

FIRST REPORT ON
ILLEGAL MINING OF
IRON AND MANGANESE ORES
IN THE STATE OF ODISHA

JUNE, 2013

VOLUME: V

**Justice M. B. Shah
Commission of Inquiry
for
Illegal Mining of Iron Ore & Manganese**

I N D E X

CHAPTER: VII

Encroachment

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CHAPTER: VII**Encroachment****[I]****Encroachment by various lessees of the iron and manganese ores mines**

- 1. (a) A serious instance of encroachment, trespass and theft by extracting iron and manganese ores is noted as under:-**

For this, it would be worthwhile to refer to information received from Shri S. K. Mishra for illegal mining and extraction of iron and manganese ores for a sum of **Rs.1776,37,01,600/-** (Seventeen Hundred Seventy Six Crores Thirty Seven Lacs One Thousand Six Hundred) of iron ore and **Rs.59,08,460/-** (Fifty Nine Lacs Eight Thousand Four Hundred and Sixty) for manganese ore.

The Commission has received a complaint on 29.10.2012 filed by one Shri S. K. Mishra. The said complaint has been taken on record. The complaint is coupled with a

copy of a case filed before the Judicial First Class Magistrate, Barbil by Shri Jogendranath Kuldi, Senior Inspector of Mines, Joda.

The main contents of the complaint are about illegal mining in Uliburu Reserve and Revenue Forests. The pits and dumps of an area of 54.00 ha. has been marked as illegal mining with latitudes and longitudes. On verification by this Commission, by incorporating the said readings in the Google Images of 2010, prima facie, it is found that the contents are correct. The mining pits and dumps, found inside the Uliburu Reserve and Revenue Forests, are quite clear and apparent.

For this purpose, an inspection report dated 20.04.2012 signed by the officials of Forest, Mines and Revenue Departments is also annexed with the complaint.

In the complaint which is filed by Sr. Inspector of Mines, Joda before the Judicial First Class Magistrate, Barbil, it has been stated that a quantity of about **40,24,400 MT** of iron ore and **610 MT** of manganese ore had been removed from outside the leased areas. The iron and manganese ores had been

illegally extracted and transported from this area since the year 2004 onwards. In the complaint before the Magistrate, the value of iron ore is estimated as **Rs.1776,37,01,600/-** (Seventeen Hundred Seventy Six Crores Thirty Seven Lacs One Thousand Six Hundred) of iron ore and **Rs.59,08,460/-** (Fifty Nine Lacs Eight Thousand Four Hundred and Sixty) of manganese ore.

- (b) After the receipt of the aforesaid complaint, the Commission has received copy of the report submitted by the State Level Enforcement Squad (SLES), comprising of Md. Q. J. Khan, MO, Sri S. K. Rath, Forest Ranger and Sri L. D. Sahu, SI of Police, who proceeded to Joda, Mining Circle on 20.03.2013 to conduct enquiry on the basis of the petition sent by Govt. in GA (Vigilance) Deptt. vide Lt. No.2644/VSS (N), dated 04.03.2013. The said report points out that, in all, from the years 2003-04 (Jan., 2004 to March, 2004) to 2009-10 (April-July), production was 47,48,826 MT (Forty Seven Lacs Forty Eight Thousand Eight Hundred Twenty Six) and total dispatch for these years was 45,22,639 MT (Forty Five Lacs Twenty Two Thousand Six Hundred Thirty Nine).

Its valuation, as per the said report, is approximately more than **Rs.2,000 crores (Two Thousand Crores)**.

Admittedly, no mining lease whatsoever has been granted for this area and, therefore, obviously and apparently, it is illegal mining which can be visualized from the pit, dumps and other materials. For this purpose, appropriate proceedings may be initiated under Section 21(5) of the MM(DR) Act, 1957 and also as suggested in other Chapters of this First Report.

Survey by the State Government by DGPS method

1. The State of Odisha has carried out survey of the mining leases by DGPS method. The same was submitted to the Commission.
2. Based on the longitude and latitudes of the boundary pillars or outer boundaries of leases, they were marked in the Google Earth / Google Pro and encroachments were identified.
3. On the basis of the above methodology, it is observed that in **82 mining leases**, there was encroachment of various types of mining activities. Notices, on that basis, were issued to each lessee. Thereafter, each lessee was informed about the encroachment so identified. Lessees were heard extensively for that purpose.

4. Order for re-survey:-

- (i) At the time of personal hearings of the lessees held from **27.02.2013** to **04.03.2013** at **Bhubaneswar, Odisha**, number of Ld. Counsel for lessees disputed the said extent of encroachment and requested for re-survey of the leased area at the cost of lessees. Thereafter, as suggested by the Commission, the State Government had appointed Committees to re-survey the exact area of the land occupied by the lessees. On that basis, the Commission passed the order for re-survey for **37 leases**. The said re-survey is under progress and is likely to take some time. The list of said **37** leases is enclosed herewith as **Table: 1**.
- (ii) The areas of encroachment have been calculated by in-built auto-device of the programme (Google Earth Pro) and listed into Blocks, as A, B, C. Total encroachments are compiled lease-wise by the engineers / officials who are expert in handling such type of programmes. The exact extent of encroachment for those **37 lessees** who have sought for re-survey, is shown in the **Table: 1**. The marking of pits from where mineral is extracted is indicated as 'pit" (A, B, C).

With regard to the above **37 mining leases**, for which an order for re-survey is passed, total provisional encroachment is estimated about **552.35 ha. However, as re-survey is still going on, final figure and finding regarding encroachment, would be stated after completion of re-survey along with other illegalities.**

5. No re-survey sought:-

- (i)** For **48 leases** out of total **82 leases** wherein encroachments were noted, no order for re-survey was passed, since there was no request/dispute from the representative and/or Ld. Counsel for the respective lessees. The list of said **48** leases is enclosed herewith as **Table: 2.**
- (ii)** It is to state here that the encroachments marked in this category appears to be the extension of the continuance working from inside leased area to outside the lease boundary and also well connected linkage to the pits or dumps at a distance.
- (iii)** **The total encroachment so identified, for which no re-survey was asked for, is about 836.31 ha. in 48 leases. Out of this**

encroached area, about 79.26 ha. is used for illegal extraction or removal of iron ore.

(iv) The total encroachment, as noted for both the categories, comes out about **1388.66 ha.**

6. In addition to above, with regard to 05 leases, there was no encroachment found. However, boundaries measured as per DGPS survey were not matching on the basis of Google Images. Therefore, for those **05 leases**, re-measurement of lease area was ordered. The list of said **05 leases** is enclosed herewith as **Table: 3.**

7. For the encroachment and unauthorized extraction of minerals from the pits which are shown in the Table, appropriate action is required to be taken under Section 21(5) of the MM(DR) Act, 1957. For this purpose, it would be worthwhile to quote firstly the relevant provisions of the MM(DR) Act, 1957.

8. Section 4 of MM(DR) Act reads as under:-

“4. Prospecting or mining operations to be under licence or lease:

*(1) [No person shall undertake any reconnaissance, prospecting or mining operations in any area, **except under and in accordance with the terms and***

conditions of reconnaissance permit or of a prospecting licence or, as the case may be, **a mining lease, granted under this Act and the rules made thereunder]:**

... ..

[(1A) No person shall transport or store or cause to be transported or stored any mineral otherwise than in accordance with the provisions of this Act and the rules made thereunder.]

(2) [No reconnaissance permit, prospecting licence or **mining lease**] **shall be granted otherwise than in accordance with the provisions of this Act and the rules made thereunder.]**

(3) [Any State Government may, after prior consultation with the Central Government and in accordance with the rules made under Section 18, [undertake reconnaissance, prospecting or mining operations with respect to any mineral specified in the First Schedule in any area within that State which is not already held under any reconnaissance permit, prospecting licence or mining lease.]”

9. Section 21 of MM(DR) Act reads as under:–

“21. Penalties

(1) **Whoever contravenes the provisions of sub section(1) or sub section (1A) of**

Section 4 shall be punished with imprisonment for a term which may extend to two years, or with fine which may extend to twenty five thousand rupees, or with both.

- (2) *Any rules made under any provision of this Act may provide that any contravention thereof shall be punishable with imprisonment for a term which may extend to one year or with fine which may extend to five thousand rupees, or with both, and in the case of a continuing contravention, with an additional fine which may extend to five hundred rupees for every day during which such contravention continues after conviction for the first such contravention.*
- (3) **Where any person trespasses into any land in contravention of the provisions of sub-section (1) of section 4, such trespasser may be served with an order of eviction by the State Government or such authorized authority in this behalf by that Government and the State Government or such authorized authority may, if necessary, obtain the help of the police to evict the trespasser from the land.**
- (4) *Whenever any person raises, transports or causes to be raised or transported, without any lawful authority, any mineral from any land, and for that purpose, uses any tool, equipment, vehicle or any other*

things, such mineral, tool equipment, vehicle or any other things, such minerals, tool, equipment, vehicle or any other thing shall be liable to be seized by an officer or authority specifically empowered in this behalf.

(4A) Any mineral, tool, equipment, vehicle or any other thing seized under sub-section (4), shall be liable to be confiscated by an order of the court competent to take cognizance of the offence under sub-section (1) and shall be disposed of in accordance with the directions of such court.

(5) Whenever any person raises, without any lawful authority, any mineral from any land, the State Government may recover from such person the mineral so raised, or, where such mineral has already been disposed of, the price thereof, and may also recover from such person, rent, royalty or tax, as the case may be, for the period during which the land was occupied by such person without any lawful authority.

(6) Notwithstanding anything contained in the Code of Criminal Procedure, 1973 an offence under sub-section (1) shall be cognizable.”

TABLE: 1									
Details of operational mines showing area allotted, area occupied and area encroached, (but re-verification of encroachment is in progress on request of senior counsel of lessee)									
Pl. No.	Lessee (as per Govt. Notification 1984)	Lease Area (ha.)	Area as per DGPS survey (ha.)	Enjoyment in excess of lease area (Encroachment within the enjoyment) (ha.)	Encroachment in adjoining area		Total Encroachment outside lease (ha.)	PIT	Grand Total Encroachment (Col. 5 + Col. 7) ha.
1	2	3	4	5	6		7	8	9
1	M/s. Arujun Lodha Balagunda Iron & Manganese Ore Mines	326.50	333	6.50	A	7.57	13.81	A&B	20.31
					B	6.24			
2	M/s B I Co. Ltd Nadidiha Iron/Mn. Mines	73.855	75.6	1.74	A	19.40	29.40	B	31.15
					B	10.00			
3	B. C. Dagara Suleipat Iron ore mines	618	613		A	2.46	3.53	A to C	3.53
					B	0.43			
					C	0.64			
4	B.D Ptanaik Kalaparbat Iron Ore Mines	25.633	25.71	0.08	A	3.31	3.31		3.39

1	2	3	4	5	6		7	8	9
5	D. R. Patnaik Murgabeda Iron Ore Mines	15.378	15.6869	0.31	A	10.30	11.28	A	11.59
					B	0.98			
6	Dr. S Pradhan Balita Iron Ore Mines	34.750	40.00	5.25	A	2.58	4.03	A & B	9.28
					B	0.84			
					C	0.61			
7	M/s Essel Mining & Industries Ltd. Kasia Iron Ore, Dolomite & Limestone Mines	134.733	195.00	60.27	A	8.57	17.57		77.84
					B	7.73			
					C	0.80			
					D	0.47			
8	M/s Essel Mining & Industries Ltd.Koira iron ore Mines	90.143	90.3	0.16	A	7.83	8.93		9.09
					B	1.1			
9	M/s Feegrade & Co. Ltd. Nadidiha Iron/Mn. Mines	121.405	118		A	7.99	14.60		14.60
					B	6.61			
10	M/s.Geetarani Mohanty, Raikela iron ore Mines	67.586	67.817	0.23	A	4.10	4.10	A	4.33

