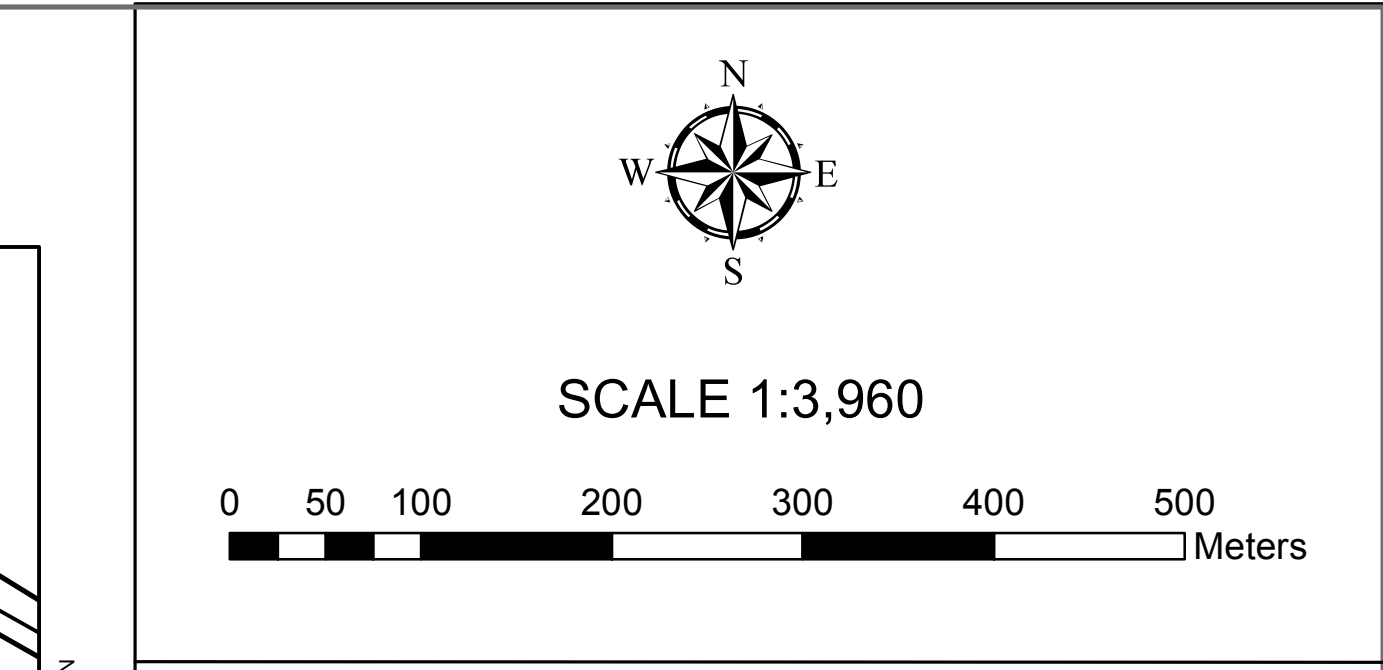
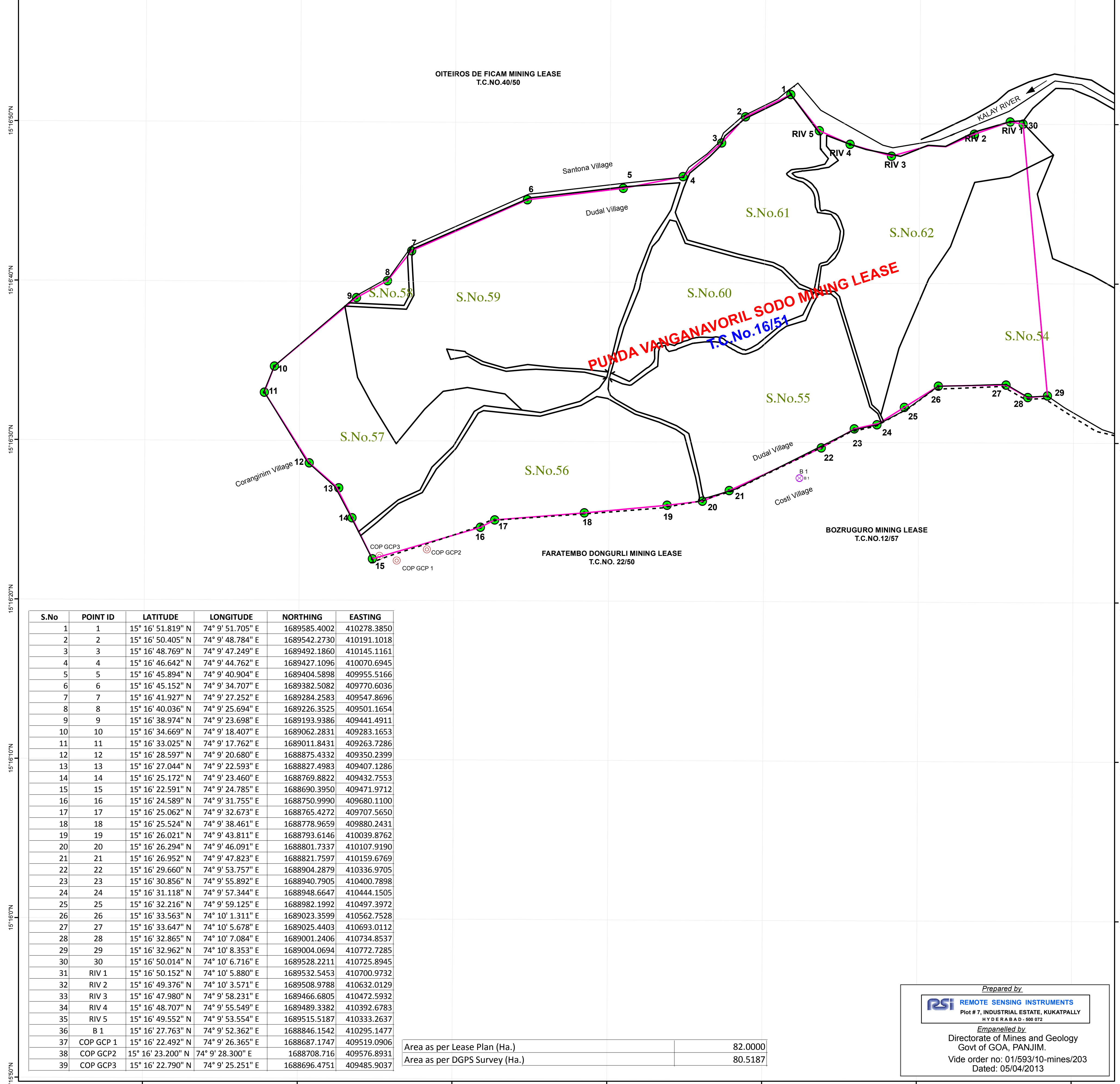
