		23°11'11.07"N 84° 9'26.40"E	40	2.600

AUTHORIZED SIGNATORY

For AD Power & Pvt. Ltd.
TESTING LAB

Authorised Signatory

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★
Approved

AD Powers Private Limited

A D POWER PVT.LTD. TESTING LAB
QR. NO. CD/488, SECTOR2, DHURWA, RANCHI-834004, JHARKHAND
Email.: - adpower350@gmail.com, Mobile: -7903166826
NABL Accredited Laboratory

TEST REPORT

Reporting Date: - 18.12.2022

Report No.ADP/GM/22-23/TR-NO-12/22

Description of Sample: - 02 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: - Sankh

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

SI. NO.	DETAILS	LATITUDE AND LONGITUDE	SAMPLE NO.	SPECIFIC GRAVITY
22	Mouza-Bhelwatola, Block - Chainpur, Dist-Gumla Plot no.1169(P),1(P),87(P),	23°10'32.68"N 84°10'18.43"E	41	2.612
		23°10'24.91"N 84°10'28.51"E	42	2.622

AUTHORIZED SIGNATORY

For AD Power s Pvt. Ltd.
TESTING LAB

Authorised Signatory

State Level Environment Impact Assessment Authority * Jharkhand, Ranchi *
Approved

AD Powers Private Limited

A D POWER PVT.LTD. TESTING LAB

QR. NO. CD/488, SECTOR2, DHURWA, RANCHI-834004, JHARKHAND

Email.: - adpower350@gmail.com, Mobile: -7903166826

NABL Accredited Laboratory

TEST REPORT

Reporting Date: - 18.12.2022

Report No.ADP/GM/22-23/TR-NO-12/23

Description of Sample: - 02 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: - Sankh

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

SI. NO.	DETAILS	LATITUDE AND LONGITUDE	SAMPLE NO.	SPECIFIC GRAVITY
23	Mouza-Bendora, Block -Chainpur, Dist-Gumla Plot no.3108(P),1(P),1176(P),3839(P),1178(P)	23° 4'15.66"N 84°16'32.58"E	43	2.624
		23° 4'0.34"N 84°17'2.72"E	44	2.615

AUTHORIZED SIGNATORY

For AD Power & Pvt. Ltd.
TESTING LAB

Authorised Signatory

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★
Approved

AD Powers Private Limited

AD POWER PVT.LTD. TESTING LAB
QR. NO. CD/488, SECTOR2, DHURWA, RANCHI-834004, JHARKHAND
Email.: - adpower350@gmail.com, Mobile: -7903166826
NABL Accredited Laboratory

TEST REPORT

Reporting Date: - 18.12.2022

Report No.ADP/GM/22-23/TR-NO-12/24

Description of Sample: - 02 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: - Sankh

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

SI. NO.	DETAILS	LATITUDE AND LONGITUDE	SAMPLE NO.	SPECIFIC GRAVITY
24	Mouza-Natapol, Block -Chainpur, Dist-Gumla Plot no.488(P),1385(P),743(P),865(P),	23° 3'15.96"N 84°17'18.32"E	45	2.618
		23° 3'0.29"N 84°17'19.47"E	46	2.623

AUTHORIZED SIGNATORY

For AD Power & Pvt. Ltd.
TESTING LAB

Authorised Signatory

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★
Approved

AD Powers Private Limited

A D POWER PVT.LTD. TESTING LAB

QR. NO. CD/488, SECTOR2, DHURWA, RANCHI-834004, JHARKHAND

Email.: - adpower350@gmail.com, Mobile: -7903166826

NABL Accredited Laboratory

TEST REPORT

Reporting Date: - 19.12.2022

Report No.ADP/GM/22-23/TR-NO-12/25

Description of Sample: - 02 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: - Sankh

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

SI. NO.	DETAILS	LATITUDE AND LONGITUDE	SAMPLE NO.	SPECIFIC GRAVITY
25	Mouza-Kemte, Block -Raidih, Dist-Gumla Plot no.4410(P),4370(P),4621(P),	23° 1'46.69"N 84°20'23.09"E	47	2.617
		23° 1'39.43"N 84°20'37.41"E	48	2.624

AUTHORIZED SIGNATORY

For AD Power & Pvt. Ltd.
TESTING LAB

Authorised Signatory

State Level Environment Impact Assessment Authority * Jharkhand, Ranchi *
Approved

AD Powers Private Limited

A D POWER PVT.LTD. TESTING LAB
QR. NO. CD/488, SECTOR2, DHURWA, RANCHI-834004, JHARKHAND
Email.: - adpower350@gmail.com, Mobile: -7903166826
NABL Accredited Laboratory

TEST REPORT

Reporting Date: - 19.12.2022

Report No.ADP/GM/22-23/TR-NO-12/26

Description of Sample: - 02 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: - Sankh

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

SI. NO.	DETAILS	LATITUDE AND LONGITUDE	SAMPLE NO.	SPECIFIC GRAVITY
26	Mouza-Masgaon, Block -Raidih, Dist-Gumla Plot no.3176(P),6605(P),3666(P),1197(P),	23° 1'3.23"N 84°21'1.08"E	49	2.607
		23° 0'54.51"N 84°21'2.80"E	50	2.611

AUTHORIZED SIGNATORY
For AD Power & Pvt. Ltd.
TESTING LAB

Authorised Signatory

State Level Environment Impact Assessment Authority * Jharkhand, Ranchi *
Approved

AD Powers Private Limited

A D POWER PVT.LTD. TESTING LAB
QR. NO. CD/488, SECTOR2, DHURWA, RANCHI-834004, JHARKHAND
Email.: - adpower350@gmail.com, Mobile: -7903166826
NABL Accredited Laboratory

TEST REPORT

Reporting Date: - 19.12.2022

Report No.ADP/GM/22-23/TR-NO-12/27

Description of Sample: - 02 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: - Sankh

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

SI. NO.	DETAILS	LATITUDE AND LONGITUDE	SAMPLE NO.	SPECIFIC GRAVITY
27	Mouza-Tururma, Block -Raidih, Dist-Gumla Plot no.4002(P),1342(P),3097(P),1(P),	23° 0'8.50"N 84°21'27.49"E	51	2.632
		22°59'50.94"N 84°21'46.26"E	52	2.619

AUTHORIZED SIGNATORY

For AD Power & Pvt. Ltd.
TESTING LAB

Authorised Signatory

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★
Approved

AD Powers Private Limited

A D POWER PVT.LTD. TESTING LAB

QR. NO. CD/488, SECTOR2, DHURWA, RANCHI-834004, JHARKHAND

Email.: - adpower350@gmail.com, Mobile: -7903166826

NABL Accredited Laboratory

TEST REPORT

Reporting Date: - 19.12.2022

Report No.ADP/GM/22-23/TR-NO-12/28

Description of Sample: - 02 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: - Sankh

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

SI. NO.	DETAILS	LATITUDE AND LONGITUDE	SAMPLE NO.	SPECIFIC GRAVITY
28	Mouza-Keradih, Block -Raidih, Dist-Gumla Plot no.1(P),4006(P),1896(P),3510(P),	22°59'4.88"N 84°22'7.83"E	53	2.616
		22°58'53.58"N 84°22'17.00"E	54	2.620

AUTHORIZED SIGNATORY

For AD Power & Pvt. Ltd.
TESTING LAB

Authorised Signatory

State Level Environment Impact Assessment Authority * Jharkhand, Ranchi *
Approved

AD Powers Private Limited

A D POWER PVT.LTD. TESTING LAB

QR. NO. CD/488, SECTOR2, DHURWA, RANCHI-834004, JHARKHAND

Email.: - adpower350@gmail.com, Mobile: -7903166826

NABL Accredited Laboratory

TEST REPORT

Reporting Date: - 19.12.2022

Report No.ADP/GM/22-23/TR-NO-12/29

Description of Sample: - 02 Bag Sand sample submitted to us for the Specific Gravity tests.

Source: - Sankh

SPECIFIC GRAVITY TEST

(IS:2386, Part - 3)

SI. NO.	DETAILS	LATITUDE AND LONGITUDE	SAMPLE NO.	SPECIFIC GRAVITY
29	Mouza-Konkel, Block -Raidih, Dist-Gumla Plot no.5529(P),1955(P),1410(P),5530(P),	22°50'34.27"N 84°22'51.81"E	55	2.613
		22°50'18.30"N 84°22'56.40"E	56	2.624

AUTHORIZED SIGNATORY

For AD Power a Pvt. Ltd.
TESTING LAB

Authorised Signatory

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

ANNEXURE-17

COPY OF WORK ORDER



GOVERNMENT OF JHARKHAND
DEPARTMENT OF MINES & GEOLOGY
DIRECTORATE OF GEOLOGY
ENGINEERS' HOSTEL, 2ND FLOOR, DHURWA, RANCHI
E-MAIL- dir-geology@jharkhandmail.gov.in

Letter No:- Bhu.Ni. Anve-95/2021 - 2135 M/Ranchi, Date:- 13.10.2022

From,

Vijay Kumar Ojha
Director, Geology

To,

M/s Atmos Sustainable Solutions Private Limited,
A QCI-NABET-Approved EIA Consultant
A-73, 3rd Floor, Sector-65, Noida-201301
e-mail-gilbertmervyn@gmail.com

Subject: Work Order for Preparation/Updation and Revision of District Survey Report (DSR) of Sand in Jharkhand.

Sir,

This is to inform you that M/s Atmos Sustainable Solutions Private Limited has been submitted lowest financial offer for Preparation/Updation and Revision of District Survey Report (DSR) of Sand under the guideline of Enforcement and Monitoring Guidelines for Sand Mining 2020 (EMGSM-2020), Sustainable Sand Mining Management Guidelines 2016 (SSMMG-2016), Ministry of Environment, Forest and Climate Change January 2020 (MoEF&CC) and follow Gazette of India 15th January 2016 and 25th July 2018 and also guidance of Hon'ble Court of Jharkhand and Supreme Court of India. In consequence of that Directorate of Geology intend to give work order for Preparation/Updation and Revision of District Survey Report (DSR) of Sand on the lowest rate decided by the Departmental Purchase Committee.

2. Scope of work:-

i. Preparation of District Survey Reports of Sand for 7 districts of Jharkhand (as per list contained in this letter further).

ii. Preparation of DSR of Sand should be done as per the procedure and the parameters lay down under the Sustainable Sand Mining Management Guidelines 2016 and Enforcement & Monitoring Guidelines for Sand Mining 2020 read in sync with each other and carried out as per format prescribed by the MoEF& CC, GoI vide Notification dated 25 July 2018.

iii. In preparation of DSR of other minor minerals including Sand, various guidelines and direction given by Honourable NGT and MoEF& CC, GoI and SEIAA Jharkhand shall be strictly adhered to.

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

iv. The selected agency will have to update the DSR as per prevailing law, guidelines, rules and regulations issued by competent authority.

v. The selected agency will have to prepare DSR and approval there of as existing law and guideline/circular issued by the competent authority.

vi. This will be a continues and progressive work by way of updation of relevant information as per guideline over a period of 5 (Five) year.

vii. District Survey Report (DSR) shall be submitted to Respective DMO through respective Assistant Director, Geology who shall after due diligence forward that to Deputy Commissioner of the concerned district for verification and needful action.

viii. The concerned Deputy Commissioner will verify the DSR in respect of the relevant facts pertaining to the physical and geographical features of the district which shall be in line with scientific findings based on the parameters prescribed in the Sustainable Sand Mining Management Guidelines 2016 and Enforcement & Monitoring Guidelines for Sand Mining 2020. After such verification, the Deputy Commissioner after following all procedure to check the DSR and will get it vetted by Committee at district level shall forward the DSR for examination and evaluation by the State Expert Appraisal Committee (SEAC) having regarding to the fact that the SEIAA comprises of technical/scientific experts.

ix. The SEAC after appraisal of the report shall forward it to the SEIAA for consideration and approval if it meets all scientific/technical requirements.

x. DSR approved by the SEIAA shall be taken as final outcome of the Agency and will be submitted by the agency to Director, Geology/Director Mines.

xi. Any modification/ correction if required and asked to do after scrutiny of District Survey Report (DSR) at various levels shall be done under time limit by the agency.

xii. NGT order dt. 05.09.2022 of original application No. 54/2022/EZ must be complied.

3. <u>District Details: -</u>

Following is the list of district your agency has been allotted for DSR Preparation-

Sl. No.	District	Unit Rate (Rs. In Lakh) (Inclusive of all taxes)
1.	*East Singhbhum*	Rs. 20.00 *(Rupees Twenty Lakh only)*
2.	*West Singhbhum*	Rs. 18.00 *(Rupees Eighteen Lakh only)*
3.	*Saraikela-Kharsawan*	Rs. 16.00 *(Rupees Sixteen Lakh only)*
4.	*Dhanbad*	Rs. 16.00 *(Rupees Sixteen Lakh only)*

State Level Environment Impact Assessment Authority ★ Approved ★ Jharkhand, Ranchi

5.	*Pakur*	Rs. 16.00 *(Rupees Sixteen Lakh only)*
6.	*Simdega*	Rs. 18.00 *(Rupees Eighteen Lakh only)*
7.	*Gumla*	Rs. 18.50 *(Rupees Eighteen Lakh Fifty Thousand only)*

4. All terms and conditions mentioned in Expression of Interest No– 08/2021-22 of Directorate of Geology, Department of Mines & Geology, Government of Jharkhand will be applicable and the agency will execute the work accordingly.
5. The Agency shall have to submit the Performance Security Deposit in the form of Bank Guarantee. Performance security deposit shall be 20% of the contract value excluding the taxes. The performance security deposit shall be returned after completion of the warranty period to the satisfaction of the Directorate of Geology and satisfactory performance of the work.
6. You are directed to provide email ID and mobile numbers of each member of your survey team for better communication.
7. Your agency will report progress of work fortnightly to project in-charge as well as Directorate of Geology.
8. Your agency will work under the supervision of authorized representative of Directorate of Geology.
9. **Payment and Termination of Work Order:**
   i. Payment shall be made after approval of District Survey Report (DSR) by the SEIAA. The company shall submit certified final bill after completion of work to the Directorate of Geology, 2nd floor Engineers' Hostel no-2, Dhurwa Ranchi with completion certificate duly certified by authorized field officer of Directorate of Geology and concern District Mining Officer.
   ii. In case of any breach of Terms & Conditions mentioned in work order or in the Expression of Interest No. 08/2021-22 of Directorate of Geology, Department of Mines & Geology, work order will be cancelled and the security money and payment will be forfeited after giving 15 day of notice.
   iii. Any dispute will be mutually settled by the parties. In case any further legal dispute, jurisdiction will be Ranchi only.
10. This work order is being issued after the approval of competent authority.

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★
Approved

Yours faithfully
13.10.2021
(Vijay Kumar Ojha)
Director, Geology

ANNEXURE-18

EC LETTER OF EXISTING SAND GHATS



State Level Environment Impact Assessment Authority, Jharkhand
Nursery Complex, Near Dhurwa Bus Stand, P.O+P.S-Dhurwa, Ranchi, Jharkhand-834 004
E-mail: mssciaa.jhk@gmail.com/chr-sciaajhr@gov.in
website: www.jseiaa.org

Letter No.- EC/SEIAA/2018-19/2111/2018/ Ranchi, Date :

To: Shri Lalit Kumar
In Charge (Sand Mining)
M/S J.S.M.D.C. Ltd.
At : Khanij Nigam Bhawan,
P.O.: Doranda, Ranchi,
Jharkhand – 834002.

Sub: Environmental Clearance for the project **"Keradih Sand Mining Project in Sankh River of M/s JSMDC Ltd. at Plot No.- 1896(P) at Vill -Keradih, Dist. – Gumla, Jharkhand (4.10 Ha)." (Proposal No. SIA/JH/MIN/34693/2019)**

Sir,

It is in reference to **"Keradih Sand Mining Project in Sankh River of M/s JSMDC Ltd. at Plot No.- 1896(P) at Vill.-Keradih, Dist. – Gumla, Jharkhand (4.10 Ha)"** submitted by you for seeking prior Environmental Clearance (EC).

This is a Sand Mining Project with an area of 4.10 Ha. The latitude and longitude of the project site is 22°59'12.11" N to 22°59'10.56"N & 84°22'06.63" E to 84°22'06.67" E. The nearest railway station is Pokla at a distance of 60 km and the nearest airport is Ranchi at a distance of 105 km. Total water requirement is about 6.00 KLD only for domestic purpose (1.5 KLD), green belt development (1.5 KLD) and dust suppression (3.0 KLD) for dust suppression. Most of the required water will be carried out from river water / nearby village wells. Depending upon the location, thickness of sand, deposition, agricultural land/riverbed, the method of mining will be open-cast and preferably manual and specific circumstances/situation semi mechanised or mechanised **(As per direction contained in Sustainable Sand Mining Management Guideline, 2016 manual method of mining shall be preferred over any other method).**

The indicated project cost is Rs 11.05 Lakh and a provision of Rs 14..87 Lakh has been indicated for Environment management.

The proposed estimated mineral reserve is 45,288 cum as per approved mine plan.

Year-wise Production as per Approved Mining Plan Report for five years is as follows

1st Year	:	36,230 cum
2nd Year	:	36,230 cum
3rd Year	:	36,230 cum
4th Year	:	36,230 cum
5th Year	:	36,230 cum

State Level Environment Impact Assessment Authority * Approved * Jharkhand, Ranchi

The monthly production as per approved mine plan is 1529 cum (for all years).

State Level Environment Impact Assessment Authority, Jharkhand
Nursery Building, Near Dhurwa Bus Stand, P.O+P.S-Dhurwa, Ranchi, Jharkhand-834 004
E-mail: mssema.jhk@gmail.com/chr-seiaajhr@gov.in
Website: www.jseiaa.org

27 JUN 2019

Letter No.- EC/SEIAA/2018-19/2110/2018/ Ranchi, Date :

To: Shri Lalit Kumar
In Charge (Sand Mining)
M/S J.S.M.D.C. Ltd.
At : Khanij Nigam Bhawan,
P.O.: Doranda, Ranchi,
Jharkhand – 834002.

Sub: Environmental Clearance for the project **"Biree Sand Mining Project in Sankh River of M/s JSMDC Ltd. at Plot No.- 760 (P) at Vill.- Biree, Dist. – Gumla, Jharkhand (4.00 Ha)." (Proposal No. SIA/JH/MIN/34695/2019)**

Sir,

It is in reference to **"Biree Sand Mining Project in Sankh Riverof M/s JSMDC Ltd. at Plot No.- 760 (P) at Vill.- Biree, Dist. – Gumla, Jharkhand (4.00 Ha)"** submitted by you for seeking prior Environmental Clearances (EC).

This is a Sand Mining Project with an area of 4.00 Ha. The latitude and longitude of the project site is 23°10'21.49" N to 23°10'19.84" N & 84°10'25.10" E to 84°10'25.09" E.The nearest railway station is Lohardaga at a distance of 62 km and the nearest airport is Ranchi at a distance of 118.63 km. Total water requirement is about 8.25 KLD only for domestic purpose (0.75 KLD), green belt development (4.00 KLD) and dust suppression (3.5 KLD) for dust suppression. Most of the required water will be carried out from river water / nearby village wells. Depending upon the location, thickness of sand, deposition, agricultural land/riverbed, the method of mining will be open-cast and preferably manual and specific circumstances/situation semi mechanised or mechanised (**As per direction contained in Sustainable Sand Mining Management Guideline, 2016 manual method of mining shall be preferred over any other method).**

The indicated project cost is Rs 13.40 Lakh and a provision of Rs 11.80 Lakh has been indicated for Environment management.

The proposed estimated mineral reserve is 56,868 cum as per approved mine plan.

Year-wise Production as per Approved Mining Plan Report for five years is as follows

1st Year	:	45,494 cum
2nd Year	:	45,494 cum
3rd Year	:	45,494 cum
4th Year	:	45,494 cum
5th Year	:	45,494 cum

State Level Environment Impact Assessment Authority Approved Jharkhand, Ranchi

The monthly production as per approved mine plan is 5687 cum (for all years).

State Level Environment Impact Assessment Authority, Jharkhand
Nursery Complex, Near Dhurwa Bus Stand, P.O+P.S-Dhurwa, Ranchi, Jharkhand-834 004
E-mail: msseiaa.jhk@gmail.com/chr-seiaajhr@gov.in
website: www.jseiaa.org

Letter No.- **EC/SEIAA/2018-19/2118/2018/ 252** Ranchi, Date : 05/06/19.

To: **Shri Lalit Kumar**
In Charge (Sand Mining)
M/S J.S.M.D.C. Ltd.
At : Khanij Nigam Bhawan,
P.O.: Doranda, Ranchi,
Jharkhand – 834002.

Sub: Environmental Clearance for the project **"Larango Sand Mining Project in South Koel Riverof M/s JSMDC Ltd. at Plot No.- 01(P) at Vill.-Larango, Anchal – Sisai, Dist. – Gumla, Jharkhand (4.80 Ha)." (Proposal No. SIA/JH/MIN/34685/2019)**

Sir,

It is in reference to **"Larango Sand Mining Project in South Koel Riverof M/s JSMDC Ltd. at Plot No.- 01(P) at Vill.-Larango, Anchal – Sisai, Dist. – Gumla, Jharkhand (4.80 Ha)"** submitted by you for seeking prior Environmental Clearances (EC).

This is a Sand Mining Project with an area of 4.80 Ha. The latitude and longitude of the project site is 23°18' 21.55" N to 23° 18' 20.81"N and 84° 37' 01.33" E to 84° 37' 02.56"E.The nearest railway station is Lohardaga at a distance of 18 km and the nearest airport is Ranchi at a distance of 72 km. Total water requirement is about 5.50 KLD only for domestic purpose (1.0 KLD), green belt development (1.5 KLD) and dust suppression (3.0 KLD) for dust suppression. Most of the required water will be carried out from river water / nearby village wells. Depending upon the location, thickness of sand, deposition, agricultural land/riverbed, the method of mining will be open-cast and preferably manual and specific circumstances/situation semi mechanised or mechanised **(As per direction contained in Sustainable Sand Mining Management Guideline, 2016 manual method of mining shall be preferred over any other method).**

The indicated project cost is Rs 11.05 Lakh for 05 years and a provision of Rs 15.26 Lakh has been indicated for Environment management for 05 years.

The proposed estimated mineral reserve is 96,048 cum as per approved mine plan.

Year-wise Production as per Approved Mining Plan Report for five years is as follows

1st Year	:	35,194 cum
2nd Year	:	35,194 cum
3rd Year	:	35,194 cum
4th Year	:	35,194 cum
5th Year	:	35,194 cum

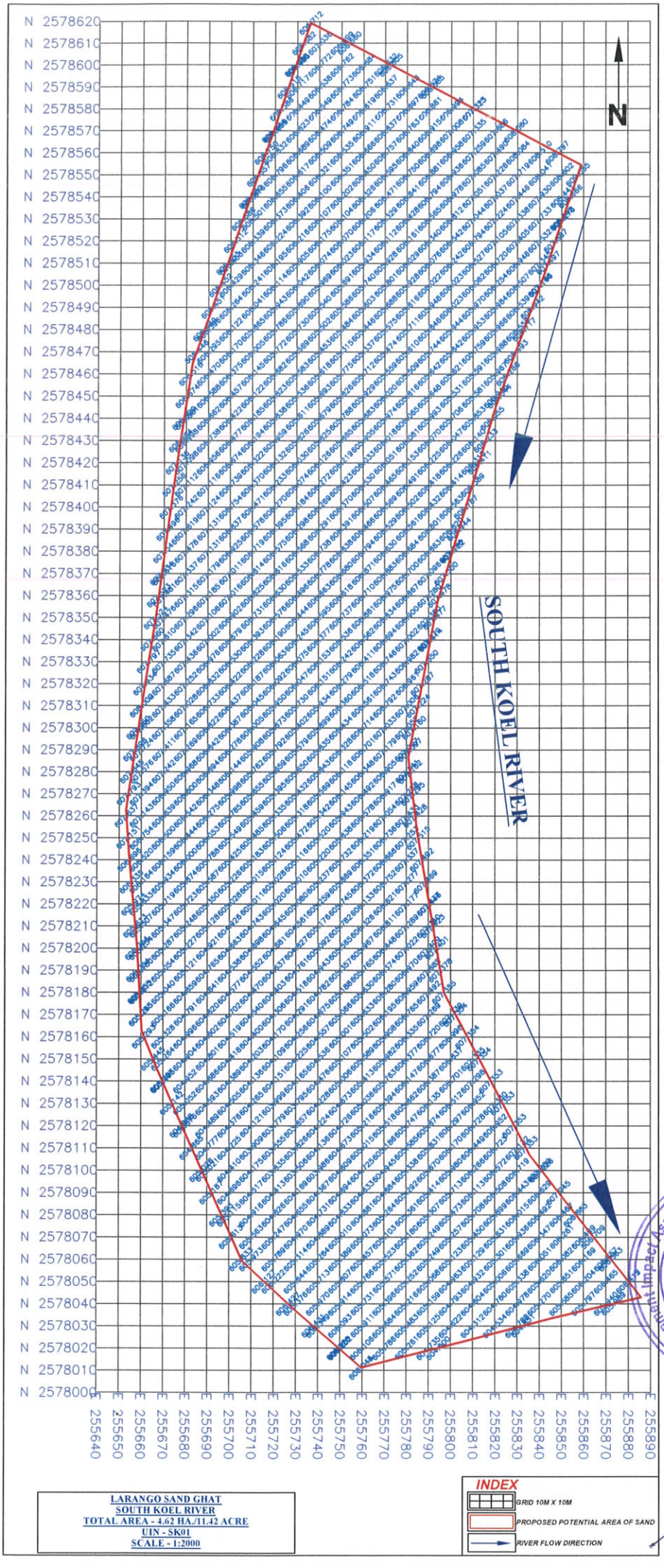
State Level Environment Impact Assessment Authority * Approved * Jharkhand, Ranchi

The monthly production as per approved mine plan is 4399 cum (for all years).