1	2	3	4	5	6		7	8	9
11	J. N. Pattnaik Bhajpali iron ore Mines	18.00	21.00	3.00	A	2.1	4.65		7.65
					B	1.39			
					C	1.15			
12	M/s.Kalinga Mining Corporation Jurudi Iron Ore Mines	73.00	73.00		A	4.00	7.24		7.24
					B	3.24			
13	K.C Pradhan Chamakpur Iron Ore Mines	31.693	31.686		A	0.38	0.99		0.99
					B	0.61			
14	K.J.S. Ahluwalia Nuagaon Iron Ore Mines	767.284	772.00	4.72	A	27.30	65.72		70.44
					B	13.00			
					C	7.50			
					D	6.37			
					E	4.66			
					F	4.14			
					G	2.75			

1	2	3	4	5	6		7	8	9
15	K.J.S. Ahluwalia Panduliposi Iron & Manganese Ore Mines	40.47	42.996	2.53	A	1.43	1.43		3.96
16	M/s.M.L Rungta Silijora-Kalimati Iron & Manganese Ore Mines	715.639	715.55		A	5.28	10.48		10.48
					B	3.20			
					C	2.00			
17	M/s. MGM Minerals Ltd Patabeda iron ore Mines	28.397	30	1.60	A	1.34	3.05	A & B	4.65
					B	1.11			
					C	0.60			
18	M/s Mineral Trading Syndicate Bhulbeda Iron Ore Mines	62.322	95.778	33.46	A	2.13	3.73	A & B	37.19
					B	1.60			
19	M/s Narayani Sons (P) Ltd. Suruguturia Iron Ore Mines	99.784	96.2		A	4.00	4.56	A	4.56
					B	0.56			
20	M/s.National Enterprises Sanindupur Iron/Mn. Mines	75.000	83.00	8.00	A	12.00	12.00		20.00
21	M/s O.M.& M (P) Ltd Kusumdihi Mn Mines	31.549	33.4	1.85					1.85

1	2	3	4	5	6		7	8	9
22	M/s O.M.& M (P) Ltd Patmunda Mn Mines	807.316	856.00	48.68	A	11.00	15.27		63.95
					B	4.27			
23	M/s Pattnaik Minerals Pvt.Ltd Joribahal Manganese Ore Mines	106.534	107.655	1.12	A	27.90	33.48		34.60
					B	5.58			
24	R.B. Das Kundrupani Iron & Manganese Ore Mines	10.255	10.20		A	2.71	6.47	A to D	6.47
					B	2.43			
					C	1.11			
					D	0.22			
25	R.P.Sao Guali Iron Ore Mines	365.026	360		A	2.63	5.89		5.89
					B	2.38			
					C	0.88			
26	S. D. Sharma Nuagaon Iron / Mn. Mines	12.942	13.5	0.56	A	3.70	3.70	A	4.26
27	S.N.. Mohanty Ganua Iron/ Mn. Mines	13.796	18.70	4.90	A	5.00	5.85	A & B	10.75
					B	0.85			

1	2	3	4	5	6		7	8	9
28	S.N.Dasmohapatra Kolha-Rudukela Iron & Manganese Ore Mines	36.474	40.00	3.53	A	10.00	10.00	A	13.53
29	M/s Serrajuddin & Co Balda Block Iron Ore Mines	335.594	344.156	8.56			0.00		8.56
30	M/s Serrajuddin & Co Guruda Iron & Manganese Ore Mines	40.064	40.064		A	10.80	17.79	A to C	17.79
					B	5.46			
					C	1.53			
31	M/s Tarini Minerals Nuagaon Mn Mines	7.850	8.85	1.00	A	6.00	6.91	A & B	7.91
					B	0.91			
32	M/s Tarini Minerals Tehrai Iron/Mn. Mines	29.067	25.000		A	3.77	4.55		4.55
					B	0.78			
33	M/s Tarini Minerals Deojhar Iron Ore Mines	34.365	36.700	2.34	A	1.72	1.72	A	4.06
34	M/s Tata Steel Ltd. of Joda-East Iron Ore & Manmora Manganese Mines	671.093	674.149	3.06	A	2.26	2.26		5.32

1	2	3	4	5	6		7	8	9
35	M/s.Kalinga Mining Corporation Jurudi Iron Ore Mines	39.173	40.4	1.27					1.27
36	M/s.Kalinga Mining Corporation Jurudi Iron Ore Mines	27.17	54.5	14.64					14.64
37	M/s.Kalinga Mining Corporation Jurudi Iron Ore Mines	12.691							
	Total	6000.53	6198.59	219.36			338.30		552.35

Lessee: Arjun Lodha, Balagunda Iron / Mn Ore Mines

Area as per lease grant ha.: X	326.50	Encroachment ha.:		Grand total Encroachment ha
Area as per enjoyment boundary ha: y	333.00	A=	7.57	20.31
Excess Area occupied (encroachment) (Y-X)=	06.50	B=	6.24	
		Total	13.81	

Satellite Image As on 22/03/2012

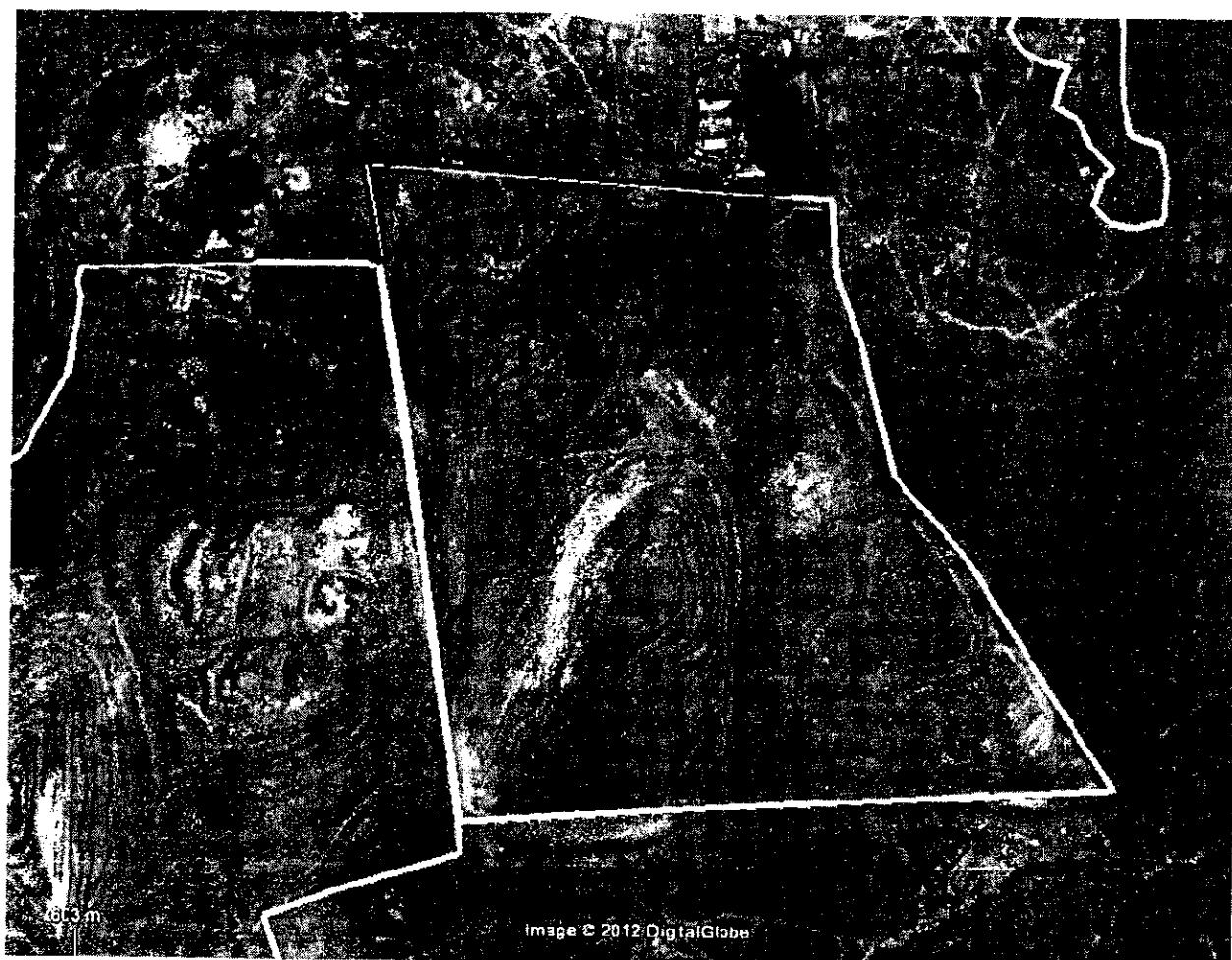


	Enjoyment of Lease Boundary:	Lease Encroachment:
	Enjoyment of others' s Lease Boundary:	

Lessee: M/s B. I. Co Ltd., Nadidihi Iron / Mn Mines

Area as per lease grant ha.:	X	73.85	Encroachment ha.:		Grand total Encroachment ha
Area as per enjoyment boundary ha;	Y	75.60	A=	19.40	31.15
Excess Area occupied (encroachment) (Y-X)=		1.745	B=	10.00	
			Total :	29.40	

Satellite Image As on 05/12/2011

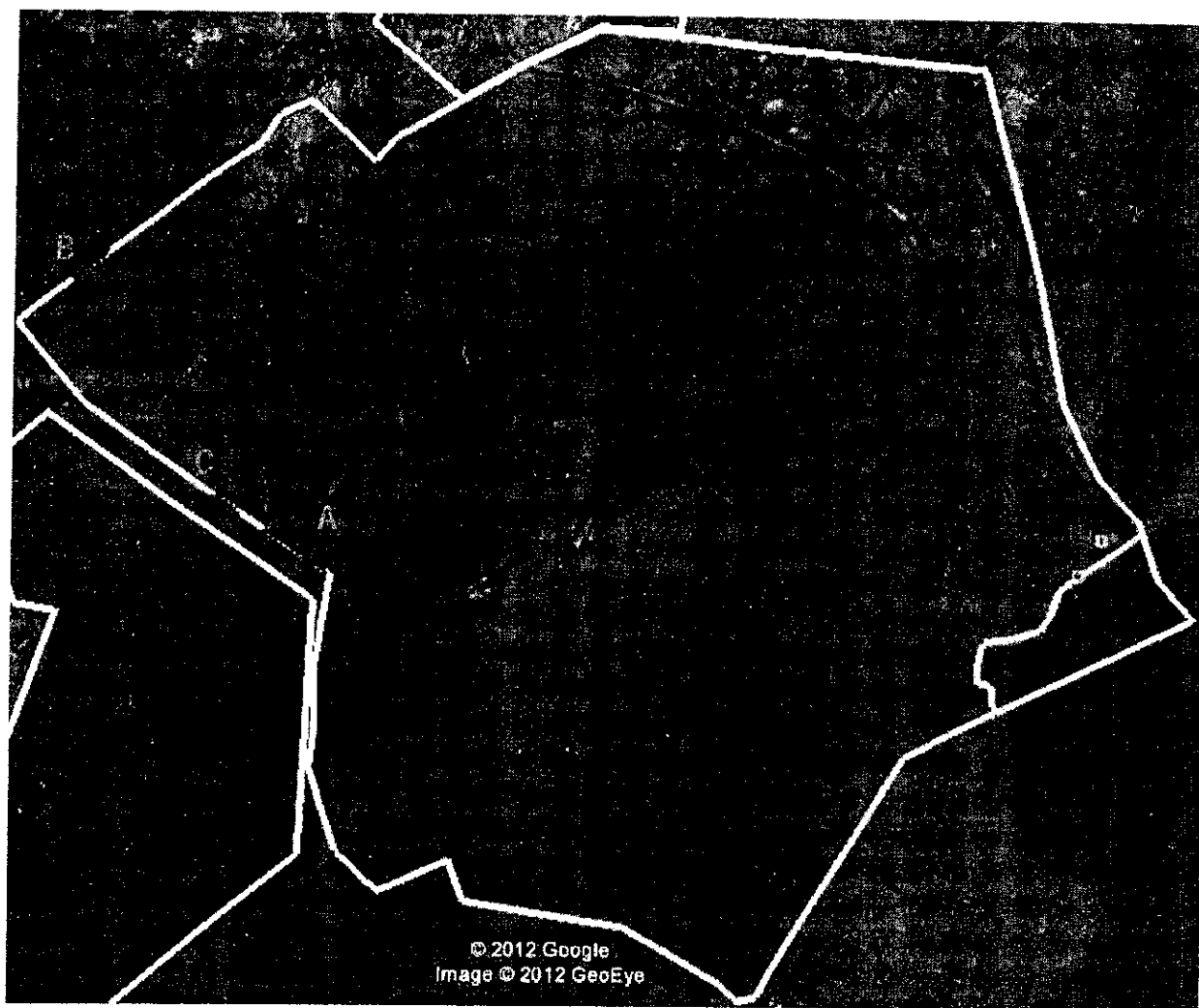


	Enjoyment of Lease Boundary:	Encroachment:
	Enjoyment of others' s Lease Boundary:	