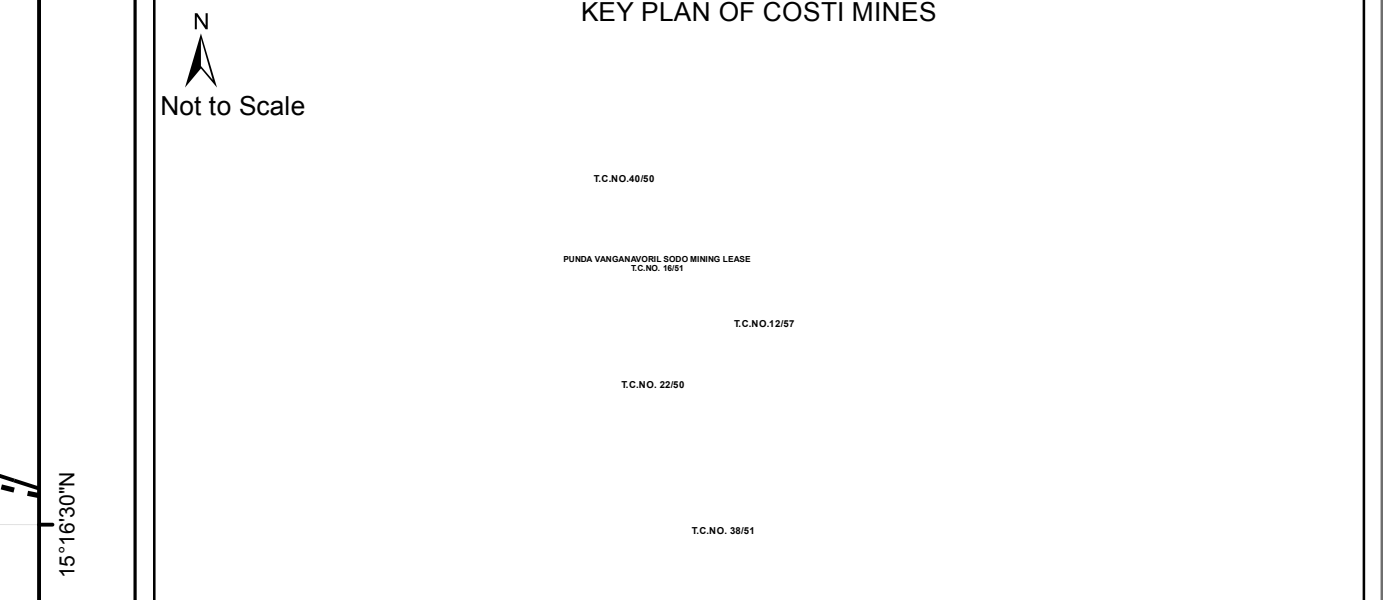