ANNEXURE-19

10M X 10M GRID MAP WITH CROSS SECTION




N
SOUTH KOEL RIVER
N 2578620
N 2578610
N 2578600
N 2578590
N 2578580
N 2578570
N 2578560
N 2578550
N 2578540
N 2578530
N 2578520
N 2578510
N 2578500
N 2578490
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N 2578400
N 2578390
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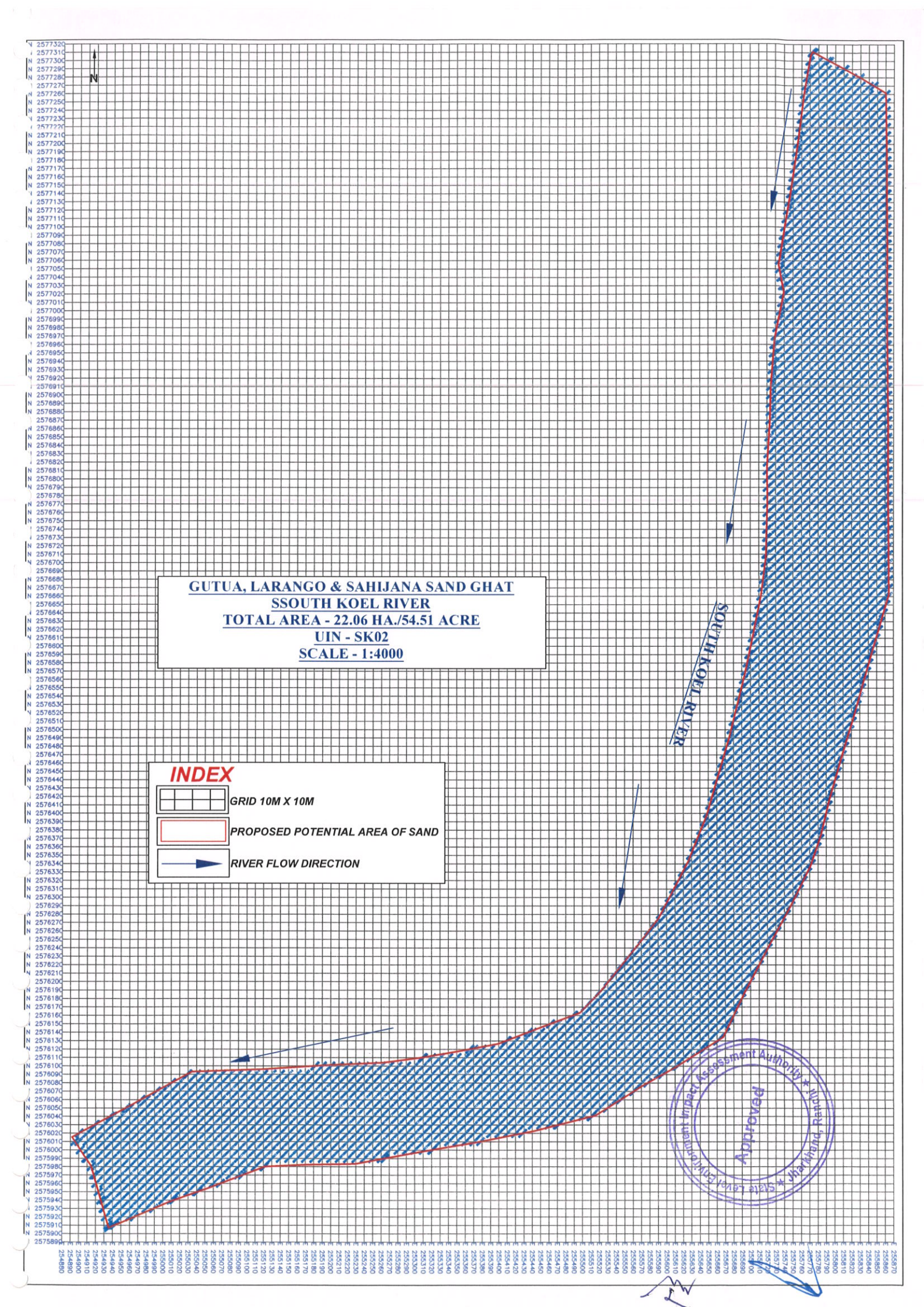
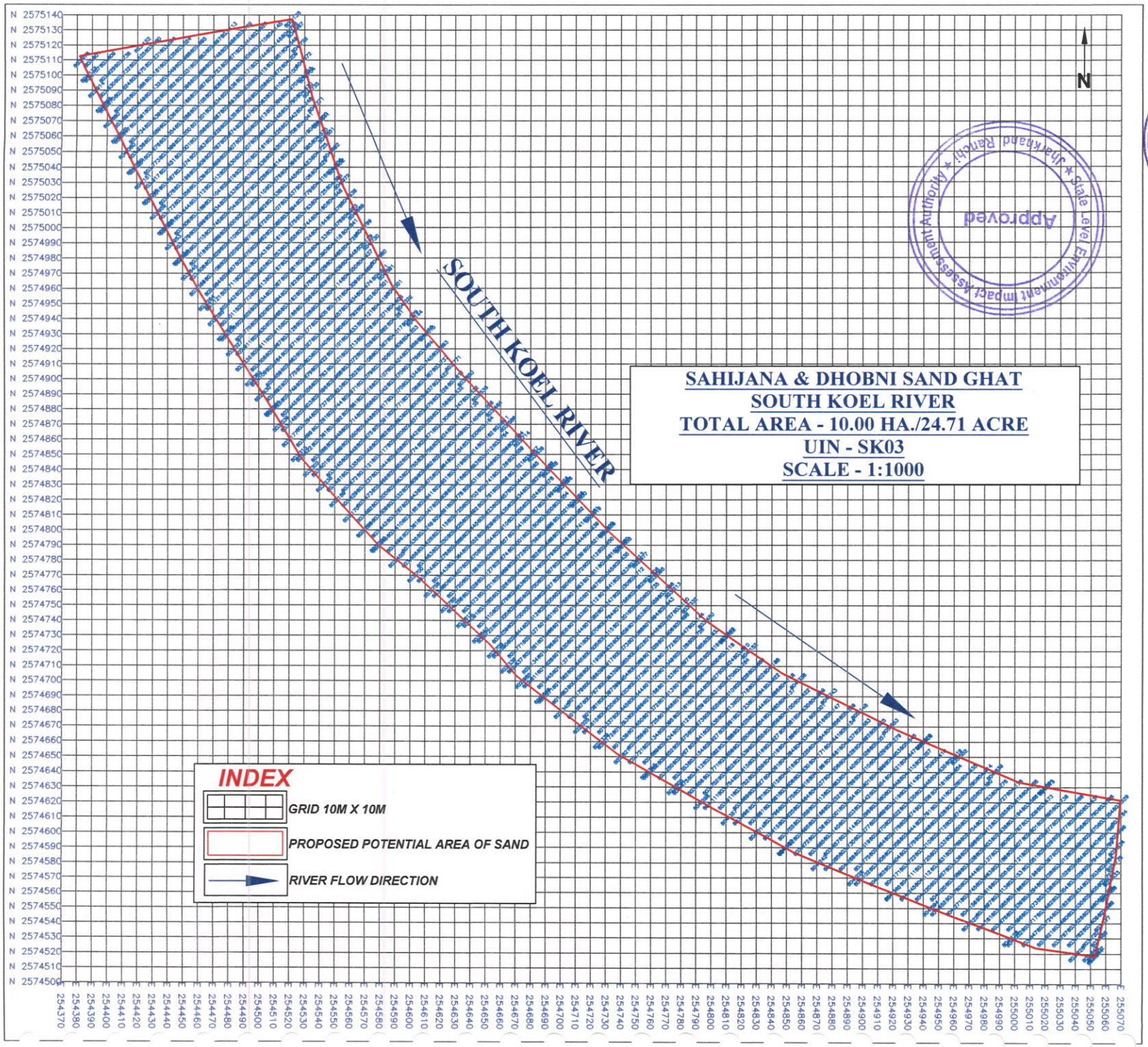
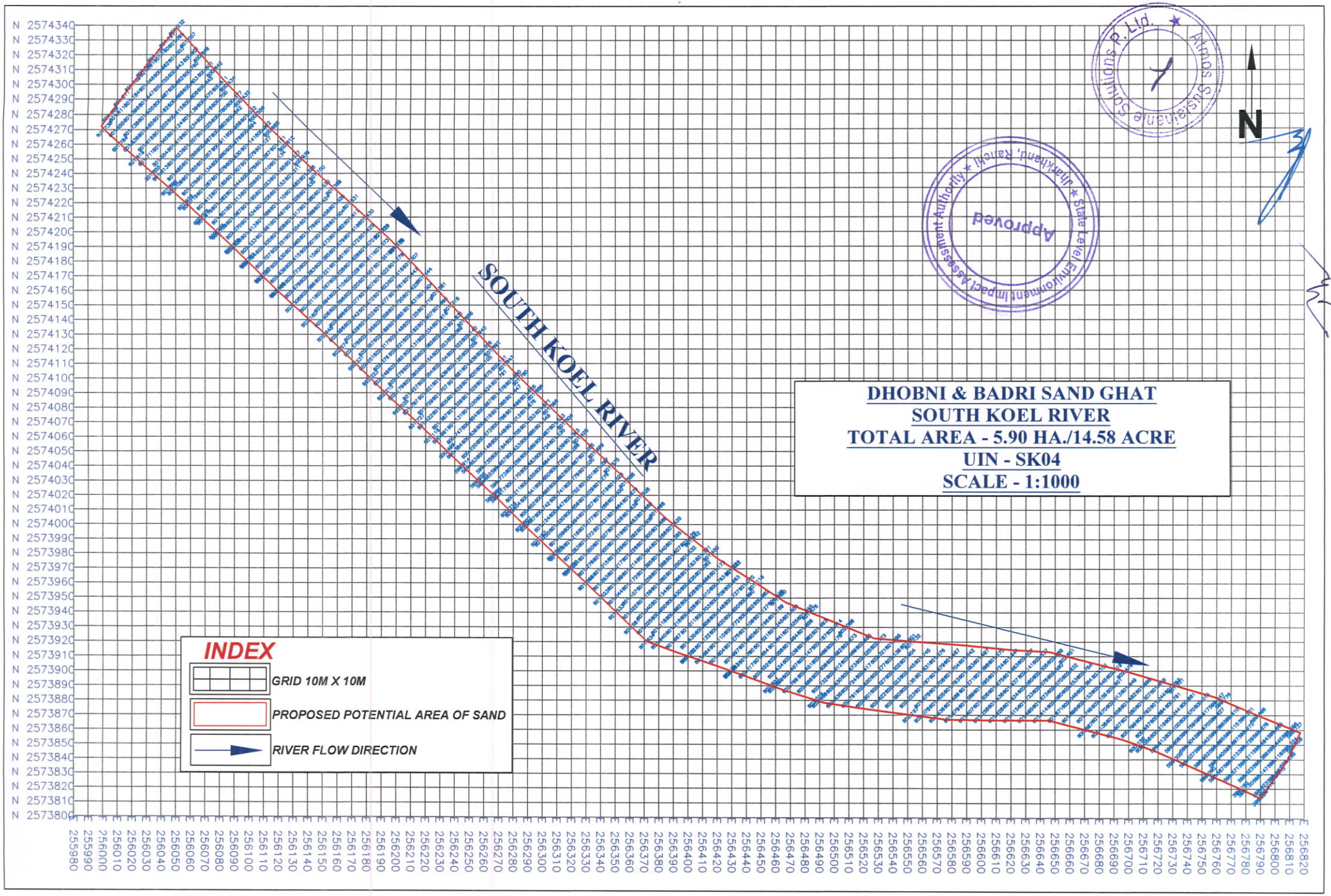
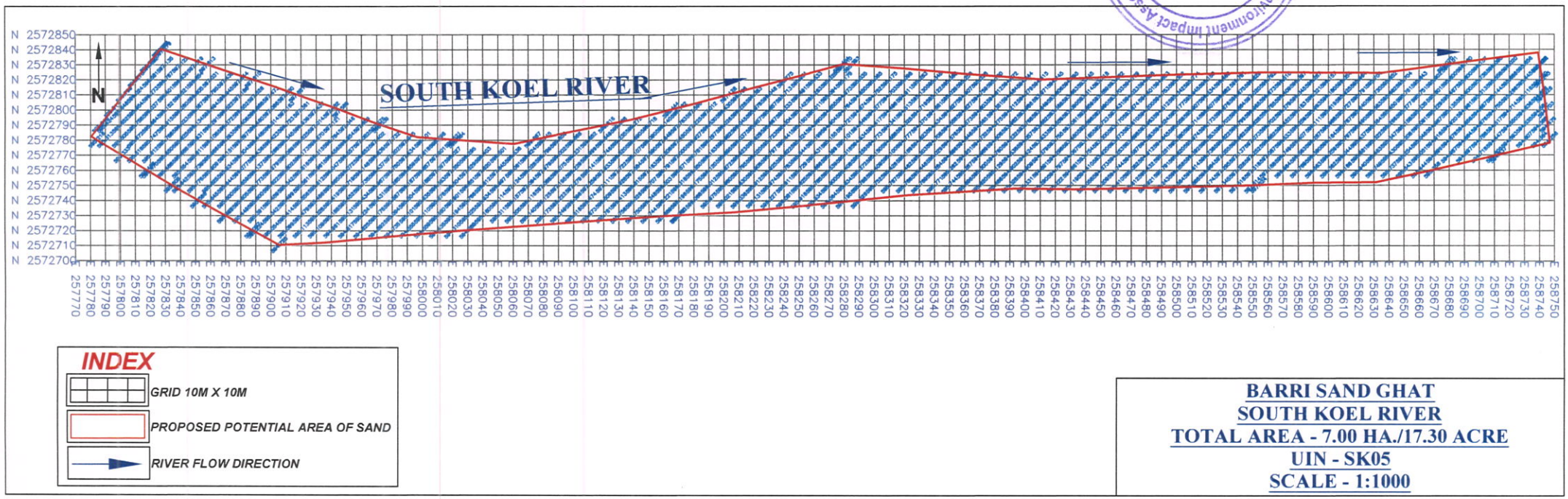
E 255650
E 255660
E 255670
E 255680
E 255690
E 255700
E 255710
E 255720
E 255730
E 255740
E 255750
E 255760
E 255770
E 255780
E 255790
E 255800
E 255810
E 255820
E 255830
E 255840
E 255850
E 255860
E 255870
E 255880
E 255890
LARANGO SAND GHAT
SOUTH KOEL RIVER
TOTAL AREA - 4.62 HA./11.42 ACRE
UIN - SK01
SCALE - 1:2000
INDEX
GRID 10M X 10M
PROPOSED POTENTIAL AREA OF SAND
RIVER FLOW DIRECTION
Approved
State Level Environment Impact Assessment Authority * Jharkhand, Ranchi

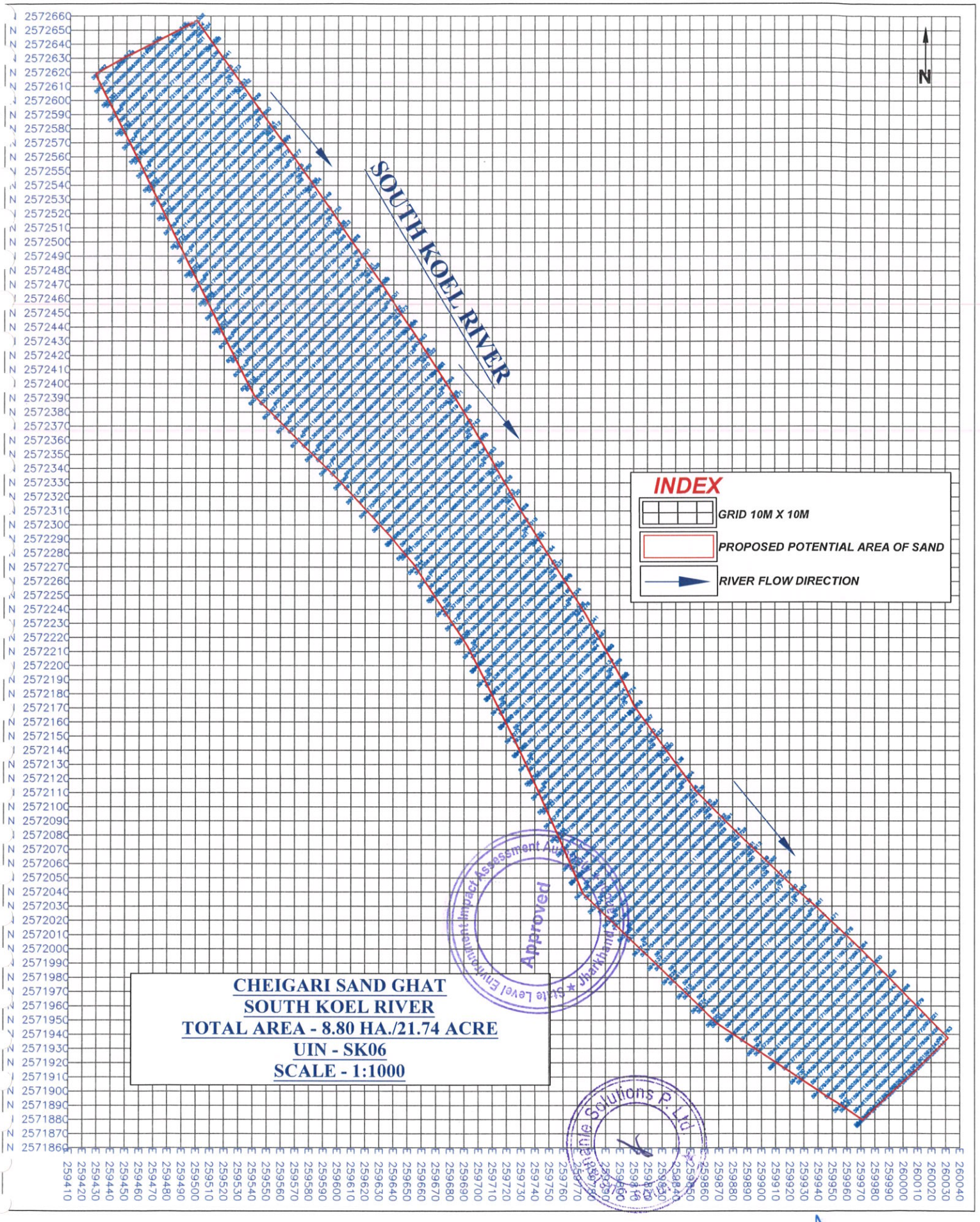

GUTUA, LARANGO & SAHIJANA SAND GHAT
SSOUTH KOEL RIVER
TOTAL AREA - 22.06 HA./54.51 ACRE
UIN - SK02
SCALE - 1:4000
INDEX
GRID 10M X 10M
PROPOSED POTENTIAL AREA OF SAND
RIVER FLOW DIRECTION
SOUTH KOEL RIVER
N
State Level Environment Impact Assessment Authority * Jharkhand, Ranchi *
Approved

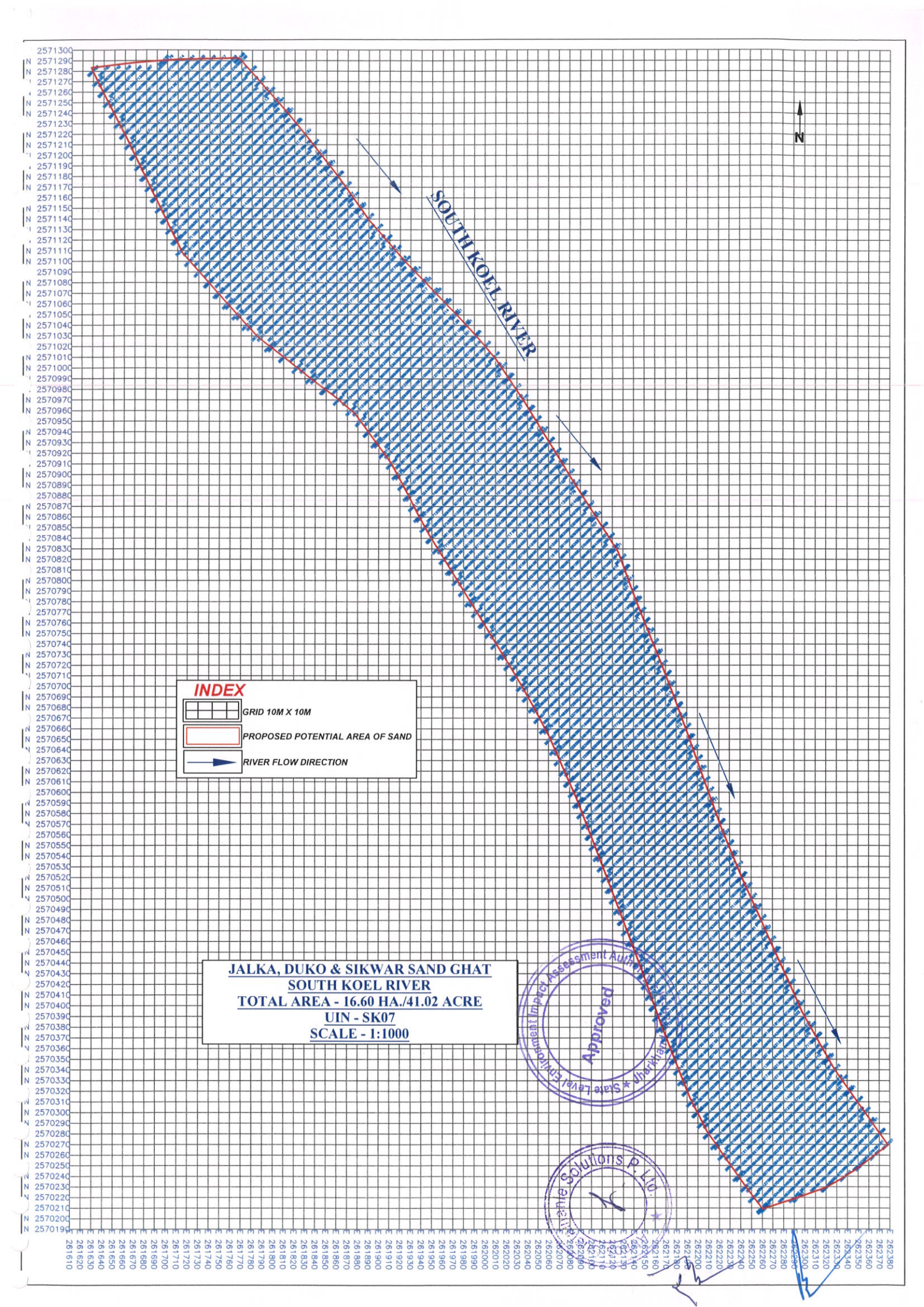

N
SOUTH KOEL RIVER
SAHIJANA & DHOBNI SAND GHAT
SOUTH KOEL RIVER
TOTAL AREA - 10.00 HA./24.71 ACRE
UIN - SK03
SCALE - 1:1000
INDEX
GRID 10M X 10M
PROPOSED POTENTIAL AREA OF SAND
RIVER FLOW DIRECTION
Approved
State Level Environmental Impact Assessment Authority
Jharkhand Pathalgi

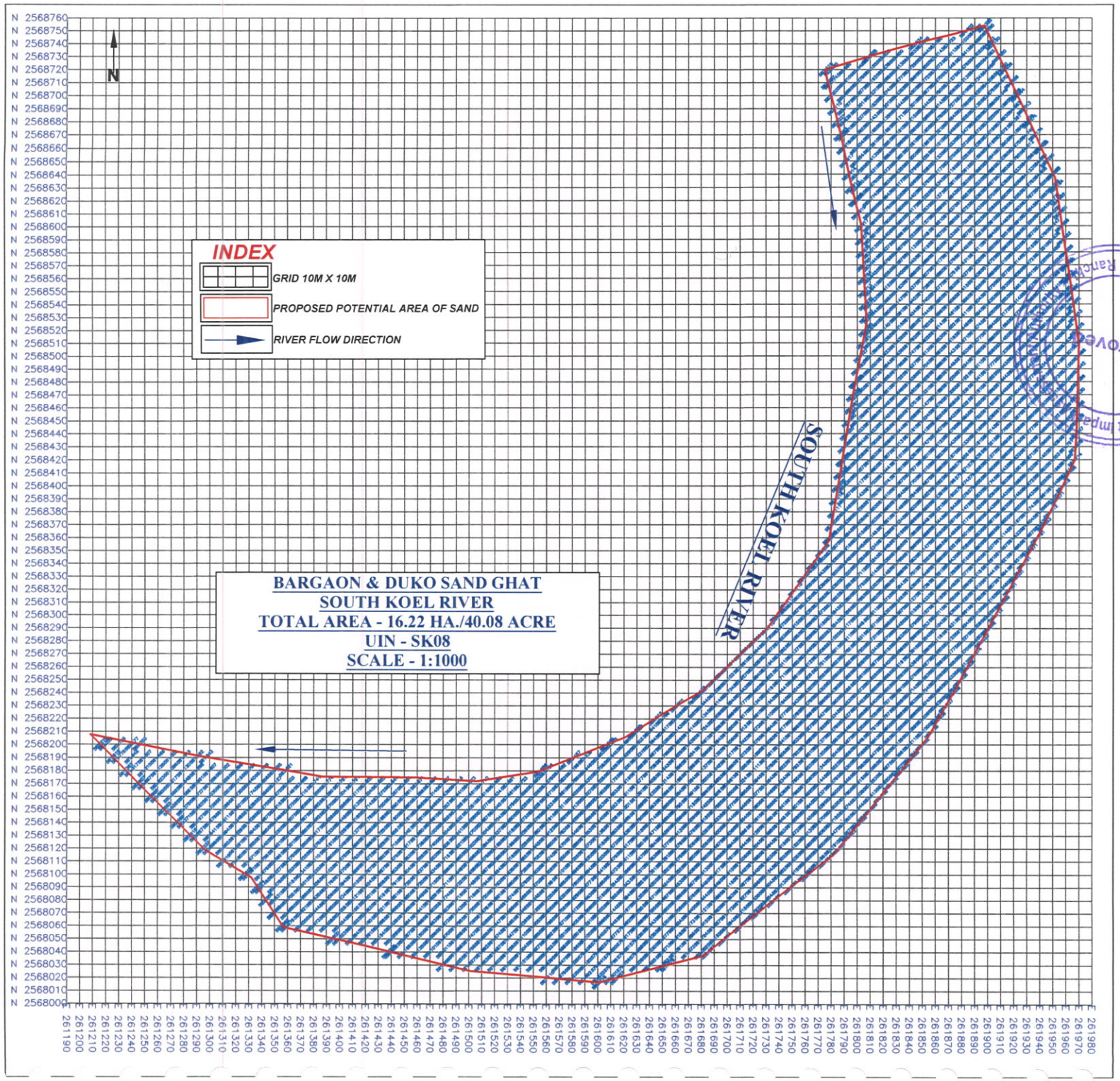

DHOBNI & BADRI SAND GHAT
SOUTH KOEL RIVER
TOTAL AREA - 5.90 HA./14.58 ACRE
UIN - SK04
SCALE - 1:1000
SOUTH KOEL RIVER
N
INDEX
GRID 10M X 10M
PROPOSED POTENTIAL AREA OF SAND
RIVER FLOW DIRECTION
Atmos Sustainable Solutions P. Ltd.
State Level Environment Impact Assessment Authority
Jharkhand, Ranchi
Approved

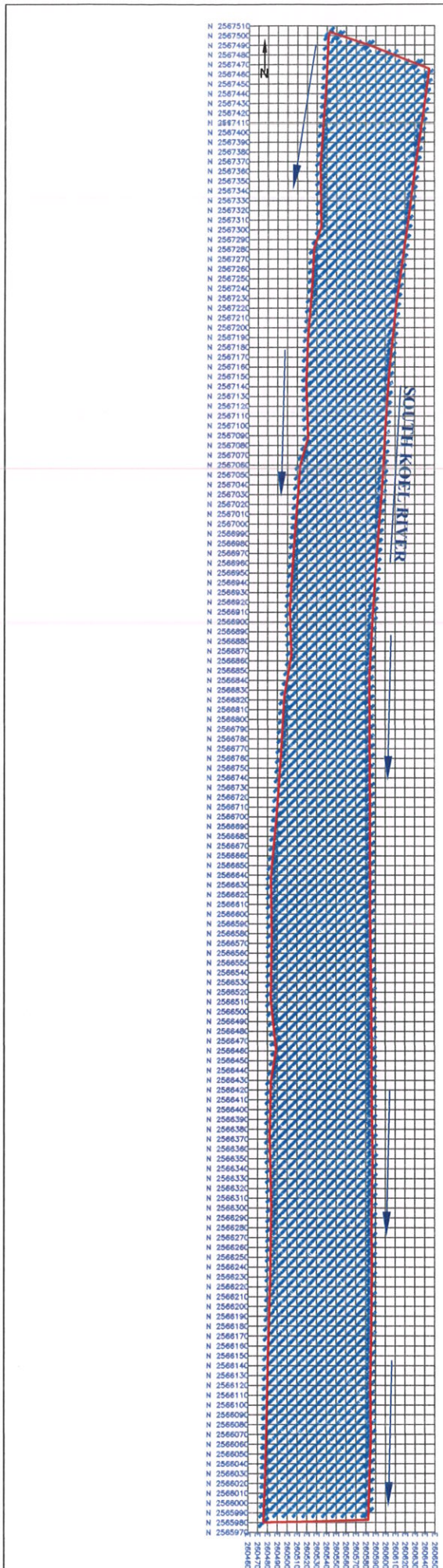


Approved
State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★
Atmos Sustainable Solutions P. Ltd.


SOUTH KOEL RIVER
N
INDEX
GRID 10M X 10M
PROPOSED POTENTIAL AREA OF SAND
RIVER FLOW DIRECTION
CHEIGARI SAND GHAT
SOUTH KOEL RIVER
TOTAL AREA - 8.80 HA./21.74 ACRE
UIN - SK06
SCALE - 1:1000
Approved
Solutions P. Ltd.


SOUTH KOEL RIVER
N
INDEX
GRID 10M X 10M
PROPOSED POTENTIAL AREA OF SAND
RIVER FLOW DIRECTION
JALKA, DUKO & SIKWAR SAND GHAT
SOUTH KOEL RIVER
TOTAL AREA - 16.60 HA./41.02 ACRE
UIN - SK07
SCALE - 1:1000
Approved
State Level Environment Impact Assessment Authority
Jharkhand
Solutions Pvt. Ltd.


INDEX
GRID 10M X 10M
PROPOSED POTENTIAL AREA OF SAND
RIVER FLOW DIRECTION
N
SOUTH KOEL RIVER
BARGAON & DUKO SAND GHAT
SOUTH KOEL RIVER
TOTAL AREA - 16.22 HA./40.08 ACRE
UIN - SK08
SCALE - 1:1000



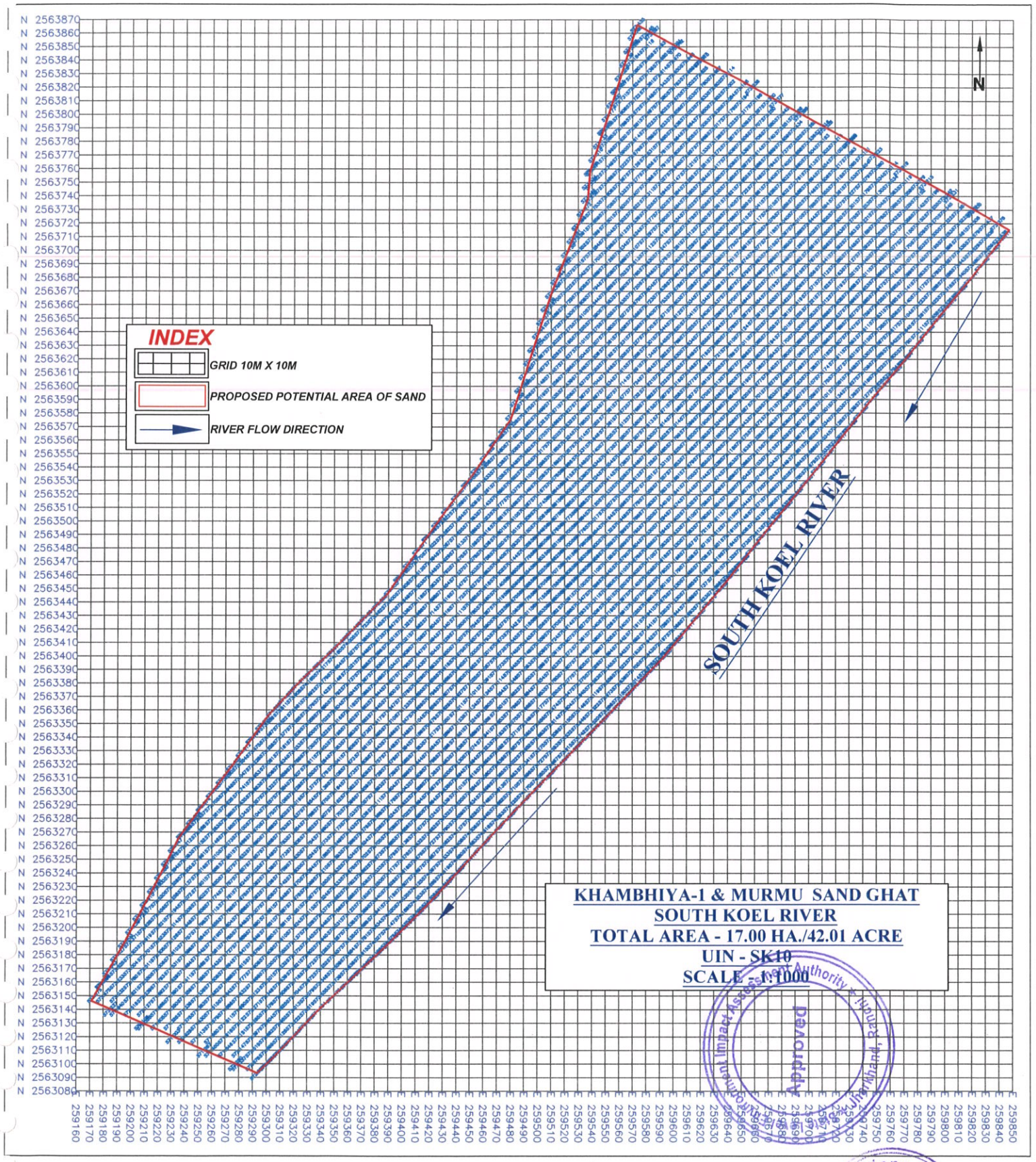
ARANGI & MUKUNDA SAND GHAT
SOUTH KOEL RIVER
TOTAL AREA - 14.65 HA./36.20 ACRE
UIN - SK09
SCALE - 1:1000

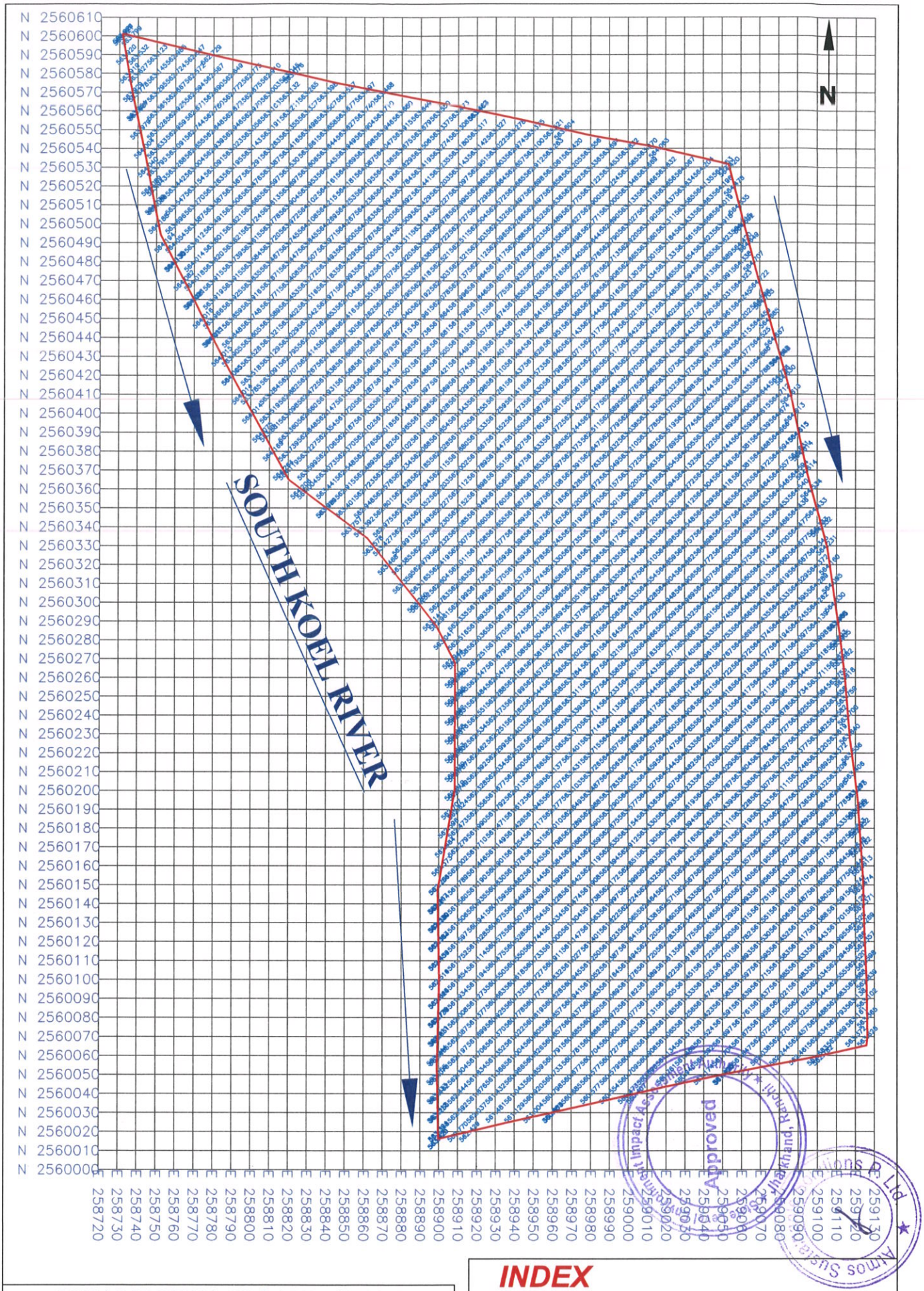
INDEX

- GRID 10M X 10M
- PROPOSED POTENTIAL AREA OF SAND
- RIVER FLOW DIRECTION

Approved
State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi

Atmos Sustainable Solutions P. Ltd.