Lessee: B. C. Dagara, Suleipat Iron Ore Mines

Area as per lease grant ha.:	X	618	Encroachment ha.:	Grand total Encroachment ha
Area as per enjoyment boundary ha:	Y	613	A=	3.53
Excess Area occupied (encroachment)	(Y-X)= nil		B=	
			C=	
			Total Ha.:	3.53

Satellite Image As on 25/01/2007

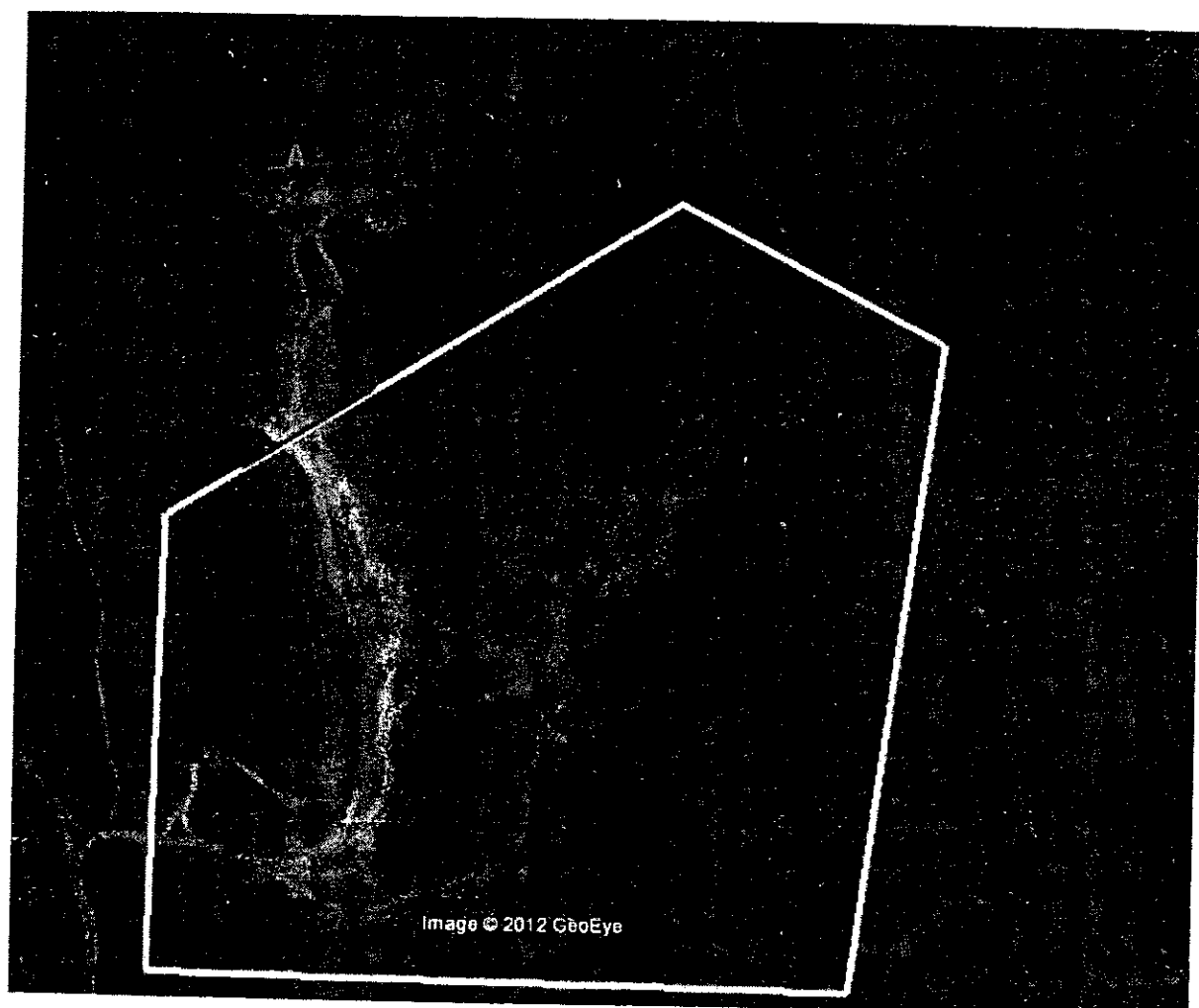




	Enjoyment of Lease Boundary:	Encroachment:
	Enjoyment of others' s Lease Boundary:	

Lessee: B. D. Patnaik, Kalaparbat Iron/Mn Mines

Area as per lease grant ha.: X	25.633	Encroachment ha.: A=	3.31	Grand total Encroachment ha	3.39
Area as per enjoyment boundary ha: Y	25.71	Total :	3.31		
Excess Area occupied (encroachment) (Y-X)=	0.08				

Satellite Image As on 07/12/2006

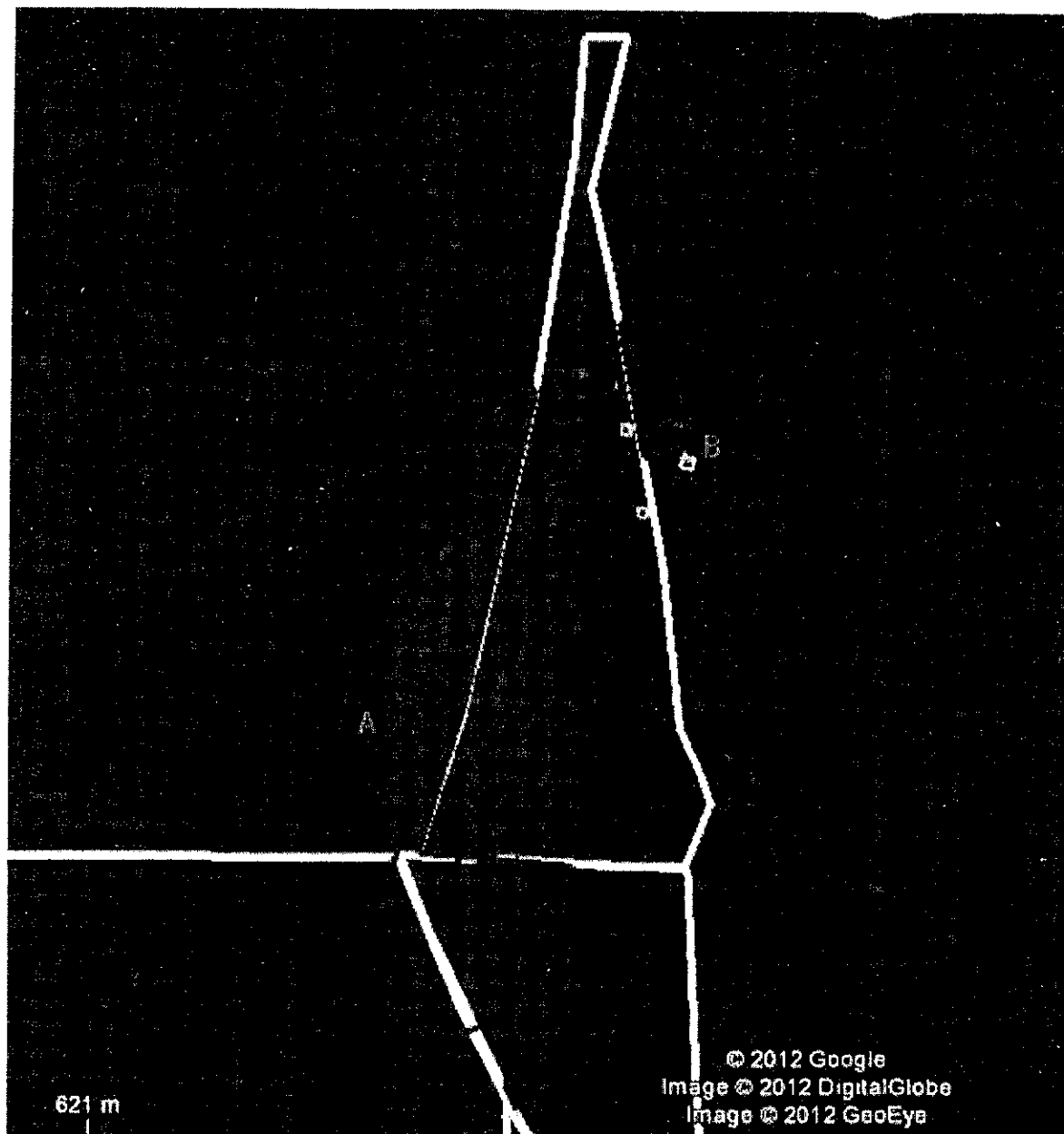



 Enjoyment of Lease Boundary:
  Enjoyment of others' s Lease Boundary:
 Encroachment:

Lessee: D. R. Patnaik, Murgabeda Iron ore Mines

Area as per lease grant ha.:	X	15.378	Encroachment ha.:		Grand total Encroachment ha
Area as per enjoyment boundary ha:	Y	15.6869	A=	10.30	11.59
Excess Area occupied (encroachment) (Y-X)=		0.31	B=	0.98	
			Total :	11.28	