**VIJAY V.CHOWGULE FOR LEGAL HEIRS OF LATE SHRI V.D.CHOWGULE, CHOWGULE HOUSE, MORMUGAO HARBOUR-GOA.**  
**Geo Referenced Cadastral Map of Punda Vanganavoril Sodo Mining Lease, bearing T.C. No. 16 of 1951, situated**  
**in Dudal Village of Sanguem Talukas, South Goa District, Goa State.**

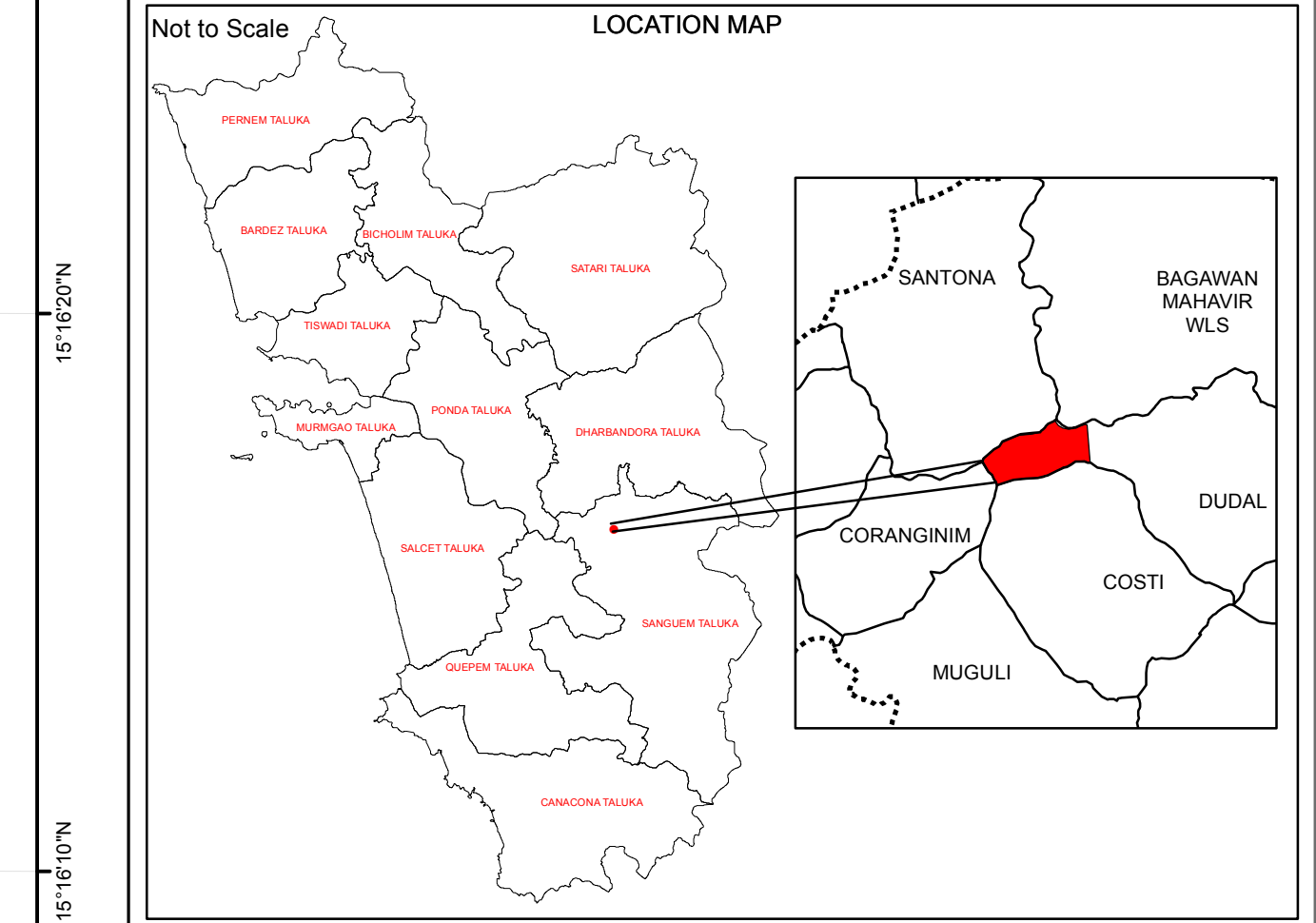
74°9'10"E    74°9'20"E    74°9'30"E    74°9'40"E    74°9'50"E    74°10'0"E    74°10'10"E