INDEX
GRID 10M X 10M
PROPOSED POTENTIAL AREA OF SAND
RIVER FLOW DIRECTION
N
SOUTH KOEL RIVER
KHAMBHIYA-1 & MURMU SAND GHAT
SOUTH KOEL RIVER
TOTAL AREA - 17.00 HA./42.01 ACRE
UIN - SK10
SCALE - 1:1000
Approved
Environment Impact Assessment Authority, Ranchi, Jharkhand



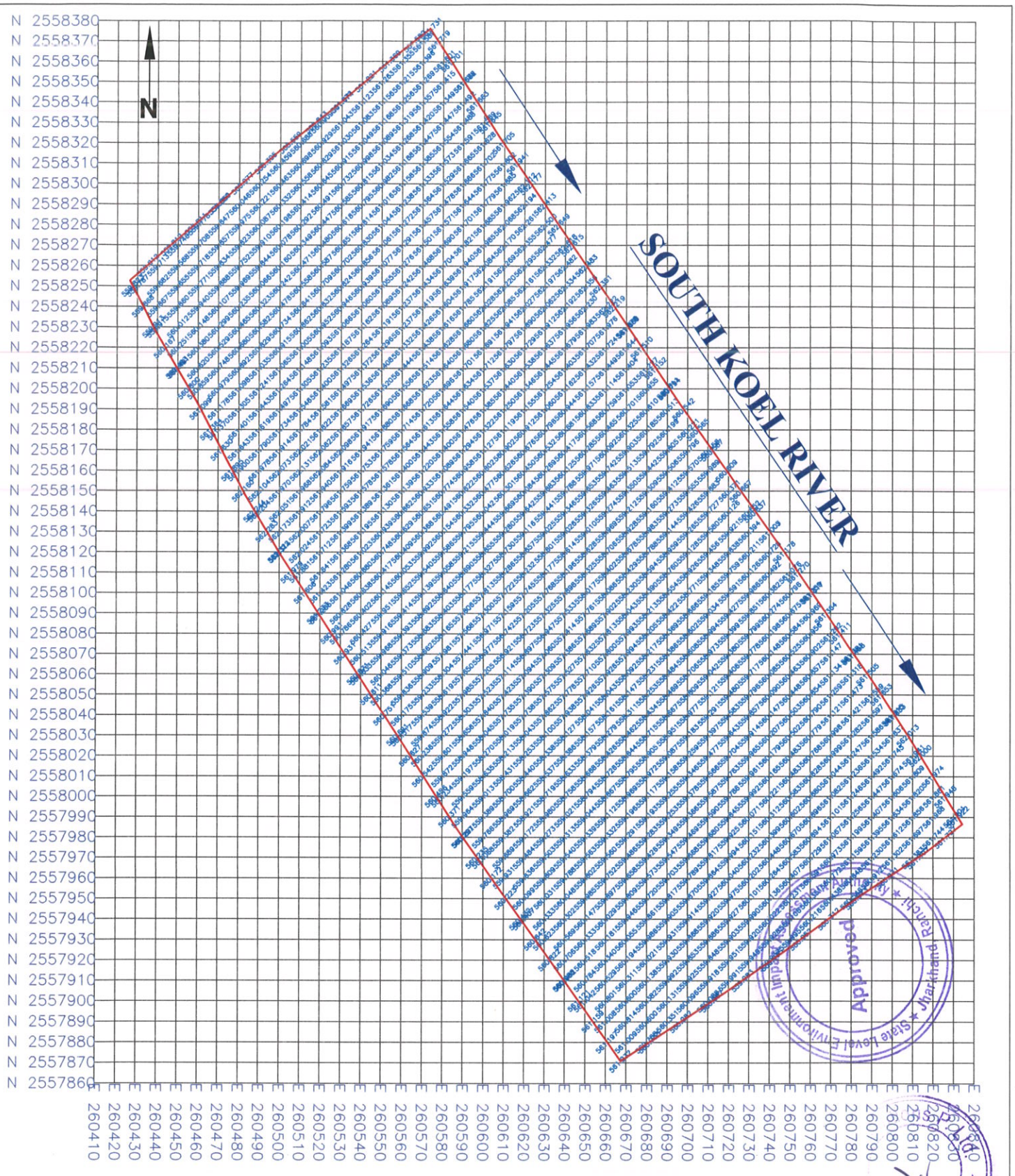
KHAMBHIYA-II SAND GHAT
SOUTH KOEL RIVER
TOTAL AREA - 13.00 HA./32.12 ACRE
UIN - SK11
SCALE - 1:1000

INDEX

GRID 10M X 10M

PROPOSED POTENTIAL AREA OF SAND

RIVER FLOW DIRECTION



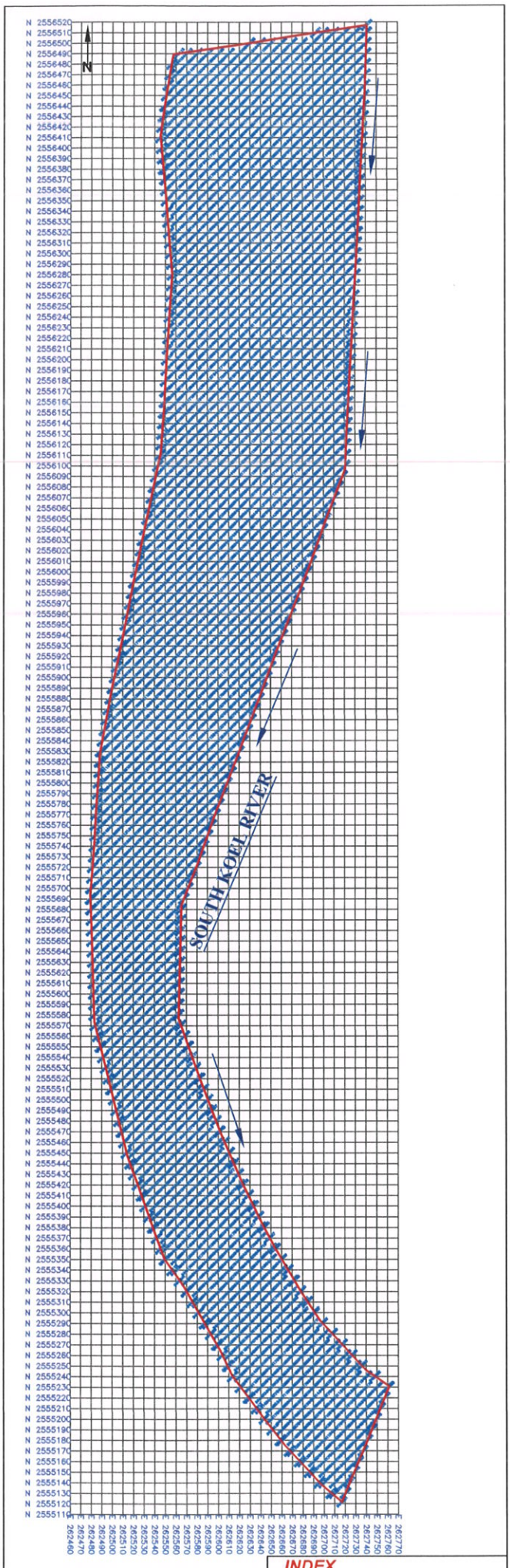
NAGPHENI & SILPAHARI SAND GHAT
SOUTH KOEL RIVER
TOTAL AREA - 9.11 HA./22.51 ACRE
UIN - SK12
SCALE - 1:1000

INDEX

GRID 10M X 10M

PROPOSED POTENTIAL AREA OF SAND

RIVER FLOW DIRECTION



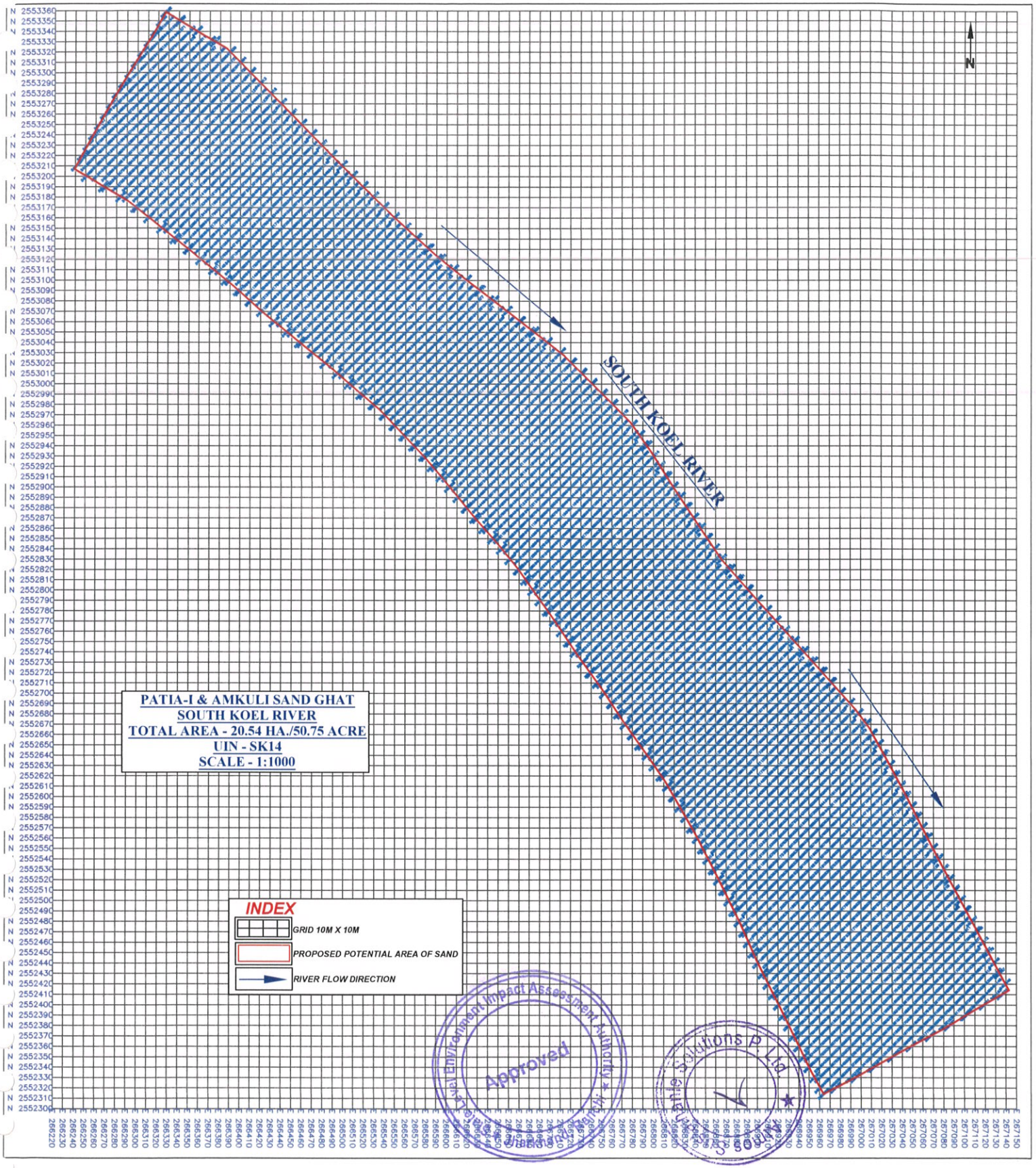
PORHA SAND GHAT
SOUTH KOEL RIVER
TOTAL AREA - 18.20 HA./44.97 ACRE
UIN - SK13
SCALE - 1:1000

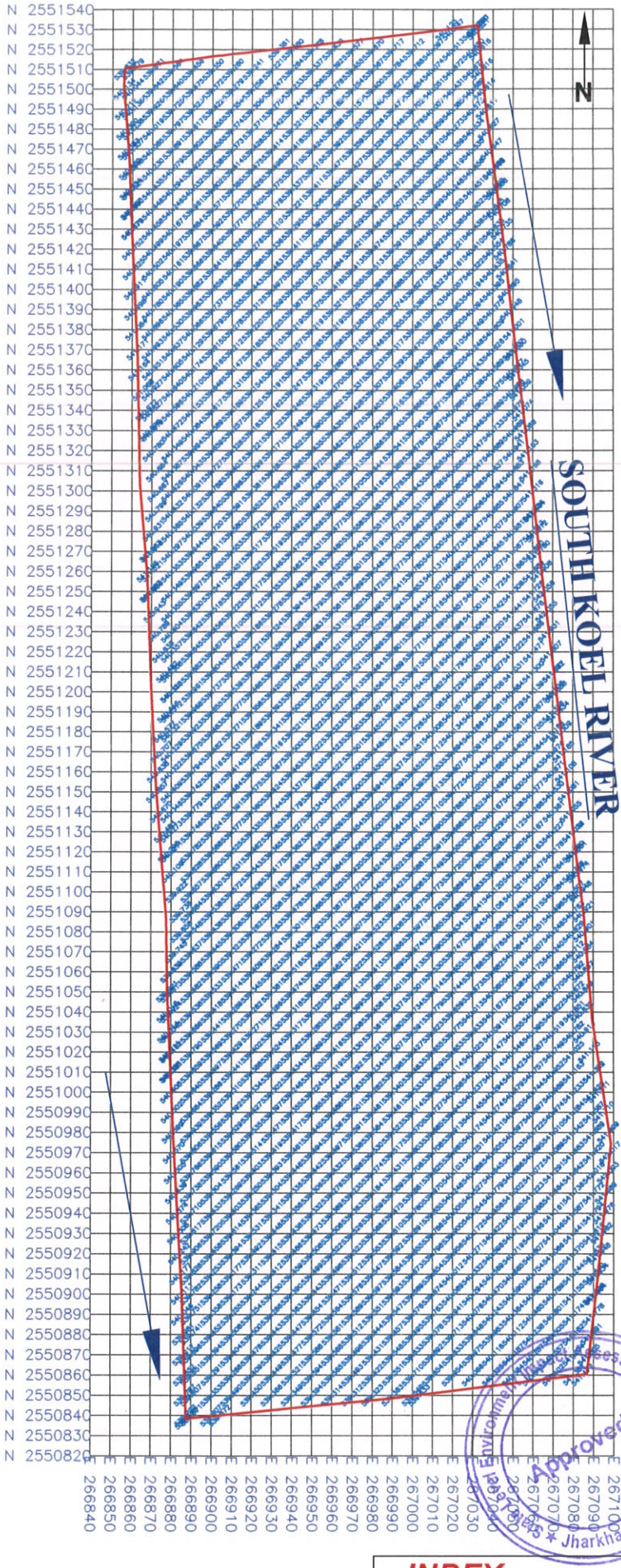
INDEX

- GRID 10M X 10M
- PROPOSED POTENTIAL AREA OF SAND
- RIVER FLOW DIRECTION

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi
Approved

AIMS Solutions P. Ltd.


N
SOUTH KOEL RIVER
PATIA-I & AMKULI SAND GHAT
SOUTH KOEL RIVER
TOTAL AREA - 20.54 HA./50.75 ACRE
UIN - SK14
SCALE - 1:1000
INDEX
GRID 10M X 10M
PROPOSED POTENTIAL AREA OF SAND
RIVER FLOW DIRECTION
Approved



PATIA-II & OLMUNDA SAND GHAT
SOUTH KOEL RIVER
TOTAL AREA - 13.20 HA./32.62 ACRE
UIN - SK15
SCALE - 1:1000

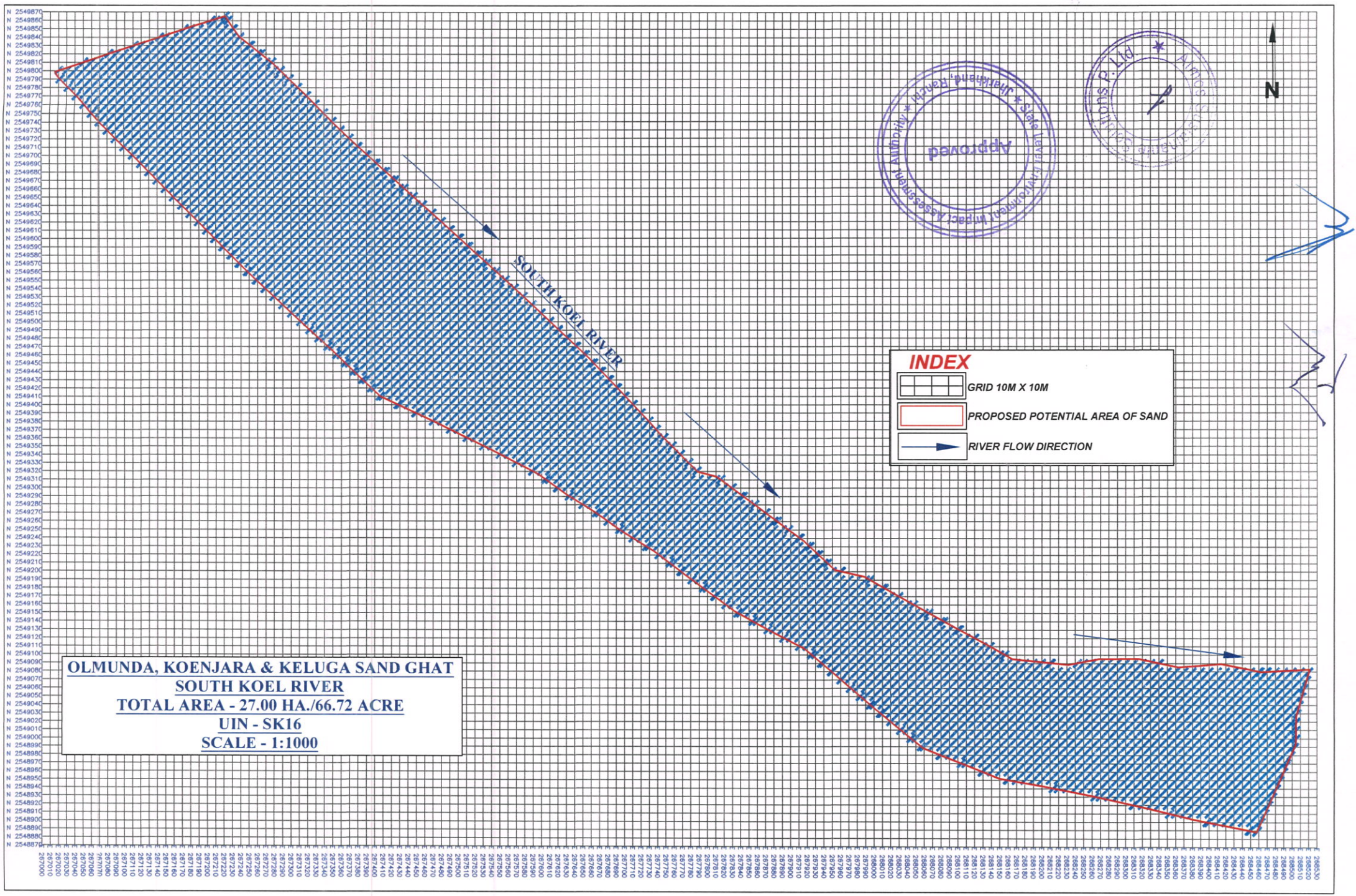
INDEX

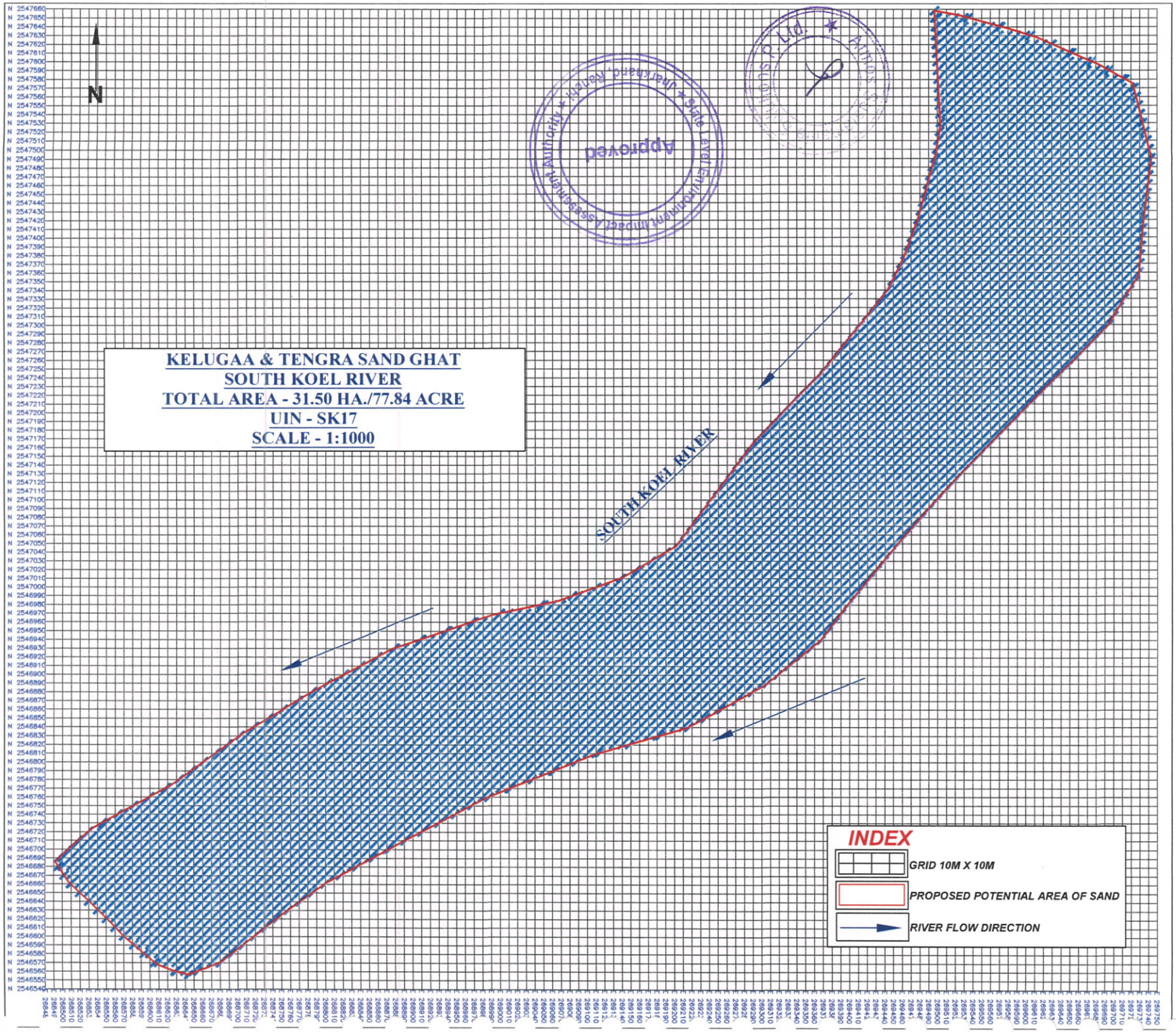
GRID 10M X 10M

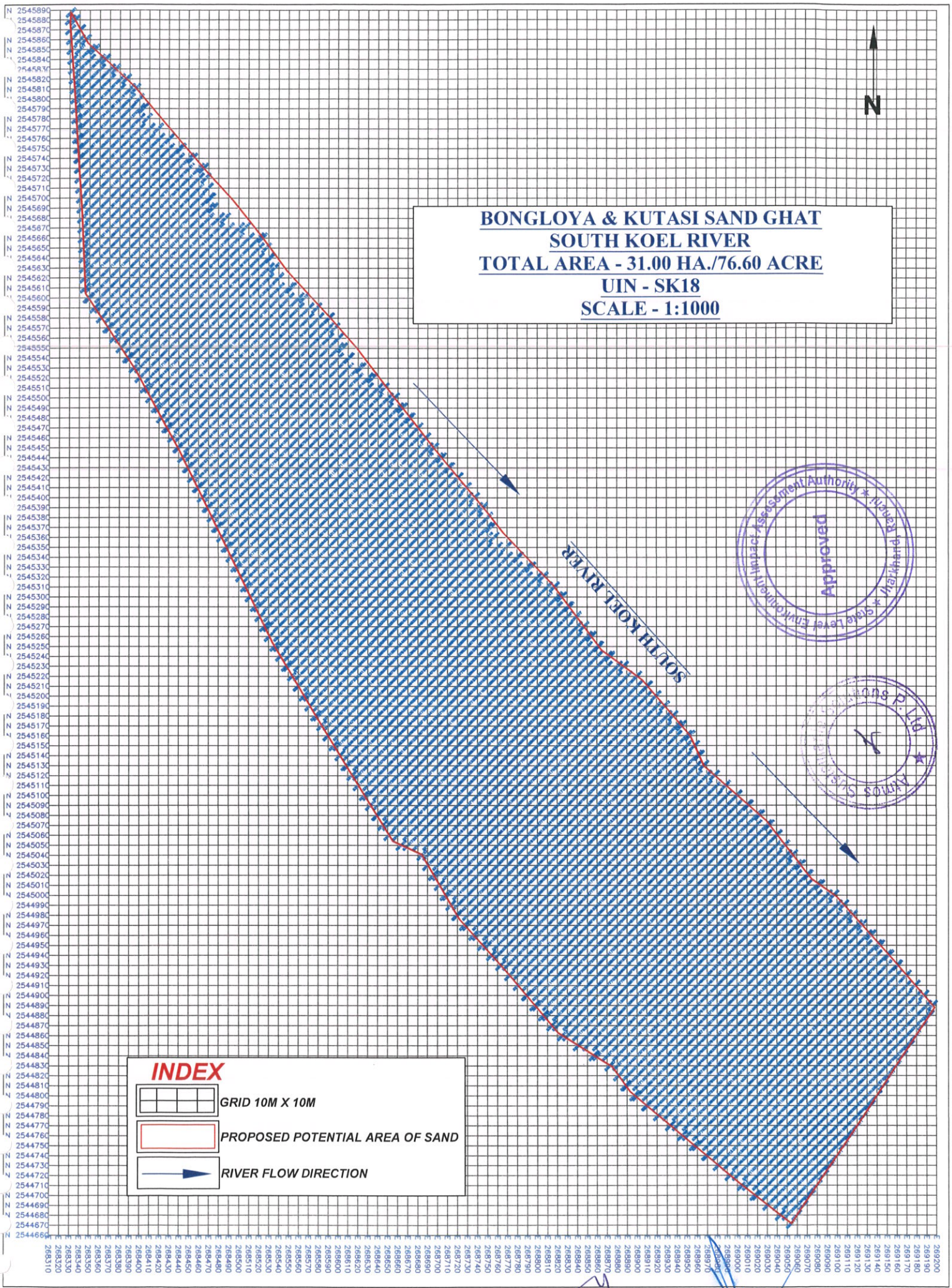
PROPOSED POTENTIAL AREA OF SAND

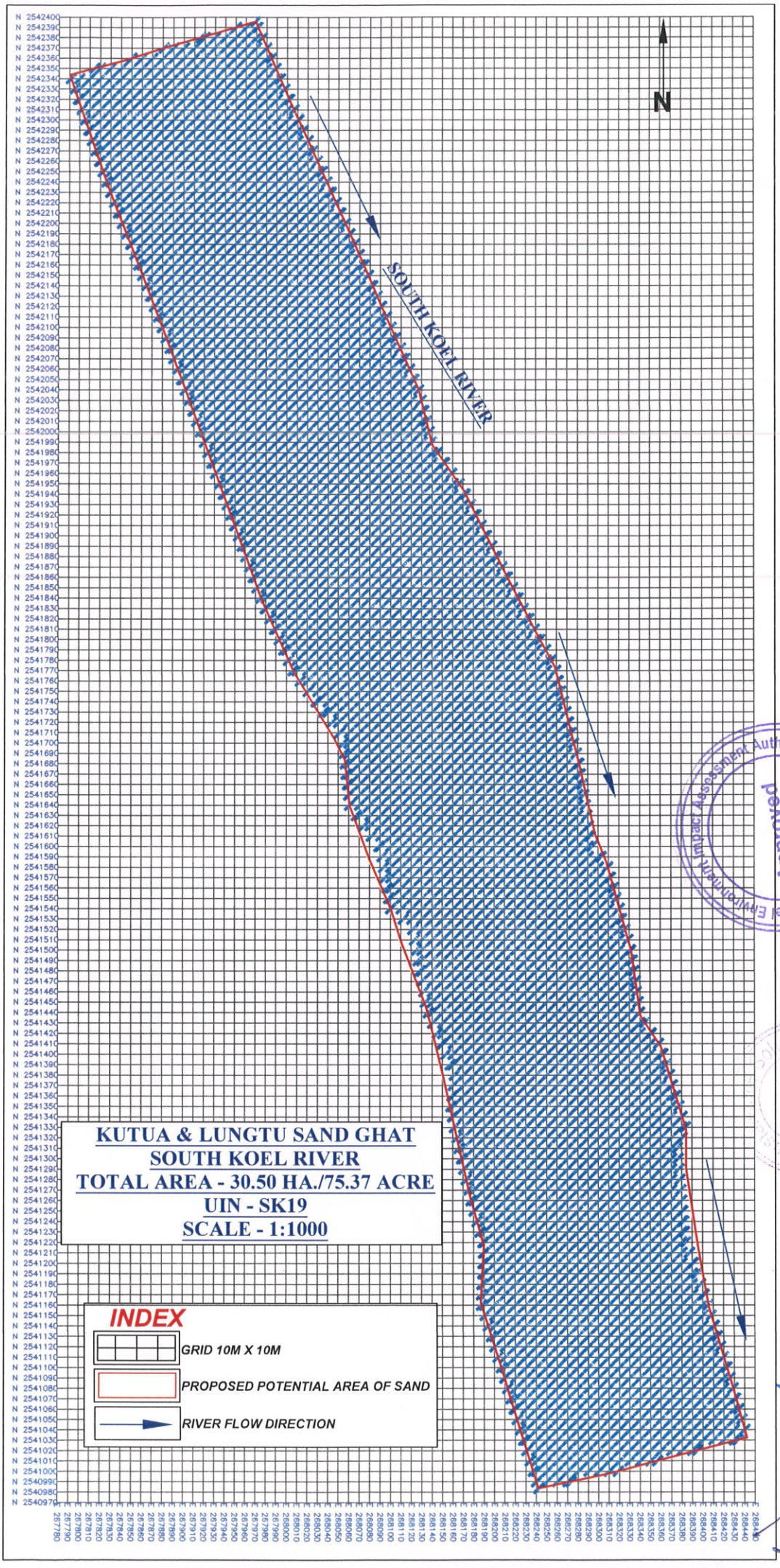
RIVER FLOW DIRECTION

Approved
Jharkhand, Ranchi


SOUTH KOEL RIVER
INDEX
GRID 10M X 10M
PROPOSED POTENTIAL AREA OF SAND
RIVER FLOW DIRECTION
N
OLMUNDA, KOENJARA & KELUGA SAND GHAT
SOUTH KOEL RIVER
TOTAL AREA - 27.00 HA./66.72 ACRE
UIN - SK16
SCALE - 1:1000