Satellite Image As on 15/02/2011

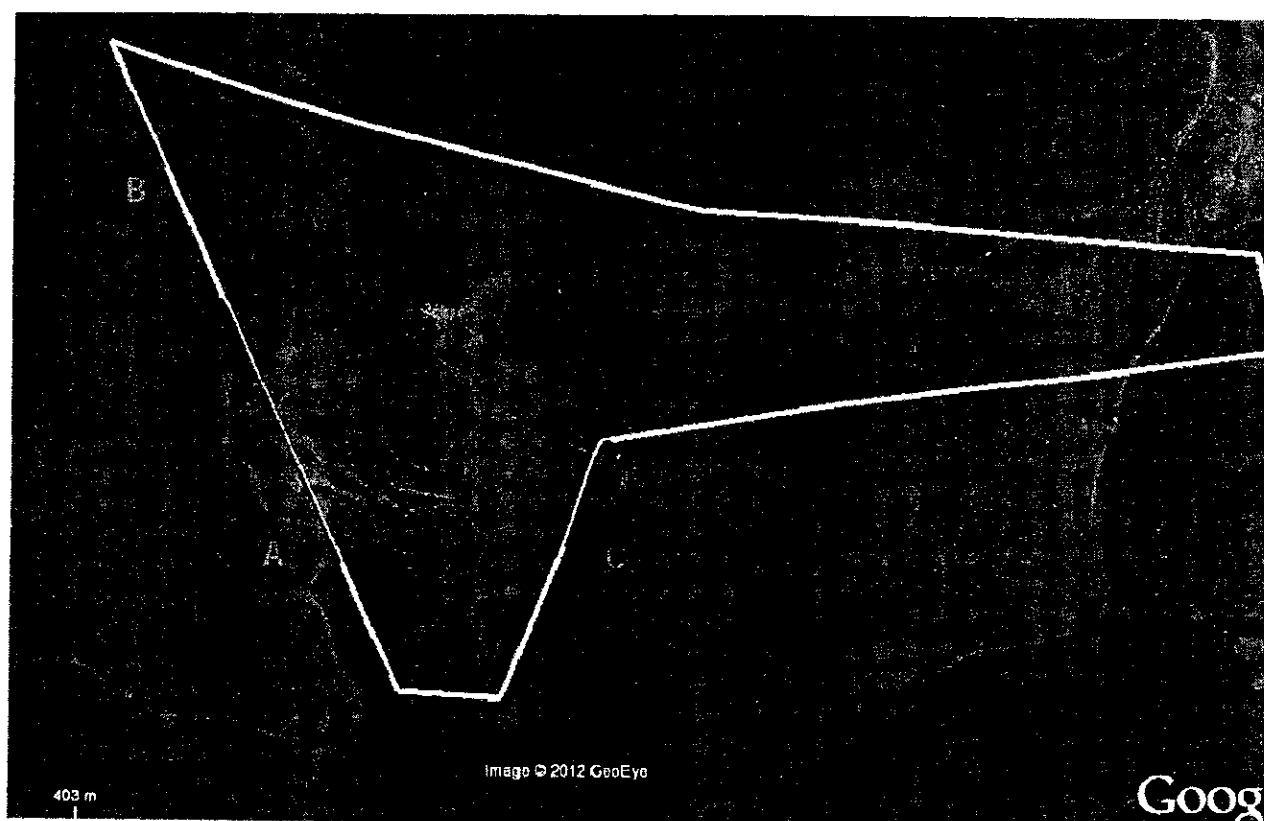


	Enjoyment of Lease Boundary:	Encroachment:
	Enjoyment of others' s Lease Boundary:	

Lessee: Dr. S Pradhan, Balita Iron ore Mines

Area as per lease grant ha.: X	34.75	Encroachment ha.:	Grand total Encroachment ha
Area as per enjoyment boundary ha: Y	40.00	A= 2.58	
Excess Area occupied (encroachment) (Y-X)=	5.25	B= 0.84	9.28
		C= 0.61	
		Total : 4.03	

Satellite Image As on 07.12.2006



 Enjoyment of Lease Boundary:	Encroachment:
 Enjoyment of others' s Lease Boundary:	

Lessee: *M/S ESSEL Mining & Industries Ltd. Kasia Iron ore, Dolomite & Limestone Mines*

Area as per lease grant ha.:	X	134.733	Encroachment ha.:		Grand total Encroachment ha
Area as per enjoyment boundary ha:	Y	195.00	A=	8.57	
Excess Area occupied (encroachment) (Y-X)=		60.27	B=	7.73	77.84
			C=	0.80	
			D=	0.47	
			Total :	17.57	

Satellite Image As on 07.12.2006

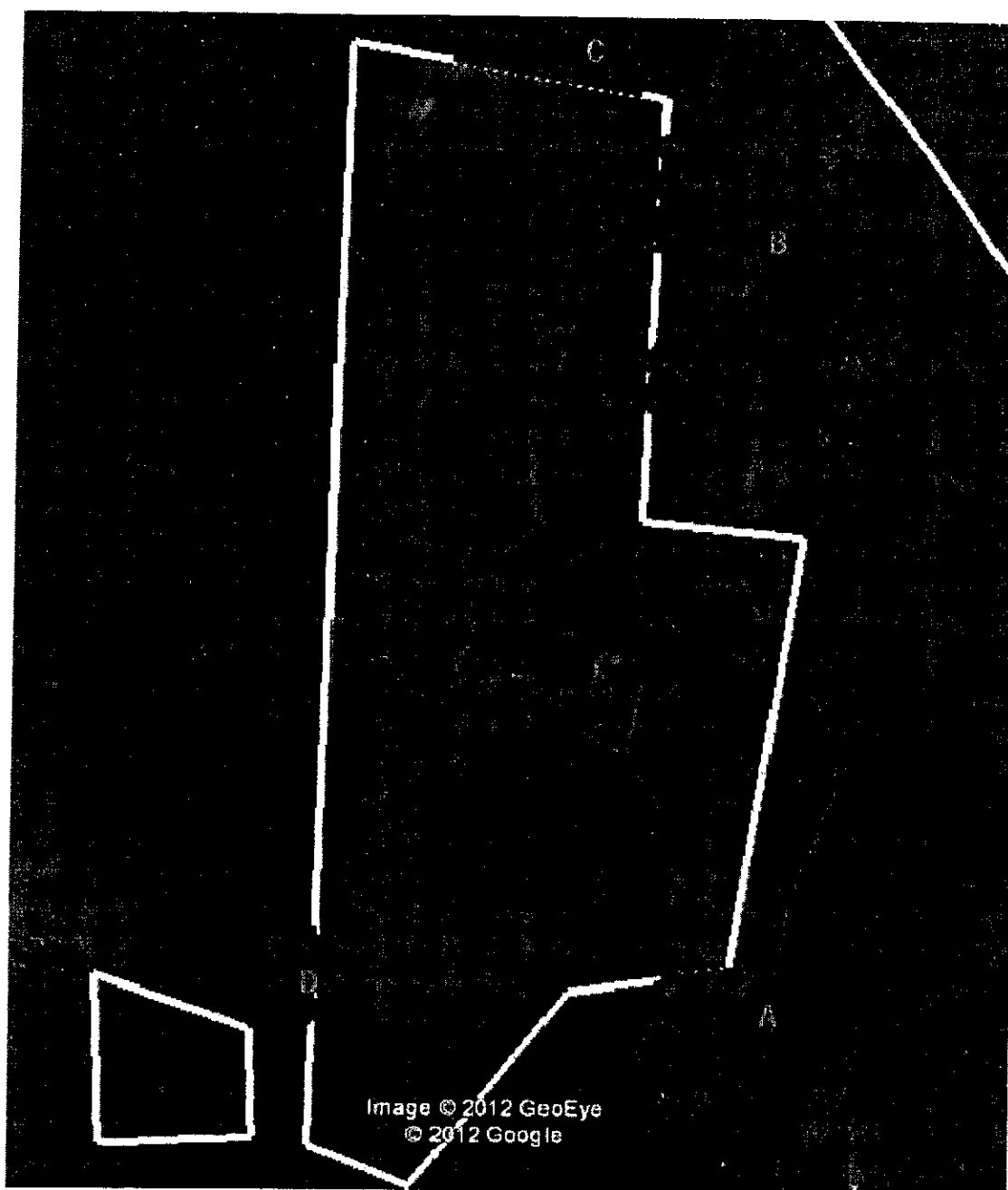


Image © 2012 GeoEye
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	Enjoyment of Lease Boundary:	Encroachment:
	Enjoyment of others' s Lease Boundary:	

Lessee: M/S ESSEL Mining & Industries Ltd. Koira Iron ore Mines

Area as per lease grant ha.:	X	90.143	Encroachment ha.:	Grand total Encroachment ha
Area as per enjoyment boundary ha:	Y	90.30	A= 7.83	
Excess Area occupied (encroachment) (Y-X)=		0.16	B= 1.10	9.09
			Total :	8.93

Satellite Image As on 05.12.2011



	Enjoyment of Lease Boundary:		Encroachment:
	Enjoyment of others' s Lease Boundary:		Others' s Encroachment

Lessee: M/S Feegrade & Co. Ltd., Nadidiha Iron ore Mines

Area as per lease grant ha :	X	121.405	Encroachment ha.:	Grand total Encroachment ha
Area as per enjoyment boundary ha:	Y	118.00	A= 7.99	
Excess Area occupied (encroachment) (Y-X)=	Nil		B= 6.61	14.60
			Total :	14.60

Satellite Image As on 15.02.2011






 Enjoyment of Lease Boundary:	 Encroachment:
 Enjoyment of others' s Lease Boundary:	 Others' s Encroachment

Lessee: M/S Geetarani Mohanty, Raikela Iron ore Mines

Area as per lease grant ha :	X	67.586	Encroachment ha :	Grand total Encroachment ha
Area as per enjoyment boundary ha :	Y	67.817	A=	4.10
Excess Area occupied (encroachment) (Y-X)=		0.30		4.33
			Total :	4.10

Satellite Image As on 21.12.2010

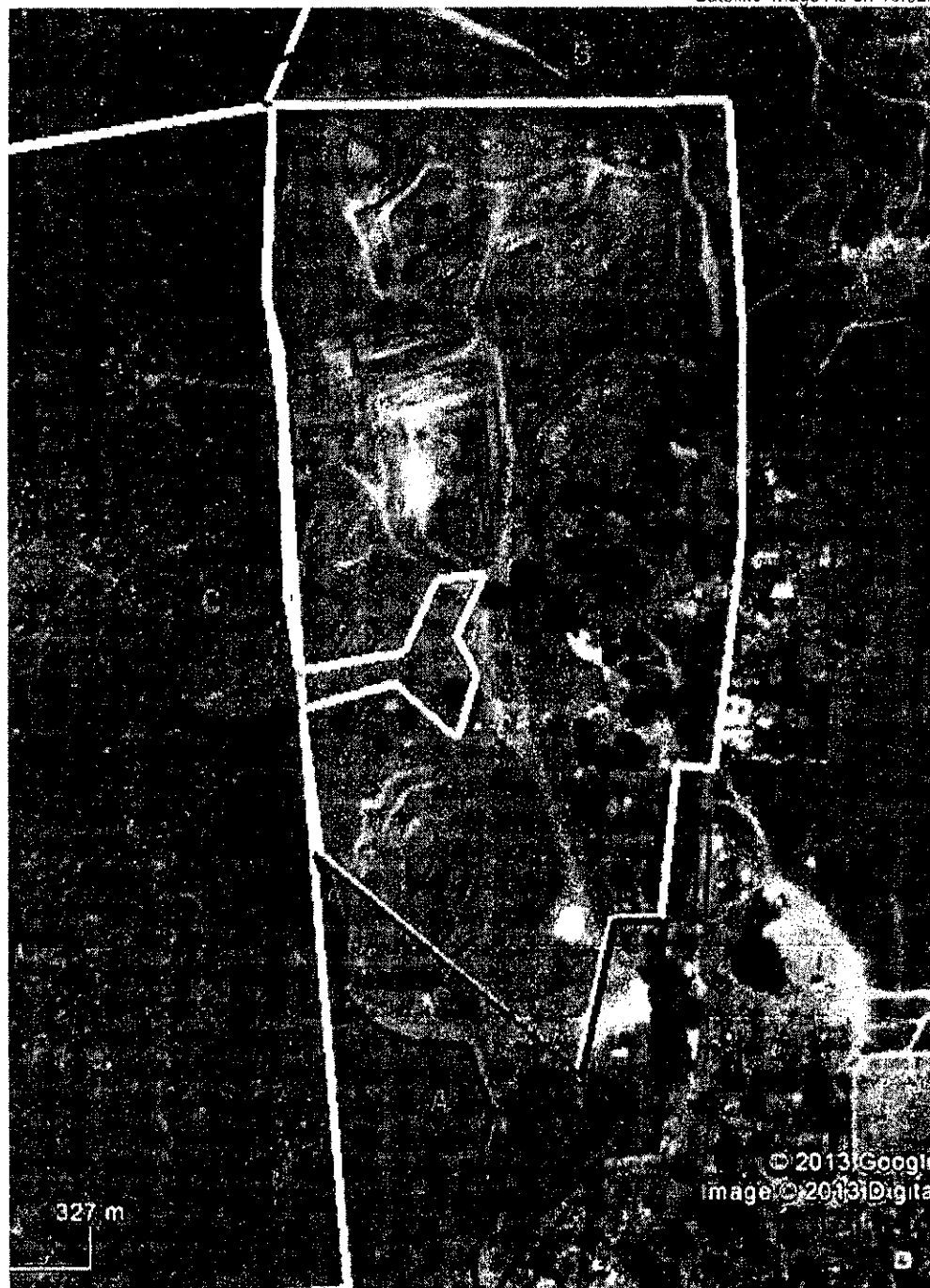


 Enjoyment of Lease Boundary:	Encroachment:
 Enjoyment of others' s Lease Boundary:	 Others' s Encroachment