- Legend**
- DGPS POINT OF LEASE BOUNDARY
  - ▭ LEASE BOUNDARY AS PER DGPS SURVEY
  - SURVEY No BOUNDARY
  - SUB-DIVISION OF THE SURVEY No
  - VILLAGE BOUNDARY
  - ⊗ BASE STATION
  - ⊙ GROUND CONTROL POINTS



**DATUM : WGS 84**  
**PROJECTION : UTM\_Zone\_43N**



S.No	POINT ID	LATITUDE	LONGITUDE	NORTHING	EASTING
1	1	15° 16' 51.819" N	74° 9' 51.705" E	1689585.4002	410278.3850
2	2	15° 16' 50.405" N	74° 9' 48.784" E	1689542.2730	410191.1018
3	3	15° 16' 48.769" N	74° 9' 47.249" E	1689492.1860	410145.1161
4	4	15° 16' 46.642" N	74° 9' 44.762" E	1689427.1096	410070.6945
5	5	15° 16' 45.894" N	74° 9' 40.904" E	1689404.5898	409955.5166
6	6	15° 16' 45.152" N	74° 9' 34.707" E	1689382.5082	409770.6036
7	7	15° 16' 41.927" N	74° 9' 27.252" E	1689284.2583	409547.8696
8	8	15° 16' 40.036" N	74° 9' 25.694" E	1689226.3525	409501.1654
9	9	15° 16' 38.974" N	74° 9' 23.698" E	1689193.9386	409441.4911
10	10	15° 16' 34.669" N	74° 9' 18.407" E	1689062.2831	409283.1653
11	11	15° 16' 33.025" N	74° 9' 17.762" E	1689011.8431	409263.7286
12	12	15° 16' 28.597" N	74° 9' 20.680" E	1688875.4332	409350.2399
13	13	15° 16' 27.044" N	74° 9' 22.593" E	1688827.4983	409407.1286
14	14	15° 16' 25.172" N	74° 9' 23.460" E	1688769.8822	409432.7553
15	15	15° 16' 22.591" N	74° 9' 24.785" E	1688690.3950	409471.9712
16	16	15° 16' 24.589" N	74° 9' 31.755" E	1688750.9990	409680.1100
17	17	15° 16' 25.062" N	74° 9' 32.673" E	1688765.4272	409707.5650
18	18	15° 16' 25.524" N	74° 9' 38.461" E	1688778.9659	409880.2431
19	19	15° 16' 26.021" N	74° 9' 43.811" E	1688793.6146	410039.8762
20	20	15° 16' 26.294" N	74° 9' 46.091" E	1688801.7337	410107.9190
21	21	15° 16' 26.952" N	74° 9' 47.823" E	1688821.7597	410159.6769
22	22	15° 16' 29.660" N	74° 9' 53.757" E	1688904.2879	410336.9705
23	23	15° 16' 30.856" N	74° 9' 55.892" E	1688940.7905	410400.7898
24	24	15° 16' 31.118" N	74° 9' 57.344" E	1688948.6647	410444.1505
25	25	15° 16' 32.216" N	74° 9' 59.125" E	1688982.1992	410497.3972
26	26	15° 16' 33.563" N	74° 10' 1.311" E	1689023.3599	410562.7528
27	27	15° 16' 33.647" N	74° 10' 5.678" E	1689025.4403	410693.0112