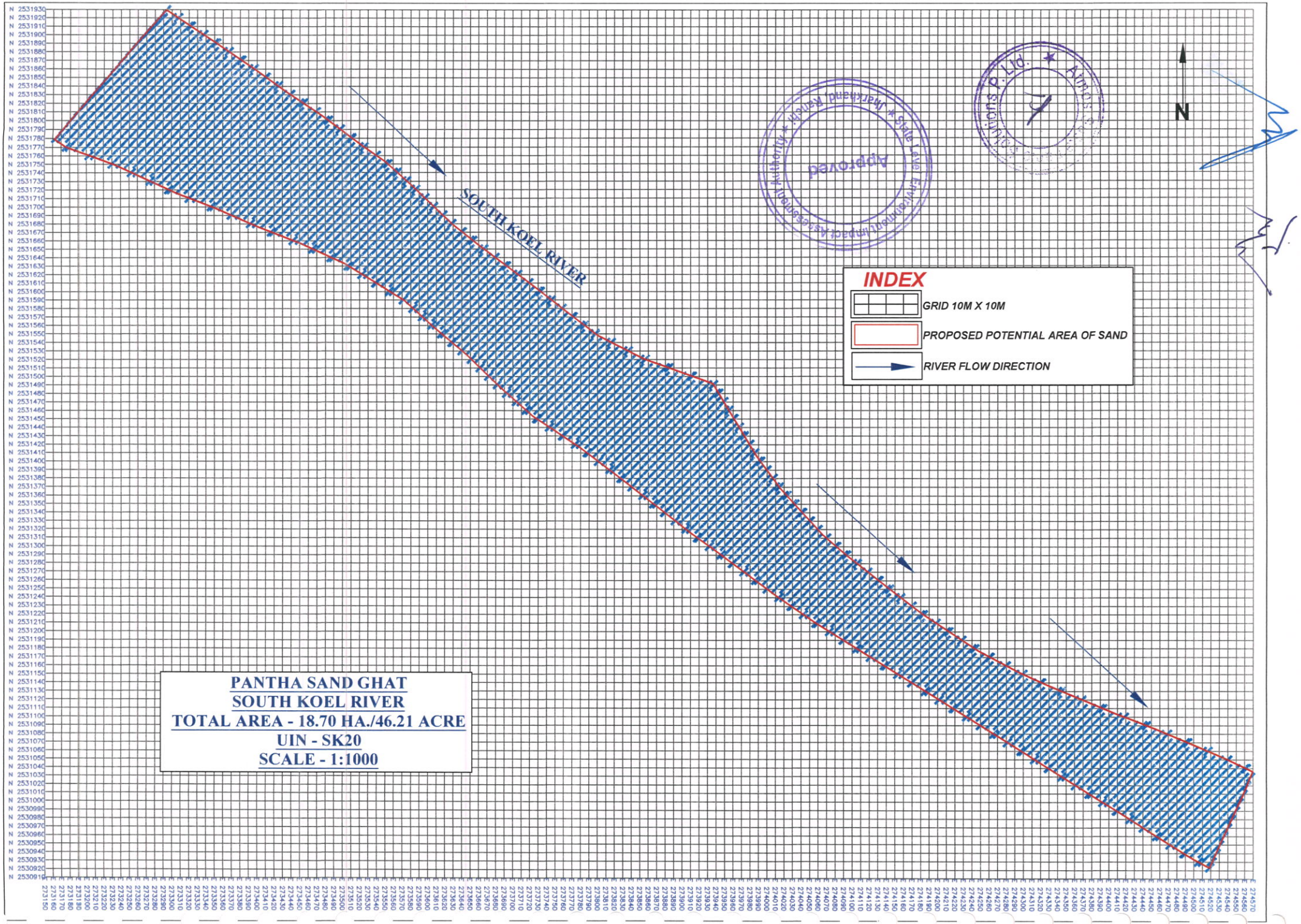

N
Approved
KELUGAA & TENGRA SAND GHAT
SOUTH KOEL RIVER
TOTAL AREA - 31.50 HA./77.84 ACRE
UIN - SK17
SCALE - 1:1000
SOUTH KOEL RIVER
INDEX
GRID 10M X 10M
PROPOSED POTENTIAL AREA OF SAND
RIVER FLOW DIRECTION

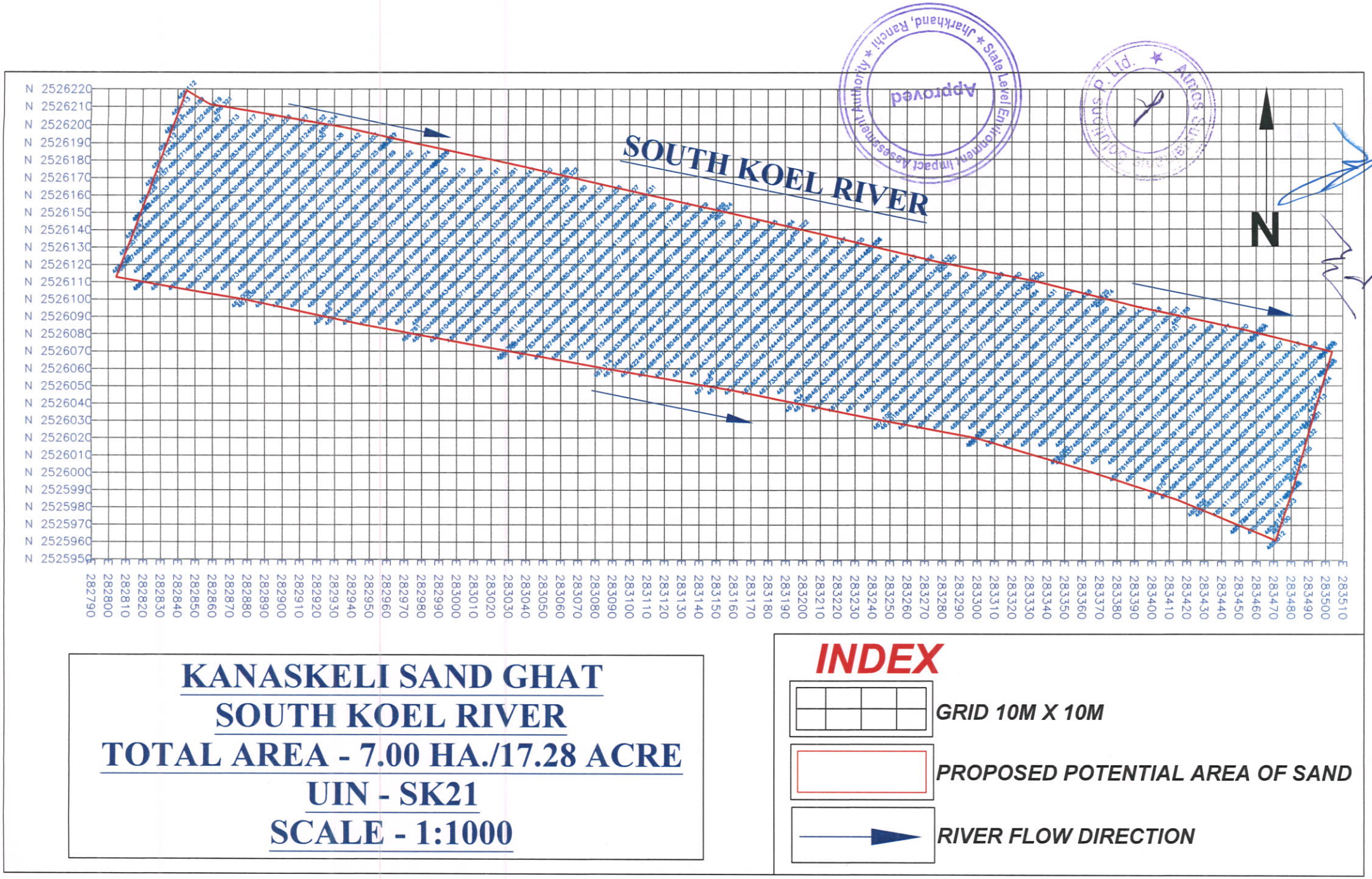

BONGLOYA & KUTASI SAND GHAT
SOUTH KOEL RIVER
TOTAL AREA - 31.00 HA./76.60 ACRE
UIN - SK18
SCALE - 1:1000
N
SOUTH KOEL RIVER
INDEX
GRID 10M X 10M
PROPOSED POTENTIAL AREA OF SAND
RIVER FLOW DIRECTION



Approved
State Level Environment Impact Assessment Authority * Jharkhand, Ranchi

Atmos Solutions P. Ltd.


SOUTH KOEL RIVER
INDEX
GRID 10M X 10M
PROPOSED POTENTIAL AREA OF SAND
RIVER FLOW DIRECTION
N
PANTHA SAND GHAT
SOUTH KOEL RIVER
TOTAL AREA - 18.70 HA./46.21 ACRE
UIN - SK20
SCALE - 1:1000



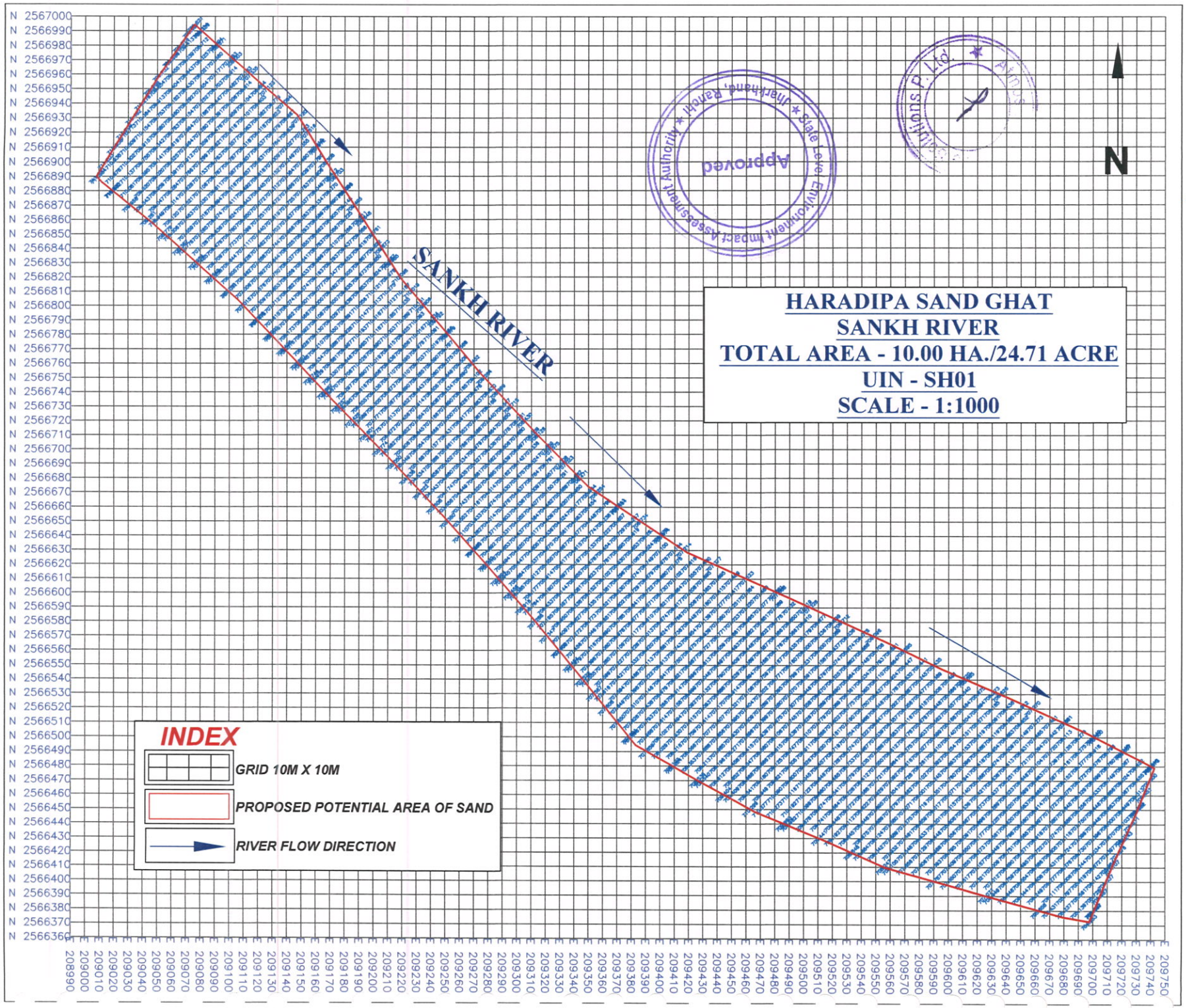
KANASKELI SAND GHAT
SOUTH KOEL RIVER
TOTAL AREA - 7.00 HA./17.28 ACRE
UIN - SK21
SCALE - 1:1000

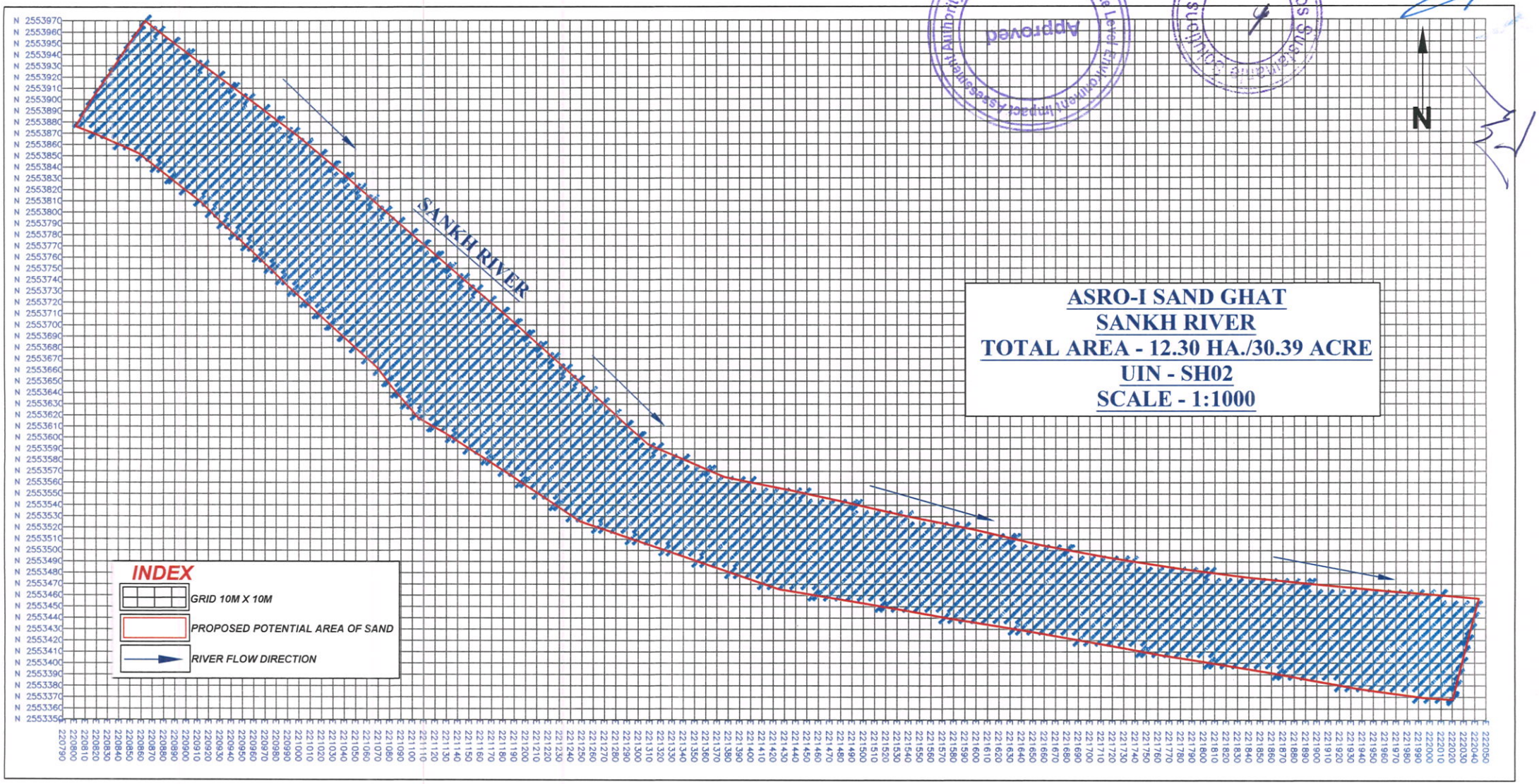
INDEX

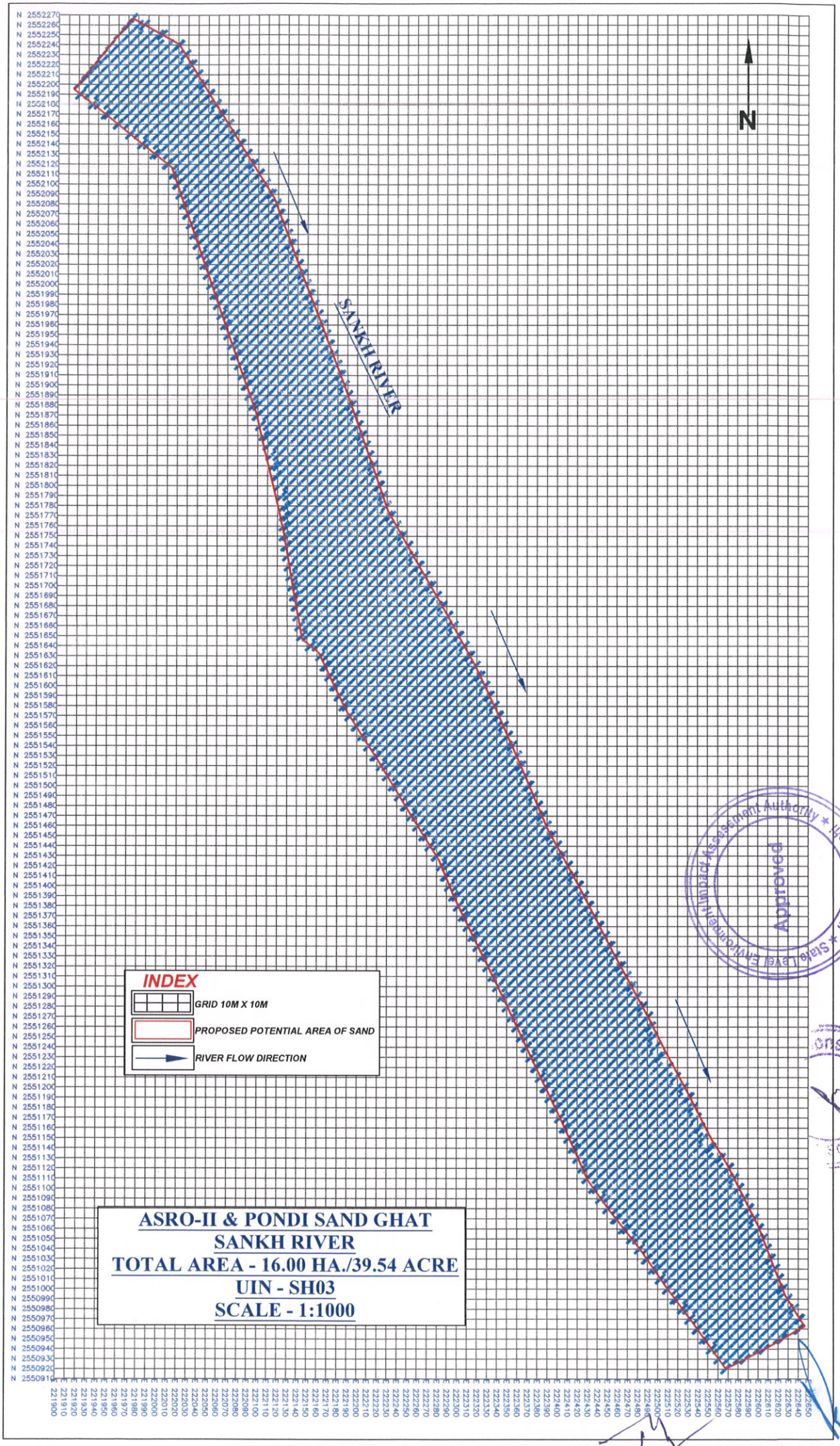
GRID 10M X 10M

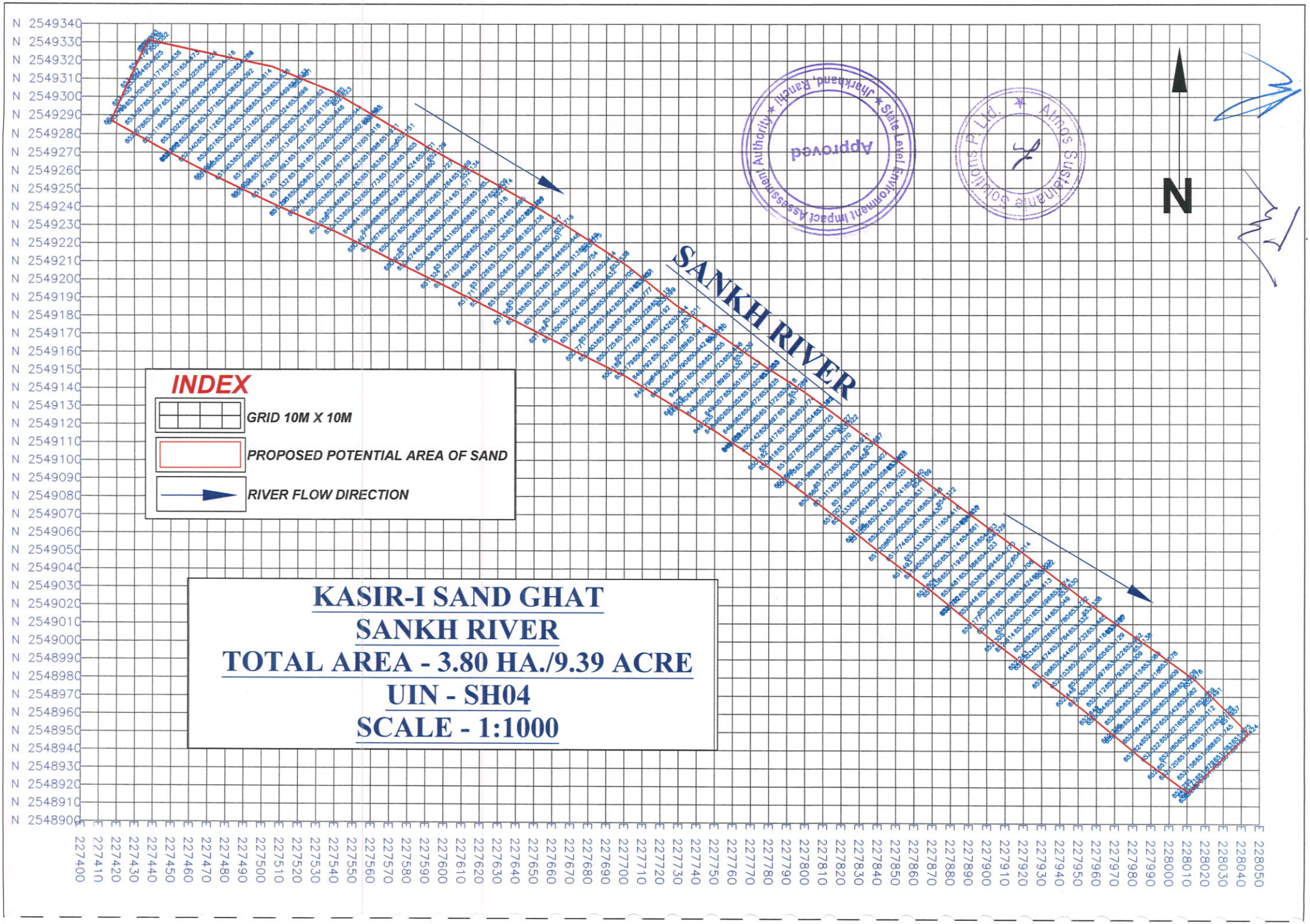
PROPOSED POTENTIAL AREA OF SAND

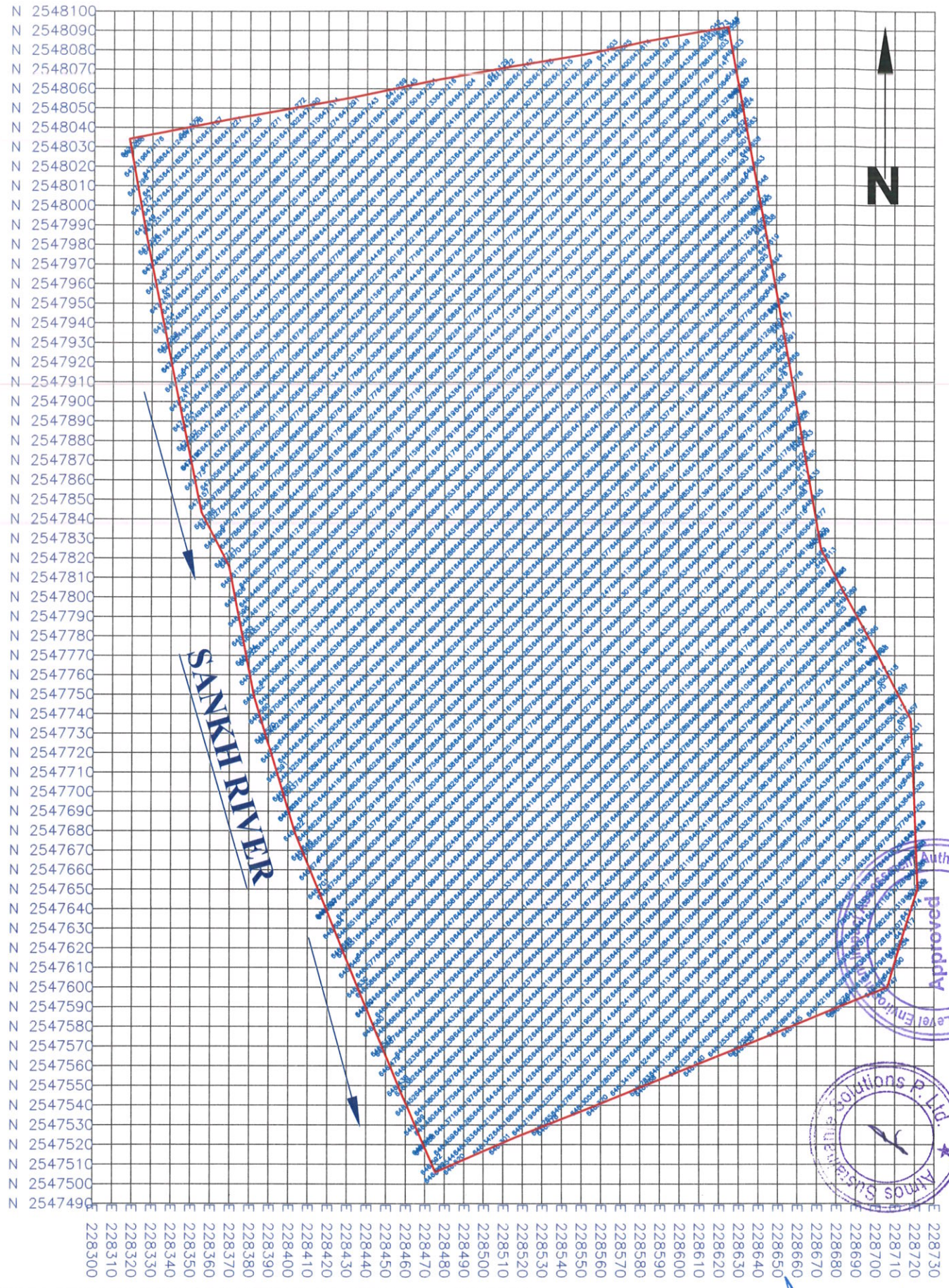
RIVER FLOW DIRECTION


SANKH RIVER
HARADIPA SAND GHAT
SANKH RIVER
TOTAL AREA - 10.00 HA./24.71 ACRE
UIN - SH01
SCALE - 1:1000
INDEX
GRID 10M X 10M
PROPOSED POTENTIAL AREA OF SAND
RIVER FLOW DIRECTION
N
Approved
State Level Environmental Impact Assessment Authority, Ranchi, Jharkhand


SANKH RIVER
ASRO-I SAND GHAT
SANKH RIVER
TOTAL AREA - 12.30 HA./30.39 ACRE
UIN - SH02
SCALE - 1:1000
INDEX
GRID 10M X 10M
PROPOSED POTENTIAL AREA OF SAND
RIVER FLOW DIRECTION
N
Approved
Jharkhand, Ranchi
State Level
Atmos P. Ltd.