Lessee: J. N. Patnaik Bhanjpalli Iron ore Mines

Area as per lease grant ha.:	X	18.00	Encroachment ha.:		Grand total Encroachment ha
Area as per enjoyment boundary ha:	Y	21.00	A=	2.10	
Excess Area occupied (encroachment) (Y-X)=		3.00	B=	1.39	7.65
			C=	1.15	
			Total :	4.65	

Satellite Image As on 15.02.2011



	Enjoyment of Lease Boundary:	Encroachment:
	Enjoyment of others' s Lease Boundary:	

Lessee: M/s Kalinga Mining Corporation, Jurudi Iron ore Mines

Area as per lease grant ha:	X	73.00	Encroachment ha:		Grand total Encroachment ha
Area as per enjoyment boundary ha:	Y	73.00	A=	4.00	
Excess Area occupied (encroachment) (Y-X)=		Nil	B	3.24	7.24
			Total :	7.24	

Satellite Image As on 21.12.2010



Enjoyment of Lease Boundary:

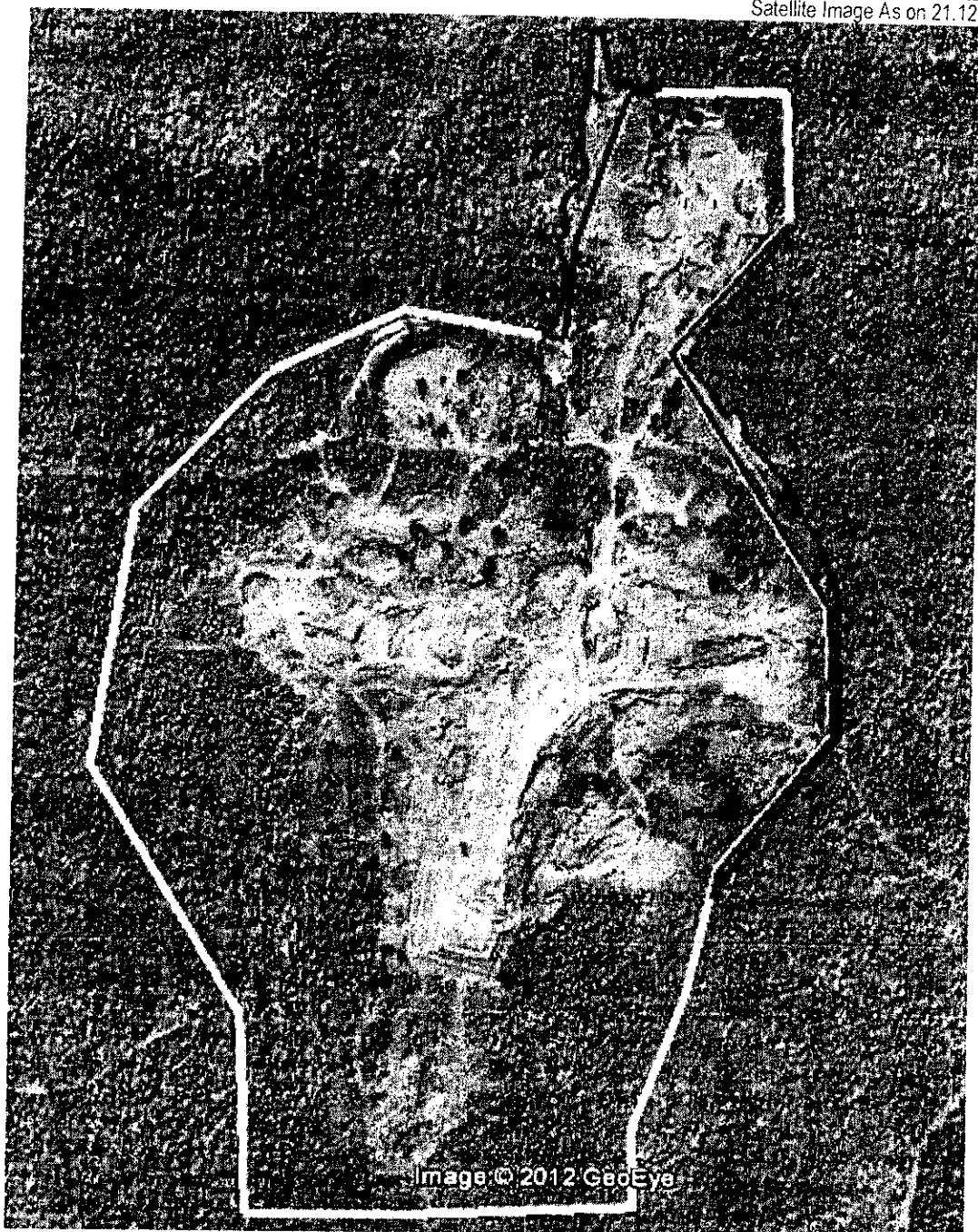
Encroachment:

Enjoyment of others' s Lease Boundary:

Lessee: K. C. Pradhan, Chamakpur Iron ore Mines

Area as per lease grant ha.:	X	31.693	Encroachment ha.:		Grand total Encroachment ha
Area as per enjoyment boundary ha:	Y	32.68	A=	0.61	
Excess Area occupied (encroachment) (Y-X)=	Nil		B=	0.38	0.99
			Total :	0.99	

Satellite Image As on 21.12.2010

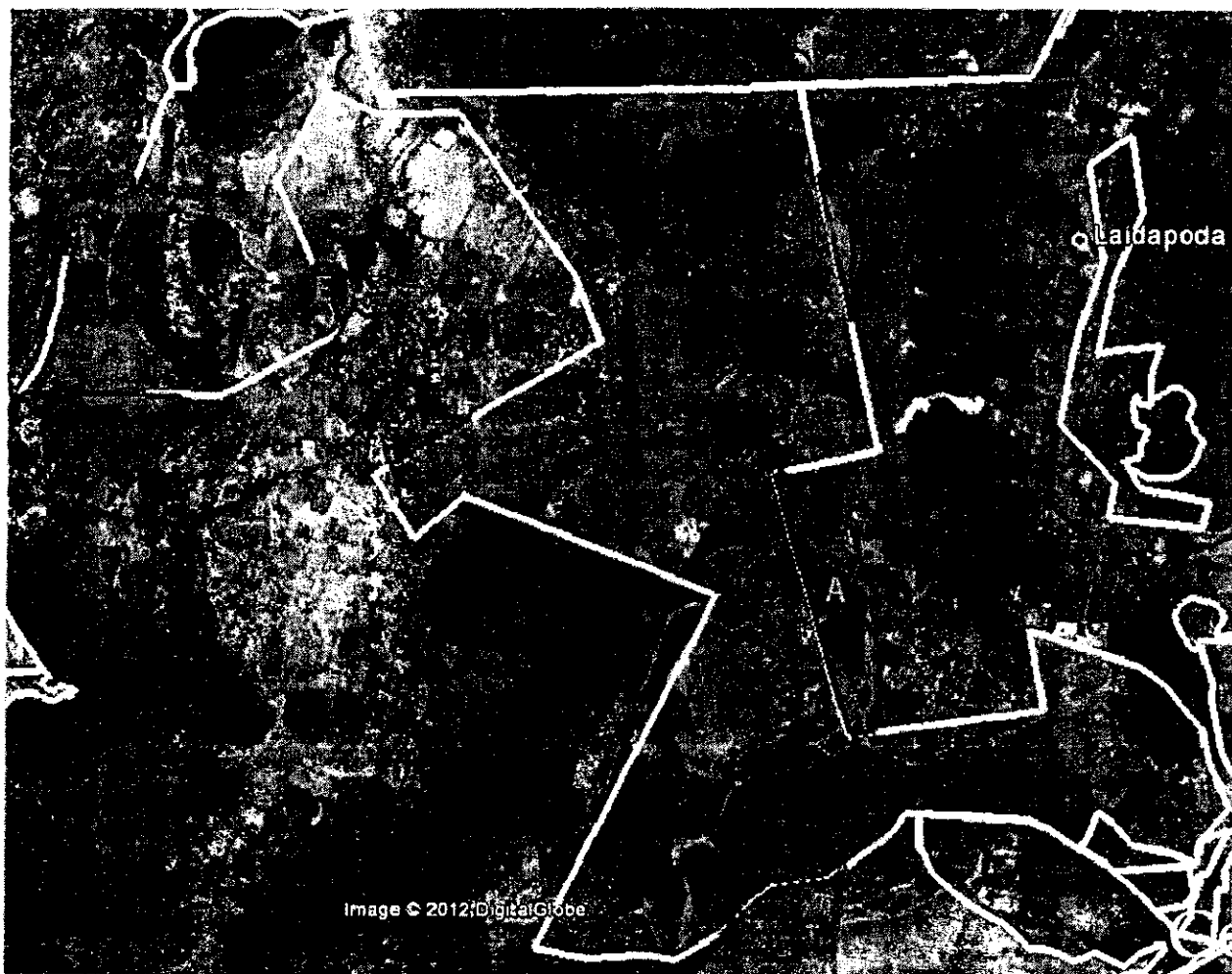


 Enjoyment of Lease Boundary:	Encroachment:
 Enjoyment of others' s Lease Boundary:	 Others' s Encroachment

Lessee: K. J. S. Ahluwalia, Nuagaon Iron ore Mines

Area as per lease grant ha.: X	767.284	Encroachment ha.:	Grand total Encroachment ha
Area as per enjoyment boundary ha: Y	772.00	A= 27.30	
Excess Area occupied (encroachment) (Y-X)=	4.72	B= 13.00	70.44
		C= 7.50	
		D= 6.37	
		E = 4.66	
		F = 4.14	
		G= 2.75	
		Total : 65.72	

Satellite Image As on 15.02.2011



 Enjoyment of Lease Boundary:	Encroachment:
 Enjoyment of others' s Lease Boundary:	 Others' s Encroachment

Lessee: K. J. S. Ahluwalia, Panduliposi Iron Manganese ore Mines

Area as per lease grant ha.:	X	40.47	Encroachment ha.:	Grand total Encroachment ha
Area as per enjoyment boundary ha:	Y	42.996	A= 1.43	
Excess Area occupied (encroachment) (Y-X)=		2.53	Total : 1.43	3.96

Satellite Image As on 15.02.2011





	Enjoyment of Lease Boundary:	Encroachment:
	Enjoyment of others' s Lease Boundary:	

Lessee: M/S M. L. Rungta, Siljoda-Kalimati Iron/Mn ore Mines

Area as per lease grant ha.:	X	715.639	Encroachment ha.:	Grand total Encroachment ha
Area as per enjoyment boundary ha:	Y	772.00	A=	5.28
Excess Area occupied (encroachment) (Y-X)=	Nil		B=	3.20
			C=	2.00
			Total :	10.48