28	28	15° 16' 32.865" N	74° 10' 7.084" E	1689001.2406	410734.8537
29	29	15° 16' 32.962" N	74° 10' 8.353" E	1689004.0694	410772.7285
30	30	15° 16' 50.014" N	74° 10' 6.716" E	1689528.2211	410725.8945
31	RIV 1	15° 16' 50.152" N	74° 10' 5.880" E	1689532.5453	410700.9732
32	RIV 2	15° 16' 49.376" N	74° 10' 3.571" E	1689508.9788	410632.0129
33	RIV 3	15° 16' 47.980" N	74° 9' 58.231" E	1689466.6805	410472.5932
34	RIV 4	15° 16' 48.707" N	74° 9' 55.549" E	1689489.3382	410392.6783
35	RIV 5	15° 16' 49.552" N	74° 9' 53.554" E	1689515.5187	410333.2637
36	B 1	15° 16' 27.763" N	74° 9' 52.362" E	1688846.1542	410295.1477
37	COP GCP 1	15° 16' 22.492" N	74° 9' 26.365" E	1688687.1747	409519.0906
38	COP GCP 2	15° 16' 23.200" N	74° 9' 28.300" E	1688708.716	409576.8931
39	COP GCP 3	15° 16' 22.790" N	74° 9' 25.251" E	1688696.4751	409485.9037

Area as per Lease Plan (Ha.)	82.0000
Area as per DGPS Survey (Ha.)	80.5187

Prepared by  
**RSI REMOTE SENSING INSTRUMENTS**  
 Plot # 7, INDUSTRIAL ESTATE, KUKATPALLY  
 HYDERABAD - 500 072  
 Empanelled by  
 Directorate of Mines and Geology  
 Govt of GOA, PANJIM.  
 Vide order no: 01/593/10-mines/203  
 Dated: 05/04/2013

**Certificate by Mines Manager**

This is to certify that the lease boundary pillars of T.C. No. 16 of 1951 have been surveyed and fixed on the ground by using Total Station and the same are surveyed by using DGPS (Differential Global Positioning System).

Mr.V.M.KANTAK  
(Mines Manager)

**Certificate by Accredited Agency**

This is to certify that the lease boundary pillars of T.C.No. 16 of 1951, shown by Mr.V.M.KANTAK (Mines Manager) has been surveyed by our team led by Shri.Ch Sivaiah using DGPS (Differential Global Positioning System) instruments. The lease map and pillar locations have been verified, survey conducted and plans prepared as per requirement of IBM circular No. 2/2010 dated 06-04-2010.

For Remote Sensing Instruments  
 Shri. B.V Ramana Kumar  
(General Manager)

Directorate of Mines and Geology - Panaji -Goa	
Checked by	Certified by
Surveying officer	Director of Mines and Geology