N
SANKH RIVER
INDEX
GRID 10M X 10M
PROPOSED POTENTIAL AREA OF SAND
RIVER FLOW DIRECTION
ASRO-II & PONDI SAND GHAT
SANKH RIVER
TOTAL AREA - 16.00 HA./39.54 ACRE
UIN - SH03
SCALE - 1:1000
Approved
State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi


INDEX
GRID 10M X 10M
PROPOSED POTENTIAL AREA OF SAND
RIVER FLOW DIRECTION
SANKH RIVER
Approved
State Level Environment Impact Assessment Authority
Jharkhand, Ranchi
N
KASIR-I SAND GHAT
SANKH RIVER
TOTAL AREA - 3.80 HA./9.39 ACRE
UIN - SH04
SCALE - 1:1000



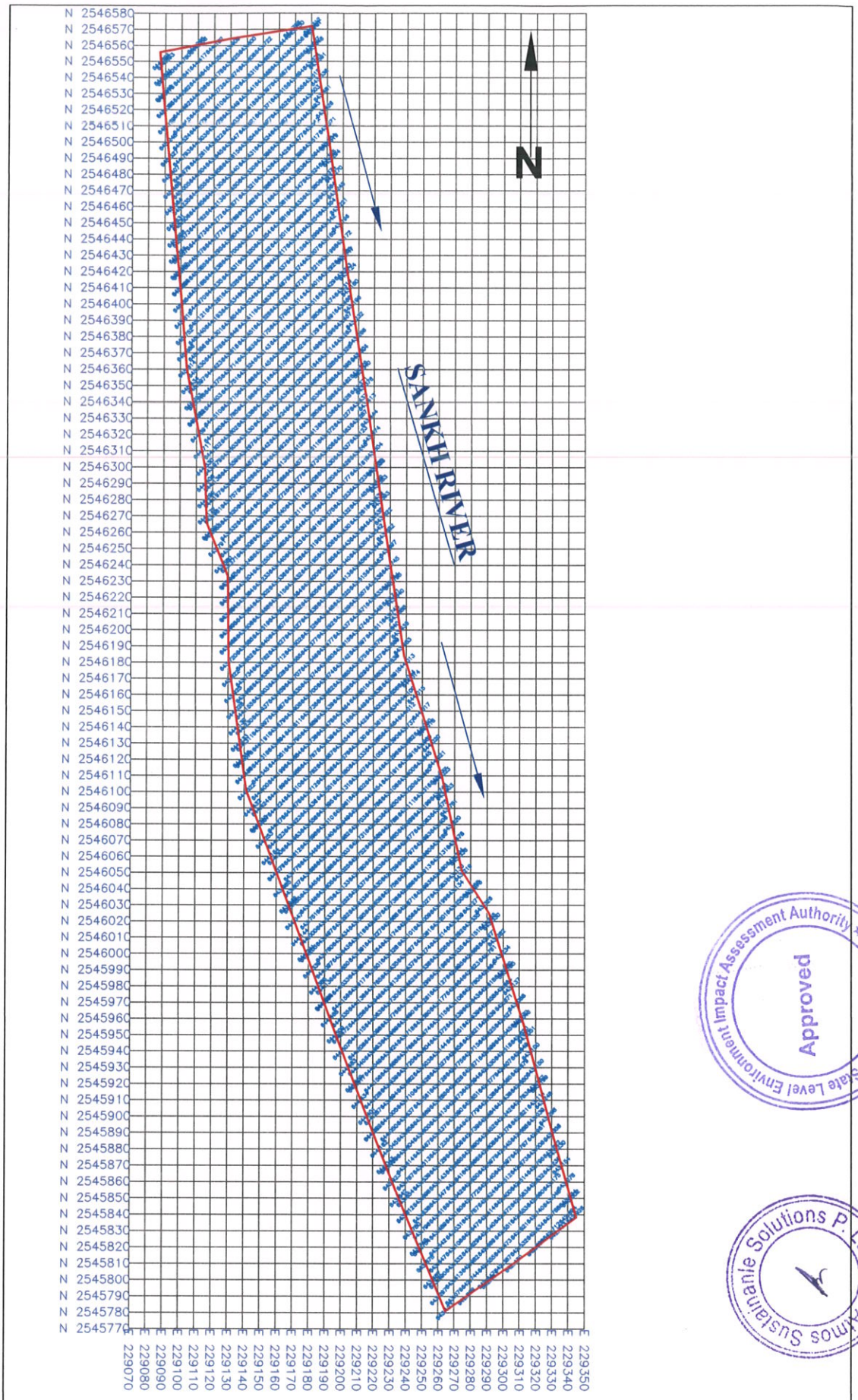
KASIR-II & KEMTE SAND GHAT
SANKH RIVER
TOTAL AREA - 16.00 HA./39.54 ACRE
UIN - SH05
SCALE - 1:1000

INDEX

GRID 10M X 10M

PROPOSED POTENTIAL AREA OF SAND

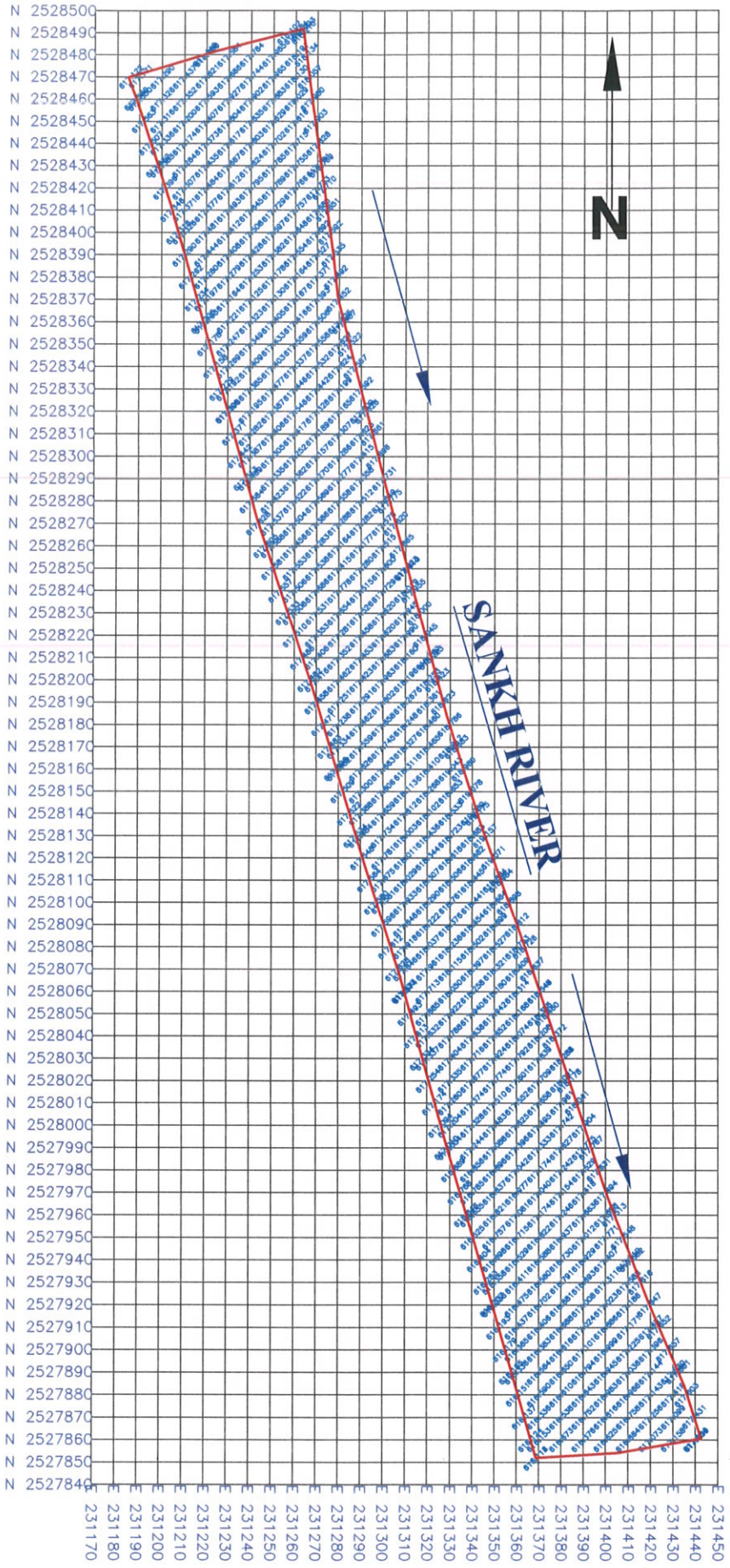
RIVER FLOW DIRECTION



LATU SAND GHAT
SANKH RIVER
TOTAL AREA - 8.30 HA./20.51 ACRE
UIN - SH06
SCALE - 1:1000

INDEX

- GRID 10M X 10M
- PROPOSED POTENTIAL AREA OF SAND
- RIVER FLOW DIRECTION



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State Level Environment Impact Assessment Authority * Jharkhand, Ranchi

Amos Sustainable Solutions P. Ltd.

KOBJA SAND GHAT
SANKH RIVER
TOTAL AREA - 4.05 HA./10.01 ACRE
UIN - SH07
SCALE - 1:1000

INDEX

- GRID 10M X 10M
- PROPOSED POTENTIAL AREA OF SAND
- RIVER FLOW DIRECTION

ANNEXURE-20

COPY OF ACCREDATED CERTIFICATE



Quality Council of India

National Accreditation Board for Education & Training

Certificate of Accreditation

Atmos Sustainable Solutions Pvt. Ltd.

A-73, 3rd Floor, Sector-65, Noida, Uttar Pradesh-201301

Accredited as Category – 'B' organization under the QCI-NABET Scheme for Accreditation of EIA Consultant Organizations: Version 3 for preparing EIA/EMP reports in the following sectors:

Sl. No	Sector Description	Sector (as per)		Cat.
		NABET	MoEFCC	
1.	Mining of minerals including opencast and underground mining	1	1 (a) (i)	A
2.	River Valley projects	3	1 (c)	A
3.	Industrial estates/ parks/ complexes/areas, export processing Zones(EPZs), Special Economic Zones(SEZs), Biotech Parks, Leather Complexes	31	7 (c)	A
4.	Highways,	34	7 (f)	A
5.	Common Municipal Solid Waste Management Facility (CMSWMF)	37	7 (i)	B
6.	Building and construction projects	38	8 (a)	B
7.	Townships and Area development projects	39	8 (b)	B

Note: Names of approved EIA Coordinators and Functional Area Experts are mentioned in IA AC Minutes dated December 4, 2020 on QCI-NABET website.

The Accreditation shall remain in force subject to continued compliance to the terms and conditions mentioned in NABET's letter of accreditation bearing no. QCI/NABET/ENV/ACO/21/1592 dated January 6, 2021. The accreditation needs to be renewed before the expiry date by Atmos Sustainable Solutions Pvt. Ltd., Noida following due process of assessment.

State Level Environment Impact Assessment Authority * Jharkhand, Ranchi * Approved

Sr. Director, NABET	*Certificate No.*	*Valid till*
Dated: January 6, 2021	**NABET/EIA/2023/IA0063**	**September 8, 2023**

For the updated List of Accredited EIA Consultant Organizations with approved Sectors please refer to QCI-NABET website.

ANNEXURE-21

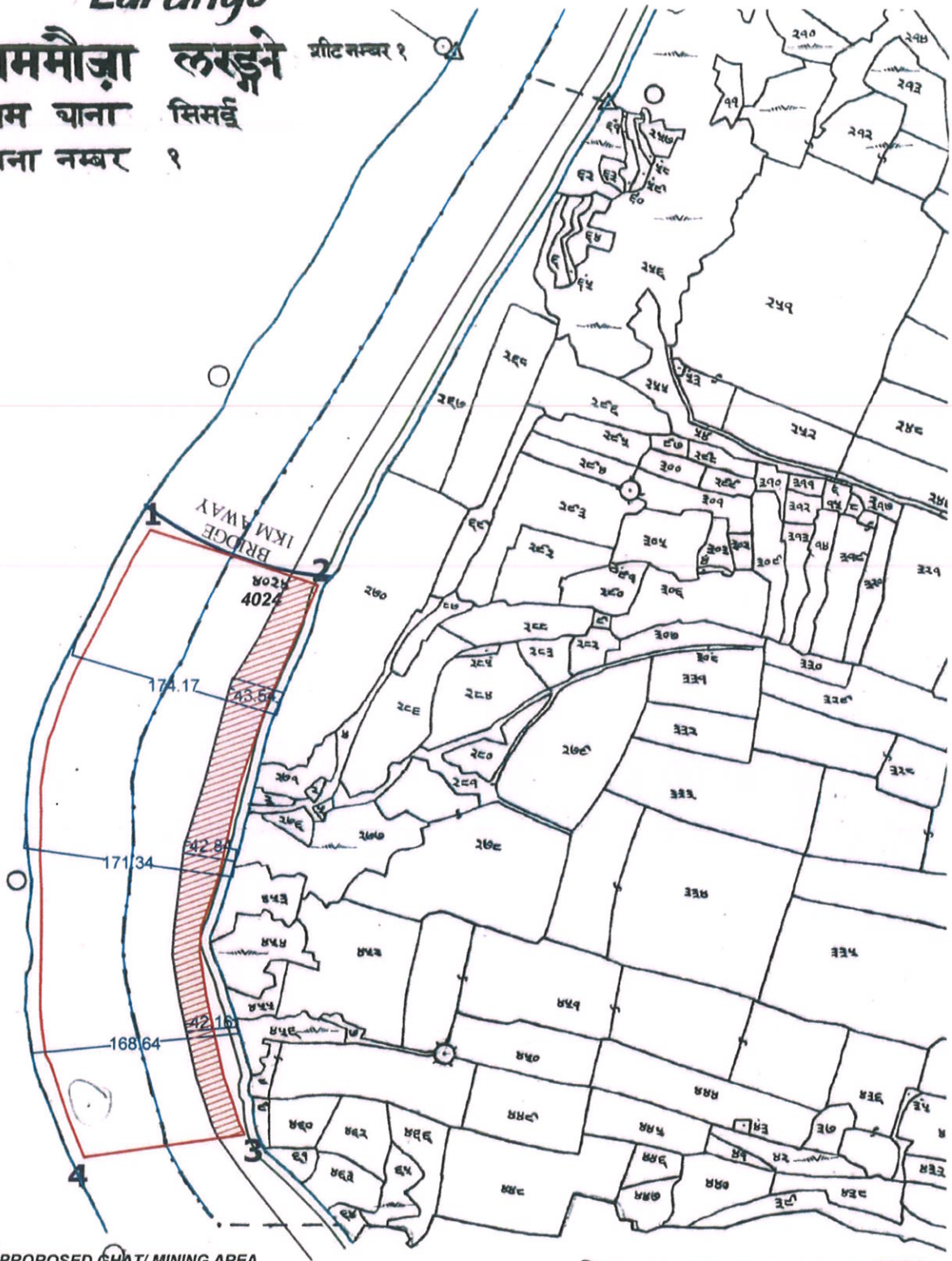

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

Larango

नाममौज़ा लरङ्गे शीट नम्बर १

नाम थाना सिसई

थाना नम्बर १



INDEX

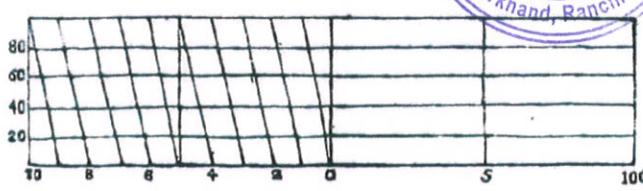
- PROPOSED GHAT/ MINING AREA
- OTHER PLOTS
- RIVER EDGE
- NO MINING ZONE
- RIVER CENTER
- ¼ TH OF THE RIVER WIDTH
- 7.5M SAFETY ZONE

SI. NO.	MINING AREA IN HA.	NO MINING AREA IN HA.
1.0	4.62	1.27

स्केल एक माइल बराबर १६ इन्च

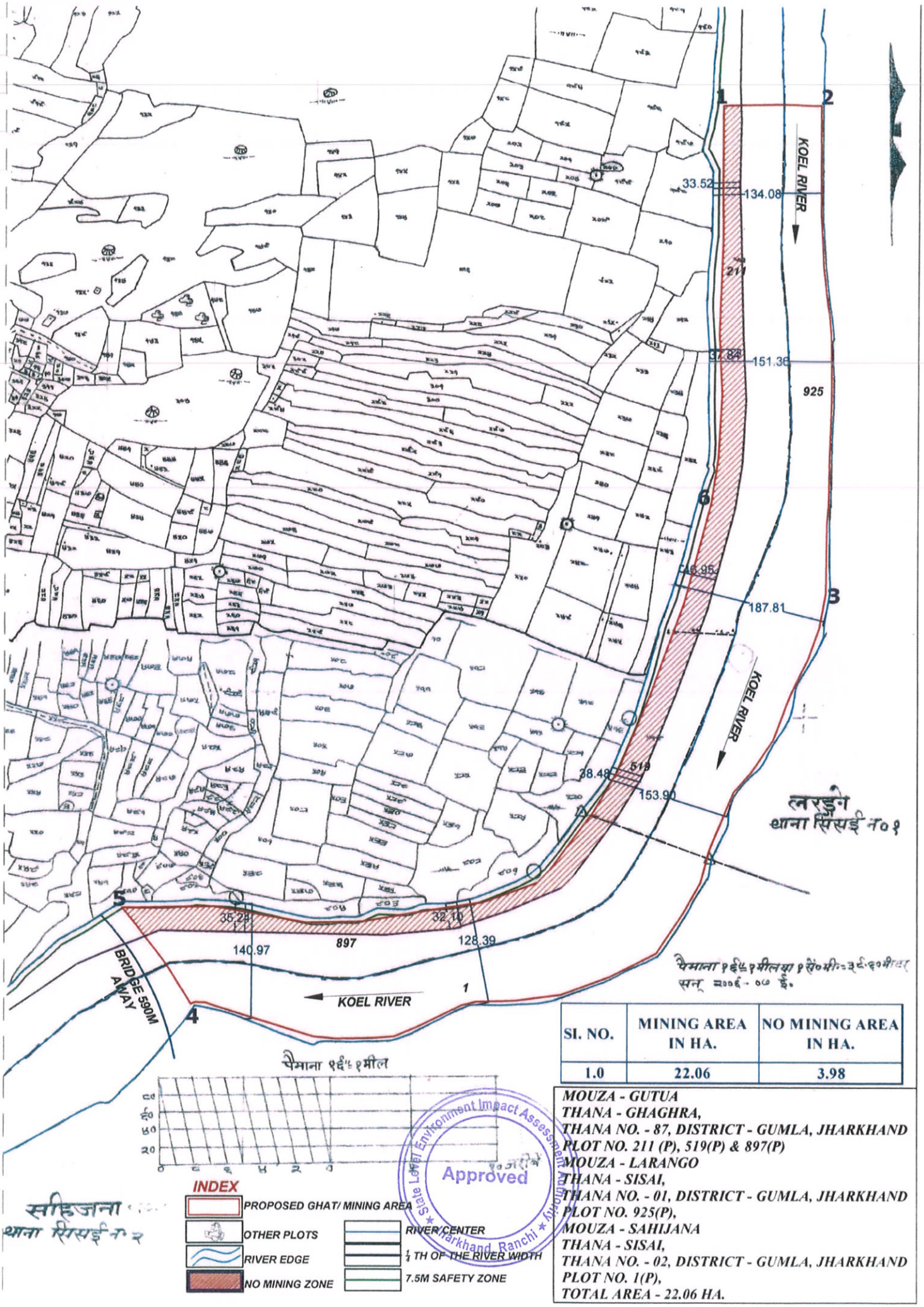
सन् १६३१ - ३२ इस्वी

Scale 16 Inches = 1 Mile



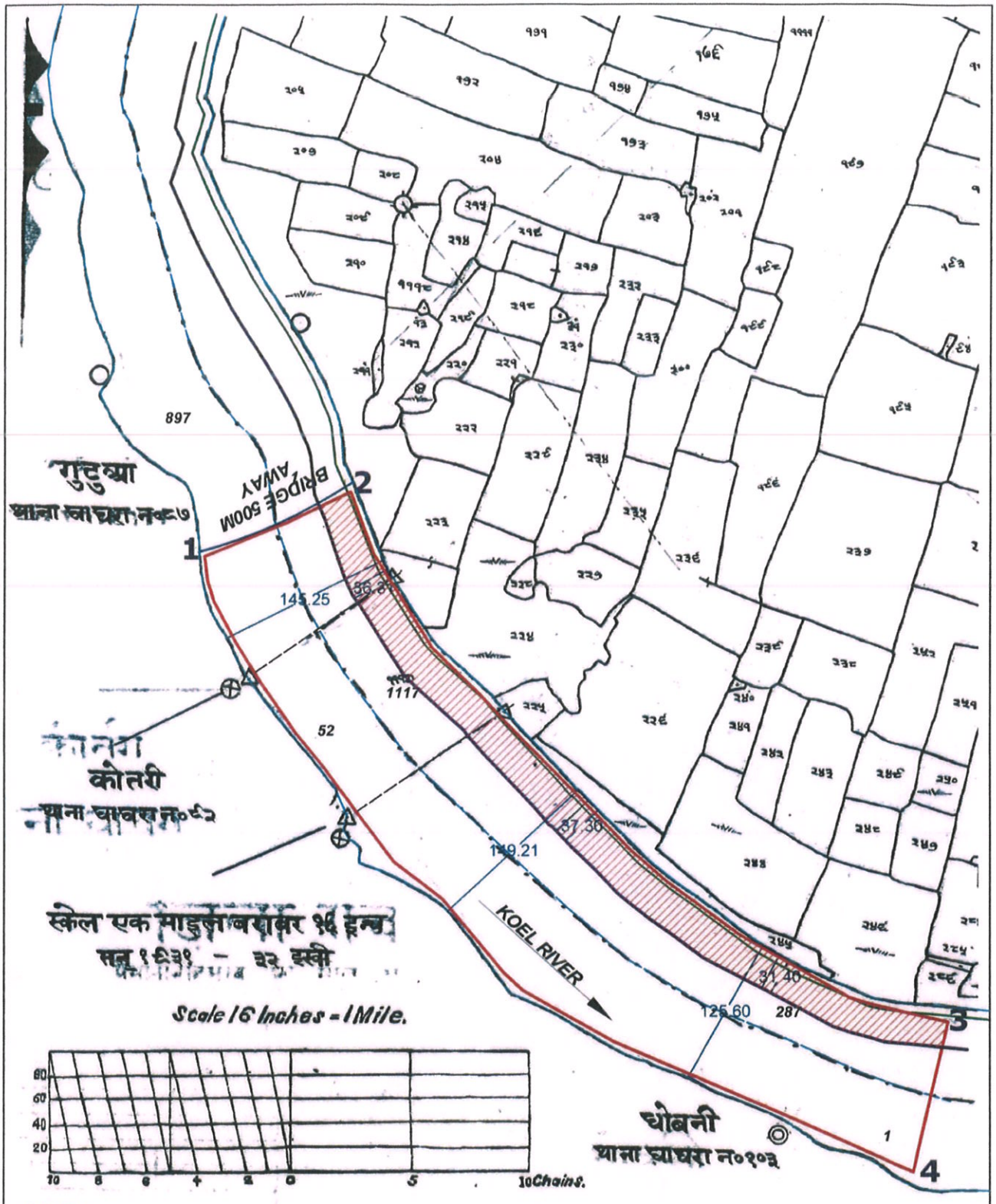
State Level Environment Impact Assessment Authority, Jharkhand, Ranchi
Approved

MOUZA - LARANGO
THANA - SISAI,
THANA NO. - 01, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 4024(P),
TOTAL AREA - 4.62 HA.



SI. NO.	MINING AREA IN HA.	NO MINING AREA IN HA.
1.0	22.06	3.98

MOUZA - GUTUA
THANA - GHAGHRA,
THANA NO. - 87, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 211 (P), 519(P) & 897(P)
MOUZA - LARANGO
THANA - SISAI,
THANA NO. - 01, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 925(P),
MOUZA - SAHIJANA
THANA - SISAI,
THANA NO. - 02, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1(P),
TOTAL AREA - 22.06 HA.



INDEX

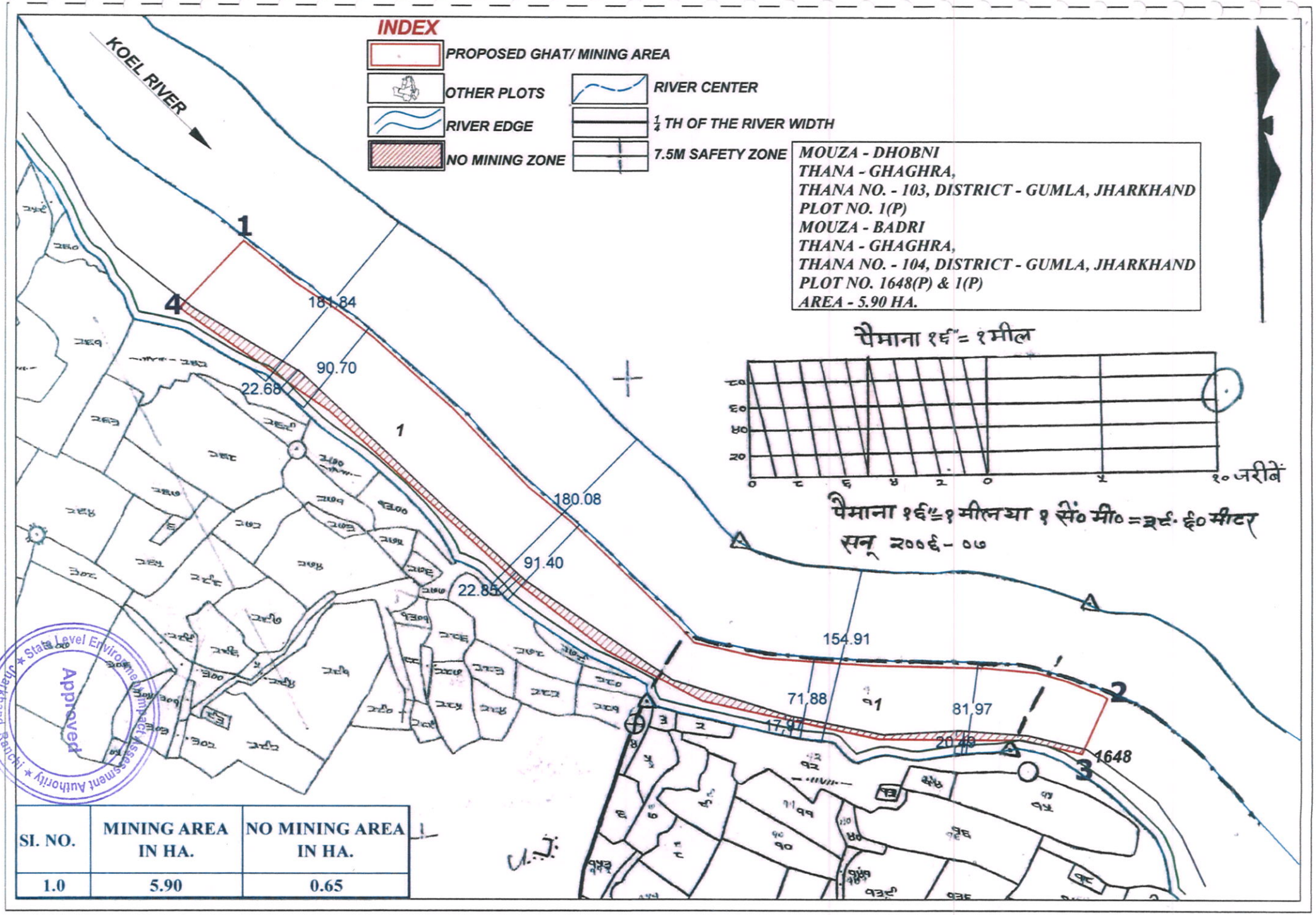
- PROPOSED GHAT/ MINING AREA
- OTHER PLOTS
- RIVER EDGE
- NO MINING ZONE
- RIVER CENTER
- ¼ TH OF THE RIVER WIDTH
- 7.5M SAFETY ZONE

Approved

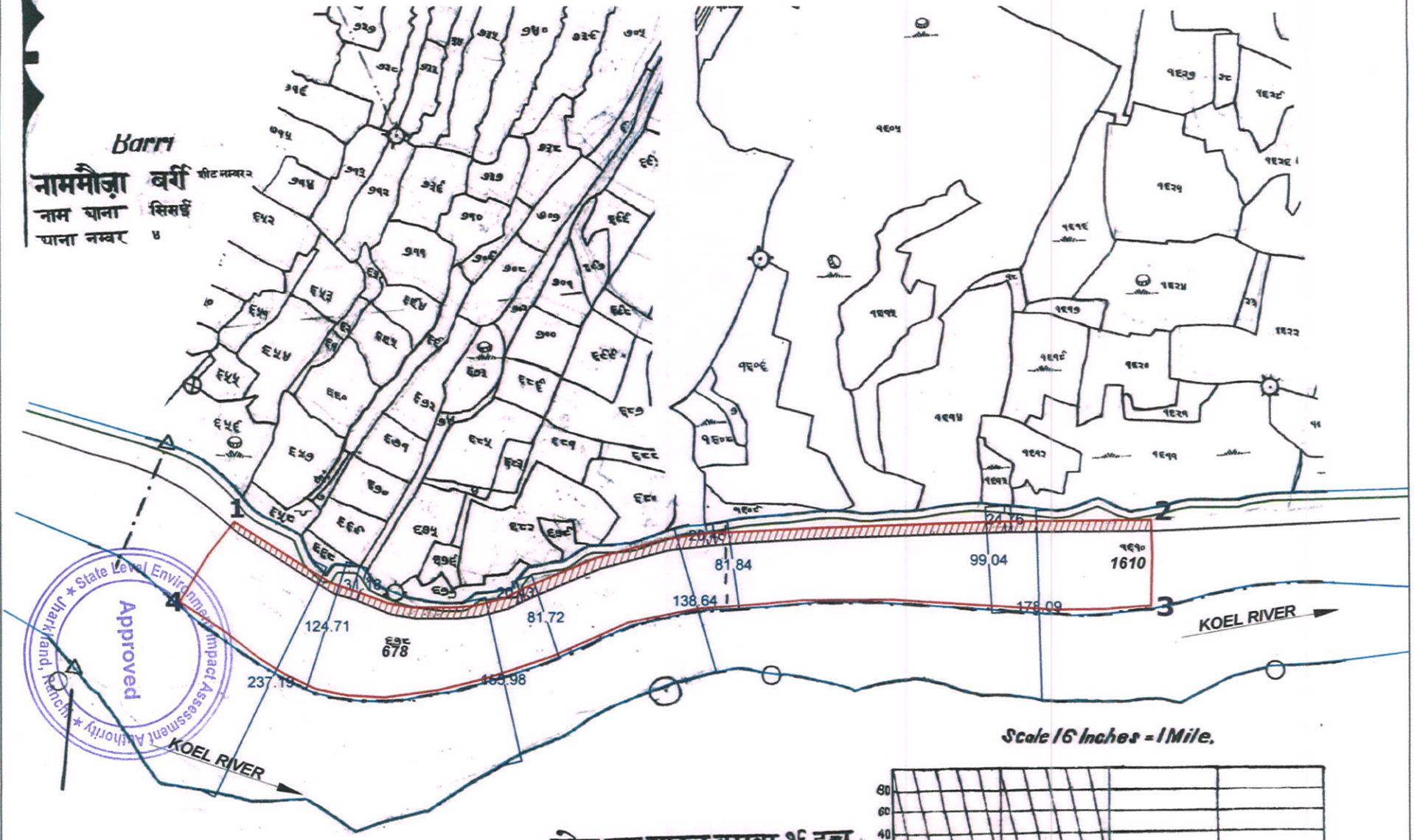
State Level Environment Impact Assessment Authority, Jharkhand, Ranchi

SI. NO.	MINING AREA IN HA.	NO MINING AREA IN HA.
1.0	10.00	2.18

MOUZA - SAHIJANA
THANA - SISAI,
THANA NO. - 02, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1117(P), 287(P), 1(P),
MOUZA - DHOBNI
THANA - GHAGHRA,
THANA NO. - 103, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1(P),
MOUZA - KOTRI
THANA - GHAGHRA,
THANA NO. - 92, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 52(P),
MOUZA - GUTUA
THANA - GHAGHRA,
THANA NO. - 87, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 897(P),
TOTAL AREA - 10.00 HA.



SI. NO.	MINING AREA IN HA.	NO MINING AREA IN HA.
1.0	5.90	0.65



Scale 16 Inches = 1 Mile.