Satellite Image As on 15.02.2011

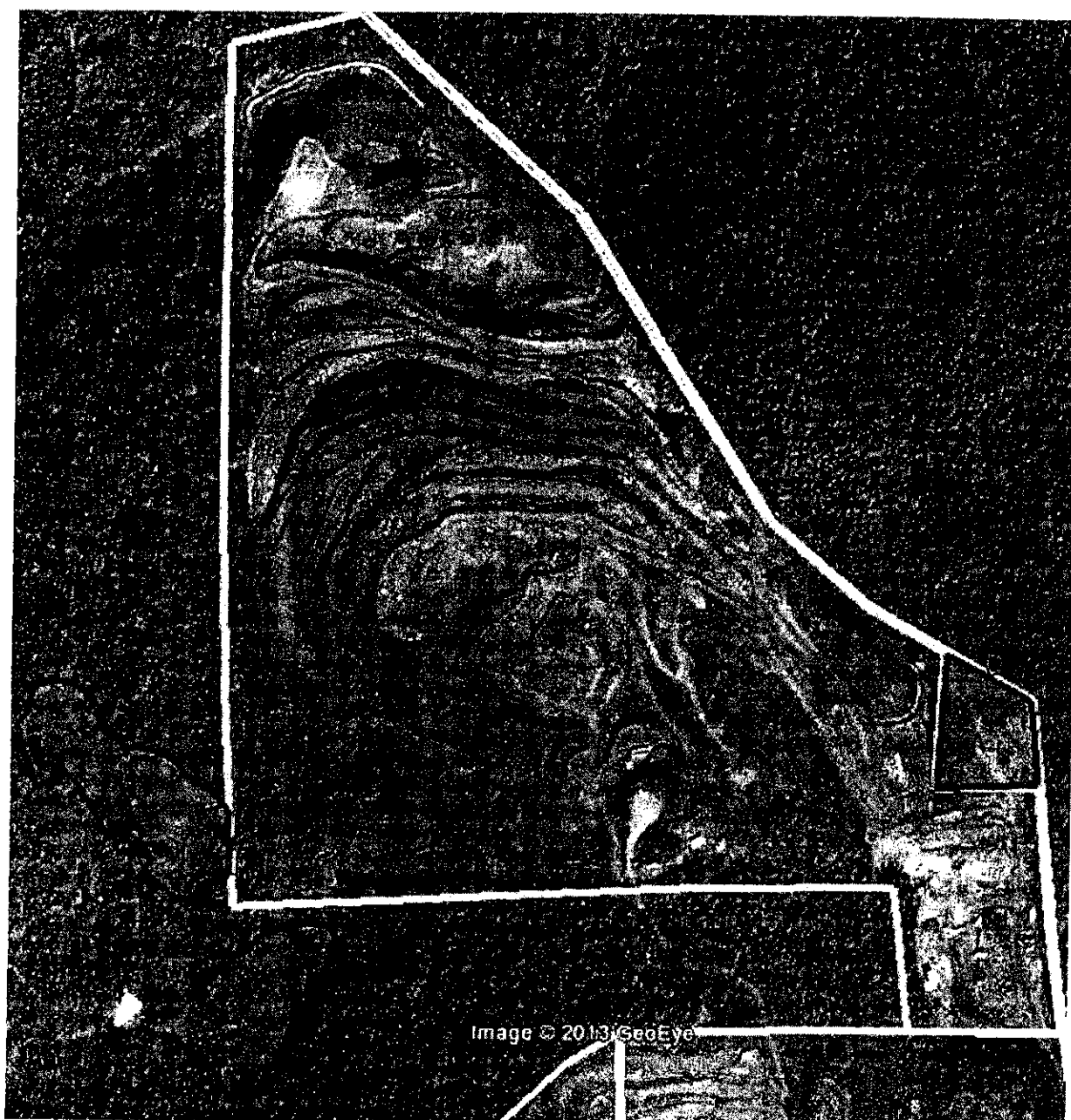


	Enjoyment of Lease Boundary:	Encroachment:
	Enjoyment of others' s Lease Boundary:	

Lessee: M/S MGM Minerals Ltd. Patabeda Iron ore Mines

Area as per lease grant ha.: X	28.397	Encroachment ha.:	Grand total Encroachment ha
Area as per enjoyment boundary ha: Y	30.00	A= 1.34	
Excess Area occupied (encroachment) (Y-X)=	1.60	B= 1.11	4.65
		C= 0.60	
		Total : 3.05	

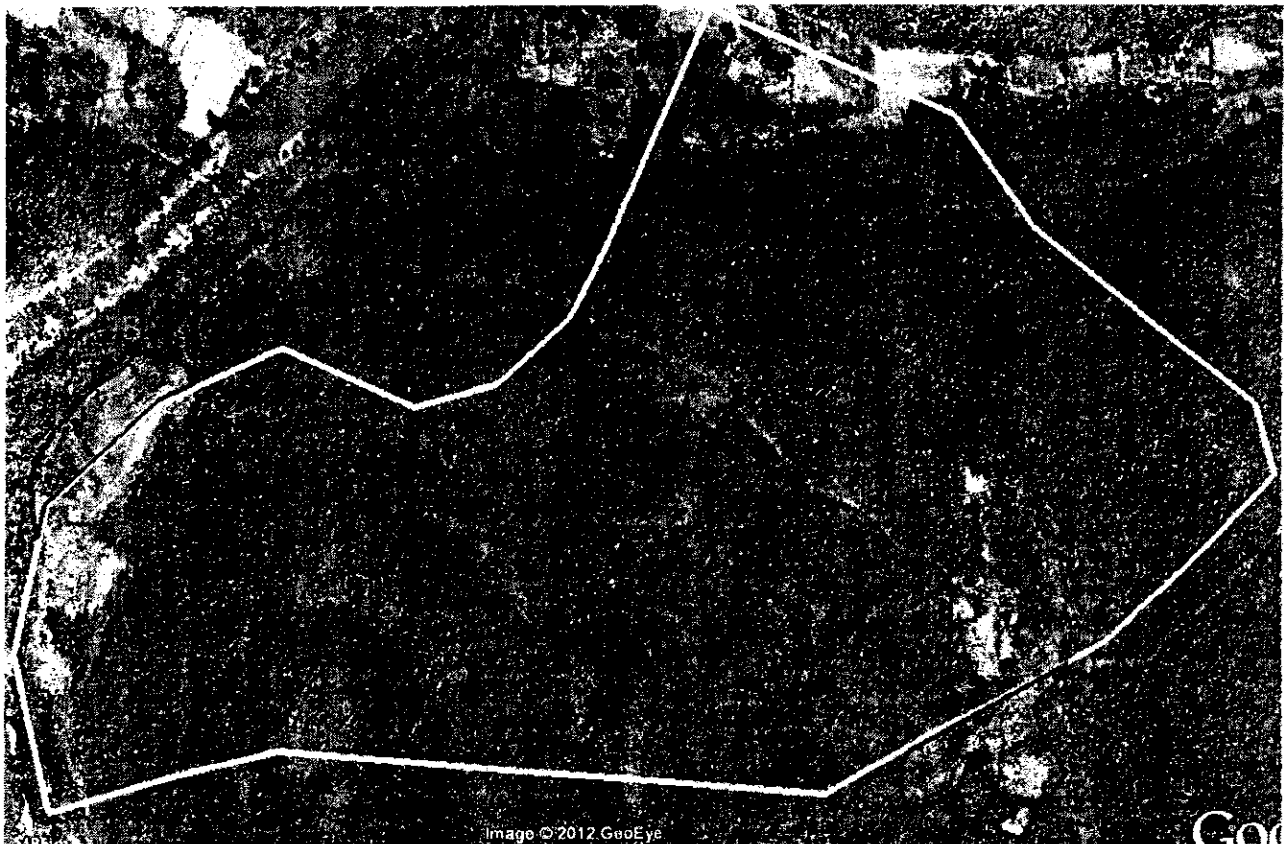
Satellite Image As on 15.02.2011



Lessee: M/S Mineral Trading syndicate, Bhulbeda Iron ore Mines

Area as per lease grant ha.:	X	62.322	Encroachment ha.:	Grand total Encroachment ha
Area as per enjoyment boundary ha:	Y	95.775	A=	2.13
Excess Area occupied (encroachment) (Y-X)=		33.46	B=	1.60
			Total :	3.73

Satellite Image As on 15.02.2011



	Enjoyment of Lease Boundary:	Encroachment:
	Enjoyment of others' s Lease Boundary:	

Lessee: M/S Narayani Sons Suruguturia Iron ore Mines

Area as per lease grant ha.: X	99.784	Encroachment ha.:	Grand total Encroachment ha
Area as per enjoyment boundary ha: Y	96.20	A=	4.00
Excess Area occupied (encroachment) (Y-X)=	0.38	B=	0.56
		Total :	4.56

Satellite Image As on 15.02.2011



 Enjoyment of Lease Boundary:	Encroachment:
 Enjoyment of others' s Lease Boundary:	

Lessee: M/S National Enterprises Sanindpur Iron/Mn ore Mines

Area as per lease grant ha.:	X	75.00	Encroachment ha.:	Grand total Encroachment ha
Area as per enjoyment boundary ha:	Y	83.00	A=	20.00
Excess Area occupied (encroachment) (Y-X)=		8.00	Total :	12.00

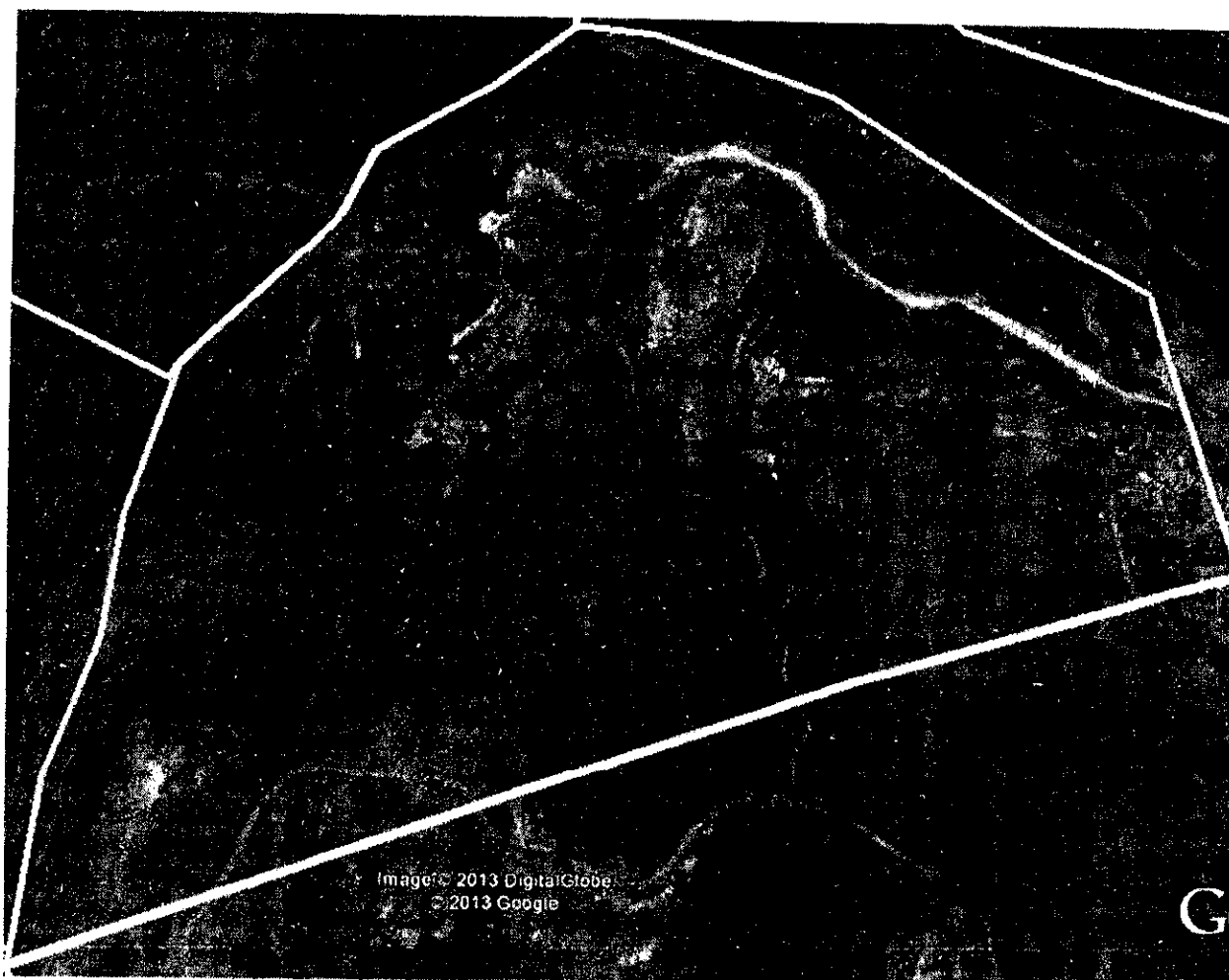
Satellite Image As on 21.12.2010



Lessee: M/S O. M. & M. (P) Ltd., Kusumdihi Mn ore Mines

Area as per lease grant ha.: X	31.549	Encroachment ha.:	Grand total Encroachment ha
Area as per enjoyment boundary ha: Y	33.40		
Excess Area occupied (encroachment) (Y-X)=	1.85	Total : Nil	1.85