स्केल एक माइल बराबर १६ इन्च

सन १६३१ – ३२ इस्वी

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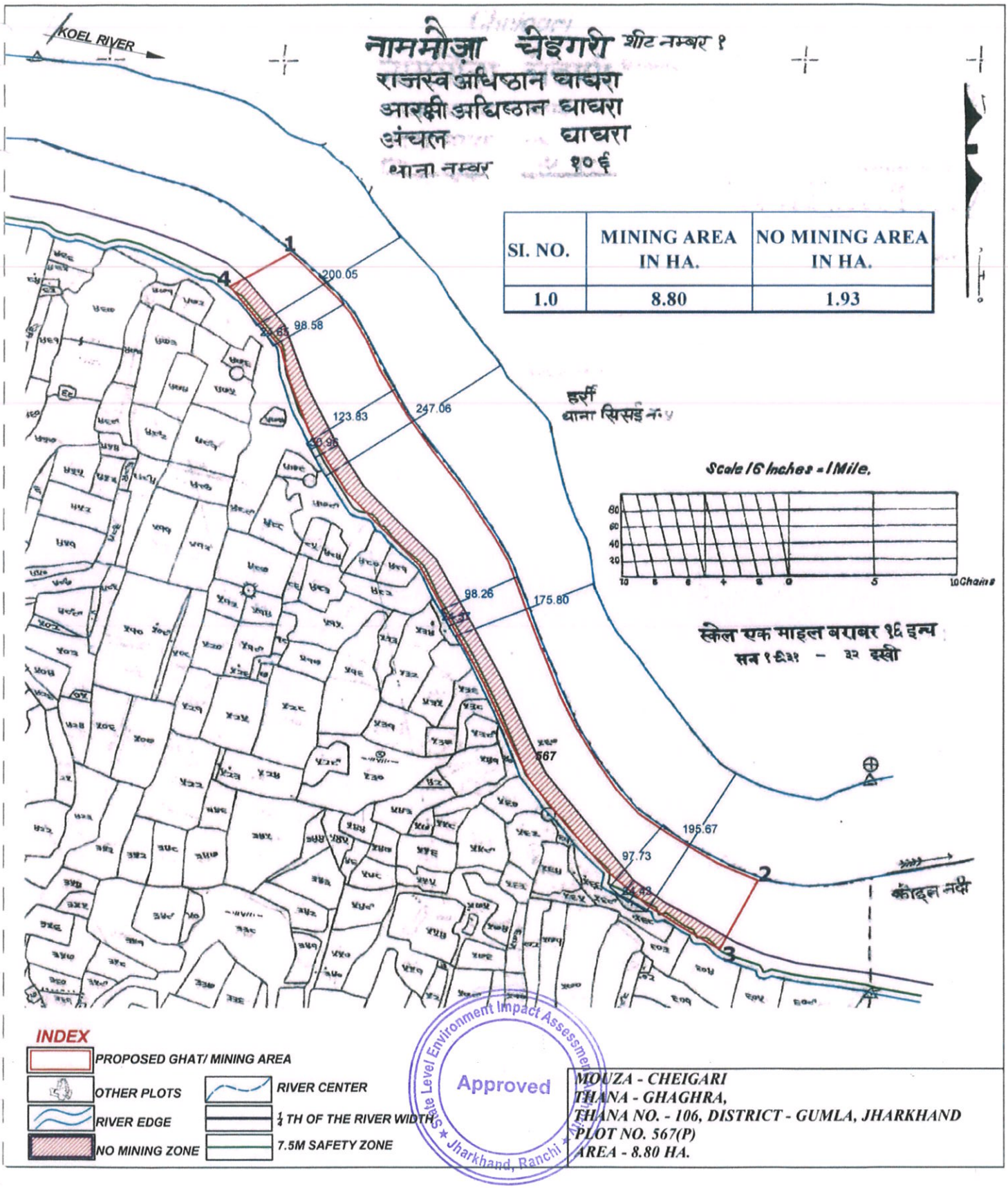
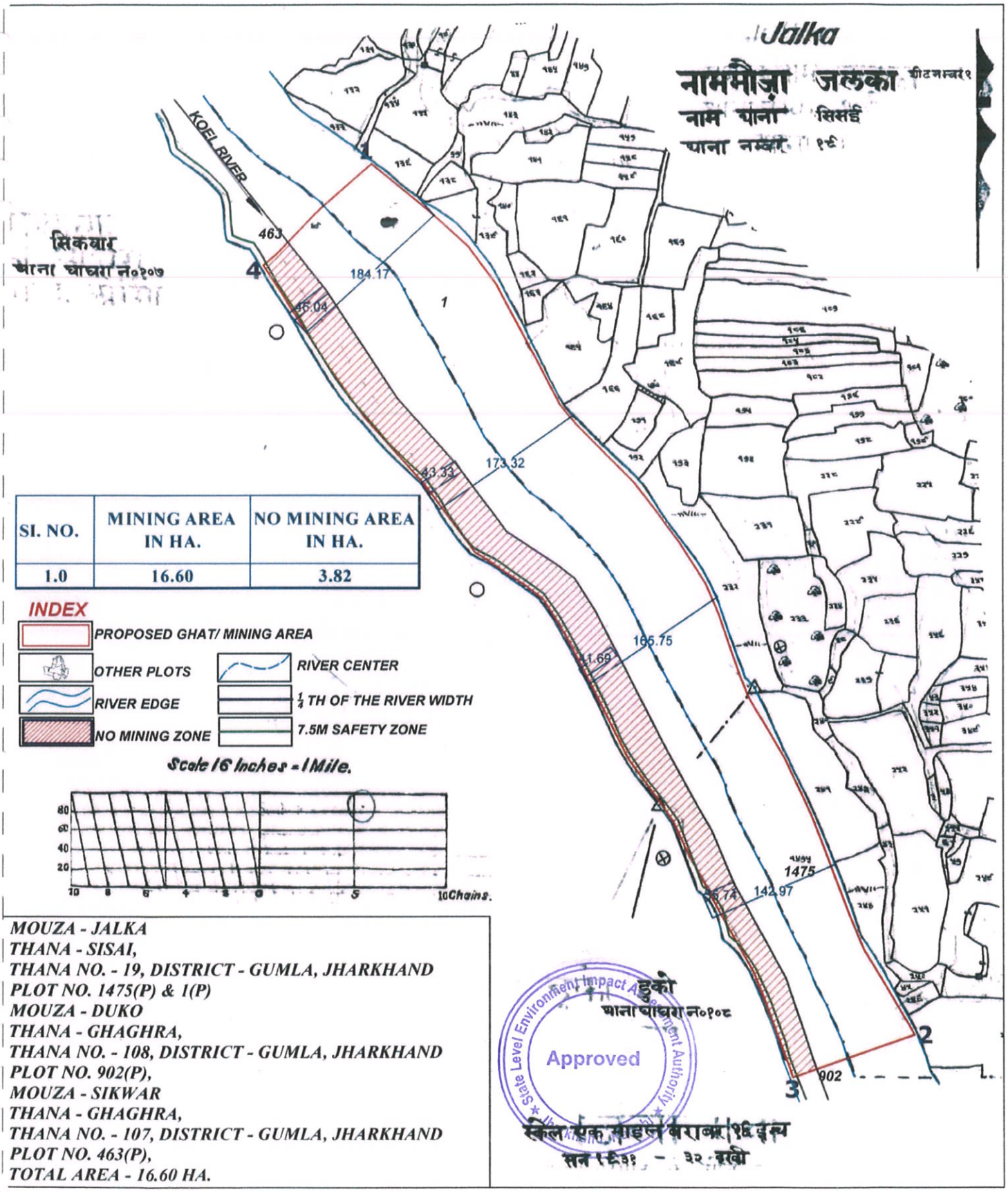
- PROPOSED GHAT/ MINING AREA
- OTHER PLOTS
- RIVER EDGE
- NO MINING ZONE
- RIVER CENTER
- ¼ TH OF THE RIVER WIDTH
- 7.5M SAFETY ZONE

SI. NO.	MINING AREA IN HA.	NO MINING AREA IN HA.
1.0	7.00	0.88

MOUZA - BARRI
THANA - SISAI,
THANA NO. - 04, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 678(P) & 1610(P)
AREA - 7.00 HA.



MOUZA - CHEIGARI
THANA - GHAGHRA,
THANA NO. - 106, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 567(P)
AREA - 8.80 HA.



SI. NO.	MINING AREA IN HA.	NO MINING AREA IN HA.
1.0	16.60	3.82

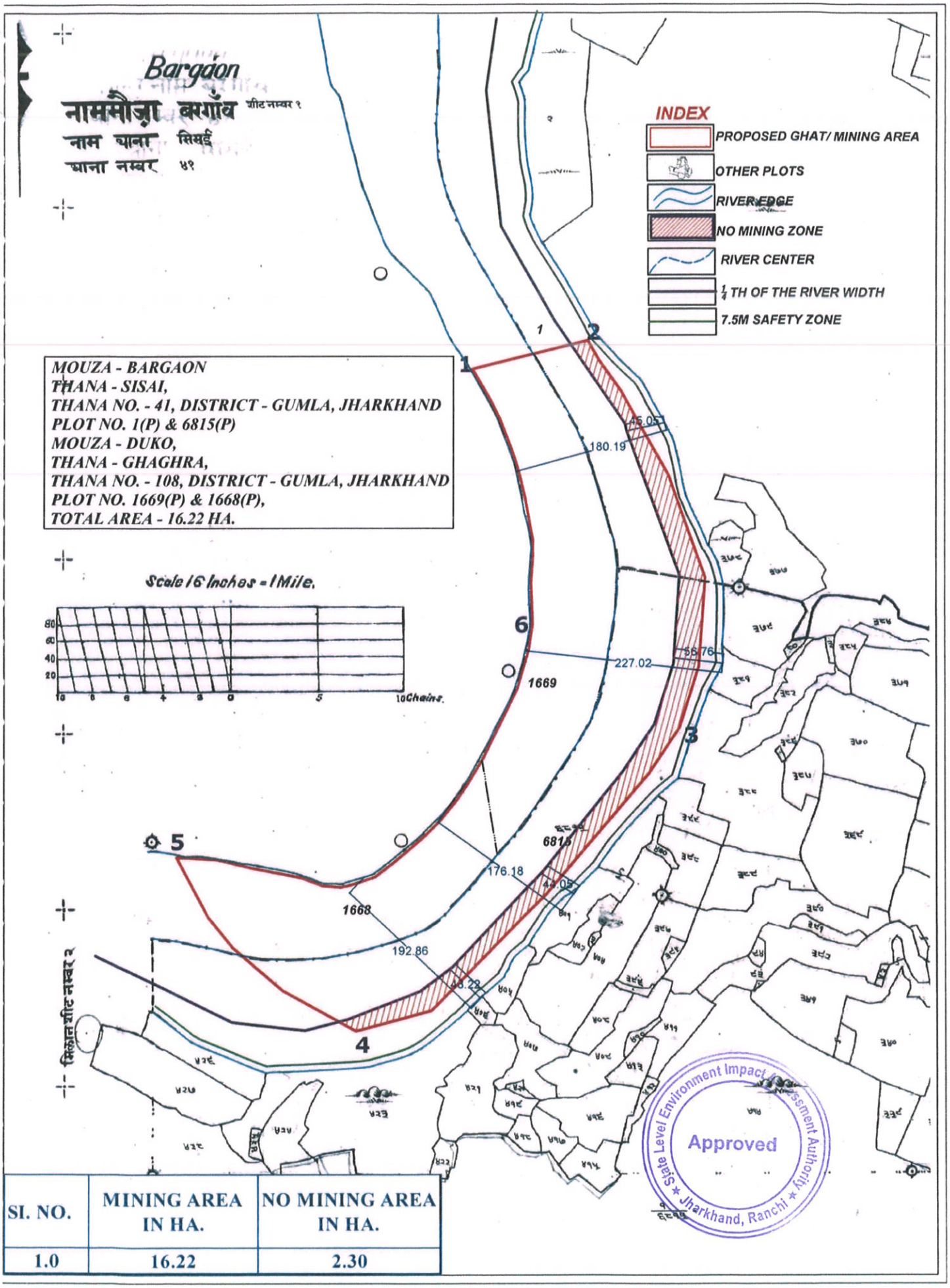
INDEX

- PROPOSED GHAT/ MINING AREA
- OTHER PLOTS
- RIVER EDGE
- NO MINING ZONE
- RIVER CENTER
- 1/4 TH OF THE RIVER WIDTH
- 7.5M SAFETY ZONE

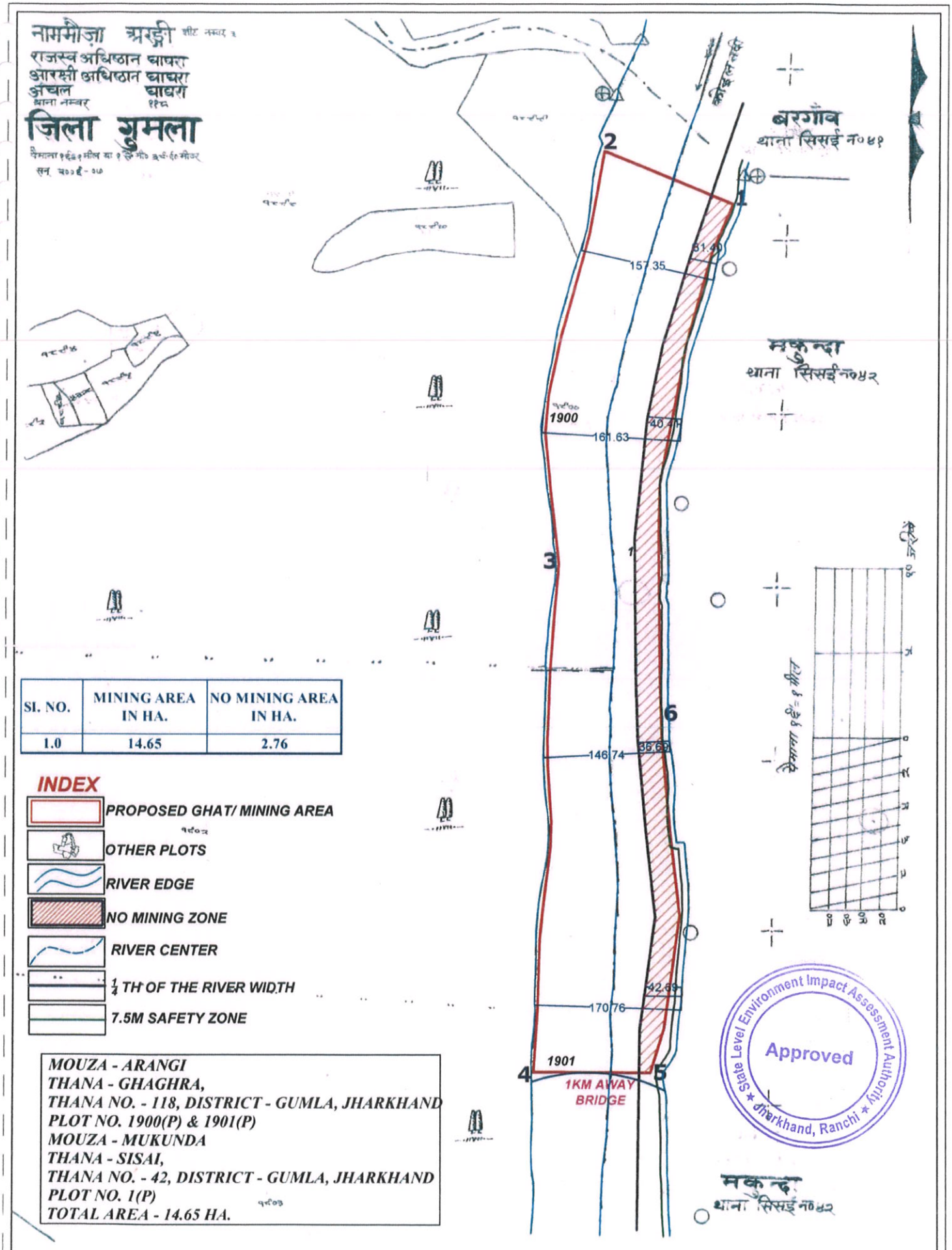
Scale 16 Inches - 1 Mile.

80 60 40 20 10 8 6 4 2 0 5 10Chains.

MOUZA - JALKA
THANA - SISAI,
THANA NO. - 19, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1475(P) & 1(P)
MOUZA - DUKO
THANA - GHAGHRA,
THANA NO. - 108, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 902(P),
MOUZA - SIKWAR
THANA - GHAGHRA,
THANA NO. - 107, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 463(P),
TOTAL AREA - 16.60 HA.



SI. NO.	MINING AREA IN HA.	NO MINING AREA IN HA.
1.0	16.22	2.30



SI. NO.	MINING AREA IN HA.	NO MINING AREA IN HA.
1.0	14.65	2.76

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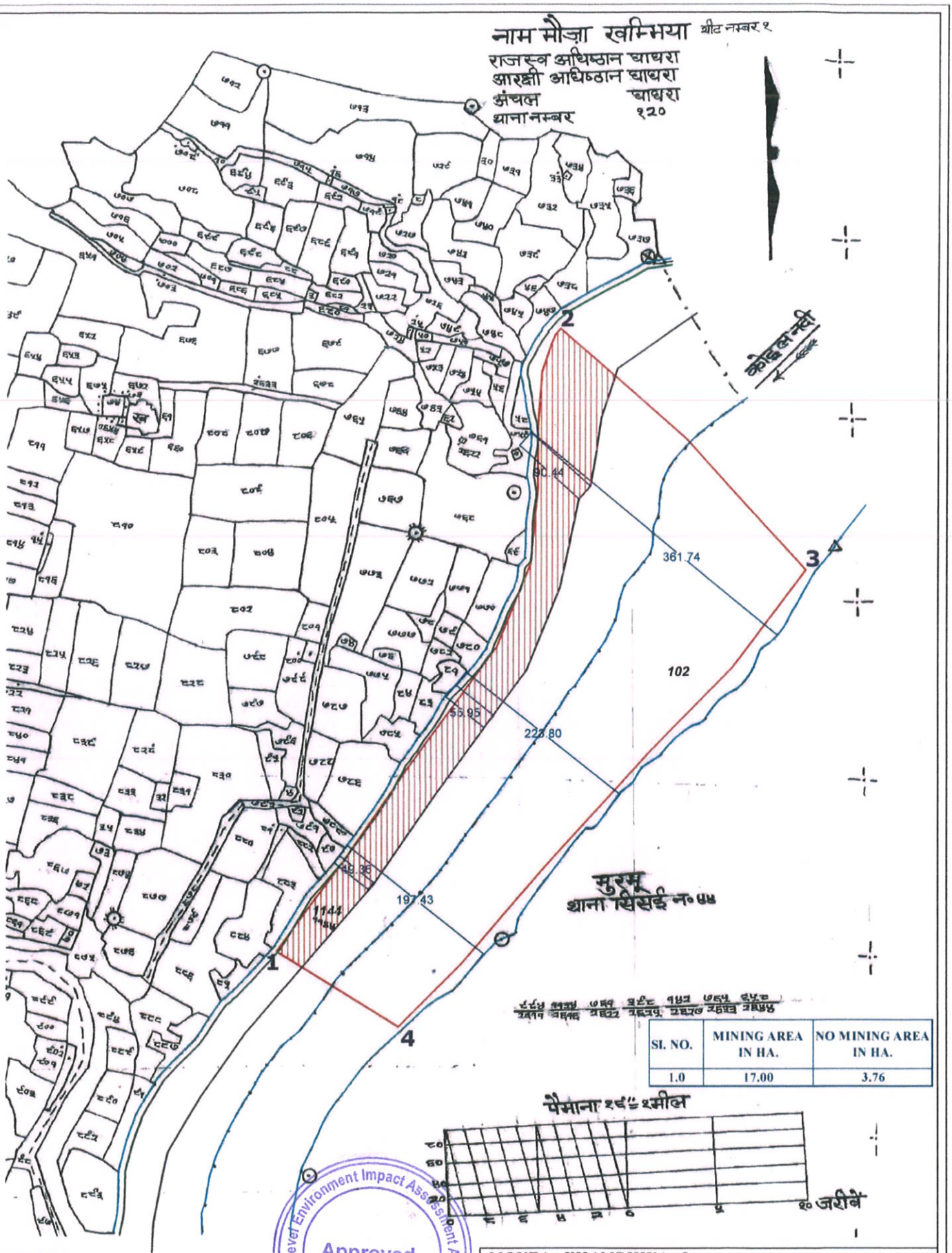
- PROPOSED GHAT/ MINING AREA
- OTHER PLOTS
- RIVER EDGE
- NO MINING ZONE
- RIVER CENTER
- ¼ TH OF THE RIVER WIDTH
- 7.5M SAFETY ZONE

MOUZA - ARANGI
THANA - GHAGHRA,
THANA NO. - 118, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1900(P) & 1901(P)
MOUZA - MUKUNDA
THANA - SISAI,
THANA NO. - 42, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1(P)
TOTAL AREA - 14.65 HA.



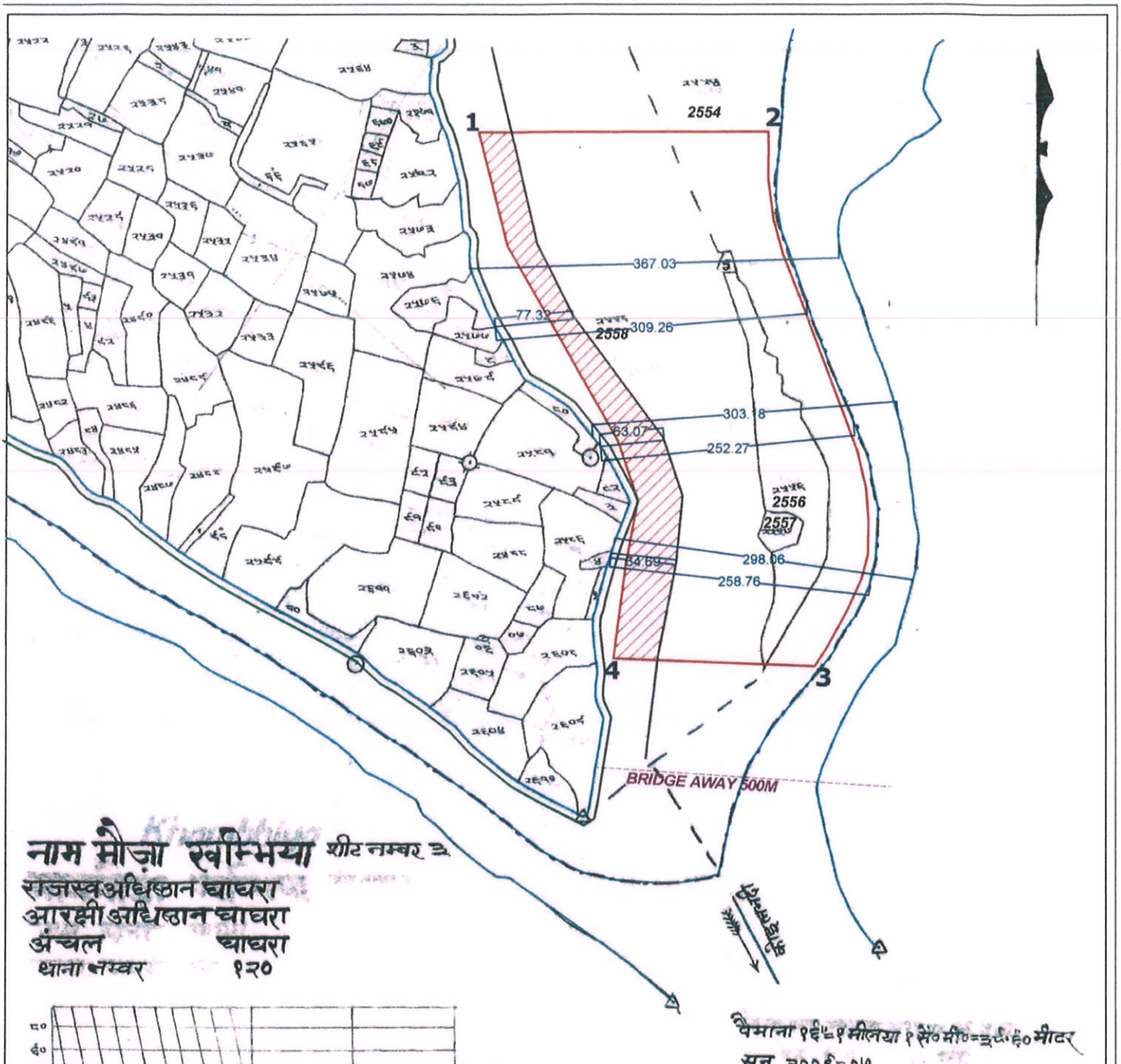
SI. NO.	MINING AREA IN HA.	NO MINING AREA IN HA.
1.0	17.00	3.76

INDEX

- PROPOSED GHAT/ MINING AREA
- OTHER PLOTS
- RIVER CENTER
- RIVER EDGE
- 1/4 TH OF THE RIVER WIDTH
- NO MINING ZONE
- 7.5M SAFETY ZONE

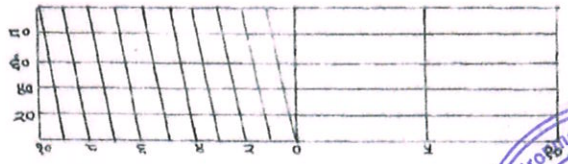
State Level Environment Impact Assessment Authority * Jharkhand, Ranchi *
Approved

MOUZA - KHAMBHIYA - I
THANA - GHAGRA,
THANA NO. - 120, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1144(P)
MOUZA - MURMU
THANA - SISAI,
THANA NO. - 44, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 102(P)
TOTAL AREA - 17.00 HA.



नाम मौज़ा खम्भिया शीट नम्बर ३
राजस्व अधिष्ठान घाघरा
आरक्षी अधिष्ठान घाघरा
अंचल घाघरा
थाना नम्बर १२०

पैमाना १६"=१ मीलया १ सें०मी०=३८.६० मीटर
सन् २००६-०७



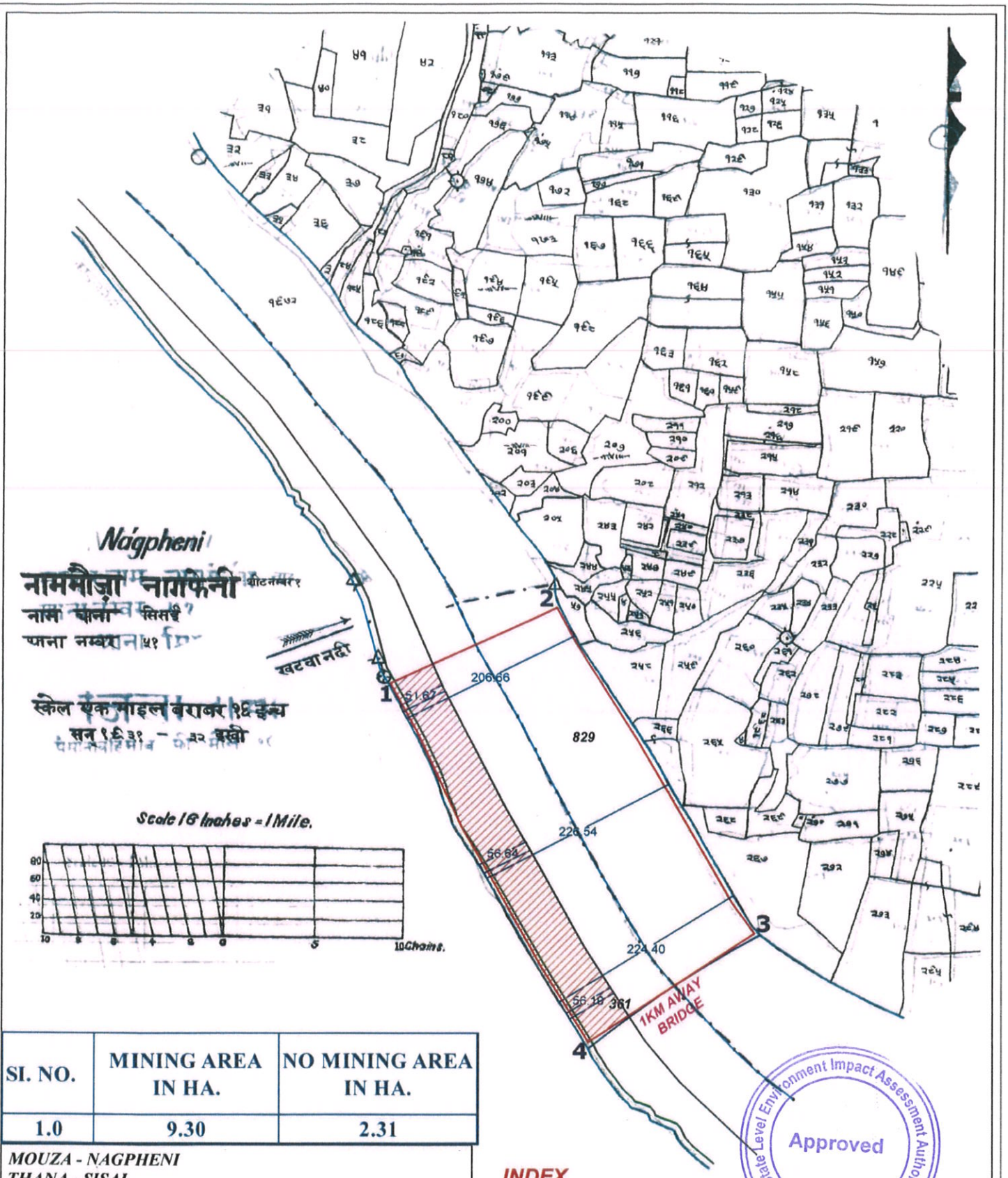
INDEX

- PROPOSED GHAT/ MINING AREA
- OTHER PLOTS
- RIVER CENTER
- RIVER EDGE
- ¼ TH OF THE RIVER WIDTH
- NO MINING ZONE
- 7.5M SAFETY ZONE

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi

SI. NO.	MINING AREA IN HA.	NO MINING AREA IN HA.
1.0	13.00	2.00

MOUZA - KHAMBHIYA-II
THANA - GHAGRA,
THANA NO. - 120, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 2555, 2556, 2557, 2554(P) & 2558(P)
AREA - 13.00 HA.



SI. NO.	MINING AREA IN HA.	NO MINING AREA IN HA.
1.0	9.30	2.31

MOUZA - NAGPHENI
THANA - SISAI,
THANA NO. - 51, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 829(P)
MOUZA - SILAPHARI
THANA - GUMLA,
THANA NO. - 79, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 361(P)
AREA - 9.30 HA.

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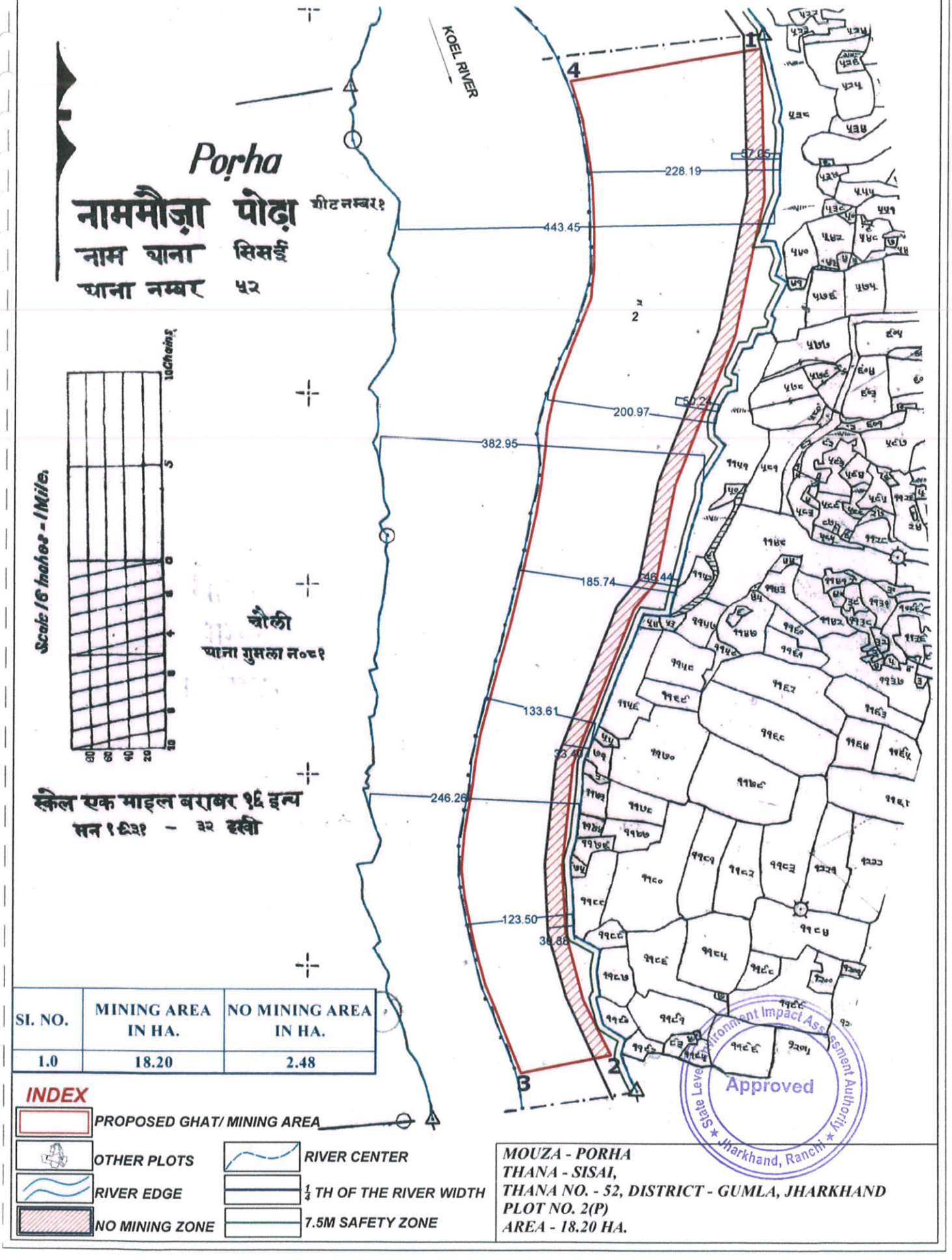
- PROPOSED GHAT/ MINING AREA
- OTHER PLOTS
- RIVER EDGE
- NO MINING ZONE
- RIVER CENTER
- 1/4 TH OF THE RIVER WIDTH
- 7.5M SAFETY ZONE

State Level Environment Impact Assessment Authority Jharkhand, Ranchi
Approved

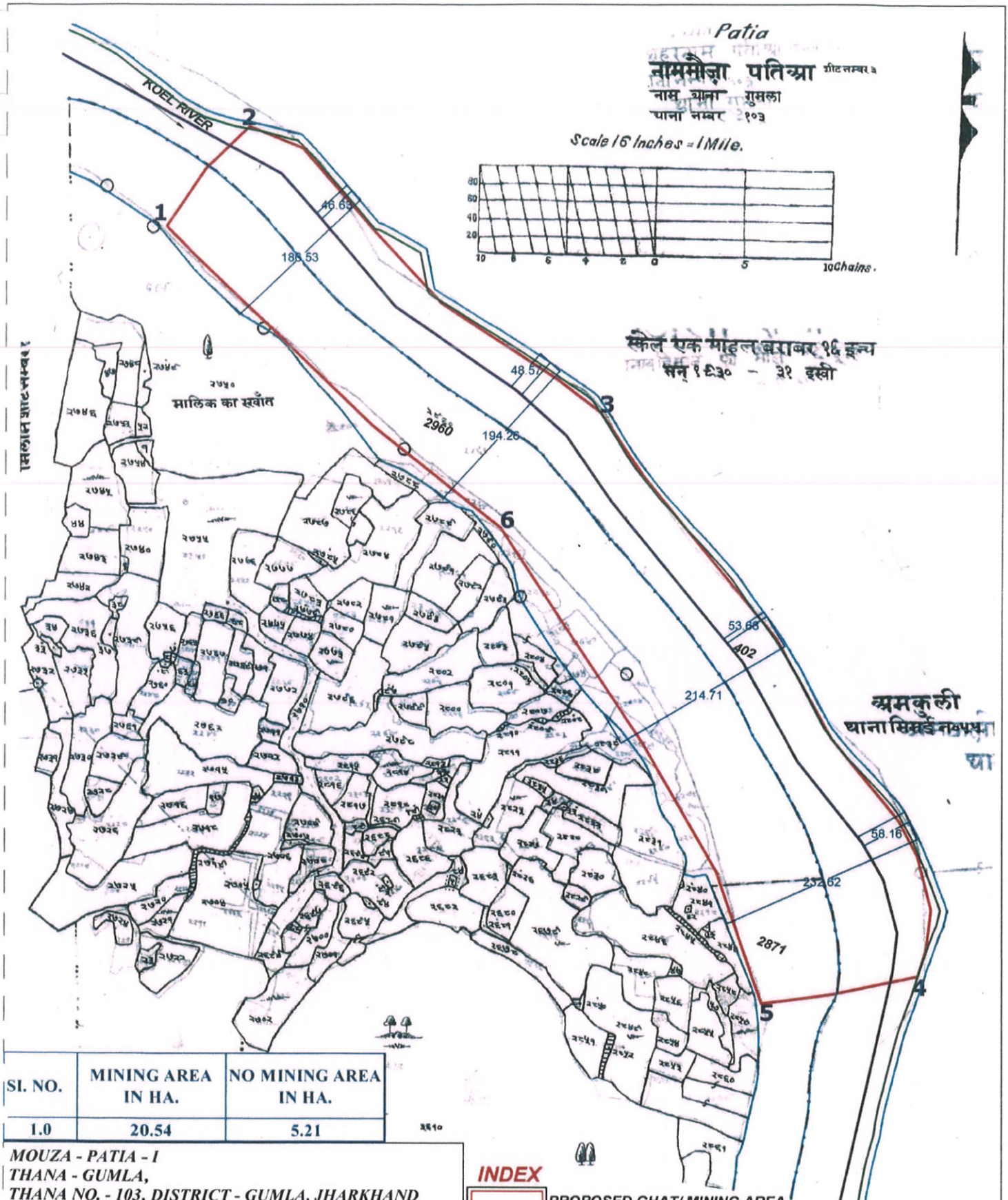


SI. NO.	MINING AREA IN HA.	NO MINING AREA IN HA.
1.0	18.20	2.48

INDEX

- PROPOSED GHAT/ MINING AREA
- OTHER PLOTS
- RIVER EDGE
- NO MINING ZONE
- RIVER CENTER
- 1/4 TH OF THE RIVER WIDTH
- 7.5M SAFETY ZONE

MOUZA - PORHA
THANA - SISAI,
THANA NO. - 52, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 2(P)
AREA - 18.20 HA.