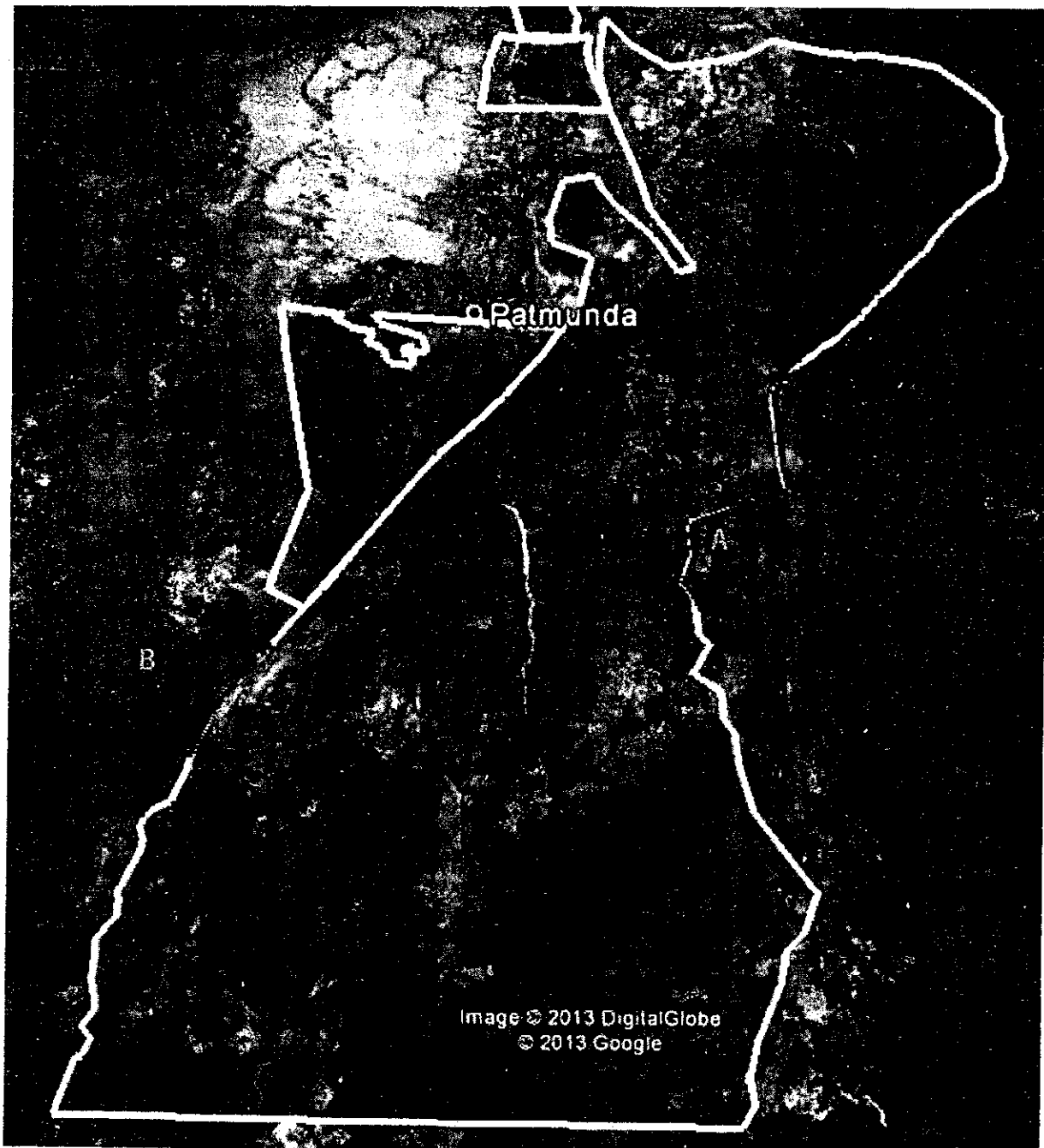
Satellite Image As on 15.02.2011



Lessee: M/S O. M. & M. (P) Ltd., Patmunda Mn ore Mines

Area as per lease grant ha.:	X	807.316	Encroachment ha.:		Grand total Encroachment ha
Area as per enjoyment boundary ha:	Y	856.00	A=	11.00	
Excess Area occupied (encroachment) (Y-X)=		48.68	B=	4.27	63.95
			Total :	15.27	

Satellite Image As on 15.02.2011



	Enjoyment of Lease Boundary:	Encroachment:
	Enjoyment of others' s Lease Boundary:	

Lessee: M/s Pattnaik Minerals Pvt. Ltd. Joribahal Manganese ore Mines

Area as per lease grant ha.:	X	106.534	Encroachment ha.:	Grand total Encroachment ha
Area as per enjoyment boundary ha:	Y	107.655	A=	27.90
Excess Area occupied (encroachment) (Y-X)=		1.12	B=	5.58
			Total :	33.48
				34.60

Satellite Image As on 21.12.2010



 Enjoyment of Lease Boundary:	Encroachment:
 Enjoyment of others' s Lease Boundary:	

Lessee: R. B. Das Kundrapani Iron & Manganese ore Mines

Area as per lease grant ha.:	X	10.255	Encroachment ha.:	Grand total Encroachment ha
Area as per enjoyment boundary ha:	Y	10.20	A=	2.71
Excess Area occupied (encroachment) (Y-X)=	Nil		B=	2.43
			C=	1.11
			D=	0.22
			Total :	6.47

Satellite image As on 21.12.2010



Image © 2012 GeoEye



Enjoyment of Lease Boundary:

Encroachment:

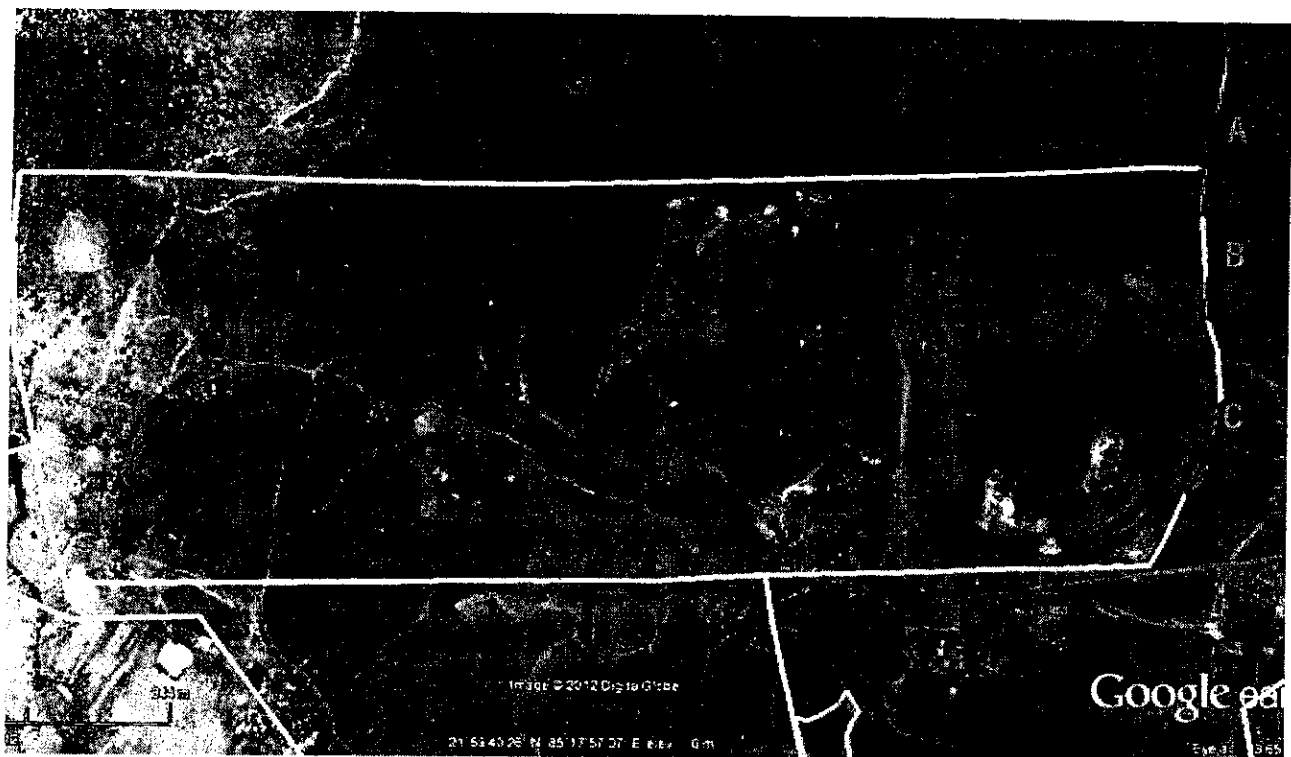


Enjoyment of others' s Lease Boundary:

Lessee: R. P. Sao, Guali Iron ore Mines

Area as per lease grant ha.:	X	365.026	Encroachment ha.:	Grand total Encroachment ha
Area as per enjoyment boundary ha:	Y	360.00	A=	2.63
Excess Area occupied (encroachment) (Y-X)=	Nil		B=	2.38
			C=	0.88
			Total :	5.89

Satellite Image As on 22.03.2012



 Enjoyment of Lease Boundary:	Encroachment:
 Enjoyment of others' s Lease Boundary:	 Others' s Encroachment

Lessee: S. D. Sharma Nuagaon Iron ore Mines

Area as per lease grant ha.: X	12.942	Encroachment ha.: A=	3.70	Grand total Encroachment ha
Area as per enjoyment boundary ha: Y	13.50			4.26
Excess Area occupied (encroachment) (Y-X)=	0.56	Total :	3.70	

Satellite Image As on 15.02.2011

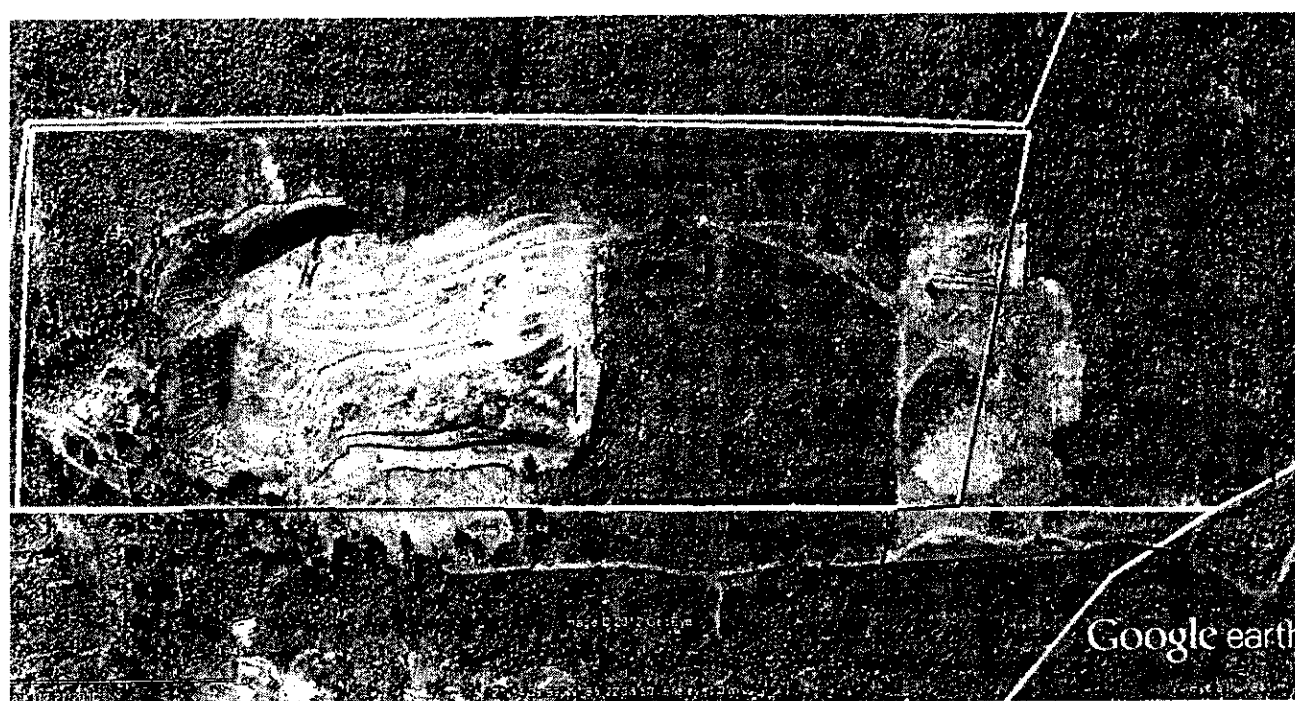


	Enjoyment of Lease Boundary:	Encroachment:
	Enjoyment of others' s Lease Boundary:	

Lessee: S. N. Mohanty Ganua Iron & Manganese ore Mines

Area as per lease grant ha.:	X	13.796	Encroachment ha.:	Grand total Encroachment ha
Area as per enjoyment boundary ha:	Y	18.70	A=	5.00
Excess Area occupied (encroachment) (Y-X)=		4.90	B=	0.85
			Total :	5.85
				10.75

Satellite Image As on 21.12.2010

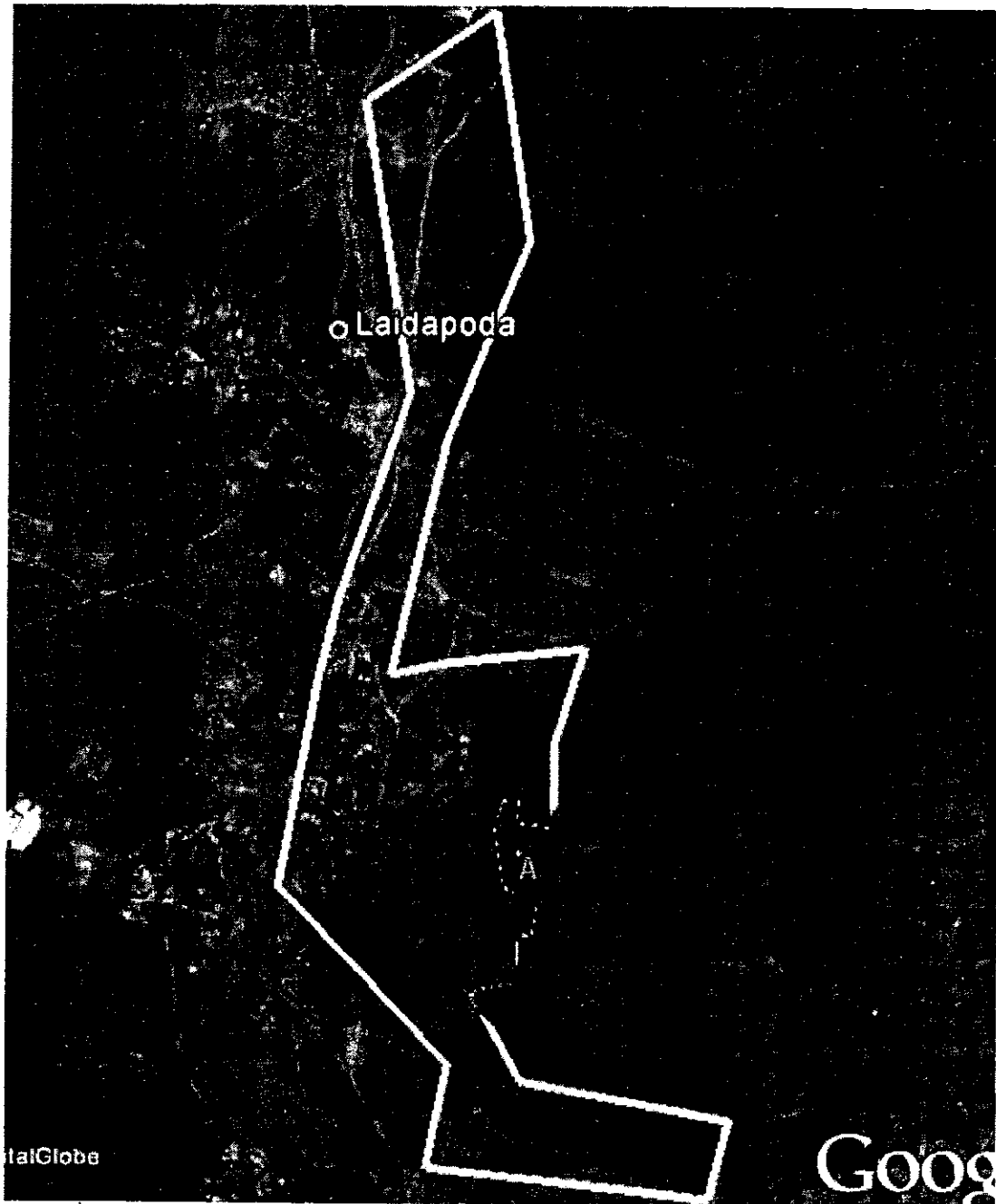


	Enjoyment of Lease Boundary:	Encroachment:
	Enjoyment of others' s Lease Boundary:	

Lessee: *S. N. Das Mahopatra Kolha Rudukela Iron & Manganese ore Mines*

Area as per lease grant ha.:	X	36.474	Encroachment ha.:		Grand total Encroachment ha
Area as per enjoyment boundary ha:	Y	40.00	A=	10.00	
Excess Area occupied (encroachment) (Y-X)=		3.53	Total :	10	13.53

Satellite Image As on 21.12.2010



Enjoyment of Lease Boundary:

Encroachment:

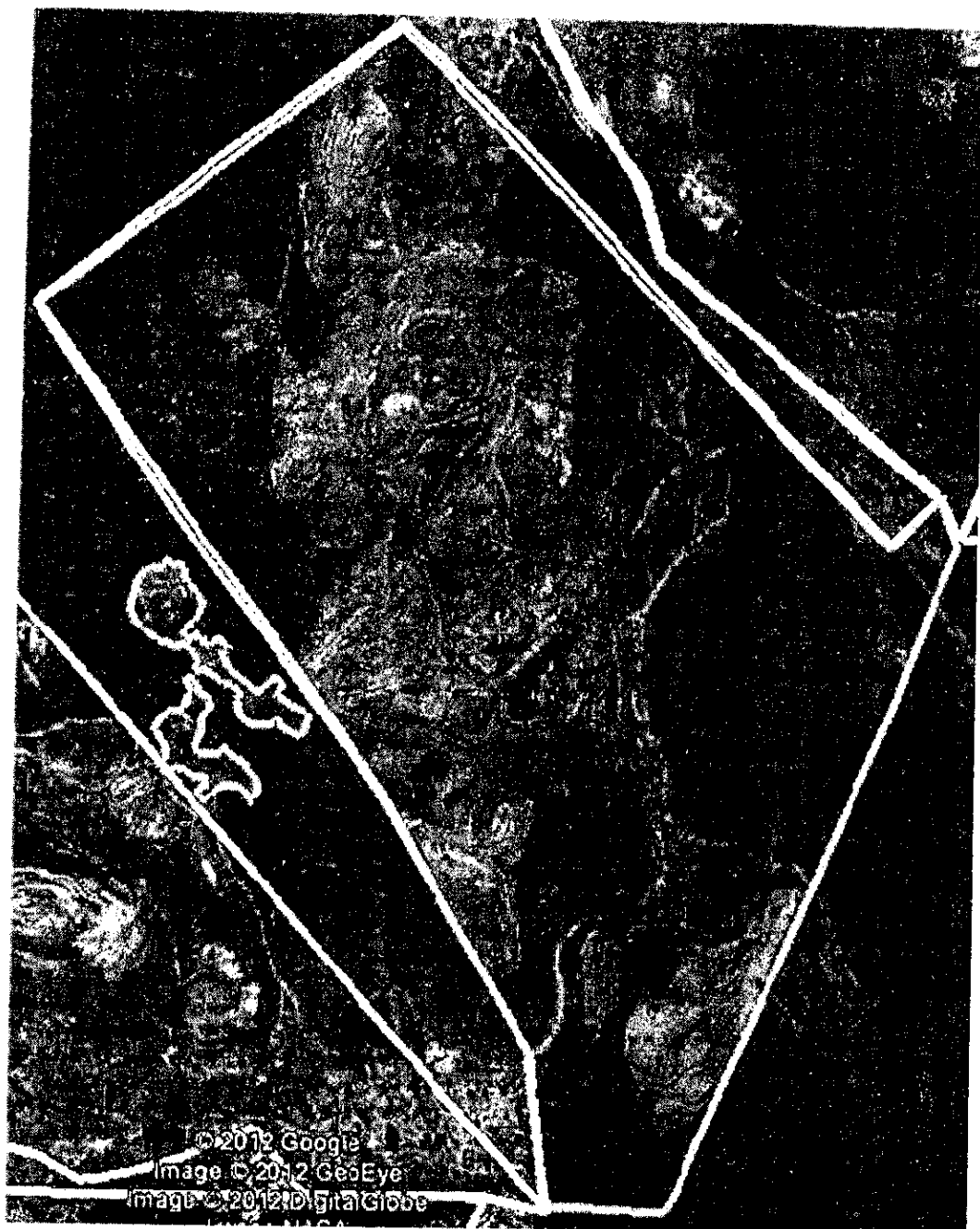





Enjoyment of others' s Lease Boundary:

Lessee: M/s Serrajuddin & Co. Balda block Iron ore Mines

Area as per lease grant ha.:	X	335.594	Encroachment ha.:		Grand total: Encroachment ha
Area as per enjoyment boundary ha:	Y	344.156			
Excess Area occupied (encroachment) (Y-X)=		8.56	Total :	Nil	8.56

Satellite Image As on 21.12.2010



 Enjoyment of Lease Boundary:	Encroachment:
 Enjoyment of others' s Lease Boundary:	 Others' s Encroachment

Lessee: M/s Seerajuddin & Co. Guruda Block Iron & Manganese ore Mines

Area as per lease grant ha.: X	40.064	Encroachment ha.:		Grand total Encroachment ha
Area as per enjoyment boundary ha: Y	40.064	A=	10.80	
Excess Area occupied (encroachment) (Y-X)=	Nil	B=	5.46	17.79
		C=	1.53	
		Total :	17.19	

Satellite Image As on 21.12.2010