SI. NO.	MINING AREA IN HA.	NO MINING AREA IN HA.
1.0	20.54	5.21

MOUZA - PATIA - I
THANA - GUMLA,
THANA NO. - 103, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 2960(P) & 2871(P)
MOUZA - AMKULI
THANA - SISAI,
THANA NO. - 55, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 402(P)
TOTAL AREA - 20.54 HA.

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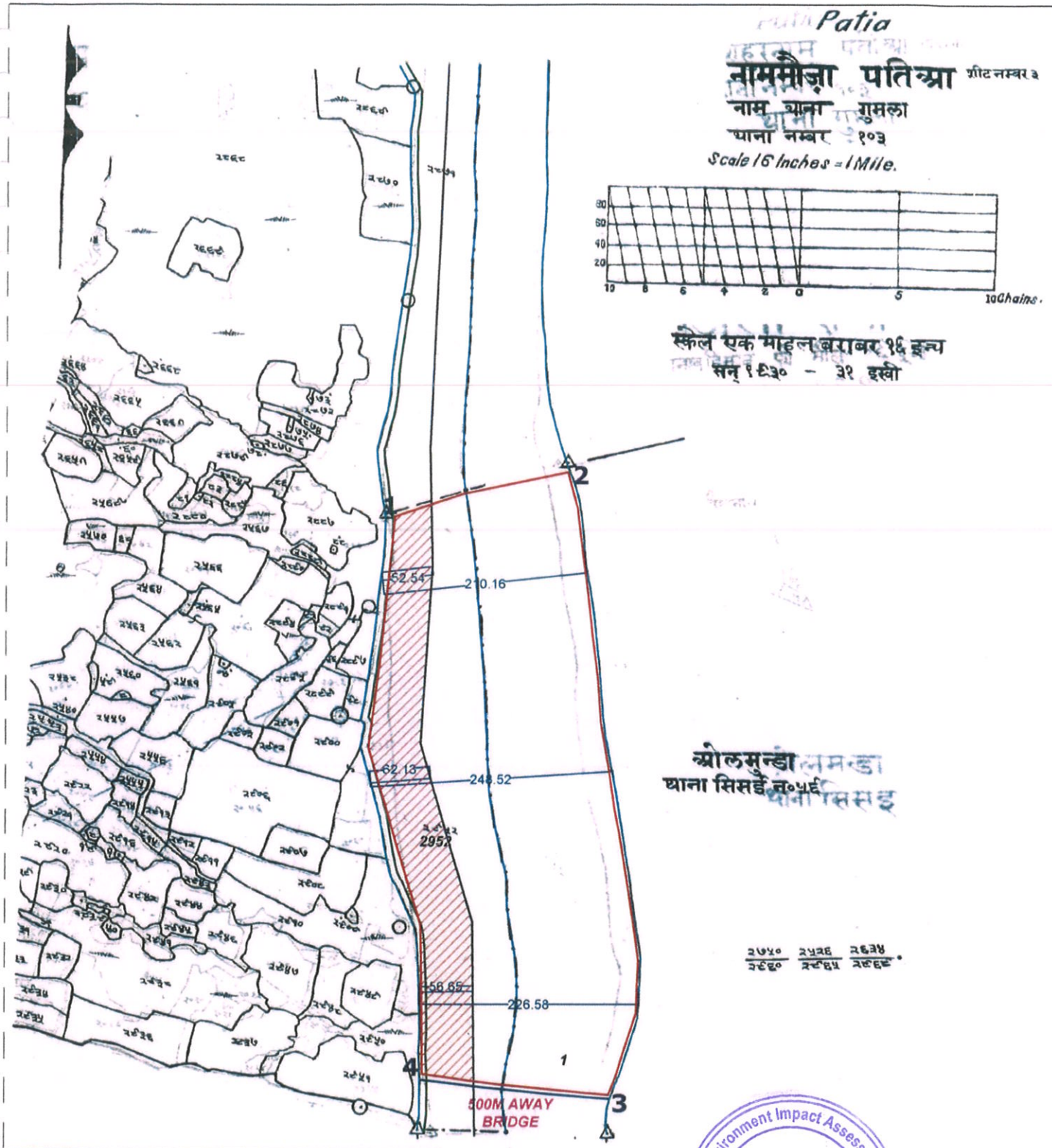
- PROPOSED GHAT/ MINING AREA
- OTHER PLOTS
- RIVER EDGE
- NO MINING ZONE
- RIVER CENTER
- 1/4 TH OF THE RIVER WIDTH
- 7.5M SAFETY ZONE



SI. NO.	MINING AREA IN HA.	NO MINING AREA IN HA.
1.0	13.20	3.00

MOUZA - PATIA - II
THANA - GUMLA,
THANA NO. - 103, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 2952(P)
MOUZA - OLMUNDA
THANA - SISAI,
THANA NO. - 56, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1(P)
TOTAL AREA - 13.20 HA.

INDEX

- PROPOSED GHAT/ MINING AREA
- OTHER PLOTS
- RIVER CENTER
- RIVER EDGE
- 1/4 TH OF THE RIVER WIDTH
- NO MINING ZONE
- 7.5M SAFETY ZONE

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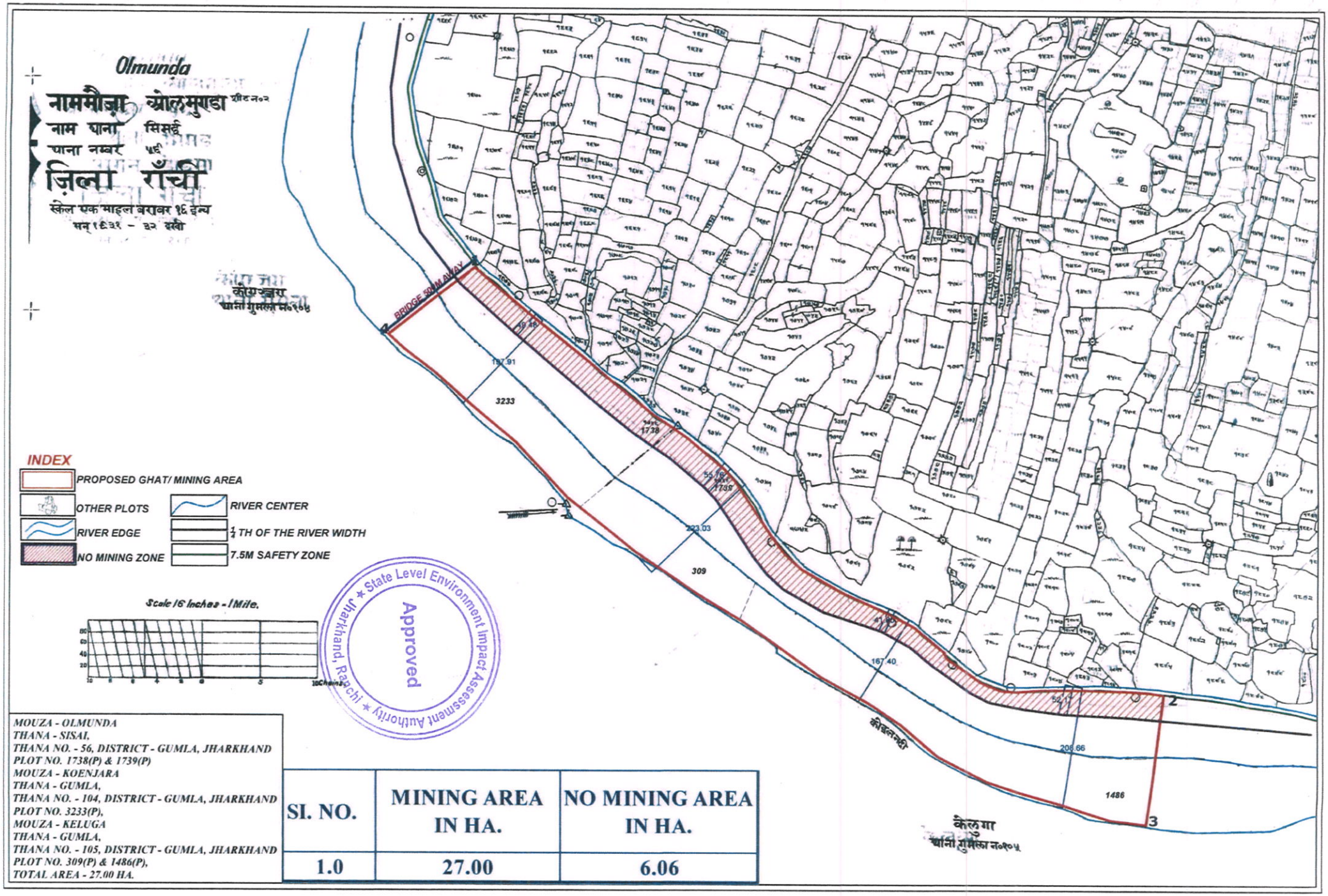
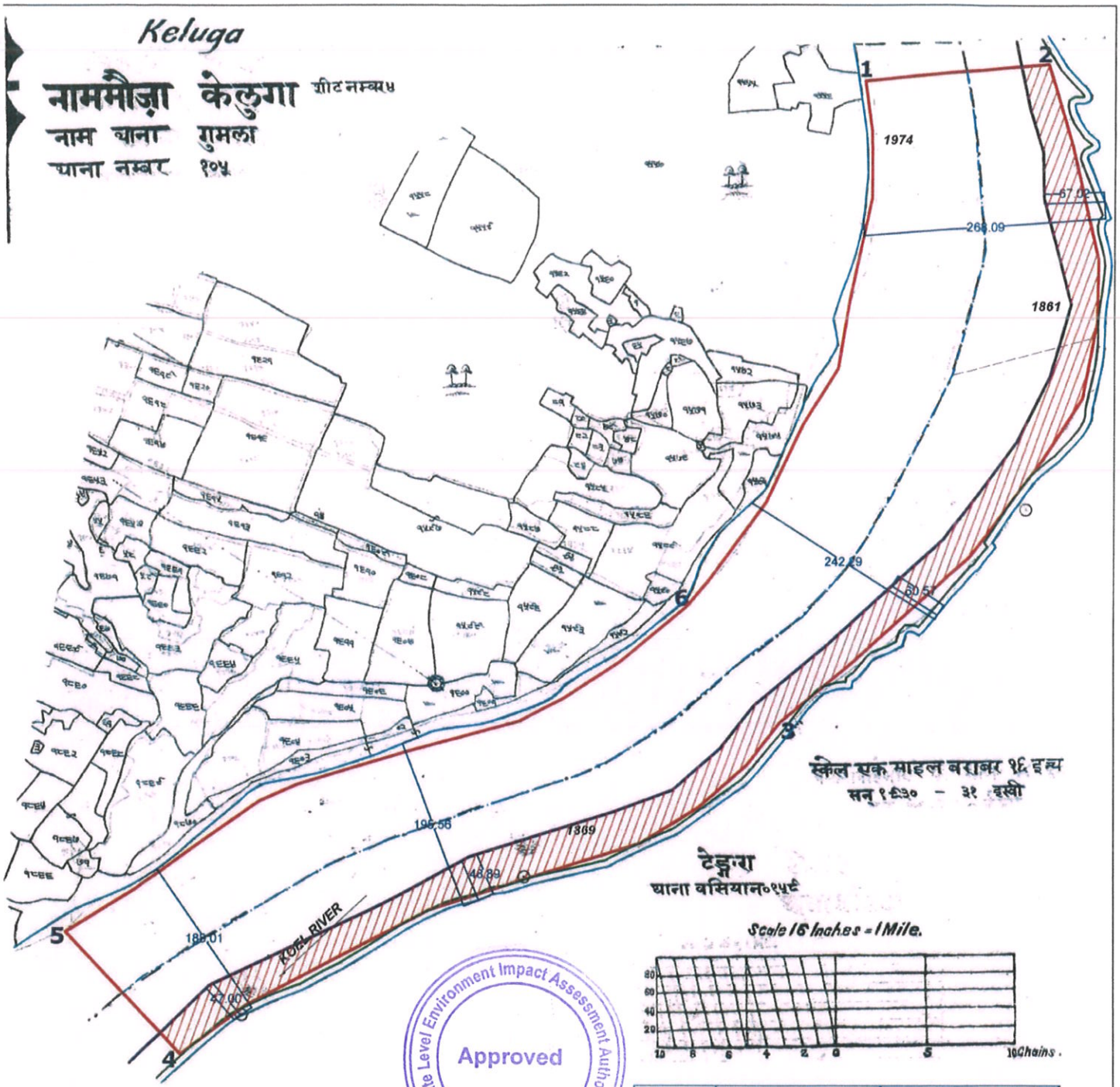


MOUZA - OLMUNDA
THANA - SISAI,
THANA NO. - 56, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1738(P) & 1739(P)
MOUZA - KOENJARA
THANA - GUMLA,
THANA NO. - 104, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 3233(P),
MOUZA - KELUGA
THANA - GUMLA,
THANA NO. - 105, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 309(P) & 1486(P),
TOTAL AREA - 27.00 HA.

SI. NO.	MINING AREA IN HA.	NO MINING AREA IN HA.
1.0	27.00	6.06



SI. NO.	MINING AREA IN HA.	NO MINING AREA IN HA.
1.0	31.50	5.97

MOUZA - KELUGA
THANA - GUMLA,
THANA NO. - 105, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1974(P)
MOUZA - TENGRA
THANA - BASIA,
THANA NO. - 159, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1869(P) & 1861(P),
TOTAL AREA - 31.50 HA.

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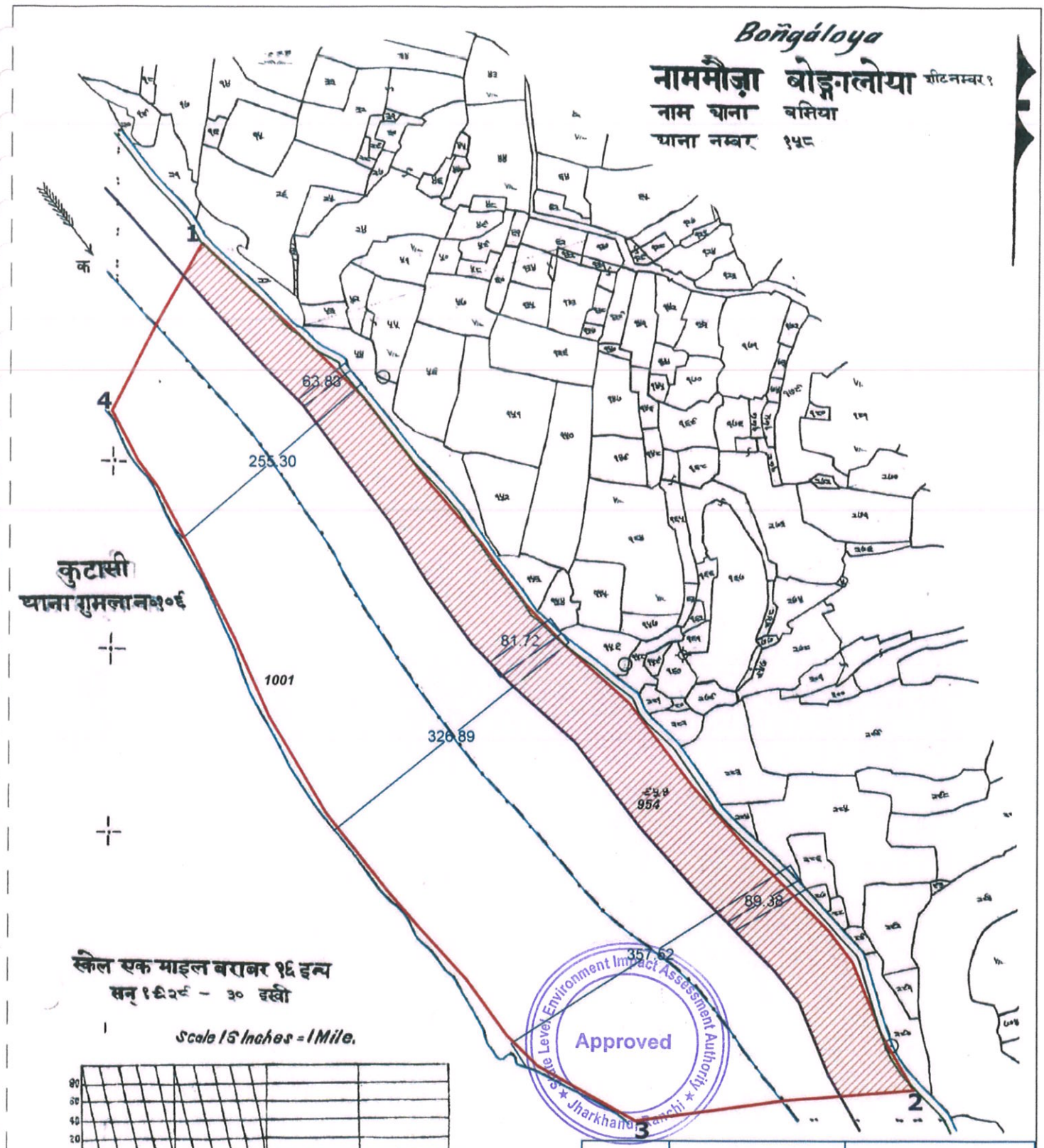
- PROPOSED GHAT/ MINING AREA
- OTHER PLOTS
- RIVER EDGE
- NO MINING ZONE
- RIVER CENTER
- ¼ TH OF THE RIVER WIDTH
- 7.5M SAFETY ZONE

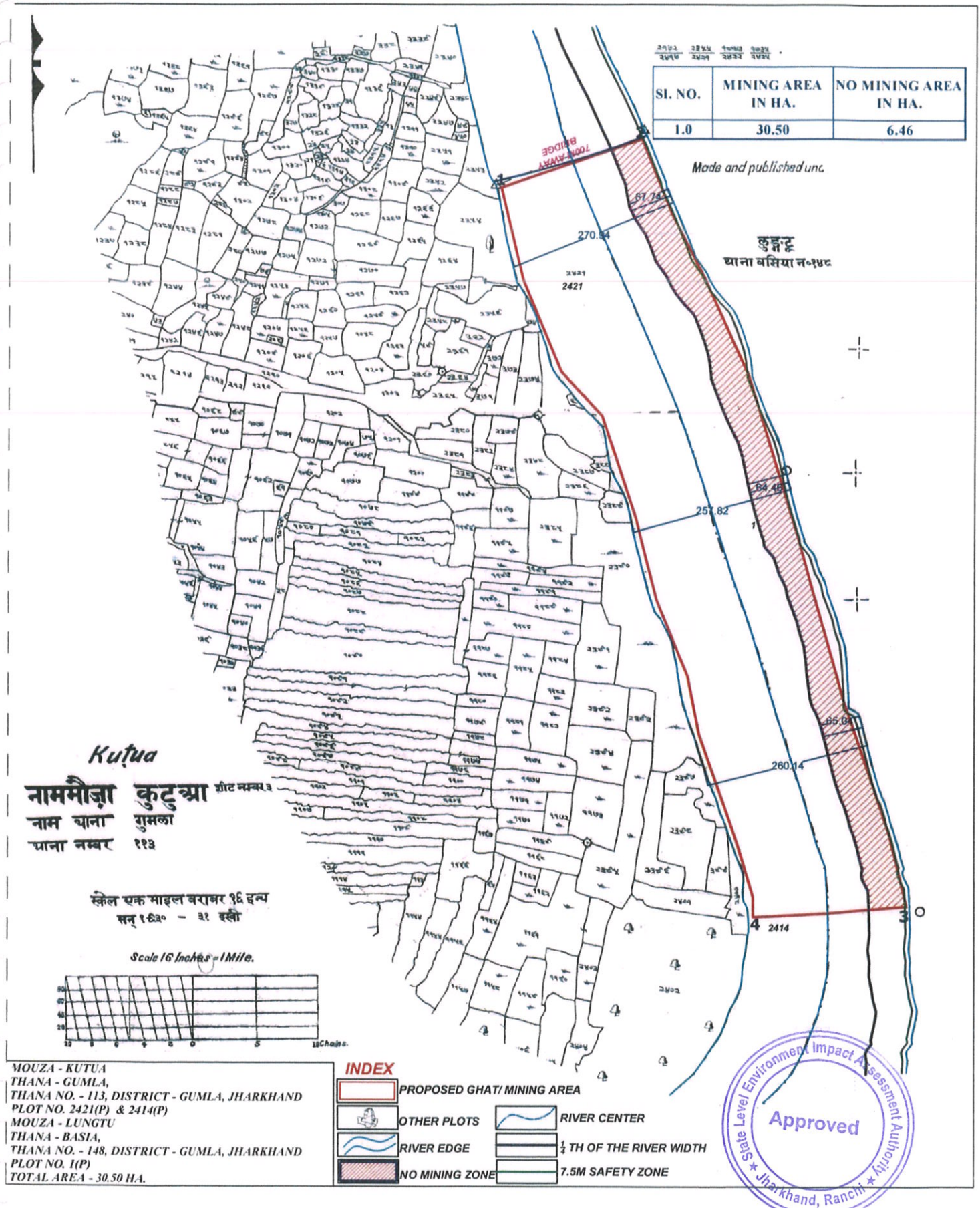


SI. NO.	MINING AREA IN HA.	NO MINING AREA IN HA.
1.0	31.00	7.69

MOUZA - BONGALOYA
THANA - BASIA,
THANA NO. - 158, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 954(P),
MOUZA - KUTASI
THANA - GUMLA,
THANA NO. - 106, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1001(P),
TOTAL AREA - 31.00 HA.

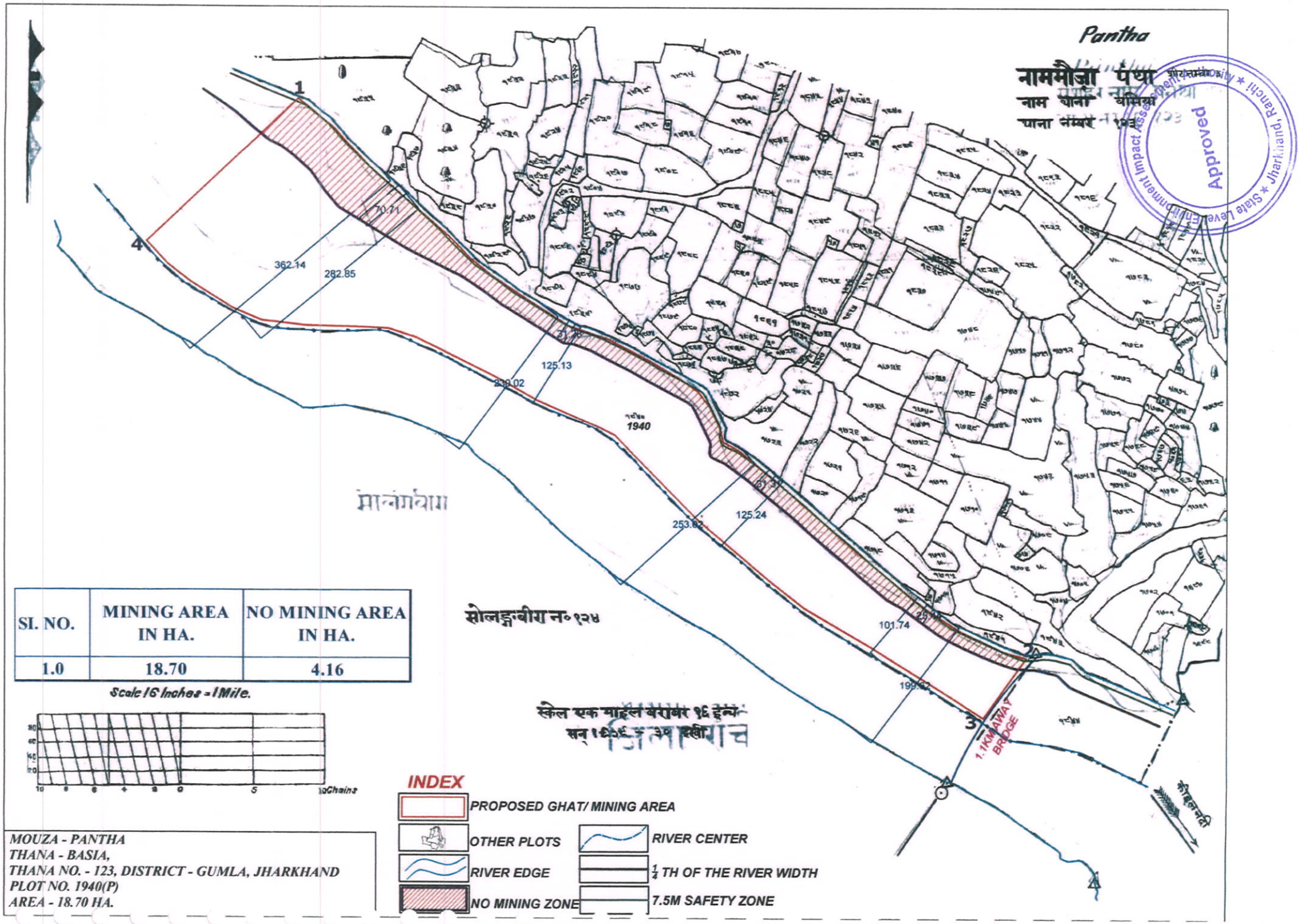
INDEX

- PROPOSED GHAT/ MINING AREA
- OTHER PLOTS
- RIVER CENTER
- RIVER EDGE
- ¼ TH OF THE RIVER WIDTH
- NO MINING ZONE
- 7.5M SAFETY ZONE



SI. NO.	MINING AREA IN HA.	NO MINING AREA IN HA.
1.0	30.50	6.46

Made and published unc.



SI. NO.	MINING AREA IN HA.	NO MINING AREA IN HA.
1.0	18.70	4.16

MOUZA - PANTHA
THANA - BASIA,
THANA NO. - 123, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1940(P)
AREA - 18.70 HA.

Kanaskeli

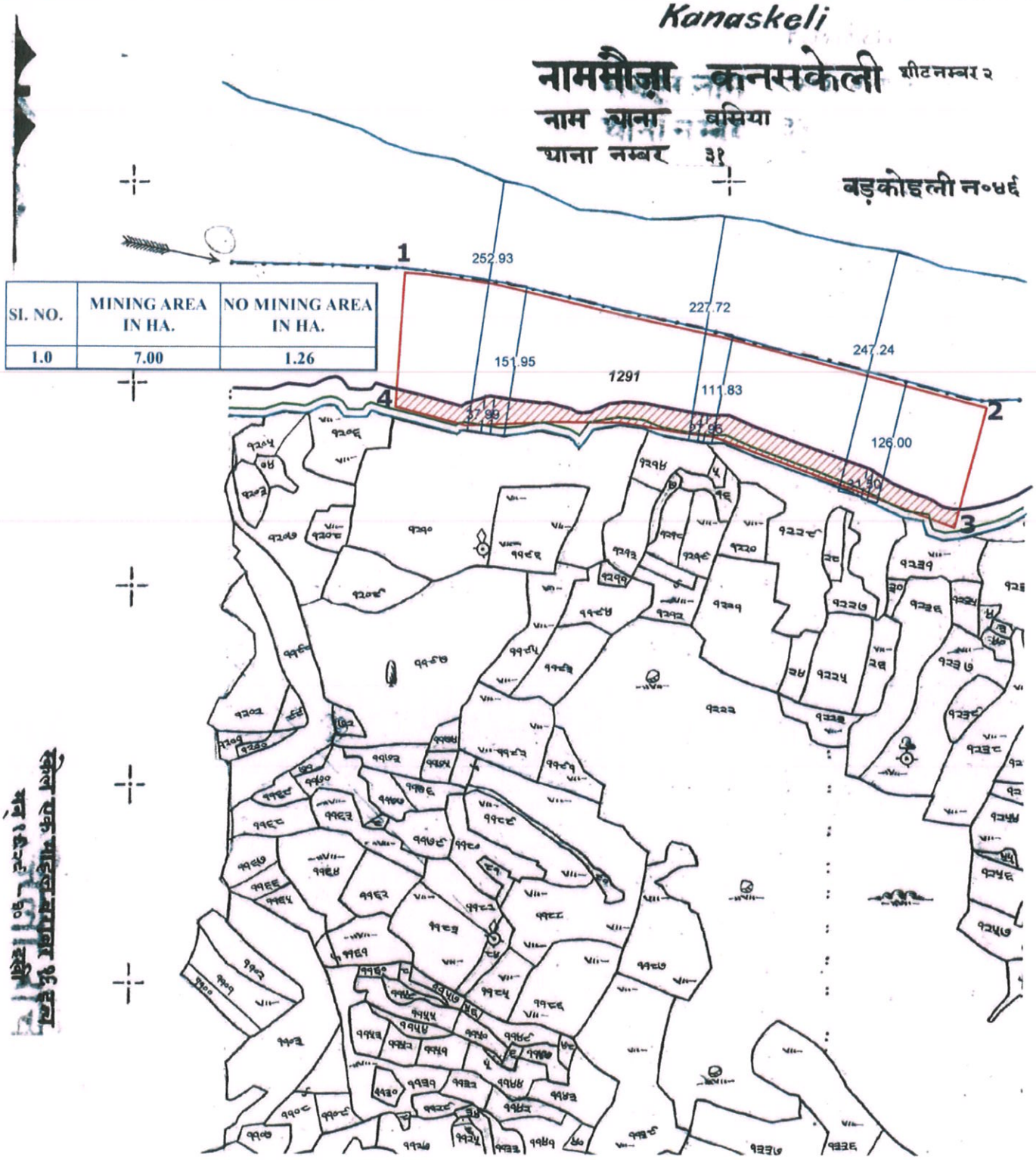
नामसौजा कानसकेली शीटनम्बर २

नाम थाना बसिया

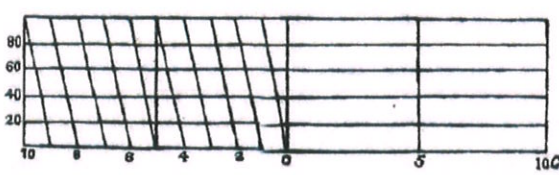
थाना नम्बर ३१

बड़कोइत्नी न०४६

SI. NO.	MINING AREA IN HA.	NO MINING AREA IN HA.
1.0	7.00	1.26



Scale 16 Inches = 1 Mile.



INDEX

- PROPOSED GHAT/ MINING AREA
- OTHER PLOTS
- 7.5M SAFETY ZONE
- RIVER EDGE
- NO MINING ZONE
- RIVER CENTER
- 1/4 TH OF THE RIVER WIDTH

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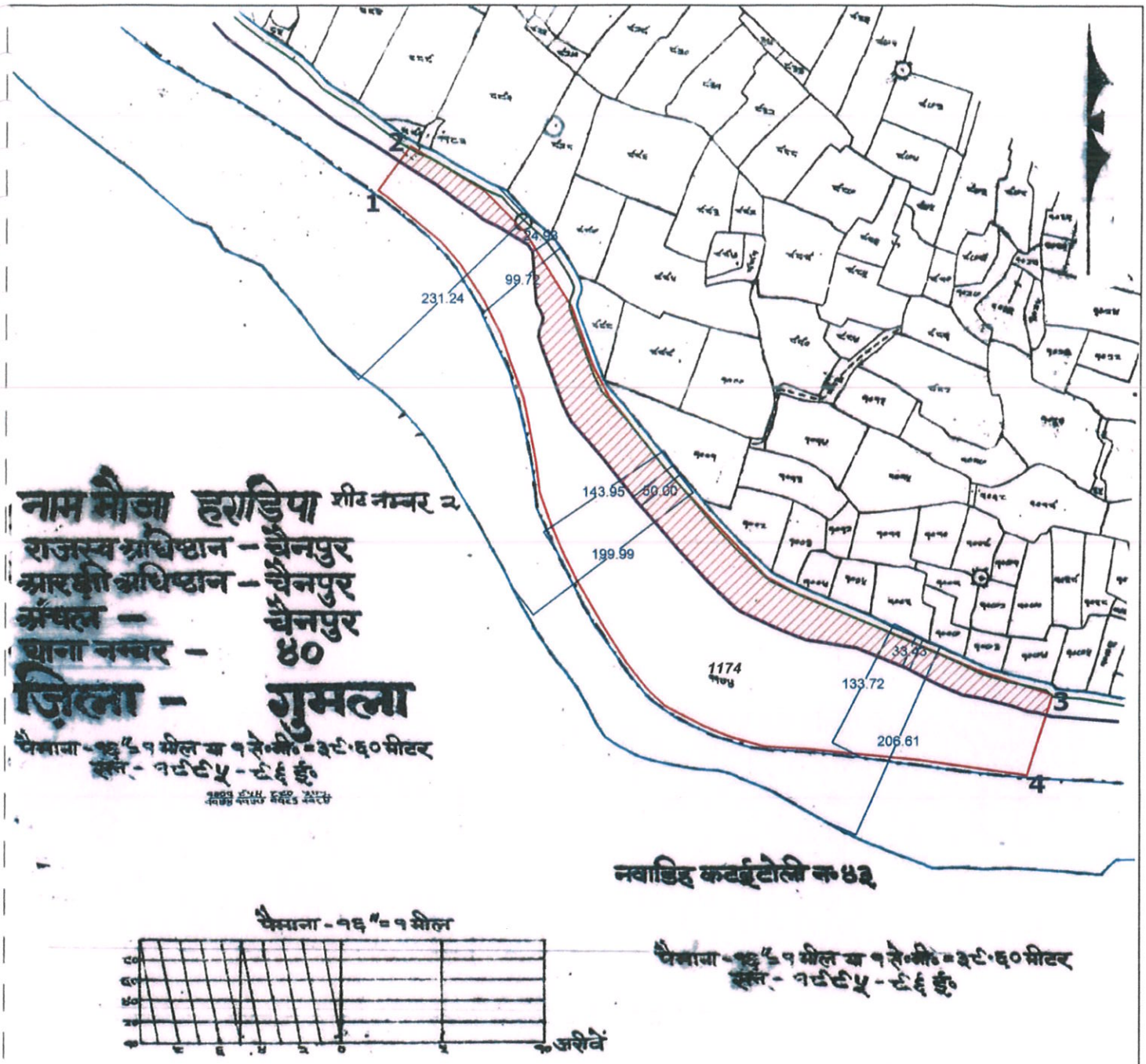
MOUZA - KANASKELI
THANA - BASIA,
THANA NO. - 31, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1291(P)
AREA - 7.00 HA.



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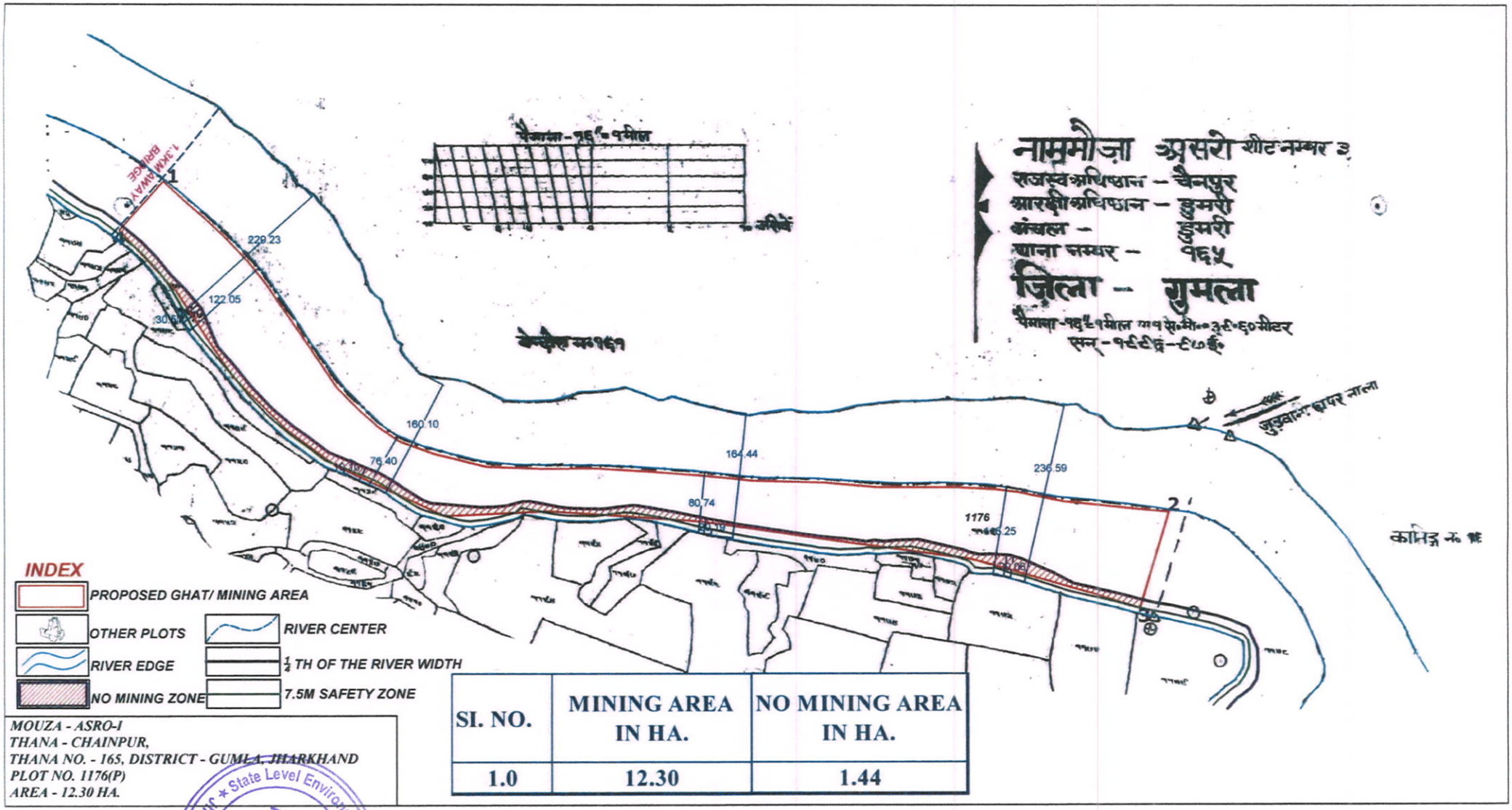
Jharkhand, Ranchi

SI. NO.	MINING AREA IN HA.	NO MINING AREA IN HA.
1.0	10.00	2.84

MOUZA - HARADIPA
THANA - CHAINPUR,
THANA NO. - 40, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1174(P)
AREA - 10.00 HA.

INDEX

- PROPOSED GHAT/ MINING AREA
- OTHER PLOTS
- RIVER CENTER
- RIVER EDGE
- $\frac{1}{4}$ TH OF THE RIVER WIDTH
- NO MINING ZONE
- 7.5M SAFETY ZONE



SI. NO.	MINING AREA IN HA.	NO MINING AREA IN HA.
1.0	12.30	1.44

MOUZA - ASRO-I
THANA - CHAINPUR,
THANA NO. - 165, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1176(P)
AREA - 12.30 HA.

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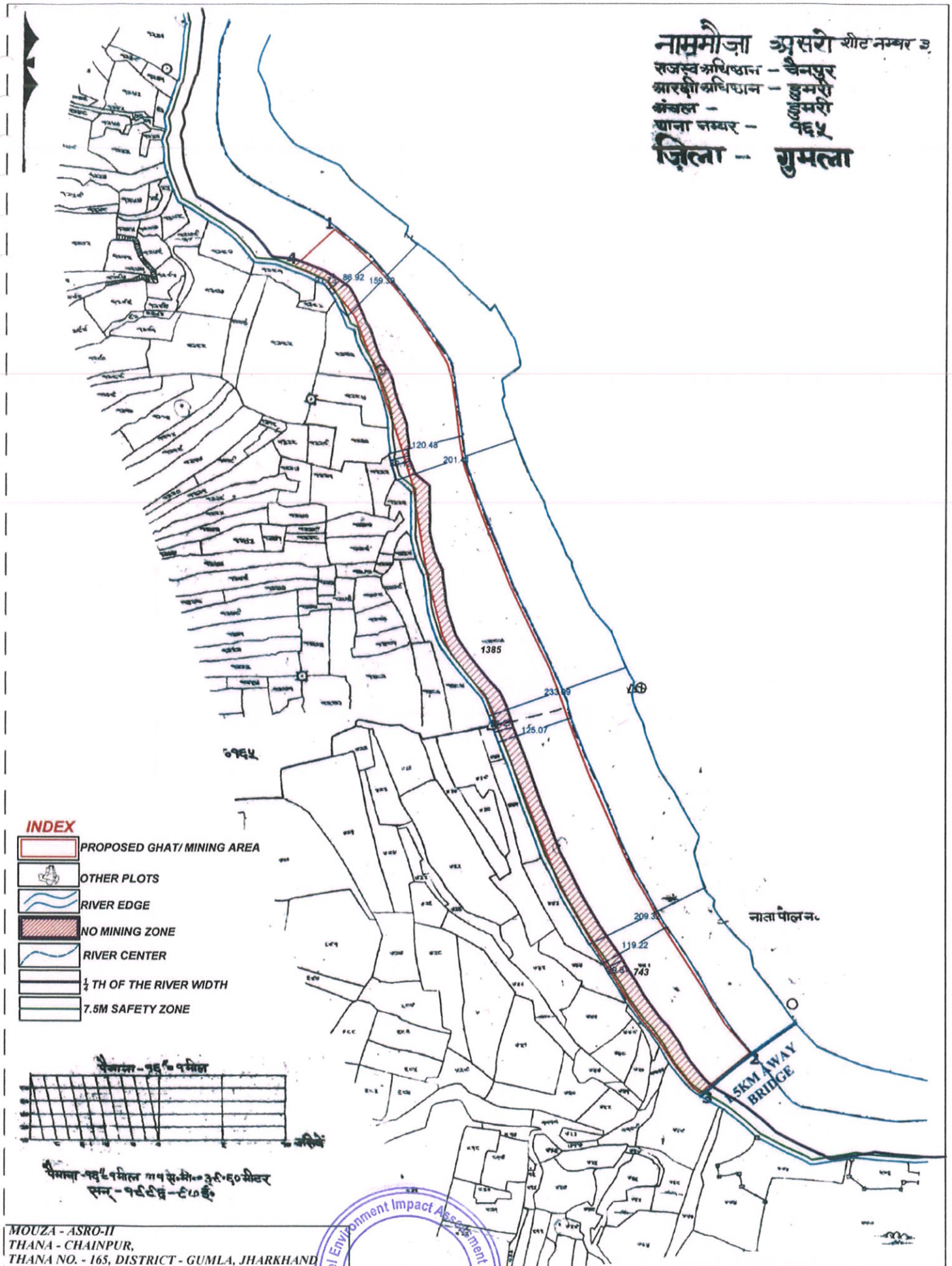
Jharkhand, Ranchi



MOUZA - ASRO-II
THANA - CHAINPUR,
THANA NO. - 165, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 1385(P),
MOUZA - PONDI
THANA - CHAINPUR,
THANA NO. - 164, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 743(P)
TOTAL AREA - 16.00 HA.

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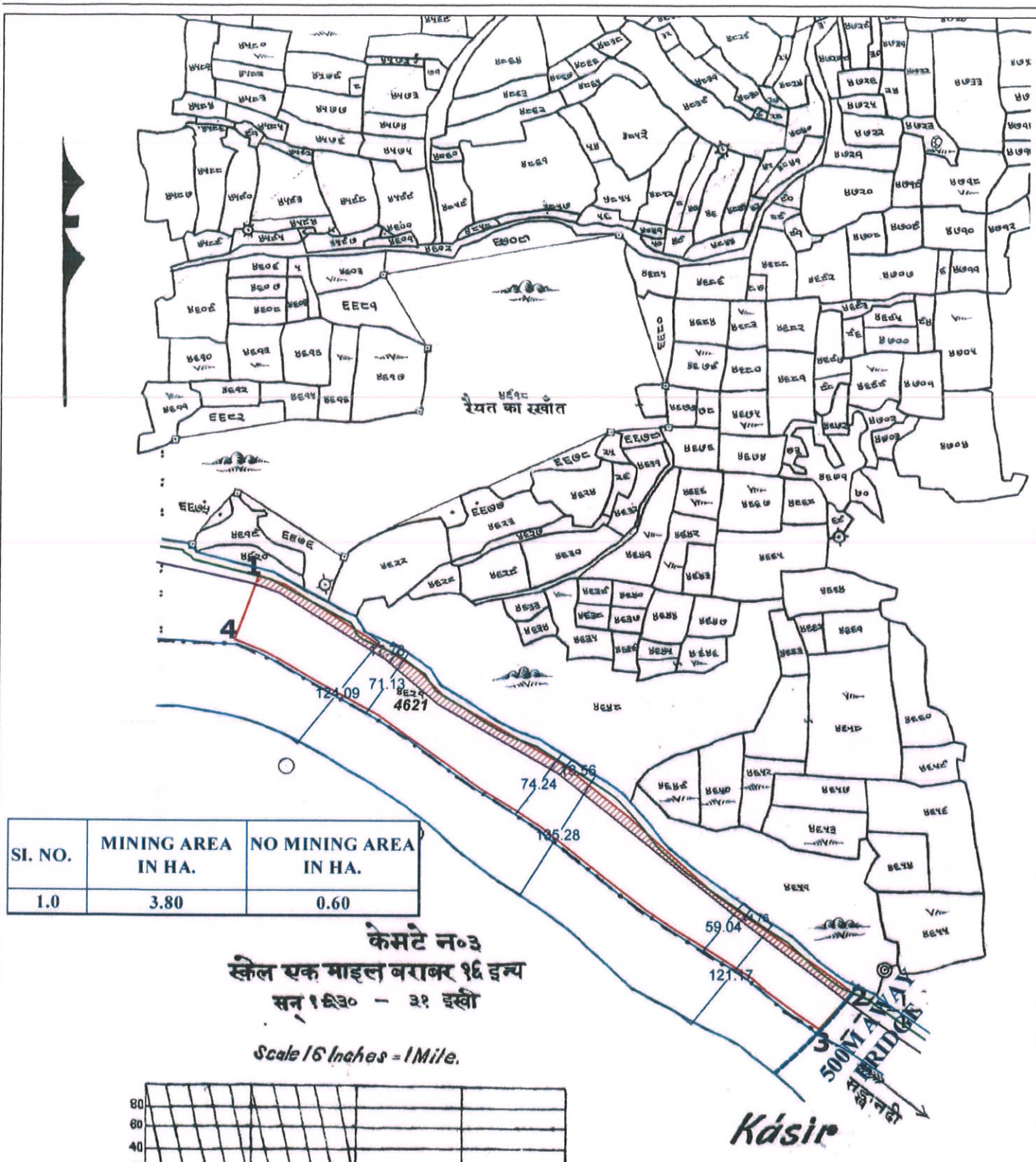
SI. NO.	MINING AREA IN HA.	NO MINING AREA IN HA.
1.0	16.00	3.18



SI. NO.	MINING AREA IN HA.	NO MINING AREA IN HA.
1.0	3.80	0.60

केमटे न०३
स्केल एक माइल बराबर १६ इन्च
सन् १९३० – ३१ इंस्वी

Scale 16 Inches = 1 Mile.

80 60 40 20
10 8 6 4 2 0 5 10Chains

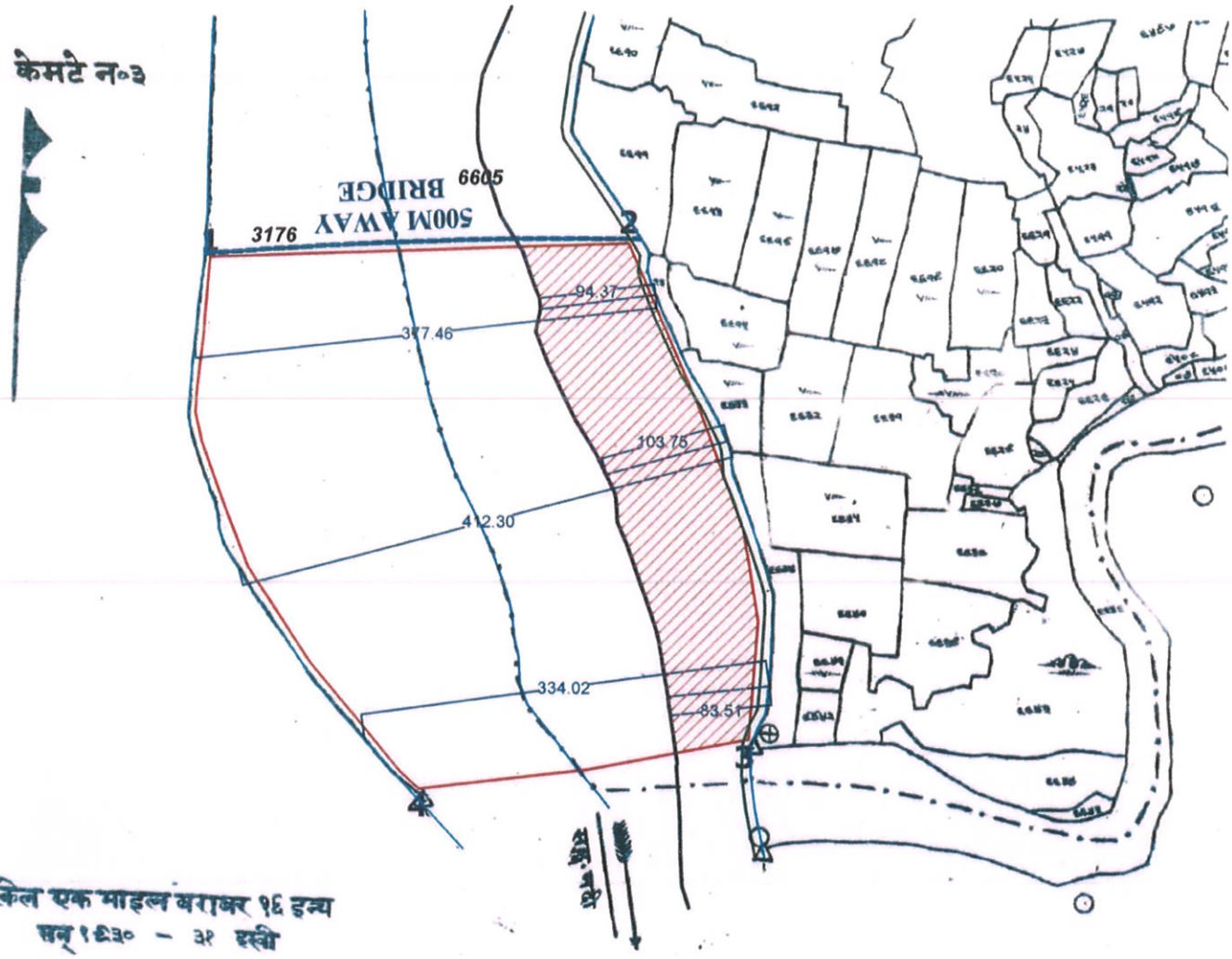
नाममौज़ा कासिर शीट नम्बर ७
नाम थाना रायडिह
थाना नम्बर ४

INDEX

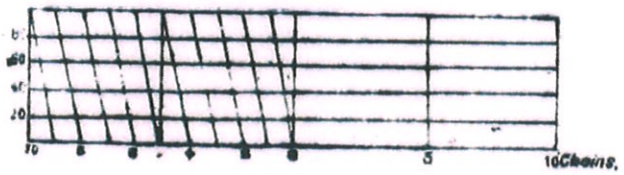
- PROPOSED GHAT/ MINING AREA
- OTHER PLOTS
- RIVER CENTER
- RIVER EDGE
- 1/4 TH OF THE RIVER WIDTH
- NO MINING ZONE
- 7.5M SAFETY ZONE

MOUZA - KASIR-I
THANA - RAIDIH,
THANA NO. - 4, DISTRICT - GUMLA,
JHARKHAND
PLOT NO. 4621(P)
AREA - 3.80 HA.

State Level Environment Impact Assessment Authority Jharkhand, Ranchi
Approved



Scale 16 Inches - 1 Mile.



Kasir

नाममौज़ा कासिर शीट नम्बर १०
नाम थाना गयडिह
थाना नम्बर ४

SI. NO.	MINING AREA IN HA.	NO MINING AREA IN HA.
1.0	16.00	3.73

MOUZA - KASIR-II
THANA - RAIDIH,
THANA NO. - 4, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 6605(P)
MOUZA - KEMTE
THANA - RAIDIH,
THANA NO. - 3, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 3176(P)
TOTAL AREA - 16.00 HA.

INDEX

- PROPOSED GHAT/ MINING AREA
- OTHER PLOTS
- RIVER EDGE
- NO MINING ZONE
- RIVER CENTER
- 1/4 TH OF THE RIVER WIDTH
- 7.5M SAFETY ZONE

State Level Environment Impact Assessment Authority * Jharkhand, Ranchi *
Approved

Latu

नाममौज़ा लाटू शीट नम्बर ४

नाम थाना रायडिह

थाना नम्बर १०

Scale 16 Inches = 1 Mile.

10 8 6 4 2 0 5 10 Chains.

4002

220.67

106.27

230.87

103.56

227.40

109.92

226.45

113.92

मसगाँव न०६

SI. NO.	MINING AREA IN HA.	NO MINING AREA IN HA.
1.0	8.30	1.20

स्केल एक माइल बराबर १६ इन्च

सन् १६३० – ३१ इस्वी

Approved

State Level Environment Impact Assessment Authority ★ Jharkhand, Ranchi ★

INDEX

PROPOSED GHAT/ MINING AREA

OTHER PLOTS

RIVER EDGE

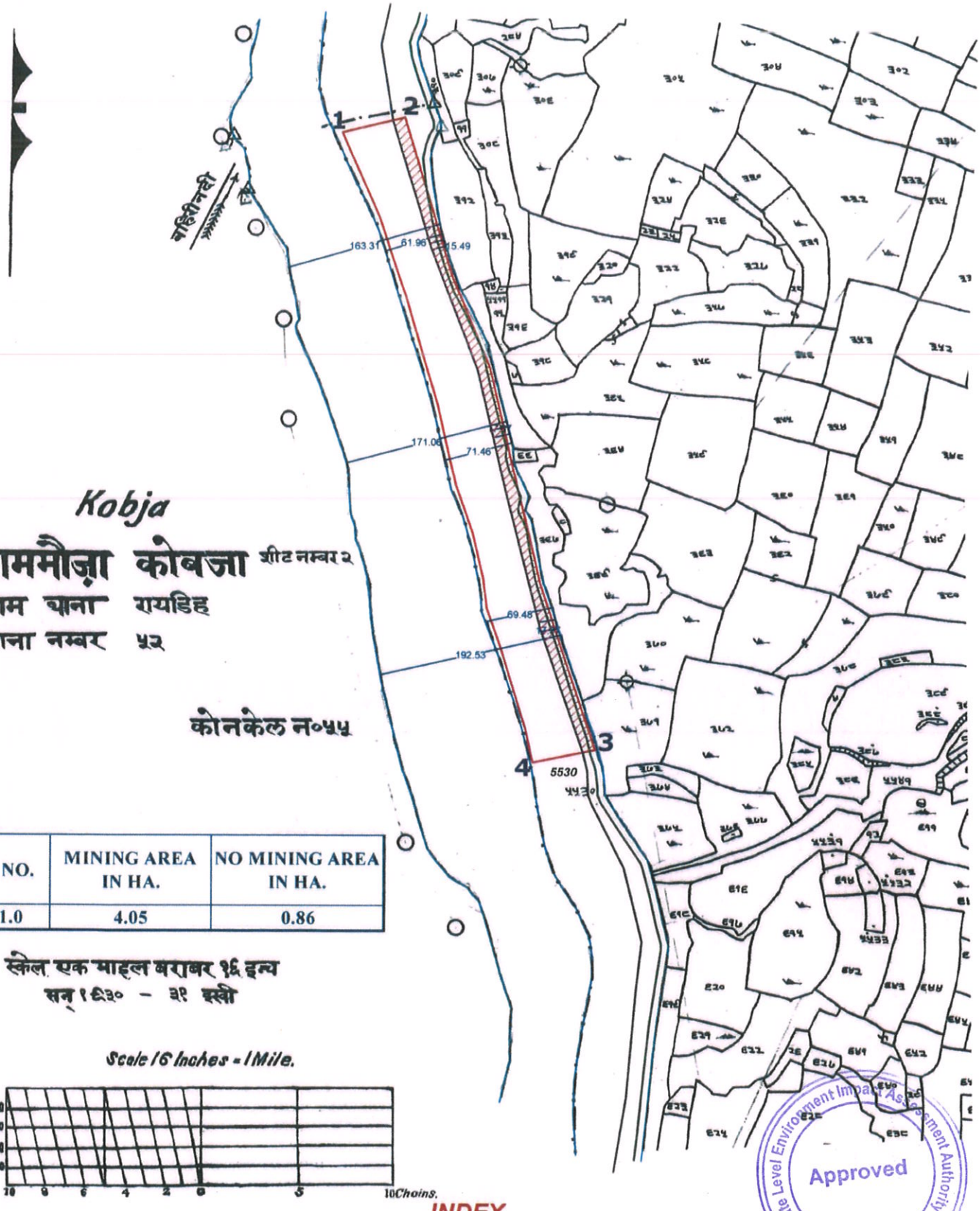
NO MINING ZONE

RIVER CENTER

1/4 TH OF THE RIVER WIDTH

7.5M SAFETY ZONE

MOUZA - LATU
THANA - RAIDIH,
THANA NO. - 10, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 4002(P)
AREA - 8.30 HA.



SI. NO.	MINING AREA IN HA.	NO MINING AREA IN HA.
1.0	4.05	0.86

स्केल एक माइल बराबर १६ इन्च
सन् १९३० - ३१ इसी

MOUZA - KOBJA
THANA - RAIDIH,
THANA NO. - 52, DISTRICT - GUMLA, JHARKHAND
PLOT NO. 5530(P)
AREA - 4.05 HA.

To
The Member Secretary
State Level Expert Appraisal Committee(SEAC),
Nursery Complex, Near Dhurwa Bus Stand,
Dhurwa, Ranchi, Jharkhand.

Subject: Compliance regarding Final DSR(Sand) of Gumla District

Respected Sir,
With reference to the subject cited above, DSR Sand for Gumla District has been submitted to your office Vide letter No.-230/Khanna, Dated-01/03/2023, which has been reviewed in 102nd meeting of SEAC, Jharkhand on dated: 21.03.2023.
Compliance on observation of SEAC are as follow.

S.NO	SEAC OBSERVATION	COMPLIANCE
1.	Detail of production of Sand or Bajri or Minor minerals in last three years.	Already given production of Sand Complied in **Page No.-43**
2.	Demand and Supply of the river bed material through market survey needs to be carried out.	Demand and Supply of sand are complied in **Page No.-50**
3.	Any Comment/Suggestion NIC web portal?	Proposed sand ghats has been advertised in newspaper and district NIC web portal for objection/suggestion from public. But no objection/suggestion have been received. Complied **Page No.-73.**
4.	List of Category-I detailed properly in tabulated format and given all information.	Already given Category-I in **Page No.-73 to 76**
5.	The sand ghats/leases have not to proposed on the confluence/meanders/concavities/active channels of the river.	All sand ghats are avoid near confluence/meanders/concavities/active channels of the river, ghats images are enclosed in **Annexure-13**
6.	Process of Deposition of sediments in the river of the district	Process of Deposition of sediments complied **Page No.-159 to 161**
7.	The proposed leases/ ghats should meet all the siting criteria of the State Pollution Control Board/SEIAA.	All sand ghats are prepared as per the guidelines of SPCB/SEIAA, Jharkhand. NH-100 Mtr SH-100Mtr

State Level Environment Impact Assessment Authority * Jharkhand, Ranchi *
Approved
Atmos Sustainable Solutions Pvt. Ltd.

		Dist. Metal Road-50Mtr Habitation-200Mtr(**CO Letter are Enclosed in Annexure-I)** Report from concerned circle officer and DFO has been procured in prescribed format for all proposed sand ghats and attached as **Annexure-1 & 2**
8.	Sand sample analysis determining the bulk density of proposed sand ghats in the DSR sand.	Bulk Density report of sand from NABL Lab are complied in **Annexure-16**
9.	Average length and width of the river should be included and mining should be restricted to 3/4th of the river width and mining should be restricted within 60% of the mineable reserve.	Complied in **Annexure-21**
10.	Point no.-9.3 of the EMGSM guidelines, 2020 regarding monitoring of the mining near inter-district or inter-state boundary should be addressed in the final DSR, if applicable.	With reference to the C.O report of Sisai, Ghaghra, Gumla & Basia (enclosed **as Annexure-1),** it is verified that all the identified ghats of Gumla District are not crossing any inter-district or inter-state boundary.

Therefore, you are requested for kind consideration and necessary action.

Thanking You

Sincerely

District Mining Officer
Gumla

Asst. Director Geology
Gumla

Sustainable Solutions P. Ltd. Almos

State Level Environment Impact Assessment Authority
Approved
Jharkhand, Ranchi